

Notice is hereby given that the Rainbow Municipal Water District Board of Directors and Budget and Finance Committee will hold Open Session at 1:00 p.m. Tuesday, May 24, 2016, at the District Office located at 3707 Old Highway 395, Fallbrook, CA 92028. At any time during the session, the Board of Directors Meeting may adjourn to Closed Session to consider litigation or to discuss with legal counsel matters within the attorney client privilege.

AGENDA

1. CALL TO ORDER

2. PLEDGE OF ALLEGIANCE

3. BOARD OF DIRECTORS ROLL CALL:

Sanford ___ Walker ___ Brazier ___ Bigley ___ Stewart ___

BUDGET AND FINANCE COMMITTEE ROLL CALL:

Harry Stitle ___ Randy Ross ___ Peter Hensley ___ Harry Clyde ___ Pam Moss ___

4. ADDITIONS/DELETIONS/AMENDMENTS TO THE AGENDA (Government Code §54954.2)

5. ORAL/WRITTEN COMMUNICATIONS FROM THE PUBLIC
 OPPORTUNITY FOR MEMBERS OF THE PUBLIC TO ADDRESS THE BOARD REGARDING
 ITEMS NOT ON THIS AGENDA (Government Code § 54954.2).

Under Oral Communications, any person wishing to address the Board on matters not on this agenda should indicate their desire to speak by filling out and submitting a "Speaker's Slip" to the Board Secretary before the meeting begins. *No action will be taken on any oral communications item since such item does not appear on this Agenda, unless the Board of Directors makes a determination that an emergency exists or that the need to take action on the item arose subsequent to posting of the Agenda (Government Code §54954.2). Speaking time shall generally be limited to three minutes, unless a longer period is permitted by the Board President.*

6. ANNIVERSARY ACKNOWLEDGEMENT

A. Justin Demary (10 Years)

Time Certain: 1:00 p.m. Public Hearings

7. PUBLIC HEARINGS

A. PUBLIC HEARING ON IMPROVEMENT DISTRICT NO. 1 WATER STANDBY CHARGES AND DISCUSSION AND POSSIBLE ACTION TO ADOPT ORDINANCE NO. 16-08, ESTABLISHING READINESS TO SERVE WATER SERVICE STANDBY ASSESSMENTS OR AVAILABILITY CHARGES FOR ALL OF THE RAINBOW MUNICIPAL WATER DISTRICT IMPROVEMENT DISTRICT NO. 1

(This Ordinance establishes water availability charges for all of the Rainbow Municipal Water District Improvement District – Improvement District No. 1.)

(Staff Recommendation: The Board of Directors approve Ordinance 16-08.)

(*) - Asterisk indicates a report is attached.

B. PUBLIC HEARING FOR THE PURPOSE OF SOLICITING PUBLIC INPUT REGARDING THE PROPOSED 2015 URBAN WATER MANAGEMENT PLAN

*(The District's Draft 2015 Urban Water Management Plan (UWMP) has been prepared to satisfy Water Code Section 10620 which requires every urban water supplier to prepare and adopt an UWMP. Furthermore, the Codes require the UWMP to be updated at least once every 5 years. The UWMP submittal deadline is July 1, 2016. The District is required to hold a public hearing prior to adoption of the Urban Water Management Plan per California Water Code 10642. Proper notice regarding publication in the newspaper was made following Government Code 6066.)
(Staff Recommendation: No recommendation – public hearing only.)*

***8. APPROVAL OF MINUTES**

- A. December 15, 2015 – REVISED Approved Regular Board Meeting Minutes
- B. April 26, 2016 - Regular Board Meeting

9. BOARD OF DIRECTORS' COMMENTS/REPORTS

Directors' comments are comments by Directors concerning District business, which may be of interest to the Board. This is placed on the agenda to enable individual Board members to convey information to the Board and to the public. There is to be no discussion or action taken by the Board of Directors unless the item is noticed as part of the meeting agenda.

- A. President's Report (Director Sanford)
- B. Representative Report (Appointed Representative)
 - 1. SDCWA
 - 2. CSDA
 - 3. LAFCO
 - 4. San Luis Rey Watershed Council
 - 5. Santa Margarita Watershed Council
- C. Meeting, Workshop, Committee, Seminar, Etc. Reports by Directors (AB1234)
- D. Directors Comments
- E. Budget and Finance Committee Member Comments

***10. COMMITTEE REPORTS (Approved Minutes have been attached for reference only.)**

- A. Budget and Finance Committee
 - 1. April 12, 2016 Minutes
- B. Communications Committee
 - 1. April 4, 2016
- C. Engineering Committee
 - 1. April 6, 2016

(*) - Asterisk indicates a report is attached.

***11 CONSENT CALENDAR**

(The consent calendar items are matters voted on together by a single motion unless separate action is requested by a Board member, staff or member of the audience.)

A. DISCUSSION AND POSSIBLE ACTION REGARDING EXECUTION OF A JOINT AGREEMENT TO IMPROVE MAJOR SUBDIVISION COUNTY OF SAN DIEGO TRACT NO. TM 5498-1, GOLF GREEN ESTATES

(The Golf Green Estates development consists of 94 lots surrounding the Bonsall Elementary School. Onsite improvements related to the District consists of approximately 5,475 feet of water main and 4,618 feet of sewer main totaling \$1,543,800 in water and sewer facility improvements. The Joint Agreement is required by the County to ensure all facilities are bonded before they will allow submittal of the Final Map for approval and recording which binds Development Solutions Bon, LLC to complete necessary improvements for both the County and the District.)

(Staff Recommendation: Authorize the General Manager to execute Joint Agreement with the County of San Diego for TM 5498-1.)

B. APPROVAL OF RESOLUTION NO. 16-11 ESTABLISHING CHECK SIGNING AUTHORITY

(The purpose of this Resolution is to establish check signing responsibilities and designate authorized signers of checks due to changes in staff members. Resolution No. 16-11 will replace Resolution No. 16-04.)

(Staff Recommendation: Approve attached Resolution 16-11.)

BOARD INFORMATION ITEMS

12. INITIAL REVIEW OF OPERATING AND CAPITAL IMPROVEMENT BUDGET FOR FISCAL YEAR 2016-2017

(The Draft Operating and Capital Improvement Budget will be presented for the Board and the Committee to review together. This process is designed to be an open discussion for any recommended changes that the Directors and Committee members feel is necessary to incorporate into the Budget.)

(Staff Recommendation: The Draft Operating and Capital Improvement Budget for Fiscal Year 2016-2017 has been presented to the Budget and Finance Committee on May 10, 2016 for review. The joint meeting is held for presentation to both the Committee and the Board to collectively have open discussions on the fiscal impact the Budget has on the District.)

13. DROUGHT ORDINANCE UPDATE

(Due to the State Water Resources Control Board deciding to change the emergency regulations and step back from some of the requirements of the earlier versions of the regulation, staff wanted to take this opportunity to update the Board on the revisions expected to be adopted on May 18, 2016.)

***14. DISCUSSION ABOUT PARLIAMENTARY PROCEDURES FOR RMWD MEETINGS**

(At the April 26, 2016 Board of Directors meeting, the Board directed staff to develop some draft alternative parliamentary procedures to serve as a supplement or replacement to Robert's Rules of Order. Staff would like to receive Board direction on the contents of these proposed parliamentary procedures.)

BOARD ACTION ITEMS

***15. DISCUSSION AND POSSIBLE ACTION TO APPROVE ORDINANCE NO. 16-09 UPDATING ADMINISTRATIVE CODE SECTION 8.04 TO INCLUDE ALLOWING ESTABLISHMENT OF SERVICE ON A TEMPORARY BASIS WITHOUT PROPERTY OWNER ACKNOWLEDGEMENT**

(This item is to consider updating the Administrative Code to include language allowing temporary service not to exceed 45 days. This type of allowance is related to pending real estate transaction without requiring the Owner Acknowledgement Statement, and would require a written agreement and a deposit on the account.)

(Staff Recommendation: Approve Ordinance No. 16-09 updating Administrative Code Section 8.04 – Establishment of Water Service.)

(*) - Asterisk indicates a report is attached.

- *16. **DISCUSSION AND POSSIBLE ACTION TO VOTE ON PROPOSED CSDA BYLAWS UPDATES**
(The CSDA Board of Directors has approved the recommended updates to the CSDA Bylaws and is requesting RMWD to complete and remit a ballot to cast a vote in favor or not in favor of the changes.)
(Staff supports Board direction.)

- *17. **DISCUSSION AND POSSIBLE ACTION TO APPROVE RESOLUTION NO. 16-12 RELATED TO NORTH COUNTY IRRIGATED LANDS GROUP**
(At the April 26, 2016 Board of Directors meeting, the Board voted to dissolve the North County Irrigated Lands Group (NCILG). Since that time, staff and legal counsel have developed the necessary documents required to wind up the Limited Liability Corporation that was formed for the NCILG.)
(Staff Recommendation: Approval of Resolution No. 16-12.)

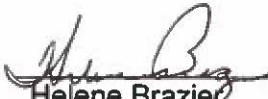
- *18. **RECEIVE AND FILE INFORMATION AND FINANCIAL ITEMS FOR APRIL 2016**
 - A. General Manager Comments**
 - 1. Meetings, Conferences and Seminar Calendar
 - B. Communications**
 - 1. Ratepayer Letters
 - 2. Staff Training Reports
 - C. Construction & Maintenance Comments**
 - 1. Construction and Maintenance Report
 - 2. Valve Maintenance Report
 - 3. Garage/Shop Repair
 - D. Water Operations Comments**
 - 1. Water Operations Report
 - 2. Electrical/Telemetry Report
 - E. Wastewater Comments**
 - 1. Wastewater Report
 - F. Operations Comments**
 - 1. Water Quality Report
 - 2. Cross Connection Control Program Report
 - G. Engineering Comments**
 - 1. Engineering Report
 - H. Customer Service Comments**
 - 1. Field Customer Service Report
 - 2. Meters Report
 - I. Safety Comments**
 - 1. Safety Report
 - J. Human Resources Comments**
 - 1. Personnel Changes
 - 2. Organizational Chart
 - K. Finance Manager Comments**
 - 1. Visa Breakdown
 - 2. Directors' Expense
 - 3. Check Register
 - 4. Office Petty Cash
 - 5. Water Usage Report
 - 6. RMWD Sewer Equivalent Dwelling Units (EDU's) Status

- 19. **LIST OF SUGGESTED AGENDA ITEMS FOR THE NEXT REGULAR BOARD MEETING**

(*) - Asterisk indicates a report is attached.

20. ADJOURNMENT - To Tuesday, June 28, 2016 at 1:00 p.m.

ATTEST TO POSTING:



Helene Brazier
Secretary of the Board

5-16-16 @ 4:30 P.M.
Date and Time of Posting
Outside Display Cases

(*) - Asterisk indicates a report is attached.



BOARD ACTION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

ID 1 Ordinance for Standby Charges

DESCRIPTION

This Ordinance establishes water availability charges for all of the Rainbow Municipal Water District Improvement District – Improvement District No. 1.

POLICY

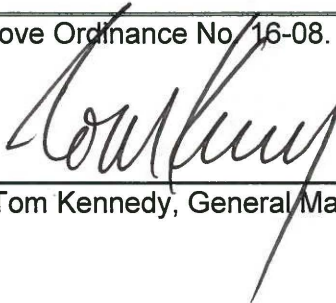
N/A

BOARD OPTIONS/FISCAL IMPACTS

N/A

STAFF RECOMMENDATION

It is recommended that the Board of Directors approve Ordinance No. 16-08.



Tom Kennedy, General Manager

05/24/16

ORDINANCE NO. 16-08

**AN ORDINANCE OF THE BOARD OF DIRECTORS OF
RAINBOW MUNICIPAL WATER DISTRICT
ESTABLISHING READINESS TO SERVE WATER SERVICE STANDBY
ASSESSMENTS OR AVAILABILITY CHARGES FOR ALL OF THE
RAINBOW MUNICIPAL WATER DISTRICT
IMPROVEMENT DISTRICT NO. 1**

WHEREAS, the increasing costs of importing water and, in particular, a Readiness to Serve Charge imposed upon the Rainbow Municipal Water District (the "District") by the Metropolitan Water District; and the need for continuing improvement, construction and reconstruction of the District's water storage, treatment and transmission facilities to insure a safe and continuing supply of water to the residents and taxpayers of the District must be met; and

WHEREAS, it is in the best interests of the District that, in addition to taxes and water revenues, certain monies be raised through the imposition of Readiness to Serve Water Service standby availability charges on certain lands within Improvement District No. 1 of the District, whether or not water service is actually being used thereon, and

WHEREAS, such charges are specifically authorized by the Municipal Water District Law of 1911; and

WHEREAS, the Board of Directors ("Board") of the District has previously ordered the formation of an improvement district designated as Improvement District No. 1 of Rainbow Municipal Water District ("Improvement District No. 1") for the purpose of establishing water service standby or availability charges for water and water delivery availability and readiness to serve charges collected from all lands within the District which, when added to rates and charges for water service and capital facility charges collected from newly developing lands within the District, will produce revenues sufficient to meet the cost of importing water as well as ensuring future availability of water supplies to serve the District and to finance the construction and reconstruction of water facilities; and

WHEREAS, a duly noticed public hearing was held by the Board on May 24, 2016, to hear and consider all objections or protests to said readiness to serve water service standby availability charge for Improvement District No. 1, at which time all persons were given an opportunity to be heard.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF DIRECTORS OF RAINBOW MUNICIPAL WATER DISTRICT AS FOLLOWS:

1. The Board of Directors hereby finds and determines that Readiness to Serve Water Availability service is made available to all lands within Improvement District No. 1, and hereby establishes readiness to serve water service standby assessments or availability charges which shall be assessed against all such lands whether water service is actually presently utilized on such lands or not.

2. The water availability charges hereby established in said Improvement District No. 1 for the fiscal year commencing July 1, 2016, and ending June 30, 2017, shall be as follows:

Ten Dollars and Fifty-Four Cents (\$10.54) per acre per year for each acre of land within Improvement District No. 1.

Ten Dollars and Fifty-Four Cents (\$10.54) per year for each parcel of land of less than one acre within Improvement District No. 1.

3. The officers of this District shall, on or before August 1, 2016, furnish in writing to the Board of Supervisors of San Diego County and to the San Diego County Auditor-Controller, a description of each parcel of land within said District upon which said readiness to serve water availability charge is to be levied and collected for the fiscal year 2016-17, together with the amount of water availability charge fixed on each parcel of land.
4. The Board of Directors, pursuant to Section 71635 of the Municipal Water District Law of 1911, hereby directs the Board of Supervisors of the County to levy, in addition to any other taxes it levies, the readiness to serve water service availability charge in the amounts of the respective parcels as fixed by the Board of Directors.
5. Certified copies of this Ordinance shall be delivered to the Board of Supervisors of the County of San Diego and to said County Auditor-Controller by the Clerk of the Board of this District.
6. The President of the Board of Directors shall sign this ordinance and the Clerk of the Board of Directors shall attest thereto and shall within fifteen days of its adoption cause it or a summary of it to be published in a newspaper of general circulation; and thereupon and thereafter this ordinance shall take effect and be in force upon the effective date of the resolution ordering the formation of Improvement District No. 1 pursuant to California Water Code Section 72014.
7. Ordinance 15-07 is hereby canceled.

Adopted this 24th day of May 2016.

AYES:
NOES:
ABSENT:
ABSTAIN:

Dennis Sanford, Board President

ATTEST:

Dawn Washburn, Board Secretary



BOARD ACTION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

PUBLIC HEARING FOR THE PURPOSE OF SOLICITING PUBLIC INPUT REGARDING THE PROPOSED 2015 URBAN WATER MANAGEMENT PLAN

BACKGROUND

The District's Draft 2015 Urban Water Management Plan (UWMP) has been prepared to satisfy Water Code Section 10620 which requires every urban water supplier to prepare and adopt an UWMP. Water Code Section 10617 defines an urban water supplier as any supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually. Furthermore, the Codes require the UWMP to be updated at least once every 5 years. The UWMP submittal deadline is July 1, 2016.

DESCRIPTION

The District is required to hold a public hearing prior to adoption of the Urban Water Management Plan per California Water Code 10642. Proper notice regarding publication in the newspaper was made following Government Code 6066. After receiving public comments the Board may provide direction to staff to amend the draft 2015 UWMP. The plan will be brought to the Board at the June 28, 2016 Board Meeting for approval.

POLICY

N/A

BOARD OPTIONS/FISCAL IMPACTS

N/A

STAFF RECOMMENDATION

No recommendation – public hearing only

Sherry R. Kirkpatrick
Engineering Manager

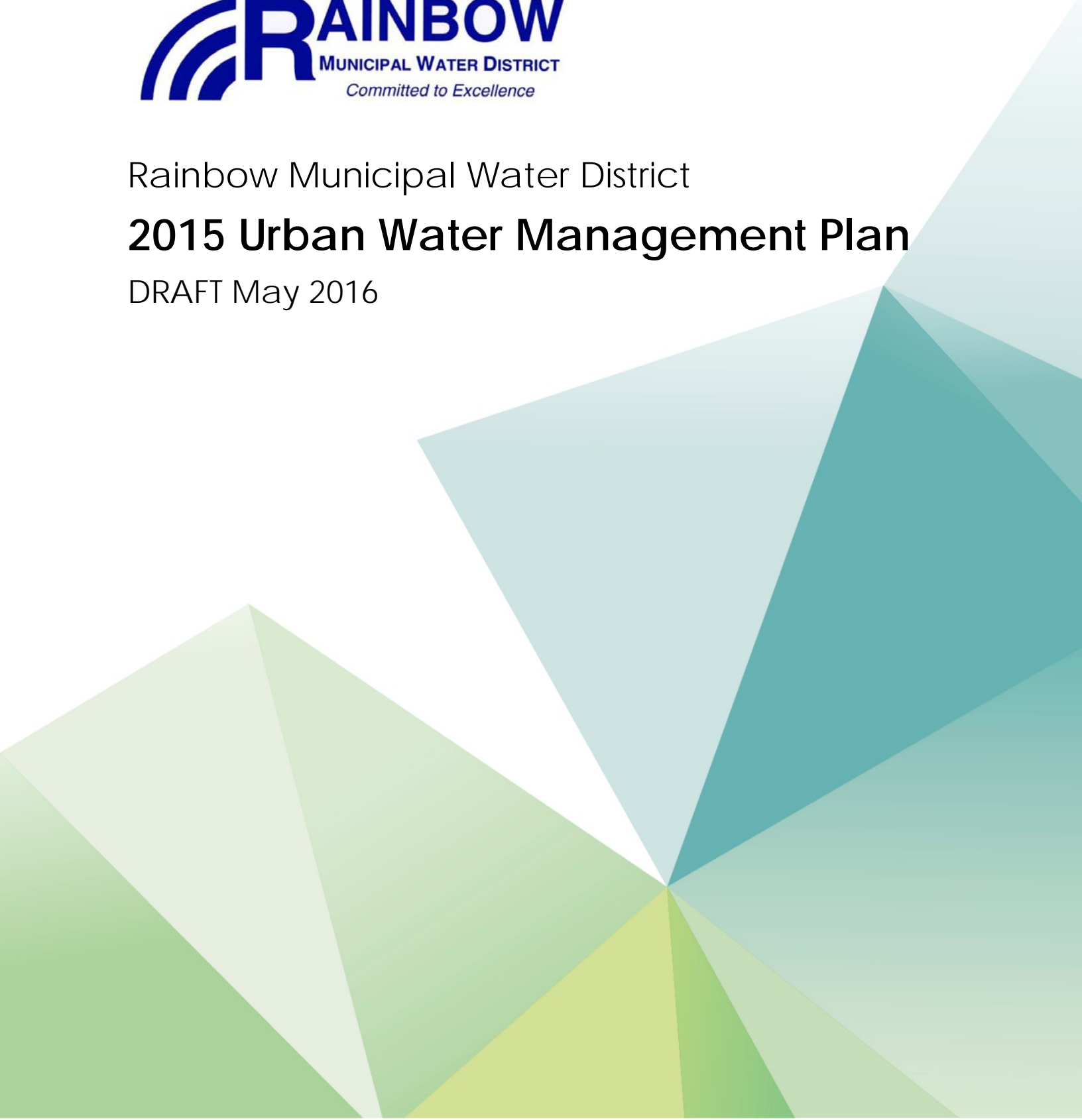
May 24, 2016



Rainbow Municipal Water District

2015 Urban Water Management Plan

DRAFT May 2016



Rainbow Municipal Water District Urban Water Management Plan 2015 Update

DRAFT May 2016

Prepared for:
Rainbow Municipal Water District
3707 Old Highway 395
Fallbrook, CA 92028

Prepared by:

ATKINS

3570 Carmel Mountain Road, Suite 300
San Diego, California 92130
Atkins Project No.: 100048738

In association with:

GILLINGHAM WATER
Gillingham Water Planning and Engineering, Inc.

DLM
ENGINEERING, INC

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- A. Urban Water Management Plan Act Text**
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- C. Adoption Resolution and Related Documentation**
- D. AWWA Water Audit Worksheet**
- E. SBx7-7 Calculation Worksheet**
- F. Water Authority Documentation of Supply Reliability**
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1.0 Introduction

1.1 Overview

This 2015 Urban Water Management Plan (Plan, UWMP) has been prepared by the Rainbow Municipal Water District (District, or RMWD) in accordance with the requirements of California's Urban Water Management Planning Act (Act) and related provisions of the California Water Code, as included in **Appendix A**. The Act establishes as State policy that, "the management of urban water demands and efficient use of water shall be actively pursued to protect both the people of the state and their water resources." To advance that goal, the Act requires that urban water suppliers develop UWMPs to assesses current demands and supplies over a 20-year planning horizon, and addresses methods to ensure reliable and adequate water service to meet the needs of the various categories of customers during normal, dry, and multiple dry years. The plan documents that the water supplies available to RMWD customers are adequate to meet demands over the required 20 year planning period.

The mission of RMWD is to provide its customers reliable, high quality water and water reclamation services in a fiscally sustainable manner. Together with the San Diego County Water Authority (Water Authority, or SDCWA) and Metropolitan Water District (MWD), RMWD works to provide a reliable supply to its customers through water management, conservation and careful planning.

1.2 Urban Water Management Planning and the California Water Code

The Urban Water Management Planning Act (UWMP Act) became part of the California Water Code in 1984 with the passage of Assembly Bill 797. The original legislation has subsequently been modified several times, most notably in 2009 by the provisions of SBX7-7, the "20 percent by 2020" legislation. The Act requires urban water suppliers to prepare and submit to the California Department of Water Resources (DWR) a UWMP every five years, in years ending in 0 and 5. For the 2015 plans, the legislature extended the deadline to allow agencies to report on their compliance with certain 2015 target conservation goals, and the current plans are due to be filed with DWR by July 1, 2016.

UWMPs are to include the following:

- Assessment of current and projected water supplies
- Evaluation of demand and customer types
- Evaluation of the reliability of water supplies
- Description of conservation measures implemented by the urban water supplier
- Response plan, in the event of a water shortage
- Comparison of demand and supply projections

With the passage of SBX7-7 in November 2009 as part of the Water Conservation Act of 2009, retail urban water providers are now required to comply with the conservation requirements of SBX7-7 in order to be eligible for State water grants or loans. The additional UWMP information required by SBX7-7 includes:

- Baseline per capita water use data
- Per capita water use targets
- Interim per capita water use targets

1.3 Changes to the Act

Major amendments made to the Act subsequent to preparation of the District's 2010 UWMP Plan include the following:

- **Water Code Section 10631 (f) (1) and (2), Assembly Bill 2067 (2014)** - Requires water suppliers to provide narratives describing their water demand management measures, as provided. Retail water suppliers are required to address the nature and extent of each water demand management measure implemented over the past 5 years and describe the water demand management measures that the supplier plans to implement to achieve its water use targets.
- **Water Code Section 10621 (d), Assembly Bill 2067 (2014)** – Extended the submittal deadline and requires each urban water supplier to submit its 2015 UWMP to DWR by July 1, 2016.
- **Water Code Section 10644 (a) (2), Senate Bill 1420 (2014)** - Requires the plan, or amendments to the plan, to be submitted electronically to DWR.
- **Water Code Section 10644 (a) (2), Senate Bill 1420 (2014)** - Requires the plan, or amendments to the plan, to include any standardized forms, tables, or displays specified by DWR.
- **Water Code Section 10631 (e) (1) (J) and (e) (3) (A) and (B), Senate Bill 1420 (2014)** - Requires the UWMP to quantify and report on distribution system water loss.
- **Water Code Section 10631 (e) (4), Senate Bill 1420 (2014)** - Provides for water use projections to display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans, when that information is available and applicable to an urban water supplier.
- **Water Code Section 10631.2 (a) and (b), Senate Bill 1036 (2014)** - Provides for an urban water supplier to include certain energy-related information, including, but not limited to, an estimate of the amount of energy used to extract or divert water supplies.
- **Water Code Section 10632 (b), Assembly Bill 2409 (2010)** - Requires urban water suppliers to analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.

1.4 UWMPs in Relation to Other Planning Efforts

The District's 2015 UWMP integrates with other District planning efforts and with related planning efforts of SDCWA, the County of San Diego, and others. Key related planning efforts are listed below:

- **RMWD Water and Wastewater Master Plan Update:** The UWMP's projections of future demands and local supplies are derived from and are consistent with those described in the District's 2015 Water and Wastewater Master Plan Update (Atkins, 2016).
- **San Diego County Water Authority Regional UWMP:** Information on demands and planned local supplies from RMWD's UWMP has been coordinated with SDCWA for presentation in its 2015 Regional UWMP.
- **San Diego Regional Agricultural Water Management Plan:** The San Diego Regional Agricultural Water Management Plan (RAWMP) is a cooperative effort of the San Diego County Farm Bureau (SDCFB) and fourteen retail water agencies, including the District, that serve agricultural

customers in the northern half of San Diego County. The RAWMP documents the efficient water management practices of these agricultural water customers and these agencies as a whole.

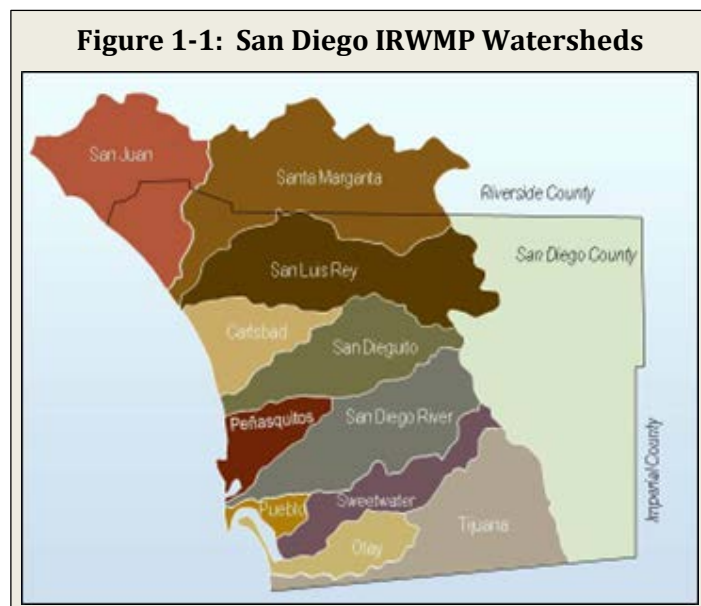
- **San Diego Association of Governments Regional Plan:** The District's projections of future water demands are based on demographic projections made by SANDAG as part of its 2015 Regional Plan. The SANDAG projects are fully consistent with the adopted land use plans of the County of San Diego and each of the various municipalities within San Diego county.
- **San Diego County General Plan:** As noted in the SANDAG Regional Plan description above, the District's water demand projections are consistent with the adopted General Plan land uses of the County of San Diego. The County will review the District's UWMP and use the document as needed to provide documentation of available water supplies relative to any land use decisions that come before the County during the five-year life of the current UWMP.
- **San Diego Integrated Regional Water Management Plan:** See description below.

1.4.1 Integrated Regional Water Management Plans

California legislation passed in 2000 promotes the development of Integrated Regional Water Management Plans (IRWMPs). The process involves an integrated approach to water management planning by providing the framework for local agencies to cooperatively manage local and imported water supplies and improve water supply quality, quantity, and reliability. Many of the IRWMP elements are also part of an UWMP and can be addressed cooperatively during the UWMP process.

The San Diego IRWMP supports RMWD's and SDCWA's UWMPs by promoting regional planning and supporting projects that aim to increase water supply reliability and improve surface water and groundwater quality. IRWM planning and funding will help to make possible water supply projects in the areas of seawater desalination, recycled water, local surface water, and groundwater, which are part of the region's projected mix of water resources. The IRWM program also supports water conservation, another key element of RMWD's and SDCWA's UWMPs.

The District participated in the development of the San Diego IRWMP, a copy of which can be found at <http://www.sdirwmp.org/>. The watershed boundaries of the San Diego IRWMP planning region are shown in **Figure 1-1**.



1.5 UWMP Organization

This UWMP is organized consistently with DWR's 2015 Urban Water Management Plans Guidebook, and contains the following chapters:

Chapter 1 – Introduction and Overview

Chapter 2 – Plan Preparation

Chapter 3 – System Description

Chapter 4 – System Water Use

Chapter 5 – Baselines and Targets

Chapter 6 – System Supplies

Chapter 7 – Water Supply Reliability

Chapter 8 – Water Shortage Contingency Planning

Chapter 9 – Demand Management Measures

Chapter 10 – Plan Adoption, Submittal, and Implementation

2.0 Plan Preparation

2.1 Application of UWMP Act to RMWD

The District has prepared this UWMP in accordance with the Urban Water Management Planning Act and the California Water Code. The District is subject to the Act because it satisfies the definition of an “Urban Water Supplier” operating a “Public Water System.”

District identification information required for the plan is summarized in **Table 2-1**.

Table 2-1: Public Water System Identification

Public Water System Number	Public Water System Name	Number of Municipal Connections 2015	2015 Volume of Water Supplied (AF)
3710016	Rainbow MWD	7,838	20,062
TOTAL		7,838	20,062

2.2 Regional Planning and Compliance

The Act allows groups of water agencies to form Regional Alliances for reporting on per capita water use targets. The District is not part of a regional alliance. Required plan identification information is presented in **Table 2-2**.

Table 2-2: Plan Identification

Select	Type of Plan		Name of RUWMP or Regional Alliance
X	Individual UWMP		
	No	Water Supplier is also a member of a RUWMP	
	No	Water Supplier is also a member of a Regional Alliance	
No	Regional UWMP		

2.3 Units of Measure

The District reports its data on a fiscal year basis. Water supplies and demands are reported on an acre-foot (AF) volume basis and may sometimes be referred to in acre-feet per year (AF/yr) to represent the total volume of water referenced for a full fiscal year. Both of these units are maintained consistently throughout the plan. Required plan information is summarized in **Table 2-3**.

Table 2-3: Units of Measure

Type of Agency	
X	Agency is a retailer
Fiscal or Calendar Year	
X	UWMP Tables Are in Fiscal Years
Units of Measure Used in UWMP	
X	Acre-Feet (AF) (1 AF = 325,851 gallons)

2.4 Coordination and Public Outreach

2.4.1 Wholesale and Retail Coordination

The District currently relies upon SDCWA for 100 percent of its water supply. The District has coordinated the preparation of its UWMP with SDCWA, and has provided SDCWA with projected water demands and local supplies in five-year increments through 2040. SDCWA has used the information provided by the District in preparing its 2015 Regional UWMP.

Required plan information is summarized in **Table 2-4**.

Table 2-4: Water Supplier Information Exchange

Wholesale Water Supplier Name
Potable Water: San Diego County Water Authority

2.4.2 Coordination with Other Agencies and the Community

The District coordinated the preparation of its UWMP with appropriate local agencies, including other water suppliers that share a common source, water management agencies and relevant public agencies, to the extent practical. Notification of the update of the 2015 UWMP was sent out more than 60 days prior to the public hearing to all water management agencies, wastewater agencies, cities in and adjacent to the District’s service area, and the County of San Diego. Coordination efforts are summarized in **Table 2-A**.

The draft UWMP was made available on the District’s website, and in hardcopy form beginning on May 10, 2016. Within 30 days of the adoption, copies of the final UWMP, including information on water service reliability, will be sent to DWR, the California State Library, and the County of San Diego, and will be posted on the District’s website and made available for review in hardcopy form at the District’s offices during normal working hours.

Table 2-A: Coordination with Stakeholder Agencies

Coordinating Agencies	Participated in Plan Development	Commented on Draft	Attended Public Meetings	RMWD Contacted For Assistance	Was Offered Draft Plan	Was sent Notice of Intention to Adopt
Relevant public agencies						
• County of San Diego					X	X
• City of Oceanside					X	X
• City of Vista					X	X
General public						
• General Public					X	X
Wastewater agencies						
• City of Oceanside					X	X
Water management agencies						
• San Diego County Water Authority					X	X
Other water suppliers						
• Fallbrook Public Utilities District					X	X

2.4.3 Notice to Cities and Counties

The District notified the County of San Diego, the City of Oceanside, and the City of Vista at the start of the UWMP process, well in advance of the required 60 days prior to the UWMP public hearing.

3.0 Rainbow Service Area

3.1 Service Area Boundaries

RMWD serves the San Diego County unincorporated communities of Rainbow and Bonsall, a portion of the unincorporated community of Fallbrook, and small portions of the cities of Vista and Oceanside. The District's boundaries cover approximately 78 square miles. The northern part of the District is located north of the San Luis Rey River and straddles Interstate 15 (I-15) while the southern part of the District is located west of I-15 and straddles the San Luis Rey River. The District's service area boundaries are shown in **Figure 3-1** on the next page.

The District provides water service to all of the area within its boundaries, and sewer service to a smaller area within the San Luis Rey river valley. The District currently owns, through contract, capacity to treat 1.5 million gallons of sewage per day at the San Luis Ray Wastewater Treatment Plant in Oceanside. The District's sewer service area includes over 2,150 connections mainly along the State Route 76 (SR-76) corridor.

The service area of RMWD is heavily agricultural, and water for agriculture accounts for approximately three-quarters of District water sales. Agricultural crops include avocados, citrus, commercial nurseries, strawberries, tomatoes, corn and livestock.

3.2 Governance

RMWD was formed in 1953 under the Municipal Water District Act of 1911 (Section 7100 et. seq. of the CWC). RMWD joined the Water Authority and MWD the same year, acquiring the right to purchase and distribute imported water throughout its service area.

The District is governed by a five member elected Board of Directors which sets ordinances, policies, taxes, and rates for providing sewer and potable water services within the District service area. The District is revenue neutral: each end user pays their fair share of the District's costs of capital improvements, water acquisition, and the operation and maintenance of its facilities.

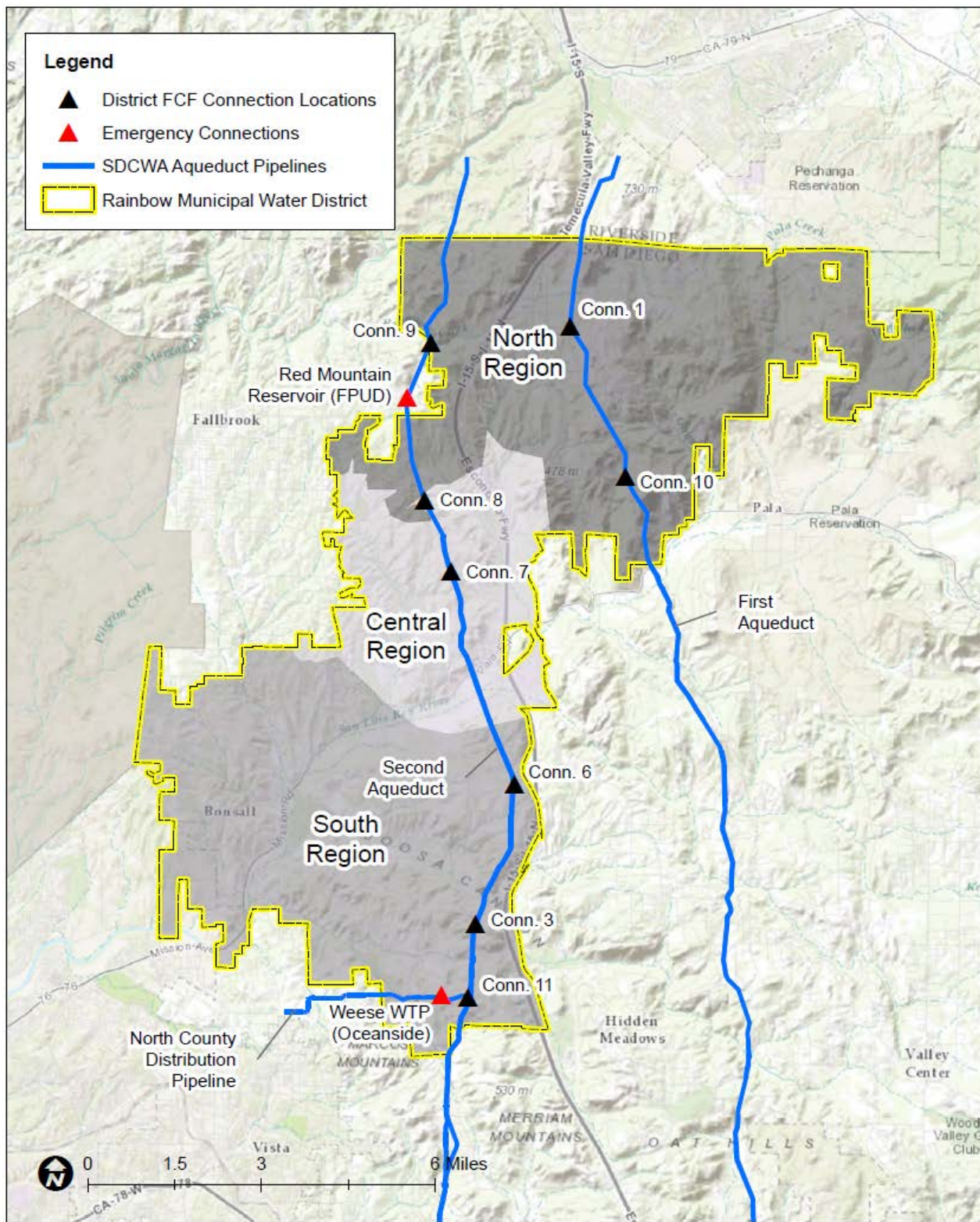
3.3 Climate and Terrain

The District's climate is mild, varying from a low mean daytime temperature of 69 degrees in the winter to a high mean daytime temperature of 86 degrees in the summer. The average annual rainfall of approximately 16 inches occurs primarily from December through March.

Most of the District is mountainous and consists of hills and valleys with a mix of primarily intermittent streams and some perennial streams and rivers. The topography ranges from 150 to 2,200 feet mean sea level. The San Luis Rey River crosses diagonally through the District from the northeast to the southwest, and several smaller creeks divide the area, including Gopher Canyon, Moosa Canyon, and Tamarack Creeks. Much of the area still remains in its natural state of chaparral, oak, and coastal sage vegetation.

Per SDCWA's most recent climate change analysis, the median predicted climate change will increase average ETo in the District service area by 1.8% by 2035. The District projects that other factors being equal, the increase in ETo will result in a like increase in irrigation unit demand factors.

Figure 3-1: Rainbow Service Area



3.4 Population

To facilitate the projection of the District’s future water demands, it is important to have well supported estimates of future population totals. The District consulted with the San Diego Association of Governments (SANDAG), which collects and analyzes land use, population and economic information within the County of San Diego in order to develop a number of useful projections, among them population. DWR has consulted with SANDAG regarding their population projection methods and has approved SANDAG projections for use in the UWMP process for its member agencies. Upon receiving confirmation of DWR approval of the SANDAG methodology, the District has proceeded with the use of SANDAG population projections as the basis for this UWMP.

The District has grown very little subsequent to its previous UWMP of 2010, but now anticipates increasing levels of development over the current UWMP planning horizon. The projected increase in population reflects planned residential development approved in the last update to the San Diego County General Plan. Current and projected future District population counts are summarized in **Table 3-1**.

Table 3-1: Current and Projected Service Area Population

Population Served	2015	2020	2025	2030	2035	2040
	20,279	23,789	24,967	26,145	28,219	28,336

Source: SANDAG Series 13, custom data sort to District service area boundary

4.0 Water Use

4.1 Existing Use by Customer Class

Total water use in the District during FY 2015 is summarized in **Table 4-1**.

Table 4-1: Demands for Potable and Raw Water - Actual FY 2015

Use Type	FY 2015 Actual		
Use Category	Additional Description	Level of Treatment When Delivered	Volume (AF)
Single Family		Drinking Water	4,236
Multi-Family		Drinking Water	332
Commercial		Drinking Water	2,068
Agricultural		Drinking Water	12,312
Losses	Non-Revenue Water, including apparent and real losses	Drinking Water	1,114
TOTAL			20,062

Notes: Volumes reported for individual customer classes are metered sales, exclusive of non-revenue water (real and apparent losses). Non-Revenue water calculated as difference of SDCWA FY 2015 deliveries and District FY 2015 sales, exclusive of minor change in storage and minor effect of billing period time lag.

Water demands in the District service area have declined significantly in recent years, down from down from a peak of 33,940 AF in FY 1981, and 33,300 AF as recently as FY 2004. This drop in demands has occurred in response to increasing water prices, periods of drought-induced water use restrictions, agricultural market conditions, increased customer adoption of a conservation ethic, and other factors. Agricultural demands in particular have been steadily declining through the years as a response to increasing water costs which make it more difficult to profitably run agricultural businesses, and increasing property values which make selling the underlying land more attractive. Some agricultural sectors, such as nurseries, have seen growth in business and increases in water demands, but the overall trend for agricultural water use has been a decline.

4.2 Projected Future Water Use

4.2.1 Approach / Methodology

The Master Plan forecasts future water demands using existing unit demands as a baseline, and scales these based on the net effects of growth, conservation, agricultural outlook, and other factors. The forecast methodology is outlined below.

- a) **Existing baseline unit demands.** The Master Plan uses actual unit use factors for calendar year 2013 as the baseline normal condition demands for the forecast period. 2013 demands are sufficiently distant from the water use restrictions in effect during 2009-10. 2013 was moderately dryer than normal, which would tend to increase use, but this increase is offset by below-normal economic activity as the economy continued to recover.
- b) **New development.** New residential development demands are generated using the baseline unit use factors, and the SANDAG Draft Series 13 projections for the District at the pressure zone level of spatial resolution.
- c) **Reduced demands due to additional conservation efficiencies and other factors.** The Master Plan projects unit use rates will continue to decline over time in response to increased water rates, conservation education, and shifting landscape preferences. These factors are summarized in **Table 4-A**.
- d) **Change in Agricultural demands.** Agricultural demands are forecast based on District estimates, and on price-elasticity of demand response to projected increased water prices.

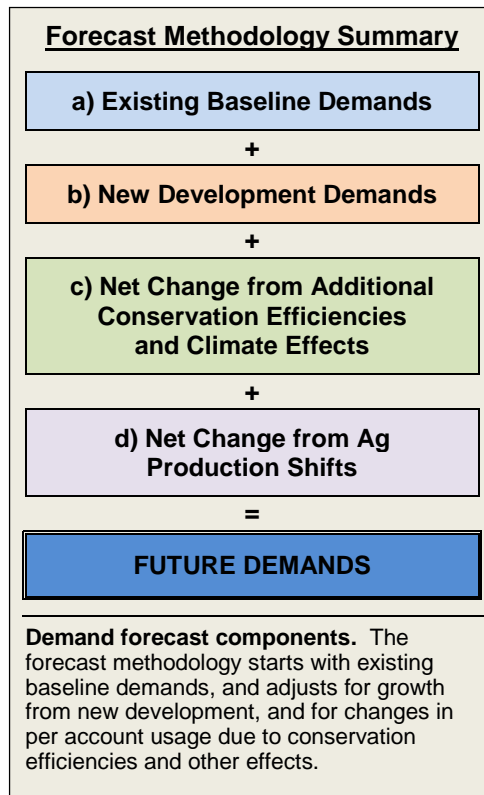


Table 4-A: Summary of Unit Use Adjustment Factors

FACTORS DRIVING UNIT USE REDUCTIONS	
Landscape Ordinances	As required by State law from 2010 and as amended by the State Water Resources Control Board in 2015, all land use jurisdictions have adopted landscape ordinances limiting new landscape construction water use to 55% ET for residential construction, and 45% for non-residential construction. The state requirements also limit turf utilization in all types of construction and in and streetscape uses. As a result, new construction in the District will feature less grass, and be lower water using in comparison to pre-2010 construction.
Weather-Based Irrigation Controllers	Newer landscape irrigation controllers can automatically adjust irrigation schedules consistent with actual climate conditions and plant water needs, reducing unnecessary use due to over-irrigation. The use of these controllers will become increasingly common during the planning horizon.
Turf Retirement	Up until late-2015 MWD and SDCWA were providing financial incentives to customers who replaced grass with low water use landscapes, helping drive a transition of customer landscape preferences away from turf. In the District service area, this transition will likely continue gradually over the course of the planning horizon.
High-efficiency clothes washers	Newer clothes washing machines, in particular front-loading versions, are more water efficient than older traditional-style washers.
High-efficiency toilets	California regulations enacted in 2011 require new toilets to operate with a maximum of 1.28 gallons per flush, compared to 1.6 gpf per the previous 1992 requirements. This will reduce water use at new SFR and MFR construction. Rebate programs funded by MWD and others will support a gradual transition to the newer toilets.
MFR Submetering	Future MFR construction will be subject to requirements that individual units be submetered and billed by usage. The direct price signal to the consumer results in reduced water use.
Increasing Real Prices / Behavioral Changes	Retail water rates may continue to increase at a rate faster than inflation, driven by increases in wholesale rates. Customers respond by reducing use.
FACTORS DRIVING UNIT USE INCREASES	
Climate Change	Per SDCWA's most recent climate change analysis (2013 Water Facilities Master Plan, Appendix E), the median predicted climate change will increase average ETo in the District service area 1.9% by 2035, and approximately 3% by 2050.
OTHER FACTORS	
Agricultural Practice	With agriculture representing approximately three-quarters of total District demands, the District demand forecast is sensitive to changes in agricultural practices and changes in agricultural customer's response to water price increases. The District's median forecast assumes that overall agricultural water usage will remain flat at approximately current levels over the UWMP planning horizon.

4.2.2 Projected Potable Water Demands

The Master Plan projects that future demands will remain approximately at current demand levels, despite underlying growth in population, housing, and employment. Water use per account and per capita will continue to decline in response to the conservation and other factors outlined above.

The District’s projected potable water use is summarized in **Table 4-2**.

Table 4-2: Projected Water Demands

Use Type	Additional Description (as needed)	Projected Water Use				
		2020	2025	2030	2035	2040
Residential		3,990	4,150	4,200	4,470	4,450
Commercial		580	580	580	580	580
Agricultural		14,370	14,220	14,180	13,930	13,780
Other	Temporary Construction Meters	60	60	60	60	60
Losses	Non-Revenue Water, including real losses	1,810	1,810	1,810	1,810	1,790
TOTAL (rounded)		20,400	20,800	20,800	20,900	20,700

Notes: Volumes reported for individual customer classes are metered sales, exclusive of non-revenue water and losses. Non-Revenue water estimates as difference of total system deliveries and metered sales.

4.2.3 Projected Recycled Water Demands

The District is studying a possible Water Reclamation Facility to develop a supply of recycled water for use within the District service area. The project remains at the "Planned" level and the District does not yet classify potential yield of the project as a "Verifiable" supply for purposes of water supply documentation in this UWMP. Additional discussion on the District’s local supply development plans, inclusive of recycled water, is presented in **Section 6**.

4.2.4 Projected Near-Term Annexation Demands

The District anticipates that additional lands will annex to its service area during the planning horizon for this UWMP. These Near-Term Annexations may include those developments listed below:

- Warner Ranch: The owners of this 210 acre property located north of Pala have proposed construction of up to 780 residential units, which inclusive of parks, slope landscaping, and other development components could generate water demands on the District of approximately 519 AF/yr. The property has on-site wells which could be used to serve non-potable irrigation demands.

Because this Near-Term Annexation project is not currently within the District service area, the District’s Master Plan and this UWMP do not include the prospective project demands in the District totals. However, the potential demands of this and other Near-Term Annexations throughout San Diego county are accounted for in SDCWA’s Regional UWMP, which documents the availability of supplies as needed to serve these demands subject to approval of their annexations by the retail water district, SDCWA, MWD, and the San Diego Local Area Formation Commission.

4.2.5 Projected Total Water Demands

The District’s total projected demands are summarized in **Table 4-3**.

Table 4-3: Total Water Demands

	2015	2020	2025	2030	2035	2040
Potable and Raw Water <i>from Tables 4-1 and 4-2</i>	20,062	20,810	20,820	20,830	20,850	20,660
Recycled Water Demand <i>from Table 6-4</i>	0	0	0	0	0	0
TOTAL WATER DEMAND	20,062	20,810	20,820	20,830	20,850	20,660

Notes:

Volumes reported for individual customer classes are metered sales, exclusive of non-revenue water and actual losses. Non-Revenue water estimates as difference of total system deliveries and metered sales.

Demands associated with possible Near-Term Annexation projects are not included, but are addressed in SDCWA’s Regional UWMP.

4.3 Distribution System Water Loss

Distribution system water losses result from leaks from pipelines and storage facilities. The District has calculated losses using the American Water Works Association Manual M36, *Water Audits and Loss Control Programs*, and the corresponding AWWA calculation worksheet documented in Appendix L of DWR’s 2015 UWMP Guidebook. The analysis distinguishes between Real Losses, which are actual losses due to leaks from pipelines, storage reservoirs, and service connections; and Apparent Losses, which consist of water that is put to beneficial use but which is not recorded as metered water sales due primarily to under-registering customer meters. The worksheet is provided as **Appendix D** and will be submitted electronically to DWR.

The audit results are summarized in **Table 4-4**.

Table 4-4: Water Loss Audit Reporting for CY 2015

	Water Losses		
	Real ⁽¹⁾	Apparent ⁽²⁾	Total
Volume (AF)	204 AF	949 AF	1,153 AF
% of Total Deliveries	1.0%	4.7%	5.7%

(1) Real losses are actual losses due to leaks.

(2) Apparent losses consist of water that is beneficially used but not recorded as metered sales.

4.4 Estimating Future Water Savings

The District’s water demand forecasting methodology, as summarized in Section 4.2.1, specifically accounts for future water savings resulting from conservation and other factors. Related information required for the UWMP is summarized in **Table 4-5**.

Table 4-5: Inclusion in Water Use Projections

Are Future Water Savings Included in Projections?	Yes
Page Numbers Where Described	12, 13
Are Lower Income Residential Demands Included In Projections?	Yes

4.5 Water Use for Lower Income Households

The District’s water demand forecasting methodology, as summarized in Section 4.2.1, incorporates all of the existing and planned housing of the County of San Diego, the only land use jurisdictions within the District service area. These housing elements, inclusive of low-income housing, are included in the demographic summaries and forecasts of SANDAG on which the District water demand forecasts are based. The District water demand forecast therefore incorporates all of the existing and planned low-income housing of each of its land use jurisdictions. Related information required for the UWMP is summarized in **Table 4-5** above.

4.6 Climate Change – Influence on Water Demands

The District’s water demand forecast incorporates predicted effects of climate change on irrigation demands. Using data assembled by the Water Authority in its 2013 Water Facilities Master Plan¹, the District has adjusted irrigation unit use factors to account for a 1.9 percent increase in reference evapotranspiration by 2035, and a 3.0 percent increase by 2050. Additional details on the District’s water demand forecast are included in Section 4.2. Additional review of climate change issues for the San Diego country area are presented in the Water Authority’s 2015 Regional UWMP.

¹ SDCWA 2013 Water Facilities Master Plan, Appendix E: "Analysis of Potential Climate Effects on Water Authority Demands." The ETo percentage increase for 2050 is derived from Table 2, which shows a 1.8% increase for the District service area by 2035.

5.0 Baselines and Targets

5.1 Water Conservation Act of 2009 (SB X7-7)

In 2009 the legislature approved and the Governor signed Senate Bill X7-7, the Water Conservation Act of 2009 . The Act required urban water agencies achieve a reduction in per capita water use of 20 percent by 2020, relative to certain specified baseline conditions.

As a part of BS X7-7, urban water suppliers are required to develop a 2020 urban water use target, and also a 2015 interim target, that meets the plan's water conservation intent. In 2010, DWR released a manual titled Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use, which provided retail water agencies with specific requirements and methodologies for setting water use efficiency goal and compliance standards for 2020. The manual provided four alternative methods for calculating targets. The District selected Method 1 for use in its 2010 UWMP, and identified a baseline period of 1999 through 2008.

5.2 Updating Calculations from 2010 UWMP

For the 2015 UWMP, the District has updated the calculations presented in the 2010 UWMP to utilize refined annual population estimates developed by SANDAG and referenced to 2000 and 2010 census data at the census block level. These revised population counts result in minor changes to the District's 2015 and 2020 per capita use targets, reducing the target values by approximately four percent in comparison to the target values reported in the District's 2010 UWMP. The complete set of SB X7-7 calculation tables are included in **Appendix E**.

5.3 Baseline Periods and Targets

SB X7-7 requires agencies to develop baseline per capita water use and to develop reduced per capita consumption targets in order to comply with the conservation goals of the 20 x 2020 plan. The baseline periods can be 10- or 15-years and must end between December 31, 2004 and December 31, 2010. In its 2010 UWMP, the District used a 10-year baseline spanning the years 1999 and 2008. Water suppliers must also calculate a 5-year baseline to confirm that the selected 2020 target meets the minimum water use reduction requirements and is a continuous 5-year period that ends no earlier than December 31, 2007 and no later than December 31, 2010. The District selected a baseline between 2003 and 2007. These same baselines are used for the 2015 UWMP.

In 2010 the District used Method 1 to calculate its 2020 target. Method 1 is also used for the 2015 UWMP. Method 1 is summarized below:

Method 1 – 80 Percent of Baseline Water Use

This method sets a target at 80 percent of the 10-year baseline. This value must be less than 95 percent of the 5-year baseline.

The resulting per capita use target levels of 2015 and 2020 are summarized in **Table 5-1**. The complete set of SB X7-7 calculation tables are included in **Appendix E**.

Table 5-1: Per Capita Use Baselines and Targets Summary

Baseline Period	Start Year	End Year	Average Baseline GPCD	2015 Interim Target	Confirmed 2020 Target
10 year	1999	2008	1503	1,352	1,202
5 Year	2003	2007	1515		

Notes: All values are in Gallons per Capita per Day (GPCD). Target GPCDs from SBx7-7 Table 8.

5.4 2015 Compliance Daily per Capita Water Use

Actual per capita water use in the District for FY 2015 was 246 GPCD, less than the SB 7X-7 2015 target level of 316 GPCD. This indicates the District is in compliance with the SB 7X-7 2015 interim target. SB X7-7 2015 compliance information is summarized in **Table 5-2**.

Table 5-2: Per Capita Use 2015 Compliance

Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments		2015 GPCD* (Adjusted if applicable)	Did Supplier Achieve Targeted Reduction for 2015?
		Total Adjustments	Adjusted 2015 GPCD		
883	1352	0	883	883	Yes

Notes: All values are in Gallons per Capita per Day (GPCD)

5.5 2015 Residential Daily per Capita Water Use

The per capita use information contained in Tables 5-1 and 5-2 is based on total District water use, of which a large majority is for agricultural uses. When considering Residential per capita use, exclusive of agriculture, the average usage is considerably lower than for total District use. The data in **Table 5-A** summarizes residential per capita use, and provides a more level comparison of urban water use in the District to that of other urban water retailers. The usage rate is calculated following reporting methodology adopted by the State Water Resources Control Board as part of the 2015 emergency conservation actions.

Table 5-A: Residential GPCD

Reporting Period	Residential GPCD
FY 2015	285

Notes: Gallons per Capita per Day (GPCD)

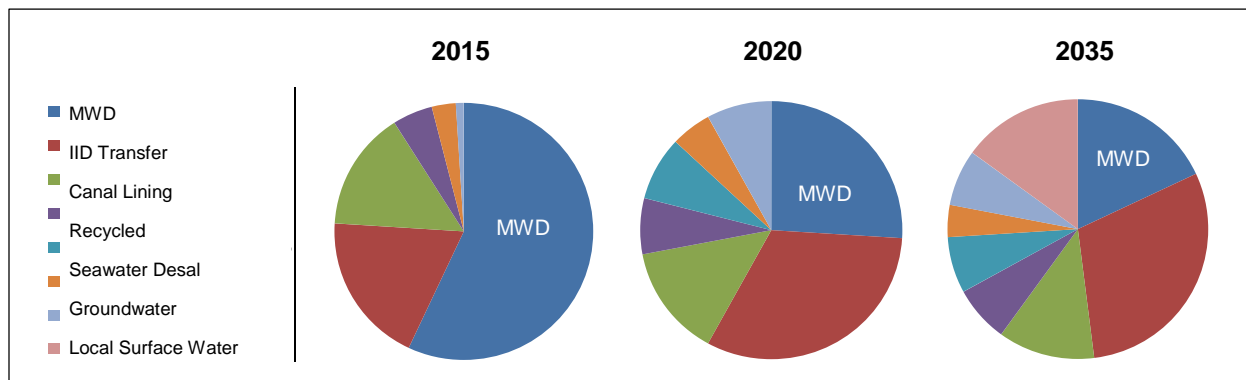
6.0 System Supplies

This chapter describes the existing and planned supplies of water available to the District, including the District’s current supply of water purchased from the Water Authority, as well as the District’s plans for the development of local recycled water and groundwater supply projects. Supply reliability relative to projected demands is discussed in Chapter 7.

6.1 Purchased or Imported Water

The District currently relies on the Water Authority for 100 percent of its supply. A complete description of the Water Authority and its supplies can be found in its 2015 Regional UWMP (www.sdcwa.org/uwmp). The Water Authority has greatly diversified its supply from 1990, when in average years approximately 85 to 90 percent of San Diego County’s water supply was provided by MWD. In comparison, in 2015 the portion of the Water Authority’s supply obtained from MWD was approximately 57 percent, with the reduced reliance a result of Water Authority projects like the Imperial Irrigation District Transfer, conserved water from the All American and Coachella Canal lining projects, and seawater desalination. The Carlsbad Seawater Desalination project started production in December 2015 and is expected to provide approximately 8 percent of the County’s supply. By 2035, the Water Authority projects that only 18 percent of the County’s supply will come from MWD. The changing composition of the Water Authority’s supplies over time is shown below in **Figure 6-1**.

Figure 6-1: SDCWA Supply Portfolio Current and Projected



MWD has two main sources of supply, the California State Water Project and the Colorado River. A complete description of all of MWD and its supplies can be found in MWD’s Regional UWMP (available on MWD’s website at www.mwdh2o.com). RMWD has relied upon the water supply information provided by the Water Authority and MWD in preparing the RMWD 2015 UWMP and for purposes of fulfilling the informational requirements of the Act.

6.2 Existing and Verifiable Local Supplies

The District does not currently obtain any of its supply from local sources. The District is studying opportunities to develop new local recycled water and groundwater supplies, but these projects are in evaluation and have not yet advanced to a level of certainty sufficient to include as verifiable components of the District’s future supply portfolio.

The remainder of this section includes information required for the UWMP. Future local supply opportunities are addressed in **Section 6.3**.

6.2.1 Groundwater

The District does not currently utilize groundwater as an existing source of supply. The District is continuing to evaluate opportunities for development of groundwater supplies from the Bonsall Basin, as further described in Section 6.3.

Required information for the UWMP is summarized in **Table 6-1**.

Table 6-1: Groundwater Volume Pumped

<input checked="" type="checkbox"/> Supplier does not pump groundwater.						
Groundwater Type	Location or Basin Name	2011	2012	2013	2014	2015
	None	--	--	--	--	--
TOTAL		0	0	0	0	0

6.2.2 Surface Water

The District does not currently utilize surface water as an existing source of supply. Several small surface water bodies, most notably the San Luis Rey River, run through the District. However, river flows are insufficient for diversion for consideration of use as a water supply. The District has no plans to develop surface water within its service area as a water supply.

6.2.3 Stormwater

The District does not currently utilize stormwater as an existing source of supply. The district is rural and is largely undeveloped and in an undisturbed state, and its terrain is dominated by mountains and valleys. The District has no plans to develop stormwater within its service area as a water supply.

6.2.4 Recycled Water

The District does not currently utilize recycled as an existing source of supply. The District is continuing to evaluate opportunities for development of its own recycled water project, as further described in Section 6.3. Additional information required for the UWMP on wastewater generation and treatment, agency coordination, and RMWD actions to encourage the use of recycled water, is addressed below.

Wastewater Collection, Treatment and Disposal

The District operated a sewer collection system within the San Luis Rey River corridor portion of its overall service area. The remainder of the service area is more rural in character and is unsewered.

The District conveys all of the wastewater collected by its sewer system to the City of Oceanside, via an outfall sewer line located in the San Luis Rey river valley. The District has a contract in place with the City of Oceanside which allows the District to convey and have treated up to 1.5 MGD of sewage at the City of Oceanside’s San Luis Rey Water Reclamation Plant (SLRWRP). Although that capacity is available, the District does not currently produce that volume of wastewater, and in 2015 conveyed an average of only 0.54 mgd (606 AF for the year) of wastewater to the Oceanside plant.

In addition to its main sewer collection system, the District is the co-permittee for the small Oak Crest WWTP. Wastewater collection estimates are shown in **Table 6-2**.

Table 6-2: Wastewater Collection Within RMWD Service Area

Wastewater Collection			Recipient of Collected Wastewater			
Wastewater Collection Agency	Volume Metered or Estimated?	Volume (AF) from Service Area 2015	Receiving Entity	Treatment Plant Name	WWTP Located in RMWD?	Operation Contracted to Third Party?
RMWD	Metered	606	City of Oceanside	San Luis Rey WWTP	No	No
RMWD / Oak Crest Estates	Metered	13	Spray Field	Oak Crest Estates WWTP	Yes	Yes
TOTAL		619				

The only wastewater treatment or discharge within the District service area is the small Oak Crest Estates WWTP operation. Required plan information presented in **Table 6-3**.

Table 6-3: Wastewater Treatment and Discharge Within RMWD Service Area

Wastewater Treatment Plant Name	Discharge Location	Disposal Method	Treats Flows From Outside Service Area?	Treatment Level	2015 Volumes (AF)		
					Volume Treated	Recycled Within Service Area	Recycled Outside of Service Area
Oak Crest Estates	4747 Oakcrest Road, Fallbrook	Spray irrigation	No	Secondary	13	0	0
TOTAL					13	0	0

Recycled Water Coordination

As part of its Water Master Plan Update completed in 2016, the District completed a concept study which detailed how a wastewater treatment plant could be constructed within the District, the potential benefits of such a system, the potential recycled water demand available and the system that would be needed to serve recycled water to that demand. This potential project is further described in Section 6.3. As part of the concept study, the District coordinated with the City of Oceanside to explore wastewater treatment and recycled water opportunities.

Recycled Water System

Currently the District does not own or operate any recycled water distribution facilities.

Recycled Water Beneficial Uses

Recycled water has a host of potential uses, primarily exterior uses such as agricultural or landscape irrigation, wildlife habitat enhancement, wetlands maintenance, industrial reuse, groundwater recharge, indirect potable reuse and others. As mentioned previously, the District has an abundance of agriculture within its service area which would be the primary beneficiary of recycled water. Additionally, the District could potentially serve some landscape irrigation and wildlife habitat demands, but the majority of customers would likely be agricultural. In order to serve those users the District needs a supply of recycled water and needs a distribution system. The feasibility of those items is currently being investigated by the District, as further reviewed in Section 6.3.

Projected Verifiable Recycled Water Use

As of this writing the District does not have any plans for the development of recycled water which would qualify under the UWMP process as verifiable. Therefore, in the official UWMP tables reported with this document the District will show no projected recycled water beneficial uses.

Required plan information pertaining to recycled water use is presented below in **Tables 6-4 and 6-5**.

Table 6-4: Current and Projected Recycled Water Uses Within Service Area

Beneficial Use Type	General Description	Level of Treatment	2015	2020	2025	2030	2035	2040
Agricultural irrigation			--	--	--	--	--	--
Landscape irrigation			--	--	--	--	--	--
Golf course irrigation			--	--	--	--	--	--
Commercial use			--	--	--	--	--	--
Industrial use			--	--	--	--	--	--
Geothermal /other energy			--	--	--	--	--	--
Recreational impoundment			--	--	--	--	--	--
Wetlands or wildlife habitat			--	--	--	--	--	--
Groundwater recharge (IPR)*			--	--	--	--	--	--
Indirect Potable Reuse			--	--	--	--	--	--
Direct potable reuse			--	--	--	--	--	--
TOTAL:			0	0	0	0	0	0

NOTES: The District is studying a possible Water Reclamation Facility to develop a supply of recycled water for use within the District service area. The project remains at the "Planned" level and the District does not yet classify potential yield of the project as a "Verifiable" supply.

Table 6-5: Projected vs. Actual 2015 Recycled Water Use (AF/yr)

Use Type	2015 Projection from 2010 UWMP	Actual 2015 Use
Agricultural irrigation	--	--
Landscape irrigation (excludes golf courses)	--	--
Golf course irrigation	--	--
Commercial use	--	--
Industrial use	--	--
Geothermal and other energy production	--	--
Seawater intrusion barrier	--	--
Recreational impoundment	--	--
Wetlands or wildlife habitat	--	--
Groundwater recharge (IPR)	--	--
Surface water augmentation (IPR)	--	--
Direct potable reuse	--	--
TOTAL	0	0

Actions to Encourage and Optimize Future Recycled Water Use

California’s Recycling Law (CWC § 13500, et seq.) establishes a policy to encourage the use of recycled water and provides that the use of potable domestic water for the irrigation of green belt areas, cemeteries, golf courses, parks, and highway landscaped areas constitutes an unreasonable use of water where recycled water is available for such uses, as further set forth by statute. Among other provisions, CWC §§ 71610 and 71611 authorize RMWD to provide and sell recycled and non-potable water within the District’s service area.

District actions to encourage and optimize the future use of recycled water within the District service area are summarized in **Table 6-6**.

Table 6-6: Projects to Expand Future Recycled Water Use

Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Use (AF/YR)
WRF Feasibility Study	The District is studying a possible Water Reclamation Facility to develop a supply of recycled water for use within the District service area. The project remains at the "Planned" level and the District does not yet classify potential yield of the project as a "Verifiable" supply.	TBD	TBD
TOTAL			TBD

6.2.5 Desalinated Water Opportunities

The District does not currently use any desalinated water supply sources. Within San Diego County, desalination has recently become a significant source of supply with the completion and operation of the Poseidon Carlsbad Desalination Project in Carlsbad, which adds 50 MGD of desalinated water to the SDCWA supply portfolio.

The District’s plans for possible development of a brackish groundwater desalting project are described in Section 6.3.

6.2.6 Exchanges or Transfers

The District relies entirely upon water purchased from the Water Authority, but does participate in emergency transfers with neighboring agencies in order to improve reliability. The District has interconnections with the City of Oceanside at the City’s Weese Water Treatment Plant and with the Fallbrook Public Utility District (FPUD). The UWMP Act encourages transfers and exchanges of water between agencies in order to improve the reliability and quality of agency water supplies. In addition to the existing interconnections, RMWD has in its CIP from its most recent Water Master Plan Update to add additional interconnections to the FPUD system. The proposed new interconnections will provide additional reliability to some of the District’s water pressure zones which need additional fire flow capacity or supply redundancy.

Regional exchanges and transfers being pursued by the MWD and SDCWA are documented in those agencies Regional UWMPs.

6.3 Possible Future Local Supplies

The District is currently conducting and reviewing studies of two possible local supply projects, as described below.

6.3.1 Recycled Water Project

In September 2015 the District completed a preliminary study (Atkins, 2015) examining the feasibility of constructing a District-owned wastewater reclamation facility and recycled water distribution system. These facilities would be capable of delivering up to approximately 1,500 AF/YR of recycled water to District customers, reducing potable water demands by a like amount. The District is currently embarked on more detailed preliminary design studies to confirm the feasibility of the project.

At present, the District conveys the entirety of the wastewater collected within its sewer service area to the City of Oceanside for treatment and disposal. In light of recent and ongoing drought conditions within southern California, the District has contemplated whether construction of its own water recycling project would be more cost effective and resource-efficient than continued conveyance of wastewater flows to the City. The 2015 preliminary study considered several options of plant siting, sizing, and other factors, and compared the overall costs and benefits of these to the No Project alternative of continued wastewater conveyance to Oceanside.

6.3.2 Groundwater Desalter

In January 2016 the District completed a preliminary study (West Yost Associates, 2016) examining the feasibility of developing local San Luis Rey River basin groundwater resources² for District use. The project would include a well field, and either the construction of a Rainbow groundwater desalting plant, or the conveyance to an expansion of the City of Oceanside's existing groundwater desalting plant for treatment and exchange of supply back to the District. The preliminary study examines a project developing up to 4,000 AF/YR of new treated supply. The groundwater to be developed originates as District-supplied imported water to the basin, and percolates to the groundwater as a result of agricultural irrigation and soil salinity management practices. As such, the District classifies the project as an Imported Water Return Flow Reclamation project.

The District is evaluating the findings of the preliminary study prior to committing to further action on the project. Although the preliminary results of the study appear promising, the District recognizes that additional engineering and environmental evaluations will be necessary to confirm project feasibility and sizing. For purposes of this UWMP, the District anticipates that a Phase I groundwater project would be sized for production of approximately 2,000 AF/yr, and that future expansions to higher capacities may be possible but are subject to various planning uncertainties.

6.3.3 Summary of Possible Local Supply Volumes

For purposes of supply planning, the Water Authority in its Regional UWMP distinguishes between local supply projects that are Verifiable, Planned, or Conceptual. Verifiable projects are those projects that have a high level of certainty of being completed, such that they can be relied on as an assured component

² Groundwater in the Bonsall basin is classified by the State Water Resources Control Board as an underground stream, and as such is governed by surface water right doctrines.

of the region’s future supply portfolio. Planned projects are those that have been subject to affirmative feasibility investigations, but which have additional permitting, environmental, and/or financial approval hurdles remaining before they are implemented. Conceptual projects are, as the name implies, project concepts that have not been subject to formal study or that have significant uncertainties or obstacles to implementation.

For formal UWMP reporting, the District has included only verifiable projects in its official projections of future supply availability, as summarized in **Table 6-7** below. The table reflects that the District does not have any future local supplies that have yet advanced to the level of Verifiable.

Table 6-7: Verifiable Future Water Supply Projects

Name of Future Projects or Programs	Joint Project with other agencies?	Description	Planned Implementation Year	Planned for Use in Year Type	Expected Supply (AF/yr)
None					0

NOTES: Only "Verifiable" projects are included. Verifiable = CEQA satisfied, permits in hand, or contracts have been executed. The District is studying possible Water Recycling and Groundwater projects, but these remain at the "Planned" and "Conceptual" levels of development and the District does not yet classify potential yields of these projects as "Verifiable" supplies.

The District’s projections of Planned and Conceptual future local supplies are summarized in **Tables 6-7P and 6-7C** below. These tables are not part of the official UWMP table set and are provided for supplemental information only.

Table 6-7P: Additional Planned Future Water Supply Projects

Name of Future Projects or Programs	Joint Project w/ other agencies?	Description	Possible Implementation Year	Planned for Use in Year Type	Possible Supply (AF/yr)
Rainbow Recycled Water Project – Initial Phase	No	The project would produce recycled water for irrigation uses within the District service area.	2020 to 2025	All (baseline supply)	1,000
Bonsall Groundwater Desalter – Initial Phase	No	The project would treat brackish groundwater for potable use within the District service area	2020 to 2025	All (baseline supply)	2,000
TOTAL:					3,000

NOTES: Only "Planned" projects are included. Planned projects are those that have been subject to affirmative feasibility investigations, but which have additional permitting, environmental, and/or financial approval hurdles remaining before they are implemented. This table is not part of the official DWR UWMP table set and is presented as supplemental information only.

Table 6-7C: Additional Conceptual Future Water Supply Projects

Name of Future Projects or Programs	Joint Project with other agencies?	Description	Conceptual Implementation Year	Planned for Use in Year Type	Conceptual Supply (AF/yr)
Rainbow Recycled Water Project Expansion	No	Possible expansion of Planned project	2025 to 2030	All (baseline supply)	500
Bonsall Groundwater Desalter Expansion	No	Possible expansion of Planned project	2025 to 2035	All (baseline supply)	2,000
TOTAL:					2,500

NOTES: Only "Conceptual" projects are included. Conceptual projects are those project concepts that have not been subject to formal study or that have significant uncertainties or obstacles to implementation. This table is not part of the official DWR UWMP table set and is presented as supplemental information only.

6.4 Summary of Existing and Planned Sources of Water

Chapter 6 has served to identify all of the District’s existing, planned and potential water supply sources available to meet the District’s anticipated demands. As discussed, the District is studying possible future local supply projects, but these have not yet advanced to the level of Verifiable and are therefore not available to include as assured components of the District’s future supply portfolio.

Required plan information is summarized below. Table 6-8 lists the District’s sources of supply for fiscal year 2015, and **Table 6-9** lists the District’s projected source and volume of verifiable supply for the UWMP’s planning horizon.

Table 6-8: FY 2015 Water Supplies – Actual

Water Supply	Additional Detail on Water Supply	FY 2015	
		Volume (AF)	Water Quality
Purchased or Imported Water	San Diego County Water Authority	20,062	Drinking Water
TOTAL		20,062	

Table 6-9: Water Supplies – Projected

Water Supply	Description	Projected Water Supply				
		2020	2025	2030	2035	2040
Purchased or Imported Water	San Diego County Water Authority	20,810	20,820	20,830	20,850	20,660
Groundwater		0	0	0	0	0
Recycled Water		0	0	0	0	0
TOTAL		20,810	20,820	20,830	20,850	20,660

NOTES: Only "Verifiable" projects are included in this table. Verifiable = CEQA satisfied, permits in hand, or contracts have been executed.

6.5 Climate Change – Influence on Water Supply

CWA has evaluated the potential influence of climate change on its supply, on which OMWD is reliant for its potable supply. The following summarizes CWA's analysis and is excerpted from the April 2016 draft of their Regional UWMP.

[Excerpt from CWA Draft Regional UWMP, April 2016]

The term climate change refers to changes in long-term averages of daily weather. Changes to climate will be gradual, providing water supply agencies the ability to adapt planning strategies to manage for the supply uncertainties. The effect on supply would be gradual and captured in each five-year update to the UWMP.

Researchers have concluded that increasing atmospheric concentrations of greenhouse gases, such as carbon dioxide, are causing the Earth's air temperature to rise. While uncertainties remain regarding the exact timing, magnitude, and regional impacts of the temperature and potential precipitation changes due to climate change, researchers have identified several areas of concern that could influence long-term water supply reliability. These potential areas are listed below:

- **Loss of Natural Snowpack Storage.** Rising temperatures reduce snowpack in the Sierra Nevada because more precipitation falls as rain, and snowmelt occurs sooner. Snowpack in the Sierra Nevada is the primary source of supply for the State Water Project. Snowpack is often considered a large surface "reservoir," where water is slowly released between April and July each year. Much of the state's water infrastructure was designed to capture the slow spring runoff and deliver it during the drier summer and fall months. The California Department of Water Resources projects that the Sierra snowpack will experience a 25 to 40 percent reduction from its historic average by 2050.
- **Sea Level Rise.** Rising sea levels could increase the risk of damage to water and water recycling facilities from storms, high-tide events, and erosion of levees. A potential catastrophic levee failure in the Delta could interrupt supplies from the State Water Project, potentially reducing supply deliveries to the San Diego region from Metropolitan. In addition, rising sea levels could cause saltwater intrusion into the Delta, degrading drinking water quality. More freshwater releases from upstream reservoirs would be required to repel the sea to maintain salinity levels for municipal, industrial, and agricultural uses.
- **Changes in Average Precipitation and Runoff Volume.** The effect of climate change on overall precipitation and runoff volumes is still unclear and highly uncertain. For example, a number of studies conclude that the flow of the Colorado River may be reduced by climate change, but a wide disparity exists on the predicted volume. The yield from local surface water resources could potentially be reduced, if annual runoff volumes are reduced due to a decline in precipitation or there is an increase in evapotranspiration in reservoirs. It must be highlighted that research is still highly unclear on how precipitation levels may be impacted by climate change.
- **Change in Frequency and Intensity of Droughts.** Warming temperatures, combined with potential changes in rainfall and runoff patterns, could exacerbate the frequency and intensity of droughts.

7.0 Water Supply Reliability

The District is currently 100 percent reliant on SDCWA for its potable water supply and therefore, the water supply reliability assessment in this chapter is based upon the SDCWA assessment from its 2015 Regional UWMP (www.sdcwa.org/uwmp). SDCWA has a number of sources of water including MWD, the recently completed Carlsbad Seawater Desalination Project, and water conserved from the Imperial Irrigation District and the lining of the All American and Coachella Canals and other sources as described in their UWMP. The District is investigating several water resource projects that would reduce dependence on SDCWA, as described in section 6. These projects are in the feasibility stage of analysis and are not yet considered in the reliability assessment.

7.1 Constraints on Water Sources

Except for dry years, the supply from SDCWA is very consistent in quantity and quality, and with sufficient capacity to meet summer peak demands without any delivery constraints. SDCWA's and MWD's main sources of supply are the State Water Project and the Colorado River and both sources face legal, environmental, and climatic challenges. To address these challenges to the State Water Project supply, DWR is going through a permitting process known as California WaterFix and EcoRestore. It has been documented that the Colorado River supply is oversubscribed, and to address this SDCWA and MWD have implemented a number of conservation, land fallowing, transfer, and storage projects. The seven Colorado River Basin states are working cooperatively to develop strategies to better match supply and demand. Both the State Water Project and the Colorado River are described in the SDCWA and MWD 2015 Regional UWMPs.

The RMWD potable water supply is produced by the SDCWA Carlsbad Seawater Desalination Project, the SDCWA Twin Oaks Valley Water Treatment Plant in San Marcos, or the MWD Skinner Water Treatment Plant in Riverside County.

RMWD meets or exceeds all state and federal water quality standards for drinking water. RMWD publishes an annual water quality report, the Consumer Confidence Report, which is mailed to all its customers, posted on its web page, and displayed in its lobby. The most recent report is available at: www.rainbowmwd.com/2016-table-d-water-reports). RMWD does not anticipate any shortage or impact to availability of supply due to water quality issues. SDCWA's Regional UWMP Section 7 provides additional information on the quality of water provided to RMWD.

7.2 Reliability by Type of Year

Historically, the SDCWA supply has been very reliable with only occasional reductions during droughts in California or the Colorado River Watershed. **Table 7-1** shows the basis of water year data and is based on SDCWA's UWMP. SDCWA supplies of conserved water from its Imperial Irrigation District transfer and the All American and Coachella Canal Lining projects are considered to be "drought-resilient." For dry-year analysis, SDCWA assumes that the MWD supplies will be allocated according to its preferential right formula. Additional shortages are handled through the use of SDCWA's carryover storage and management actions such that there are no shortages to member agencies for the single and multiple dry-year scenarios. SDCWA's dry-year supplies are described in Section 11.2.4 of its Regional UWMP. The carryover storage capacity is nearly 100,000 AF in the San Vicente Reservoir, the Semitropic-Rosamond Water Bank Authority and the Semitropic Water Bank. SDCWA may also consider securing transfer

supplies during dry years and in 2009 acquired 20,000 AF from Placer County Water Agency in northern California.

Table 7-1: Basis of Water Year Data

Year Type	Base Year	% of Average Supply
Average Year	2013	100%
Single-Dry Year	1989	100%
Multiple-Dry Years 1st Year	2015	100%
Multiple-Dry Years 2nd Year	2015	98%
Multiple-Dry Years 3rd Year	2015	92%

NOTES: SDCWA supplies from its Imperial Irrigation District transfer, the All American and Coachella Canal Lining projects, and the Carlsbad Seawater Desalination project are considered "drought- resilient." SDCWA assumes that MWD supplies will be allocated according to its preferential right formula. In the second dry year in 2035, a shortage of 2 percent is forecast after using carryover storage supplies and will be handled with management actions. In the third dry year starting in 2025, shortages of from 1 to 8 percent are forecast after using carryover storage supplies and will be handled with management actions.

7.3 Supply and Demand Assessment

7.3.1 SDCWA Demand Forecast

Since the mid-1990s, SDCWA has utilized an econometric model to develop its long-range municipal and industrial (M&I) demand forecasts. This computer model is based on the U.S. Army Corps of Engineers Municipal And Industrial Needs (MAIN) model, which has over a quarter of a century of practical application and is used by many cities and water agencies throughout the United States. SDCWA’s version of the model, known as CWA-MAIN, was modified by a consultant to reflect the San Diego region’s unique parameters. The CWA-MAIN model relates historic water demand patterns to variables such as household income, consumer response to the price of water, and weather, to predict future M&I water demands. These datasets are compiled from various sources, including SANDAG, SDCWA member agencies, and the National Aeronautics and Space Administration. Under the terms of a 1992 memorandum of agreement between SDCWA and SANDAG, SDCWA utilizes SANDAG’s official forecast, which is based on local land use jurisdiction’s general plans and policies, to project consumptive water demands for the region. This coordination ensures linkage between local jurisdictions’ general plans and SDCWA’s projected water demands.

7.3.2 Normal Year Supply and Demand Assessment

If MWD, SDCWA, and RMWD supplies are developed as planned, along with achievement of the Water Conservation Bill of 2009 retail conservation target, no shortages are anticipated within RMWD’s service area in a normal year through 2040. As part of preparation of its UWMP, SDCWA identified RMWD’s demands and in turn, MWD identified SDCWA’s demands in MWD’s UWMP, which are shown to be adequate to cover the demands for the entire San Diego region.

7.3.3 Dry Year Supply and Demand Assessment

SDCWA identified 1989 as the representative single dry-year and its weather patterns were substituted into the CWA-MAIN model to estimate demands. The CWA-MAIN model could not be applied for multiple dry-year forecasts because it was constructed to forecast in discreet 12-month periods. Instead, SDCWA correlated trends in historical deliveries with multi-year trends in observed precipitation to construct a set of consecutive dry year forecasts. RMWD calculated ratios of SDCWA dry year to normal year demands and applied the ratios to RMWD normal year demands to estimate dry year demands. More information on the forecasts can be found in the SDCWA UWMP.

The procedure to allocate SDCWA’s supplies to its member agencies is defined in the SDCWA Water Shortage and Drought Response Plan dated May 2006 and updated in April 2010 and November 2014. RMWD has utilized this methodology to estimate its dry year allocation. The basic steps include:

1. Forecast RMWD normal demands.
2. Subtract water that is in the Transitional Special Agricultural Rate program to obtain net demands.
3. Adjust the demands for growth by adding the population increase times the 2020 urban water use target.
4. Add 30 percent of the average future verifiable local supplies to obtain the adjusted base period demands.
5. Divide the adjusted base period demands by the total SDCWA normal demands to get the RMWD percentage. SDCWA demands were increased by 30 percent to account for all member agencies implementing step 4.
6. Apply this percentage to SDCWA dry-year supplies.

Tables 7-2, 7-3, and 7-4 provide normal, single dry year, and multiple dry years supply and demand comparisons.

Table 7-2: Normal Year Supply and Demand Comparison

	2020	2025	2030	2035	2040
Supply totals (AF)	20,810	20,820	20,830	20,850	20,660
Demand totals (AF)	20,810	20,820	20,830	20,850	20,660
Deficit (AF)	0	0	0	0	0
% of Demands	0%	0%	0%	0%	0%

Table 7-3: Single Dry Year Supply and Demand Comparison

	2020	2025	2030	2035	2040
Demand totals	22,188	22,296	22,321	22,459	22,188
Supply totals	21,362	20,849	20,753	20,915	21,362
Deficit (AF)	826	1,447	1,568	1,544	826
% of Demands	4%	6%	7%	7%	4%

Notes: Same as first year of Multiple Dry Year analysis from Table 7-4, per Water Authority supply allocation policy. Assumes dry-year increase in demands. Assumes minimum 15 percent reduction in TSAWR program deliveries.

Table 7-4: Multiple Dry Years Supply and Demand Comparison

		2020-22	2025-27	2030-32	2035-37
First year	Demand totals (AF)	22,188	22,296	22,321	22,459
	Supply totals (AF)	21,362	20,849	20,753	20,915
	Deficit (AF)	826	1,447	1,568	1,544
	% of Demands	4%	6%	7%	7%
Second year	Demand totals	22,051	22,372	22,418	22,516
	Supply totals	21,105	20,476	20,894	21,224
	Deficit (AF)	946	1,896	1,524	1,292
	% of Demands	4%	8%	7%	6%
Third year	Demand totals	21,922	22,449	22,516	22,573
	Supply totals	20,868	20,745	20,724	20,670
	Deficit (AF)	1,054	1,704	1,792	1,903
	% of Demands	5%	8%	8%	8%

Notes: Per Water Authority supply allocation policy. Assumes dry-year increase in demands. Assumes minimum 15 percent reduction in TSAWR program deliveries.

7.4 Regional Supply Reliability

SDCWA and its member agencies are considering many options to maximize the use of local water resources and minimize the need to import water from other regions including groundwater, water recycling, potable reuse, and seawater desalination. San Diego County has limited surface water resources and these are currently being managed to the fullest yield possible. The Water Authority’s projections of verifiable supplies of local groundwater, recycled water, and potable reuse projects are summarized in **Table 7-A**.

Table 7-A: Regional Options to Maximize the Use of Local Water

Option	2015	2020	2025	2030	2035	2040
Groundwater	23,773	31,240	32,430	33,470	37,470	33,470
Recycled Water	32,595	47,460	48,825	48,959	49,159	49,459
Potable Reuse	0	3,360	5,000	5,000	5,000	5,000

Groundwater

The local groundwater projects include the City of Oceanside and Sweetwater Authority brackish groundwater recovery projects known as the Mission Basin Desalter and the Richard A. Reynolds Desalination Facility. Other future projects not included in the table are the Otay Water District Rancho del Rey Well, and the Fallbrook Public Utilities District – Marine Corps Base (MCB) Camp Pendleton Conjunctive Use Project.

Recycled Water

The recycled water projects that contribute to the growth in supplies shown in Table 7-A are the City of Oceanside San Luis Rey WRF expansion, the Carlsbad Water Recycling Facility expansion and the City of Escondido Advanced Water Treatment for Agriculture Project. Additional projects are planned by Padre Dam MWD, MCB Camp Pendleton, and Santa Fe Irrigation District.

Potable Reuse

The potable reuse volumes shown in Table 7-A are for the City of Oceanside Indirect Potable Reuse Project. A very significant planned project not included in the table is the City of San Diego Pure Water San Diego project with a goal of 83 million gallons per day (93,000 AF/YR) by 2035. The East County Potable Reuse Program is planned for a minimum of 2 mgd (2,240 AF/YR).

Seawater Desalination

SDCWA has contracted for the purchase of 56,000 AF/YR from the Carlsbad Seawater Desalination Project and operation began in December 2015. Otay Water District is in discussions with Consolidated Water Company, Ltd. to purchase up to 56,000 acre-feet of desalinated seawater from a plant proposed for Rosarito Beach, Baja California, Mexico. The Otay Water District has completed an Environmental Impact Report/ Environmental Impact Statement and is working with the Department of State to obtain a Presidential Permit to convey the water across the international border. SDCWA along with other U.S. and Mexican agencies have developed a conceptual level project known as the Rosarito Beach Binational Desalination Project which could produce up to 56,000 AF/YR. The partners have completed a feasibility analysis of the site, an assessment of demands, and a review of environmental permitting. There are no continuing studies currently underway.

An additional planned project is the SDCWA MCB Camp Pendleton Seawater Desalination Project with a planned capacity of between 56,000 and 168,000 AF/YR. The feasibility of this project is being evaluated as a long-term resources strategy to manage future supply uncertainties. SDCWA and MCB Camp Pendleton have signed a memorandum of understanding to provide a framework for cooperation during the performance of additional technical and environmental studies. Seawater intake technologies are currently being tested at MCB Camp Pendleton.

A more complete description of these options can be found in the SDCWA Regional UWMP, Sections 4 and 5.

7.5 Managing Supply Uncertainties and Vulnerabilities

To address the various uncertainties and vulnerabilities of its water supply, the Water Authority has identified a range of adaptive strategies as described in Section 10 of its 2015 Regional UWMP. These strategies address uncertainties relative to legal and environmental issues on the State Water Project and Colorado River Aqueduct supplies, climate change, and other factors. As the District is dependent on CWA for its potable supply, the Water Authority strategies address the water supply planning needs of the District. As noted in Section 7.1, the District’s supply is not subject to any seasonal constraints or vulnerabilities.

The following summarizes CWA’s strategies for addressing supply uncertainties and vulnerabilities, and is excerpted from Section 10 the April 2016 draft of the Water Authority’s Regional UWMP. (The Table numbering is from the CWA document and does not follow the chapter numbering used in the RWMD UWMP.)

[Excerpt from CWA Draft Regional UWMP, April 2016]

Table 10-3 contains strategies the Water Authority can employ to aid in the implementation of the supplies identified in the projected resource mix and manage uncertainty scenarios. The strategies focus on programs, many of which are already being implemented consistent with Water Authority Board policy.

Table 10-3. Potential Common Strategies to Strengthen Implementation of Projected Resource Mix and Manage Uncertainty Scenarios

Potential Water Authority Policies/Programs
<p>Foundational Strategy</p> <ul style="list-style-type: none"> • Reduce reliance on Metropolitan supply sources to ensure the existing and projected water resource mix is reliable and drought-resilient
<p>Member Agency Local Projects</p> <ul style="list-style-type: none"> • Provide technical assistance to member agencies in the planning, design, and construction of local projects • Advocate at local, state, and federal level for minimizing regulatory constraints and enacting acceptable and practicable regulatory standards that allow member agencies to maximize local supply project development. • Advocate for state and federal funding for local projects and work with agencies to ensure projects qualify for funding.
<p>Water Conservation</p> <ul style="list-style-type: none"> • Advocate at local, state, and federal level for minimizing regulatory constraints and enacting acceptable and practicable regulatory standards that allow member agencies to maximize local supply project development. • Advocate for state and federal funding for local projects and work with agencies to ensure projects qualify for funding.
<p>Climate Change</p> <ul style="list-style-type: none"> • Encourage focused scientific research on climate change to identify the impacts on the San Diego region’s imported and local water supplies.

In addition to the policies and programs identified in Table 10-3, Table 10-4 provides a list of the potential management strategies that the Water Authority and member agencies can take in regard to managing the uncertainty scenarios and filling potential gaps. As discussed in Section 9.5, development of additional planned projects is critical in order to continue reducing the region’s

reliance on Metropolitan supply sources and increase the region’s self-reliance. In addition, member agency projects, such as potable reuse, not only provide the agency a supply reliability benefit, but can also provide other benefits, such as reducing wastewater flows to a downstream treatment plant and ultimately the ocean.

Table 10-4. Potential Strategies to Manage Uncertainty Scenarios (2035)

Potential Strategy	Estimated Yield (AF)
Member Agency Potential Additional Planned Local Projects¹	
• Additional Planned Recycled Water and Brackish Groundwater	3,296
• Potable Reuse	106,099
• Fallbrook PUD/Camp Pendleton Groundwater Recharge and Recovery Project	3,100
• Otay WD Rosarito Beach Desalination Project	16,100
Total Additional Planned Local Projects (Member Agencies):	128,595
Water Authority Potential Strategies	
• Potential Regional Seawater Desalination Facility (Camp Pendleton Phase I) ² :	56,000
• Regional Shortage Management Actions (Dry-year transfers and potential extraordinary conservation savings)	--3
Total Minimum Estimated Yield from Potential Strategies:	184,595
<ol style="list-style-type: none"> 1. The estimated yields from the additional planned local supply projects are from the member agencies and the development and implementation of these supplies rests with the member agencies. 2. Ultimate decision to move forward on construction of the proposed Pendleton desalination project would be considered in context of the development of member agency local supplies, such as potable reuse, changes in imported supply reliability, and regional water demand levels. 3. Availability of dry-year supplies is described in Section 11.2.4. 	

In regard to Scenario 6: Climate Change, the strategies outlined in Tables 10-3 and 10-4 can also be utilized to manage the supply uncertainties associated with a changing climate. For example, the foundational strategy to diversify the region’s resource mix through development of local projects, such as recycled water and seawater desalination, reduces reliance on imported and local surface supplies, whose yields could potentially decrease as a result of climate change. The strategies identified in this section provide supply reliability benefits within the planning horizon, while increasing the ability to manage potential climate change impacts in the future

8.0 Water Shortage Contingency Planning

RMWD has prepared for periods of water supply shortage by adopting on June 23, 2015 its Drought Response Conservation Program Ordinance (No. 15-08), which may be considered a water shortage contingency ordinance. The ordinance provides for progressively severe stages of water use restrictions as necessary to accomplish service area-wide water use reductions of up to and over 40 percent. The ordinance is summarized below and a copy of the ordinance can be found in **Appendix G**. The ordinance describes the effects that a drought or water supply shortage may have on RMWD's water supply, its water conservation stages, and the implementation, violation, and penalties of the stages.

RMWD participated in the cooperative effort between the San Diego County water agencies general managers and SDCWA in the creation of the Regional Drought Response Plan and then incorporated it in developing its own plan. Additional discussion regarding SDCWA's Drought Response Plan can be found in Section 11 of their 2015 UWMP.

8.1 Stages of Action

The RMWD Water Supply Shortage Ordinance contains four (4) levels (stages) of action as shown in **Table 8-1** below. Level 1 is voluntary while Levels 2 through 4 are mandatory and include options for assessing penalties for violations.

Table 8-1: Stages of Water Shortage Contingency Plan

Stage	Percent Supply Reduction	Water Supply Condition
1	10%	Reasonable probability that there will be supply shortages and that a consumer demand reduction is required in order to ensure that sufficient supplies will be available to meet anticipated demands, or due to drought and/or other water supply reductions.
2	20%	Due to cutbacks caused by a drought or other reduction in supplies, a consumer reduction is required to have sufficient supplies available to meet anticipated demands. Required to comply with emergency regulations imposed on the District by state or federal agencies.
3	40%	When the SDCWA notifies its member agencies that, due to increasing cutbacks caused by a drought or reduction of supplies, a consumer demand reduction is required in order to have sufficient supplies available to meet anticipated demands. If required to comply with emergency regulations imposed upon the District by state or federal agencies.
4	40+%	When the SDCWA Board of Directors declares a water shortage emergency pursuant to California Water Code Section 350 and notifies its member agencies that Level 4 requires a demand reduction in order for the RMWD to have maximum supplies available to meet anticipated demands. If required to comply with emergency regulations imposed upon the District by state or federal agencies.

NOTES: Based on RMWD Water Supply Shortage Ordinance No. 15-08 dated June 23, 2015. Level (Stage) 4 addresses a water shortage of 50%.

8.2 Prohibitions on End Uses

The RMWD Water Supply Shortage Ordinance contains restrictions and prohibitions on end uses, associated with Levels 1 through 4, as shown in **Table 8-2**.

Table 8-2: Restrictions and Prohibitions on End Uses

Restrictions and Prohibitions on End Users	Stage	Additional Explanation or Reference	Penalty?
1. Other - Prohibit use of potable water for washing hard surfaces	1,2,3,4		No
2. Landscape - Restrict or prohibit runoff from landscape irrigation	1,2,3,4		No
3. Landscape - Limit landscape irrigation to specific times	1,2,3,4	Before 10 AM and after 6 PM Residential and Commercial	No
4. Other - Require automatic shut-off hoses	1,2,3,4	Includes vehicle washing.	No
5. Other - Customers must repair leaks, breaks, and malfunctions in a timely manner.	1,2,3,4	Time to repair is dictated by Level	No
6. Water Features – Use re-circulated water to operate ornamental fountains	1,2,3,4		No
7. CII - Restaurants may only serve water upon request	1,2,3,4		No
8. CII - Lodging establishment must offer opt out of linen service	1,2,3,4		No
9. Other – Use recycled or non-potable water for construction purposes, when available.	1,2,3,4		No
10. Landscape - Limit landscape irrigation to specific days	2, 3, 4	Number of days depends on Level	Yes
11. Landscape - Other landscape restriction or prohibition	2, 3, 4	Limit time per irrigation system station	Yes
12. Landscape - Other landscape restriction or prohibition	2,3,4	Discontinue landscape irrigation during and within 48 hours of measureable rain	Yes
13. Water Features - Restrict water use for pools, spas, decorative water features, such as fountains, or other water features	3, 4		Yes
14. Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	3, 4		Yes
15. Other - No new potable water service and no statements of immediate ability to serve or provide water service.	3,4		
16. Other - Suspend considerations of annexations.	3,4		
17. Other – Water allocation	3, 4	Option to establish a water allocation for property served by the District.	Yes
18. Landscape - Prohibit all landscape irrigation	4	Certain uses are exempt.	Yes

NOTES: Based on RMWD Water Supply Shortage Ordinance No. 15-08 dated June 23, 2015. Penalties may be imposed at Levels (Stages) 2, 3, and 4.

8.3 Penalties, Charges, Other Enforcement of Prohibitions

Each stage of the District’s water shortage ordinance has specific prohibitions, penalties and consumption reduction methods. The violation of the ordinance is a misdemeanor pursuant to sections 350-358, 375-377 and 71640-71644 of California Water Code and punishable by imprisonment in the county jail for not more than 30 days or a fine not to exceed \$1000 or both. The complete text of the ordinance is included in **Appendix G**.

8.4 Consumption Reduction Methods

The RMWD consumption reduction methods, along with the Level at which they are implemented, are listed in **Table 8-3**.

Table 8-3: Water Shortage Contingency Plan Consumption Reduction Methods

Reduction Methods	Stage	Notes
1. Expand Public Information	1	RMWD, SDCWA, and MWD efforts
2. Increase Meter Read Frequency	1	The District has included funds to implement Advanced Metering Infrastructure (AMI) throughout its service area.
3. Offer Water Use Surveys	1	By SDCWA and Mission Resource Conservation District (MRCD)
4. Provide Rebates on Plumbing Fixtures and Devices	1	MWD provided rebates.
5. Provide Rebates for Landscape Irrigation Efficiency	1	MWD provided rebates.
6. Provide Rebates for Turf Replacement	1	MWD provided rebates for turf replacement in the District until funding exhausted.
7. Reduce System Water Loss	1	Ongoing process
8. Provide Rebates on Plumbing Fixtures and Devices	1	SDCWA and MWD provide water saving devices including buckets, soil moisture sensors, rain gauges, hose shut off nozzles, toilet leak detecting dye, low-flow faucet aerators, and reusable water bottles.
9. Increase Water Waste Patrols	2	RMWD has an online form and also a hotline to report waste.
10. Moratorium or Net Zero on New Connections	3	Optional
11. Implement or Modify Drought Rate Structure or Surcharge	2	Level 2 Drought Rates have been in effect since the Governor's conservation order.

8.5 Determining Actual Water Use Reductions

To measure effectiveness of the water use reduction methods imposed, the District monitors customer sales and daily delivery system deliveries. All District customers are metered.

8.6 Revenue and Expenditure Impacts

The District's rate structure includes a combination of fixed meter charges and variable tiered volumetric rates. In addition, the rate structure includes automatic adjustments tied to implementation of the progressive stages of the District's drought response ordinance. In this manner, water rates and District revenues automatically adjust during drought restrictions to maintain revenues approximately equal to operating costs, such that the District suffers no adverse financial effects.

8.7 Catastrophic Supply Interruption

A catastrophic water shortage occurs when a disaster such as an earthquake results in insufficient available water to meet the region's needs or eliminates access to imported water supplies. The Water Authority's Emergency Response Plan (ERP) and the Emergency Storage Project (ESP) are designed to protect public health and safety and to prevent or limit economic damage that could occur from a severe shortage of water supplies.

Emergency Response Plan

The ERP covers concepts such as the authorities, policies, and procedures associated with emergency response activities, emergency staffing, management, and organization required to assist in mitigating any significant emergency or disaster, mutual aid agreements and covenants that outline the terms and conditions under which mutual aid assistance will be provided and Pre-emergency planning and emergency operations procedures. The ESP identifies and implements plans to acquire additional storage facilities. The ERP includes:

- Authorities, policies, and procedures associated with emergency response activities;
- Emergency Operations Center activities, including activation and deactivation guidelines;
- Multi-agency and multi-jurisdictional coordination, particularly between the Water Authority, its member agencies (including the District), and Metropolitan;
- Emergency staff, management, and organization required to assist in mitigating any significant emergency or disaster;
- Mutual Aid agreements and covenants that outline the terms and conditions under which mutual aid assistance will be provided; and
- Pre-emergency planning and emergency operations procedures.

Emergency Storage Project

The ESP is a system of reservoirs, pipelines, and other facilities that work together to store and move water around the county in the event of a natural disaster. The last phase of the project, which includes facilities necessary to serve the northern portions of RMWD, is expected to be completed by 2019. When completed, the ESP will provide the capacity to delivery at least 75% of normal peak summer demands throughout the Water Authority service area for a duration of two months, until repairs to the supply system can be implemented.

Additional information on the ESP is available for review on the Water Authority's website, at www.sdcwa.org/emergency-storage-project.

8.8 Minimum Supply Next Three Years

Agencies are required to estimate the minimum water supply available during each of the next three years, based on the driest three-year historic sequence, compared with a normal water year. To determine the minimum supplies potentially available to the region, SDCWA made the same assumptions contained in their multi dry-year analysis. **Table 8-4** presents the District minimum supply for the next three years and was estimated based on the SDCWA minimum supply for the next three years and the Water Shortage and Drought Response Plan allocation methodology. Based on current supply and storage conditions statewide, SDCWA is not currently forecasting this supply scenario.

Table 8-4: Minimum Supply Next Three Years

	2017	2018	2019
Available Supply (AF)	17,803	18,560	19,408

Notes: Based on Table 11-5 SDCWA 2015 UWMP and CWA Water Shortage and Drought Response Plan. Assumes minimum 15 percent reduction in TSAWR program deliveries.

9.0 Demand Management Measures

9.1 Overview – Conservation Best Management Practices

Demand Management Measures are programs and policies to conserve water. In the District service area, the District, SDCWA, and MWD together provide a comprehensive package of demand management programs and policies tailored to the needs of the District.

In California, urban water conservation has been studied, refined, and structured into Best Management Practices (BMPs) by the California Urban Water Conservation Council (CUWCC). As a member of CUWCC, the district has signed the CUWCC *Memorandum of Understanding Regarding Urban Water Conservation in California* (MOU). Under the terms of the MOU, the District has agreed to follow the BMPs defined by CUWCC, and to report biannually to CUWCC on the District's compliance. The District's most recent BMP report, for the two-year period ending 2014, is included in **Appendix H**. The report documents that the District, either individually or in cooperation with SDCWA and MWD, has implemented each of the BMPs in its service area and is in compliance with MOU.

The CUWCC Conservation BMPs, and the District's compliance status, are summarized in **Table 9-1**.

Table 9-1. Water Conservation BMPs and District Compliance

Type	Category	BMP	Description	Conservation Programs	Compliance
Foundation	Operations Practices	1.1.1	Conservation Coordinator	Full-time Coordinator	Yes
		1.1.2	Water Waste Prevention	By Ordinance	Yes
		1.1.3	Wholesale Agency Assistance Programs	Education Programs (Public and School) (SDCWA and MWD)	Yes
		1.2	Water Loss Control (System Water Audits, Leak Detection and Repair)	Distribution System Auditing Program	Yes
		1.3	Metering with Commodity rates	Metered By Type	Yes
		1.4	Retail Conservation Pricing	By Ordinance	Yes
	Education Programs	2.1	Public Information Programs	Water Conservation Garden Newsletters , Website, Events	Yes
		2.2	School Education Programs	Classroom Kits Video Library Awards Programs	Yes
Programmatic	Residential	3.1	Residential Assistance Program (Plumbing Retrofit)	Showerhead Distribution	Yes
		3.2	Landscape Water Survey	Residential Survey Program Residential Weather-Based Irrigation Controller Program	Yes
		3.3	High-Efficiency Washing Machine Rebate Programs	Residential High-Efficiency Clothes Washer (HEW) Program	Yes
		3.4	WaterSense Spec. Toilets	Residential Voucher Program	Yes
	Commercial Industrial	4	Commercial, Industrial, Institutional (CII)	CII Voucher Program	Yes
	Landscape	5	Landscape	SDCWA program	Yes

10.0 Plan Adoption, Submittal, Implementation

This section contains information required by the Act documenting compliance with plan adoption, submittal, and implementation requirements.

Inclusion of all 2015 Data

The District's 2015 UWMP includes water use and planning data for fiscal year 2015, July 1, 2014 through June 30, 2015.

Notice of Public Hearing

The District provided notice to each of the land use jurisdictions within its service area that it was updating its UWMP, and that it would hold a public hearing on May 24 to receive public comment on a draft of the plan. Notified entities are listed in **Table 10-1**.

Table 10-1: Notification to Cities and Counties

Entity	60 Day Notice of Preparation	Notice of Public Hearing
San Diego County	X	X
Vista	X	X
Oceanside	X	X

In addition, the District provided legal public notice of the May 24 public hearing via advertisement in the Village News and Daily Transcript newspapers beginning two weeks prior to the hearing. The notice indicated the time and place of the hearing as well as the location where the plan is available for public inspection. A copy of the notice is included in **Appendix C**.

Public Hearing and Adoption (draft description, subject to change)

The District held a public hearing to receive comment on the Draft 2015 UWMP. The hearing was held on May 24, 2016, at 1:00 p.m. at the District's offices. Subsequently, on June 28 the District's Board of Directors adopted the 2015 UWMP at its regular meeting of June 28, 2016. A copy of the adoption resolution is included in **Appendix C**.

Plan Submittal (draft description, subject to change)

The RMWD 2015 UWMP was submitted to DWR on June 30, 2016, in advance of the July 1 due date. The plan and associated data files were submitted using the DWR WUEdata online plan submittal tool. Plan copies will also be submitted to the County of San Diego, the City of Oceanside, the City of Vista, and to the California State Library³ within 30 days of plan adoption.

Public Availability (draft description, subject to change)

The adopted RMWD 2015 UWMP is available at <http://www.rainbowmwd.com/>.

³ California State Library / Government Publications Section
Attention: Coordinator, Urban Water Management Plans
P.O. Box 942837 / Sacramento, CA 94237-0001

Appendix A
Urban Water Management Plan Act Text

California Water Code Division 6, Part 2.6.

Chapter 1. General Declaration and Policy §10610-10610.4

Chapter 2. Definitions §10611-10617

Chapter 3. Urban Water Management Plans

Article 1. General Provisions §10620-10621

Article 2. Contents of Plans §10630-10634

Article 2.5. Water Service Reliability §10635

Article 3. Adoption And Implementation of Plans §10640-10645

Chapter 4. Miscellaneous Provisions §10650-10656

Chapter 1. General Declaration and Policy

SECTION 10610-10610.4

10610. This part shall be known and may be cited as the "Urban Water Management Planning Act."

10610.2. (a) The Legislature finds and declares all of the following:

- (1) The waters of the state are a limited and renewable resource subject to ever-increasing demands.
- (2) The conservation and efficient use of urban water supplies are of statewide concern; however, the planning for that use and the implementation of those plans can best be accomplished at the local level.
- (3) A long-term, reliable supply of water is essential to protect the productivity of California's businesses and economic climate.
- (4) As part of its long-range planning activities, every urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry water years.
- (5) Public health issues have been raised over a number of contaminants that have been identified in certain local and imported water supplies.
- (6) Implementing effective water management strategies, including groundwater storage projects and recycled water projects, may require specific water quality and salinity targets for meeting groundwater basins water quality objectives and promoting beneficial use of recycled water.
- (7) Water quality regulations are becoming an increasingly important factor in water agencies' selection of raw water sources, treatment alternatives, and modifications to existing treatment facilities.

(8) Changes in drinking water quality standards may also impact the usefulness of water supplies and may ultimately impact supply reliability.

(9) The quality of source supplies can have a significant impact on water management strategies and supply reliability.

(b) This part is intended to provide assistance to water agencies in carrying out their long-term resource planning responsibilities to ensure adequate water supplies to meet existing and future demands for water.

10610.4. The Legislature finds and declares that it is the policy of the state as follows:

(a) The management of urban water demands and efficient use of water shall be actively pursued to protect both the people of the state and their water resources.

(b) The management of urban water demands and efficient use of urban water supplies shall be a guiding criterion in public decisions.

(c) Urban water suppliers shall be required to develop water management plans to actively pursue the efficient use of available supplies.

Chapter 2. Definitions

SECTION 10611-10617

10611. Unless the context otherwise requires, the definitions of this chapter govern the construction of this part.

10611.5. "Demand management" means those water conservation measures, programs, and incentives that prevent the waste of water and promote the reasonable and efficient use and reuse of available supplies.

10612. "Customer" means a purchaser of water from a water supplier who uses the water for municipal purposes, including residential, commercial, governmental, and industrial uses.

10613. "Efficient use" means those management measures that result in the most effective use of water so as to prevent its waste or unreasonable use or unreasonable method of use.

10614. "Person" means any individual, firm, association, organization, partnership, business, trust, corporation, company, public agency, or any agency of such an entity.

10615. "Plan" means an urban water management plan prepared pursuant to this part. A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses,

reclamation and demand management activities. The components of the plan may vary according to an individual community or area's characteristics and its capabilities to efficiently use and conserve water. The plan shall address measures for residential, commercial, governmental, and industrial water demand management as set forth in Article 2 (commencing with Section 10630) of Chapter 3. In addition, a strategy and time schedule for implementation shall be included in the plan.

10616. "Public agency" means any board, commission, county, city and county, city, regional agency, district, or other public entity.

10616.5. "Recycled water" means the reclamation and reuse of wastewater for beneficial use.

10617. "Urban water supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems subject to Chapter 4 (commencing with Section 116275) of Part 12 of Division 104 of the Health and Safety Code.

Chapter 3. Urban Water Management Plans

Article 1. General Provisions

SECTION 10620-10621

10620. (a) Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with Section 10640).
- (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.
- (c) An urban water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with Section 10630) that would be applicable to urban water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.
- (d) (1) An urban water supplier may satisfy the requirements of this part by participation in areawide, regional, watershed, or basinwide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use.
- (2) Each urban water supplier shall 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.

- (e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.
 - (f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.
10621. (a) Each urban water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero, except as provided in subdivision (d).
- (b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days before the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.
- (c) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).
- (d) Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.

Article 2. Contents of Plan

SECTION 10630-10634

10630. It is the intention of the Legislature, in enacting this part, to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied.
10631. A plan shall be adopted in accordance with this chapter that shall do all of the following:
- (a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.
 - (b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a). If groundwater is identified as an existing or planned source of

water available to the supplier, all of the following information shall be included in the plan:

- (1) A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.
 - (2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For basins that a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.
 - (3) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.
 - (4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.
- (c) (1) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:
- (A) An average water year.
 - (B) A single-dry water year.
 - (C) Multiple-dry water years.
- (2) For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.

- (d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.
- (e) (1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses:
 - (A) Single-family residential.
 - (B) Multifamily.
 - (C) Commercial.
 - (D) Industrial.
 - (E) Institutional and governmental.
 - (F) Landscape.
 - (G) Sales to other agencies.
 - (H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.
 - (I) Agricultural.
 - (J) Distribution system water loss.
- (2) The water use projections shall be in the same five-year increments described in subdivision (a).
- (3) (A) For the 2015 urban water management plan update, the distribution system water loss shall be quantified for the most recent 12-month period available. For all subsequent updates, the distribution system water loss shall be quantified for each of the five years preceding the plan update.
 - (B) The distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water loss quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association.
- (4) (A) If available and applicable to an urban water supplier, water use projections may display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.

- (B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following:
 - (i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections.
 - (ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.

- (f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:
 - (1) (A) For an urban retail water supplier, as defined in Section 10608.12, a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years. The narrative shall describe the water demand management measures that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.

 - (B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:
 - (i) Water waste prevention ordinances.
 - (ii) Metering.
 - (iii) Conservation pricing.
 - (iv) Public education and outreach.
 - (v) Programs to assess and manage distribution system real loss.
 - (vi) Water conservation program coordination and staffing support.
 - (vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.

 - (2) For an urban wholesale water supplier, as defined in Section 10608.12, a narrative description of the items in clauses (ii), (iv), (vi), and (vii) of subparagraph (B) of paragraph (1), and a narrative description of its distribution system asset management and wholesale supplier assistance programs.

- (g) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water

use, as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single-dry, and multiple-dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.

- (h) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.
 - (i) For purposes of this part, urban water suppliers that are members of the California Urban Water Conservation Council shall be deemed in compliance with the requirements of subdivision (f) by complying with all the provisions of the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated December 10, 2008, as it may be amended, and by submitting the annual reports required by Section 6.2 of that memorandum.
 - (j) An urban water supplier that relies upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c).
- 10631.1. (a) The water use projections required by Section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the supplier.
- (b) It is the intent of the Legislature that the identification of projected water use for single-family and multifamily residential housing for lower income households will assist a supplier in complying with the requirement under Section 65589.7 of the Government Code to grant a priority for the provision of service to housing units affordable to lower income households.

10631.2. (a) In addition to the requirements of Section 10631, an urban water management plan may, but is not required to, include any of the following information:

- (1) An estimate of the amount of energy used to extract or divert water supplies.
- (2) An estimate of the amount of energy used to convey water supplies to the water treatment plants or distribution systems.
- (3) An estimate of the amount of energy used to treat water supplies.
- (4) An estimate of the amount of energy used to distribute water supplies through its distribution systems.
- (5) An estimate of the amount of energy used for treated water supplies in comparison to the amount used for nontreated water supplies.
- (6) An estimate of the amount of energy used to place water into or withdraw from storage.
- (7) Any other energy-related information the urban water supplier deems appropriate.

(b) The department shall include in its guidance for the preparation of urban water management plans a methodology for the voluntary calculation or estimation of the energy intensity of urban water systems. The department may consider studies and calculations conducted by the Public Utilities Commission in developing the methodology.

10631.5. (a) (1) Beginning January 1, 2009, the terms of, and eligibility for, a water management grant or loan made to an urban water supplier and awarded or administered by the department, state board, or California Bay-Delta Authority or its successor agency shall be conditioned on the implementation of the water demand management measures described in Section 10631, as determined by the department pursuant to subdivision (b).

(2) For the purposes of this section, water management grants and loans include funding for programs and projects for surface water or groundwater storage, recycling, desalination, water conservation, water supply reliability, and water supply augmentation. This section does not apply to water management projects funded by the federal American Recovery and Reinvestment Act of 2009 (Public Law 111-5).

(3) Notwithstanding paragraph (1), the department shall determine that an urban water supplier is eligible for a water management grant or loan even though the supplier is not implementing all of the water demand management measures described in Section 10631, if the urban water supplier has

submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for implementation of the water demand management measures. The supplier may request grant or loan funds to implement the water demand management measures to the extent the request is consistent with the eligibility requirements applicable to the water management funds.

(4) (A) Notwithstanding paragraph (1), the department shall determine that an urban water supplier is eligible for a water management grant or loan even though the supplier is not implementing all of the water demand management measures described in Section 10631, if an urban water supplier submits to the department for approval documentation demonstrating that a water demand management measure is not locally cost effective. If the department determines that the documentation submitted by the urban water supplier fails to demonstrate that a water demand management measure is not locally cost effective, the department shall notify the urban water supplier and the agency administering the grant or loan program within 120 days that the documentation does not satisfy the requirements for an exemption, and include in that notification a detailed statement to support the determination.

(B) For purposes of this paragraph, "not locally cost effective" means that the present value of the local benefits of implementing a water demand management measure is less than the present value of the local costs of implementing that measure.

(b) (1) The department, in consultation with the state board and the California Bay-Delta Authority or its successor agency, and after soliciting public comment regarding eligibility requirements, shall develop eligibility requirements to implement the requirement of paragraph (1) of subdivision (a). In establishing these eligibility requirements, the department shall do both of the following:

(A) Consider the conservation measures described in the Memorandum of Understanding Regarding Urban Water Conservation in California, and alternative conservation approaches that provide equal or greater water savings.

(B) Recognize the different legal, technical, fiscal, and practical roles and responsibilities of wholesale water suppliers and retail water suppliers.

(2) (A) For the purposes of this section, the department shall determine whether an urban water supplier is implementing all of the water demand management measures described in Section 10631 based on either, or a combination, of the following:

- (i) Compliance on an individual basis.
 - (ii) Compliance on a regional basis. Regional compliance shall require participation in a regional conservation program consisting of two or more urban water suppliers that achieves the level of conservation or water efficiency savings equivalent to the amount of conservation or savings achieved if each of the participating urban water suppliers implemented the water demand management measures. The urban water supplier administering the regional program shall provide participating urban water suppliers and the department with data to demonstrate that the regional program is consistent with this clause. The department shall review the data to determine whether the urban water suppliers in the regional program are meeting the eligibility requirements.
- (B) The department may require additional information for any determination pursuant to this section.
- (3) The department shall not deny eligibility to an urban water supplier in compliance with the requirements of this section that is participating in a multiagency water project, or an integrated regional water management plan, developed pursuant to Section 75026 of the Public Resources Code, solely on the basis that one or more of the agencies participating in the project or plan is not implementing all of the water demand management measures described in Section 10631.
- (c) In establishing guidelines pursuant to the specific funding authorization for any water management grant or loan program subject to this section, the agency administering the grant or loan program shall include in the guidelines the eligibility requirements developed by the department pursuant to subdivision (b).
 - (d) Upon receipt of a water management grant or loan application by an agency administering a grant and loan program subject to this section, the agency shall request an eligibility determination from the department with respect to the requirements of this section. The department shall respond to the request within 60 days of the request.
 - (e) The urban water supplier may submit to the department copies of its annual reports and other relevant documents to assist the department in determining whether the urban water supplier is implementing or scheduling the implementation of water demand management activities. In addition, for urban water suppliers that are signatories to the Memorandum of Understanding Regarding Urban Water Conservation in California and submit biennial reports to the California Urban Water Conservation Council in accordance with the memorandum, the department may use these reports to assist in tracking the implementation of water demand management measures.

- (f) This section shall remain in effect only until July 1, 2016, and as of that date is repealed, unless a later enacted statute, that is enacted before July 1, 2016, deletes or extends that date.

10631.7. The department, in consultation with the California Urban Water Conservation Council, shall convene an independent technical panel to provide information and recommendations to the department and the Legislature on new demand management measures, technologies, and approaches. The panel shall consist of no more than seven members, who shall be selected by the department to reflect a balanced representation of experts. The panel shall have at least one, but no more than two, representatives from each of the following: retail water suppliers, environmental organizations, the business community, wholesale water suppliers, and academia. The panel shall be convened by January 1, 2009, and shall report to the Legislature no later than January 1, 2010, and every five years thereafter. The department shall review the panel report and include in the final report to the Legislature the department's recommendations and comments regarding the panel process and the panel's recommendations.

10632. (a) The plan shall provide an urban water shortage contingency analysis that includes each of the following elements that are within the authority of the urban water supplier:
- (1) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions that are applicable to each stage.
 - (2) An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.
 - (3) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.
 - (4) Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.
 - (5) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are

appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.

- (6) Penalties or charges for excessive use, where applicable.
 - (7) An analysis of the impacts of each of the actions and conditions described in paragraphs (1) to (6), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.
 - (8) A draft water shortage contingency resolution or ordinance.
 - (9) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.
- (b) Commencing with the urban water management plan update due July 1, 2016, for purposes of developing the water shortage contingency analysis pursuant to subdivision (a), the urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.

10633. The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area, and shall include all of the following:

- (a) A description of the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.
- (b) A description of the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.
- (c) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.
- (d) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.

- (e) 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 pursuant to this subdivision.
- (f) A description of actions, including financial incentives, 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.
- (g) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

10634. The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

Article 2.5. Water Service Reliability

SECTION 10635

10635. (a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.
- (b) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.
- (c) Nothing in this article is intended to create a right or entitlement to water service or any specific level of water service.

- (d) Nothing in this article is intended to change existing law concerning an urban water supplier's obligation to provide water service to its existing customers or to any potential future customers.

Article 3. Adoption and Implementation of Plans

SECTION 10640-10645

10640. Every urban water supplier required to prepare a plan pursuant to this part shall prepare its plan pursuant to Article 2 (commencing with Section 10630). The supplier shall likewise periodically review the plan as required by Section 10621, and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

10641. An urban water supplier required to prepare a plan may consult with, and obtain comments from, any public agency or state agency or any person who has special expertise with respect to water demand management methods and techniques.

10642. Each urban water supplier shall encourage the 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. Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code. The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies. A privately owned water supplier shall provide an equivalent notice within its service area.

After the hearing, the plan shall be adopted as prepared or as modified after the hearing.

10643. An urban water supplier shall implement its plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan.

10644. (a) (1) An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the plans shall be submitted to the department, the California State Library, and any city or county within which the supplier provides water supplies within 30 days after adoption.

(2) The plan, or amendments to the plan, submitted to the department pursuant to paragraph (1) shall be submitted electronically and shall include any standardized forms, tables, or displays specified by the department.

- (b) (1) Notwithstanding Section 10231.5 of the Government Code, the department shall prepare and submit to the Legislature, on or before December 31, in the years ending in six and one, a report summarizing the status of the plans adopted pursuant to this part.

The report prepared by the department shall identify the exemplary elements of the individual plans. The department shall provide a copy of the report to each urban water supplier that has submitted its plan to the department. The department shall also prepare reports and provide data for any legislative hearings designed to consider the effectiveness of plans submitted pursuant to this part.

- (2) A report to be submitted pursuant to paragraph (1) shall be submitted in compliance with Section 9795 of the Government Code.

- (c) (1) For the purpose of identifying the exemplary elements of the individual plans, the department shall identify in the report water demand management measures adopted and implemented by specific urban water suppliers, and identified pursuant to Section 10631, that achieve water savings significantly above the levels established by the department to meet the requirements of Section 10631.5.

- (2) The department shall distribute to the panel convened pursuant to Section 10631.7 the results achieved by the implementation of those water demand management measures described in paragraph (1).

- (3) The department shall make available to the public the standard the department will use to identify exemplary water demand management measures.

10645. Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.

Chapter 4. Miscellaneous Provisions

SECTION 10650-10656

10650. Any actions or proceedings to attack, review, set aside, void, or annul the acts or decisions of an urban water supplier on the grounds of noncompliance with this part shall be commenced as follows:

- (a) An action or proceeding alleging failure to adopt a plan shall be commenced within 18 months after that adoption is required by this part.

- (b) Any action or proceeding alleging that a plan, or action taken pursuant to the plan, does not comply with this part shall be commenced within 90 days after filing of the plan or amendment thereto pursuant to Section 10644 or the taking of that action.
10651. In any action or proceeding to attack, review, set aside, void, or annul a plan, or an action taken pursuant to the plan by an urban water supplier on the grounds of noncompliance with this part, the inquiry shall extend only to whether there was a prejudicial abuse of discretion. Abuse of discretion is established if the supplier has not proceeded in a manner required by law or if the action by the water supplier is not supported by substantial evidence.
10652. The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) does not apply to the preparation and adoption of plans pursuant to this part or to the implementation of actions taken pursuant to Section 10632. Nothing in this part shall be interpreted as exempting from the California Environmental Quality Act any project that would significantly affect water supplies for fish and wildlife, or any project for implementation of the plan, other than projects implementing Section 10632, or any project for expanded or additional water supplies.
10653. The adoption of a plan shall satisfy any requirements of state law, regulation, or order, including those of the State Water Resources Control Board and the Public Utilities Commission, for the preparation of water management plans or conservation plans; provided, that if the State Water Resources Control Board or the Public Utilities Commission requires additional information concerning water conservation to implement its existing authority, nothing in this part shall be deemed to limit the board or the commission in obtaining that information. The requirements of this part shall be satisfied by any urban water demand management plan prepared to meet federal laws or regulations after the effective date of this part, and which substantially meets the requirements of this part, or by any existing urban water management plan which includes the contents of a plan required under this part.
10654. An urban water supplier may recover in its rates the costs incurred in preparing its plan and implementing the reasonable water conservation measures included in the plan. Any best water management practice that is included in the plan that is identified in the "Memorandum of Understanding Regarding Urban Water Conservation in California" is deemed to be reasonable for the purposes of this section.
10655. If any provision of this part or the application thereof to any person or circumstances is held invalid, that invalidity shall not affect other provisions or applications of this part which can be given effect without the invalid provision or application thereof, and to this end the provisions of this part are severable.
10656. An urban water supplier that does not prepare, adopt, and submit its urban water management plan to the department in accordance with this part, is ineligible to receive funding pursuant to Division 24 (commencing with Section 78500) or Division 26

(commencing with Section 79000), or receive drought assistance from the state until the urban water management plan is submitted pursuant to this article.

Appendix B
Sustainable Water Use and Demand Reduction (SB X7-7)

California Water Code Division 6, Part 2.55.

- Chapter 1. General Declarations and Policy §10608-10608.8**
- Chapter 2. Definitions §10608.12**
- Chapter 3. Urban Retail Water Suppliers §10608.16-10608.44**
- Chapter 4. Agricultural Water Suppliers §10608.48**
- Chapter 5. Sustainable Water Management §10608.50**
- Chapter 6 Standardized Data Collection §10608.52**
- Chapter 7 Funding Provisions §10608.56-10608.60**
- Chapter 8 Quantifying Agricultural Water Use Efficiency §10608.64**

Chapter 1. General Declarations and Policy

SECTION 10608-10608.8

10608. The Legislature finds and declares all of the following:

- (a) Water is a public resource that the California Constitution protects against waste and unreasonable use.
- (b) Growing population, climate change, and the need to protect and grow California's economy while protecting and restoring our fish and wildlife habitats make it essential that the state manage its water resources as efficiently as possible.
- (c) Diverse regional water supply portfolios will increase water supply reliability and reduce dependence on the Delta.
- (d) Reduced water use through conservation provides significant energy and environmental benefits, and can help protect water quality, improve streamflows, and reduce greenhouse gas emissions.
- (e) The success of state and local water conservation programs to increase efficiency of water use is best determined on the basis of measurable outcomes related to water use or efficiency.
- (f) Improvements in technology and management practices offer the potential for increasing water efficiency in California over time, providing an essential water management tool to meet the need for water for urban, agricultural, and environmental uses.
- (g) The Governor has called for a 20 percent per capita reduction in urban water use statewide by 2020.
- (h) The factors used to formulate water use efficiency targets can vary significantly from location to location based on factors including weather, patterns of urban and suburban development, and past efforts to enhance water use efficiency.

- (i) Per capita water use is a valid measure of a water provider's efforts to reduce urban water use within its service area. However, per capita water use is less useful for measuring relative water use efficiency between different water providers. Differences in weather, historical patterns of urban and suburban development, and density of housing in a particular location need to be considered when assessing per capita water use as a measure of efficiency.

10608.4. It is the intent of the Legislature, by the enactment of this part, to do all of the following:

- (a) Require all water suppliers to increase the efficiency of use of this essential resource.
- (b) Establish a framework to meet the state targets for urban water conservation identified in this part and called for by the Governor.
- (c) Measure increased efficiency of urban water use on a per capita basis.
- (d) Establish a method or methods for urban retail water suppliers to determine targets for achieving increased water use efficiency by the year 2020, in accordance with the Governor's goal of a 20-percent reduction.
- (e) Establish consistent water use efficiency planning and implementation standards for urban water suppliers and agricultural water suppliers.
- (f) Promote urban water conservation standards that are consistent with the California Urban Water Conservation Council's adopted best management practices and the requirements for demand management in Section 10631.
- (g) Establish standards that recognize and provide credit to water suppliers that made substantial capital investments in urban water conservation since the drought of the early 1990s.
- (h) Recognize and account for the investment of urban retail water suppliers in providing recycled water for beneficial uses.
- (i) Require implementation of specified efficient water management practices for agricultural water suppliers.
- (j) Support the economic productivity of California's agricultural, commercial, and industrial sectors.
- (k) Advance regional water resources management.

- 10608.8. (a) (1) Water use efficiency measures adopted and implemented pursuant to this part or Part 2.8 (commencing with Section 10800) are water conservation measures subject to the protections provided under Section 1011.
- (2) Because an urban agency is not required to meet its urban water use target until 2020 pursuant to subdivision (b) of Section 10608.24, an urban retail water supplier's failure to meet those targets shall not establish a violation of law for purposes of any state administrative or judicial proceeding prior to

January 1, 2021. Nothing in this paragraph limits the use of data reported to the department or the board in litigation or an administrative proceeding. This paragraph shall become inoperative on January 1, 2021.

- (3) To the extent feasible, the department and the board shall provide for the use of water conservation reports required under this part to meet the requirements of Section 1011 for water conservation reporting.
- (b) This part does not limit or otherwise affect the application of Chapter 3.5 (commencing with Section 11340), Chapter 4 (commencing with Section 11370), Chapter 4.5 (commencing with Section 11400), and Chapter 5 (commencing with Section 11500) of Part 1 of Division 3 of Title 2 of the Government Code.
- (c) This part does not require a reduction in the total water used in the agricultural or urban sectors, because other factors, including, but not limited to, changes in agricultural economics or population growth may have greater effects on water use. This part does not limit the economic productivity of California's agricultural, commercial, or industrial sectors.
- (d) The requirements of this part do not apply to an agricultural water supplier that is a party to the Quantification Settlement Agreement, as defined in subdivision (a) of Section 1 of Chapter 617 of the Statutes of 2002, during the period within which the Quantification Settlement Agreement remains in effect. After the expiration of the Quantification Settlement Agreement, to the extent conservation water projects implemented as part of the Quantification Settlement Agreement remain in effect, the conserved water created as part of those projects shall be credited against the obligations of the agricultural water supplier pursuant to this part.

Chapter 2 Definitions

SECTION 10608.12

10608.12. Unless the context otherwise requires, the following definitions govern the construction of this part:

- (a) "Agricultural water supplier" means a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding recycled water. "Agricultural water supplier" includes a supplier or contractor for water, regardless of the basis of right, that distributes or sells water for ultimate resale to customers. "Agricultural water supplier" does not include the department.
- (b) "Base daily per capita water use" means any of the following:
 - (1) The urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

- (2) For an urban retail water supplier that meets at least 10 percent of its 2008 measured retail water demand through recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier, the urban retail water supplier may extend the calculation described in paragraph (1) up to an additional five years to a maximum of a continuous 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.
- (3) For the purposes of Section 10608.22, the urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.
- (c) "Baseline commercial, industrial, and institutional water use" means an urban retail water supplier's base daily per capita water use for commercial, industrial, and institutional users.
- (d) "Commercial water user" means a water user that provides or distributes a product or service.
- (e) "Compliance daily per capita water use" means the gross water use during the final year of the reporting period, reported in gallons per capita per day.
- (f) "Disadvantaged community" means a community with an annual median household income that is less than 80 percent of the statewide annual median household income.
- (g) "Gross water use" means the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, excluding all of the following:
 - (1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier.
 - (2) The net volume of water that the urban retail water supplier places into long-term storage.
 - (3) The volume of water the urban retail water supplier conveys for use by another urban water supplier.
 - (4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24.
- (h) "Industrial water user" means a water user that is primarily a manufacturer or processor of materials as defined by the North American Industry Classification System code sectors 31 to 33, inclusive, or an entity that is a water user primarily engaged in research and development.
- (i) "Institutional water user" means a water user dedicated to public service. This type of user includes, among other users, higher education institutions, schools, courts, churches, hospitals, government facilities, and nonprofit research institutions.

- (j) "Interim urban water use target" means the midpoint between the urban retail water supplier's base daily per capita water use and the urban retail water supplier's urban water use target for 2020.
- (k) "Locally cost effective" means that the present value of the local benefits of implementing an agricultural efficiency water management practice is greater than or equal to the present value of the local cost of implementing that measure.
- (l) "Process water" means water used for producing a product or product content or water used for research and development, including, but not limited to, continuous manufacturing processes, water used for testing and maintaining equipment used in producing a product or product content, and water used in combined heat and power facilities used in producing a product or product content. Process water does not mean incidental water uses not related to the production of a product or product content, including, but not limited to, water used for restrooms, landscaping, air conditioning, heating, kitchens, and laundry.
- (m) "Recycled water" means recycled water, as defined in subdivision (n) of Section 13050, that is used to offset potable demand, including recycled water supplied for direct use and indirect potable reuse, that meets the following requirements, where applicable:
 - (1) For groundwater recharge, including recharge through spreading basins, water supplies that are all of the following:
 - (A) Metered.
 - (B) Developed through planned investment by the urban water supplier or a wastewater treatment agency.
 - (C) Treated to a minimum tertiary level.
 - (D) Delivered within the service area of an urban retail water supplier or its urban wholesale water supplier that helps an urban retail water supplier meet its urban water use target.
 - (2) For reservoir augmentation, water supplies that meet the criteria of paragraph (1) and are conveyed through a distribution system constructed specifically for recycled water.
- (n) "Regional water resources management" means sources of supply resulting from watershed-based planning for sustainable local water reliability or any of the following alternative sources of water:
 - (1) The capture and reuse of stormwater or rainwater.
 - (2) The use of recycled water.
 - (3) The desalination of brackish groundwater.

- (4) The conjunctive use of surface water and groundwater in a manner that is consistent with the safe yield of the groundwater basin.
- (o) "Reporting period" means the years for which an urban retail water supplier reports compliance with the urban water use targets.
- (p) "Urban retail water supplier" means a water supplier, either publicly or privately owned, that directly provides potable municipal water to more than 3,000 end users or that supplies more than 3,000 acre-feet of potable water annually at retail for municipal purposes.
- (q) "Urban water use target" means the urban retail water supplier's targeted future daily per capita water use.
- (r) "Urban wholesale water supplier," means a water supplier, either publicly or privately owned, that provides more than 3,000 acre-feet of water annually at wholesale for potable municipal purposes.

Chapter 3 Urban Retail Water Suppliers

SECTION 10608.16-10608.44

10608.16.(a) The state shall achieve a 20-percent reduction in urban per capita water use in California on or before December 31, 2020.

- (b) The state shall make incremental progress towards the state target specified in subdivision (a) by reducing urban per capita water use by at least 10 percent on or before December 31, 2015.

10608.20.(a) (1) Each urban retail water supplier shall develop urban water use targets and an interim urban water use target by July 1, 2011. Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis, as provided in subdivision (a) of Section 10608.28, and may determine the targets on a fiscal year or calendar year basis.

- (2) It is the intent of the Legislature that the urban water use targets described in paragraph (1) cumulatively result in a 20-percent reduction from the baseline daily per capita water use by December 31, 2020.

- (b) An urban retail water supplier shall adopt one of the following methods for determining its urban water use target pursuant to subdivision (a):

- (1) Eighty percent of the urban retail water supplier's baseline per capita daily water use.

- (2) The per capita daily water use that is estimated using the sum of the following performance standards:

- (A) For indoor residential water use, 55 gallons per capita daily water use as a provisional standard. Upon completion of the department's 2016 report to the Legislature pursuant to Section 10608.42, this standard may be adjusted by the Legislature by statute.
 - (B) For landscape irrigated through dedicated or residential meters or connections, water efficiency equivalent to the standards of the Model Water Efficient Landscape Ordinance set forth in Chapter 2.7 (commencing with Section 490) of Division 2 of Title 23 of the California Code of Regulations, as in effect the later of the year of the landscape's installation or 1992. An urban retail water supplier using the approach specified in this subparagraph shall use satellite imagery, site visits, or other best available technology to develop an accurate estimate of landscaped areas.
 - (C) For commercial, industrial, and institutional uses, a 10-percent reduction in water use from the baseline commercial, industrial, and institutional water use by 2020.
- (3) Ninety-five percent of the applicable state hydrologic region target, as set forth in the state's draft 20x2020 Water Conservation Plan (dated April 30, 2009). If the service area of an urban water supplier includes more than one hydrologic region, the supplier shall apportion its service area to each region based on population or area.
- (4) A method that shall be identified and developed by the department, through a public process, and reported to the Legislature no later than December 31, 2010. The method developed by the department shall identify per capita targets that cumulatively result in a statewide 20-percent reduction in urban daily per capita water use by December 31, 2020. In developing urban daily per capita water use targets, the department shall do all of the following:
- (A) Consider climatic differences within the state.
 - (B) Consider population density differences within the state.
 - (C) Provide flexibility to communities and regions in meeting the targets.
 - (D) Consider different levels of per capita water use according to plant water needs in different regions.
 - (E) Consider different levels of commercial, industrial, and institutional water use in different regions of the state.
 - (F) Avoid placing an undue hardship on communities that have implemented conservation measures or taken actions to keep per capita water use low.
- (c) If the department adopts a regulation pursuant to paragraph (4) of subdivision (b) that results in a requirement that an urban retail water supplier achieve a reduction in daily per capita water use that is greater than 20 percent by December 31, 2020, an urban retail water supplier that adopted the method

described in paragraph (4) of subdivision (b) may limit its urban water use target to a reduction of not more than 20 percent by December 31, 2020, by adopting the method described in paragraph (1) of subdivision (b).

- (d) The department shall update the method described in paragraph (4) of subdivision (b) and report to the Legislature by December 31, 2014. An urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may adopt a new urban daily per capita water use target pursuant to this updated method.
- (e) An urban retail water supplier shall include in its urban water management plan due in 2010 pursuant to Part 2.6 (commencing with Section 10610) the 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.
- (f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.
- (g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).
- (h) (1) The department, through a public process and in consultation with the California Urban Water Conservation Council, shall develop technical methodologies and criteria for the consistent implementation of this part, including, but not limited to, both of the following:
 - (A) Methodologies for calculating base daily per capita water use, baseline commercial, industrial, and institutional water use, compliance daily per capita water use, gross water use, service area population, indoor residential water use, and landscaped area water use.
 - (B) Criteria for adjustments pursuant to subdivisions (d) and (e) of Section 10608.24.
- (2) The department shall post the methodologies and criteria developed pursuant to this subdivision on its Internet Web site, and make written copies available, by October 1, 2010. An urban retail water supplier shall use the methods developed by the department in compliance with this part.
- (i) (1) The department shall adopt regulations for implementation of the provisions relating to process water in accordance with subdivision (l) of Section 10608.12, subdivision (e) of Section 10608.24, and subdivision (d) of Section 10608.26.
- (2) The initial adoption of a regulation authorized by this subdivision is deemed to address an emergency, for purposes of Sections 11346.1 and 11349.6 of the Government Code, and the department is hereby exempted for that purpose from the requirements of subdivision (b) of Section 11346.1 of the

Government Code. After the initial adoption of an emergency regulation pursuant to this subdivision, the department shall not request approval from the Office of Administrative Law to readopt the regulation as an emergency regulation pursuant to Section 11346.1 of the Government Code.

- (j) (1) An urban retail water supplier is granted an extension to July 1, 2011, for adoption of an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) due in 2010 to allow the use of technical methodologies developed by the department pursuant to paragraph (4) of subdivision (b) and subdivision (h). An urban retail water supplier that adopts an urban water management plan due in 2010 that does not use the methodologies developed by the department pursuant to subdivision (h) shall amend the plan by July 1, 2011, to comply with this part.
- (2) An urban wholesale water supplier whose urban water management plan prepared pursuant to Part 2.6 (commencing with Section 10610) was due and not submitted in 2010 is granted an extension to July 1, 2011, to permit coordination between an urban wholesale water supplier and urban retail water suppliers.

10608.22. Notwithstanding the method adopted by an urban retail water supplier pursuant to Section 10608.20, an urban retail water supplier's per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use as defined in paragraph(3) of subdivision (b) of Section 10608.12. This section does not apply to an urban retail water supplier with a base daily per capita water use at or below 100 gallons per capita per day.

10608.24.(a) Each urban retail water supplier shall meet its interim urban water use target by December 31, 2015.

(b) Each urban retail water supplier shall meet its urban water use target by December 31, 2020.

(c) An urban retail water supplier's compliance daily per capita water use shall be the measure of progress toward achievement of its urban water use target.

(d) (1) When determining compliance daily per capita water use, an urban retail water supplier may consider the following factors:

(A) Differences in evapotranspiration and rainfall in the baseline period compared to the compliance reporting period.

(B) Substantial changes to commercial or industrial water use resulting from increased business output and economic development that have occurred during the reporting period.

(C) Substantial changes to institutional water use resulting from fire suppression services or other extraordinary events, or from new or expanded operations, that have occurred during the reporting period.

(2) If the urban retail water supplier elects to adjust its estimate of compliance daily per capita water use due to one or more of the factors described in

paragraph (1), it shall provide the basis for, and data supporting, the adjustment in the report required by Section 10608.40.

- (e) When developing the urban water use target pursuant to Section 10608.20, an urban retail water supplier that has a substantial percentage of industrial water use in its service area may exclude process water from the calculation of gross water use to avoid a disproportionate burden on another customer sector.
- (f) (1) An urban retail water supplier that includes agricultural water use in an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) may include the agricultural water use in determining gross water use. An urban retail water supplier that includes agricultural water use in determining gross water use and develops its urban water use target pursuant to paragraph (2) of subdivision (b) of Section 10608.20 shall use a water efficient standard for agricultural irrigation of 100 percent of reference evapotranspiration multiplied by the crop coefficient for irrigated acres.
- (2) An urban retail water supplier, that is also an agricultural water supplier, is not subject to the requirements of Chapter 4 (commencing with Section 10608.48), if the agricultural water use is incorporated into its urban water use target pursuant to paragraph (1).

10608.26.(a) In complying with this part, an urban retail water supplier shall conduct at least one public hearing to accomplish all of the following:

- (1) Allow community input regarding the urban retail water supplier's implementation plan for complying with this part.
 - (2) Consider the economic impacts of the urban retail water supplier's implementation plan for complying with this part.
 - (3) Adopt a method, pursuant to subdivision (b) of Section 10608.20, for determining its urban water use target.
- (b) In complying with this part, an urban retail water supplier may meet its urban water use target through efficiency improvements in any combination among its customer sectors. An urban retail water supplier shall avoid placing a disproportionate burden on any customer sector.
 - (c) For an urban retail water supplier that supplies water to a United States Department of Defense military installation, the urban retail water supplier's implementation plan for complying with this part shall consider the conservation of that military installation under federal Executive Order 13514.
 - (d) (1) Any ordinance or resolution adopted by an urban retail water supplier after the effective date of this section shall not require existing customers as of the effective date of this section, to undertake changes in product formulation, operations, or equipment that would reduce process water use, but may provide technical assistance and financial incentives to those customers to implement efficiency measures for process water. This section shall not limit

an ordinance or resolution adopted pursuant to a declaration of drought emergency by an urban retail water supplier.

- (2) This part shall not be construed or enforced so as to interfere with the requirements of Chapter 4 (commencing with Section 113980) to Chapter 13 (commencing with Section 114380), inclusive, of Part 7 of Division 104 of the Health and Safety Code, or any requirement or standard for the protection of public health, public safety, or worker safety established by federal, state, or local government or recommended by recognized standard setting organizations or trade associations.

10608.28.(a) An urban retail water supplier may meet its urban water use target within its retail service area, or through mutual agreement, by any of the following:

- (1) Through an urban wholesale water supplier.
- (2) Through a regional agency authorized to plan and implement water conservation, including, but not limited to, an agency established under the Bay Area Water Supply and Conservation Agency Act (Division 31 (commencing with Section 81300)).
- (3) Through a regional water management group as defined in Section 10537.
- (4) By an integrated regional water management funding area.
- (5) By hydrologic region.
- (6) Through other appropriate geographic scales for which computation methods have been developed by the department.

- (b) A regional water management group, with the written consent of its member agencies, may undertake any or all planning, reporting, and implementation functions under this chapter for the member agencies that consent to those activities. Any data or reports shall provide information both for the regional water management group and separately for each consenting urban retail water supplier and urban wholesale water supplier.

10608.32. All costs incurred pursuant to this part by a water utility regulated by the Public Utilities Commission may be recoverable in rates subject to review and approval by the Public Utilities Commission, and may be recorded in a memorandum account and reviewed for reasonableness by the Public Utilities Commission.

10608.36. Urban wholesale water suppliers shall include in the urban water management plans required pursuant to Part 2.6 (commencing with Section 10610) an assessment of their present and proposed future measures, programs, and policies to help achieve the water use reductions required by this part.

10608.40. Urban water retail suppliers shall report to the department on their progress in meeting their urban water use targets as part of their urban water management plans

submitted pursuant to Section 10631. The data shall be reported using a standardized form developed pursuant to Section 10608.52.

10608.42.(a) The department shall review the 2015 urban water management plans and report to the Legislature by July 1, 2017, on progress towards achieving a 20-percent reduction in urban water use by December 31, 2020. The report shall include recommendations on changes to water efficiency standards or urban water use targets to achieve the 20-percent reduction and to reflect updated efficiency information and technology changes.

(b) A report to be submitted pursuant to subdivision (a) shall be submitted in compliance with Section 9795 of the Government Code.

10608.43. The department, in conjunction with the California Urban Water Conservation Council, by April 1, 2010, shall convene a representative task force consisting of academic experts, urban retail water suppliers, environmental organizations, commercial water users, industrial water users, and institutional water users to develop alternative best management practices for commercial, industrial, and institutional users and an assessment of the potential statewide water use efficiency improvement in the commercial, industrial, and institutional sectors that would result from implementation of these best management practices. The taskforce, in conjunction with the department, shall submit a report to the Legislature by April 1, 2012, that shall include a review of multiple sectors within commercial, industrial, and institutional users and that shall recommend water use efficiency standards for commercial, industrial, and institutional users among various sectors of water use. The report shall include, but not be limited to, the following:

(a) Appropriate metrics for evaluating commercial, industrial, and institutional water use.

(b) Evaluation of water demands for manufacturing processes, goods, and cooling.

(c) Evaluation of public infrastructure necessary for delivery of recycled water to the commercial, industrial, and institutional sectors.

(d) Evaluation of institutional and economic barriers to increased recycled water use within the commercial, industrial, and institutional sectors.

(e) Identification of technical feasibility and cost of the best management practices to achieve more efficient water use statewide in the commercial, industrial, and institutional sectors that is consistent with the public interest and reflects past investments in water use efficiency.

10608.44. Each state agency shall reduce water use at facilities it operates to support urban retail water suppliers in meeting the target identified in Section 10608.16.

Chapter 4 Agricultural Water Suppliers

SECTION 10608.48

10608.48.(a) On or before July 31, 2012, an agricultural water supplier shall implement efficient water management practices pursuant to subdivisions (b) and (c).

(b) Agricultural water suppliers shall implement all of the following critical efficient management practices:

(1) Measure the volume of water delivered to customers with sufficient accuracy to comply with subdivision (a) of Section 531.10 and to implement paragraph (2).

(2) Adopt a pricing structure for water customers based at least in part on quantity delivered.

(c) Agricultural water suppliers shall implement additional efficient management practices, including, but not limited to, practices to accomplish all of the following, if the measures are locally cost effective and technically feasible:

(1) Facilitate alternative land use for lands with exceptionally high water duties or whose irrigation contributes to significant problems, including drainage.

(2) Facilitate use of available recycled water that otherwise would not be used beneficially, meets all health and safety criteria, and does not harm crops or soils.

(3) Facilitate the financing of capital improvements for on-farm irrigation systems.

(4) Implement an incentive pricing structure that promotes one or more of the following goals:

(A) More efficient water use at the farm level.

(B) Conjunctive use of groundwater.

(C) Appropriate increase of groundwater recharge.

(D) Reduction in problem drainage.

(E) Improved management of environmental resources.

(F) Effective management of all water sources throughout the year by adjusting seasonal pricing structures based on current conditions.

(5) Expand line or pipe distribution systems, and construct regulatory reservoirs to increase distribution system flexibility and capacity, decrease maintenance, and reduce seepage.

- (6) Increase flexibility in water ordering by, and delivery to, water customers within operational limits.
 - (7) Construct and operate supplier spill and tailwater recovery systems.
 - (8) Increase planned conjunctive use of surface water and groundwater within the supplier service area.
 - (9) Automate canal control structures.
 - (10) Facilitate or promote customer pump testing and evaluation.
 - (11) Designate a water conservation coordinator who will develop and implement the water management plan and prepare progress reports.
 - (12) Provide for the availability of water management services to water users. These services may include, but are not limited to, all of the following:
 - (A) On-farm irrigation and drainage system evaluations.
 - (B) Normal year and real-time irrigation scheduling and crop evapotranspiration information.
 - (C) Surface water, groundwater, and drainage water quantity and quality data.
 - (D) Agricultural water management educational programs and materials for farmers, staff, and the public.
 - (13) Evaluate the policies of agencies that provide the supplier with water to identify the potential for institutional changes to allow more flexible water deliveries and storage.
 - (14) Evaluate and improve the efficiencies of the supplier's pumps.
- (d) Agricultural water suppliers shall include in the agricultural water management plans required pursuant to Part 2.8 (commencing with Section 10800) a report on which efficient water management practices have been implemented and are planned to be implemented, an estimate of the water use efficiency improvements that have occurred since the last report, and an estimate of the water use efficiency improvements estimated to occur five and 10 years in the future. If an agricultural water supplier determines that an efficient water management practice is not locally cost effective or technically feasible, the supplier shall submit information documenting that determination.
 - (e) The data shall be reported using a standardized form developed pursuant to Section 10608.52.
 - (f) An agricultural water supplier may meet the requirements of subdivisions (d) and (e) by submitting to the department a water conservation plan submitted to the United States Bureau of Reclamation that meets the requirements described in Section 10828.

- (g) On or before December 31, 2013, December 31, 2016, and December 31, 2021, the department, in consultation with the board, shall submit to the Legislature a report on the agricultural efficient water management practices that have been implemented and are planned to be implemented and an assessment of the manner in which the implementation of those efficient water management practices has affected and will affect agricultural operations, including estimated water use efficiency improvements, if any.
- (h) The department may update the efficient water management practices required pursuant to subdivision (c), in consultation with the Agricultural Water Management Council, the United States Bureau of Reclamation, and the board. All efficient water management practices for agricultural water use pursuant to this chapter shall be adopted or revised by the department only after the department conducts public hearings to allow participation of the diverse geographical areas and interests of the state.
- (i) (1) The department shall adopt regulations that provide for a range of options that agricultural water suppliers may use or implement to comply with the measurement requirement in paragraph (1) of subdivision (b).
 - (2) The initial adoption of a regulation authorized by this subdivision is deemed to address an emergency, for purposes of Sections 11346.1 and 11349.6 of the Government Code, and the department is hereby exempted for that purpose from the requirements of subdivision (b) of Section 11346.1 of the Government Code. After the initial adoption of an emergency regulation pursuant to this subdivision, the department shall not request approval from the Office of Administrative Law to readopt the regulation as an emergency regulation pursuant to Section 11346.1 of the Government Code.

Chapter 5 Sustainable Water Management

Section 10608.50

- 10608.50.(a) The department, in consultation with the board, shall promote implementation of regional water resources management practices through increased incentives and removal of barriers consistent with state and federal law. Potential changes may include, but are not limited to, all of the following:
- (1) Revisions to the requirements for urban and agricultural water management plans.
 - (2) Revisions to the requirements for integrated regional water management plans.
 - (3) Revisions to the eligibility for state water management grants and loans.

- (4) Revisions to state or local permitting requirements that increase water supply opportunities, but do not weaken water quality protection under state and federal law.
 - (5) Increased funding for research, feasibility studies, and project construction.
 - (6) Expanding technical and educational support for local land use and water management agencies.
- (b) No later than January 1, 2011, and updated as part of the California Water Plan, the department, in consultation with the board, and with public input, shall propose new statewide targets, or review and update existing statewide targets, for regional water resources management practices, including, but not limited to, recycled water, brackish groundwater desalination, and infiltration and direct use of urban stormwater runoff.

Chapter 6 Standardized Data Collection

SECTION 10608.52

- 10608.52.(a) The department, in consultation with the board, the California Bay-Delta Authority or its successor agency, the State Department of Public Health, and the Public Utilities Commission, shall develop a single standardized water use reporting form to meet the water use information needs of each agency, including the needs of urban water suppliers that elect to determine and report progress toward achieving targets on a regional basis as provided in subdivision (a) of Section 10608.28.
- (b) At a minimum, the form shall be developed to accommodate information sufficient to assess an urban water supplier's compliance with conservation targets pursuant to Section 10608.24 and an agricultural water supplier's compliance with implementation of efficient water management practices pursuant to subdivision (a) of Section 10608.48. The form shall accommodate reporting by urban water suppliers on an individual or regional basis as provided in subdivision (a) of Section 10608.28.

Chapter 7 Funding Provisions

Section 10608.56-10608.60

- 10608.56.(a) On and after July 1, 2016, an urban retail water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.
- (b) On and after July 1, 2013, an agricultural water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.

- (c) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for achieving the per capita reductions. The supplier may request grant or loan funds to achieve the per capita reductions to the extent the request is consistent with the eligibility requirements applicable to the water funds.
- (d) Notwithstanding subdivision (b), the department shall determine that an agricultural water supplier is eligible for a water grant or loan even though the supplier is not implementing all of the efficient water management practices described in Section 10608.48, if the agricultural water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for implementation of the efficient water management practices. The supplier may request grant or loan funds to implement the efficient water management practices to the extent the request is consistent with the eligibility requirements applicable to the water funds.
- (e) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval documentation demonstrating that its entire service area qualifies as a disadvantaged community.
- (f) The department shall not deny eligibility to an urban retail water supplier or agricultural water supplier in compliance with the requirements of this part and Part 2.8 (commencing with Section 10800), that is participating in a multiagency water project, or an integrated regional water management plan, developed pursuant to Section 75026 of the Public Resources Code, solely on the basis that one or more of the agencies participating in the project or plan is not implementing all of the requirements of this part or Part 2.8 (commencing with Section 10800).

10608.60.(a) It is the intent of the Legislature that funds made available by Section 75026 of the Public Resources Code should be expended, consistent with Division 43 (commencing with Section 75001) of the Public Resources Code and upon appropriation by the Legislature, for grants to implement this part. In the allocation of funding, it is the intent of the Legislature that the department give consideration to disadvantaged communities to assist in implementing the requirements of this part.

- (b) It is the intent of the Legislature that funds made available by Section 75041 of the Public Resources Code, should be expended, consistent with Division 43 (commencing with Section 75001) of the Public Resources Code and upon appropriation by the Legislature, for direct expenditures to implement this part.

Chapter 8 Quantifying Agricultural Water Use Efficiency

SECTION 10608.64

10608.64. The department, in consultation with the Agricultural Water Management Council, academic experts, and other stakeholders, shall develop a methodology for quantifying the efficiency of agricultural water use. Alternatives to be assessed shall include, but not be limited to, determination of efficiency levels based on crop type or irrigation system distribution uniformity. On or before December 31, 2011, the department shall report to the Legislature on a proposed methodology and a plan for implementation. The plan shall include the estimated implementation costs and the types of data needed to support the methodology. Nothing in this section authorizes the department to implement a methodology established pursuant to this section.

Appendix C

Adoption Resolution and Related Documentation

[TO BE ADDED TO FINAL UWMP AFTER ADOPTION]

RAINBOW MUNICIPAL WATER DISTRICT
NOTICE OF PUBLIC HEARING
Tuesday, May 24, 2016

The Board of Directors of Rainbow Municipal Water District will hold a Public Hearing on Tuesday, May 24, 2016, at 1:00 p.m. at the office of the District, 3707 Old Highway 395, Fallbrook, California 92028 for the purpose of considering the adoption and implementation of RMWD's 2015 Urban Water Management Plan, as required by the California Water Code.

Copies of the plan shall be available for public review at the office of the District during normal business hours or on the website at www.rainbowmwd.com.

Any person may present oral or written comments in connection with the proposed action at the Public Hearing. Written comments may also be filed with the Secretary of the Board at 3707 Old Highway 395, Fallbrook, CA 92028. All comments must be received before the close of the Public Hearing.

/s/Dawn Washburn
Secretary of the Board
Rainbow Municipal Water District

Appendix D
AWWA Water Audit Worksheet

**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: **Rainbow Municipal Water District**
Reporting Year: **2015** | **1/2015 - 12/2015**

***** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 81 out of 100 *****

System Attributes:

Apparent Losses:	948.813	acre-ft/yr
+ Real Losses:	204.046	acre-ft/yr
= Water Losses:	1,152.859	acre-ft/yr
? Unavoidable Annual Real Losses (UARL):	564.55	acre-ft/yr
Annual cost of Apparent Losses:	\$1,409,363	
Annual cost of Real Losses:	\$303,090	Valued at Customer Retail Unit Cost

Return to Reporting Worksheet to change this assumption

Performance Indicators:

Financial:	{	Non-revenue water as percent by volume of Water Supplied:	7.7%	
		Non-revenue water as percent by cost of operating system:	5.3%	Real Losses valued at Customer Retail Unit Cost

Operational Efficiency:	{	Apparent Losses per service connection per day:	108.06	gallons/connection/day
		Real Losses per service connection per day:	N/A	gallons/connection/day
		Real Losses per length of main per day*:	578.29	gallons/mile/day
		Real Losses per service connection per day per psi pressure:	N/A	gallons/connection/day/psi

From Above, Real Losses = Current Annual Real Losses (CARL): **204.05** acre-feet/year
 ? Infrastructure Leakage Index (ILI) [CARL/UARL]: **0.36**

* 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: Water Balance

WAS v5.0

American Water Works Association.

Water Audit Report for:	Rainbow Municipal Water District	
Reporting Year:	2015	1/2015 - 12/2015
Data Validity Score:	81	

Own Sources (Adjusted for known errors)	System Input 17,778.905	Water Exported 0.000	Billed Water Exported				Revenue Water 0.000
		Water Supplied 17,778.905	Authorized Consumption 16,626.046	Billed Authorized Consumption 16,402.810	Billed Metered Consumption (water exported is removed) 16,402.810		Revenue Water 16,402.810
Water Losses 1,152.859	Apparent Losses 948.813			Unbilled Authorized Consumption 223.236	Billed Unmetered Consumption 0.000		Non-Revenue Water (NRW) 1,376.095
		Real Losses 204.046	Unauthorized Consumption 44.447	Unbilled Metered Consumption 1.000			
				Unbilled Unmetered Consumption 222.236			
Water Imported				Customer Metering Inaccuracies 863.358			
				Systematic Data Handling Errors 41.007			
				Leakage on Transmission and/or Distribution Mains <i>Not broken down</i>			
				Leakage and Overflows at Utility's Storage Tanks <i>Not broken down</i>			
				Leakage on Service Connections <i>Not broken down</i>			

AWWA Free Water Audit Software: Dashboard

WAS v5.0

American Water Works Association.
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The graphic below is a visual representation of the Water Balance with bar heights proportional to the volume of the audit components

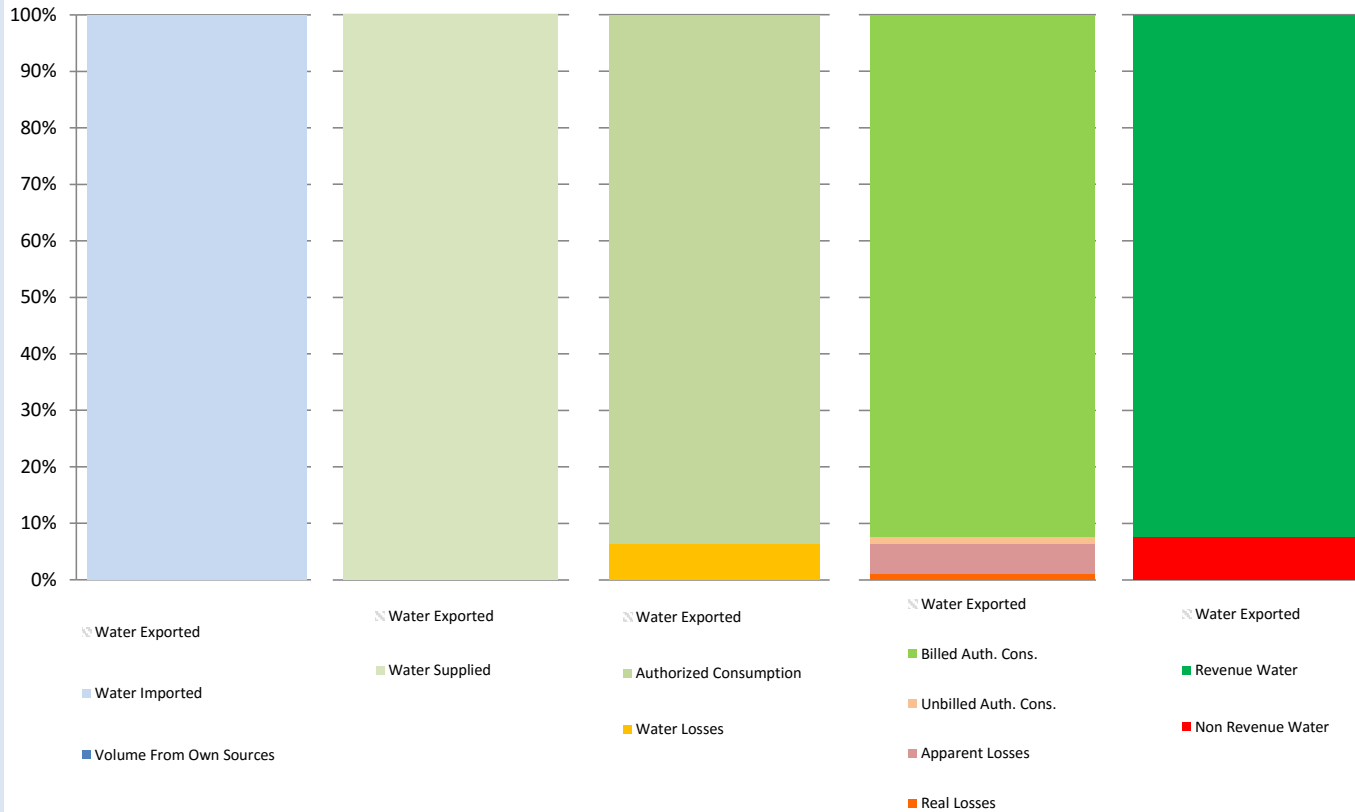
Water Audit Report for: **Rainbow Municipal Water District**

Reporting Year: **2015** **1/2015 - 12/2015**

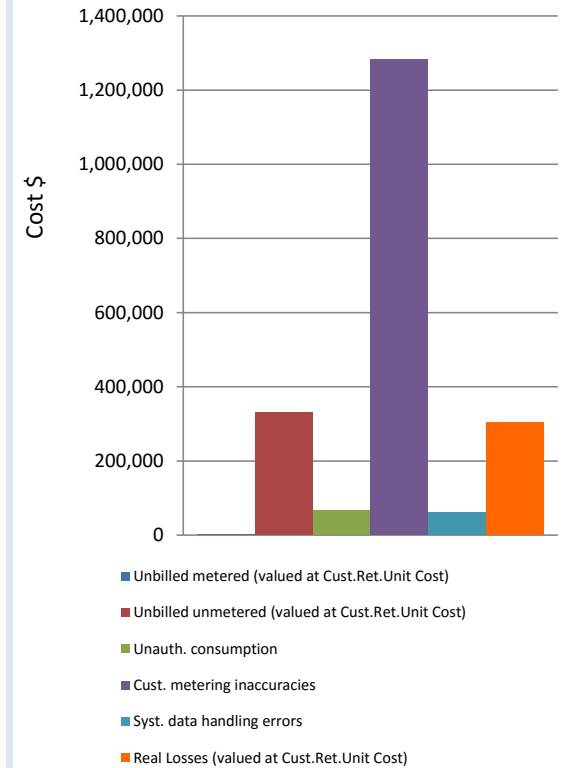
Data Validity Score: **81**

Show me the VOLUME of Non-Revenue Water

Show me the COST of Non-Revenue Water



Total Cost of NRW = \$2,044,047



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:		<u>to qualify for 2:</u> Organize and launch efforts to collect data for determining volume from own sources	<u>to qualify for 4:</u> 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.		<u>to qualify for 6:</u> 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.		<u>to qualify for 8:</u> 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.		<u>to qualify for 10:</u> 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.		<u>to maintain 10:</u> Standardize meter accuracy test frequency to semi-annual, or more frequent, for all meters. Repair or replace meters outside of +/- 3% accuracy. Continually investigate/plot 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 on at least 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:		<u>to qualify for 2:</u> 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.	<u>to qualify for 4:</u> 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.		<u>to qualify for 6:</u> 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.		<u>to qualify for 8:</u> 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.		<u>to qualify for 10:</u> 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.		<u>to maintain 10:</u> 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.

Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10
<p>Improvements to attain higher data grading for "Water Imported Volume" component:</p> <p><i>(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.)</i></p>		<p><u>to qualify for 2:</u> 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.</p>	<p><u>To qualify for 4:</u> 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.</p>		<p><u>to qualify for 6:</u> 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.</p>		<p><u>to qualify for 8:</u> 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.</p>		<p><u>to qualify for 10:</u> 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.</p>		<p><u>to maintain 10:</u> 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.</p>
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 Exporter. 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:		<p><u>to qualify for 2:</u> 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.</p>	<p><u>to qualify for 4:</u> 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.</p>		<p><u>to qualify for 6:</u> 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.</p>		<p><u>to qualify for 8:</u> 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.</p>		<p><u>to qualify for 10:</u> 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.</p>		<p><u>to maintain 10:</u> 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.</p>
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.
<p>Improvements to attain higher data grading for "Water Exported Volume" component:</p> <p><i>(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.)</i></p>		<p><u>to qualify for 2:</u> 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.</p>	<p><u>To qualify for 4:</u> 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</p>		<p><u>to qualify for 6:</u> 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.</p>		<p><u>to qualify for 8:</u> 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.</p>		<p><u>to qualify for 10:</u> 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.</p>		<p><u>to maintain 10:</u> 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.</p>

Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10
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.
Improvements to attain higher data grading for "Water exported master meter and supply error adjustment" component:		<u>to qualify for 2:</u> 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.	<u>to qualify for 4:</u> 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.		<u>to qualify for 6:</u> 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.		<u>to qualify for 8:</u> 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.		<u>to qualify for 10:</u> 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.		<u>to maintain 10:</u> 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 conducting 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.	<u>to qualify for 2:</u> Conduct investigations or trials of customer meters to select appropriate meter models. Budget funding for meter installations. Investigate volume based water rate structures.	<u>to qualify for 4:</u> 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.		<u>to qualify for 6:</u> 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.		<u>to qualify for 8:</u> 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.		<u>to qualify for 10:</u> 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.		<u>to maintain 10:</u> 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.

Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10
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 <u>not</u> 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 <u>not</u> 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 <u>does</u> 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 <u>does</u> 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 <u>does</u> 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 <u>does</u> 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.
Improvements to attain higher data grading for "Billed Unmetered Consumption" component:		<u>to qualify for 2:</u> 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.	<u>to qualify for 4:</u> 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.		<u>to qualify for 6:</u> 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		<u>to qualify for 8:</u> 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.		<u>to qualify for 10:</u> 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.		<u>to maintain 10:</u> 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:		<u>to qualify for 2:</u> 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.	<u>to qualify for 4:</u> 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 the number of accounts to a minimum. Consider increasing the priority of reading meters on unbilled accounts at least annually.		<u>to qualify for 6:</u> 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.		<u>to qualify for 8:</u> 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.		<u>to qualify for 10:</u> 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.		<u>to maintain 10:</u> Reassess the utility's philosophy in allowing any water uses to go "unbilled". It is possible to 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.

Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10
Improvements to attain higher data grading for "Unbilled Unmetered Consumption" component:		<p><u>to qualify for 5:</u> 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.</p> <p><u>to qualify for 2:</u> 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 flushings).</p>	<p><u>to qualify for 5:</u> 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.</p> <p><u>to qualify for 4:</u> 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).</p>		<p><u>to qualify for 5:</u> 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.</p>	<p><u>to qualify for 6 or greater:</u> 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.</p>	<p><u>to qualify for 8:</u> 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.</p>		<p><u>to qualify for 10:</u> 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.</p>	<p><u>to maintain 10:</u> 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.</p>	
APPARENT LOSSES											
Unauthorized consumption:		<p>Extent of unauthorized consumption is unknown due to unclear policies and poor recordkeeping. Total unauthorized consumption is guesstimated.</p>	<p>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.</p>	Conditions between 2 and 4	<p>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).</p>	<p>Default value of 0.25% of volume of water supplied is employed</p>	<p>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.</p>	Conditions between 6 and 8	<p>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.</p>	Conditions between 8 and 10	<p>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.</p>
Improvements to attain higher data grading for "Unauthorized Consumption" component:		<p><u>to qualify for 5:</u> Use accepted default of 0.25% of volume of water supplied.</p> <p><u>to qualify for 2:</u> 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)</p>	<p><u>to qualify for 5:</u> Use accepted default of 0.25% of system input volume</p> <p><u>to qualify for 4:</u> 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)</p>		<p><u>to qualify for 5:</u> 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.</p>	<p><u>to qualify for 6 or greater:</u> 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.</p>	<p><u>to qualify for 8:</u> 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.</p>		<p><u>to qualify for 10:</u> 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.</p>	<p><u>to maintain 10:</u> 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.</p>	
Customer metering inaccuracies:	select n/a only if the entire customer population is unmetered. In such a case the volume entered must be zero.	<p>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.</p>	<p>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.</p>	Conditions between 2 and 4	<p>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.</p>	Conditions between 4 and 6	<p>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.</p>		<p>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.</p>	<p>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.</p>	<p>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 embracing to keep overall accuracy improving. Procedures are reviewed by a third party knowledgeable in the M36 methodology.</p>

Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10
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.	<u>to qualify for 2:</u> 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.	<u>to qualify for 4:</u> 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.		<u>to qualify for 6:</u> Standardize the procedures for meter recordkeeping within an electronic information system. Accelerate meter accuracy testing and meter replacements guided by testing results.		<u>to qualify for 8:</u> 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.		<u>to qualify for 9:</u> 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.	<u>to qualify for 10:</u> 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.	<u>to maintain 10:</u> 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.
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:		<u>to qualify for 2:</u> 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.	<u>to qualify for 4:</u> 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.		<u>to qualify for 6:</u> 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.		<u>to qualify for 8:</u> 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.		<u>to qualify for 10:</u> 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.		<u>to maintain 10:</u> 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:		<u>to qualify for 2:</u> 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.	<u>to qualify for 4:</u> 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.		<u>to qualify for 6:</u> 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.		<u>to qualify for 8:</u> 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.		<u>to qualify for 10:</u> Link Geographic Information System (GIS) and asset management databases, conduct field verification of data. Record field verification information at least annually.		<u>to maintain 10:</u> Continue with standardization and random field validation to improve the completeness and accuracy of the system.

Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10
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.
Average length of customer service line:	Note: if customer water 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.	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: 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 breach 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 breach 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.

Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10
<p>Improvements to attain higher data grading for "Average Operating Pressure" component:</p>		<p><u>to qualify for 2:</u> 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</p>	<p><u>to qualify for 4:</u> 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.</p>		<p><u>to qualify for 6:</u> 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.</p>		<p><u>to qualify for 8:</u> 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.</p>		<p><u>to qualify for 10:</u> 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.</p>	<p><u>to maintain 10:</u> 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.</p>	

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:		<u>to qualify for 2:</u> Gather available records, institute new financial accounting procedures to regularly collect and audit basic cost data of most important operations functions.	<u>to qualify for 4:</u> Implement an electronic cost accounting system, structured according to accounting standards for water utilities		<u>to qualify for 6:</u> Establish process for periodic internal audit of water system operating costs; identify cost data gaps and institute procedures for tracking these outstanding costs.		<u>to qualify for 8:</u> 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.		<u>to qualify for 10:</u> Standardize the process to conduct a third-party financial audit by a CPA on an annual basis.		<u>to maintain 10:</u> 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:		<u>to qualify for 2:</u> 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.	<u>to qualify for 4:</u> 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.		<u>to qualify for 6:</u> Evaluate volume of water used in each usage block by residential users. Multiply volumes by full rate structure.	<u>Launch effort to fully meter the customer population and charge rates based upon water volumes</u>	<u>to qualify for 8:</u> Evaluate volume of water used in each usage block by all classifications of users. Multiply volumes by full rate structure.		<u>to qualify for 10:</u> Conduct a periodic third-party audit of water used in each usage block by all classifications of users. Multiply volumes by full rate structure.		<u>to maintain 10:</u> 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 water imported, and the unit purchase cost - including all applicable marginal supply costs - serves as the variable production cost. If all applicable marginal supply costs are not included in this figure, a grade of 10 should not be selected.
Improvements to attain higher data grading for "Variable Production Cost" component:		<u>to qualify for 2:</u> Gather available records, institute new procedures to regularly collect and audit basic cost data and most important operations functions.	<u>to qualify for 4:</u> Implement an electronic cost accounting system, structured according to accounting standards for water utilities		<u>to qualify for 6:</u> 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.		<u>to qualify for 8:</u> 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.		<u>to qualify for 10:</u> Standardize the process to conduct a third-party financial audit by a CPA on an annual basis.		<u>to maintain 10:</u> Maintain program, stay abreast of expenses subject to erratic cost changes and budget/track costs proactively



**AWWA Free Water Audit Software:
Determining Water Loss Standing**

WAS v5.0

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Water Audit Report for: **Rainbow Municipal Water District**
 Reporting Year: **2015** 1/2015 - 12/2015
 Data Validity Score: **81**

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 in 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 planning.
>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 E
SBx7-7 Calculation Worksheet

SB X7-7 Table-1: Baseline Period Ranges			
Baseline	Parameter	Value	Units
10- to 15-year baseline period	2008 total water deliveries	27,198	Acre Feet
	2008 total volume of delivered recycled water	0	Acre Feet
	2008 recycled water as a percent of total deliveries	0.00%	Percent
	Number of years in baseline period ¹	10	Years
	Year beginning baseline period range	1999	
	Year ending baseline period range ²	2008	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2003	
	Year ending baseline period range ³	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 ending year must be between December 31, 2004 and December 31, 2010.			
³ The ending year must be between December 31, 2007 and December 31, 2010.			
NOTES: Potable per SDCWA			

SB X7-7 Table 2: Method for Population Estimates	
Method Used to Determine Population (may check more than one)	
<input type="checkbox"/>	1. Department of Finance (DOF) DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
<input type="checkbox"/>	2. Persons-per-Connection Method
<input type="checkbox"/>	3. DWR Population Tool
<input checked="" type="checkbox"/>	4. Other* DWR recommends pre-review
<p>* Estimates per San Diego Association of Governments (SANDAG). Data provided by SANDAG 4/5/16. Custom data sort to Rainbow service area boundary, per shape file provided by District 2015. SANDAG methodology uses census data for 2000 and 2010, at census block level.</p>	

SB X7-7 Table 3: Service Area Population		
Year		Population
10 Year Baseline Population		
Year 1	1999	16,045
Year 2	2000	16,178
Year 3	2001	17,201
Year 4	2002	17,099
Year 5	2003	17,122
Year 6	2004	17,882
Year 7	2005	17,899
Year 8	2006	18,039
Year 9	2007	18,145
Year 10	2008	18,242
5 Year Baseline Population		
Year 1	2003	17,122
Year 2	2005	17,882
Year 3	2006	17,899
Year 4	2007	18,039
Year 5	2008	18,145
2015 Compliance Year Population		
	2015	20,279
<p>NOTES: Estimates per San Diego Association of Governments (SANDAG). Data provided by SANDAG 4/5/16. Custom data sort to Rainbow service area boundary, per shape file provided by District 2015. SANDAG methodology uses census data for 2000 and 2010, at census block level.</p>		

SB X7-7 Table 4: Annual Gross Water Use								
	Baseline Year <i>Fm SB X7-7 Table 3</i>	Volume Into Distribution System <i>Fm SB X7-7 Table(s) 4-A</i>	Deductions					Annual Gross Water Use
			Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water <i>Fm SB X7-7 Table 4-B</i>	Water Delivered for Ag Use	Process Water <i>Fm SB X7-7 Table(s) 4-D</i>	
10 Year Baseline - Gross Water Use								
Year 1	1999	25,177			0		0	25,177
Year 2	2000	29,859			0		0	29,859
Year 3	2001	27,329			0		0	27,329
Year 4	2002	31,633			0		0	31,633
Year 5	2003	28,995			0		0	28,995
Year 6	2004	33,300			0		0	33,300
Year 7	2005	25,273			0		0	25,273
Year 8	2006	30,501			0		0	30,501
Year 9	2007	33,186			0		0	33,186
Year 10	2008	27,198			0		0	27,198
10 year baseline average gross water use								29,245
5 Year Baseline - Gross Water Use								
Year 1	2003	28,995			0		0	28,995
Year 2	2005	33,300			0		0	33,300
Year 3	2006	25,273			0		0	25,273
Year 4	2007	30,501			0		0	30,501
Year 5	2008	33,186			0		0	33,186
5 year baseline average gross water use								30,251
2015 Compliance Year - Gross Water Use								
	2015	20,062			0		0	20,062
NOTES : The Agricultural Use deduction is optional per SBx7-7 and the DWR Methodology guidebook. By not deducting its agricultural usage, the District satisfies its agricultural water management reporting through its UWMP, and is not subject to separate agricultural water management plan requirements.								

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)
 Complete one table for each source.

Name of Source		SDCWA		
This water source is:				
<input type="checkbox"/>	The supplier's own water source			
<input checked="" type="checkbox"/>	A purchased or imported source			
Baseline Year <i>Fm SB X7-7 Table 3</i>		Volume Entering Distribution System	Meter Error Adjustment* <i>Optional (+/-)</i>	Corrected Volume Entering Distribution System
10 Year Baseline - Water into Distribution System				
Year 1	1999	25,177		25,177
Year 2	2000	29,859		29,859
Year 3	2001	27,329		27,329
Year 4	2002	31,633		31,633
Year 5	2003	28,995		28,995
Year 6	2004	33,300		33,300
Year 7	2005	25,273		25,273
NOTES: P	2006	30,501		30,501
Year 9	2007	33,186		33,186
Year 10	2008	27,198		27,198
5 Year Baseline - Water into Distribution System				
Year 1	2003	28,995		28,995
Year 2	2005	33,300		33,300
Year 3	2006	25,273		25,273
Year 4	2007	30,501		30,501
Year 5	2008	33,186		33,186
2015 Compliance Year - Water into Distribution System				
	2015	20,062		20,062
<i>* Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document</i>				
NOTES: Sole source of District supply.				

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Annual Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use (GPCD)
10 Year Baseline GPCD				
Year 1	1999	16,045	25,177	1,401
Year 2	2000	16,178	29,859	1,648
Year 3	2001	17,201	27,329	1,418
Year 4	2002	17,099	31,633	1,652
Year 5	2003	17,122	28,995	1,512
Year 6	2004	17,882	33,300	1,662
Year 7	2005	17,899	25,273	1,261
Year 8	2006	18,039	30,501	1,509
Year 9	2007	18,145	33,186	1,633
Year 10	2008	18,242	27,198	1,331
10 Year Average Baseline GPCD				1,503
5 Year Baseline GPCD				
Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use
Year 1	2003	17,122	28,995	1,512
Year 2	2005	17,882	33,300	1,662
Year 3	2006	17,899	25,273	1,261
Year 4	2007	18,039	30,501	1,509
Year 5	2008	18,145	33,186	1,633
5 Year Average Baseline GPCD				1,515
2015 Compliance Year GPCD				
2015		20,279	20,062	883
NOTES:				

SB X7-7 Table 6: Gallons per Capita per Day <i>Summary From Table SB X7-7 Table 5</i>	
10 Year Baseline GPCD	1,503
5 Year Baseline GPCD	1,515
2015 Compliance Year GPCD	883
NOTES:	

SB X7-7 Table 7: 2020 Target Method		
<i>Select Only One</i>		
Target Method		Supporting Documentation
<input checked="" type="checkbox"/>	Method 1	SB X7-7 Table 7A
<input type="checkbox"/>	Method 2	SB X7-7 Tables 7B, 7C, and 7D <i>Contact DWR for these tables</i>
<input type="checkbox"/>	Method 3	SB X7-7 Table 7-E
<input type="checkbox"/>	Method 4	Method 4 Calculator
NOTES:		

SB X7-7 Table 7-A: Target Method 1 20% Reduction	
10 Year Baseline GPCD	2020 Target GPCD
1503	1202
NOTES: Target = 80% of Baseline	

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target			
5 Year Baseline GPCD <i>From SB X7-7 Table 5</i>	Maximum 2020 Target*	Calculated 2020 Target <i>Fm Appropriate Target Table</i>	Confirmed 2020 Target
1515	1440	1202	1202
* Maximum 2020 Target is 95% of the 5 Year Baseline GPCD			
NOTES:			

SB X7-7 Table 8: 2015 Interim Target GPCD		
Confirmed 2020 Target <i>Fm SB X7-7 Table 7-F</i>	10 year Baseline GPCD <i>Fm SB X7-7 Table 5</i>	2015 Interim Target GPCD
1,202	1,503	1,352
NOTES: Interim Target = 90% Baseline		

SB X7-7 Table 9: 2015 Compliance					
Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments		2015 GPCD <i>(Adjusted if applicable)</i>	Did Supplier Achieve Targeted Reduction for 2015?
		TOTAL Adjustments	Adjusted 2015 GPCD		
883	1352	0	883	883	YES
NOTES:					

Appendix F

Water Authority Documentation of Supply Reliability

- Section 9 of the San Diego County Water Authority's Draft Regional UWMP, April 2016. The complete UWMP is available on the Water Authority website at <http://www.sdcwa.org/uwmp>.
- [The Draft section included here will be replaced with the Final when available from the Water Authority.]

Section 9

Water Supply Reliability

Under the Act, every UWMP must include an assessment of water supply reliability. The assessment must compare the total projected water supply and demands over the next 20 years in five-year increments under normal, single dry year, and multiple dry water years. The assessment contained in the 2015 Plan evaluates reliability through the next 25 years. In addition to the verifiable mix of resources utilized in the reliability assessment, additional planned resources by the Water Authority and its member agencies have also been identified. Additional planned projects can further reduce the region's reliance on sources of supply from Metropolitan, such as the Bay-Delta. This section presents a summary of the water demands and supplies within the Water Authority's service area, along with the reliability assessment and discussion on additional planned projects. Results from the reliability assessment demonstrate that even with very conservative assumptions regarding the availability of dry year supplies from Metropolitan, the region's existing and projected water resource mix is increasingly drought-resilient, but shortages still occur during a single dry-year by 2030, and more significant shortages during a multiple dry water year event beginning in 2028. These shortages can be mitigated through extraordinary water conservation actions and if necessary, dry-year transfers.

9.1 Development of Projected Water Resources Mix

In summary, development of the projected mix of resources to meet future demands is based on the following factors:

- I. Member agency information on projected water recycling, potable reuse, groundwater, desalination, and surface water (discussed in **Section 5**)
- II. Attaining the additional regional water use efficiency targets (**Section 2**)
- III. Board approvals taken in regard to Water Authority supplies (**Sections 4 and 11**):
 - a. Agreement between IID and the Water Authority for Transfer of Conserved Water, and other related agreements (**Section 4.2**);
 - b. Agreements related to the ACC and CC Lining Projects, and other related agreements (**Section 4.3**);
 - c. Claude "Bud" Lewis Carlsbad Desalination Plant Water Purchase Agreement between the Water Authority and Poseidon Water (**Section 4.5**);
 - d. Acceptance of San Vicente Dam Raise Project (emergency and carryover storage) as complete (**Section 11.2.4**);
 - e. Approval of 2013 Regional Water Facilities Optimization and Master Plan Update (**Section 1.6.4**); and
 - f. Agreements and actions related to out-of-region groundwater banking program (**Section 11.2.4**).

9.2 Normal Water Year Assessment

Table 9-1 shows the normal year assessment, summarizing the total water demands within the Water Authority's service area through the year 2040 along with the supplies necessary to meet demands under normal conditions. **Section 2** contains a discussion of the normal year water demands in the Water Authority's service area. If Metropolitan, the Water Authority and member agency supplies are maintained and developed as planned, along with achievement of the additional water conservation, no shortages are anticipated within the Water Authority's service area in a normal year through 2040.

In the reliability assessment, the projected supplies from Metropolitan are considered supplemental and are calculated as the increment of supply necessary to meet demands after taking into account member agency and Water Authority supplies. Metropolitan staff provided the Water Authority with estimated demands on Metropolitan that will be used in their 2015 Plan. The estimated demands are shown to be adequate to cover the supplemental need identified in Table 9-1. The data provided by Metropolitan is included in **Appendix I**.

Table 9-1. Normal Water Year Supply and Demand Assessment (AF/YR)¹

	2020	2025	2030	2035	2040
Water Authority Supplies					
IID Water Transfer	190,000	200,000	200,000	200,000	200,000
ACC and CC Lining Projects	80,200	80,200	80,200	80,200	80,200
Lewis Carlsbad Desalination Plant	50,000	50,000	50,000	50,000	50,000
Sub-Total	320,200	330,200	330,200	330,200	330,200
Member Agency Supplies					
Surface Water	51,580	51,480	51,380	51,280	51,180
Water Recycling	41,166	44,381	46,465	46,825	47,565
Seawater Desalination	6,000	6,000	6,000	6,000	6,000
Potable Reuse	3,300	3,300	3,300	3,300	3,300
Brackish GW Recovery	12,100	12,507	12,507	12,507	12,507
Groundwater	17,940	19,130	20,170	20,170	20,170
Sub-Total	132,086	136,798	139,822	140,082	140,722
Metropolitan Water District Supplies	130,897	164,855	183,578	202,042	226,713
Total Projected Supplies	583,183	631,853	653,600	672,324	697,635
Total Demands w/ Water Efficiency Savings	583,183	631,853	653,600	672,324	697,635

¹ Normal water year demands based on 1960 – 2013 hydrology.

9.3 Dry Water Year Assessment

In addition to a normal water year assessment, the Act requires an assessment to compare supply and demands under a single dry year and multiple dry water years over the next 20 years, in five-year increments. **Section 2** describes the derivation of the dry water year demands. Table 9-2 shows the single dry-year assessment. The dry-year demands reflect long-term water use efficiency, but do not incorporate potential savings due to extraordinary conservation occurring during droughts. This approach allows for a more comprehensive shortage analysis and drought response planning.

The projected groundwater and surface water yields shown in the table are based on 2015 dry-year supplies during the present drought beginning in 2012. The Verifiable supplies available from member agency projected recycling, potable reuse, and groundwater recovery projects are assumed to experience little, if any, reduction in a dry year. The Water Authority’s existing and planned conserved supplies from the IID transfer, canal lining projects, and Carlsbad Desalination Plant are also considered “drought-resilient” supplies as discussed in **Section 4**. For this single dry-year assessment, it was assumed that Metropolitan is limited to 1.4 MAF of supplies due to dry conditions and increased reductions in deliveries from State Water Project (no Delta improvements) and/or reduction in Colorado River deliveries; and the Water Authority receives its preferential right based on Metropolitan’s current method of calculating such rights.

Table 9-2. Single Dry Water Year Supply and Demand Assessment Five Year Increments (AF/YR)

	2020	2025	2030	2035	2040
Water Authority Supplies					
IID Water Transfer	190,000	200,000	200,000	200,000	200,000
ACC and CC Lining Projects	80,200	80,200	80,200	80,200	80,200
Regional Seawater Desalination	50,000	50,000	50,000	50,000	50,000
Sub-Total	320,200	330,200	330,200	330,200	330,200
Member Agency Supplies					
Surface Water	6,004	6,004	6,004	6,004	6,004
Water Recycling	41,166	44,381	46,465	46,825	47,565
Seawater Desalination	6,000	6,000	6,000	6,000	6,000
Potable Reuse	3,300	3,300	3,300	3,300	3,300
Brackish GW Recovery	12,100	12,507	12,507	12,507	12,507
Groundwater	15,281	15,281	15,281	15,281	15,281
Sub-Total	83,851	87,473	89,557	89,917	90,657
Metropolitan Water District Supplies	263,340	264,740	263,340	260,680	258,720
Total Projected Supplies w/o Storage Takes	667,391	682,413	683,097	680,797	679,577
Total Demands w/ Water Efficiency Savings	624,523	676,872	700,459	720,531	759,852
Potential Supply (Shortage) or Surplus	42,868	5,541	(17,362)	(39,734)	(80,275)
Utilization Carryover Supplies	0	0	17,362	39,734	40,000
Total Projected Core Supplies w/ Utilization of Carryover Storage Supplies	667,391	682,413	700,459	720,531	719,577
Remaining Potential Surplus Supply, or (Shortage) that will be handled through Management Actions	42,868	5,541	0	0	(40,275)

With a very conservative assumption regarding limited Metropolitan supplies during a single dry water year and assuming Water Authority and member agency supplies are maintained and developed as planned, along with achievement of the additional conservation target, no shortages are anticipated within the Water Authority's service area in a single dry year until 2040. These shortages would be eliminated should Metropolitan supplies approach the supply levels projected in Metropolitan's Draft 2015 UWMP Single Dry Year Supply Capability.

As discussed in **Section 11.2.4**, the Water Authority has invested in carryover storage supply capacity, which can be utilized in dry years to improve reliability. The carryover storage investment includes both surface water storage in San Vicente Reservoir and out-of-region groundwater storage in California's Central Valley, for a total of 170,000 AF of carryover storage capacity available.

As described in **Section 11.2.4**, there are a number of factors to consider when determining the utilization of carryover supplies to reduce or eliminate shortages. The storage take amount should be handled on a case-by-case basis, considering such items as, current demand trends, core supply availability, hydrologic conditions, and storage supply available for withdrawal. These factors will vary depending upon the situation. For the analysis in the 2015 Plan, it was assumed the available carryover storage would be 120,000 AF going into the dry-year period. In determining the amount to utilize, the analysis uses general guidelines, consistent with previous Water Authority planning documents, that approximately one third of the carryover supplies available in storage will be utilized in one year. Utilizing a portion of available storage supplies avoids depletion of storage reserves, thereby making water available for potential ongoing or future shortages. The supplies taken from carryover storage will be considered a Water Authority regional supply to be combined with the Water Authority's core supplies and any potential dry-year transfers.

Under the Water Authority's current Transitional Special Agricultural Water Rate (TSAWR) program requirements, customers in the TSAWR class of service receive no water from the Carryover Storage Program during Stage 2 or 3 of the Water Shortage Drought Response Plan. During shortages, TSAWR deliveries are also cut back at the same level as Metropolitan's cutback to the Water Authority. Extension of the TSAWR program was approved by the Water Authority Board in March 2014 and will be revisited by the Board again in 2020. For planning purposes only, the assessments in Tables 9-3 through 9-7 do not factor in the exclusion from the Carryover Storage Program due to the uncertainties associated with the future of the program beyond 2020. This also provides a more conservative planning analysis.

In years where shortages may still occur after utilization of carryover storage, additional regional shortage management measures, consistent with the Water Authority's Water Shortage and Drought Response Plan (described in **Section 11.2.1**), will be taken to fill the supply shortfall. These measures could include extraordinary conservation, achieved through voluntary or mandatory water-use restrictions. A description of the savings achieved during the 2012-2016 shortage period is included in **Section 11.2.3**. As discussed in the following section, the amount of savings achieved through extraordinary conservation measures could be limited due to demand hardening. In addition, the Water Authority could evaluate the option of securing dry-year transfers, which the Water Authority successfully acquired and utilized during the 2007-2011 shortage management period. (A description of the Water Authority's dry year transfer program is included in **Section 11.2.4**).

In accordance with the Act, Tables 9-3, 9-4, 9-5, 9-6, and 9-7 show the multiple dry water year assessments in five-year increments. Similar to the single dry-year assessment, the member agencies' surface and groundwater yields shown in these tables are reflective of supplies available during the present drought, beginning in 2012, in years 2013, 2014 and 2015. However, due to recent supply conditions, the analysis for the 2017 to 2019 period was based on a different assumption. For this period, it was assumed water supplies are based on current levels for the first year and reduced down to actual 2015 levels over the three-year cycle ending with 2019. While surface and groundwater yields are based on historic estimates and remain the same, recycled and brackish groundwater yields are based on projected growth in these member agency supplies. For the multiple dry-year reliability analysis, the conservative planning assumption is that Metropolitan will be allocating supplies to its member agencies. By assuming allocations in this reliability assessment, it allows the Water Authority to analyze how storage supplies could potentially be utilized and the likelihood of shortages. Currently, Metropolitan allocates supplies through its WSAP. Because it is uncertain in the future how Metropolitan will allocate supplies to its member agencies, the analysis in the tables assumes supplies are allocated based on preferential right to Metropolitan supplies. As discussed above in **Section 6.1.1**, Section 135, Preferential Right to Purchase Water, is included in the Metropolitan Act and allows a Metropolitan member agency to acquire, for use within the agency, supplies based on preferential right at any time.

The Water Authority's annual preferential right percentage of Metropolitan supplies, used in Tables 9-3 through 9-7, is estimated through 2040 and is based on Metropolitan's current method of calculating preferential rights. In 2015, a Superior Court ruled Metropolitan under-calculated the Water Authority's preferential right to Metropolitan water. That ruling is being appealed. The analysis assumes the total Metropolitan dry-year supplies available for allocation to be 1.2 MAF for the period of 2017 to 2019 due to temporal proximity to current dry conditions and depleted storage levels; and a decreasing amount of 1.4 MAF, 1.3 MAF, and 1.2 MAF for the first, second, and third year respectively for the remaining multi-year dry periods. A conservative methodology was employed due to the numerous uncertainties associated with identifying Metropolitan's future available supplies and storage. In **Section 10**, there are scenarios presented that modify the dry-year supplies available for allocation. This total supply assumes reduced deliveries from the State Water Project and Colorado River Aqueduct along with limited storage supplies. This conservative approach is based on Water Authority's experience with the current 5-year drought and its adverse impacts on imported water supplies.

Because of the closeness in time, the demands for the period of 2017 to 2019 were adjusted to align with current demands that are also dampened due the statewide Emergency Conservation Regulation currently in place. Specifically, the 2017 demands were adjusted to match demands from the Calendar Year 2017 Rates and Charges forecast to yield more accurate demand projections. Years 2018 and 2019 demands were then increased one percent from the previous year to account for minimal growth. As a result of this adjust to the 2017-2019 demands, there is a step-up in demand between Tables 9-3 and 9-4 that provides for a return to, and alignment with the undampened dry year demand projections developed for the 2015 Plan.

The rest of the multi dry-year periods have the first year based on the multi dry-year demand forecast with the next two years being increased one percent from the previous year to account for growth. This method for the multi dry-year events was used in order to account for the lower than normal demand increases being experienced by the Water Authority and its member agencies as they respond to the current drought and conservation efforts.

Table 9-3. Multiple Dry Water Year Supply and Demand Assessment Five-Year Increments (AF/YR) – 2017-2019

	2017	2018	2019
Member Agency Supplies	72,233	71,858	69,233
Water Authority Supplies	230,200	260,200	290,200
Metropolitan Allocation (Preferential Right)	223,560	224,400	225,120
Total Estimated Core Supplies w/o Storage Takes	525,993	556,458	584,553
Total Demands w/ Water Efficiency Savings	491,841	496,759	501,727
Potential Supply (Shortage) or Surplus <i>(Difference between Supplies and Demands)</i>	34,152	59,698	82,826
Utilization Carryover Supplies	0	0	0
Total Projected Core Supplies w/ Utilization of Carryover Storage Supplies	525,993	556,458	584,553
Remaining Potential Surplus Supply, or (Shortage) that will be handled through Management Actions	34,152	59,698	82,826

Table 9-4. Multiple Dry Water Year Supply and Demand Assessment Five-Year Increments (AF/YR) – 2021-2023

	2021	2022	2023
Member Agency Supplies	125,259	102,592	85,780
Water Authority Supplies	330,200	330,200	330,200
Metropolitan Allocation (Preferential Right)	263,900	245,310	226,680
Total Estimated Core Supplies w/o Storage Takes	719,359	678,102	642,660
Total Demands w/ Water Efficiency Savings	632,681	639,008	645,398
Potential Supply (Shortage) or Surplus <i>(Difference between Supplies and Demands)</i>	86,678	39,094	(2,738)
Utilization Carryover Supplies	0	0	2,738
Total Projected Core Supplies w/ Utilization of Carryover Storage Supplies	719,359	678,102	645,398
Remaining Potential Surplus Supply, or (Shortage) that will be handled through Management Actions	86,678	39,094	0

Table 9-5. Multiple Dry Water Year Supply and Demand Assessment Five-Year Increments (AF/YR) – 2026-2028

	2026	2027	2028
Member Agency Supplies	130,355	107,462	90,423
Water Authority Supplies	330,200	330,200	330,200
Metropolitan Allocation (Preferential Right)	264,600	245,570	226,440
Total Estimated Core Supplies w/o Storage Takes	725,155	683,232	647,063
Total Demands w/ Water Efficiency Savings	681,549	688,364	695,248
Potential Supply (Shortage) or Surplus <i>(Difference between Supplies and Demands)</i>	43,606	(5,133)	(48,185)
Utilization Carryover Supplies	0	5,133	40,000
Total Projected Core Supplies w/ Utilization of Carryover Storage Supplies	725,155	688,364	687,063
Remaining Potential Surplus Supply, or (Shortage) that will be handled through Management Actions	43,606	0	(8,185)

Table 9-6. Multiple Dry Water Year Supply and Demand Assessment Five-Year Increments (AF/YR) – 2031-2033

	2031	2032	2033
Member Agency Supplies	132,094	108,856	91,473
Water Authority Supplies	330,200	330,200	330,200
Metropolitan Allocation (Preferential Right)	262,780	243,490	224,280
Total Estimated Core Supplies w/o Storage Takes	725,074	682,546	645,953
Total Demands w/ Water Efficiency Savings	704,215	711,257	718,370
Potential Supply (Shortage) or Surplus <i>(Difference between Supplies and Demands)</i>	20,859	(28,711)	(72,417)
Utilization Carryover Supplies	0	28,711	40,000
Total Projected Core Supplies w/ Utilization of Carryover Storage Supplies	725,074	711,257	685,953
Remaining Potential Surplus Supply, or (Shortage) that will be handled through Management Actions	20,859	0	(32,417)

Table 9-7. Multiple Dry Water Year Supply and Demand Assessment Five-Year Increments (AF/YR) – 2036-2038

	2036	2037	2038
Member Agency Supplies	132,530	109,368	92,061
Water Authority Supplies	330,200	330,200	330,200
Metropolitan Allocation (Preferential Right)	260,260	241,410	222,480
Total Estimated Core Supplies w/o Storage Takes	722,990	680,978	644,741
Total Demands w/ Water Efficiency Savings	730,024	737,324	744,697
Potential Supply (Shortage) or Surplus <i>(Difference between Supplies and Demands)</i>	(7,034)	(56,346)	(99,956)
Utilization Carryover Supplies	7,034	40,000	40,000
Total Projected Core Supplies w/ Utilization of Carryover Storage Supplies	730,024	720,978	684,741
Remaining Potential Surplus Supply, or (Shortage) that will be handled through Management Actions	0	(16,346)	(59,956)

Under specific parameters assumed in the multi dry-year analysis, shortages are experienced, as shown in Tables 9-5 thru 9-7. The significant shortages are due to increasing water demands due to economic growth within the region and the approach of applying restricted supply from Metropolitan. As with the Single Dry Water Year Supply and Demand Assessment, these shortages could be eliminated should Metropolitan supplies approach the supply levels projected in Metropolitan’s Draft 2015 UWMP Multiple Dry Year Supply Capability.

As stated in the single dry-year analysis, carryover storage would be utilized in order to lessen the impacts of a supply shortfall.

It should be emphasized that the amount of extraordinary conservation savings expected to be achieved through mandatory measures, such as water-use restrictions, could be less than that experienced in the previous shortage periods due to demand hardening. Responsiveness to drought pricing and general price increases will diminish because remaining essential uses are less responsive to price. This will reduce customer discretionary demands and create less flexibility in the managing of demand during shortages, which will increase the importance of acquiring supplemental dry-year supplies to eliminate or reduce potential supply shortages. **Section 11.2.4** discusses the Water Authority’s potential dry-year supplies. Long-term permanent conservation savings is critical to ensuring water is used most efficiently and will help avoid or minimize drought situations. Due to potential demand hardening, shortage management measures such as water-use restrictions and drought pricing may not be as effective in the future in achieving necessary savings to help reduce the supply gap.

9.4 Reliability of Supply

The above sections identify the diverse mix of resources planned to meet future demands in both a normal and dry year. Implementation of this regional resource mix will require maintaining and

developing projects and programs by the Water Authority, its member agencies, and Metropolitan. The Water Authority coordinated with its member agencies and Metropolitan during preparation of the 2015 Plan on the future demands and supplies projected for the region. The steps being taken by the member agencies and Metropolitan to develop supplies are addressed in their respective UWMPs. **Section 4** contains the steps taken and remaining actions necessary to develop and maintain the Water Authority supplies.

The Act requires agencies to describe reliability of the water supply and vulnerability to seasonal and climatic shortage. **Section 9.2** and **Section 9.3** describe the results of the water supply reliability assessment for the region, during normal water years, single dry years, and multiple dry years. The Act also requires the 2015 Plan to contain historic data on supplies available for the three water year types. The following is the historic total supplies, both local and imported, that were utilized during the periods identified: Normal/average (607,200 AF) based on a 30-year average between 1986 and 2015, single dry year (477,458 AF) based on 2015, and multiple dry water years (581,828 AF, 590,119 AF, and 477,458 AF) based on years 2013–2015. Supplies utilized in a non-allocation dry period could exceed the supplies utilized in a normal year, due to the ability to purchase additional imported supplies from Metropolitan. It should also be noted that in the reliability assessment, contained in **Section 9.2**, the average local supply yields are not based on historic yields, but projected numbers provided by member agencies. These figures more accurately reflect the expected yield based on current local agency policies and procedures on operations and management of the supply.

Key to long-term reliability will be the monitoring of supplies and demands in order to make necessary modifications to the core and dry-year resources identified in the normal and dry-year resource mixes. The Water Authority Board will monitor reliability of existing supplies and development of identified future supplies through the Annual Supply Report and five-year updates to the UWMP.

The Act requires that, for any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, the agency describe, to the extent practicable, plans to replace that source with alternative sources or water demand management measures. As stated throughout the 2015 Plan, the Water Authority and its member agencies are planning to develop a diverse supply of resources. The unavailability of any one supply source will be buffered because of the diversity of the supplies: the region is not reliant on a single source. To replace or supplement an existing supply, the Water Authority could take steps to further long-term efficient water use and work with member agencies to further maximize development of recycled water, potable reuse, groundwater, and seawater desalination. To adequately plan for potential supply uncertainties and identify alternative sources, the 2015 Plan contains a scenario planning process described in **Section 10**.

9.5 Additional Planned Supply Projects

The mix of current and future supplies is developed jointly between the Water Authority and its member agencies. The mix of supplies is being represented in two ways. Verifiable supplies are those supplies identified by the Water Authority or member agencies as having achieved a level of certainty in their planning and implementation, such as where CEQA has been satisfied, permits are in hand, or contracts have been executed. As part of this general definition, these projects also have the political support of the governing body to move forward and be implemented at this time.

Verifiable supplies are included in water supply assessments and verifications prepared by retail water agencies and used by the cities and county in their land use decisions regarding available water supplies for growth under SB 221 and SB 610. Those projects with adequate documentation regarding implementation and supply utilization, or existing projects already planned for expansion, were included in the assessments discussed in **Sections 9.2** and **9.3**. Additional planned supplies are those that have not yet achieved the same level of certainty as the verifiable supplies, but have progressed to a point where the Water Authority or a member agency has taken significant financial actions to pursue the project. Additional planned supplies are not included in supply verifications for SB 221 and SB 610.

These additional planned supplies are important to the region for a number of reasons. The Water Authority and member agencies must continue to strive to develop cost-effective local resources that can further diversify the region’s supplies and reduce demands for imported water from Metropolitan. They provide objectives for the region to work toward by resolving any funding, regulatory, and other constraints associated with implementation. As part of conducting comprehensive supply planning, both the verifiable and additional planned projects are evaluated in regard to meeting future demands and the need for supplemental supplies from Metropolitan. Table 9-8 includes the evaluation of verifiable and additional planned projects compared with projected water demands in a normal year. It is important to emphasize that this evaluation is presented as a potential supply scenario and not the region’s reliability analysis for purposes of compliance with state laws governing approval of land use projects (SB 610 and SB 221).

Table 9-8. Supply Scenario with Additional Planned Projects (Normal Year AF/YR)

	2020	2025	2030	2035	2040
Water Authority Supplies					
IID Water Transfer	190,000	200,000	200,000	200,000	200,000
ACC and CC Lining Projects	80,200	80,200	80,200	80,200	80,200
Regional Seawater Desalination	50,000	50,000	50,000	50,000	50,000
Sub-Total	320,200	330,200	330,200	330,200	330,200
Water Authority Additional Planned (Desal)	0	5,600	5,600	61,600	61,600
Water Authority Total	320,200	335,800	335,800	391,800	391,800
Member Agency Supplies					
Verifiable Total	132,086	136,798	139,822	140,082	140,722
(Additional Planned)					
Surface Water	0	0	0	0	0
Water Recycling	2,840	9,926	10,926	10,926	10,926
Seawater Desalination	0	15,100	15,600	16,100	16,800
Potable Reuse	4,470	29,086	46,686	106,099	106,099
Brakish GW Recovery	0	0	0	0	0
Groundwater	3,100	3,100	3,600	3,600	3,600
Member Agency Total	142,496	194,010	216,634	276,807	278,147
Total Projected Local Supplies	462,696	529,810	552,434	668,607	669,947

Metropolitan Water District Supplies	120,486	102,043	101,166	3,717	27,688
Total Supplies	583,182	631,853	653,600	672,324	697,635
Total Demands w/ Water Efficiency Savings	583,182	631,853	653,600	672,324	697,635

¹ Normal water year demands based on 1960 – 2008 hydrology.
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The specific member agency local recycled water, potable reuse and brackish groundwater projects included in the figures are listed in Tables F-2 and F-4, respectively, in Appendix F. Also included in Appendix F are conceptual projects identified by the member agencies.

Appendix G
Rainbow Drought Response Ordinance 15-08

ORDINANCE NO. 15-08

**AN ORDINANCE OF RAINBOW MUNICIPAL WATER DISTRICT
ADOPTING A DROUGHT RESPONSE CONSERVATION PROGRAM**

Be it ordained by the Board of Directors of Rainbow Municipal Water District as follows;

WHEREAS, article 10, section 2 of the California Constitution declares that waters of the State are to be put to beneficial use, that waste, unreasonable use, or unreasonable method of use of water be prevented, and that water be conserved for the public welfare; and

WHEREAS, conservation of current water supplies and minimization of the effects of water supply shortages that are the result of drought are essential to the public health, safety and welfare; and

WHEREAS, regulation of the time of certain water use, manner of certain water use, design of rates, method of application of water for certain uses, installation and use of water-saving devices, provide an effective and immediately available means of conserving water; and

WHEREAS, California Water Code sections 375 et seq. authorize water suppliers to adopt and enforce a comprehensive water conservation program; and

WHEREAS, adoption and enforcement of a comprehensive water conservation program will allow the Rainbow Municipal Water District to delay or avoid implementing measures such as water rationing or more restrictive water use regulations pursuant to a declared water shortage emergency as authorized by California Water Code sections 350 et seq.; and

WHEREAS, San Diego County is a semi-arid region and local water resources are scarce. The region is dependent upon imported water supplies provided by the San Diego County Water Authority, which obtains a substantial portion of its supplies from the Metropolitan Water District of Southern California. Because the region is dependent upon imported water supplies, weather and other conditions in other portions of this State and of the Southwestern United States affect the availability of water for use in San Diego County; and

WHEREAS, the San Diego County Water Authority has adopted an Urban Water Management Plan that includes water conservation as a necessary and effective component of the Water Authority's programs to provide a reliable supply of water to meet the needs of the Water Authority's 24 member public agencies, including the Rainbow Municipal Water District. The Water Authority's Urban Water Management Plan also includes a contingency analysis of actions to be taken in response to water supply shortages. This ordinance is consistent with the Water Authority's Urban Water Management Plan; and

WHEREAS, as anticipated by its Urban Water Management Plan, the San Diego County Water Authority, in cooperation and consultation with its member public agencies, has adopted a Drought Management Plan, which establishes a progressive program for responding to water supply limitations resulting from drought conditions. This ordinance is intended to be consistent with and to implement the Water Authority's Drought Management Plan; and

WHEREAS, the Water Authority's Drought Management Plan contains three stages containing regional actions to be taken to lessen or avoid supply shortages. This ordinance contains drought response levels that correspond with the Drought Management Plan stages; and

WHEREAS, the Rainbow Municipal Water District, due to the geographic and climatic conditions within its territory and its dependence upon water imported and provided by the San Diego County Water Authority, may experience shortages due to drought conditions, regulatory restrictions enacted upon imported supplies and other factors. The Rainbow Municipal Water District has adopted an Urban Water Management Plan that includes water conservation as a necessary and effective component of its programs to provide a reliable supply of water to meet the needs of the public within its service territory. The Rainbow Municipal Water District Urban Water Management Plan also includes a contingency analysis of actions to be taken in response to water supply shortages. This ordinance is consistent with the Urban Water Management Plan adopted by the Rainbow Municipal Water District; and

WHEREAS, the Governor of California issued an Executive Order on April 1, 2015 mandating certain water use restrictions and conservation targets for water utilities, and

WHEREAS, the State Water Resources Control Board adopted regulations implementing the Governor's Executive Order on May 18, 2015, and

WHEREAS, the San Diego County Water Authority adopted Shortage Management Actions on May 14, 2015 that include allocations for the Transitional Special Agricultural Water Rate supply and the Municipal and Industrial supply in addition to adding new restrictions on residential watering days, and

WHEREAS, the water conservation measures and progressive restrictions on water use and method of use identified by this ordinance provide certainty to water users and enable Rainbow Municipal Water District to control water use, provide water supplies, and plan and implement water management measures in a fair and orderly manner for the benefit of the public.

NOW, THEREFORE, the Board of Directors of Rainbow Municipal Water District does ordain as follows:

SECTION 1.0 DECLARATION OF NECESSITY AND INTENT

(a) This ordinance establishes water management requirements necessary to conserve water, enable effective water supply planning, assure reasonable and beneficial use of water, prevent waste of water, prevent unreasonable use of water, prevent unreasonable method of use of water within the Rainbow Municipal Water District (RMWD) in order to assure adequate

supplies of water to meet the needs of the public, and further the public health, safety, and welfare, recognizing that water is a scarce natural resource that requires careful management not only in times of drought, but at all times.

(b) This ordinance establishes regulations to be implemented during times of declared water shortages, or declared water shortage emergencies. It establishes four levels of drought response actions to be implemented in times of shortage, with increasing restrictions on water use in response to worsening drought conditions and decreasing available supplies.

(c) Level 1 condition drought response measures are voluntary and will be reinforced through local and regional public education and awareness measures that may be funded in part by RMWD. During drought response condition Levels 2 through 4, all conservation measures and water-use restrictions are mandatory and become increasingly restrictive in order to attain escalating conservation goals.

(d) During a Drought Response Level 2 condition or higher, the water conservation measures and water use restrictions established by this ordinance are mandatory and violations are subject to criminal, civil, and administrative penalties and remedies specified in this ordinance and as provided in RMWD Administrative or Municipal Code.

SECTION 2.0 DEFINITIONS

(a) The following words and phrases whenever used in this chapter shall have the meaning defined in this section:

1. “Grower” refers to those engaged in the growing or raising, in conformity with recognized practices of husbandry, for the purpose of commerce, trade, or industry, or for use by public educational or correctional institutions, of agricultural, horticultural or floricultural products, and produced: (1) for human consumption or for the market, or (2) for the feeding of fowl or livestock produced for human consumption or for the market, or (3) for the feeding of fowl or livestock for the purpose of obtaining their products for human consumption or for the market. “Grower” does not refer to customers who purchase water subject to the Metropolitan Interim Agricultural Water Program or the Water Authority Special Agricultural Rate programs.

2. “Water Authority” means the San Diego County Water Authority.

3. “DMP” means the Water Authority’s Drought Management Plan in existence on the effective date of this ordinance and as readopted or amended from time to time, or an equivalent plan of the Water Authority to manage or allocate supplies during shortages.

4. “Metropolitan” means the Metropolitan Water District of Southern California.

5. “Person” means any natural person, corporation, public or private entity, public or private association, public or private agency, government agency or institution, school district, college, university, or any other user of water provided by the RMWD.

SECTION 3.0 APPLICATION

(a) The provisions of this ordinance apply to any person in the use of any water provided by the RMWD.

(b) This ordinance is intended solely to further the conservation of water. It is not intended to implement any provision of federal, State, or local statutes, ordinances, or regulations relating to protection of water quality or control of drainage or runoff. Refer to the local jurisdiction or Regional Water Quality Control Board for information on any stormwater ordinances and stormwater management plans.

(c) Nothing in this ordinance is intended to affect or limit the ability of the RMWD to declare and respond to an emergency, including an emergency that affects the ability of the RMWD to supply water.

(d) Notwithstanding any other section of this ordinance, the restrictions imposed upon the use of water herein do not apply to use of water from private wells or to recycled water.

(e) Nothing in this ordinance shall apply to use of water that is subject to a special supply program, such as the Water Authority Transitional Special Agricultural Water (TSAWR) Rate program, except as may be specified in that program. For instance, the water reductions contained in this ordinance shall not be in addition to any mandatory reductions which may apply to a participant in the TSAWR, unless expressly stated in the TSAWR. Violations of the conditions of special supply programs are subject to the penalties established under the applicable program. A person using water subject to a special supply program and other water provided by the RMWD is subject to this ordinance in the use of the other water.

SECTION 4.0 DROUGHT RESPONSE LEVEL 1 – DROUGHT WATCH CONDITION

(a) A Drought Response Level 1 condition is also referred to as a “Drought Watch” condition. A Level 1 condition applies when the Water Authority notifies its member agencies that due to drought or other supply reductions, there is a reasonable probability there will be supply shortages and that a consumer demand reduction is required in order to ensure that sufficient supplies will be available to meet anticipated demands. The General Manager shall declare the existence of a Drought Response Level 1 and take action to implement the Level 1 conservation practices identified in this ordinance.

(b) During a Level 1 Drought Watch condition, RMWD will increase its public education and outreach efforts to emphasize increased public awareness of the need to implement the following water conservation practices. [The same water conservation practices become mandatory if RMWD declares a Level 2 Drought Alert condition]:

1. Stop washing down paved surfaces, including but not limited to sidewalks, driveways, parking lots, tennis courts, or patios, except when it is necessary to alleviate safety or sanitation hazards.

2. Stop water waste resulting from inefficient landscape irrigation, such as runoff, low head drainage, or overspray, etc. Similarly, stop water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes, roadways, or structures.

3. Irrigate residential and commercial landscape before 10 a.m. and after 6 p.m. only.

4. Use a hand-held hose equipped with a positive shut-off nozzle or bucket to water landscaped areas, including trees and shrubs located on residential and commercial properties that are not irrigated by a landscape irrigation system.

5. Irrigate nursery and commercial grower's products before 10 a.m. and after 6 p.m. only. Watering is permitted at any time with a hand-held hose equipped with a positive shut-off nozzle, a bucket or watering can. Irrigation of nursery propagation beds is permitted at any time. Watering of livestock is permitted at any time.

6. Use re-circulated water to operate ornamental fountains.

7. Wash vehicles using a bucket and a hand-held hose with positive shut-off nozzle, mobile high pressure/low volume wash system, or at a commercial site that re-circulates (reclaims) water on-site. Avoid washing during hot conditions when additional water is required due to evaporation.

8. Serve and refill water in restaurants and other food service establishments only upon request.

9. Offer guests in hotels, motels, and other commercial lodging establishments the option of not laundering towels and linens daily.

10. Repair all water leaks within five (5) days of notification by the RMWD unless other arrangements are made with the General Manager.

11. Use recycled or non-potable water for construction purposes when available.

(c) During a Drought Response Level 2 condition or higher, all persons shall be required to implement the conservation practices established in a Drought Response Level 1 condition.

**SECTION 5.0 DROUGHT RESPONSE LEVEL 2 – DROUGHT ALERT
CONDITION**

(a) A Drought Response Level 2 condition is also referred to as a “Drought Alert” condition. A Level 2 condition may apply when the Water Authority notifies its member agencies that due to cutbacks caused by drought or other reduction in supplies, a consumer¹ demand reduction is required in order to have sufficient supplies available to meet anticipated demands. The RMWD Board of Directors shall consider the Water Authority declaration of a “Drought Alert” condition, and may declare the existence of a Drought Response Level 2 condition and direct the General Manager to implement the mandatory Level 2 conservation measures identified in this ordinance. The RMWD Board of Directors may make a determination to enter or exit the Drought Response Level 2 stage depending on a variety of factors, including but not limited to local water availability, RMWD’s ability to meet their allocation supply, and/or the financial impact of implementation on RMWD.

(b) All persons using RMWD water shall comply with Level 1 Drought Watch water conservation practices during a Level 2 Drought Alert, and shall also comply with the following additional conservation measures:

1. Limit residential and commercial landscape irrigation to no more than two (2) assigned days per week on a schedule established by the General Manager and posted by the RMWD. This section shall not apply to commercial growers or nurseries.

2. Limit lawn watering and landscape irrigation using sprinklers to no more than ten (10) minutes per watering station per assigned day. This provision does not apply to landscape irrigation systems using water efficient devices, including but not limited to: weather based controllers, drip/micro-irrigation systems and stream rotor sprinklers.

a. Operating irrigation systems in a manner that allows water to run off the property is defined as water waste. In cases where irrigating for 10 minutes per station will result in water runoff due to the inability of the soil or landscape materials to absorb that amount of water, customers shall alter their watering schedules to prevent such runoff. The customer shall modify the schedules to prevent runoff but shall ensure that the total reduction in irrigation is equivalent to the two day per week watering schedule. Customers may adjust their schedules to water on more than two days per week so long as the equivalent reduction in irrigation is achieved.

3. Water landscaped areas, including trees and shrubs located on residential and commercial properties, and not irrigated by a landscape irrigation system governed by section 5 (b) (1), on the same schedule set forth in section 5 (b) (1) by using a bucket, hand-held hose with positive shut-off nozzle, or low-volume non-spray irrigation.

¹ Also referred to as Municipal or Industrial (M&I) water user.

4. Repair all leaks within seventy-two (72) hours of notification by the RMWD unless other arrangements are made with the General Manager.

5. No application of potable water to outdoor landscapes is allowed during and within 48 hours of measureable rainfall.

SECTION 6.0 DROUGHT RESPONSE LEVEL 3 – DROUGHT CRITICAL CONDITION

(a) A Drought Response Level 3 condition is also referred to as a “Drought Critical” condition. A Level 3 condition applies when the Water Authority notifies its member agencies that due to increasing cutbacks caused by drought or other reduction of supplies, a consumer demand reduction is required in order to have sufficient supplies available to meet anticipated demands. The RMWD Board of Directors shall declare the existence of a Drought Response Level 3 condition and implement the Level 3 conservation measures identified in this ordinance.

(b) All persons using RMWD water shall comply with Level 1 Drought Watch and Level 2 Drought Alert water conservation practices during a Level 3 Drought Critical condition and shall also comply with the following additional mandatory conservation measures:

1. Limit residential and commercial landscape irrigation to no more than two (2) assigned days per week on a schedule established by the General Manager and posted by the RMWD. During the months of November through May, landscape irrigation is limited to no more than once per week on a schedule established by the General Manager and posted by the RMWD. This section shall not apply to commercial growers or nurseries.

2. Water landscaped areas, including trees and shrubs located on residential and commercial properties, and not irrigated by a landscape irrigation system governed by section 6 (b) (1), on the same schedule set forth in section 6 (b) (1) by using a bucket, hand-held hose with a positive shut-off nozzle, or low-volume non-spray irrigation.

3. Stop filling or re-filling swimming pools, spas, ornamental fountains, lakes ponds or other water features, except to the extent needed to sustain aquatic life, provided that such animals are of significant value and have been actively managed within the water feature prior to declaration of a drought response level under this ordinance.

4. Stop washing vehicles except at commercial carwashes that re-circulate water, or by high pressure/low volume wash systems.

5. Repair all leaks within forty-eight (48) hours of notification by the RMWD unless other arrangements are made with the General Manager.

(c) Upon the declaration of a Drought Response Level 3 condition, no new potable water service shall be provided, no new temporary meters or permanent meters shall 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) shall be issued, except under the following circumstances:

1. A valid, unexpired building permit has already been issued for the project;
or
2. In the opinion of the RMWD Board of Directors the project is necessary to protect the public’s health, safety, and welfare; or
3. The applicant provides substantial evidence of an enforceable binding commitment that water demands for the project will be offset prior to the provision of a new water meter(s) to the satisfaction of RMWD.

This provision shall not be construed to preclude the resetting or turn-on of meters to provide continuation of water service or to restore service that has been interrupted **for a period of one year or less, provided that such period shall in no event commence before the effective date of this ordinance.**

(d) Upon the declaration of a Drought Response Level 3 condition, RMWD will suspend consideration of annexations to its service area until such time that the Drought Response Level 2 is decreased to a Drought Response Level 1 condition or lower.

(e) The RMWD may establish a water allocation for any property served by the RMWD using a method that does not penalize persons for previous implementation of conservation methods or the installation of water saving devices. The decision to establish a water allocation and the method utilized to determine the amount of the allocation shall be at the sole discretion of RMWD.

SECTION 7.0 DROUGHT RESPONSE LEVEL 4 – DROUGHT EMERGENCY CONDITION

(a) A Drought Response Level 4 condition is also referred to as a “Drought Emergency” condition. A Level 4 condition applies when the Water Authority Board of Directors declares a water shortage emergency pursuant to California Water Code section 350 and notifies its member agencies that Level 4 requires a demand reduction in order for the RMWD to have maximum supplies available to meet anticipated demands. The RMWD Board of Directors shall declare a Drought Emergency in the manner and on the grounds provided in California Water Code section 350.

(b) All persons using RMWD water shall comply with conservation measures required during Level 1 Drought Watch, Level 2 Drought Alert, and Level 3 Drought Critical conditions and shall also comply with the following additional mandatory conservation measures:

1. Stop all landscape irrigation, except crops and landscape products of commercial growers and nurseries. This restriction shall not apply to the following categories of use unless the RMWD has determined that recycled water is available and may be lawfully applied to the use:

A. Maintenance of trees and shrubs that are watered on the same schedule set forth in section 6 (b) (1) by using a bucket, hand-held hose with a positive shut-off nozzle, or low-volume non-spray irrigation;

B. Maintenance of existing landscaping necessary for fire protection as specified by the Fire Marshal of the local fire protection agency having jurisdiction over the property to be irrigated;

C. Maintenance of existing landscaping for erosion control;

D. Maintenance of plant materials identified to be rare or essential to the well being of rare animals;

E. Maintenance of landscaping within active public facilities, including parks and playing fields, day care centers, school grounds, cemeteries, and golf course greens, provided that such irrigation does not exceed two (2) days per week according to the schedule established under section 6 (b) (1);

F. Watering of livestock; and

G. Public works projects and actively irrigated environmental mitigation projects.

2. Repair all water leaks within twenty-four (24) hours of notification by the RMWD unless other arrangements are made with the General Manager.

(c) The RMWD may establish a water allocation for any property served by the RMWD using a method that does not penalize persons for previous implementation of conservation methods or the installation of water saving devices. The decision to establish a water allocation and the method utilized to determine the amount of the allocation shall be at the sole discretion of RMWD.

SECTION 8.0 CORRELATION BETWEEN DROUGHT MANAGEMENT PLAN AND DROUGHT RESPONSE LEVELS

(a) The correlation between the Water Authority's DMP stages and the RMWD's drought response levels identified in this ordinance is described herein. Under DMP Stage 1, the RMWD would implement Drought Response Level 1 actions. Under DMP Stage 2, the RMWD

would implement Drought Response Level 1 or Level 2 actions. Under DMP Stage 3, the RMWD would implement Drought Response Level 2, Level 3, or Level 4 actions.

(b) The drought response levels identified in this ordinance correspond with the Water Authority DMP as identified in the following table:

Drought Response Levels	Use Restrictions	Conservation Target	DMP Stage
1 - Drought Watch	Voluntary	Up to 10%	Stage 1 or 2
2 - Drought Alert	Mandatory	Up to 20%	Stage 2 or 3
3 - Drought Critical	Mandatory	>20 to 40%	Stage 3
4 - Drought Emergency	Mandatory	Above 40%	Stage 3

SECTION 9.0 PROCEDURES FOR DETERMINATION AND NOTIFICATION OF DROUGHT RESPONSE LEVEL

(a) The existence of a Drought Response Level 1 condition may be declared by the General Manager upon a written determination of the existence of the facts and circumstances supporting the determination. A copy of the written determination shall be filed with the Clerk or Secretary of the RMWD and provided to the RMWD Board of Directors. The General Manager may publish a notice of the determination of existence of Drought Response Level 1 condition in one or more newspapers, including a newspaper of general circulation within the RMWD. The RMWD may also post notice of the condition on their website.

(b) The existence of Drought Response Level 2 or Level 3 conditions may be declared by resolution of the RMWD Board of Directors adopted at a regular or special public meeting held in accordance with State law. The mandatory conservation measures applicable to Drought Response Level 2 or Level 3 conditions shall take effect on the tenth (10) day after the date the response level is declared. Within five (5) days following the declaration of the response level, or as soon thereafter as reasonably practicable, the RMWD shall publish a copy of the resolution in a newspaper used for publication of official notices.

(c) The existence of a Drought Response Level 4 condition may be declared in accordance with the procedures specified in California Water Code sections 351 and 352. The mandatory conservation measures applicable to Drought Response Level 4 conditions shall take effect on the tenth (10) day after the date the response level is declared. Within five (5) days following the declaration of the response level, or as soon thereafter as reasonably practicable, the RMWD shall publish a copy of the resolution in a newspaper used for publication of official notices. If the RMWD establishes a water allocation, it shall provide notice of the allocation by including it in the regular billing statement for the fee or charge or by any other mailing to the address to which the RMWD customarily mails the billing statement for fees or charges for on-going water service. Water allocation shall be effective on the fifth (5) day following the date of mailing or at such later date as specified in the notice.

(d) The RMWD Board of Directors may declare an end to a Drought Response Level by the adoption of a resolution at any regular or special meeting held in accordance with State law.

SECTION 10.0 HARDSHIP VARIANCE

(a) If, due to unique circumstances, a specific requirement of this ordinance would result in undue hardship to a person using agency water or to property upon which agency water is used, that is disproportionate to the impacts to RMWD water users generally or to similar property or classes of water uses, then the person may apply for a variance to the requirements as provided in this section.

(b) The variance may be granted or conditionally granted, only upon a written finding of the existence of facts demonstrating an undue hardship to a person using agency water or to property upon with agency water is used, that is disproportionate to the impacts to RMWD 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 variance shall be a form prescribed by RMWD and shall be accompanied by a non-refundable processing fee in an amount set by resolution of the RMWD Board of Directors.

2. Supporting Documentation. The application shall be accompanied by photographs, maps, drawings, and other information, including a written statement of the applicant.

3. Required Findings for Variance. An application for a variance shall be denied unless the approving authority 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 RMWD, all of the following:

A. That the variance does not constitute a grant of special privilege inconsistent with the limitations upon other RMWD customers.

B. That because of special circumstances applicable to the property or its use, the strict application of this ordinance would have a disproportionate impact on the property or use that exceeds the impacts to customers generally.

C. That the authorizing of such variance will not be of substantial detriment to adjacent properties, and will not materially affect the ability of the RMWD to effectuate the purpose of this chapter 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 variance is sought is not common, recurrent or general in nature.

4. Approval Authority. The General Manager shall exercise approval authority and act upon any completed application no later than 30 days after submittal and may approve, conditionally approve, or deny the variance. The applicant requesting the variance shall be promptly notified in writing of any action taken. Unless specified otherwise at the time a variance is approved, the variance applies to the subject property during the term of the mandatory drought response.

5. Appeals to RMWD Board of Directors. An applicant may appeal a decision or condition of the General Manager on a variance application to the being mailed to the applicant. The appeal must be in the form of a written request for a hearing, and shall state the grounds for the appeal. At a public meeting, the RMWD Board of Directors shall act as the approval authority and review the appeal de novo by following the regular variance procedure. The decision of the RMWD Board of Directors is final.

SECTION 11.0 VIOLATIONS AND PENALTIES

(a) Any person, who uses, causes to be used, or permits the use of water in violation of this ordinance is guilty of an offense punishable as provided herein.

(b) Each day that a violation of this ordinance occurs is a separate offense.

(c) Administrative fines may be levied for each violation of a provision of this ordinance as follows:

1. One hundred dollars for a first violation.
2. Two hundred dollars for a second violation of any provision of this ordinance within one year from occurrence of the first violation.
3. Five hundred dollars for each additional violation of this ordinance within one year of the first violation.

(d) Violation of a provision of this ordinance is subject to enforcement through installation of a flow-restricting device in the meter.

(e) Each violation of this ordinance may be prosecuted as a misdemeanor punishable by imprisonment in the county jail for not more than thirty (30) days or by a fine not exceeding \$1,000, or by both as provided in Water Code section 377.

(f) Willful violations of the mandatory conservation measures and water use restrictions as set forth in Section 7.0 and applicable during a Level 4 Drought Emergency condition may be enforced by discontinuing service to the property at which the violation occurs as provided by Water Code section 356.


(g) All remedies provided for herein shall be cumulative and not exclusive.

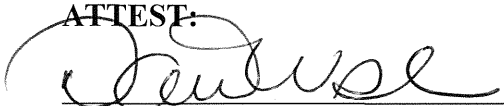
SECTION 12.0 EFFECTIVE DATE

This ordinance is effective immediately upon adoption or as otherwise established by State law for RMWD.

PASSED, APPROVED AND ADOPTED this 23rd day of June, 2015, by the following vote:

AYES: Directors Brazier, Lucy, Sanford, and Walker
NOES: Director Griffiths
ABSTAIN: None
ABSENT: None


Dennis Sanford, Board President

ATTEST:

Dawn Washburn, Board Secretary

Appendix H
Rainbow Conservation BMP Report

**** 2014 CUWCC REPORT TO BE INCLUDED IN THE FINAL VERSION ****

**MINUTES OF THE SPECIAL BOARD MEETING
OF THE BOARD OF DIRECTORS OF THE
RAINBOW MUNICIPAL WATER DISTRICT
DECEMBER 15, 2015**

1. **CALL TO ORDER** - The Special Meeting of the Board of Directors of the Rainbow Municipal Water District on Tuesday, December 15, 2015 was called to order by President Sanford at 1:04 p.m. in the Board Room of the District, 3707 Old Highway 395, Fallbrook, CA 92028. President Sanford presiding.

2. **PLEDGE OF ALLEGIANCE**

3. **ROLL CALL:**

Present: Director Walker
Director Sanford
Director Brazier
Director Griffiths
Director Lucy

Absent: None

Also Present: General Manager Kennedy
Executive Assistant/Board Secretary Washburn
Legal Counsel Moser
Finance Manager Thomas
Finance Manager Martinez
Operations Manager Atilano
District Engineer Kirkpatrick
Superintendent Zuniga

Twenty-nine members of the public were present for Open Session.

4. **PUBLIC COMMENT RELATING TO ITEMS ON THE AGENDA**

There were no comments.

Time Certain: 1:00 p.m.

***5 PUBLIC HEARING TO RECONSIDER ADOPTING INCREASES IN THE RATES FOR RAINBOW MUNICIPAL WATER DISTRICT SERVICE FEES EFFECTIVE JANUARY 1, 2016 AND ORDINANCE 15-10 AUTHORIZING THE DISTRICT TO PASS THROUGH INCREASED COSTS IN PURCHASED WHOLESAL WATER, INCREASES TO THE DISTRICT'S COST OF OPERATIONS AND MAINTENANCE AND CAPITAL FACILITIES, AND ANY REDUCTION IN THE ALLOCATION OF AD VALOREM PROPERTY TAX REVENUES BY THE STATE OF CALIFORNIA**

President Sanford opened the Public Hearing at 1:05 p.m.

(*) - Asterisk indicates a report is attached.

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President Sanford addressed the audience welcoming those members of the public. He announced some basic protocol to take place during the meeting including silencing cell phones, not making any comments or approach the Board members individually during the Board meeting unless addressed by Board specifically, and completing speaker slips to make a three-minute presentation to the Board of Directors.

Mr. Kennedy gave a brief presentation on the proposed changes to the water rates in the water service area. He announced there were several publicly noticed meetings during the process including meetings with the Budget and Finance Committee. He mentioned the full Board of Directors considered this proposed rate structure on October 23, 2015 and October 27, 2015. He added how the State Board gave the District until November 1, 2015 to start its Proposition 218 process or face fines. He noted this public hearing was the direct result of these things including the rate hearing being set on October 27, 2015. He continued with the presentation.

Mr. Kennedy announced public notices of this public hearing have been provided in accordance with California Proposition 218. At the meeting on October 27, 2015 the Board authorized notice of a public hearing to be held today, December 15, 2015. Notice of the public hearing was mailed to property owners and customers on or around November 30, 2015 (November 30, 2015 was a misstatement that should have been October 30, 2015). Therefore, property owners and customers have had more than 45 days to submit written protests to the proposed rate increase the Board is considering today. As of December 15, 2015, the District has received nine written protests to the proposed rate changes; in percentages, that is less than 0.1% percent. He noted if a member of the public wishes to protest the proposed increases, they must submit a written protest and how the Board is prohibited from adopting any rate increase if a majority protest is submitted in writing before the end of this public hearing. He reminded the Board Members and informed members of the public that Board Members are not to answer questions from the public during the public hearing portion of the meeting; however, there is an opportunity following the close of the public hearing for Board Members to have a discussion regarding the proposed rate.

Mr. Atilano repeated the public hearing and protest process information in Spanish per the request of an audience member.

President Sanford asked for any remaining speaker slips to be remitted to him.

Maureen Rhyne said she would submit a written protest prior to the conclusion of the hearing. She stated her claim was that pumping the water was the cost of doing business. She talked about all electrical moving sewer is charged out as Operations and Maintenance and suggested pumping costs should be charged out the same way. She stated some customers should not be charged more than other customers simply because of electrical charges.

Rick Carey stated he will turn in his protest to the proposed rates. He noted although he understood there were a great deal of moving parts involved in this matter and he was extremely grateful for Mr. Kennedy being at RMWD; however, he totally disagrees with the strategy of shifting the costs to fix costs away from commodities. He explained how this shift impacts his costs and stressed how he found the rate of increase to be unsustainable. He said although he and others may be operating well in the red already, he was unsure how long it will be before they all just give up. He asked the Board to shift back to commodities.

(*) - Asterisk indicates a report is attached.

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Dwayne Urquhart echoed Mr. Carey's comments. He said he, too, is a long time farmer. He stated his principal concern was when he looked at the increase as well as the fixed cost to the meters. He noted although everyone has been accustomed to some big increases at some point, some of those proposed were unprecedented. He said when you get this kind of large increase, it gets to a point where it becomes a tipping point. He stated when the "hard core" agricultural users say we are at a tipping point, the Board needs to take it seriously. He suggested RMWD look at what can be done to moderate some of the fixed increases on the agricultural meter costs due to the fact they seem really high in his opinion.

Mrs. Do spoke on behalf of her husband, Qui Do. She read a letter aloud to help her solidify some of the thoughts. She explained their unique circumstances with their large parcel of land with an existing 2" water meter and several acres of citrus and avocado trees. She mentioned in 2003 they built a 12,00 square foot home so they can live there while managing and grow their agriculture operation because this was the land of opportunity where they could be a productive member of society as well as the small community in which they live. She said over the years they made a little profit; however, it kept eroding due to the increase in cost. She stated after the Rice Canyon fire, the majority of their plants were destroyed for which they did not have insurance. She explained they could not take the risk to replant because of the uncertainty of their not being enough water to care for baby trees. She talked about the fixed rate they are currently paying due to the 2" meter although they are using only approximately 80 units on the average for the last two years as a means of conserving water as well as water their trees enough to keep them alive and productive. She expressed concern that the proposed increase their monthly costs will rise without using a drop of water which will make it unaffordable for her family to grow anything. She pointed out the rate study states those customers with 2" water meters are using more water; however, she was uncertain if this was true in her situation. She said it feels like the larger meter customers are subsidizing the water costs which was in conflict with the proposition before the Board today. She suggested the proposed rate structure would be better if it were more in terms of water usage of the people in this particular class. She mentioned one neighbor paying the same fixed costs and have thousands of trees that are very profitable and another neighbor that does not live at their property are paying nothing. She concluded by stating she appreciates the Board's time and hopes that their action and deliberation will show the rates are the best for everyone in her situation.

Harvey Royer said he has been a member of RMWD for approximately 35 years and how he had little tiny groves for 30 years. He mentioned how he has always watched money every year and subsidized from elsewhere. He stated he was kind of shocked when he moved to a residence last year and discovered his water bill did not decrease due to the fixed costs. He said he understands RMWD has so many miles of pipe and pretty long span of pumping that does not change that fixed costs; therefore, he would like to see a lower end on fixed costs. He concluded by stating he appreciates the Board for what they do.

Ken Roth spoke of how in 1986 the IAWP was created with Metropolitan Water District from which the TSWAR program was created by San Diego County Water Authority to acknowledge the part that agriculture plays in their charges. He stated when this was additionally created, there was an EIR study in which it was mentioned that agriculture was exempt from the emergency storage process of San Diego County Water Authority as well as some of the standby costs. He said since that time this has been studied by legislation that created a new look for water identification. He noted his comments today are that he does not believe that either the new reliability cost, infrastructure access charge, or the capacity reservation charge

(*) - Asterisk indicates a report is attached.

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are legitimate to the TSWAR users of water. He said he would like to find whether these were considered in RFC deliberations; specifically whether RFC read the EIR created back in 1986 to determine what agriculture was responsible for.

Frank Cipolla said he would like clarification as to the rising costs due to fuel costs when the price of gas was declining.

President Sanford solicited for additional public comments. He stated the Board appreciated the members of the public attending the meeting today and giving them their comments. He explained being a Board Member was not necessarily an easy job and everything they do they will be doing to themselves as well. He stated making these decisions are not easy to make and may sometimes be counter to what they might think personally; however, they have to always think in the broad picture in terms of what is best for the District and all ratepayers as opposed to a particular ratepayer.

President Sanford closed the Public Hearing at 1:54 p.m.

Mr. Kennedy reported there were approximately 8,326 parcels subject to the rate increase and how RMWD received 18 total written protests; therefore, a majority protest has not been received.

Director Lucy asked Mr. Kennedy if he felt compelled to briefly any of the comments made by the members of the audience. Mr. Kennedy explained when the Board discussion portion of the discussion begins, he will address those comments.

Action:

Moved by Director Brazier to adopt Ordinance 15-10. Seconded by Director Lucy.

After consideration, the motion CARRIED by the following roll call vote:

AYES:	Directors Brazier, Lucy, Sanford, and Walker
NOES:	None
ABSTAINED:	Director Griffiths
ABSENT:	None

Mr. Kennedy addressed the question about the increase in fixed fees noting this was the outcome of the cost of service study. He acknowledged this does become difficult when you have a large agricultural meter with low consumption as opposed to a high consumption. He mentioned RMWD has recommended to those who have large meters that do not have any current or future plans to use the capacity is to come in and downsize the meter in order to cut back on the monthly costs. He added if someone may think they may use 1,000-1,500 capacity in their large meter in the future, they would be stuck with the rate. He pointed out there was a legal case where it was determined by the courts that if a meter resides on a property regardless of being locked off or not, the capacity fees must be paid according to Proposition 218.

Director Lucy asked how long it would take for the engineering department to process the downsizing of a meter for a customer. Mrs. Kirkpatrick stated it takes approximately two weeks.

(*) - Asterisk indicates a report is attached.

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Mr. Carey asked about changing to manifold meters. Mr. Kennedy explained this would be appropriate for a fire service and water service. He pointed out it all has to do with capacity which will be looked at closer when RMWD reviews the capacity charges. Director Walker pointed out the diameter is not the same as the area when it comes to manifold meters.

Director Lucy noted the Budget and Finance Committee looked at this rate study very hard and how Raftelis was the expert in calculating fair balanced rates. He said he was very satisfied with the way this thing was made as fair as possible for everyone. He stated as an agricultural person, for years it was felt that agriculture was getting a deal; however, this was not true due to agriculture was really carrying the ball around here for years and years.

Mr. Stitle talked about Raftelis' work being very complex. He pointed out the Raftelis study was approximately 100 pages long and consists of probably a couple of spreadsheets linked to it. He said it was a real education to sit through the process with Raftelis to find out all the impacts of state law, hydraulics, and any other issues that affect water rates. He stressed the fixed costs were not as high as they could be and how although this may be going against what the public wants, the District is obligated to pass the costs through to all RMWD customers as best as possible according to state law, Proposition 218, the Capistrano case, etc.

Director Lucy pointed out RMWD was in the water sales business and want to sell as much water it can as fairly as possible. Mr. Stitle added RMWD has gone from selling approximately 30,000 acre feet to 18,000 or less this year. President Sanford stated the less water RMWD sells, the more the costs will increase.

Director Griffiths inquired as to the pumping charges and asked if the pumping charges could be recalculated. Discussion ensued.

Director Brazier asked if there was a philosophical difference between applying pumping charges for sewage to everyone including those who do not have sewage. Mr. Kennedy clarified only those using sewer pay sewer charges under Operations and Maintenance.

Director Griffiths talked about staffing levels. Mr. Kennedy pointed out during the budget process, the Board approved the current staffing levels.

Mr. Kennedy explained this was a Proposition 218 hearing that establishes a five year window during which time the Board can adopt rates within the prescribed limits provided in the Ordinance. He noted each time the Board would increase rates, it does require public notification but not a full protest hearing with a 45-day notice but rather a 30-day notice through normal channels.

Director Walker pointed out "of" should be "if" on Page 5-4.

***6. CONSIDER REVISION TO ADMINISTRATIVE CODE SECTION 5.03.220 – ESTABLISH A RATE STABILIZATION RESERVE FUND**

Director Griffiths referenced Page #7A-7 stating he did not confirm RMWD having a rate stabilization fund. He asked for this to be changed in the minutes immediately. It was noted this proposed change could be addressed under Item #7.

(*) - Asterisk indicates a report is attached.

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Action:

Moved by Director Brazier to approve and establish a Rate Stabilization Reserve Fund. Seconded by Director Lucy.

After consideration, the motion CARRIED by the following vote:

AYES: Directors Brazier, Lucy, Sanford, and Walker
NOES: Director Griffiths
ABSTAINED: None
ABSENT: None

***7. APPROVAL OF MINUTES**

A. October 27, 2015 – Regular Board Meeting

Director Griffiths requested his name be removed on Page #7A-7 stating he did not confirm the District having a rate stabilization fund. Ms. Washburn offered to listen to the meeting recording again.

Director Walker noted the word “was” should be stricken on Page #7A-3.

Action:

Moved by Director Brazier to approve the minutes of October 27, 2015 with any necessary revisions. Seconded by Director Lucy.

After consideration, the motion CARRIED by the following vote:

AYES: Directors Brazier, Griffiths, Lucy, Sanford, and Walker
NOES: None
ABSTAINED: None
ABSENT: None

B. November 17, 2015 – Special Board Meeting

Action:

Moved by Director Brazier to approve the minutes of November 17, 2015. Seconded by Director Walker.

After consideration, the motion CARRIED by the following vote:

AYES: Directors Brazier, Griffiths, Lucy, Sanford, and Walker
NOES: None
ABSTAINED: None
ABSENT: None

(*) - Asterisk indicates a report is attached.

BOARD ACTION ITEMS

***8. APPROVAL OF RESOLUTION NO. 15-16 ESTABLISHING CHECK SIGNING AUTHORITY**

Mr. Kennedy announced this would be Ms. Thomas' last Board meeting due to her upcoming retirement. He thanked Ms. Thomas for her 19 years of service at RMWD. He introduced Vanessa Martinez who will be replacing Ms. Thomas as RMWD's Finance Manager. He pointed out the next few items had to do with housekeeping matters related to this transition.

President Sanford welcomed Mrs. Martinez to the District and asked her to give a quick snapshot of her background.

Mr. Kennedy explained Resolution No. 15-16 will replace Ms. Thomas with Mrs. Martinez in the check signing capacity.

Director Griffiths thanked Ms. Thomas for all she has done in the past for RMWD. President Sanford thanked her as well.

Action:

Moved by Director Lucy to approve Resolution No. 15-16. Seconded by Director Brazier.

After consideration, the motion CARRIED by the following vote:

AYES: Directors Brazier, Griffiths, Lucy, Sanford, and Walker
NOES: None
ABSTAINED: None
ABSENT: None

***9. DISCUSSION AND POSSIBLE ACTION TO ADOPT RESOLUTION NO. 15-17 DESIGNATING TOM KENNEDY AS CONTRACT SIGNER FOR ALL UNION BANK TRANSACTIONS**

Ms. Thomas explained this item was to give authorization for overseeing the Union Bank banking transactions and any contract changes.

Director Griffiths suggested Mr. Kennedy be the oversight and Mrs. Martinez handling the actual banking in order to have two people involved. Mr. Kennedy and Ms. Thomas explained the accounting controls already in place at RMWD.

Action:

Moved by Director Brazier to approve Resolution No. 15-17. Seconded by Director Lucy.

After consideration, the motion CARRIED by the following vote:

AYES: Directors Brazier, Lucy, Sanford, and Walker
NOES: Director Griffiths
ABSTAINED: None
ABSENT: None

(*) - Asterisk indicates a report is attached.

REVISED DRAFT**REVISED DRAFT****REVISED DRAFT*****10. DISCUSSION AND POSSIBLE APPOINTMENT OF TREASURER**

President Sanford inquired as to whether it would be appropriate for a Board Member to serve as Treasurer. Mr. Kennedy explained if a Board Member was appointed, that person would have to come to the Finance Manager to get the reports, attend the Budget and Finance Committee meetings, report on all financial statements, etc.; however, it was entirely up to the Board. Legal Counsel recommended that should the Board appoint a Board Member, they should appoint Mrs. Martinez as Assistant Treasurer due to the fact there may be a need for someone with a treasurer title to perform certain tasks.

Action:

Moved by Director Brazier to appoint Vanessa Martinez as Treasurer. Seconded by Director Griffiths.

After consideration, the motion CARRIED by the following vote:

AYES: Directors Brazier, Griffiths, Lucy, Sanford, and Walker
NOES: None
ABSTAINED: None
ABSENT: None

***11. DISCUSSION AND POSSIBLE ACTION TO AWARD A PROFESSIONAL SERVICES CONTRACT TO PREPARE THE WATER RECLAMATION PLANT AND RECYCLED WATER DISTRIBUTION SYSTEM PRE-DESIGN REPORT**

Mr. Kennedy recalled the previous steps taken regarding this project and how RMWD put out a RFP based on the information provided. He state two firms submitted their proposals and were both interviewed by the Engineering committee. He mentioned after reviewing the applications, proposals, and the presentations from both firms, everyone felt comfortable with the firm selected which was Dudek and Atkins. He pointed out the recommendation at this time was to approve the contract to go to a pre-design report level where they will look more carefully at the exact costs and exact pipeline alignments to give the Board the information they need to determine to proceed or not. He noted the expectations was for the contractor to be able to present something to the Board in approximately six months. He stressed there were built-in safeguards in this contract that should they find fatal flaws along the way RMWD can stop spending money on it.

Mr. Kennedy pointed out there needs to be additional appropriation.

Director Walker stated he receives compensation for consulting services from Atkins. Legal Counsel stated this would be the appropriate time for Director Walker to recuse himself from considering this matter.

Director Walker excused himself from the meeting at 2:38 p.m.

(*) - Asterisk indicates a report is attached.

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Mr. Kennedy stated the Master Plan project has remaining funds from which the appropriation of additional funds can be made should the Board desire. He noted the total contract cost is \$224,000 and will give RMWD the precise pipe alignments, plant design, and analysis on the environmental regulations as well as on recycled water. He reiterated this was designed to get a firm answer to proceed or not on a project that could be 40-year million dollar project. He stressed this was an important study to determine whether RMWD gets into the water reclamation business or not.

It was confirmed the allocation of an additional \$50,000 should be formalized through Board action.

Mr. Kennedy referred to Page #11-11 as he noted the approval process that took place throughout the progression.

Director Lucy asked for clarification the Engineering Committee knew of the past relationship with Dudek & Associates. It was confirmed this was discussed up front by the Engineering Committee. Director Lucy said the fact that the committee was aware of the past history and still recommended Dudek for this project was worth recognizing. Director Lucy also encouraged that when this analysis is conducted, they get with some real farmers to find out if this thing will work because those are the customers that will tell you.

President Sanford clarified the Board was approving an overall budget of \$224,000 to be spent over time with various checkpoints along the way. Mr. Kennedy explained the project needs to be more due to staff time involved; therefore, the total would be \$250,000 which includes their contract plus RMWD's staff time.

Director Brazier said approving the staff recommendation as it is written that if there are no conditions or limitations other than what is written therein. Mr. Kennedy stated the contract cannot exceed \$225,000 and the other \$25,000 was for staff time.

President Sanford clarified this motion would authorize the approval of a \$250,000 appropriation with a maximum contract of \$225,000.

Director Griffiths asked how the checkpoints are controlled. Mr. Kennedy stated there were proposed meeting dates scheduled at which the contractor will produce staff with information on each of those topics listed on Page #11-11. He noted most of these will be talked about at Engineering Committee meetings and should there be something that does not look good, progression would be stopped right there. President Sanford asked if the progression is brought to a halt, will the contract be terminated. Mr. Kennedy confirmed.

Mr. Kennedy stated by reviewing the Engineering Committee minutes and some detail of the Master Plan, the first hurdle to be overcome is the deal with the City of Oceanside deciding whether to give RMWD money for the capacity the District owns in the San Luis Rey plant. He noted if RMWD has to abandon that capacity and get nothing in return for it, it makes this project very difficult to pencil out. He said although the City of Oceanside seems open to the idea, there was no commitment. Discussion ensued.

(*) - Asterisk indicates a report is attached.

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Action:

Moved by Director Lucy to approve staff recommendation Option 1 - Appropriate an additional \$50,000 from the Master Plan Project into the Pre-Design Water Reclamation Project and authorize staff to negotiate a contract to prepare the water reclamation plant and recycled water distributions system pre-design report not to exceed \$224,995 with Dudek. Seconded by Director Brazier.

After consideration, the motion CARRIED by the following vote:

AYES: Directors Brazier, Lucy, and Sanford
NOES: Director Griffiths
ABSTAINED: None
ABSENT: Director Walker

Director Walker rejoined the meeting at 2:53 p.m.

BOARD INFORMATION ITEMS

***12. RECEIVE AND FILE INFORMATION ITEMS FOR OCTOBER 2015**

- A. General Manager Comments**
- B. Communications**
 - 1. Ratepayer Letters
- C. Construction & Maintenance Comments**
 - 1. Construction and Maintenance Report
 - 2. Valve Maintenance Report
 - 3. Garage/Shop Repair
- D. Water Operations Comments**
 - 1. Water Operations Report
 - 2. Electrical/Telemetry Report
- E. Wastewater Comments**
 - 1. Wastewater Report
- F. Operations Comments**
 - 1. Water Quality Report
 - 2. Cross Connection Control Program Report
- G. Engineering Comments**
 - 1. Engineering Report
- H. Customer Service Comments**
 - 1. Field Customer Service Report
 - 2. Meters Report
- I. Safety Comments**
 - 1. Safety Report
- J. Human Resources Comments**
 - 1. Personnel Changes
 - 2. Organizational Chart

(*) - Asterisk indicates a report is attached.

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President Sanford referenced Item #12B1-1 noting a ratepayer thanked everyone for their efforts in the LAFCO matter.

Action:

Moved by Director Brazier to receive and file information items. Seconded by Director Walker.

After consideration, the motion CARRIED by the following vote:

AYES: Directors Brazier, Griffiths, Lucy, Sanford, and Walker
NOES: None
ABSTAINED: None
ABSENT: None

13. LIST OF SUGGESTED AGENDA ITEMS FOR THE NEXT REGULAR BOARD MEETING

Director Lucy announced his resignation from the Board of Directors on January 26, 2016 due to the growth in business at Del Rey Avocado and the increased responsibilities with such that he can no longer ignore. He talked about how this was the finest Board on which he has served due to his personal growth and friendships developed between him and staff. He said he will help with whatever he can do, but he wanted to give Mr. Kennedy and President Sanford some time to maybe find someone to take his place. He clarified he would be available for the January 26, 2016 meeting; however, should the Board wish to appoint someone, he would resign immediately. Mr. Kennedy pointed out in order to proceed, the District must receive Director Lucy's written notice of resignation so that staff can notify the Registrar of Voters within fifteen days and sixty days for an appointment. Discussion followed.

Director Brazier requested there be some type of conference reporting from staff members when they attend extended conferences at the cost of RMWD. Mr. Kennedy agreed a written report could be provided in the agenda packet. It was determined this did not need to be an agenda item.

14. ADJOURNMENT - To Tuesday, January 26, 2016, at 1:00 p.m.

The meeting was adjourned with a motion made by Director Brazier to a regular meeting on January 26, 2016, at 1:00 p.m.

The meeting was adjourned at 3:01 p.m. p.m.

Dennis Sanford, Board President

Dawn M. Washburn, Board Secretary

(*) - Asterisk indicates a report is attached.

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**MINUTES OF THE REGULAR BOARD MEETING
OF THE BOARD OF DIRECTORS OF THE
RAINBOW MUNICIPAL WATER DISTRICT
APRIL 26, 2016**

1. **CALL TO ORDER** - The Regular Meeting of the Board of Directors of the Rainbow Municipal Water District on April 26, 2016 was called to order by President Sanford at 1:05 p.m. in the Board Room of the District, 3707 Old Highway 395, Fallbrook, CA 92028. President Sanford presiding.

2. **PLEDGE OF ALLEGIANCE**

3. **ROLL CALL:**



Present: Director Sanford, Director Walker, Director Brazier, Director Bigley, and Director Stewart

Also Present: General Manager Kennedy, Executive Assistant Washburn, Legal Counsel Moser, Operations Manager Milner, Engineering Manager Kirkpatrick, Finance Manager Martinez, Acting Human Resources Manager Keetin, Superintendent Zuniga, Superintendent Walker, and Administrative Analyst Gray

Six members of the public were present.

4. **ADDITIONS/AMENDMENTS TO THE AGENDA (Government Code §54954.2)**

There were no changes.

5. **ORAL/WRITTEN COMMUNICATIONS FROM THE PUBLIC
OPPORTUNITY FOR MEMBERS OF THE PUBLIC TO ADDRESS THE BOARD REGARDING
ITEMS NOT ON THIS AGENDA (Government Code § 54954.2).**

There were no comments.

*6. **APPROVAL OF MINUTES**

A. March 10, 2016 – Special Board Meeting

B. March 22, 2016 - Regular Board Meeting



Motion:

Approve both the minutes for March 10, 2016 and March 22, 2016.



Action: Approve, Moved by Director Brazier, Seconded by Director Walker.

(*) - Asterisk indicates a report is attached.

DRAFT**DRAFT****DRAFT****Vote: Motion passed (summary: Ayes = 3, Noes = 0, Abstain = 2).****Ayes: Director Walker, Director Brazier, Director Bigley.****Abstain: Director Sanford, Director Stewart.****7. BOARD OF DIRECTORS' COMMENTS/REPORTS**

Directors' comments are comments by Directors concerning District business, which may be of interest to the Board. This is placed on the agenda to enable individual Board members to convey information to the Board and to the public. There is to be no discussion or action taken by the Board of Directors unless the item is noticed as part of the meeting agenda.

A. President's Report (Director Sanford)

There was no report given.

B. Representative Report (Appointed Representative)**1. SDCWA****A. Summary of Formal Board of Directors' Meeting March 24, 2016**

Mr. Kennedy mentioned the main topic of discussion at the March 24, 2016 meeting was the impending MWD action that occurred earlier in the month. He said although he and others that went to MWD to testify were successful in rebuffing their efforts to really increase the treatment surcharge by somewhere between 6%-77%, MWD did pass through the same rate structure SDCWA prevailed against in their court case. He noted SDCWA plans to file suit against MWD again for their most recent rate structure adoption that projections show will amount to approximately \$550 million in excess charges over eight years. He explained MWD was projecting a 12% rate increase; however, we will not know exactly how this will impact RMWD's rates quite yet. Discussion ensued.

Director Walker asked if the 12% increase would be a pass through charge to the ratepayers. Mr. Kennedy explained it really depends on how SDCWA allocates the increase to their member agencies; however, whatever the amount is would be passed through to RMWD's customers.

2. CSDA

Mr. Kennedy announced he would not be available to attend the May 19th CSDA meeting due to a schedule conflict. He also mentioned the Board Members need to decide if they would like to attend the training conference in July to assist RMWD in achieving the District of Distinction.

President Sanford pointed out how it helped to have a presence at both the state and local level has been and continues to be beneficial to RMWD in establishing relationships.

3. LAFCO

Mr. Kennedy mentioned the runoff election will be discussed later in the meeting.

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4. San Luis Rey Watershed Council



Director Walker reported the Council was in the midst of reestablishing its priorities. He solicited the Board for their input regarding those priorities. He confirmed the Council still lacked an agricultural representative.

5. Santa Margarita Watershed Council



President Sanford reported the main topic at the last meeting was the Watermaster has submitted his resignation and they were now going through the process of publishing the vacancy. He also mentioned a matter of interest to the Council was some of the actions being taken by the various local Native American tribes regarding water rights.

C. Meeting, Workshop, Committee, Seminar, Etc. Reports by Directors (AB1234)



Director Walker reported on the recent Council of Water Utilities meeting where the main topic of discussion was the San Diego river conservancy.

D. Directors Comments



Director Stewart said he was looking forward to attending the ACWA Conference with Mr. Kennedy.

***8. COMMITTEE REPORTS (Approved Minutes have been attached for reference only.)**

A. Budget and Finance Committee

1. March 8, 2016 Minutes

Mr. Kennedy noted discussion took place regarding locked out meters. Mrs. Martinez mentioned there was a utility billing issue Springbrook is working to resolve.

B. Communications Committee

1. March 7, 2016 Minutes

Mr. Kennedy reported there was an opening on the committee which has been announced in the recent newsletter as well as the committee was working toward finding a new nomenclature to replace the term "ratepayer" to give the essence of ownership. He pointed out the newsletter now has a new layout.

C. Engineering Committee

1. March 2, 2016 Minutes

Mrs. Kirkpatrick reported at the last meeting the Engineering Committee reviewed some alternative construction alternatives for the Gird to Monserate Hill waterline. She mentioned the committee recommended Bob Marnett be appointed as an alternate member, bringing the committee membership to capacity with seven members and two alternates made up of RMWD customers.

(*) - Asterisk indicates a report is attached.

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***9 CONSENT CALENDAR**

(The consent calendar items are matters voted on together by a single motion unless separate action is requested by a Board member, staff or member of the audience.)

- A. DISCUSSION AND POSSIBLE ACTION TO ADOPT RESOLUTION NO. 16-09 DESIGNATING VANESSA MARTINEZ AS CONTRACT SIGNER FOR ALL UNION BANK TRANSACTIONS**

- B. DISCUSSION AND POSSIBLE ACTION TO APPROVE RESOLUTION NO. 16-10 – A RESOLUTION OF THE BOARD OF DIRECTORS OF RAINBOW MUNICIPAL WATER DISTRICT ESTABLISHING CLASSIFICATIONS AND MONTHLY RATES OF PAY FOR DISTRICT EMPLOYEES EFFECTIVE JULY 3, 2015 THROUGH JUNE 30, 2016 AND THE GENERAL MANAGER’S SALARY EFFECTIVE AUGUST 28, 2105 THROUGH AUGUST 28, 2016**

- C. DISCUSSION AND POSSIBLE ACTION TO APPOINT ROBERT MARNETT AS AN ALTERNATE MEMBER TO THE ENGINEERING COMMITTEE**



Motion:

To approve the Consent Calendar.

Action: Approve, Moved by Director Brazier, Seconded by Director Walker.

Vote: Motion carried by unanimous vote (summary: Ayes = 5).

Ayes: Director Sanford, Director Walker, Director Brazier, Director Bigley, Director Stewart.

It was noted on Item #9B agenda title, “2105” should be “2015”; however, the Resolution was correct.

Mrs. Kirkpatrick introduced Michael Powers, RMWD’s new Associate Engineer. Mr. Powers briefed the Board on his background, education, and experience.

BOARD ACTION ITEMS

***10. DISCUSSION AND POSSIBLE ACTION REGARDING VACATION OF EXISTING EASEMENTS FOR THE GOLF GREEN ESTATES, TM 5498-1**



Mrs. Kirkpatrick noted the Golf Green Estates is a 94-lot home development surrounding the Bonsall Elementary School. She explained this was a request to vacate the existing easements for the development and which specific easements RMWD was being asked to quitclaim.

Mr. Kennedy pointed out RMWD will take ownership of one lot at the development site for the replacement of Lift Station 1.

It was confirmed all of this work would be done at the developer’s expense.



(*) - Asterisk indicates a report is attached.

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Motion:

To approve Staff Recommendation 1 - Authorize the General Manager to execute quitclaim of easements once facilities are relocated out and accepted by the District.

Action: To approve, Moved by Director Brazier, Seconded by Director Stewart.



Vote: Motion carried by unanimous vote (summary: Ayes = 5).

Ayes: Director Sanford, Director Walker, Director Brazier, Director Bigley, Director Stewart.

***11. DISCUSSION AND POSSIBLE ACTION REGARDING REVISION OF ACCEPTANCE OF TERMS FOR QUITCLAIM OF EASEMENTS IN EXCHANGE FOR WIDER EASEMENT AND NEW EASEMENT IN THE PROPOSED MOOSA MITIGATION BANK PHASE 1 PORTION**



Mrs. Kirkpatrick pointed out the Golf Green Estates was adjacent to the Moosa Mitigation Bank. She recalled the Board approved some terms for the mitigation bank in their easements which included widening RMWD's existing easement for a water line by ten feet, quitclaiming easements for old facilities that were to an old treatment RMWD, and widening RMWD's sewer line by five feet. Discussion ensued.

Motion:

Authorize the General Manager to executive to execute quitclaim for easement once the District receives the additional easements.

Action: Approve, Moved by Director Brazier, Seconded by Director Stewart.



Vote: Motion carried by unanimous vote (summary: Ayes = 5).

Ayes: Director Sanford, Director Walker, Director Brazier, Director Bigley, Director Stewart.

***12. DISCUSSION AND POSSIBLE ACTION REGARDING EXECUTION OF A SECOND AMENDMENT TO JOINT AGREEMENT TO IMPROVE SUBDIVISION, JOINT LIEN CONTRACT AND HOLDING AGREEMENT FOR SAN DIEGO TRACT NO. 5012-1**



Mrs. Kirkpatrick explained this item was tabled from the last Board meeting and how Legal Counsel have provided the County some revisions to the Joint Lien Contract; therefore, she recommended the Board approve authorizing the General Manager to execute Joint Agreement to Improve Subdivision, Joint Lien Contract and Holding Agreement for San Diego Tract No. 4750-1 with Legal Counsel's revisions.

(*) - Asterisk indicates a report is attached.

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Motion:

To approve Staff Recommendation No. 1 - Authorize the General Manager to execute Joint Agreement to Improve Subdivision, Joint Lien Contract and Holding Agreement for San Diego Tract No. 4750-1 with Legal Counsel's approval.



Action: Approve, Moved by Director Stewart, Seconded by Director Brazier.

Vote: Motion carried by unanimous vote (summary: Ayes = 5).

Ayes: Director Sanford, Director Walker, Director Brazier, Director Bigley, Director Stewart.

***13. DISCUSSION AND POSSIBLE ACTION TO ADOPT THE 2016 WATER AND WASTEWATER MASTER PLAN UPDATE**



Mrs. Kirkpatrick gave a presentation on the completed Water and Wastewater Master Plan Update dated April 26, 2016 for Board consideration after introducing the team responsible for updating RMWD's 2006 Master Plan. She noted the adoption of this update plan will formally end the Beck Reservoir UV project. She pointed out problem associated with the wastewater Siphon and how part of this plan includes exploring possibly eliminating the Siphon entirely.

Discussion ensued regarding reclaimed water.

It was noted the recommendation to the Board was to accept the updated Master Plan with projects to be brought to the Board for consideration.



Motion:

Adopt the Master plan update.

Action: Approve, Moved by Director Walker, Seconded by Director Stewart.



Vote: Motion carried by unanimous vote (summary: Ayes = 5).

Ayes: Director Sanford, Director Walker, Director Brazier, Director Bigley, Director Stewart.

***14. DISCUSSION AND POSSIBLE ACTION RELATED TO NORTH COUNTY IRRIGATED LANDS GROUP**



Mr. Kennedy gave a presentation on the North County Irrigated Lands Group (NCILG) including regulatory delays and financial viability. He concluded by noting unless the regulations are eliminated entirely, the economic viability of NCILG is unlikely; therefore, staff recommends the careful winding up of the group in a manner that supports members in the transition to either the Farm Bureau or other options.

(*) - Asterisk indicates a report is attached.

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Director Stewart inquired as to how RMWD utilizes any monies collected from the NCILG. Mr. Kennedy explained it mostly goes to staff time to start and oversee the program. He noted in general, the monitoring group would need to run self-sufficiently. Director Stewart asked if NCILG were to return monies to the members would it significantly affect the new fees they would have to pay.

Legal Counsel explained the NCILG was set up as a separate limited liability corporation organization; therefore, if its funds are empty, the District would have to capitalize the LLC and then distribute funds from there. He restated this was the reason for setting up the NCILG as a separate LLC. He stated it would be hard to see what the benefit to the District would for recapitalizing the LLC. He pointed out reimbursement could be done; however, there would need to be a public benefit for doing so.

Discussion ensued.

Mr. Kennedy pointed out since this meeting's agenda packet was prepared, the Farm Bureau said it was not interested in taking over the NCILG; therefore, Staff Recommendation No. 3 was no longer an option. Discussion continued regarding possibly transferring the NCILG LLC to someone else.



Motion:

To approve Staff Recommendation No. 1 - Dissolve the NCILG – in this process, the group would simply be dissolved. Staff would notify both the members of the NCILG and the RWQCB of the dissolution. Members would be on their own to determine how to comply with upcoming regulations.



Action: Approve, Moved by Director Walker, Seconded by Director Brazier.

Vote: Motion carried by unanimous vote (summary: Ayes = 5).

Ayes: Director Sanford, Director Walker, Director Brazier, Director Bigley, Director Stewart.

***15. DISCUSSION AND POSSIBLE ACTION TO APPROVE ORDINANCE NO. 16-07 AMENDING AND UPDATING ADMINISTRATIVE CODE SECTION 8.12 – RENDERING AND PAYMENT OF BILLS**



Mrs. Martinez explained RMWD's Customer Service staff have been receiving several requests from customers to have their late fees waived. She noted due to the current Administrative Code policy in place, these requests have been denied; therefore, staff was requesting a change to the Administrative Code where late fees can be waived once every two years as long as the stipulated specific requirements are met.



Motion:

To approve Ordinance No. 16-07 to allow for a one-time waiver in a two year period.



Action: Approve, Moved by Director Stewart, Seconded by Director Walker.

(*) - Asterisk indicates a report is attached.

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Vote: Motion carried by unanimous roll call vote (summary: Ayes = 5).

Ayes: Director Sanford, Director Walker, Director Brazier, Director Bigley, Director Stewart.

***16. DISCUSSION AND POSSIBLE ACTION RELATED TO CONVERSION TO PAPERLESS BOARD PACKETS**



Mr. Kennedy referred to the handout showing the breakdown of costs associated with manually preparing and distributing hard copies of the agenda packets compared to using electronic copies. He explained it was up to the Board of Directors as to how they would like to proceed as well as receive the agenda packets.

Director Brazier recommended staff supply some version of an index with every agenda packet to assist with finding items within the packet.

Director Stewart commented on his experiences with other boards changing to electronic packets. He noted one of the biggest concerns was after a short period of time those board members stopped reading their agenda packets in advance of the meetings which resulted in taking triple the amount of time to address each item. He stated in some cases, Board Members started surfing the internet as opposed to following along during the meetings. He suggested the Board give consideration to displaying agenda items on a screen for everyone to view at the same time.

President Sanford said he was in favor of the cost savings and convenience of moving forward with electronic agenda packets.

Director Brazier said although she was in support of moving to electronic packets, she would need assistance with learning how to use an Ipad. She also mentioned her data plan would not support moving in this direction without high costs being incurred. Mr. Kennedy explained this could be tailored to fit the needs of all the Board Members.

It was confirmed there will be hard copies available at the front desk for the public as stated in the Administrative Code.

Mr. Meadows asked if Board Members would be able to make comments on the electronic packets. It was confirmed this was available with the PDF documents as well as the option of printing only those pages of interest. Discussion followed.

Mr. Kennedy confirmed RMWD would provide the Ipad's for the Board Members who do not already have or want to use their own personal device. Discussion ensued regarding utilizing Dropbox as a means of accessing the packets.

Legal Counsel recommended those that decide to use District devices for conducting public business do not use those devices for personal business. He also pointed out any Closed Session materials will not be provided or posted on the website as part of the agenda packets.

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Motion:

To approve Staff Recommendation No. 2 – Develop a paperless agenda system using devices owned by Directors or some combination of the two.



Action: Approve, Moved by Director Walker, Seconded by Director Brazier.

Vote: Motion carried by unanimous vote (summary: Ayes = 5).

Ayes: Director Sanford, Director Walker, Director Brazier, Director Bigley, Director Stewart.

***17. DISCUSSION AND POSSIBLE ACTION RELATED TO LAFCO RUNOFF ELECTION**



President Sanford pointed out the Board needs to vote for someone in this election.



Motion:

To vote for Dennis Sanford.



Action: Approve, Moved by Director Brazier, Seconded by Director Stewart.

Vote: Motion carried by unanimous vote (summary: Ayes = 5).

Ayes: Director Sanford, Director Walker, Director Brazier, Director Bigley, Director Stewart.

BOARD INFORMATION ITEMS

18. DISCUSSION REGARDING ROBERT’S RULES OF ORDER

Director Brazier suggested the Board standardize RMWD’s procedural manner in which to conduct the meetings. She recommended the Board President repeat who makes and seconds a motion as well as the motion itself.

Mr. Kennedy talked about how staff was looking at making it simpler for the audience to follow along with the agenda items. He noted the Board may also choose to have interaction with the constituents be more formalized in order establish the same boundaries for every interaction.

Director Brazier suggested the Board have discussion prior to taking public comment. Legal Counsel noted the Brown Act does require public comment be allowed prior to the Board making a final decision. President Sanford said he would prefer to hear public comment before Board discussion and leaving it up to the Board President to control the public discussion period.

Director Walker pointed out the importance of having consistency at both the Board and committee levels.

Director Stewart suggested this item be tabled to a future meeting in order to allow the full Board to observe the various means of conducting the meetings at RMWD would be best.

(*) - Asterisk indicates a report is attached.

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Ms. Rhyne agreed with Director Brazier's suggestion in that she prefers to hold her comments until after Board discussion in case the Board answers her questions before she asks them.

It was confirmed this item would come back to the Board for further consideration.

19. DISCUSSION REGARDING ADMINISTRATIVE CODE CHAPTER 2.03 REMUNERATION AND REIMBURSEMENT AND CHAPTER 4.10 EMPLOYEE BUSINESS EXPENSE



Mrs. Martinez explained this was for discussion regarding the Administrative Code as it relates to business expense reimbursement for both the Board and employees.

Mr. Kennedy solicited the Board for their input as to whether they want to follow the FGSA guidelines or some other form of reimbursement policy.

President Sanford stated he would be more comfortable to have a set amount as opposed to following the FGSA guidelines.

Legal Counsel pointed out according to AB1234 there are reasonable rates and policies to be in place. He suggested RMWD solicit other agencies for their policies on this matter to determine what guidelines may be best for RMWD as well as offered to provide Mr. Kennedy with guidelines from other agencies.

It was noted this would be brought back to the Board for consideration.

***20. RECEIVE AND FILE INFORMATION AND FINANCIAL ITEMS FOR FEBRUARY AND MARCH 2016**

A. General Manager Comments

1. Meetings, Conferences and Seminar Calendar

B. Communications

1. Ratepayer Letters
2. Comment Letter – Urban Water Conservation Workshop 4/20/16

C. Construction & Maintenance Comments

1. Construction and Maintenance Report
2. Valve Maintenance Report
3. Garage/Shop Repair

D. Water Operations Comments

1. Water Operations Report
2. Electrical/Telemetry Report

E. Wastewater Comments

1. Wastewater Report

F. Operations Comments

1. Water Quality Report
2. Cross Connection Control Program Report

G. Engineering Comments

1. Engineering Report

H. Customer Service Comments

1. Field Customer Service Report
2. Meters Report

(*) - Asterisk indicates a report is attached.

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- I. **Safety Comments**
 - 1. Safety Report
- J. **Human Resources Comments**
 - 1. Personnel Changes
 - 2. Organizational Chart
- K. **Finance Manager Comments**
 - 1. Interim Financial Statement
 - 2. Visa Breakdown (February and March)
 - 3. Directors' Expense
 - 4. Check Register
 - 5. Office Petty Cash (February)
 - 6. Water Usage Report
 - 8. RMWD Sewer Equivalent Dwelling Units (EDU's) Status



Motion:

To receive and file information and financial items for February and March 2016.



Action: Approve, Moved by Director Brazier, Seconded by Director Stewart.

Vote: Motion carried by unanimous vote (summary: Ayes = 5).

Ayes: Director Sanford, Director Walker, Director Brazier, Director Bigley, Director Stewart.

21. LIST OF SUGGESTED AGENDA ITEMS FOR THE NEXT REGULAR BOARD MEETING

Mrs. Kirkpatrick noted the next meeting will have a public hearing for the adoption of the Urban Water Management Plan.

Mr. Stewart announced he would not be present at the June regular Board meeting. It was noted should he wish to attend telephonically, all votes will require a roll call vote.

22. ADJOURNMENT - To Tuesday, May 24, 2016 at 1:00 p.m.

The meeting was adjourned with a motion made by Director Brazier and seconded by Director Stewart to a regular meeting on May 24, 2016 at 1:00 p.m.

The meeting was adjourned at 3:52 p.m.

Dennis Sanford, Board President

Dawn M. Washburn, Board Secretary

(*) - Asterisk indicates a report is attached.

**MINUTES OF THE BUDGET AND FINANCE COMMITTEE MEETING
OF THE RAINBOW MUNICIPAL WATER DISTRICT
APRIL 12, 2016**

1. **CALL TO ORDER:** The Budget & Finance Committee meeting of the Rainbow Municipal Water District was called to order by Chairperson Stitle on April 12, 2016 in the Board Room of the District Office at 3707 Old Highway 395, Fallbrook, CA 92028 at 1:01 p.m. Chairperson Stitle presiding.

2. **PLEDGE OF ALLEGIANCE**

3. **ROLL CALL:**

Present: Member Stitle, Member Ross, Member Clyde, Member Moss

Absent: Member Hensley

Also Present: Executive Assistant Washburn, Finance Manager Martinez, Engineering Manager Kirkpatrick

One member of the public was present.

4. **ADDITIONS/DELETIONS/AMENDMENTS TO THE AGENDA (Government Code §54954.2)**

Motion:

To add an item to add Pam Moss as a regular member effective at the next meeting.

Action: Approve, Moved by Member Stitle, Seconded by Member Clyde.

Vote: Motion carried by unanimous vote (summary: Ayes = 3).

Ayes: Member Stitle, Member Ross, Member Clyde.

5. **PUBLIC COMMENT RELATING TO ITEMS NOT ON THE AGENDA (Limit 3 Minutes)**

There were no comments.

COMMITTEE ACTION ITEMS

6. **COMMITTEE MEMBER COMMENTS**

There were no comments.

*7. **APPROVAL OF MINUTES**
A. March 8, 2016

Motion:

To accept the minutes.

Action: Approve, Moved by Member Clyde, Seconded by Member Ross.

Vote: Motion carried by unanimous vote (summary: Ayes = 3).

Ayes: Member Stitle, Member Ross, Member Clyde.

8. DISCUSSION REGARDING BUDGET PROCESS AND TIMELINES

Mrs. Martinez mentioned several sections of the budget have been reviewed with the help of project managers and staff. She stated the next budget item she was currently working on was capital expenditures. She noted she hoped to have a draft of the whole budget by the end of April for review by the Budget and Finance Committee and then again at the joint Board/Budget and Finance Committee meeting on May 24, 2016.

Mrs. Martinez reported Automatic Meter Infrastructure (AMI) was being pursued by staff through multiple vendors. Discussion followed.

Member Moss arrived at 1:10 p.m.

9. DISCUSSION AND POSSIBLE ACTION REGARDING FINANCING THE MASTER PLAN

Mrs. Martinez talked about the water reclamation plant being projected at \$66 million. Mrs. Kirkpatrick pointed out she had drafted all the CIP projects for wastewater to help make determinations with the reclamation plant in mind. She stated depending on how the District proceed either the water reclamation plant or upsizing of North River Road will be removed from the project list.

10. DISCUSSION AND POSSIBLE ACTION REGARDING METER CAPACITY ZONES

Mrs. Kirkpatrick mentioned Mr. Kennedy has been talking about differentiating between the meter size and actual usage. Discussion ensued.

11. UPDATES

A. Strategic Plan

It was noted some of the previously set goals and objectives are currently being implemented and that more strategic plan matters will be discussed during the budget process.

B. CIP with Update from Developers as to Dates

Mrs. Kirkpatrick gave an update on Green Golf Estates. Discussion followed regarding some of the other proposed developments including Campus Park West and Warner Ranch.

C. Accela (Springbrook)

Mrs. Martinez reported the human resources module training was scheduled for the upcoming week. She also mentioned since the Board had approved different forms of payments, ACH payments have started with those vendors who elected to do so. She pointed out electronic approvals have also been implemented with internal controls in place. Discussion ensued regarding how the matter of water allocations and TSWAR customers will be addressed.

12. MONTHLY WATER AND SEWER SALES REPORT WITH PROJECTIONS FOR REMAINDER OF YEAR

Mrs. Martinez stated the information provided in the handout was consistent with what she provided to the committee last month. She pointed out the projections may change as the actual numbers come in which may slightly bring down the revenue.

13. MONTHLY FINANCIAL REPORT

Mrs. Martinez referenced the next set of reports noting they were very condensed and summarized. She talked about the water and sewer funds and how RMWD was presently facing a deficit in the water fund and showing a slight profit in the sewer fund. She pointed out MWD was proposing a rated average increase of approximately 12% which will be passed through to RMWD by SDCWA and that RMWD in turn has the option of passing those increases through to the ratepayers. It was noted Mr. Kennedy was currently at MWD most likely to discuss this matter.

Mr. Stitle asked when the transition to Accela (Springbrook) will be complete. Mrs. Martinez stated it was more in their control and with Accela being short staffed right now she would assume it would be in mid-August.

Mrs. Kirkpatrick suggested having a historical usage category on the RMWD water bill may be helpful to the customers.

14. REVIEW OF GROUNDWATER ISSUE

Mrs. Kirkpatrick mentioned staff was still in discussions with West Yost in regards to the model.

15. LIST OF SUGGESTED AGENDA ITEMS FOR THE NEXT SCHEDULED BUDGET AND FINANCE COMMITTEE MEETING

It was suggested there be an item for the meter classifications to be provided by Mr. Diaz as well as an item regarding adding water conservation/resources to the budget.

16. ADJOURNMENT

The meeting was adjourned with a motion made by Member Clyde and seconded by Member Stitle.

The meeting adjourned at 1:46 p.m.

Harry Stitle, Committee Chairperson

Dawn M. Washburn, Board Secretary

**MINUTES OF THE COMMUNICATIONS COMMITTEE MEETING
OF THE RAINBOW MUNICIPAL WATER DISTRICT
APRIL 4, 2016**

1. **CALL TO ORDER** – The Communications Committee Meeting of the Rainbow Municipal Water District on April 4, 2016 was called to order by Chairperson Daily at 3:36 p.m. in the Board Room of the District, 3707 Old Highway 395, Fallbrook, CA 92028. Chairperson Daily, presiding.

2. **PLEDGE OF ALLEGIANCE**

3. **ROLL CALL:**

Present: Member Daily, Member Brazier, Member Kurnik, Member Kirby,

Absent: Member Romani, Member O’Leary

Also Present: General Manager Kennedy, Executive Assistant Washburn,
Administrative Analyst Gray.

No members of the public were present.

4. **ADDITIONS/DELETIONS/AMENDMENTS TO THE AGENDA (Government Code §54954.2)**

There were no changes to the agenda.

5. **PUBLIC COMMENT RELATING TO ITEMS NOT ON THE AGENDA**

There were no public comments.

COMMITTEE ACTION ITEMS

6. **COMMITTEE MEMBER COMMENTS**

Ms. Brazier asked for the comments to be moved to a latter part of the agenda in the future.

*7. **APPROVAL OF MINUTES**

A. May 7, 2012

It was noted Item #7A needed to be changed to March 7, 2016.

Motion:

Accept the minutes as drafted.

Action: Approve, Moved by Member Kirby, Seconded by Member Kurnik.

Vote: Motion carried by unanimous vote (summary: Ayes = 4).

Ayes: Member Daily, Member Brazier, Member Kurnik, Member Kirby.

8. DISCUSSION AND POSSIBLE ACTION TO CHANGE NOMENCLATURE FOR CUSTOMERS

Mr. Kennedy explained the purpose of this item was to discuss how RMWD can improve the manner in which RMWD customers are referenced. He encouraged the committee members to provide some references at the next committee meeting for discussion. It was suggested the employees also be solicited for ideas.

9. DISCUSSION AND POSSIBLE ACTION REGARDING INCORPORATING NEW GRAPHICS INTO WEBSITE, NEWSLETTER, ETC.

Mrs. Gray provided the members with examples of existing and new graphics for consideration.

It was suggested to continue to use the arched "R". Mr. Kennedy offered to work on the samples more and discuss those at the next meeting.

10. AVOCADO FESTIVAL UPDATE

Mrs. Gray reported RMWD was not selected to participate in the Avocado Festival in 2016. She noted she would continue to work on being more prepared for the festival application process for 2017.

11. FOURTH GRADE CALENDAR CONTEST RESULTS

Mrs. Gray announced the three top contestants were submitted for the 2017 calendar. She mentioned RMWD was considering making magnets to display the artwork on the work vehicles. Mr. Daily asked if there was any interest in adding something to the magnets notifying the public how to contact the District in the event of an emergency or reporting leaks.

Discussion ensued regarding present awards to the contest winners.

12. COMMUNICATIONS PLAN

Mrs. Gray provided updated copies of the Communications Plan. It was noted announcement of the new Board Members would take up a majority of the April newsletter. Mrs. Gray mentioned there would be an operations featured event included as well.

Discussion ensued regarding staff working to finalizing the EOC. It was noted there would be something to report on this in a Fall edition of the newsletter.

Ms. Kurnik suggested pictures of the winning calendar entries be in the April newsletter.

13. REVIEW AND ANALYSIS OF RMWD RELATED MEDIA STORIES

- A. "Proposed New Commercial Center Faces Many Hurdles"
- B. "Water Bill Jump Hard to Swallow in Rainbow"

It was noted sharing media stories proved to be valuable. Discussion ensued regarding Item #13A.

14. REVIEW PUBLISHED NEWS RELEASES

Mr. Kennedy noted these news releases were published in both The Village News and San Diego Tribune. He stated RMWD also receives other local publications such as ARC. He pointed out communications was a critical part of the Strategic Plan.

15. LIST OF SUGGESTED AGENDA ITEMS FOR THE NEXT SCHEDULED COMMUNICATIONS COMMITTEE MEETING

It was noted suggested nomenclatures and an item to discuss committee membership be on the next meeting agenda.

16. ADJOURNMENT

Motion:

To adjourn.

Action: Approve, Moved by Member Brazier, Seconded by Member Kirby.

Vote: Motion carried by unanimous vote (summary: Ayes = 4).

Ayes: Member Daily, Member Brazier, Member Kurnik, Member Kirby.

The meeting adjourned at 4:40 p.m.

Mike Daily, Committee Chairperson

Dawn M. Washburn, Board Secretary

**MINUTES OF THE ENGINEERING COMMITTEE MEETING
OF THE RAINBOW MUNICIPAL WATER DISTRICT
APRIL 6, 2016**

1. **CALL TO ORDER** – The Engineering Committee Meeting of the Rainbow Municipal Water District on April 6, 2016 was called to order by Chairperson Prince at 3:01 p.m. in the Board Room of the District, 3707 Old Highway 395, Fallbrook, CA 92028. Chairperson Prince, presiding.

2. **PLEDGE OF ALLEGIANCE**

3. **ROLL CALL:**

Present: Member Prince
Member Stitle
Member Taufer
Member Murray
Member Brazier
Member Ratican
Alternate Kirkpatrick

Absent: Member Kirby
Alternate Robertson

Also Present: General Manager Kennedy
Assistant Rubio

There were four public members present: Mr. Marnett (District Ratepayer), Mr. Pollard and Mr. Diaz (Psomas Consultants), and Mr. Kilkenny (Golf Green Estates)

4. **ADDITIONS/DELETIONS/AMENDMENTS TO THE AGENDA (Government Code §54954.2)**

There were no changes to the agenda.

5. **PUBLIC COMMENT RELATING TO ITEMS NOT ON THE AGENDA**

COMMITTEE ACTION ITEMS

*6. **APPROVAL OF MINUTES**
A. March 2, 2016

Action:

Moved by Member Brazier to approve the minutes as written. Seconded by Member Taufer.

After consideration, the motion **CARRIED** by the following vote:

AYES: Member Prince, Member Stitle, Member Taufer, Member Murray, Member Brazier, Member Ratican and Alternate Kirkpatrick.
NOES: None
ABSTAINED: None
ABSENT: Member Kirby and Alternate Robertson

7. DISCUSSION AND POSSIBLE ACTION REGARDING GIRD TO MONSERATE HILL WATERLINE ALTERNATIVES

Ms. Kirkpatrick introduced the Psomas representatives Mr. Pollard and Mr. Diaz that were in attendance to answer questions regarding the Gird to Monserate Hill Waterline Alternatives project. She handed out copies of three alternative maps and CCTV inspection pictures for discussion. She provided a brief update on the project stating it was an existing 10-inch waterline extending from Gird Road to Monserate Hill Road and due to corrosion, broke within the creek approximately 12 years ago. She mentioned the project was included in the CIP budget to replace the waterline.

Mr. Kennedy pointed out that the Monserate Hill area only had one source of water supply. Mrs. Kirkpatrick mentioned there had been waterline breaks in the past which caused approximately 200 customers to be out of service. She stated repairing this waterline would provide a secondary feed to the area.

Mrs. Kirkpatrick pointed out on the CCTV inspection pictures there was evidence of joints with no mortar and the assessment regarding the steel's thickness was acceptable, which meant the pipeline was in good shape although the joints were in bad shape. She said based on all the information obtained three alternatives were presented:

Alt #	Description	Estimated Costs
1	Open Cut and HDD under existing Creek (environmentally sensitive area)	\$1,150,000
2	Pipe bursting and HDD under existing Creek (environmentally sensitive area)	\$960,000
3	Easements to Live Oak Creek and Pipe Burst to Monserate Hill Road	\$850,000

Ms. Brazier asked for the pluses and minus of each alternative. Mr. Kennedy responded that Alternatives 1 and 2 are similar aside from the construction methods and costs, and Alternative 3 was the lowest cost, although the pipeline would have to run through other parcels increasing the cost when obtaining the required easements. Discussion ensued.

Mr. Kennedy suggested allowing two options for the contractors to bid the best option for the project. He also recommended proceeding through with the design phase. Discussion ensued.

The general consensus was to go forward with the design for Alternatives 1 and 2.

8. TERMINATION OF SERVICE LATERALS FOR LOCKED OFF CUSTOMERS

Mr. Kennedy said the recent decision to increase the rates on all the locked off meters was based on meeting the requirements of Prop 218. He said most ratepayers have elected to downsize their meters although some have elected to terminate service. He explained the previous administrative code stated ratepayers wanting to remove their meters would be required to remove the lateral. He pointed out the administrative code was revised to allow the laterals to stay in place. Discussion ensued.

9. DISCUSSION AND POSSIBLE ACTION OF EASEMENT VACATIONS

- A.** Golf Green Estates
- B.** Mitigation Bank

Mrs. Kirkpatrick said Golf Green Estates and the Mitigation Bank have submitted requests to vacate existing easements. She provided maps for each area pointing out existing and proposed easements. She said Golf Green Estates was currently moving forward with grading and referred to the maps to explain the existing and proposed sewer main, requested quitclaims and the ultimate sewer layout. Discussion ensued.

Mrs. Kirkpatrick referred to the Mitigation Bank map and pointed out that this had been discussed at previous committee meetings regarding some of the terms in Phase 1. She explained the Board approved the committee's recommendation to widen two sewer easements, although one of those easements would not be needed if the sewer line was relocated to a new location, which would require a new 20' easement. Discussion ensued.

Mrs. Kirkpatrick pointed out the vacations were conditional upon relocation of facilities as approved and accepted per District Standards. Discussion ensued.

Action:

Moved by Member Brazier to recommend to the Board to quitclaim easements to Golf Green Estates. Seconded by Member Stitle.

After consideration, the motion CARRIED by the following vote:

AYES: Member Prince, Member Stitle, Member Taufer, Member Murray, Member Brazier, Member Ratican and Alternate Kirkpatrick.

NOES: None

ABSTAINED: None

ABSENT: Member Kirby and Alternate Robertson

Action:

Moved by Member Stitle to recommend to the Board to approve not widening easement Item Number 26 and in place of that establishing a new 20' easement Item Numbered to be determined. Seconded by Member Brazier.

After consideration, the motion CARRIED by the following vote:

AYES: Member Prince, Member Stitle, Member Taufer, Member Murray, Member Brazier, Member Ratican and Alternate Kirkpatrick.

NOES: None

ABSTAINED: None

ABSENT: Member Kirby and Alternate Robertson

10. DISCUSSION AND POSSIBLE ACTION REGARDING COMMITTEE MEMBERSHIP

Mrs. Kirkpatrick said Mr. Marnett has attended various committee meetings and has shown interest in becoming a member. She pointed out staff was only on the committee to fill in during vacancies to ensure quorum. She explained adding Mr. Marnett as an alternate would remove her as an alternate member, although she would continue being on the committee in an advisory position.

Action:

Moved by Member Ratican to recommend to the Board to approve Mr. Marnett as an Alternate Engineering Committee Member. Seconded by Member Stitle.

After consideration, the motion CARRIED by the following vote:

AYES: Member Prince, Member Stitle, Member Taufer, Member Murray, Member Brazier, Member Ratican and Alternate Kirkpatrick.

NOES: None

ABSTAINED: None

ABSENT: Member Kirby and Alternate Robertson

11. LIST OF SUGGESTED AGENDA ITEMS FOR THE NEXT SCHEDULED ENGINEERING COMMITTEE MEETING

The recommended agenda items for the next scheduled Engineering committee Meeting were the Urban Water Management Plan and San Luis Rey Ground Water Report.

12. ADJOURNMENT – To Wednesday, May 4, 2016 at 3:00 p.m.

The meeting adjourned at 4:49 p.m.

Timothy Prince, Committee Chairperson

Dawn M. Washburn, Board Secretary



BOARD ACTION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

DISCUSSION AND POSSIBLE ACTION REGARDING EXECUTION OF A JOINT AGREEMENT TO IMPROVE MAJOR SUBDIVISION COUNTY OF SAN DIEGO TRACT NO. TM 5498-1, GOLF GREEN ESTATES

BACKGROUND

The Golf Green Estates development consists of 94 lots surrounding the Bonsall Elementary School shown in the enclosed vicinity map. The developers have been going through the plan checking process with the District and the County of San Diego. Golf Green Estates is processing their final map with the County of San Diego.

DESCRIPTION

Onsite improvements related to the District consists of approximately 5,475 feet of water main and 4,618 feet of sewer main totaling \$1,543,800 in water and sewer facility improvements. The Joint Agreement is required by the County to ensure all facilities are bonded before they will allow submittal of the Final Map for approval and recording which binds Development Solutions Bon, LLC to complete necessary improvements for both the County and the District. Facilities included in the agreement for the District are water and sewer pipelines, coinciding appurtenances and a pressure reducing station. Project bonding will be completed with the County through the attached agreement. District legal counsel has reviewed and approved the Joint Agreement. Staff is requesting that the Board authorize the General Manager to execute the Joint Agreements with the County of San Diego.

POLICY

Section 8.04.010 Board of Director's Approval

Any Request for installation or acceptance of water facilities to serve four or more parcels shall be subject to Board approval.

BOARD OPTIONS/FISCAL IMPACTS

There are no fiscal impacts. The development is responsible for all costs. Estimated revenue from capacity fees are \$1.2 million for water and \$2.5 million for wastewater.

1. Authorize the General Manager to execute Joint Agreement with the County of San Diego for TM 5498-1
2. Provide other direction to Staff.

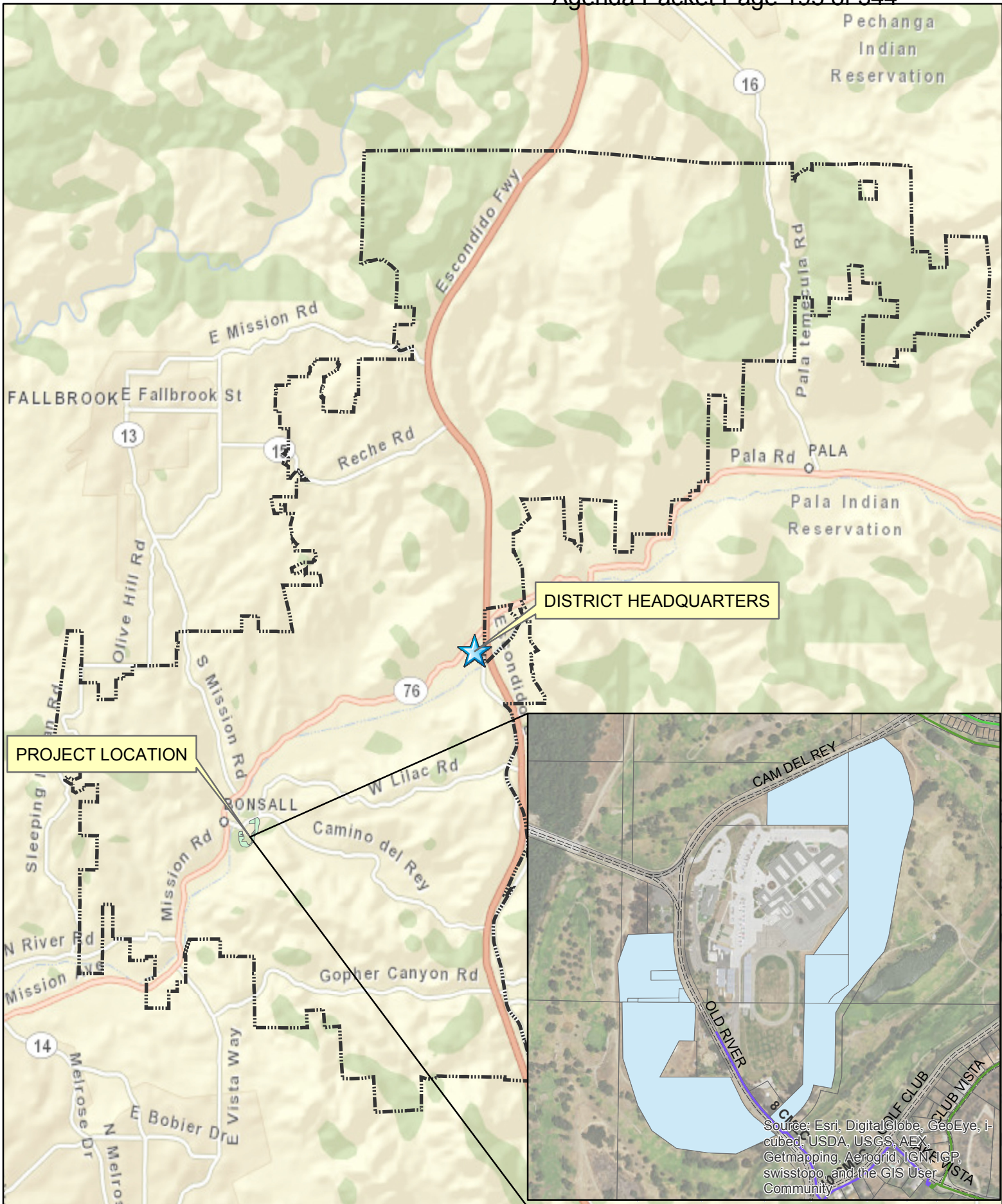
STAFF RECOMMENDATION

Staff recommends Option 1.



Sherry R. Kirkpatrick
Engineering Manager

May 24, 2016



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



GOLF GREEN ESTATES TM 5498-1

**JOINT AGREEMENT TO IMPROVE MAJOR SUBDIVISION
COUNTY OF SAN DIEGO TRACT NO. 5498-1**

This Joint Agreement, made and entered into this _____ day of _____, 20____, between the County of San Diego, State of California (hereinafter referred to as County) and the Rainbow Municipal Water District, (hereinafter referred to as District) jointly, and Development Solutions Bon, LLC, a Delaware Limited Liability Company (hereinafter referred to as Owner).

WITNESSETH:

WHEREAS, in the near future, the Owner will file with the Board of Supervisors of the County (hereinafter referred to as Board) a Final Map of Subdivision of County of San Diego Tract No. 5498-1 (hereinafter referred to as Final Map) for the Board's approval and for recording; and

WHEREAS, pursuant to Section 66462 of the Subdivision Map Act and Section 81.405 of the San Diego County Code, the Board requires Owner to make or agree to make certain subdivision improvements; **NOW, THEREFORE**,

FIRST: IMPROVEMENTS. Owner agrees at his own cost and expense to furnish all the labor, equipment and material to perform and complete, and within 730 days from the date of the approval of the Final Map by the Board to perform and complete, in a good, workmanlike manner, according to the plans and specifications referred to below, the following improvements:

1. The improvement of the streets and/or easements within the subdivision as shown on the attached plans and specifications as Exhibit 1 and incorporated into this Agreement by reference, together with the improvement of any other streets and/or easements specifically designated by the plans and specifications to be improved.

2. The improvement of the sewer and/or water facilities (hereinafter referred to jointly as "facilities") as shown on the attached plans and specifications as Exhibit 2 and incorporated into this Agreement by reference. These improvements shall be constructed subject to the following additional terms and conditions:

(a) All work shall be performed in a good and workmanlike manner to the satisfaction of District's Engineer and in conformity with District's Standard Specifications for Water and Sewer Construction, which are on file at the District offices.

(b) Owner shall convey to District easements covering the property in which the facilities are located in all instances where the facilities are not located in a dedicated street. Owner shall have his engineer provide District

with a legal description and a plat of easements for approval by District. The plat shall be a reproducible transparency with District title block and shall fully locate and describe the easement. The standard easement processing fee and the costs of a policy of title insurance insuring title to the easement in the District shall be paid by Owner. The easements shall be conveyed to District prior to final acceptance of the facilities by the District.

(c) Owner shall pay to District on demand the full amount of District's costs incurred in connection with the work, including plan checking, inspection, materials furnished, repairs or replacement of any defective work, and all other expenses of District directly attributable to the work, plus a reasonable amount for District's overhead in connection therewith. Owner shall deposit with District concurrently with the execution of this agreement the sum of \$_____, being the estimated amount of District's expenses. Should the expenses incurred by District be in excess of said deposit, Owner shall pay the amount of such excess to District on demand. Should District's expenses be less than the amount deposited, District shall refund to Owner the difference upon completion of the work and its acceptance by District.

(d) Owner shall obtain at its expense, all necessary permits required by the County, State or other public agency in connection with the construction of the facilities.

(e) Water facilities constructed by Owner shall be connected to District water lines in the manner authorized by the District after approval has been given for such connection. When all construction work has been completed, except for said connection, Owner shall notify District that the facilities are ready for final inspection. District shall inspect the work and either approve or reject it pending fulfillment of unsatisfied requirements. Final acceptance shall not be made until: (1) all work has been completed in accordance with the plans and specifications, all gate wells have been set flush with the finished street surface or as otherwise required, and meter boxes have been set to finished grade; and (2) a set of original plans (sepia prints), corrected to conform with the "as built" work, has been submitted to the District.

(f) After completion of the facilities and acceptance thereof by the District, the facilities shall be deemed donated to the District under this agreement and shall thereafter be owned and operated by the District in accordance with the rules and regulations of District. Service connection fees and meter costs are not included in the estimated cost of facilities set forth in the Second Paragraph, but shall be an additional sum paid by Owner in accordance with District's rate schedule as it from time to time exists. Water for construction purposes shall be provided upon request in

accordance with District's rules and rate schedules.

3. The setting by a licensed surveyor or engineer of all monuments and stakes not installed on the date of recording of the Final Map, and the setting of all monuments and stakes previously installed, but which were removed, altered or destroyed prior to the completion of the improvements and their acceptance by the District and by the Board, within 30 days after acceptance of improvements by the District and by the Board. Owner hereby further agrees to pay the engineer or surveyor for setting the monuments, and to secure the obligation to pay the engineer or surveyor by providing security for faithful performance, as set forth in the section herein entitled "Amounts of Security", subject to the following:

(a) Notice of Setting. Pursuant to Section 66497 of the Subdivision Map Act, within five days after the final setting of all monuments has been completed, the engineer or surveyor shall give written notice to Owner, the District, and the County's Director of Public Works (hereinafter referred to as Director) that final monuments have been set.

(b) Payment of Engineer. Upon payment to the engineer or surveyor for setting the final monuments, Owner shall present to the District and the Director evidence of such payment and receipt thereof by the engineer or surveyor. In this event, Owner's security obligations conditioned on payment to the engineer or surveyor, as required by this Paragraph, shall terminate. Where a cash deposit is given by the Owner as security for faithful performance, the Clerk of the Board of County may pay the engineer or surveyor for setting the final monuments from the cash deposit if so directed by the Director upon the request of Owner.

(c) Nonpayment. If Owner does not present evidence to the Director that he has paid the engineer or surveyor for setting the final monuments, and if the engineer or surveyor notifies the Director that he has not been paid by Owner for setting the final monuments, the County may, within three months from the date of said notification, pay the engineer or surveyor from any deposit the amount due.

(d) Death or Disability of Engineer. Pursuant to Section 66498 of the Subdivision Map Act, in the event of death, disability or retirement from practice of the engineer or surveyor charged with the responsibility for setting monuments, or in the event of his refusal to set such monuments, the County may direct the Director, or such engineer or surveyor as it may select, to set the monuments. If the original engineer or surveyor is replaced by another, the former may, by letter to the Director, release his right to set the final monuments to the surveyor or engineer who replaced him. When the monuments are so set, the substitute engineer shall amend any Final Map in accordance with the correction and amendment provisions of Sections 66469 through 66472 of the Subdivision Map Act. All provisions of this Agreement relating to payment shall apply to the service performed by the substitute engineer or surveyor.

4. () If preceding blank is checked, erosion control work as shown on the attached plans and specifications as Exhibit 2 and incorporated into this Agreement by reference, is subject to the following:

(a) The tops of all slopes shall be diked to prevent water from flowing over the edge of the slope.

(b) All driveways shall be paved not later than November 1, where their slopes exceed two percent (2%).

(c) As soon as grading is completed, but not later than November 1, the entire area not to be paved immediately will be treated with two to four tons per acre straw mulch, 50 lbs. per acre annual rye grass seed or equivalent as determined by the Director at the time of planting, and 100 lbs. per acre actual nitrogen and phosphate (ammonia phosphate 16-20-0). The mulch shall be tacked in place with a sheepsfoot roller and lightly irrigated. On cut and fill slopes, jute matting shall be installed over the mulch to hold it in place and cuttings from small leaf ice plants, or approved equivalent ground cover, shall be planted with spacing approved by the Director prior to November 15.

(d) An irrigation system shall be installed in accordance with the County's standard drawings for irrigation systems and approved by the Director not later than May 15 following the planting of the slopes.

(e) Sandbags shall be placed in gutters as approved by the Director.

(f) Catch basins, desilting basins and storm drain system as approved by the Director shall be installed.

(g) Owner shall maintain the plantings and erosion control measures described herein until release from such obligation by the Director. Owner shall pick up and replace on the slopes all sand intercepted by the sandbags, catch basins and desilting basins after each runoff-producing rainfall.

(h) For purposes of providing for the performance of emergency erosion control work which the Director, in his sole discretion, deems necessary, Owner shall deposit with the Director the sum of \$ N/A, which sum is independent of any other improvement security required by the terms of this Agreement.

5. Incomplete Offsite Street and Utility Improvements.

(a) In the event this unit or subsequent units of this project require access across streets that have not been improved and accepted into the public maintained road system, and to the extent that utilities such as sewer and water to serve this

unit or subsequent units are required, the Owner agrees to complete said improvements to the satisfaction of the Director and the District prior to requesting acceptance of the improvements secured under this Agreement.

(b) Owner agrees that his or her obligation under this Agreement shall continue in the event of a transfer or sale of this unit or subsequent units to a person or persons who are not parties to this Agreement.

SECOND: INSPECTION, ACCEPTANCE AND COST ESTIMATE. Owner agrees that the work and improvements required in the First Paragraph, subparagraph 2, above shall be done subject to inspection by and to the satisfaction of the District, and the improvements shall not be deemed completed until approved and accepted as completed by the District. Owner agrees that all other work and improvements required in the First Paragraph shall be done subject to inspection by and to satisfaction of the Director and the improvements shall not be deemed completed until approved and accepted as completed by the County. The District and the Director shall be allowed to inspect their respective facilities during all stages of the construction. The District and the Director shall be notified a minimum of forty-eight (48) hours prior to the commencement of construction. The estimated costs of the work and improvements specified in the First Paragraph are itemized as follows:

Improvement of the Water & Sewer Facilities	\$1,543,800
Total Estimated Amount	\$1,543,800

Owner agrees that his or her obligation under this Agreement extends to the completion of the designated improvements, and that this obligation is not limited by the amount of these cost estimates. Owner further agrees that these cost estimates are estimates only and are not intended to constitute liquidated damages.

THIRD: PARK LAND AND FEES. Section 66477 of the Subdivision Map Act and Section 810.103 of the San Diego County Code require the dedication of land, the payment of fees in lieu thereof, or a combination of both, for park or recreational purposes. Owner hereby agrees to dedicate land and/or pay the County the sum of \$ N/A in satisfaction of these requirements.

If land is to be dedicated, pursuant to Section 810.107(a) of the San Diego County Code, Owner agrees to offer the land for dedication prior to the approval of the Final Map by the Board.

If fees alone are to be paid, or fees are to be paid in combination with the dedication of land, pursuant to Section 810.107(b) of the San Diego County Code, Owner agrees to pay the full amount specified above prior to the issuance of any building permit or prior to the date upon which all subdivision improvements are to be completed, whichever occurs
CCSF 84.86

first. Owner further agrees to secure the obligation to pay the amount required by this Paragraph, by providing security for faithful performance, as set forth in the section herein entitled "Amounts of Security" below, at the time of submitting this Agreement and Final map for approval by the Board.

FOURTH: DRAINAGE FEES. Government Code Section 66483 and Section 810.208 of the San Diego County Code require the payment of drainage fees. Owner agrees to pay drainage fees to the County in the amount of \$ N/A in satisfaction of these requirements. Owner agrees to pay the full amount specified prior to approval of the Final Map if a reimbursement agreement exists for the Local Drainage Area. If no reimbursement agreement exists, Owner agrees to pay the fees prior to the earliest of the following:

- (a) the date of issuance of any building permit except for building permits for model houses;
- (b) the date all subdivision improvements are completed and accepted by the County;
- (c) the date construction commences of any portion of a master planned flood control facility within the Local Drainage Area;
- (d) the date of execution of a reimbursement agreement for facilities constructed within the Local Drainage Area.

Owner further agrees to secure the obligation to pay the amount required by this paragraph, by providing security for faithful performance, as set forth in the section herein entitled "Amounts of Security" below, at the time of submitting this Agreement and Final Map for approval by the Board.

FIFTH: TAX AND ASSESSMENT LIENS. Section 66493 of the Subdivision Map Act requires Owner to post security whenever any part of the subdivision is subject to a lien for taxes or special assessments collected as taxes which are not yet payable. Owner hereby agrees to pay, or causes to be paid, when due, all State, County, municipal and local taxes, and the current installment of the principal and interest of all special assessments collected as taxes which at the time the Final Map is recorded are a lien against such subdivision, or any part thereof, but which are not yet payable. Owner further agrees to secure the obligation to pay such taxes and assessment liens by providing security for faithful performance, as set forth in the section herein entitled "Amounts of Security", at the time of submitting this Agreement and Final Map for approval by the Board.

In accordance with Section 81.109 of the San Diego County Code, whenever security pursuant to this Paragraph is filed with the Board, the Clerk of the Board, upon written notification by the Tax Collector that the total amount of such taxes or special assessments has been paid in full, may release the security.

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In the event that the taxes or special assessments are allowed to become delinquent, pursuant to Section 66494 of the Subdivision Map Act, the Clerk of the Board shall apply the proceeds of the security required by this Paragraph to the payment of any such taxes or special assessments, including penalties and costs.

SIXTH: OWNER'S LIABILITY FOR DAMAGES. Neither the District, the County, nor the officers or employees of either shall be liable or responsible for any accident, loss or damage happening or occurring to the work or improvements specified in this Agreement prior to their completion and acceptance. Nor shall the District, County, nor the officers or employees of either be liable for any person or property injured by reason of the work or improvements. All of the aforesaid liability shall be assumed by Owner. Owner further agrees to protect the District, County, and the officers and employees of either from all liability or claim because of, or arising out of, the use of any patent or patented article in conjunction with the construction of the improvements required by this Agreement.

SEVENTH: OWNER'S LIABILITY FOR EXPENSES. Neither the District, County, nor the officers or employees of either shall be liable for any portion of the expense of the work or improvements specified in this Agreement, or for the payment for any labor or materials furnished in connection with such work or improvements.

EIGHTH: OWNER'S DUTY TO PROTECT PUBLIC. Owner further agrees that, at all times from the acceptance by the District and the Board of the streets and/or easements offered for dedication in this subdivision up to the completion and acceptance of the improvements by the District and the Board, he will give good and adequate warning to the public of each and every dangerous condition existing on the property being improved, and he will protect the public from any and all such defective or dangerous conditions. It is understood and agreed that, until completion of all improvements to be performed under this Agreement, those improvements to be located in the streets and/or easements not accepted as improved shall be under the charge of Owner for the purposes of this Agreement, and Owner, upon receipt of a street closure permit issued by the Director, may close all or any portion of any specified street whenever it is necessary to protect the traveling public during the construction of improvements required by this Agreement. Owner further agrees to pay for the inspection of streets and/or easements as may be required by the Director and the District.

NINTH: TYPES OF IMPROVEMENT SECURITY. Pursuant to Sections 66462 and 66499 of the Subdivision Map Act, it is further agreed that Owner shall file security with the District and the Clerk of the Board at the time of submitting this Agreement and Final Map for approval by the Board. The security shall consist of one of the following types:

1. Bond or bonds by one or more duly authorized corporate sureties;
2. A deposit with the District and the Clerk of the Board of money or negotiable bonds of the kind approved for securing deposits of public moneys;

3. An instrument of credit from one or more financial institutions subject to regulation by the state or federal government and pledging that the funds necessary to carry out the obligations of this Agreement are on deposit and guaranteed for payment;

4. An irrevocable standby letter of credit from one or more financial institutions subject to regulation by the state or federal government.

TENTH: AMOUNTS OF SECURITY. Security shall be in the following amounts and shall fulfill the following purposes:

1. Security for Faithful Performance. Security given for the faithful performance of all acts and improvements required by this Agreement in amounts not less than one hundred percent (100%) of the total estimated costs of the improvements or of the acts to be performed, which amounts with the acts or improvements to which they apply are more specifically described as follows:

Streets and Drainage Improvements	\$3,685,500
Sewer Improvements	\$ 729,600
Water Improvements	\$ 814,200
Work and Improvements	\$5,229,300
Monumentation	\$ 25,000
Total Estimated Amount	\$5,254,300

(a) Partial Release of Security for Work and Improvements in the First Paragraph. Pursuant to Section 66499.7 of Subdivision Map Act and upon the partial performance of the work as it progresses, Owner may be entitled to partial releases of the security for work and improvements specified in the First Paragraph. However, no reduction in such security will be authorized (1) where the District or the Director determines that more than fifty percent (50%) of the amount of work remains to be completed; (2) where the reduction results in a remaining security of less than five percent (5%) of the original security; (3) where there has been twice previously processed partial releases of such security in conjunction with this Agreement.

No reduction in security for the work and improvements specified in the First Paragraph will apply to the required warranty period described below, to the five percent (5%) determined necessary for such warranty, or to costs, fees, and reasonable expenses, including attorney's fees.

(b) Completion of Work and Improvements Specified in the First Paragraph.

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Pursuant to Section 81.408 of the San Diego County Code, in the event that the work and improvements specified in the First Paragraph are completed within the time and upon the terms and conditions of this Agreement, Owner is entitled to a release of the security in a sum equal to ninety-five percent (95%) of the value of such security originally pledged, less previous payments advanced.

(c) Release of Security for Performance of Acts Not Involving Work and Improvements. Owner is entitled to a release of one hundred percent (100%) of the security posted for performance of acts or contractual obligations which do not involve the performance of the work and improvements specified in the First Paragraph upon completion of such acts and/or contractual obligations.

(d) Owner's Failure of Performance. In the event that the acts, improvements, or contractual obligations specified herein are not completed within the time and upon the terms and conditions of this Agreement, the District or the County may pursue any or all of the following remedies:

(1) Cause such portions of the work to be done and take such protective measures as are deemed necessary to complete the work. Accordingly, Owner agrees that the District or the County, or the agents, employees or representatives of either may enter upon Owner's property to effect the appropriate work and necessary measures.

(2) May apply the security for faithful performance, or any balance thereof, to the construction or completion of the work or installation of improvements or the satisfying of any contractual obligation remaining pursuant to this Agreement.

(3) Pursue legal remedies in any court of competent jurisdiction for damages not covered by the security or to seek specific performance of the terms and conditions of this Agreement.

2. Security for Payment. Good and sufficient security in an amount not less than fifty percent (50%) of the estimated costs specified in the Second Paragraph of the work and improvements required in the First Paragraph, securing payment to contractors, subcontractors, and persons renting equipment or furnishing labor or materials to the contractors or subcontractors for the improvements. This security shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under Title 3 (commencing with Section 9000) of Part 6 of Division 4 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this security.

The Security for Payment may, after passage of the time within which claims of lien are required to be recorded pursuant to Article 2 (commencing with Section 8410) of Chapter 4 of Title 2 of Part 6 of Division 4 of the Civil Code and after acceptance of the work by the County, be reduced to an amount not less than the total claimed by all CCSF 84.86

claimants for whom claims of lien have been recorded and notice thereof given in writing to the Board, and if no such claims have been recorded, the security may be released in full.

3. Warranty. A one-year warranty of the work and improvements specified in the First Paragraph secured by continuing in effect for a period of one year five percent (5%) of the security for faithful performance for such work and improvements following completion and acceptance of the work and improvements by the District and Board. Pursuant to this warranty, Owner, at his sole expense, agrees to repair or replace any and all work required under this Agreement that may prove defective in workmanship and/or materials, together with any other work which may be affected by this repair, within a one-year period from the date of acceptance of the work and improvements by the District and Board. Work necessitated, however, by ordinary wear and tear, or unusual abuse or neglect, shall not be included in this warranty.

The District or the Director shall give Owner notice of the existence of such defects with reasonable promptness. Owner shall notify the District or the Director upon completion of repairs. Should Owner fail to comply with the District or County's request for repairs within one week of receiving the written notification, the District or the County is authorized to have the defects repaired and made good at the expense of Owner who hereby agrees to pay the cost for such work immediately upon demand. In an emergency, the District or County may repair any defect without prior notification to Owner. The District or the County's decision to repair defects in no way relieves Owner of the warranties given in this provision.

ELEVENTH: CHANGES. Upon mutual consent of the Owner, the District and the County, there may be made such changes, alterations, or additions to the plans and specifications for the work and improvements specified in the First Paragraph which do not exceed ten percent (10%) of the original estimated cost of the work and improvements and which the District or the Director determines to be necessary and desirable for the proper completion of the improvements. No changes, alterations, or additions shall relieve any security obligations given for the faithful performance of this Agreement.

TWELFTH: EXTENSION OF TIME. It is further agreed by and between the parties that in the event it is deemed necessary to extend the time of completion of the work and improvements contemplated under this Agreement, said extension may be granted upon the Owner's request by the District for work and improvements specified in the First Paragraph, subparagraph 2 or by the Board for all other work and improvements or the performance of acts or contractual obligations and shall in no way affect the validity of this Agreement or release any security obligations given for the faithful performance of this Agreement.

THIRTEENTH: COSTS OF ENFORCING JUDGMENT. As part of the security given for the faithful performance of this Agreement and in addition to the face amount specified therefor, there shall be included costs and reasonable fees, including reasonable attorney's fees, incurred by the District or the County in successfully enforcing such CCSF 84.86

obligation, all to be taxed as costs and included in any judgment rendered.

FOURTEENTH: EXERCISE OF RIGHTS BY DISTRICT OR COUNTY. Whenever in this Joint Agreement references are made to the rights of "County and/or District" or to "County or District" and the exercise of rights, the parties hereto agree that such rights may be exercised by the County or the District either (1) jointly, or (2) severally and individually with either County or District acting independently of the other.

IN WITNESS WHEREOF the parties have caused this Agreement to be executed the date first above written.

DEVELOPMENT SOLUTIONS BON, LLC, a Delaware Limited Liability Company, Owner

By: _____
Judd Gilats, Vice President

COUNTY OF SAN DIEGO

By _____
Clerk, Board of Supervisors

RAINBOW MUNICIPAL WATER DISTRICT

By _____
Name Title

Note: (1) Signatures must be acknowledged; and
(2) Appropriate security must be attached.



BOARD ACTION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

APPROVAL OF RESOLUTION NO. 16-11 ESTABLISHING CHECK SIGNING AUTHORITY

DESCRIPTION

The purpose of this Resolution is to establish check signing responsibilities and designate authorized signers of checks due to changes in staff members. Resolution No. 16-11 will replace Resolution No. 16-04.

POLICY

Administrative Code, Chapter 5.01 – Banking

BOARD OPTIONS/FISCAL IMPACTS

- Option 1: Approve attached Resolution 16-11.
Option 2: Approve attached Resolution 16-11 with Board recommended revisions.

STAFF RECOMMENDATION

Staff recommends Option 1.

A handwritten signature in black ink, appearing to read "Tom Kennedy", is written over a horizontal line. Below the line, the name "Tom Kennedy" and the title "General Manager" are printed in a black, sans-serif font.

Tom Kennedy
General Manager

May 24, 2016

RESOLUTION NO. 16-11

**RESOLUTION OF THE BOARD OF DIRECTORS
OF RAINBOW MUNICIPAL WATER DISTRICT
ESTABLISHING CHECK SIGNING RESPONSIBILITIES
AND DESIGNATING AUTHORIZED SIGNERS OF CHECKS**

WHEREAS, the Rainbow Municipal Water District maintains an accounts payable checking account for the purposes of paying vendors, and a payroll checking account for the purpose of paying employees, and

WHEREAS, the bank requires that responsible parties be designated as authorized signers of these accounts, and

WHEREAS, it is appropriate to establish check signing responsibilities and designate authorized signers;

NOW, THEREFORE, IT IS HEREBY RESOLVED, DETERMINED AND ORDERED by the Board of Directors of Rainbow Municipal Water District that:

1. The following persons be designated as authorized signers on the checking accounts of the District:

Accounts Payable Authorized Signers:

- Dennis Sanford, Director
- Tory Walker, Director
- Harriette "Helene" Brazier, Director
- Tom Kennedy, General Manager
- Vanessa Martinez, Finance Manager
- Sherry Kirkpatrick, Engineering Manager
- Darren Milner, Operations Manager

Payroll Authorized Signers:

- Tom Kennedy, General Manager
- Vanessa Martinez, Finance Manager
- Sherry Kirkpatrick, Engineering Manager
- Darren Milner, Operations Manager

2. Accounts payable checks under \$50,000 shall be signed by members of the management staff, and checks over \$50,000 shall be signed by one member of the management staff and one Board member.
3. Payroll checks will be signed by one member of the management staff.
4. Resolution 16-11 rescinds Resolution 16-04.

PASSED AND ADOPTED at a Regular meeting of the Board of Directors of Rainbow Municipal Water District held on the 24th day of May, 2016 by the following vote, to wit:

- AYES:**
- NOES:**
- ABSENT:**
- ABSTAIN:**

Dennis Sanford, Board President

ATTEST:

Dawn Washburn, Board Secretary



BOARD INFORMATION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

INITIAL REVIEW OF OPERATING AND CAPITAL IMPROVEMENT BUDGET FOR FISCAL YEAR 2016-2017

DESCRIPTION

The Draft Operating and Capital Improvement Budget will be presented for the Board and the Committee to review together. This process is designed to be an open discussion for any recommended changes that the Directors and Committee members feel is necessary to incorporate into the Budget. Ideally, the budget is the strategic financial plan designed to meet the objectives and goals of the District.

The projected water sales for FY 2016-2017 are the lowest estimated sales since 1968. This year's forecast is at 16,500 acre feet, whereas last year's budget had sales at 18,000 acre feet, and 20,000 the year before that. The declining water sales negatively impacts the overall budget, it reduces the net position. Presently, unless rates are adjusted upward during the upcoming fiscal year, the wholesale cost increase will result in a deficit of approximately \$138,000.

San Diego County Water Authority (SDCWA) is proposing a melded 6% increase to their rates that will take effect January 2017. However, some of SDCWA's fixed costs are based on a 10 year rolling average of consumption, so RMWD's fixed fees will be a bit higher per AF than many other agencies. During the District's noticing under the Proposition 218 compliance, to avoid operational deficits, depletion of reserves, an inability to address infrastructure and water quality improvements, and to continue to provide a safe, reliable water supply, included was language to allow the District to pass through to its customers any increase imposed on the District by SDCWA.

As a proactive response to the declining water sales, and in an effort to trim down on expenses, management made the difficult decision to eliminate one position in the Human Resource department. The workforce total count included in Fiscal Year 2016-2017 will be 52 full-time employees. The proposed capital expenditures are mostly related to (5) vehicle replacements and a backhoe. All these capital expenditures are needed as current equipment is dilapidated and have high repair costs.

If the Board were to maintain the current rates, the District would not meet the reserve goals and infrastructure funding of the system. The last two years have seen an operating loss and transfers to capital reserves were not possible. If this persists it will be detrimental to both the stakeholders and to the District. The purpose of funding the rate stabilization reserve is to allow the District some control of smoothing out high rate increases, by partially offsetting the increases by advantageously utilizing a portion of the rate stabilization fund. This ultimately benefits the stakeholders by not impacting them drastically with the rate increase. In order to meet the goals and objectives of the District, raising rates is the only viable option available after making reasonable cuts to the expenditures.

Unfortunately, SDCWA released the details on their fixed charges late in the afternoon of May 13, 2016. As of the writing of this report, we are unable to detail the proposed rate increase options due to a lack to time to process the SDCWA data. The rate increase options will be presented during the proposed budget presentation.

BACKGROUND

The Draft Operating and Capital Improvement Budget for Fiscal Year 2016-2017 has been presented to the Budget and Finance Committee on May 10, 2016 for review. The joint meeting is held for presentation to both the Committee and the Board to collectively have open discussions on the fiscal impact the Budget has on the District.


Vanessa Martinez

May 24, 2016



BOARD INFORMATION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

DROUGHT ORDINANCE UPDATE

DESCRIPTION

Due to the State Water Resources Control Board deciding to change the emergency regulations and step back from some of the requirements of the earlier versions of the regulation, staff wanted to take this opportunity to update the Board on the revisions expected to be adopted on May 18, 2016.

POLICY

Drought Ordinance 15-08

STAFF RECOMMENDATION

This item is for discussion purposes only.

A handwritten signature in black ink, appearing to read 'Tom Kennedy', is written over a horizontal line. The signature is fluid and cursive.

Tom Kennedy
General Manager

May 24, 2016



BOARD INFORMATION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

DISCUSSION ABOUT PARLIAMENTARY PROCEDURES FOR RMWD MEETINGS

DESCRIPTION

At the April 26, 2016 Board of Directors meeting, the Board directed staff to develop some draft alternative parliamentary procedures to serve as a supplement or replacement to Robert's Rules of Order. The General Manager developed the attached draft of proposed modified parliamentary procedures for Board consideration. While most of this is original work, the portion about courtesy and decorum was adapted from a similar document created for the same purpose by a Superior Court Judge named Dave Rosenberg (Rosenberg's Rules of Order). Staff also reviewed this document with Legal Counsel and small modifications were made to clarify a few items.

Staff would like to receive Board direction on the contents of these proposed parliamentary procedures and whether they would like to embed these into the Administrative Code or simply use this as a Policy Document.

POLICY

RMWD Administrative Code Section 3.03.010 – Robert's Rules of Order

STAFF RECOMMENDATION

Staff awaits Board direction

A handwritten signature in black ink, appearing to read 'Tom Kennedy', is written over a horizontal line.

Tom Kennedy
General Manager

May 24, 2016

RMWD Parliamentary Procedures Policy

Introduction

The Rainbow Municipal Water District is at its heart a service organization dedicated to the communities that make up the District. Part of our mission requires the Board of Directors and various committees to conduct open and public meetings in order to review information and make decisions about important topics facing the District. The manner in which these meetings are conducted is an important factor in the success of the organization.

There are multiple goals of the conduct of each meeting, including but not limited to:

- **Transparency** – the conduct of the meetings must be such that all participants must be able to have access to the information being considered by the Board. In addition, the deliberative process must be in accordance with the requirements of the Ralph M. Brown Act. Except for specific circumstances that require a closed session, the goal is for all deliberations to be done in public sessions with as much information available to the public as possible.
- **Public Input** – the input of the public is an important component in the deliberative process. Each meeting must allow for meaningful input from interested parties. It is also important that the nature and duration of the public input support the deliberative process rather than disrupt the meeting. All opinions are welcome, but communications that are designed to disrupt the meeting must be managed effectively to prevent disruptions.
- **Board/Committee Decorum** – in order to ensure that each member of the Board or committee is able to voice their option on each item under consideration, Board and committee members must conduct themselves in such a way that the rights of the others to speak are respected.
- **Effective Meeting Management** – effective Board and Committee meetings are generally characterized by a strong leadership role of the Board President or Committee Chair. Each person who is leading the meeting must understand the role that they play in the meeting and ensure that the activities of all participants in the meeting adhere to the policies outlined in this document. There can sometimes be a challenge when balancing the needs outlined above with the need for effective meeting management and the role of the leader of the meeting is important in managing this process.

Background

Section 3.03 of the RMWD Administrative Code outlines the policies of Board Meeting Conduct. This policy document is intended to serve as a supplement to the Administrative Code. In accordance with the Administrative Code, the basic conduct of the meeting will be in accordance with the latest version of Robert's Rules of Order, Revised (hereafter referred to as Robert's Rules). As most people are aware,

Robert's Rules are very effective but also very limiting if followed exactly. They were designed for a particular purpose and some facets of Robert's Rules can conflict with the goals stated above. For instance, strict adherence to Robert's Rules would require a motion to be made and seconded before any discussion could be had on a particular course of action. While this may be an appropriate parliamentary procedure in some circumstances, if this practice were to be followed at an RMWD meeting, attendees may conclude that since a motion was made prior to any discussion there must have been some back room deals leading to the motion. This is not what we want to project to the public.

To that end, this list of parliamentary procedures is intended to supplement and expand on Robert's Rules and provide guidance on how we can conduct orderly, effective, and transparent meetings at RMWD. For the purposes of this document, the Board President and Committee Chairpersons will be collectively referred to as the Chairperson. Board Members or Committee Members will be collectively referred to as Members.

Conduct of Meetings

Call to Order – the Chairperson will call the meeting to order at the time stated on the public notice for that meeting. The clock located in the Boardroom shall be the official clock for starting meetings. If there are Members that are running late, the Chairperson may delay the start of the meeting but such delays should not exceed ten minutes.

Pledge of Allegiance – The Chairperson shall lead the group in the recital of the Pledge of Allegiance. As an option, the Chairperson may designate another member or attendee to lead the Pledge of Allegiance. In order to lead the Pledge, the Chairperson or designee shall state "Please rise and join me in the Pledge of Allegiance" and then pause to allow attendees to stand up. Once the room is ready he or she shall state "Ready – Begin" and then recite the Pledge of Allegiance.

Roll Call and Establishment of a Quorum – The Board Secretary shall call the roll to determine if a quorum is present at the meeting. The default rule is that a quorum is one more than half the Board or Committee. So, for example, in a Regular Board meeting with a five-member body a quorum is three. When the Board has three members present, it can legally transact business. If the Board has less than a quorum of members present, it cannot legally transact business. For Committees with larger numbers of Members the quorum number will change accordingly.

If the Board or Committee has a quorum to begin the meeting, the Board or Committee can lose the quorum during the meeting when a member departs (or even when a member leaves the dais), and when that occurs the body loses its ability to transact business until and unless a quorum is reestablished.

Opportunity for Public Comments on Items That are Not on the Agenda – The Chairperson shall announce that any person who wishes to speak about a topic that is not on the agenda may do so at this time. The Chairperson shall indicate that comments should be limited to three minutes and that speakers should fill out a speaker slip. Depending on the level of attendance at the meeting, the Chairperson may allow for comments to be presented without the use of a speaker slip, but this should be the exception rather than the rule. In addition, if there are a large number of speakers, the Chairperson may restrict the time limit in order to allow all speakers a chance to address the Board. Conversely, if there is limited attendance the Chairperson may allow for more than three minutes per speaker.

The Chairperson has the responsibility to remind speakers when their time limit has been reached. District staff will monitor the length of time of each speaker and inform the Chairperson when the time limit has been reached. The Chairperson will then inform the speaker that they must conclude their comments so that the meeting can proceed.

Use of AV System During Meetings – District staff shall prepare presentation materials for each meeting so that information about the item under consideration will be displayed on the screen while the item is under consideration. This is intended to allow all attendees to see which topic is under consideration and receive pertinent information about that topic. In some cases, the information displayed will be a short text summary of the item, but in other cases the staff will include more detailed presentations, maps, tables, and other information that is relevant to the deliberation process. In all cases, the intent of the information presented is to ensure that all parties have adequate information to understand the issues under consideration and the rationale for the decision that is ultimately made.

District staff will operate the AV system during the meeting.

Board or Committee Action Items – When considering any action, from approval of minutes, to consent calendar, to individual action items, the following process shall be followed:

- The Chairperson shall announce the title of the Action Item
- Staff shall provide a report on the details of the item. This could be as brief as a comment from the General Manager describing the nature of the item or a full staff presentation. In some cases, staff may have contractors or consultants present technical materials. Guest speakers from other agencies may also provide information at this time. The goal of this part of the process is to lay out the foundation of information needed for the Members to deliberate the situation. Members may ask questions of the presenters to clarify information at this time, but this would not be the time to express opinions on options that are presented.
- Once the staff report has concluded, the Chairman shall ask for public comments on the topic. The same rules related to public comments listed above shall apply. At the end of the public comment period, the Chairperson should make it clear to the attendees that they may not be allowed to speak on this topic again, so they should say what they need to say now as the

Chairman may not allow an interruption of the deliberation of the Members afterwards.

- After both the staff presentation and public comments have concluded, the Members may begin to discuss technical aspects of the topic or get more information from staff about the staff recommendation. It is important to remember that this part of the process is for information gathering, not actually deliberating a decision. Actual deliberation should occur after a motion has been made and seconded. Each Member wishing to speak on the topic shall be recognized by the Chairperson as having the floor prior to speaking. Only one Member should speak at a time. This is not only to provide a respectful environment for dialogue, it is also to avoid having garbled recordings of the meetings. When multiple speakers talk at once, it is very difficult to understand what was said on the recordings. Members may ask other members brief clarifying questions without having the floor, but such interjections should be kept to a minimum.
- At any point during the discussion process, any Member may make a Motion regarding the action item. If a Motion is made, the Chairperson shall acknowledge the Motion and clarify the terms of the motion as needed. If another Member Seconds the motion in a timely manner, the Chairperson shall announce that there has been a Motion and Second and verbally state who made the Motion and the Second. This clarification of which Member took which action is helpful for the audio recording and the development of meeting minutes. The Chairperson shall then call for any additional discussion. This is the point in time for Members to deliberate about the Motion on hand. Members may ask for further technical clarifications from staff about the motion as part of this process which will continue until the Chairperson “calls the question” for a vote.
- When voting, the Chairperson will verbally clarify the terms of the Motion and ask for a vote. In the case of an Ordinance, the vote shall be a roll call vote. The Chairperson may use a voice vote on an Ordinance as long as the audio record is clear as to how each Member voted. In any act of the group, the votes of each Member must be clearly recorded in our minutes, so roll call votes are generally the best way to go.

Participation by Public After the Public Comment Period Has Ended – From time to time a member of the public may wish to make a comment to the Members after the public comment period has ended. This situation can be a very productive part of the deliberative process, but it can also be a disruption to the deliberative process. The Chairperson must clarify the rules for attendees at each meeting and/or for each action item. For items where there are many attendees who may want to join into the deliberative process, the Chairperson should inform them during the public comment period that he or she will not allow further comment so as not to bog down the meeting. The Chairperson has the discretion to allow attendees to briefly speak at his or her discretion. It will be the responsibility of the Chairperson to manage the public input process so that the co-equal goals of public input and a constructive deliberation process are achieved.

Substitute Motions or Amendments to Motions – Within Robert’s Rules there is a labyrinth of methods to amend or substitute Motions and these processes can become very confusing. In order to create an environment where all parties can clearly understand the deliberative process, the Chairperson shall limit any amendments to any Motion to a single amendment and will not allow substitute Motions. If a Motion is made and Seconded, a Member may ask for an amendment to the Motion during the discussion phase. The request for Amendment shall be made to the originator of the Motion. If the originator of the Motion agrees with the requested amendment, the originator of the Motion shall clarify their revised Motion. If this revised Motion received a Second from another Member, discussion shall ensure until the question is called. If the revised Motion fails to receive a Second, the discussion shall revert to the original Motion and proceed from there.

At the time a vote is taken, the Chairperson shall again clarify the original and amended Motion, including which Members made the Motion and Second, and call for the vote.

Courtesy and Decorum (this section is adapted from “Rosenberg’s Rules of Order)

These parliamentary rules of are meant to create an atmosphere where the members of the Board or Committee and the members of the public can attend to business efficiently, fairly and with full participation. At the same time, it is up to the Chairperson and the members of the Board or Committee to maintain common courtesy and decorum. Unless the setting is very informal, it is always best for only one person at a time to have the floor, and it is always best for every speaker to be first recognized by the Chairperson before proceeding to speak.

The Chairperson should always ensure that debate and discussion of an agenda item focuses on the item and the policy in question, not the personalities of the Members of the Board or Committee. Debate on policy is healthy, debate on personalities is not. The Chairperson has the right to cut off discussion that is too personal, too loud, or too crude.

Debate and discussion should be focused, but free and open. In the interest of time, the Chairperson may, however, limit the time allotted to speakers, including Members of the body.

Can a Member of the body interrupt the speaker? The general rule is “no.” There are, however, exceptions. A speaker may be interrupted for the following reasons:

Privilege. The proper interruption would be: “point of privilege.” The Chairperson would then ask the interrupter to “state your point.” Appropriate points of privilege relate to anything that would interfere with the normal comfort of the meeting. For example, the room may be too hot or too cold, or a blowing fan might interfere with a person’s ability to hear.

Order. The proper interruption would be: “point of order.” Again, the Chairperson would ask the interrupter to “state your point.” Appropriate points of order relate to anything that would not be considered appropriate conduct of the meeting. For example, if the Chairperson moved on to a vote on a motion that permits debate without allowing that discussion or debate.

Appeal. If the Chairperson makes a ruling that a Member of the Board or Committee disagrees with, that Member may appeal the ruling of the Chairperson. If the motion is seconded, and after debate, it passes by a simple majority vote, then the ruling of the Chairperson is deemed reversed.

Call for orders of the day. This is simply another way of saying, "Let's return to the agenda." If a Member believes that the Board or Committee has drifted from the agreed-upon agenda, such a call may be made. It does not require a vote, and when the Chairperson discovers that the agenda has not been followed, the Chairperson simply reminds the Board or Committee to return to the agenda item properly before them. If the Chairperson fails to do so, the Chairperson's determination may be appealed.

Withdraw a motion. During debate and discussion of a motion, the maker of the motion on the floor, at any time, may interrupt a speaker to withdraw his or her motion from the floor. The motion is immediately deemed withdrawn, although the Chairperson may ask the person who seconded the motion if he or she wishes to make the motion, and any other Member may make the motion if properly recognized.



BOARD ACTION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

DISCUSSION AND POSSIBLE ACTION TO APPROVE ORDINANCE NO. 16-09 UPDATING ADMINISTRATIVE CODE SECTION 8.04 TO INCLUDE ALLOWING ESTABLISHMENT OF SERVICE ON A TEMPORARY BASIS WITHOUT PROPERTY OWNER ACKNOWLEDGEMENT

DESCRIPTION

This item is to consider updating the Administrative Code to include language allowing temporary service not to exceed 45 days. This type of allowance is related to pending real estate transaction without requiring the Owner Acknowledgement Statement, and would require a written agreement and a deposit on the account.

BACKGROUND

There has been a need for temporary water service at a property that is in the process of transferring ownership. Our current Administrative Code requires that in order to establish service you must be the legal owner of record for the service location. If you are not, a signed Owner's Acknowledgement Statement is required to allow nonowner occupant to establish service. This practice holds accountable the property owner of any outstanding amounts owed on account if a non-owner occupant defaults on paying. Without this provision, the District's ability to lien the property to recover past due payments is compromised.

Occasionally, the District receives requests related from pending real estate transactions from the potential owner wanting to establish service at their prospective property. Presently, the administrative code does not allow the potential owner to establish service until the property has been recorded or have the current property owner sign an Owner Acknowledgment form allowing potential owner to establish service. There has been some reluctance on the latter option, as current property owners are hesitant on signing form since they can be held liable on account.

In order to try to accommodate to these type of transactions related to pending real estate transactions, the proposed language to the administrative code will allow a temporary service of 45 days for potential owner, without the requirement of Owner's Acknowledgement form, and a deposit equal to twice the estimated average periodic bill.

POLICY

Administrative Code Section 8.04

BOARD OPTIONS/FISCAL IMPACTS

1. Approve Ordinance No. 16-09 updating Administrative Code Section 8.04 – Establishment of Water Service.
2. Approve Ordinance No. 16-09 with revisions.
3. Deny approval of Ordinance No. 16-09.

STAFF RECOMMENDATION

Staff recommends Option 1.



Vanessa Martinez

May 24, 2016

Ordinance No. 16-09

**Ordinance of the Board of Directors of the Rainbow Municipal Water District
Amending the Administrative Code Section 8.04 –
Establishment of Water Service**

WHEREAS, the Rainbow Municipal Water District has, from time to time, adopted various rules and regulations for the operation of the District; and

WHEREAS, certain of those rules and regulations require updating to reflect best practices, as well as changes in applicable laws; and

WHEREAS, the Board of Directors has determined that changes in the rules or regulations of the District shall occur solely by amendment to the Administrative Code;

NOW, THEREFORE,

BE IT ORDAINED by the Board of Directors of Rainbow Municipal Water District as follows:

1. The following rules and regulations of the District, collected and attached are hereby adopted and shall be incorporated into the Administrative Code, consisting of:

8.04 Establishment of Water Service

2. The General Manager is hereby directed to update the Administrative Code to reflect the approval of these rules and regulations, and to assign or reassign the numbering of the Administrative Code as necessary to codify these rules and regulations as amended.

3. This ordinance shall take effect immediately upon its adoption on this 24th day of May, 2016.

**AYES:
NOES:
ABSTAIN:
ABSENT:**

Dennis Sanford, Board President

ATTEST:

Dawn Washburn, Board Secretary

**Section 8.04.010
Board of Director's Approval**

Any Request for installation or acceptance of water facilities to serve four (4) or more parcels shall be subject to Board approval.

**Section 8.04.020
Application for Regular Water Service**

Effective November 1, 2014, all new water service accounts shall be established and held in the legal (record) Owner's name as shown on the San Diego County Assessor's Tax Roll.

Each Applicant for water service must sign and file in the District's Office, on a form provided by the District, an application for New Water Service Request (NWSR) which will set forth:

- 8.04.020.1** Proof of Ownership of the parcel to be served
- 8.04.020.2** The name, address and telephone number of the Applicant.
- 8.04.020.3** A description of the parcel to be served by said application (the description of which shall be satisfactory to the District's General Manager.)
- 8.04.020.4** An Agreement on the part of the Applicant to abide by the Rules and Regulations of the District, as amended from time to time, signed by the property Owner
- 8.04.020.5** An agreement on the part of the Applicant that water delivered through the connection will be used only on the property described in the application.
- 8.04.020.6** The date on which Applicant desires service.
- 8.04.020.7** If the Applicant's property does not adjoin the District right-of-way, the Applicant must provide proof of an easement that may be utilized by the Applicant to bring his/her water line to the District's right of way.
- 8.04.020.8** If a meter is being purchased on behalf of the legal Owner by another individual, written authorization to do so shall be provided.

8.04.021

Notwithstanding the forgoing, at the District's discretion, a tenant or lessee of property may request water service for a property, provided a completed and signed application for water service is submitted to the District by the Owner of the identified property in accordance with Section 8.04.020. The application shall also include: (i) a statement by the Owner that he or she authorizes water service for the identified property; (ii) the signature of the tenant or lessee stating that he or she will be the party responsible for making monthly payments to the District for water services delivered to the identified property; and (iii) an acknowledgement by the

Owner that he or she accepts liability for any delinquent or unpaid water charges associated with the identified property, including any penalties and interest related thereto. Such acknowledgment shall be renewed in writing by the Owner or Customer at any change in tenancy at the subject property; however, a failure by the Owner or Customer to renew this acknowledgment in writing shall not excuse the Owner or Customer from any liability associated with delinquent or unpaid water charges, including any penalties or interest related thereto, associated with the District's water service to the property.

8.04.022

If account holder is the legal (record) Owner of service property as shown on the San Diego County Assessor's Tax Roll, and has become delinquent on account where service is scheduled to be terminated the non-owner residential occupant(s) may establish water service directly. The non-owner residential occupant(s) will not be required to pay the delinquent bill maintained under the legal Owner. In order to establish service in the non-owner residential occupant(s) name, security deposit equal to twice the estimated average periodic bill will be required. The security deposit will be returned to the depositor two (2) years after the last lock-off for non-payment, if the depositor has maintained a timely paid, delinquent free account record during the two-year period, or when the account is paid in full on termination of service, whichever occurs first. Acceptable methods of the security deposit are cash, check, money order, cashier's check, and District accepted payment cards only. No interest shall be paid on any deposit.

8.04.023

During the transfer of residential property ownership from one owner to another, the current owner of a property may request that the District discontinue service and transfer the service to the proposed subsequent owner in a limited term temporary service agreement. In order to establish residential service in the proposed owner's name, the account for the current owner must be current. In addition, the proposed owner must provide a security deposit equal to twice the estimated average periodic bill.

The proposed owner will enter into a written agreement with the District related to the temporary service of water and the term of this temporary service will be 45 days. The proposed owner shall submit information to the District at the close of escrow that conforms to the requirements of Section 8.04.020 of this Administrative Code. Failure to provide this information within the given time limit will result in the termination of water service to the property. Applicants may request one additional extension to this agreement in extraordinary circumstances, but the approval of any extension will be at the sole discretion of the General Manager.

The security deposit will be returned to the depositor, or credited to their account after proof of ownership is provided to the District as long as the depositor has maintained a timely paid, delinquent free account record during the temporary service period. The security deposit can be cash or cashier's check. No interest shall be paid on any deposit.

Section 8.04.030

Application for a Remote Meter

The District may approve applications for water service to parcels which do not abut a District water main. As a condition of service, if the parcel abuts a future line extension as identified in the District's Master Plan, the remote meter Applicant may be required to contribute an

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estimated prorated cost for a future line extension or meet other terms and conditions established by the Board.

- 8.04.030.1** Remote meters shall be granted only when the district determines that:
- 8.04.030.2** A line extension for fire flow or looping is not required, and
- 8.04.030.3** All parcels are subdivided to their smallest size as determined by the District Engineer, and
- 8.04.030.4** Under no circumstances shall more than three (3) parcels receive remote service within an area requiring a future line extension.
- 8.04.030.5** At the time of application Applicant shall execute a Remote Water Service Agreement and shall furnish a copy of all recorded easements granting the right to the property Owner of the parcel to be served to install and maintain a private water line from the District main to the Applicant's parcel.

Section 8.04.040

Application for Construction Water Service

8.04.040.1 Each Applicant for temporary water service (construction meter) shall sign and file in the District's Office an application setting forth information which the District may reasonably require and pay the following:

- The application shall be accompanied by an established refundable deposit against unpaid water use.
- A monthly service charge will be applied for the period of time the meter is available for Applicant's use.
- Once all fees and deposits have been provided the District will install a construction meter at a location of the District's choosing.

8.04.040.2 The Applicant may request relocation of a construction meter to another location for an established charge.

8.04.040.3 Billing will be monthly and include an operation and maintenance fixed fee, plus the charge for the water used during the billing period.

8.04.040.4 Installation or Relocation of a Construction Meter shall be done by District employees only. There is a fee and at least a 24-hr. notice to request this service.

8.04.040.5 Applicant shall not use water service in a manner which causes sudden pressure surges that may cause damage to the District's water system.

8.04.040.6 Construction meters are available for a maximum period of 6 months. Extensions may be granted for additional six month periods at the discretion of the District Engineer.

8.04.040.7 Applicants shall comply with all rules and regulations of the District. Applicants agree to pay for any damage or loss of District facilities resulting from such use.

Section 8.04.050

Changes in Premises Served

Customers making any material change in the size, character of service or extent of their water systems or their operations, shall immediately give the District written notice of the extent and nature of such change.

Section 8.04.060

Easements

Applicants shall grant the District an easement which will allow to the District to install, maintain, operate, repair, enlarge and remove any service connection or facilities of the District if the service connections are not located upon an existing District easement or within the public right of way.

Section 8.04.010
Board of Director's Approval

Any Request for installation or acceptance of water facilities to serve four (4) or more parcels shall be subject to Board approval.

Section 8.04.020
Application for Regular Water Service

Effective November 1, 2014, all new water service accounts shall be established and held in the legal (record) Owner's name as shown on the San Diego County Assessor's Tax Roll.

Each Applicant for water service must sign and file in the District's Office, on a form provided by the District, an application for New Water Service Request (NWSR) which will set forth:

- 8.04.020.1** Proof of Ownership of the parcel to be served
- 8.04.020.2** The name, address and telephone number of the Applicant.
- 8.04.020.3** A description of the parcel to be served by said application (the description of which shall be satisfactory to the District's General Manager.)
- 8.04.020.4** An Agreement on the part of the Applicant to abide by the Rules and Regulations of the District, as amended from time to time, signed by the property Owner
- 8.04.020.5** An agreement on the part of the Applicant that water delivered through the connection will be used only on the property described in the application.
- 8.04.020.6** The date on which Applicant desires service.
- 8.04.020.7** If the Applicant's property does not adjoin the District right-of-way, the Applicant must provide proof of an easement that may be utilized by the Applicant to bring his/her water line to the District's right of way.
- 8.04.020.8** If a meter is being purchased on behalf of the legal Owner by another individual, written authorization to do so shall be provided.

8.04.021

Notwithstanding the forgoing, at the District's discretion, a tenant or lessee of property may request water service for a property, provided a completed and signed application for water service is submitted to the District by the Owner of the identified property in accordance with Section 8.04.020. The application shall also include: (i) a statement by the Owner that he or she authorizes water service for the identified property; (ii) the signature of the tenant or lessee stating that he or she will be the party responsible for making monthly payments to the District for water services delivered to the identified property; and (iii) an acknowledgement by the

Owner that he or she accepts liability for any delinquent or unpaid water charges associated with the identified property, including any penalties and interest related thereto. Such acknowledgment shall be renewed in writing by the Owner or Customer at any change in tenancy at the subject property; however, a failure by the Owner or Customer to renew this acknowledgment in writing shall not excuse the Owner or Customer from any liability associated with delinquent or unpaid water charges, including any penalties or interest related thereto, associated with the District's water service to the property.

8.04.022

If account holder is the legal (record) Owner of service property as shown on the San Diego County Assessor's Tax Roll, and has become delinquent on account where service is scheduled to be terminated the non-owner residential occupant(s) may establish water service directly. The non-owner residential occupant(s) will not be required to pay the delinquent bill maintained under the legal Owner. In order to establish service in the non-owner residential occupant(s) name, security deposit equal to twice the estimated average periodic bill will be required. The security deposit will be returned to the depositor two (2) years after the last lock-off for non-payment, if the depositor has maintained a timely paid, delinquent free account record during the two-year period, or when the account is paid in full on termination of service, whichever occurs first. Acceptable methods of the security deposit are cash, check, money order, cashier's check, and District accepted payment cards only. No interest shall be paid on any deposit.

8.04.023

During the transfer of residential property ownership from one owner to another, the current owner of a property may request that the District discontinue service and transfer the service to the proposed subsequent owner in a limited term temporary service agreement. In order to establish residential service in the proposed owner's name, the account for the current owner must be current. In addition, the proposed owner must provide a security deposit equal to twice the estimated average periodic bill.

The proposed owner will enter into a written agreement with the District related to the temporary service of water and the term of this temporary service will be 45 days. The proposed owner shall submit information to the District at the close of escrow that conforms to the requirements of Section 8.04.020 of this Administrative Code. Failure to provide this information within the given time limit will result in the termination of water service to the property. Applicants may request one additional extension to this agreement in extraordinary circumstances, but the approval of any extension will be at the sole discretion of the General Manager.

The security deposit will be returned to the depositor, or credited to their account after proof of ownership is provided to the District as long as the depositor has maintained a timely paid, delinquent free account record during the temporary service period. The security deposit can be cash or cashier's check. No interest shall be paid on any deposit.

Section 8.04.030

Application for a Remote Meter

The District may approve applications for water service to parcels which do not abut a District water main. As a condition of service, if the parcel abuts a future line extension as identified in the District's Master Plan, the remote meter Applicant may be required to contribute an

estimated prorated cost for a future line extension or meet other terms and conditions established by the Board.

- 8.04.030.1** Remote meters shall be granted only when the district determines that:
- 8.04.030.2** A line extension for fire flow or looping is not required, and
- 8.04.030.3** All parcels are subdivided to their smallest size as determined by the District Engineer, and
- 8.04.030.4** Under no circumstances shall more than three (3) parcels receive remote service within an area requiring a future line extension.
- 8.04.030.5** At the time of application Applicant shall execute a Remote Water Service Agreement and shall furnish a copy of all recorded easements granting the right to the property Owner of the parcel to be served to install and maintain a private water line from the District main to the Applicant's parcel.

Section 8.04.040
Application for Construction Water Service

- 8.04.040.1** Each Applicant for temporary water service (construction meter) shall sign and file in the District's Office an application setting forth information which the District may reasonably require and pay the following:
 - The application shall be accompanied by an established refundable deposit against unpaid water use.
 - A monthly service charge will be applied for the period of time the meter is available for Applicant's use.
 - Once all fees and deposits have been provided the District will install a construction meter at a location of the District's choosing.
- 8.04.040.2** The Applicant may request relocation of a construction meter to another location for an established charge.
- 8.04.040.3** Billing will be monthly and include an operation and maintenance fixed fee, plus the charge for the water used during the billing period.
- 8.04.040.4** Installation or Relocation of a Construction Meter shall be done by District employees only. There is a fee and at least a 24-hr. notice to request this service.
- 8.04.040.5** Applicant shall not use water service in a manner which causes sudden pressure surges that may cause damage to the District's water system.
- 8.04.040.6** Construction meters are available for a maximum period of 6 months. Extensions may be granted for additional six month periods at the discretion of the District Engineer.
- 8.04.040.7** Applicants shall comply with all rules and regulations of the District. Applicants agree to pay for any damage or loss of District facilities resulting from such use.

Section 8.04.050
Changes in Premises Served

Customers making any material change in the size, character of service or extent of their water systems or their operations, shall immediately give the District written notice of the extent and nature of such change.

Section 8.04.060
Easements

Applicants shall grant the District an easement which will allow to the District to install, maintain, operate, repair, enlarge and remove any service connection or facilities of the District if the service connections are not located upon an existing District easement or within the public right of way.



**Request for Establishment of Service on a Temporary Basis without Property
Owner Acknowledgement Statement Required by Section 8.04.020 of RMWD
Administrative Code**

Applicant Name _____

Property Address _____

Date Service Requested _____

I hereby request that water service be established at the above mentioned address in the applicant name above on a temporary basis not to exceed 45 days. This request is related to a pending real estate transaction that prevents the required Owner Acknowledgement Statement required by Section 8.04.020 of RMWD Administrative Code. Within 45 days I will either establish service in the name of the legal owner of the property or provide the required Owner Acknowledgement Statement for a non-owner occupied property. I hereby agree that failure to provide this information within 45 days will result in termination of water service to the property.

_____	_____
Applicant Signature	Date

Approved by Rainbow MWD

_____	_____
Finance Manager	Date

RMWD Use Only

Account Number _____



BOARD ACTION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

DISCUSSION AND POSSIBLE ACTION TO VOTE ON PROPOSED CSDA BYLAWS UPDATES

DESCRIPTION

The CSDA Board of Directors has approved the recommended updates to the CSDA Bylaws to bring forward to CSDA voting members for consideration. As a voting member in good standing, CSDA is requesting that once RMWD has reviewed the proposed CSDA Bylaws updates to please complete and remit a ballot to cast RMWD's vote by mail in favor or not in favor of the changes. Completed ballots must be received by Friday, June 24, 2016 at 5:00 p.m. to be counted.

POLICY

N/A

BOARD OPTIONS/FISCAL IMPACTS

N/A

STAFF RECOMMENDATION

Staff supports Board direction.

A handwritten signature in black ink, appearing to read 'Tom Kennedy', is written over a horizontal line.

Tom Kennedy, General Manager

05/24/16



**California Special
Districts Association**

Districts Stronger Together

MEMORANDUM

DATE: April 29, 2016

TO: California Special Districts Association (CSDA) Voting Members

FROM: Bill Nelson, CSDA Board President
Neil McCormick, Chief Executive Officer

SUBJECT: Proposed CSDA Bylaws Updates

The CSDA Board of Directors has approved recommended updates to the CSDA Bylaws to bring forward to CSDA voting members for consideration.

Highlights to the recommended updates include:

- General clean-up to reflect updates and organizational changes over the last two years
- Clarifying language to the CSDA Board nomination and election process to allow for electronic voting
- Clarifying language for the inclusion of electronic communication related to the CSDA Bylaws amendments

The full proposed changes to CSDA's Bylaws are indicated in mark-up form for your review and can be found online at www.csda.net/bylaws.

As a voting member in good standing, once your district has reviewed the proposed CSDA Bylaws updates, please use the enclosed official ballot to cast your vote by mail in favor or not in favor of the changes.

Completed ballots must be received by Friday, June 24, 2016 at 5:00 PM to be counted. Only official and fully completed ballots returned via regular mail to the CSDA office will be counted. The results of the Bylaws ballot will be announced in the CSDA e-News and on the CSDA website. If approved by the membership, the updated Bylaws will take effect on July 1, 2016.

If you have any questions or require printed copies, please contact Charlotte Lowe, Executive Assistant at charlottel@csda.net or (916) 442-7887.

Thank you for your participation and continued support of CSDA!



BYLAWS

California Special Districts Association

Approved Bylaw Revision Dates:

Revised 1996

Revised 1999

Revised 2004

Revised October 1, 2009

Revised August 2, 2010

Revised August 1, 2011

Revised July 1, 2014

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ARTICLE I – GENERAL

Section 1. Purpose:

In addition to the general and specific purposes set forth in the Articles of Incorporation of the California Special Districts Association (CSDA), CSDA will provide outreach, education, and member services, and shall generate legislative advocacy for member interests. CSDA will interact with the government associations and groups that support or oppose its membership's interests.

Section 2. CSDA ~~Regions~~/Networks:

The state of California shall be divided along county boundaries into six voting ~~regions~~/networks. The areas of the ~~regions~~/networks have been determined by the Board of Directors of CSDA.

Exhibit A.....Map of the six (6) ~~regions~~/networks of CSDA.

Section 3. Principal Office:

The principal business office of CSDA shall be located in Sacramento, California.

ARTICLE II – MEMBERSHIP

Section 1. Qualification of Membership:

There may be several classes of membership in CSDA, as determined by the Board of Directors. The following classes have been adopted:

A. Regular Voting Members:

Regular voting members shall be any public agency formed pursuant to either general law or special act for the local performance of governmental and/or proprietary functions within limited boundaries, and which meets any one of the following criteria:

1. Meets the definition of “independent special district” set forth in Government Code Section 56044 by having a legislative body all of whose members are elected, or which members are appointed to fixed terms; or
2. A public agency whose legislative body is composed of representatives of two or more other public agencies. Such representatives may be either members of the legislative body or designated employees of such other public agencies. Public agencies which qualify as regular members pursuant to these criteria include, but are not limited to the following public agencies: (a) air quality management districts; (b) air pollution control districts; (c) county water agencies or authorities; (d) transit or rapid transit districts, or transportation authorities; (e) metropolitan water districts; (f) flood control and/or water conservation districts; (g) sanitation agencies.

Regular voting members do not include the state, cities, counties, school districts, community college districts, dependent districts, or joint powers authorities. Dependent districts are defined as those special districts whose legislative body is composed exclusively of members of a Board of Supervisors of a single county or city council of a single city, LAFCOs, joint powers authorities or the appointees of such legislative bodies with no fixed terms.

Regular voting members have voting privileges and may hold seats on the Board of Directors.

B. Associate Non-Voting Members:

Associate members shall be those organizations such as dependent districts, cities, mutual water companies, and those public agencies that do not satisfy the criteria for regular voting membership specified in Section A above.

Associate members have no voting privileges, except as approved members on a CSDA committee, and may not hold a seat on the Board of Directors.

C. Business Affiliate Members:

Business Affiliate members shall be those persons or organizations that provide services to special districts and/or have evidenced interest in the purposes and goals of

CSDA. Business Affiliates have no voting privileges, except as approved members on a CSDA committee, and may not hold a seat on the Board of Directors.

Section 2. Membership Application:

Application for membership to CSDA will be directed to staff, who will determine if the applicant's interest and purpose is in common with CSDA. If the applicant meets the requirements of membership, the Board of Directors shall approve the new member by a majority vote of the Board. Acceptance to membership shall authorize participation in CSDA activities as specified in these Bylaws.

Section 3. Membership Dues:

The membership dues of CSDA shall be established annually by a majority vote of the Board of Directors at a scheduled Board meeting. Authority to adjust the dues shall remain with the Board of Directors.

Section 4. Membership Voting:

Matters to be voted upon by the membership shall be determined by the Board of Directors in accordance with these Bylaws. Only those matters of which proper notice was given by CSDA may be voted upon.

A. Voting Designee:

In accordance with these Bylaws, regular voting members in good standing shall have voting privileges. The governing body of each regular voting member shall designate ~~by resolution~~, one representative from their respective district who shall have the authority to exercise the right of the regular voting member to vote. Such voting designee shall be a Board member or managerial employee of the member regular voting member.

B. Voting Authorization:

Those regular voting members who have paid the required dues as set by the Board of Directors are members in good standing. Each regular voting member in good standing shall be entitled to one vote on all matters brought before the membership for vote at any meeting or ~~mail-by~~ ballot.

Section 5. Membership Quorum:

A. Meeting Quorum:

Twenty-five voting designees, as defined in Article II, Section 4, officially designated by each regular voting member present at any annual or special meeting of the CSDA shall constitute a quorum. ~~Absentee ballots shall not be accepted. No regular voting member shall have the right to vote by means of an absentee or proxy ballot.~~

B. Mailed or Electronic Ballot Quorum:

Mail ballots or electronic ballots received from 25 voting designees officially designated by each regular voting member shall constitute a quorum. Each regular voting member shall

be entitled to one vote. No regular voting member shall have the right to vote by means of a proxy.

Section 6. Membership Meetings:

A. Annual Business Meeting:

The annual business meeting of the members shall be held at the Annual CSDA Conference at such time and place as determined by the Board of Directors. Written notice of the annual business meeting distributed by mail or electronically shall include all matters that the Board intends to present for action and vote by the members.

~~Written notice of any annual meeting of the members of CSDA, via mail and/or electronic delivery, and/or facsimile shall be sent to each regular voting member in good standing, at least 45 days in advance of the designated date of such meeting. The notice shall include the time and place, and all matters the Board of Directors intends to present for action and vote by the members.~~

B. Special Meetings:

Special meetings of the members may be called at any time by the President, by a majority of the Board of Directors, or ~~by a majority of~~ at least a quorum of the members ~~(25 members)~~. ~~Written notice shall include all matters the Board of Directors intends to present for action and vote by the members.~~ Such a special meeting may be called by written request, specifying the general nature of the business proposed to be transacted and addressed to the attention of and submitted to the President of the Board. The President shall direct the Chief Executive Officer to cause notice to be given promptly to the members stating that a special meeting will be held at a specific time and date fixed by the Board. No business other than the business that was set forth in the notice of the special meeting may be transacted at a special meeting.

~~Written notice of any special meeting of the members of CSDA, via mail and/or electronic delivery, and/or facsimile shall be sent to each regular voting member in good standing, at least ten days in advance of the designated date of such meeting. The notice shall include the time and place, and all matters intended to be presented for action and vote by the members.~~

C. Notice of Meetings:

Whenever members are permitted to take any action at any annual or special meeting, written notice of the meeting distributed by mail or electronically shall be given to each member entitled to vote at that meeting. The notice shall specify the place, date and hour of the meeting, and the means of electronic transmission or electronic video screen communication to be utilized by and between CSDA and its members, if any, by which members may participate in the meeting. For the Annual Membership Meeting, the notice shall state the matters that the Board intends to present for action by the members. For a special meeting the notice shall state the general nature of the business to be transacted and shall state that no other business may be transacted. The notice of any meeting at which directors are to be elected shall include the names of all persons who are nominees when notice is given.

1. Notice Requirements. Written notice of any annual membership meeting shall be given at least 45 days before the meeting date either personally, by first class registered or certified mail, or by electronic transmission.

2. Electronic Notice. Notice given by electronic transmission by CSDA shall be valid if delivered by either (a) facsimile telecommunication or electronic mail when directed to the facsimile number or electronic mail address for that main contact member on record with CSDA; (b) posting on an electronic message board or network that CSDA has designated for such communications, together with a separate electronic notice to each member of the posting; or (c) any other means of electronic communication. Such electronic transmission must be directed to a member which has provided to CSDA an unrevoked consent to the use of electronic transmission for such communications. The method of electronic communication utilized must create a record that is capable of retention, retrieval and review by CSDA.

All such electronic transmissions shall include a written statement that each member receiving such communication has the right to have the notice provided in non-electronic form. Any member may withdraw its consent to receive electronic transmissions in the place of written communications by providing written notice to CSDA of such withdrawal of consent.

Notice shall not be given by electronic transmission by CSDA if CSDA is unable to deliver two (2) consecutive notices to a member by that means, or otherwise becomes aware of the fact that the member cannot receive electronic communications.

D. Electronic Meetings:

Members not physically present in person at either an annual or special meeting of members may participate in such a meeting by electronic transmission or by electronic video screen communication by and between such members and CSDA. Any eligible member participating in a meeting electronically shall be deemed present in person and eligible to vote at such a meeting, whether that meeting is to be held at a designated place, conducted entirely by means of electronic transmission, or conducted in part by electronic communication between CSDA and those members who are not capable of being physically present at such designated meeting place.

Annual and special meetings of the members may be conducted in whole or in part by electronic transmission or by electronic video screen communication by and between CSDA and its members if all of the following criteria are satisfied: (1) CSDA implements reasonable procedures to provide members participating by means of electronic communication a reasonable opportunity to participate in the meeting and to vote on matters submitted to the members, including an opportunity to hear the proceedings of the meeting including comments of members participating in person substantially concurrent with such proceedings; and (2) any votes cast by a member by means of electronic communication by and between CSDA and a member must be recorded and maintained in the minutes by CSDA.

C. Mail Ballot:

~~The Board of Directors may at its discretion authorize the voting upon any issue, by written ballot mailed to each regular voting member in good standing. Such ballot shall~~

~~be mailed by first class mail, at least 45 days in advance of the date the CSDA has designated for the return of the ballot by each member to CSDA.~~

E. Majority Vote:

~~A majority of votes cast or ballots received shall be necessary to carry any matter voted upon, provided a quorum of members has voted in person or by mail ballot. Voting by proxy shall not be allowed.~~ Any matter submitted to the membership for action or approval shall constitute the action or approval of the members only when: (1) the number of votes cast by regular voting members present at the meeting equals or exceeds the quorum requirement of 25 registered voters; and (2) the number of votes approving the action or proposal equals or exceeds a majority (50% plus one) of the regular voting members present and casting votes on the issue.

F. Solicitation of Written Ballots from Members:

All solicitations of votes by written ballot, whether by means of electronic communication or first class mail, shall: (1) state the number of returned ballots needed to meet the quorum requirement (25 returned ballots); (2) state, with respect to returned ballots other than for election of directors, that the majority of returned ballots must indicate approval of each measure in order to adopt such measure; and (3) specify the time by which the written ballot must be received by CSDA in order to be counted. Each written ballot so distributed shall: (1) set forth the proposed action; (2) give members an opportunity to specify approval or disapproval of each proposal; and (3) provide a reasonable time in which to return the ballots to CSDA either electronically or by first class mail.

Each written ballot distributed by first class mail shall be mailed to each regular voting member at least 45 days in advance of the date designated for return of the ballot by each such member to CSDA. Written ballots transmitted electronically to members shall be electronically communicated at least 45 days in advance of the date designated for return of the ballot by each member to CSDA.

G. Return of Ballots:

Written ballots shall be returned either by first class mail or by electronic communication to either the principal business address of CSDA or CSDA's designated electronic format specified on the ballot prior to the close of business (5:00 pm) on the designated election date. Written ballots received either by first class mail or electronic communication from regular voting members after the specified date shall not be counted and shall be invalid.

H. Number of Votes Required for Approval:

Approval by written ballot shall be valid only when (1) the number of votes cast by written ballot either by means of electronic communication or first class mail within the specified time equals or exceeds the quorum required to be present at a meeting authorizing the action (25 votes); and (2) the number of approvals equals or exceeds the number of votes that would be required for approval at a meeting of members, i.e. 50% plus one of those participating members casting written ballots either electronically or by first class mail.

Section 7. Termination of Membership:

Any member delinquent in the payment of dues for a period of three months after said dues are due and payable, shall be notified in writing of such arrearage, and shall be given written notice of possible termination. If such delinquent dues remain unpaid for 45 days after said notice, the delinquent member shall automatically cease to be a member of CSDA. [CSDA's Chief Executive Officer may approve special payment arrangements if deemed necessary.](#)

A delinquent member may be restored to membership by making written application to the Board of Directors of the CSDA. Such reinstatement shall be at the discretion of the Board.

ARTICLE III – DIRECTORS

Section 1. Number of Directors:

The authorized number of elected directors to serve on the Board of Directors shall be 18. Each regular voting member agency shall be limited to one seat on the Board.

There shall be three directors elected from each of the six CSDA ~~regions/networks~~. Directors elected from each of the six ~~regions/networks~~ shall hold staggered three year terms. The three directors serving a term of office from a ~~region/network~~ shall be elected from three different regular voting member agencies located in that ~~region/network~~.

Section 2 Term of Office:

Directors elected from each of the six ~~regions/networks~~ shall hold staggered three year terms. After the annual election of directors, a meeting of the Board shall be held to ratify the election results. The term of office of the newly elected persons shall commence on the following January 1 and shall terminate in three years.

Section 3. Nomination of Directors:

Nomination shall be by ~~region/network~~. Any regular voting member in good standing is eligible to nominate one person from their district to run for director of CSDA. The director nominee shall be a board member of the district or a managerial employee as defined by that district's Board of Directors. Nomination of the director designee shall be made by a resolution or minute action of the regular voting member's Board of Directors. Only one individual from each regular voting member district may be nominated to run at each election. In the event an incumbent does not re-run for his/her seat, the nomination period for that ~~region/network~~ shall be extended by ten days.

The CSDA staff, in conjunction with the Elections and Bylaw Committee, will review all nominations received and accept all that meet the qualifications set by these Bylaws. A slate of each ~~region's/network's~~ qualified nominees will be submitted by mail or electronic ballot, ~~to that~~ ~~region's/network's~~ regular voting membership for election pursuant to Article III, Section 4

Section 4. Election of Directors:

The Election and Bylaws Committee shall have primary responsibility for establishing and conducting elections. The Committee may enforce any regulation in order to facilitate the conduct of said elections. Voting for directors shall be by the regular voting members from the ~~region/network~~ from which they are nominated.

The Election and Bylaws Committee shall meet each year to review, with staff, the ~~regions/networks~~ where election of directors will be necessary. The Committee will coordinate, with staff, the dates nomination requests shall be mailed to the regular voting members, the official date for the nomination requests to be received at the CSDA office, and set the date of the election.

A. Written Notice:

Written notice requesting nominations of candidates for election to the Board of Directors shall be sent by first class mail or electronically to each regular voting member in good standing on the date specified by the Election and Bylaws Committee, which shall be at least 120 days prior to the election. The nominations must be received either by mail or electronically by CSDA before the established deadline which shall be no later than 60 days prior to the election. Nominations received after the deadline date shall be deemed invalid.

B. Balloting and Election:

Voting for directors shall be by written ballot distributed by mail or by electronic transmission by CSDA directly or via third-party to members eligible to vote in each network.

After the nomination period for directors is closed, a ~~written mailed~~ ballot specifying the certified nominees in each ~~region/network~~ shall be distributed by first class mail or electronically to each regular voting member in that ~~region/network~~ ~~by first class mail~~. Each such regular member in good standing in each ~~region/network~~ shall be entitled to cast one vote for each of that ~~region's/network's~~ open seats on the Board.

The ballot for each ~~region/network~~ shall contain all nominations accepted and approved by CSDA staff. In the event there is only one nomination in a ~~region/network~~, the nominee shall automatically assume the Seat up for election and a ballot shall not be mailed or electronically transmitted. Staff will execute a Proof of Service certifying the date upon which all regular voting members of each ~~region/network~~ were ~~mailed sent~~ a ballot, either by first class mail or by electronic transmission. The form of written ballot and any related materials sent by electronic transmission by CSDA and completed ballots returned to CSDA by electronic transmission by participating members must comply with all of the requirements of Article II, Section 6.F-H of these Bylaws. If a member does not consent to electronic communication for balloting purposes, a form of written ballot will be mailed to such participating member no later than 45 days prior to the date scheduled for such election. All written ballots shall indicate that each participating member may return the ballot by electronic communication or first class mail.

All solicitations of votes by written ballot shall: (1) state the number of returned ballots needed to meet the quorum requirement (25); (2) state, with respect to ballots for election of directors, that those nominees receiving the highest number of votes for each Board position subject to election will be certified as elected to that Board position.

Election of a nominee to a Board position shall be valid only when: (1) the number of votes cast by written ballot, transmitted either electronically or by first class mail, within the time specified, equals or exceeds the quorum required to be present at a meeting of members authorized in such action (25); and (2) the number of written ballots approving the election of a nominee must be the highest number of votes cast for each Board position subject to election as would be required for an election of a nominee at a meeting of the members. -

Written Bballots shall be returned either by first class mail or by electronic mail communication to either the principal business address of CSDA or CSDA's designated electronic format specified on the ballot prior to the close of business (5:00 pm) on the

designated election date, which shall be at least 45 days prior to the Annual Conference. Written B ballots received either by first class mail or electronic communication after the specified date shall be invalid and shall not be counted.

All written ballots received by mail shall remain sealed until opened in the presence of the Election and Bylaws Committee chairperson or his/her designee. All electronic ballots will be prepared, distributed, authenticated, received, tabulated, and kept secure and confidential.

Section 5. Event of Tie:

In the event of a tie vote, a supplemental mail-written ballot containing only the names of those candidates receiving the same number of votes shall be distributed either by first class mail or electronically mailed to each regular voting member in the region/network where the tie vote occurred.

Those mail-written ballots received by mail or electronically prior to the close of business (5:00 pm) on the date designated by the Election and Bylaws Committee shall be considered valid and counted. All supplemental mail-written ballots received after the designated date whether by first class mail or electronically shall will be deemed invalid. All written ballots received either by mail or electronically shall remain sealed as provided in Article III, Section 4.B of these Bylaws. ~~until opened in the presence of the Committee chair or his/her designee.~~

In the event the supplemental mail-written ballot also results in a tie vote, the successful candidate will be chosen by a drawing by lot.

Section 6. Director Vacancy:

In the event of a director vacating his/her seat on the Board of Directors, an individual who meets the qualifications as specified in these Bylaws may be appointed or elected to complete the director's unexpired term.

A. Two or Three Vacant Seats in the Same Region/Network:

In the event more than one seat on the CSDA Board of Directors in any one region/network is vacant at the same time, such vacancies shall be filled by election. A mail-written ballot shall be prepared; listing all nominees for that region/network accepted and approved by CSDA and distributed o each regular voting member in each such network either by first class mail or by electronic communication pursuant to the provisions of Article III, Section 4.A and B of these Bylaws

Regular members of each region/network shall be entitled to cast one vote for each open seat in that region/network by returning a completed written ballot to CSDA either by first class mail or by electronic communication. The candidate receiving the most votes will be elected to the vacant seat with the longest remaining term. The candidate receiving the second highest number of votes will be elected to fill the vacant seat with the second longest remaining term. The candidate receiving the third highest number of votes will be elected to fill the vacant position with the third longest remaining term.

B. Vacancy Before Nomination Period

In the event of a vacancy occurring “before” the nomination period, at the discretion of the CSDA Board, the vacancy may be filled by appointment or special election.

Should the CSDA Board choose to fill the vacancy by appointment, notification of the vacancy and request for nominations shall be sent by regular mail or electronic communication to all regular members in good standing in the network in which the vacancy occurred. The network’s existing directors sitting on the CSDA Board shall interview all interested candidates of that network and bring a recommendation to the CSDA Board of Directors for consideration. The Board shall make the appointment to fill the unexpired term of the vacated Board position.

Should the CSDA Board choose to fill the vacancy by special election, written notification of the vacancy and request for nominations shall be sent either by first class mail or electronically to each regular member in good standing in the network in which the vacancy occurred. Nominations will be accepted for the vacant seat by first class mail or by electronic communication and shall be placed on the written ballot for election in that network. Such election shall be conducted pursuant to the provisions of Article III, Section 4.A and B hereof.

B.C. Vacancy During Nomination Period:

In the event of a vacancy occurring “during” the nomination period, the vacancy shall be filled by election. Written notification of the vacancy and request for nominations shall be sent either by first class mail or electronically to each regular member in the ~~region/~~network in which the vacancy occurred. Nominations will be accepted for the vacant seat by first class mail or by electronic communication and shall be placed on the ~~mail-written~~ ballot for election in that ~~region/~~network. Such election shall be conducted pursuant to the provisions of Article III, Section 4.A and B hereof.

C.D. Vacancy After Nomination Period:

In the event of a vacancy occurring “after” the nomination period has closed, at the discretion of the CSDA Board, the vacancy may remain unfulfilled until the next regularly scheduled election or may be filled by appointment. Should the CSDA Board choose to fill the vacancy by appointment, notification of the vacancy and request for nominations shall be sent by regular mail or electronic communication to all regular members in good standing in the ~~region/~~network in which the vacancy occurred.

The ~~region’s/~~network’s existing directors sitting on the CSDA Board shall interview all interested candidates of that ~~region/~~network and bring a recommendation to the CSDA Board of Directors. The Board shall make the appointment to fill the unexpired term of the vacated Board position.

Section 7. Director Disqualification:

- A. A director shall become disqualified from further service upon the occurrence of the following:

A director’s district is no longer a member of CSDA; a director is no longer a board member or an employee of a member district; and/or a director shall resign.

Any officer or director may resign at any time by giving written notice to the President or CEO. Any such resignation shall take effect at the date of the receipt of such notice or at any time specified therein.

- B. The position of a director may be declared vacant by a majority vote of the CSDA Board of Directors when a director is unexcused and fails to attend three consecutive meetings of the Board.

Section 8. Powers of Directors:

Subject to the limitations of these Bylaws, the Articles of Incorporation, and the California General Nonprofit Corporation Law, all corporate powers of the CSDA shall be exercised by or under the authority of the Board of Directors.

ARTICLE IV – DIRECTOR MEETINGS

Section 1. Place of Meetings:

Meetings of the Board of Directors shall be held in the state of California, at such places as the Board may determine.

Section 2. Ratification Meeting:

Following the election of Directors, the Board shall hold a meeting at such time and place as determined by the Board for the purpose of ratifying the newly elected directors and to transact other business of CSDA.

Section 3. Organization Meeting:

After the ratification meeting, an organizational meeting of the Board shall be held at such time and place as determined by the Board for the purpose of electing the officers of the Board of Directors and the transaction of other business of CSDA.

Section 4. Planning Session:

As directed by the Board of Directors, a special Strategic Planning Meeting shall be held to review and evaluate the plans, policies and activities related to the business interests of CSDA.

Section 5. Regular Meetings:

The dates of the regular meetings of the Board of Directors shall be ratified at the last Board meeting of the previous year. The meetings shall be held at such time and place as the Board may determine. The dates and places of the Board meetings shall be published in the CSDA's publications for the benefit of the members.

Section 6. Special Meetings:

A special meeting of the Board of Directors, for any purpose, may be called at any time by the President or by any group of ~~seven~~¹⁰ directors [or as described in Article II, Section 6.B.](#)

Such meetings may be held at any place designated by the Board of Directors. In the event directors are unable to personally attend the special meeting, teleconferencing means will be made available.

Notice of the time and place of special meetings shall be given personally to the directors, or sent by written or electronic communication. All written notices shall be sent at least ten days prior to the special meeting and electronic notices at least five days prior.

Section 7. Quorum:

A quorum of the Board of Directors for the purpose of transacting business of the CSDA shall consist of ten directors. A majority vote among at least ten directors present at a duly noticed meeting shall constitute action of the Board of Directors.

Section 8. Board Meetings by Telephone and Electronic Communications:

Any Board meeting may be held by conference telephone, video screen communication or other electronic communications equipment. Participation in such a meeting under this Section shall constitute presence in person at the meeting if both of the following apply: (a) each Board member participating in the meeting can communicate concurrently with all other Board members; and (b) each member of the Board is provided a means of participating in all matters before the Board, including the capacity to propose or interpose an objection to a specific action to be taken by CSDA, and the capacity to vote on any proposal requiring action of the Board.

Section 98. Official Records:

All official records of the meetings of the CSDA shall be maintained at the principal business office of the CSDA.

ARTICLE V – OFFICERS

Section 1. Number and Selection:

The officers of CSDA shall be the President, Vice President, Secretary, Treasurer and the Immediate Past President. The officers shall be elected annually from the then current members of the Board of Directors without reference to regions/networks. All officers shall be subordinate and responsible to the CSDA Board of Directors and shall serve without compensation.

Each shall hold office for the term of one year, or until resignation or disqualification.

The Board of Directors may appoint such other officers as the business of CSDA may require. Each of the appointed officers shall hold office for such period, have such authority, and perform such duties as are provided in these Bylaws or as the Board of Directors may determine.

Section 2. Duties of the President:

The President shall be the chief officer of the CSDA and shall, subject to the approval of the Board of Directors, give supervision and direction to the business and affairs of CSDA.

The President shall preside at all Board of Director and membership meetings. The President shall be an ex-officio member of all Standing Committees. The President shall appoint committee chairs and vice-chairs and members of the Standing Committees, subject to confirmation by the Board of Directors.

The President shall have the general powers, duties and management usually vested in the office of the president of a corporation. The President shall have such other powers and duties as may be prescribed by these Bylaws or by the vote of the Board of Directors.

Section 3. Duties of the Vice President:

In the absence of, or disability of the President, the Vice President shall perform all of the duties of the President. When so acting, the Vice President shall have all the powers of the President, and be subject to all the restrictions upon the President.

The Vice President shall be an ex-officio member of all of the Standing Committees.

Section 4. Duties of the Secretary:

The Secretary or a designee appointed by the Board of Directors shall give notice of meetings to the Board of Directors, and notices of meetings to the members as provided by these Bylaws.

The Secretary or designee shall record and keep all motions and resolutions of the Board. A record of all meetings of the Board and of the members shall be maintained. All written records of the Secretary shall be kept at the business office of CSDA.

A list of the membership of CSDA shall be maintained by the Secretary or such designee. Such record shall contain the name, address and type of membership, of each member. The date of membership shall be recorded, and in the event the membership ceases, the date of termination.

The Secretary or designee shall perform such other duties as may be required by law, by these Bylaws, or by the Board of Directors.

Section 5. Duties of the Treasurer:

The Treasurer or a designee appointed by the Board of Directors shall keep and maintain adequate and correct accounts of the properties and the business transactions of CSDA, including accounts of its assets, liabilities, receipts, disbursements, gains and losses. The books of account shall at all times be open to inspection by any director or member of the CSDA.

The Treasurer or designee shall be responsible to cause the deposit of all moneys of the CSDA, and other valuables in the name and to the credit of CSDA, with such depositories as may be designated by the Board of Directors.

The Treasurer or designee, shall disburse, or cause to be disbursed by persons as authorized by resolution of the Board of Directors, the funds of CSDA, as ordered by the Board of Directors.

The Treasurer or designee shall serve as chair of the CSDA Fiscal Committee. The Treasurer shall render to the President and the Board of Directors an account of all financial transactions and the financial condition of CSDA at each Board meeting and on an annual basis, or upon request of the Board.

The Treasurer or designee shall, after the close of the fiscal year of CSDA, cause an annual audit of the financial condition of CSDA to be done.

The Treasurer or such designee shall perform such other duties as may be required by law, by these Bylaws, or by the Board of Directors.

Section 6. Disbursement of Funds:

No funds shall be disbursed by CSDA unless a check, draft or other evidence of such disbursement has been executed on behalf of CSDA by persons authorized by resolution of the Board of Directors.

Section 7. Removal of Officers:

Officers of the Board may be removed with or without cause at any meeting of the Board of Directors by the affirmative vote of a majority of the Board of Directors present at such meeting.

ARTICLE VI – COMMITTEES

Section 1. Committee Structure:

Each committee shall have a chair and a vice-chair who shall be directors of the Board of Directors. Each committee shall have at least two Board members and no more than nine Board members. Directors may be appointed as alternate members of a committee, in the event of an absent committee member.

Other members of any committee may include designees of regular, associate or Business Affiliate members.

Section 2. Committee Actions:

All actions of any committee of the CSDA shall be governed by and taken in accordance with the provisions of these Bylaws. All committees shall serve at the pleasure of the Board and have such authority as provided by the Board of Directors. Minutes of each committee meeting shall be kept and each committee shall present a report to the Board of Directors at each scheduled Board meeting.

No committee may take any final action on any matter that, under these Bylaws, or under the California Nonprofit Public Benefit Corporation Law, also requires approval of the members of the CSDA.

All committees, regardless of Board resolution, are restricted from any of the following actions as imposed by the California Nonprofit Public Benefit Corporation Law

No committee may: Fill vacancies on the Board of Directors or on any committee that has authority of the Board; create any other committees of the Board or appoint the members of the committees of the Board.

No committee may fix compensation of the directors for serving on the Board or on any committee; expend corporate funds to support a nominee for director; or approve any contract or transaction to which CSDA is a party and in which one or more of its directors has a material financial interest.

No committee may amend or repeal Bylaws or adopt new Bylaws or amend or repeal any resolution of the Board that by its express terms is not subject to amendment or repeal.

Section 3. Committee Meetings:

Meetings of the committees of CSDA shall be held in accordance with the provisions of these Bylaws. The time and place for regular meetings of such committees may be determined by the Board or by such committees. Special meetings of the committees may be called by the chair of such committee, or by the Board of Directors.

Written notice of any regular or special committee meeting may be given either personally, by first class mail, or by electronic transmission as specified in Article II, Section 6.C.2 of these Bylaws. Any committee meeting may also be held by conference telephone, video screen communication or other electronic communication equipment. Participation in such a meeting under this Section shall constitute presence in person at the committee meeting if both of the

following apply: (a) each committee member participating in the meeting can communicate concurrently with all other committee members; and (b) each member of the committee is provided a means of participating in all matters before the committee, including the capacity to propose or interpose an objection to a specific action to be taken by that committee, and the capacity to vote on any proposal requiring action or recommendation by the committee.

Section 4. Standing Committees:

Standing Committees of CSDA shall be advisory in nature except for the Finance Corporation (see Section 4D). The Standing Committees are: Executive, Professional Development, Elections and Bylaw, Finance Corporation, Fiscal, Legislative, Member Services and Audit.

The President shall recommend the appointment of committee officers and members of each Standing Committee except the Executive Committee. All committee members are subject to ratification by the Board of Directors.

A. Executive Committee:

The Executive Committee shall consist of all officers of CSDA. Members shall include the President, Vice President, Secretary, Treasurer and the Immediate Past President of CSDA. If the Immediate Past President is no longer a member of the Board of Directors, a previous past president may be appointed. If there are no directors who have served as President in the past, the President shall appoint a current director to serve as a member of the Executive Committee.

Subject to these Bylaws and approval of the Board of Directors, the Executive Committee shall have full power, authority and responsibility for the operation and function of the CSDA.

B. Professional Development Committee:

The Professional Development Committee shall provide advice, feedback and general guidance for ~~plan, organize and direct~~ CSDA professional development programs and events.

C. Election and Bylaws Committee:

The Election and Bylaws Committee shall be responsible for conducting all elections for the CSDA Board of Directors as provided in these Bylaws. The Committee shall annually review the Bylaws and shall be responsible for membership vote on any bylaw changes and approval of election materials.

D. Finance Corporation Committee:

The Finance Corporation Committee shall serve as the Board of Directors of the CSDA Finance Corporation a California non-profit public benefit corporation organized to provide financial assistance to CSDA members in acquiring, constructing and financing various public facilities and equipment for the use and benefit of the public. The Finance Corporation Committee is not an advisory committee, but has all of the powers described in the CSDA Finance Corporation Bylaws, which are incorporated herein by

this reference. Such powers include the powers to manage and control the business affairs of the corporation, to approve policies for the corporation's operations, and to enter into all contracts necessary to provide financial assistance to CSDA members.

E. Fiscal Committee:

The Treasurer shall serve as the chair of the Fiscal Committee and shall, with the Committee, be responsible for oversight of all the financial transactions of the CSDA. An annual budget shall be reviewed by the committee and ratified by the Board of Directors.

F. Legislative Committee:

The Legislative Committee shall be responsible for the development of CSDA's legislative agenda. The Committee shall review, direct and assist the CSDA Advocacy and Public Affairs Department with legislative and public policy issues.

G. Member Services Committee:

~~The Member Services Committee shall be responsible for recruitment and recommendation of new members to the CSDA Board of Directors~~
[The Member Services Committee shall be responsible for recruitment and retention activities as well as recommendation of new members and benefits to the CSDA Board of Directors.](#) All new members shall be ratified by the Board of Directors.

H. Audit Committee:

The Audit Committee is responsible for maintaining and updating internal controls. The Committee selects the Auditor for Board of Directors approval and provides guidance to the auditors on possible audit and fraud risks. The Committee reviews the audit and management letter and makes recommendation to the Board of Directors for action.

Section 5. Ad Hoc Committees:

The President may appoint other Ad Hoc Committees and their officers as may be determined necessary for the proper operation of the CSDA. The Standing Committees and the Ad Hoc Committees shall plan and authorize such programs as may be directed by the Board of Directors.

The Ad Hoc Committees shall be advisory in nature and shall be composed of at least two members of the Board of Directors. Other members of such committees may include designees of regular, associate or professional members, or members of the public, as approved by the Board of Directors.

Section 6. Special Committee of the Board:

A Special Committee may be granted authority of the Board as a Committee of the Board, as required by the California Nonprofit Public Benefit Corporation Law, provided by a specific resolution adopted by a majority of the Board of Directors then in office. In such case, the Special Committee shall be composed exclusively of two or more directors, but less than a quorum of the Board of Directors.

ARTICLE VII – INDEMNIFICATION

Section 1. Right of Indemnity:

To the fullest extent permitted by law, the CSDA shall defend, indemnify and hold harmless both its past and present directors, officers, employees and other persons described in Section 5238(a) of the California Corporations Code, against any and all actions, expenses, fines, judgments, claims, liabilities, settlements and other amounts reasonably incurred by them in connection with any “proceeding”, as that term is used in the Section 5238(a) of the California Corporations Code.

“Expenses”, as used in these Bylaws, shall have the same meaning as in Section 5238(a) of the California Corporations Code.

Section 2. Approval of Indemnity:

On written request to the Board by any person seeking indemnification under Section 5238(b) or Section 5238(c) of the California Corporations Code, the Board shall promptly determine under Section 5238(e) of the California Corporations code whether the applicable standard of conduct set forth in Section 5238(b) or Section 5238(c) has been met, and if so, the Board shall authorize indemnification.

If the Board cannot authorize indemnification because the number of directors who are parties to the proceeding with respect to which indemnification is sought prevents the formation of a quorum of directors who are not parties to that proceeding, the Board shall promptly call a meeting of the members.

At the request for indemnification meeting, the members shall determine under Section 5238(e) of the California Corporations Code whether the applicable standard or conduct set forth in Section 5238(b) or Section 5238(c) has been met, and, if so, the members present at the meeting in person or by proxy shall authorize indemnification.

Section 3. Insurance:

The CSDA shall have the right to purchase and maintain insurance to the full extent permitted by law, on behalf of its officers, directors, employees, and agents, against any liability asserted against or incurred by any officer, director, employee or agent in such capacity, or arising out of the officer’s, director’s, employee’s, or agent’s status as such.

Section 4. Liability:

No member, individual, director, or staff member of the CSDA shall be personally liable to the CSDA’s creditors, or for any indebtedness or liability. Any and all creditors shall look only to the CSDA’s assets for payment.

ARTICLE VIII – ~~LOCAL CHAPTERS~~AFFILIATED CHAPTERS

Section 1. Purpose:

The purpose of ~~local~~affiliated chapters is to provide a local forum of members for the discussion, consideration and interchange of ideas concerning matters relating to the purposes and powers of special districts and the CSDA.

The ~~local~~affiliated chapters may meet to discuss issues bearing upon special districts and the CSDA. The chapters may make recommendations to the CSDA's Board of Directors.

Section 2. Organization:

The regular voting members of CSDA are encouraged to create and establish ~~local~~affiliated chapters. In order to be recognized as a CSDA Chapter, each Chapter must approve and execute a Chapter Affiliation Agreement in order to obtain the right to use the CSDA name, logo, membership mailing list, intellectual property, endorsements, and CSDA staff support and technical assistance in conducting Chapter activities. The terms and conditions of the Chapter Affiliation Agreement are incorporated herein by this reference.

Each chapter formed prior to August 1, 2011, including but not limited to the following chapters must have at least one CSDA member in their membership at all times: Alameda, Butte, Contra Costa, Kern, Marin, Monterey, Orange (ISDOC), Placer, Sacramento, San Bernardino, San Diego, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara and Ventura. Such existing chapters may include as members local organizations, districts and professionals who are not members of CSDA.

New chapters formed after August 1, 2011, are required to have 100 percent of their special district members be current members of CSDA in order to be a chapter affiliate of CSDA. Such ~~local~~ chapters may include members of local organizations and professionals who are not members of CSDA.

~~Local-Affiliated~~ chapters shall be determined ~~to be affiliates of the CSDA~~ upon approval and execution of the Chapter Affiliation Agreement by the ~~local~~ chapter and approval and ratification of the Chapter Affiliation Agreement by the CSDA Board of Directors. The chapters shall be required to provide updated membership lists to the CSDA at least annually.

CSDA and its ~~local~~affiliated chapters shall not become or be deemed to be partners or joint ventures with each other by reason of the provisions of these Bylaws or the Chapter Affiliation Agreement.

Section 3. Rules, Regulations and Meetings:

Each ~~local~~affiliated chapter shall adopt such rules and regulations, meeting place and times as the membership of such ~~local~~affiliated chapter may decide by majority vote. Rules and regulations of the ~~local~~affiliated chapter shall not be inconsistent with the Articles of Incorporation or Bylaws of CSDA.

Section 4. Financing of ~~Local~~Affiliated Chapters:

No part of CSDA's funds shall be used for the operation of the ~~local-affiliate~~ chapters ~~affiliates~~. CSDA is not responsible for the debts, obligations, acts or omissions of the ~~local-affiliate~~ chapters.

Section 5. Legislative Program Participation:

~~Local-Affiliate~~ chapters may function as a forum in regard to federal, state and local legislative issues. The chapters may assist CSDA in the distribution of information to their members.

ARTICLE IX – AMENDMENTS TO THE BYLAWS

Section 1. Amendment Proposals:

Any regular voting member in good standing may propose changes to these Bylaws. The proposed amendments shall be reviewed by the Board of Directors and submitted to the Election and Bylaws Committee for their study.

After examination by the Election and Bylaws Committee and upon ~~resolution approval by~~ approval by of the Board of Directors the amendment proposals may be submitted for vote at the Annual Business meeting of the members held by CSDA, at a specially called meeting, or by ~~a-mailed or~~ electronic ballot.

Section 2. Amendment Membership Meeting:

Prior notice in writing of the proposed amendment/s to these Bylaws shall be given either by first class mail or by electronic transmission by the Board of Directors to the regular voting members in good standing, not later than 45 days in advance of the amendment meeting pursuant to the provisions of Article II, Section 6.C of these Bylaws. The electronic notice shall include copies of the proposed amendments.

Electronic copies of the proposed amendment/s shall also be available on the CSDA website for review by the regular voting members prior to the meeting. Copies of the proposed amendments shall also be available for the regular voting members at the amendment membership meeting.

The amendment membership meeting may be conducted as an electronic meeting pursuant to the provisions of Article II, Section 6.D of these Bylaws.

Section 3. ~~Mailed~~ Written Bylaw Amendment Ballot:

The Board of Directors of CSDA may submit Bylaw amendments for approval of regular voting members by mail or electronic ballot rather than by means of an amendment membership meeting.

When a ~~mailed-written~~ ballot is ~~utilized-used~~ to amend these Bylaws, the ballot shall include the text of all proposed Bylaw amendments and matters the Board of Directors intends to present for ~~action and~~ vote by the members. Such written ballot shall contain the information specified in Article II, Section 6.F of these Bylaws and shall be mailed distributed by CSDA to all regular voting members either by first class mail or by electronic transmission at least 45 days in advance of the date designated for return of the ballot. The ballot shall be mailed by first class mail, not later than 45 days in advance of the date CSDA has designated for the receipt of the ballot.

Written ballots shall be returned either by first class mail or by electronic communication to either the principal business address of CSDA or CSDA's designated electronic format specified on the ballot prior to the close of business (5:00 pm) on the designated election date. Written ballots received either by first class mail or electronic communication after the specified date shall not be counted and will be deemed invalid. The amendment ballot must be received by CSDA, no later than the established deadline date and time. Ballots received after the specified deadline will be deemed invalid

Section 4. Bylaw Amendment Ratification:

A. Membership Meeting:

The proposed Bylaw amendments shall be deemed adopted by the members when the number of votes cast by ~~a majority vote of all~~ regular voting members present at ~~a such~~ membership meeting meets or exceeds the required, ~~at which a~~ quorum of 25 regular voting members, and the number of votes cast approving the Bylaw amendments constitutes a majority of votes cast, i.e., 50% plus one of regular voting members casting ballots at such meeting, ~~as defined in Article 2, Section 5 of these Bylaws, of the members is present.~~

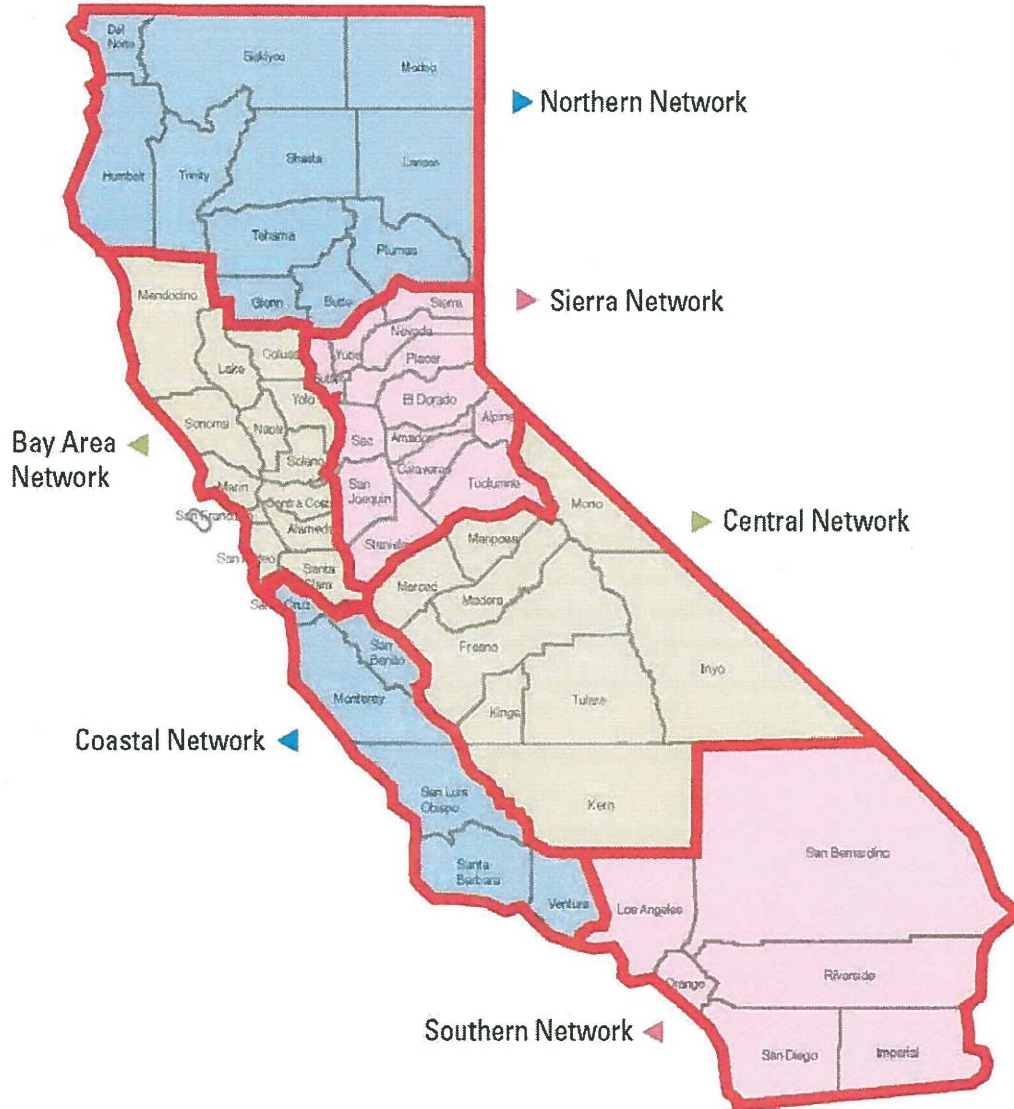
B. Mailed or Electronic Ballot:

The proposed Bylaw amendment/s shall be deemed adopted by a majority of the regular voting members by mail or electronic ballot when the provisions of Article II, Section 6.H of these Bylaws have been satisfied. ~~when ballots have been returned by a quorum of the regular voting members, and have been approved by a majority vote of the mail ballots returned.~~

EXHIBIT A



California Special Districts Association
DISTRICT NETWORKS





BOARD ACTION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

DISCUSSION AND POSSIBLE ACTION TO APPROVE RESOLUTION NO. 16-12 RELATED TO NORTH COUNTY IRRIGATED LANDS GROUP

DESCRIPTION

At the April 26, 2016 Board of Directors meeting, the Board voted to dissolve the North County Irrigated Lands Group (NCILG). Since that time, staff and legal counsel have developed the necessary documents required to wind up the Limited Liability Corporation that was formed for the NCILG. Approval of this agenda item will allow the General Manager to file the appropriate paperwork with the Secretary of State of California as well as provide notification to the Regional Water Quality Control Board (RWQCB) about the dissolution of the group.

Resolution 16-xx appoints the General Manager as the Manager of the LLC. The Secretary of State's office has Chuck Sneed designated as the Manager and this Resolution will update that information. The resolution also formalizes the direction to staff to dissolve the LLC.

Note that Legal Counsel has indicated that the Board does not technically have to adopt this resolution as the Board as the sole member took action on April 26, 2016 and this action would be all that is needed. Staff felt more comfortable in presenting this resolution so that there is a very clear record of the action and to support the filing of documents with the Secretary of State's office. A memo from legal counsel outlining the process is also attached.

On May 12, 2016 District staff sent a detailed letter to each member of the group informing them of the end of the group that provided information on their options for compliance going forward. Since there is no active regulation at this time, there is no immediate action needed until the RWQCB adopts new regulations. The RWQCB has indicated that they intend to adopt new regulations toward the end of 2016.

POLICY

This item relates to the NCILG, LLC and thereby has no specific RMWD policy impacts.

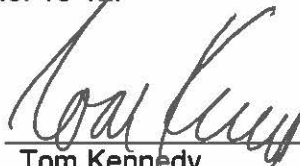
BOARD OPTIONS/FISCAL IMPACTS

Staff recommends two options:

1. Adopt Resolution No. 16-12 dissolving the NCILG and authorize the General Manager to sign on behalf of the Board.
2. Provide other direction to staff on how to wind up the LLC.

STAFF RECOMMENDATION

Staff recommends approval of Resolution No. 16-12.



Tom Kennedy
General Manager

May 24, 2016

RESOLUTION NO. 16-12

**RESOLUTION OF THE BOARD OF DIRECTORS
OF RAINBOW MUNICIPAL WATER DISTRICT
DESIGNATING TOM KENNEDY AS MANAGER OF THE NORTH COUNTY
IRRIGATED LANDS GROUP LLC
AND DIRECTING STAFF TO DISSOLVE THE LLC**

WHEREAS, the Rainbow Municipal Water District is the sole Member of the North County Irrigated Lands Group, LLC (NCILG), and

WHEREAS, On April 24, 2016 the Board of Directors of the Rainbow Municipal Water District determined that the NCILG is not financially viable and directed staff to wind up the NCILG, and

WHEREAS, in order to execute the appropriate documents to dissolve the NCILG, the Board of Directors needs to designate a Manager for the LLC

NOW, THEREFORE, IT IS HEREBY RESOLVED, DETERMINED AND ORDERED by the Board of Directors of Rainbow Municipal Water District that:

1. Tom Kennedy shall be designated as the Manager of the North County Irrigated Lands Group, LLC
2. The Manager shall submit an Action by Written Consent that dissolves the North County Irrigated Lands Group to the California Secretary of State within ten days of the approval of this resolution.

PASSED AND ADOPTED at a Regular meeting of the Board of Directors of Rainbow Municipal Water District held on the 24th day of May, 2016 by the following vote, to wit:

AYES:
NOES:
ABSENT:
ABSTAIN:

Dennis Sanford, Board President

ATTEST:

Dawn Washburn, Board Secretary



www.procopio.com

MEMORANDUM

Procopio, Cory, Hargreaves & Savitch LLP
 525 B Street, Suite 2200
 San Diego, CA 92101
 T. 619.238.1900
 F. 619.235.0398

TO: Tom Kennedy, General Manager
 Rainbow Municipal Water District

FILE NO: 114783-000000

FROM: Gregory V. Moser
 Kevin M. Davis

DATE: May 12, 2016

RE: Dissolution of the North County Irrigated Lands Group, LLC

The Board of Directors of the Rainbow Municipal Water District ("RMWD") already approved at its April 26, 2016 meeting initiation of the process to dissolve the North County Irrigated Lands Group, LLC ("NCILG"). Enclosed please find the following documents for approval by the RMWD Board to effectuate the dissolution of the NCILG:

1. **Action by Written Consent.** The Operating Agreement of NCILG requires the Member of NCILG to provide written consent of the dissolution. RMWD is the sole Member of NCILG. The enclosed action provides the required written consent to dissolve the NCILG pursuant to its Operating Agreement, and for you as an officer of RMWD to take all actions necessary and appropriate to dissolve the NCILG. We set the effective date of the dissolution to occur on or before May 31, 2016, but a different date can be set, as appropriate.
2. **Certificate of Cancellation.** This single-page form is all that must be filed with the California Secretary of State to dissolve the NCILG. Once the RMWD Board has approved the written consent above, then you can sign the Certificate of Cancellation on behalf of RMWD as the sole Member of NCILG.

The dissolution will be effective, and the NCILG will no longer exist as a legal entity, on the date the Secretary of State receives the executed Certificate of Cancellation at the address provided on the form. There is no filing fee, and the Secretary of State will return a "filed"-stamped copy within 5-10 business days.

Please let us know if you have any questions, or if we can be of further assistance.

Enclosures

**ACTION BY WRITTEN CONSENT
OF THE SOLE MEMBER
OF
NORTH COUNTY IRRIGATED LANDS GROUP, LLC
a California limited liability company**

The undersigned, as the sole Member of the North County Irrigated Lands Group, LLC, a California limited liability company ("Company"), acting in accordance with the California Revised Uniform Limited Liability Company Act and the Company's Operating Agreement, hereby adopts the following resolutions and consents to the actions authorized thereby:

Dissolution of the Company

WHEREAS, on April 26, 2016, the Board of Directors of the Rainbow Municipal Water District, which is the sole Member of the Company, determined it advisable and in the best interests of the Company to dissolve the Company;

RESOLVED, that a Certificate of Cancellation of a Limited Liability Company (LLC-4/7) shall be filed with the California Secretary of State;

RESOLVED FURTHER, that the effective date of the dissolution of the Company shall be on or before May 31, 2016; and

RESOLVED FURTHER, that the Manager of the Company or a delegate of the Member are authorized and directed to take all further necessary and appropriate actions in furtherance of this purposes of the foregoing resolutions.

IN WITNESS WHEREOF, the undersigned Member has executed this Action by Written Consent of the Sole Member of the Company on May 24, 2016.

Member:

Rainbow Municipal Water District,
a California Water District

Tom Kennedy, General Manager

LLC-4/7 Certificate of Cancellation of a Limited Liability Company (LLC)

To cancel the Articles of Organization of a California LLC, or the Certificate of Registration of a registered foreign LLC, you can fill out this form, and submit for filing.

- There is no filing fee, however, a non-refundable \$15 service fee must be included, if you drop off the completed form.
- To file this form, the status of your LLC must be active on the records of the California Secretary of State. To check the status of the LLC, go to kepler.sos.ca.gov.

Important! California LLCs only: This form must be filed after or together with a [Certificate of Dissolution \(Form LLC-3\)](#). However, if the vote to dissolve was made by all of the members and that fact is noted in Item 4 below, Form LLC-3 is not required.

Note: Before submitting the completed form, you should consult with a private attorney for advice about your specific business needs. It is recommended for proof of submittal that if this form is mailed, it be sent by Certified Mail with Return Receipt Requested.

This Space For Office Use Only

For questions about this form, go to www.sos.ca.gov/business-programs/business-entities/filing-tips.

1. **LLC's Exact Name in CA** (on file with CA Secretary of State)

North County Irrigated Lands Group, LLC

2. **LLC File No.** (issued by CA Secretary of State)

201404310291

Tax Liability (The following statement should not be altered. For information about final tax returns, go to <https://www.ftb.ca.gov> or call the California Franchise Tax Board at (800) 852-5711 (from within the U.S.) or (916) 845-6500 (from outside the U.S.).)

3. All final returns required under the California Revenue and Taxation Code have been or will be filed with the California Franchise Tax Board.

Dissolution (California LLCs ONLY: Check the box if the vote to dissolve was made by the vote of all the members.)

4. The dissolution was made by the vote of all of the members.

Additional Information (If any, list any other information the persons filing this form determine to include.)

5. Rainbow Municipal Water District, the sole Member of the LLC, delegated authority to the undersigned to file this Certificate of Cancellation to dissolve the North County Irrigated Lands Group, LLC.

Cancellation (The following statement should not be altered.)

6. Upon the effective date of this Certificate of Cancellation, this LLC's Articles of Organization (CA LLCs) or Certificate of Registration (registered foreign LLCs) will be cancelled and its powers, rights and privileges will cease in California.

Read and sign below: For California LLCs: This form must be signed by the managers, unless the LLC has had no members for 90 consecutive days, in which case the form must be signed by the person(s) authorized to wind up the LLC's affairs. For registered foreign LLCs: This form must be signed by a person authorized to so do under the laws of the foreign jurisdiction. If the signing person is a trust or another entity, go to www.sos.ca.gov/business-programs/business-entities/filing-tips for more information. If you need more space, attach extra pages that are 1-sided and on standard letter-sized paper (8 1/2" x 11"). All attachments are part of this document.

Sign here

Tom Kennedy
Print your name here

Member
Your business title

Sign here

Print your name here

Your business title

Make check/money order payable to: **Secretary of State**

To get a copy of the filed document, include a separate request and payment for copy fees when the document is submitted. Copy fees are \$1 for the first page and \$.50 for each additional page. For certified copies, there is an additional \$5 certification fee, per copy.

By Mail
Secretary of State
Business Entities, P.O. Box 944228
Sacramento, CA 94244-2280

Drop-Off
Secretary of State
1500 11th Street., 3rd Floor
Sacramento, CA 95814



Limited Liability Company Cancellation Filing Requirements

The following requirements set forth multiple methods of cancelling a corporation. Please review all requirements to determine the method that is applicable to your business entity.

To cancel the Articles of Organization of a domestic limited liability company (LLC), the California (domestic) LLC must file a Certificate of Dissolution (Form LLC-3) and Certificate of Cancellation (Form LLC-4/7). However, if all the members vote to dissolve, only Form LLC-4/7 is required.

To cancel the Application for Registration of a registered foreign LLC, the foreign LLC must file a Certificate of Cancellation (Form LLC-4/7).

Note: In lieu of the above-mentioned certificates, a domestic LLC can file a Short Form Certificate of Cancellation (Form LLC-4/8) if all of the following requirements are met:

- 1) Form LLC-4/8 is being filed **within twelve (12) months** from the date the Articles of Organization were filed with the Secretary of State;
- 2) The domestic LLC has no debts or other liabilities (other than tax liability);
- 3) The known assets of the domestic LLC remaining after payment of, or adequately providing for, known debts and liabilities have been distributed to the persons entitled thereto or no known assets have been acquired;
- 4) The final tax return or a final annual tax return has been or will be filed with the Franchise Tax Board;
- 5) The domestic LLC has not conducted any business from the time of the filing of the Articles of Organization;
- 6) A majority of the managers or members, or if there are no managers or members, the person or a majority of the persons who signed the Articles of Organization, voted to dissolve the domestic LLC; and
- 7) If the domestic LLC received payments for interests from investors, those payments have been returned to those investors.

Upon the effective date of the Certificate of Cancellation (Form LLC-4/7) or Short Form Certificate of Cancellation (Form LLC-4/8) by the Secretary of State, the Articles of Organization or Application for Registration of the LLC will be cancelled and the powers, rights and privileges of the LLC will cease in California.

Filing instructions along with the above-mentioned forms are enclosed. Completed forms can be mailed to Secretary of State, Document Filing Support Unit, P.O. Box 944228, Sacramento, CA 94244-2280 or delivered in person to the Sacramento office, 1500 11th Street, 3rd Floor, Sacramento, CA 95814. It is recommended for proof of submittal that if the document(s) are mailed to the Secretary of State, they be sent by Certified Mail with Return Receipt Requested.

Statutory filing requirements are found in California Corporations Code sections [17707.02](#) and [17707.08](#) (domestic LLCs) and [17708.06](#) (registered foreign LLCs).

Please note: Cancellation documents can be filed only if the status of the LLC is active on the records of the California Secretary of State. The status of the LLC can be checked online on the Secretary of State's Business Search at kepler.sos.ca.gov/.

MEETINGS/SEMINARS/CONFERENCES/WORKSHOPS

VARIABLE					
DATE	2016	MEETING	LOCATION	ATTENDEES	POST
June	9	SDCWA Special Board Meeting	SDCWA	GM	N/A
June	*	CSDA – San Diego Chapter	(Location to be Announced) 6:00 p.m.	GM	N/A
June	*	LAFCO Special Meeting	County Admin Center, Room 358 – 9:30am	Sanford (As Advised by GM)	N/A
June	*	Santa Margarita Watershed Council	Rancho California Water District	Sanford	N/A

* To Be Announced

MEETINGS/SEMINARS/CONFERENCES/WORKSHOPS

RECURRING					
DATE	2016	MEETING	LOCATION	ATTENDEES	POST
June	1	Engineering Committee Meeting	RMWD Board Room 3:00 p.m.	Appointed Director, General Manager	5/26
June	6	LAFCO	County Admin. Center Room 358 9:00 am	Sanford (As Advised by GM)	N/A
June	6	Communications Committee Mtg.	RMWD Board Room 3:30 p.m.	Appointed Director, General Manager	5/26
June	14	Budget & Finance Committee Mtg.	RMWD Board Room 1:00 p.m.	Appointed Director, General Manager	5/26
June	14	SDCWA GM's Meeting	SDCWA, San Diego 9:30 a.m.	General Manager	N/A
June	17	LAFCO Advisory Committee	LAFCO, 9335 Harzard Way, 9:30 a.m.	General Manager	N/A
June	17	NC Managers	Golden Egg 7:45 a.m.	General Manager	N/A
June	21	Council of Water Utilities	Stoneridge Country Club 7:15 a.m. Poway	All Directors, General Manager	6/16
June	22	North County Water Group	Rincon Del Diablo, Escondido 7:30 a.m.	All Directors on a Rotating Schedule, General Manager	N/A
June	23	SDCWA Full Board Meeting	SDCWA Board Room, 3-5 p.m.	General Manager	N/A
June	27	San Luis Rey Watershed Council	Fallbrook Public Utility District 1:00 p.m.	Walker	N/A
June	28	RMWD General Board	RMWD Board Room (Start Time to Be Determined)	All Directors	6/14

Mr. Seymour J. Honeycutt

April 21, 2016

Rainbow Municipal Water District
3707 Old Highway 395
Fallbrook, CA 92028
attention S.M. Tom Kennedy

Dear Mr. Kennedy:

Please accept this timeless thanks to Rainbow Municipal Water District. Thanks for past and present impeccable services over past twenty six years, given constraints of the CA droughts.

and Thanks for the Present handling of the Subject Meter Downsizing ($1\frac{1}{2}'' \rightarrow 1''$), with special appreciation and mention of telephone manner and advice from your Sherry Kirkpatrick. Here is a professional yet down to earth friendly tone presented with a personal concern. We do appreciate Rainbow Municipal Water District.

Especially your intentions of savings in Meter Downsizing.

Seymour J Honeycutt



STAFF TRAINING REPORT

ATTENDEES NAME(S):	Cynthia Gray
TITLE OF TRAINING/CONFERENCE/WORKSHOP/CLASS:	Water Use Efficiency Grade I Workshop
DATE(S) ATTENDED:	4/6/2016 - 4/7/2016
AGENCY HOSTING TRAINING/CONFERENCE/WORKSHOP/CLASS:	AWWA California-Nevada Section
LOCATION:	Rancho Cucamonga, CA
BRIEF DESCRIPTION:	
<p>This workshop is designed to teach students the general knowledge required to obtain a Grade 1 certificate in Water Use Efficiency (WUE). The class prepares students for passing the exam necessary for this certification and covers topics such as units of measure used in the water industry; water providers and primary sources of water; water demand user classifications conservation measures; meter technology for leak detection; and landscape principles for irrigation efficiency.</p> <p>Understanding water conservation measures, mechanisms, and programs utilized by the industry in addition to the role of Federal regulators are vital elements of the Administrative Analyst position at Rainbow MWD. Obtaining WUE certification is not only required for this position but also will play a crucial role in enriching my level of knowledge regarding the “Four Pillars of Resource Management”, Best Management Practices, unit dimensional analysis, Basin State allotment, water rights, Low Energy Precision Application (LEPA) for agricultural demands, and basic water efficient landscaping.</p> <p>I found the class materials and instruction highly informative and relevant to the topic. I would recommend this workshop to any of our personnel seeking additional knowledge and understanding of local water conservation practices.</p> <p>I am currently applying my training and increased comprehension of water use efficiency principles to assist our customers in managing water usage and evaluating water loss. In addition, I propose to expand our conservation outreach program to include designing and constructing a demonstration garden at the District offices to provide examples of soil management, low flow irrigation, water reuse, and proper regional landscaping all beneficial for long-term water conservation.</p>	



STAFF TRAINING REPORT

ATTENDEES NAME(S):	Kenny Diaz, Ruben Lopez, Armando Lopez, Justin Demary
TITLE OF TRAINING/CONFERENCE/WORKSHOP/CLASS:	Managing the Marginal Employee
DATE(S) ATTENDED:	April 19, 2016
AGENCY HOSTING TRAINING/CONFERENCE/WORKSHOP/CLASS:	Liberty Cassidy Whitmore
LOCATION:	Encina Wastewater Offices, Carlsbad, CA

BRIEF DESCRIPTION:

This half-day training provided by Liberty Cassidy Whitmore focused on the impacts and how to most effectively manage a marginal employee. It was presented by a very knowledgeable lawyer, Judith Islas. She provided us with tried and true methods that offer great results and compliance with the law.

In summary, the key things we all learned from attending this seminar were:

- Negative Impacts of the Marginal Employee
- Effective Supervision is the number one tool against the Marginal Employee
- 3 Parts to Effective Supervision - 1) Organizational Planning- Set goals/ expectations. 2) Ongoing Communication. 3) Accountability
- Provided with techniques and scenarios to help us understand how to most effectively implement the techniques provided.
- How to maintain composure when a marginal employee challenges us as a supervisor
- How to avoid falling into supervisory traps
- How to keep our good employees from turning into a marginal employee

Overall, this training was very valuable and extremely beneficial. There were several takeaways from this training that we learned which we plan to utilize to improve the District.



STAFF TRAINING REPORT

ATTENDEES NAME(S):	Kenny Diaz, Armando Lopez, Justin Demary, Bryan Rose, Scott Terrell, Wayne Nault, Chris Hein
TITLE OF TRAINING/CONFERENCE/WORKSHOP/CLASS:	The Art of Writing the Performance Evaluation
DATE(S) ATTENDED:	April 19, 2016
AGENCY HOSTING TRAINING/CONFERENCE/WORKSHOP/CLASS:	Liberty Cassidy Whitmore
LOCATION:	Encina Wastewater Offices, Carlsbad, CA
<p>BRIEF DESCRIPTION:</p> <p>This half-day training provided by Liberty Cassidy Whitmore focused on how to write the most effective Performance Evaluations</p> <p>In summary, the key things that we all learned from attending this seminar were:</p> <p>The Importance & Impact of Performance Evaluations</p> <ul style="list-style-type: none"> - Performance Evaluations are a communication tool - Provide honest relevant & meaningful feedback on job performances - How to avoid writing inaccurate Performance Evaluations - Negative impacts at work-and in litigation if an evaluation is inaccurate <p>Writing Tips</p> <ul style="list-style-type: none"> - How to adhere to just the facts and and tell the whole story - What to include and what NOT to include - Scenarios were video should be provided for further understanding <p>Keeping the Connection</p> <ul style="list-style-type: none"> - How to properly document events, including consequences and effects - How to tie comments to expectations <p>Looking to the Future</p> <ul style="list-style-type: none"> - How positive feedback provides a complete picture, helps motivate employees, and sets goals for future behavior <p>Overall, this training was extremely useful and beneficial. There were several lessons and tools presented during this training that can be utilized to improve the District.</p>	



STAFF TRAINING REPORT

ATTENDEES NAME(S):	Sherry Kirkpatrick, Darren Milner, Ramon Zuniga
TITLE OF TRAINING/CONFERENCE/WORKSHOP/CLASS:	Leadership, Team-Building and Coaching Skills
DATE(S) ATTENDED:	May 5, 2016
AGENCY HOSTING TRAINING/CONFERENCE/WORKSHOP/CLASS:	Fred Pryor Seminars (CareerTrack)
LOCATION:	Carlsbad, CA
<p>BRIEF DESCRIPTION:</p> <p>This innovative one-day Fred Pryor Seminar in Leadership, Team-Building and Coaching Skills primarily focused on the responsibilities of a Supervisor and Manager, and the leadership roles that we play within an organization. This class was designed to teach us powerful coaching methods to turn even problem employees into super-productive, motivated winners. The 5 Essential Coaching Skills that we learned were communicating, motivating, counseling, using good judgment, and utilizing available talent. This training has instilled the kind of energy and enthusiasm that makes productivity soar. The importance of mentorship/feedback was stressed.</p> <p>In summary, the key things that we all learned from attending this seminar were:</p> <ul style="list-style-type: none"> - step-by-step on how to produce a manager's "game plan" to ensure our goals and objectives are reached. - how to maximize every employee's abilities, and uncover strengths and talents that we never knew existed. - how to pull everyone together with a shared drive and purpose. - how to stop the negative influences and better manage "problem players" and set these employees on a positive, successful course. - how to keep superstars challenged and motivated. - how to push your best employees ahead without alienating average employees or playing favorites. <p>Overall, we found this training to be very valuable and extremely beneficial. There were several takeaways from this training that we learned which we plan to utilize to improve the District.</p> <p>Coach's Credo (John Wooden, UCLA): "Everybody has greatness within them. As a coach, it is my privilege to assist individuals to unlock their greatness and to release it for their career success." "Do not let what you cannot do interfere with what you can do."</p>	



BOARD INFORMATION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

Construction & Maintenance Report

DESCRIPTION

Activities for Construction & Maintenance Division

Occurrences for April: 15

Main Line	0
Air/Vac	6
Blow-Off	0
Wharfhead	0
Valve	3
Fire Hydrant	1
Meter Lateral	4
Damage Done by Individuals	1

Total for 2015-2016 fiscal YTD: 153

Main Line	37
Air/Vac	26
Blow-Off	3
Wharfhead	6
Valve	21
Fire Hydrant	10
Meter Lateral	47
Damage Done by Individuals	3

A. The locations of failures are as follows:

Main Line Repairs

Job #	Date Reported	GPM	Status	Location	Cause
NONE					

Control Valve Maintenance

Job #	Date Reported	GPM	Status	Location	Cause
201359	4/10/16	N/A	In progress	Ranchos Amigos	Update to standards 8" AC
21094	4/14/16	N/A	Completed	Ranchos Amigos	Wear out 8" AC

Air Vac Repairs

Job #	Date Reported	GPM	Status	Location	Cause
26390	4/1/16	N/A	Completed	Arroyo Pacifico	Update to standards 1" Brass

Air Vac Repairs

Job #	Date Reported	GPM	Status	Location	Cause
26391	4/5/16	N/A	Completed	Reche Road	Wear out 1" Brass
26392	4/6/16	N/A	In progress	Ranchos Ladera	Update to standards 1" Brass
26393	4/14/16	N/A	In progress	Dentro De Lomas	Update to standards 2" Brass
26394	4/18/16	N/A	Completed as of 5/2/16	Rainbow Heights Road	Update to standards 1" Brass
26395	4/20/16	N/A	Completed	Rainbow Heights Road	Update to standards 2" Brass

Blow Off Repairs

Job #	Date Reported	GPM	Status	Location	Cause
27125	3/26/16	4	Completed	Oak Cliff Drive	Wear out 2" Brass

Wharfhead Repairs

Job #	Date Reported	GPM	Status	Location	Cause
28137	3/28/16	N/A	Completed	Arroyo Pacifico	Wear out 2" Brass

Meter Lateral Repairs

Job #	Date Reported	GPM	Status	Location	Cause
3231	4/9/16	5	Completed	Lake Circle Drive	Wear out 1" Copper
3232	4/19/16	2	Completed	Rainbow Heights	Wear out 1" Copper
3233	4/18/16	1	Completed	Rice Canyon Road	Wear out 1" Copper
42026	3/26/16	N/A	Completed	Conejo Road	New installation 1" Copper

Meter Lateral Replacements

Job #	Date Reported	GPM	Status	Location	Cause
2526	4/6/16	.1	Completed	Vista Del Mar	Poly 1" Poly

Valve Repairs

Job #	Date Reported	GPM	Status	Location	Cause
5084	2/25/16	N/A	Completed	Spa Haven	Off-Track 6" Plug
5086	4/7/16	N/A	In progress	Dentro De Lomas	Off-Track 6" Plug

Valve Replacements

Job #	Date Reported	GPM	Status	Location	Cause
16135	3/23/16	N/A	Completed	Via Mariposa	Leaks through 6" Gate
16136	4/12/16	N/A	In progress	Ranchos Ladera	New installation 16" Gate
16137	4/27/16	N/A	Completed	West Lilac Road	Broken stem 6" Gate

Fire Hydrant Repairs

Job #	Date Reported	GPM	Status	Location	Cause
8604	4/21/16	100	In progress	West Lilac Road	Workmanship 6" Gate

Damage Done by Individual

Job #	Date Reported	GPM	Status	Location	Cause
8586	5/14/15	2,070	On hold	Reche Road	Hit by car 6" CMLC
3230	4/5/16	7	Completed	Country Road	Hit by truck 1" Copper

B. After-Hours Standby Calls

Total Standby calls for April: 49

Checked for Leaks	12
Meter Leak Repairs	6
Turned Water Off (Locked Meter)	3
Turned Water On (Unlock Meter)	1
Complaints of No Water	6
High Pressure	3
Low Pressure	0
Alarms at RMWD	4
Wastewater Calls	1
Water Quality Calls	2
Backflow Calls	3
Customer Leak Calls	4
Emergency Locates	1
Miscellaneous Calls	3

Total Standby calls for fiscal year-to-date: 492

Checked for Leaks	96
Meter Leak Repairs	38
Turned Water Off (Locked Meter)	17
Turned Water On (Unlock Meter)	58
Complaints of No Water	53
High Pressure	56
Low Pressure	11
Alarms at RMWD	17
Wastewater Calls	2
Water Quality Calls	17
Backflow Calls	28
Customer Leak Calls	49
Emergency Locates	4
Miscellaneous Calls	46

John Maccarrone
Construction & Maintenance Superintendent

5/24/16

Darren Milner
Operations Manager

5/24/16



BOARD INFORMATION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

Valve Maintenance Report

DESCRIPTION

Activities for Valve Maintenance Division

A. Total valves operated in April: **247**

Total valves operated fiscal YTD: **3,103**

DISTRIBUTION VALVES

Gate	10" & smaller	45
Plug	10" & smaller	8
Butterfly	10" & smaller	0
Total Small:		53
Gate	12" & larger	23
Plug	12" & larger	10
Butterfly	12" & larger	5
Total Large:		38
Total Dist. Valves:		91

Gate	10" & smaller	509
Plug	10" & smaller	221
Butterfly	10" & smaller	4
Total Small:		734
Gate	12" & larger	125
Plug	12" & larger	99
Butterfly	12" & larger	35
Total Large:		259
Total FY Dist. Valves:		993

OTHER VALVES

Air Vacs – 1", 2", 4"	64
Blow Offs – 2"	18
Fire Hydrants – 6"	47
Wharfheads – 2"	27
Total Other Valves:	156

Air Vacs – 1", 2", 4"	766
Blow Offs – 2"	353
Hydrants & Hydrant Valves –	705
Wharfheads – 2"	286
Total FY Other Valves:	2,110

BROKEN VALVES

B. Total broken valves in April: **0**

Total broken valves for fiscal YTD: **53**

2" and Under	Repaired	0
	Replaced	0
	Discovered	0
4" and Over	Repaired	0
	Replaced	0
	Discovered	0

2" and Under	Repaired	0
	Replaced	14
	Discovered	3
4" and Over	Repaired	4
	Replaced	9
	Discovered	23

UNABLE TO LOCATE

C. Total UTL valves in April: 2

Checked	0
Found / Operated	0
Removed from Map Book	2

Total UTL valves for fiscal YTD: 7

Checked	0
Found / Operated	1
Removed from Map Book	6

D. Other maintenance:

April:

Air Vacs Replaced	1"	0
	2"	2
	4"	0
Air Vacs	Serv. Stops Installed	0
	Repaired	0
	Painted	2
Hydrants	Repaired	0
	Replaced	0
	Painted	0
Wharfheads	Repaired	0
	Painted	0
Pressure Station Valves	Adjusted	0
	Rebuilt	3
	Replaced	1
	Painted	0

2015-2016 fiscal YTD:

Air Vacs Replaced	1"	12
	2"	5
	4"	0
Air Vacs	Serv. Stops Replaced	0
	Repaired	0
	Painted	28
Hydrants	Repaired	0
	Replaced	5
	Painted	7
Wharfheads	Repaired	2
	Painted	3
Pressure Station Valves	Adjusted	3
	Rebuilt	18
	Replaced	1
	Painted	0

E. Miscellaneous

April:

Shutdowns	3
New Valves	26
Abandoned Valves	0
Underground Service Alert Locates	84

2015-2016 fiscal YTD:

Shutdowns	43
New Valves	32
Abandoned Valves	0
Underground Service Alert Locates	699

John Maccarrone 5/24/16
Construction & Maintenance Superintendent


Darren Milner 5/24/16
Operations Manager

MAINTENANCE PLAN 2015-2016

2015								
Month	Planned Operation	Operated	Not Operable	PRV	Shut Downs	System Repair	Other Work, Yard	Map Book
Average	304.7	339.4	----	----	----	----	----	----
January	305	304	30	5	4	0	Yes	Yes
February	305	381	45	0	3	0	Yes	Yes
March	305	343	20	1	3	4	Yes	No
April	305	340	23	1	3	0	Yes	No
May	305	393	11	2	3	8	Yes	No
June	305	382	4	3	2	4	Yes	No
July	305	417	25	1	2	3	Yes	No
August	305	317	46	2	3	10	Yes	No
September	305	338	30	3	2	4	Yes	No
October	305	429	15	1	3	4	Yes	No
November	305	198	22	1	8	6	Yes	No
December	305	231	32	0	13	4	Yes	No
Totals 2015	3,660	4,073	303	20	49	47	----	----

2016								
Month	Planned Operation	Operated	Not Operable	PRV	Shut Downs	System Repair	Other Work, Yard	Map Book
January	305	413	35	1	3	10	Yes	Yes
February	305	242	16	3	4	9	Yes	Yes
March	305	255	17	2	5	7	Yes	Yes
April	305	247	14	4	3	0	Yes	Yes
May	305							
June	304							
July	304							
August	304							
September	304							
October	304							
November	304							
December	304							
Totals 2016	3,653	1,157	82	10	15	26	----	----

Total Valves in System: **7,313**

Valves Operated to Date: **5,230**

Valves Inoperable: **385**



BOARD INFORMATION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

Garage / Shop Report

DESCRIPTION

Activities for Garage/Shop Division – April 2016

A. Maintenance/Service: 32

2015-2016 Fiscal YTD: 356

Vehicles	16
Small Equipment	6
Large Equipment	10


Vehicles	239
Small Equipment	47
Large Equipment	70

B. Emergencies: 10

2015-2016 Fiscal YTD: 56

Vehicles	9
Equipment	1

Vehicles	31
Equipment	25



 John Maccarrone
 Construction & Maintenance Superintendent
 5/24/16



 Darren Milner
 Operations Manager
 5/24/16



BOARD INFORMATION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

Water Operations Report

DESCRIPTION

Activities for Water Operations Division


A. April:

2015-2016 Fiscal YTD:

Tanks/Reservoirs	Maint. / Weeds	2
	Inspected	7
	Painted (Contractor)	0
	Repairs (Contractor)	1
	Repairs (RMWD)	0
	Residuals	336
Reservoir Covers	Repaired	3
	Inspected	4
	Washed/Cleaned	0
Pump Stations	Maint. / Weeds	112
	Painted	0
	Repaired	1
Chlorine Stations	Maint. / Weeds	16
	Painted	0
	Repaired	2
Back-up Generators	Tested	16
	Maintenance	0
Connection Reads		32
Morro PRVs		84
Flow Changes	SDCWA	70
Patrol Calls		0

Tan	Maint. / Weeds	25
s/Reservoirs	Inspected	113
	Painted (Contractor)	7
	Repairs (Contractor)	7
	Repairs (RMWD)	4
	Residuals	3,605
Reservoir Covers	Repaired	5
	Inspected	31
	Washed/Cleaned	3
Pump Stations	Maint. / Weeds	2,027
	Painted	0
	Repaired	23
Chlorine Stations	Maint. / Weeds	1,108
	Painted	0
	Repaired	22
Back-up Generators	Tested	174
	Maintenance	4
Connection Reads		344
Morro PRVs		903
Flow Changes	SDCWA	800
Patrol Calls		121


 Marc Walker 5/24/16
 Water Operations Superintendent


 Darren Milner 5/24/16
 Operations Manager



BOARD INFORMATION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

Electrical / Telemetry Report – April 2016

DESCRIPTION

Activities for Electrical & Telemetry

A. Electrical:

2015-2016 Fiscal YTD:

Maintenance	Reservoirs & Tanks	0
	Pump Stations	5
	Lift Stations	1
	CL2 Stations	0
	District Offices	3
Repairs	Reservoirs & Tanks	1
	Pump Stations	0
	Lift Stations	2
	CL2 Stations	0
	District Offices	0

Maintenance	Reservoirs & Tanks	1
	Pump Stations	22
	Lift Stations	19
	CL2 Stations	2
	District Offices	21
Repairs	Reservoirs & Tanks	1
	Pump Stations	11
	Lift Stations	6
	CL2 Stations	4
	District Offices	4

B. Telemetry:

2015-2016 Fiscal YTD:

Maintenance	SDCWA Connection	1
	Tanks	2
	Pump Stations	0
	Lift Stations	0
	CL2 Stations	1
	District Offices	1
Repairs	SDCWA Connection	0
	Tanks	0
	Pump Stations	0
	Lift Stations	0
	CL2 Stations	0
	District Offices	0

Maintenance	SDCWA Connection	2
	Tanks	5
	Pump Stations	0
	Lift Stations	7
	CL2 Stations	1
	District Offices	40
Repairs	SDCWA Connection	0
	Tanks	5
	Pump Stations	0
	Lift Stations	3
	CL2 Stations	2
	District Offices	0

C. Special Projects:

DATE	LOCATION	DESCRIPTION
4/4/16	Connection #9	Panel upgrade
4/4, 4/5, 4/7 & 4/11/16	Pala Mesa Tank	Install new transmitter
4/6, 4/7, 7/26 & 4/27/16	Huntley Pump Station	SCADA project
4/19 & 4/25/16	District Office	Go over new lift station plans
4/27/16	Lift Station #2	Meet with contractor



Marc Walker 5/24/16
 Water Operations Superintendent



Darren Milner 5/24/16
 Operations Manager



BOARD INFORMATION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

Wastewater Report

DESCRIPTION

Activities for Wastewater Division

A. April 2016:

Lift Stations	Maintenance	48
	Pump/Dry Well Repairs	11
	Wet Well Repairs	10
	Elect. Controls	6
	Generator Maint.	1
	Load Test	1
	Samples	1
Cleaning & Maintenance	Line Cleaning	6,288 ft.
	CCTV Inspection	9,049
	Easement Cleaning	0
	Customer Calls	4
Wet Wells	General Cleaning	15
High Frequency	Cleaning Areas	3,973 ft.
Collection	Sewer Line Repairs	0
Manholes	Raised	0
	Inspections	53
	Repairs	0
	Clean Roots	0

2015-2016 fiscal YTD:

Lift Stations	Maintenance	420
	Dry Well Repairs	76
	Wet Well Repairs	16
	Elect. Controls	52
	Generator Maint.	6
	Load Test	7
	Samples	15
Cleaning & Maintenance	Line Cleaning	65,607 ft.
	CCTV Inspection	12,218 ft.
	Easement Cleaning	18
	Customer Calls	30
Wet Wells	General Cleaning	130
High Frequency	Cleaning Areas	26,089 ft.
Collection	Sewer Line Repairs	0
Manholes	Raised	33
	Inspections	472
	Repairs	26
	Clean Roots	8

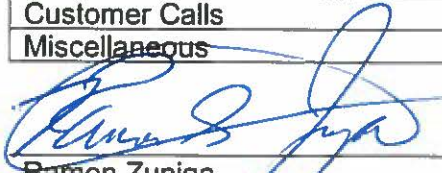
B. After-Hours Stand-by Calls:

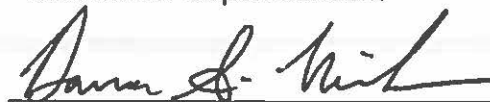
Total Standby calls for March: 10

Private Sewer Spills	0
RMWD Spills	0
Telemetry Alarms	0
Lift Station Alarms	0
High or Low Level Alarms	6
SmartCover Manhole Alarms	3
Customer Calls	1
Miscellaneous	0

Total Standby calls 2015-2016 fiscal YTD: 130

Private Sewer Spills	1
RMWD Spills	0
Telemetry Alarms	23
Lift Station Alarms	11
High or Low Level Alarms	61
SmartCover Manhole Alarms	21
Customer Calls	13
Miscellaneous	0


 Ramon Zuniga 5/24/16
 Wastewater Superintendent


 Darren Milner 5/24/16
 Operations Manager



BOARD INFORMATION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

Water Quality Report

DESCRIPTION

Activities for Water Quality Division – April 2016

A. Samples:

2015-2016 Fiscal YTD:

Inlet/Outlet - Beck	MPN / HPC General Physicals Fluoride	Beck is offline
Open Reservoir - Beck	MPN / HPC General Physicals Fluoride Nitrification Testing	Beck is offline
Dosing	Copper Sulfate Sodium Hypochlorite	0 0
Tanks / Covered Reservoirs	Nitrification Testing Fluoride Specials	28 0 1
Morro Reservoir Zone	Ammonia / Nitrification	0
Routines		22
THM / HAA5		0
Specials		3

Inlet/Outlet - Beck	MPN / HPC General Physicals Fluoride	Beck is offline
Open Reservoir - Beck	MPN / HPC General Physicals Fluoride Nitrification Testing	Beck is offline
Dosing	Copper Sulfate Sodium Hypochlorite	0 0
Tanks / Covered Reservoirs	Nitrification Testing Fluoride Specials	310 0 7
Morro Reservoir Zone	Ammonia / Nitrification	0
Routines		203
THM / HAA5		8
Specials		31

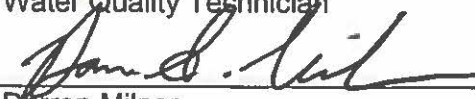
B. Water Quality:

2015-2016 Fiscal YTD:

Dead End Flushing		2
Calls	Customer RMWD	5 0

Dead End Flushing		2
Calls	Customer RMWD	25 0


 Joseph Pereira 5/24/16
 Water Quality Technician


 Darren Milner 5/24/16
 Operations Manager



BOARD INFORMATION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

Cross Connection Control Program – April 2016

DESCRIPTION

Activities for Cross Connection Control:

A. Currently, there are **4,950** backflow devices recorded in the system.

B. In April, the following was performed:

2015-2016 fiscal YTD:

Installation 1 st Notices sent	3
Installation 2 nd Notices sent	0
Installation 3 rd Notices sent	0
Customer complaints	0
Services locked due to noncompliance	0
New devices installed, inspected	0
Annual test notices sent	459
Annual devices tested	0
Device failures & repairs	13
Replaced devices	0
Correction inspections	0
Property inspections	3

Installation 1 st Notices sent	4
Installation 2 nd Notices sent	0
Installation 3 rd Notices sent	0
Customer complaints	0
Services locked due to noncompliance	0
New devices installed, inspected	20
Annual test notices sent	4,602
Annual devices tested	3,647
Device failures & repairs	208
Replaced devices	8
Correction inspections	0
Property inspections	4

C. Construction Meters - Backflow Tests: **0**

D. Hangers for Blocked Access: **0**

Joseph Perreira
Water Quality Technician

5/24/16

Darren Milner
Operations Manager

5/24/16



BOARD INFORMATION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

Engineering Report for April 2016

DESCRIPTION

CAPITAL PROJECTS:

Afton Farms Water Line Ext. (201449): Notice of completion issued on April 18, 2016. Project is complete.

Gird to Monserate Hill (201045): Psomas is working on the preliminary design report. Staff is working on pipeline alignment with property owners and alternatives to rehabilitate the existing pipeline.

Horse Creek Lift Station (200555): Developer is working on obtaining the permit from Army Corps of Engineers.

Highway 76 East Segment (201260): Contractor has installed 9,000 feet of 18" sewerline out of 10,300 feet. All of the four casings have been installed.

Lift Station 1 (201040): Staff is working on location regarding the site for the lift station before the siphon. 60% design submittal being reviewed for LS-1B and sewer line from LS-1 to LS-2.

Water and Wastewater Asset Cost and Capacity Fee Study (201663): Notice to proceed issued on April 27, 2016. Consultant scheduled to conduct site visits on the week of May 16, 2016.

Water Reclamation Plant & Recycled Water Distribution System (201672): Consultant working on the preliminary results of alternative system configurations.

Wastewater Outfall Replacement (201266): Project on hold until further evaluation from the Master Plan and the WRP study.

OTHER PROJECTS:

Moosa Creek Mitigation Bank (201459): Staff working with Consultant on easements.

San Luis Rey Ground Water Sources (201446): Report finalized and being reviewed by staff and consultant.

Valley Center Regional Infrastructure Coordination: Report finalized and submitted to Valley Center.

Water and Wastewater Master Plans (201337W/201571WW): Final report was submitted and adopted at the April 26, 2016 Board Meeting. Project is complete.

DEVELOPER PROJECTS:

Golf Green Estates (90100): (near Lift Station 1): 94 SFR planned across from Bonsall Elementary School. A 12" sewer main has been installed to the west of the development and the tie-in will be scheduled at a later date. Trenching for a 10" sewer main south of development has begun.

Heling Hill Run (00000): 5 Lot Subdivision with 260 foot waterline extension. Plan check one complete.

Horse Ranch Creek Ridge (D.R. Horton - formally Campus Park, Passerelle) (90096): 850 WMs / 850 EDUs – Off of Highway 76 and Horse Ranch Creek Road. Plan check for units 1-4, wastewater, and water complete. Caltrans approved construction of forcemain and waterline in Highway 76. Project is under review with the Army Corps of Engineers and Pala Indians.

Malabar Ranch (90061): 31 WMs / 29 EDUs – There are 17 out of 31 homes built. Contractor shall complete waterline relocation and punch list items.

Nessy Burger (00000): Nessy Burger's is proposing to install a permanent building. Plan check one completed.

Olive Hill Estates (90066): 37 WMs / 59.2 EDUs – Contractor is working on completing above ground appurtenances. All meters have been installed except for the landscape irrigation meter.

Pala Mesa Highlands (90056): 124 Lots on Old Highway 395. Plan check three completed.

OTHER:

ITEMS	NO#	ITEMS	NO#
Water Availability Letters	0	Water Meters Purchased	1
Sewer Availability Letters	0	Sewer EDUs Purchased	0
Water Commitment Letters	0	Scheduled/Emergency Shutdowns	0
Sewer Commitment Letters	0	Jobs Closed: Afton Farms and Master Plans	2

Sherry Kirkpatrick
Engineering Manager

5/24/16



BOARD INFORMATION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

Field Customer Service Report – April 2016

DESCRIPTION

Activities for Customer Services Section:

A. Customer service calls responded to: **153**


2015-2016 fiscal YTD: **2,037**

Read for Transfer	68
Locked Service	18
Unlocked Service	22
Checked for High Pressure	20
Checked for Low Pressure	7
Reports of No Water	1
Delivered 48-Hour Notices	13
Waste - Drought	4

Read for Transfer	603
Locked Service	227
Unlocked Service	198
Checked for High Pressure	120
Checked for Low Pressure	59
Report of No Water	32
Delivered 48-Hour Notices	730
Waste - Drought	68



 Kenny Diaz 5/24/16
 Meter Services – Crew Leader



 Vanessa Martinez 5/24/16
 Finance Manager



BOARD INFORMATION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

Meters Report – April 2016

DESCRIPTION

Activities for Meter Services Section:

A. Meter Replacement:

2015-2016 fiscal YTD:

Stuck / Damage	
5/8"	0
3/4"	6
1"	7
1 1/2"	1
2"	9
3"	0
4"	0
6"	0

Itron Repairs	
5/8"	0
3/4"	9
1"	0
1 1/2"	0
2"	2
3"	0
4"	0
6"	0

New Itron Installations	
5/8"	0
3/4"	0
1"	0
1 1/2"	0
2"	0
3"	0
4"	0
6"	0

Stuck / Damage	
5/8"	0
3/4"	115
1"	126
1 1/2"	10
2"	30
3"	1
4"	0
6"	0

Itron Repairs	
5/8"	0
3/4"	29
1"	40
1 1/2"	4
2"	8
3"	0
4"	0
6"	0

New Itron Installations	
5/8"	0
3/4"	0
1"	0
1 1/2"	0
2"	0
3"	0
4"	0
6"	0

TOTAL: 23

11

0

282

81


0

B. Meter service calls responded to: 393


2015-2016 fiscal YTD: 4,679

Meter Leaks Reported	29
Checked Meter Reads	341
Replaced Meter Heads	3
Troubleshoot Meters	20

Meter Leaks Reported	266
Checked Meter Reads	3,957
Replaced Meter Heads	55
Troubleshoot Meters	401



 Kenny Diaz
 Meter Services – Crew Leader
 5/24/16



 Vanessa Martinez
 Finance Manager
 5/24/16



BOARD INFORMATION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

Safety Report – April 2016

DESCRIPTION

Safety and Regulatory Update

- A. Safety Training
 - Confined Space Entry Class – 10 Employees
 - Industrial Truck Re-certification – 17 Employees

- B. Tailgate Safety Meetings
 - Night Work and Excavations
 - Stretch Before Working
 - Striking Safely Against Lightning
 - Cutting Pipe Safety

- C. Target Safety Online Training
 - Advanced Construction Safety Mod 1
 - Advanced Construction Safety Mod 2
 - Diet and Nutrition
 - Water Industry Hydraulics

Jeff Stacy
Safety Administrator

5/24/16

Darren Milner
Operations Manager

5/24/16



INFORMATION

BOARD OF DIRECTORS

May 24, 2016

SUBJECT

Changes in Personnel and Reporting

DESCRIPTION

Michael Powers joined the District's team effective April 18, 2016, as Associate Engineer.

Jennifer Wise is on administrative leave effective end of day April 28, 2016. Due to budget constraints the HR Technician position has been eliminated effective July 1, 2016.

POLICY

N/A

FISCAL IMPACTS

N/A

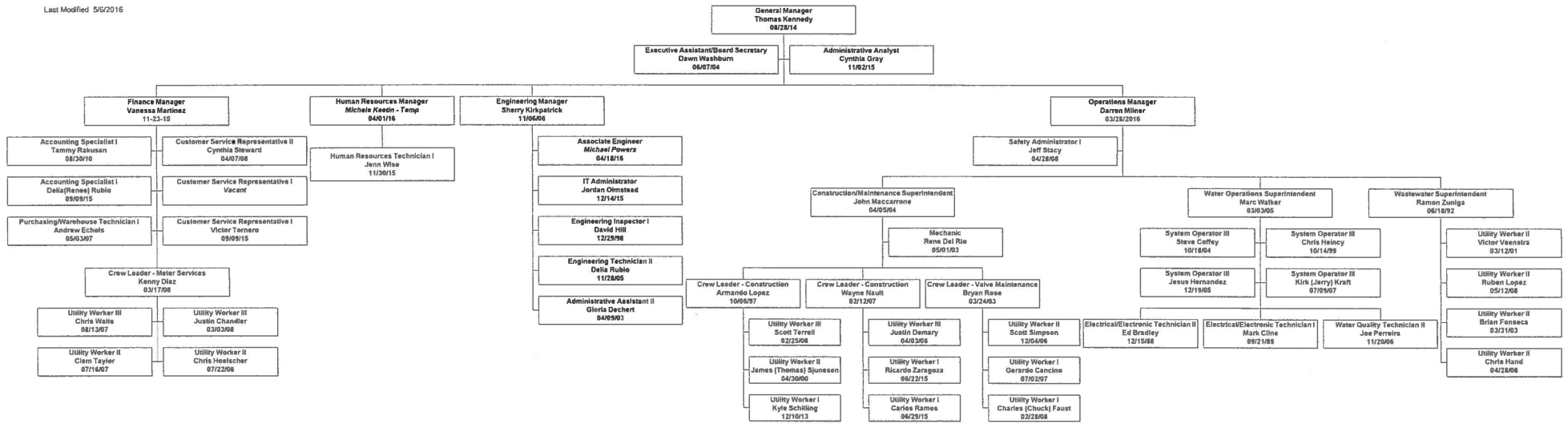
Michele Keetin
Human Resources Manager (Temp)

5/24/16

RAINBOW MUNICIPAL WATER DISTRICT
ORGANIZATIONAL CHART

Creation Date 8/21/2014

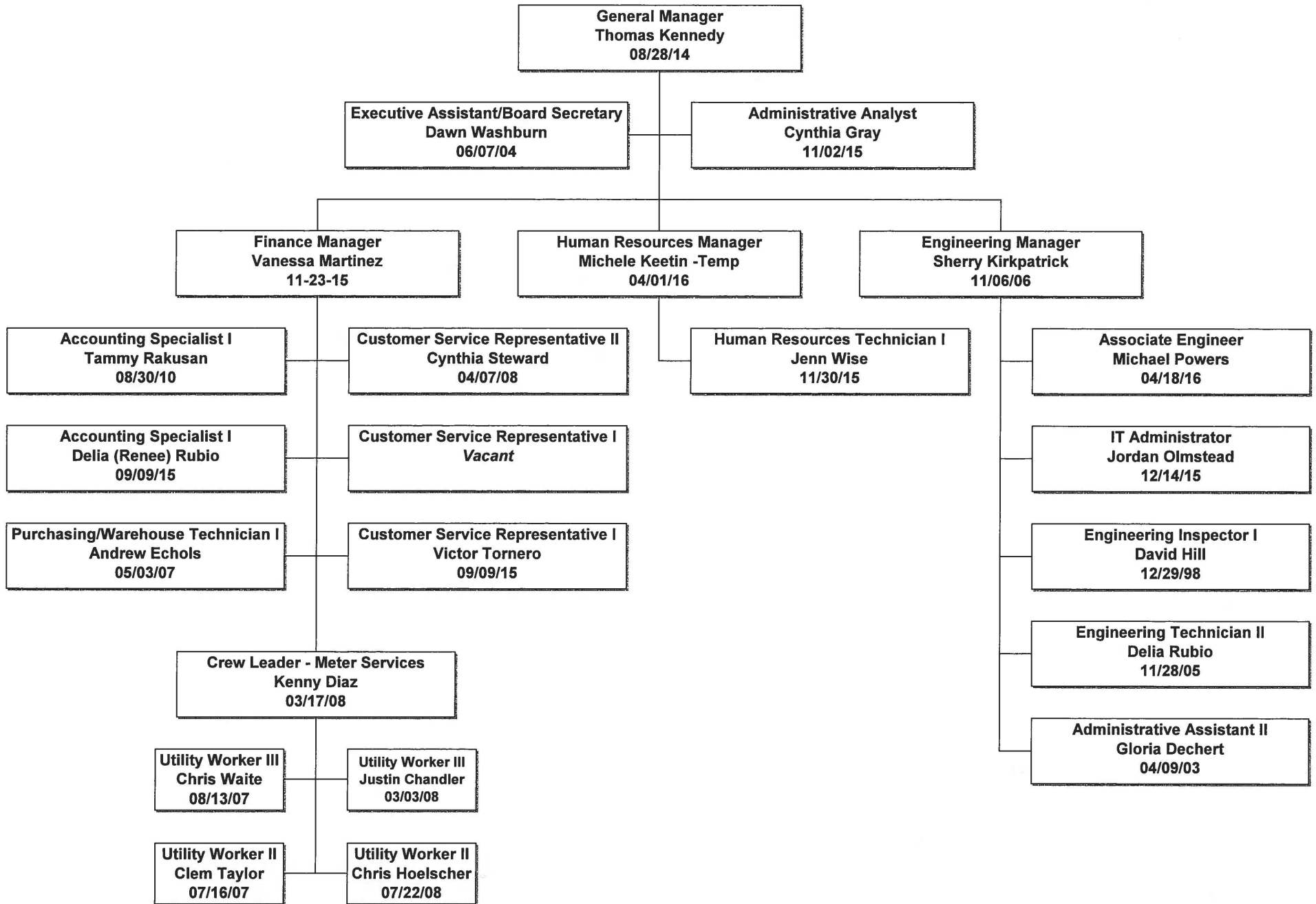
Last Modified 5/6/2016



**RAINBOW MUNICIPAL WATER DISTRICT
ORGANIZATIONAL CHART
PAGE 1 OF 2**

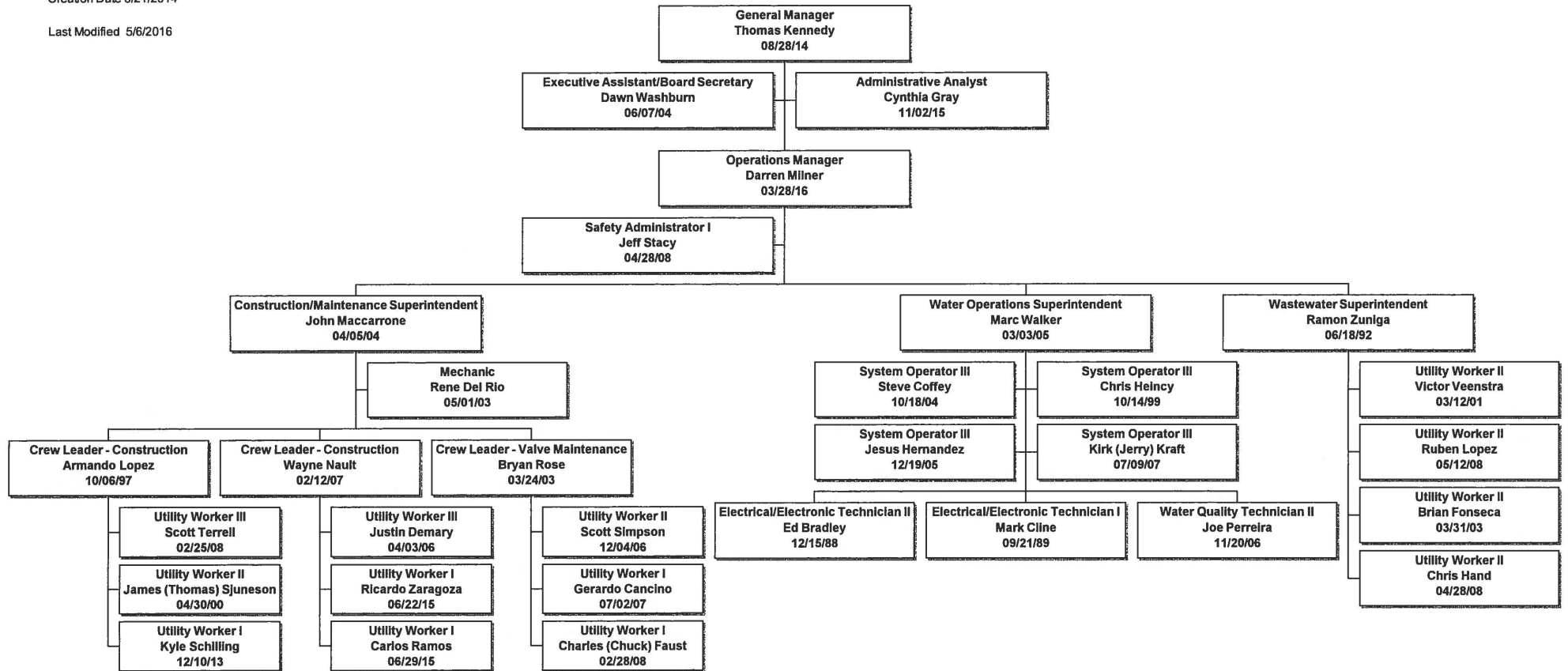
Creation Date 8/21/2014

Last Modified 5/6/2016



Creation Date 8/21/2014

Last Modified 5/6/2016



FIRST BANKCARD VISA BREAKDOWN
 APRIL, 2016

NEW ACCOUNT

DATE OF CHARGE	AMOUNT	PURPOSE
3/18/2016	\$ 70.00	CRAIGSLIST - EMPLOYMENT AD
3/18/2016	\$ 70.00	CRAIGSLIST - EMPLOYMENT AD

CHECK #	52094
AMOUNT	\$ 140.00

FIRST BANKCARD VISA BREAKDOWN
 APRIL, 2016

NEW ACCOUNT

DATE OF CHARGE	AMOUNT	PURPOSE
3/19/2016	\$ 24.87	AMAZON - TRIPOD
3/22/2016	\$ 893.97	AMAZON - CAMERA AND BACKPACK
3/21/2016	\$ 481.97	SOUTHWEST AIRLINES - TOM KENNEDY - CONFERENCE
3/29/2016	\$ 19.95	FILEMAKER HOSTING PROS - STARTER KIT
3/31/2016	\$ 21.99	76 GAS - CARWASH - TOM KENNEDY
4/14/2016	\$ 571.96	SOUTHWEST AIRLINES - TOM KENNEDY - SWRCB MEETING
4/16/2016	\$ 78.44	THE GOLDEN EGG - GENERAL MANAGERS MEETING
CHECK #	52093	
AMOUNT	\$ 2,093.15	

FIRST BANKCARD VISA BREAKDOWN

APRIL, 2016

NEW ACCOUNT

DATE OF CHARGE	AMOUNT	PURPOSE
3/22/2016	\$ 34.98	DOTSTER TEAM - WEB ADDRESS
4/5/2016	\$ 24.50	SAN DIEGO COUNTY RECORDER FEES
4/8/2016	\$ 522.31	RIDGE TOOL CO. - FREEZE MACHINE REPAIRS
4/11/2016	\$ 111.63	BATTERIES + BULBS - REPLACEMENT BATTERIES
4/13/2016	\$ 116.49	ID ZONE SOUTH - BADGE DESIGN SOFTWARE
4/14/2016	\$ 687.00	FRED PRYOR SEMINAR - SHERRY KIRKPATRICK, DARREN MILNER, MICHAEL POWERS
CHECK #	52095	
AMOUNT	\$ 1,496.91	

AMERICAN EXPRESS BREAKDOWN
APRIL, 2016

NEW ACCOUNT

DATE OF CHARGE	AMOUNT	VENDOR & PURPOSE
04/23/16	\$ 2,247.57	ABCANA INDUSTRIES - HYPOCHLORITE
04/19/16	\$ 356.25	AMAZON - HUNTLEY PUMP STATION - SCADA PANEL REPLACEMENT
04/19/16	\$ 139.50	AMAZON - HEAVY DUTY RUBBER PAILS
04/21/16	\$ 69.34	AMAZON - TOOLS FOR METER TRUCKS
03/31/16	\$ 944.63	AMAZON - SCANNER FOR FINANCE
03/31/16	\$ 155.03	AMAZON - WIRELESS BACKUP CAMERAS
04/25/16	\$ 2,400.00	ATLAS PUMPING - MONTHLY BIN RENTAL
04/05/16	\$ 200.00	BROWN AND CALDWELL - RECRUITMENT ADVERTISEMENT
04/05/16	\$ 302.50	CORELOGIC - REALQUEST MAP SEARCH, MORTGAGE DATA AND PROPERTY DETAIL DATA - MARCH
04/15/16	\$ (175.00)	CREDIT DUE - CYNTHIA GRAY - GRADE 1 WATER USE EFFICENCY WORKSHOP
04/22/16	\$ 2,014.92	BRADY SAND - CLASS II BASE
04/19/16	\$ 75.00	CULLIGAN - WATER SOFTNER
04/26/16	\$ 15.57	W.W. GRAINGER - STRAINERS
04/26/16	\$ 351.15	W.W. GRAINGER - LIFT STAION 1 - PILOT LIGHT
04/26/16	\$ 131.35	W.W. GRAINGER - ACRYLIC ENAMEL
04/01/16	\$ 139.32	HOME DEPOT - BATTERY
04/02/16	\$ 433.83	HOME DEPOT - TOOL FOR TRUCK #44
04/26/16	\$ 24,753.62	NATIONAL METER - 3/4", 1" 1/12" METER W/ITRON - 100WATT ERT
04/23/16	\$ 1,560.82	OFFICE DEPOT - CHAIR, TRANSFER BELT, TONER, DAILY PLANNER, SHREDER, PENS, LETTER TRAY, ORGANIZER, 3-TIER SHELF
04/25/16	\$ 8,778.69	PACIFIC PIPELINE - 12" GATE VALVE, RESIDENTIAL FIRE HYDRANT
04/13/16	\$ 27,912.00	PALOMAR BACKFLOW - BACKFLOW CERTIFICATIONS
04/27/16	\$ 5,529.00	PROCOPIO, CORY, HARGREAVES & SAVITCH LLP - LEGAL SERVICES - WATER
04/27/16	\$ 2,166.00	PROCOPIO, CORY, HARGREAVES & SAVITCH LLP - LEGAL SERVICES - LABOR & EMPLOYMENT
04/27/16	\$ 912.00	PROCOPIO, CORY, HARGREAVES & SAVITCH LLP - LEGAL SERVICES - WATER
04/23/16	\$ 1,094.20	PRUDENTIAL OVERALL - MONTHLY UNIFORMS
04/23/16	\$ 415.89	PRUDENTIAL OVERALL - MATS & MISC
03/31/16	\$ 420.00	SHRM'S JOB POSTING
03/31/16	\$ 7.48	THE TOLL ROADS - TOLL FEE
04/27/16	\$ 72.00	TOWNE CLEANERS - VEST REPAIRS
04/05/16	\$ 50.22	VILLAGE PIZZA - LUNCHESES FOR CUSTOMER SERVICE PANEL
04/21/16	\$ 1,309.64	WALMART - EMPLOYEE RELATIONS - SAFETY DAY
04/21/16	\$ 287.52	SAM'S CLUB - EMPLOYEE RELATIONS - SAFETY DAY
04/20/16	\$ 1,787.35	WESTERN WATER WORKS - 6" RING GASKETS, 8" DRESSER COUPLINGS, 2" BRASS 90,ISER BREAK-AWAY

CHECK # 52091

AMOUNT \$ 86,857.39

FY 2015-2016

Disbursement Date	Description	Bob Lucy-21	Jack Griffiths-22	Dennis Sanford-25	Helene Brazier-27	Tory Walker-29	Richard Bigley	William Stewart	Paul Christensen
07/31/15	CAL PERS - HEALTH INS.								\$ 340.62
	ASSURANT - DENTAL INS.								
	CSDA,SAN DIEGO CHAPTER								
	WATER AGENCIES ASSOC OF S.D.								
	COUNCIL OF WATER UTILITIES					\$ 25.00			
	DIRECTORS' MEETINGS	\$ 300.00	\$ 300.00	\$ 300.00	\$ 300.00	\$ 300.00			
	MILEAGE EXPENSE								
	REIMBURSEMENT FROM DIRECTORS								\$ (340.62)
	Monthly Totals	\$ 300.00	\$ 300.00	\$ 300.00	\$ 300.00	\$ 325.00			\$ -
08/31/15	CAL PERS - HEALTH INS.								\$ 340.56
	ASSURANT - DENTAL INS.								
	CSDA,SAN DIEGO CHAPTER			\$ 456.20					
	WATER AGENCIES ASSOC OF S.D.								
	COUNCIL OF WATER UTILITIES								
	DIRECTORS' MEETINGS								
	MILEAGE EXPENSE								
	REIMBURSEMENT FROM DIRECTORS								\$ (340.56)
	Monthly Totals	\$ -	\$ -	\$ 456.20	\$ -	\$ -			\$ -
09/30/15	CAL PERS - HEALTH INS.								\$ 340.56
	ASSURANT - DENTAL INS.								
	CSDA,SAN DIEGO CHAPTER								
	WATER AGENCIES ASSOC OF S.D.								
	COUNCIL OF WATER UTILITIES					\$ 25.00			
	DIRECTORS' MEETINGS	\$ 300.00	\$ 300.00	\$ 450.00	\$ 300.00	\$ 450.00			
	MILEAGE AND EXPENSES		\$ 29.34						
	REIMBURSEMENT FROM DIRECTORS								\$ (340.56)
	Monthly Totals	\$ 300.00	\$ 329.34	\$ 450.00	\$ 300.00	\$ 475.00			\$ -
10/31/15	CAL PERS - HEALTH INS.								\$ 340.56
	ASSURANT - DENTAL INS.								
	CSDA,SAN DIEGO CHAPTER								
	WATER AGENCIES ASSOC OF S.D.								
	COUNCIL OF WATER UTILITIES								
	DIRECTORS' MEETINGS		\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00			
	MILEAGE AND EXPENSES			\$ 175.34					
	REIMBURSEMENT FROM DIRECTORS								\$ (340.56)
	Monthly Totals	\$ -	\$ 150.00	\$ 325.34	\$ 150.00	\$ 150.00			\$ -
11/30/15	CAL PERS - HEALTH INS.								\$ 340.56
	ASSURANT - DENTAL INS.								
	CSDA,SAN DIEGO CHAPTER			\$ 35.96					
	WATER AGENCIES ASSOC OF S.D.								
	COUNCIL OF WATER UTILITIES								
	DIRECTORS' MEETINGS	\$ 300.00	\$ 450.00	\$ 900.00	\$ 450.00	\$ 600.00			
	MILEAGE EXPENSE								
	REIMBURSEMENT FROM DIRECTORS								\$ (340.56)
	Monthly Totals	\$ 300.00	\$ 450.00	\$ 935.96	\$ 450.00	\$ 600.00			\$ -
12/31/15	CAL PERS - HEALTH INS.								\$ 340.56
	ASSURANT - DENTAL INS.								
	CSDA,SAN DIEGO CHAPTER								
	WATER AGENCIES ASSOC OF S.D.								
	COUNCIL OF WATER UTILITIES								
	DIRECTORS' MEETINGS	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00			
	MILEAGE EXPENSE								
	REIMBURSEMENT FROM DIRECTORS								\$ (340.56)
	Monthly Totals	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00	\$ 150.00			\$ -

FY 2015-2016

Disbursement Date	Description	Bob Lucy-21	Jack Griffiths-22	Dennis Sanford-25	Helene Brazier-27	Tory Walker-29	Richard Bigley	William Stewart	Paul Christensen
01/31/16	CAL PERS - HEALTH INS. ASSURANT - DENTAL INS. CSDA,SAN DIEGO CHAPTER CSDA TRAINING COUNCIL OF WATER UTILITIES DIRECTORS' MEETINGS MILEAGE EXPENSE REIMBURSEMENT FROM DIRECTORS	\$ -	\$ 150.00	\$ 300.00	\$ 150.00	\$ 25.00 \$ 300.00			\$ 340.56
	Monthly Totals	\$ -	\$ 150.00	\$ 300.00	\$ 150.00	\$ 325.00			\$ (340.56)
02/28/16	CAL PERS - HEALTH INS. ASSURANT - DENTAL INS. CSDA,SAN DIEGO CHAPTER CSDA TRAINING COUNCIL OF WATER UTILITIES DIRECTORS' MEETINGS MILEAGE EXPENSE REIMBURSEMENT FROM DIRECTORS		\$ 150.00 \$ 9.18	\$ 300.00	\$ 150.00	\$ 25.00 \$ 300.00			\$ 340.56
	Monthly Totals	\$ -	\$ 159.18	\$ 300.00	\$ 150.00	\$ 325.00			\$ (340.56)
03/31/16	CAL PERS - HEALTH INS. ASSURANT - DENTAL INS. CSDA TRAINING WATER AGENCIES ASSOC OF S.D. COUNCIL OF WATER UTILITIES DIRECTORS' MEETINGS MILEAGE EXPENSE REIMBURSEMENT FROM DIRECTORS			\$ 300.00	\$ 450.00	\$ 25.00 \$ 600.00	\$ 150.00	\$ 150.00	\$ 340.56
	Monthly Totals	\$ -	\$ -	\$ 300.00	\$ 450.00	\$ 625.00	\$ 150.00	\$ 150.00	\$ (340.56)
04/30/16	CAL PERS - HEALTH INS. ASSURANT - DENTAL INS. CSDA,SAN DIEGO CHAPTER WATER AGENCIES ASSOC OF S.D. COUNCIL OF WATER UTILITIES DIRECTORS' MEETINGS MILEAGE EXPENSE REIMBURSEMENT FROM DIRECTORS								
	Monthly Totals	\$ -	\$ -	\$ -	\$ -	\$ -			\$ -
05/31/16	CAL PERS - HEALTH INS. ASSURANT - DENTAL INS. VALLEY CENTER MWD CSDA-SAN DIEGO CHAPTER COUNCIL OF WATER UTILITIES DIRECTORS' MEETINGS MILEAGE EXPENSE REIMBURSEMENT FROM DIRECTORS								
	Monthly Totals	\$ -	\$ -	\$ -	\$ -	\$ -			\$ -
06/30/16	CAL PERS - HEALTH INS. COUNCIL OF WATER UTILITIES VALLEY CENTER MWD WATER AGENCIES ASSOC OF S.D. COUNCIL OF WATER UTILITIES DIRECTORS' MEETINGS MILEAGE EXPENSE REIMBURSEMENT FROM DIRECTORS								
	Monthly Totals	\$ -	\$ -	\$ -	\$ -	\$ -			\$ -

Bank Reconciliation

Board Audit

User: trakusan
 Printed: 05/11/2016 - 2:56PM
 Date Range: 04/01/2016 - 04/30/2016
 Systems: 'AP'



Check No.	Vendor/Employee	Transaction Description	Date	Amount
Fund: 01 WATER FUND				
Department: 00				
0	EUGENE BUCKLEY	Reimburse Retired Employee Health I	04/26/2016	363.00
0	KEVIN MILLER	Reimburse Retired Employee Health I	04/11/2016	726.00
51940	AMERICAN EXPRESS	Galvanized Mushroom Vent Cap	04/06/2016	43,780.84
51951	ASSURANT EMPLOYEE BENEFITS	Life & Long Term Disability	04/11/2016	3,826.57
51954	BORDER PRODUCTS CORP.	Speedcrete Red Line Mortar, Premixc	04/11/2016	1,446.77
51957	CHARLES C. SNEED	Reimburse Retired Employee Health I	04/11/2016	363.00
51965	DAVID SEYMOUR	Reimburse Retired Employee Health I	04/11/2016	363.00
51969	EUGENE BUCKLEY	Reimburse Retired Employee Health I	04/11/2016	363.00
51988	PLIC-SBD GRAND ISLAND	Monthly Dental Insurance	04/11/2016	6,938.26
51993	SAN DIEGO COUNTY WATER AUT	Refund/Deposits Collected on Meter S	04/11/2016	153,600.00
52003	UNUM LIFE INSURANCE	Monthly Short Term Disability	04/11/2016	600.00
52013	JOHN CLODIG	Refund for Overpayment on Account	04/20/2016	340.06
52027	CB&T / ACWA-JPIA	Monthly Vision Insurance	04/26/2016	209,188.18
52043	FERGUSON WATERWORKS #1083	Ring Gasket, Tee	04/26/2016	11,052.96
52058	PLIC-SBD GRAND ISLAND	Monthly Dental Insurance	04/26/2016	6,807.85
52064	SHERRY MULLENNIX	Reimburse Retired Employee Health I	04/26/2016	600.00
52080	HAMANN CONSTRUCTION	Refund for Construction Meter	04/28/2016	1,492.54
52081	KIRTLEY CONSTRUCTION, INC.	Refund for Construction Meter	04/28/2016	1,825.00
52082	MISSION RESOURCE CONS. DISTI	Refund on Construction Meter	04/28/2016	1,587.14
52083	MISTY FISHER	Refund on Construction Meter	04/28/2016	1,475.34
52084	MLA GENERAL CONTRACTOR IN	Refund on Construction Meter	04/28/2016	1,807.00
52085	Peter's Paving & Grading, Inc.	Refund on Construction Meter	04/28/2016	1,462.44
52086	RAMONA PAVING & CONSTRUCT	Refund on Construction Meter	04/28/2016	1,825.00
52087	SCOTT MULLALY	Refund on Construction Meter	04/28/2016	1,587.14
52088	SOUTHLAND PAVING, INC.	Refund on Construction Meter	04/28/2016	1,389.34
52089	T.C. CONSTRUCTION CO., INC.	Refund on Construction Meter	04/28/2016	1,432.34
52090	TNT BLANCHARD GENERAL ENG	Refund on Construction Meter	04/28/2016	1,364.39
Total for Department: 00				457,607.16
Department: 31 PUMPING				
51940	AMERICAN EXPRESS	LED Floodlights	04/06/2016	483.91
51944	HOME DEPOT	Electrical Tape, Round Box	04/06/2016	73.06
51960	CONSOLIDATED ELECTRIC	Pump Station 1, Pump 7 Replacement	04/11/2016	367.20
52063	SAN DIEGO GAS & ELECTRIC	Monthly Gas & Electric Service	04/26/2016	29,090.06
Total for Department: 31 PUMPING				30,014.23
Department: 32 OPERATIONS				
51940	AMERICAN EXPRESS	Hypochlorite	04/06/2016	2,472.32
51944	HOME DEPOT	Unit #36 - Tool Box	04/06/2016	9.69
51948	AMERICAN FENCE CO, INC	Delivery of Temporary Fence	04/11/2016	500.00
51955	BP BATTERY	Rice Tank - Battery	04/11/2016	596.17
51964	D & H WATER SYSTEMS INC	Morro CL2 Station and Magee Injectic	04/11/2016	666.21
51971	FALLBROOK OIL CO	Fuel Deliveries	04/11/2016	10,165.46
51974	HACH	Renewal of Service Contract for CL-1'	04/11/2016	2,160.00
51994	SAN DIEGO GAS & ELECTRIC	Monthly Electric Service	04/11/2016	9.24
52014	ACOPIAN TECHNICAL COMPANY	Power Supply	04/26/2016	313.11
52025	BABCOCK LABORATORIES, INC	Monthly Water Analysis	04/26/2016	1,485.00

Check No.	Vendor/Employee	Transaction Description	Date	Amount
52054	ONESOURCE DISTRIBUTORS, LLC	Pala Mesa Tank - Parts	04/26/2016	133.56
52057	PETTY CASH	Anchor - Mushroom 15LBS.	04/26/2016	42.11
52060	RAIN FOR RENT RIVERSIDE	CWA Shutdown Temporary Booster Pt	04/26/2016	70,871.85
52063	SAN DIEGO GAS & ELECTRIC	Monthly Gas & Electric Service	04/26/2016	4,901.52
52069	TESCO CONTROLS, INC.	Pala Mesa Tank - Level Transmitter	04/26/2016	822.00
Total for Department: 32 OPERATIONS				95,148.24
Department: 33 VALVE MAINTENANCE				
51978	JOE'S HARDWARE	Lumber	04/11/2016	15.01
52033	CROP PRODUCTION SVC INC,	Line Head, 5LBS. Square Gator	04/26/2016	133.47
52040	FALLBROOK EQUIPMENT RENTA	1 Yard Sack Mix Concrete	04/26/2016	313.20
Total for Department: 33 VALVE MAINTENANCE				461.68
Department: 34 WATER DISTRIBUTION				
51940	AMERICAN EXPRESS	Ladders for Construction	04/06/2016	6,719.04
51945	TRAFFIC SAFETY SOLUTIONS, LL	Traffic Control	04/06/2016	4,235.00
51947	AIRGAS USA, LLC	Oxygen Exchange, Acetylene	04/11/2016	703.73
51950	ART'S TRENCH PLATE &	Trench Plate Rental	04/11/2016	390.60
51952	BOARD OF EQUALIZATION	1st Quarter 2016 Road Use Tax	04/11/2016	186.39
51963	CROP PRODUCTION SVC INC,	14" Metal	04/11/2016	129.09
51979	JOE'S PAVING CO, INC	Asphalt Repairs on Three Sites	04/11/2016	10,635.80
52002	UNDERGROUND SERVICE ALERT	Locate Utilities	04/11/2016	112.50
52007	WEST COAST GEOTECHNICAL, IN	Laboratory Testing, Review & Sign Le	04/11/2016	792.00
52008	WEST COAST SAFETY SUPPLY CO	Hi-Line Hose and Ramps	04/11/2016	10,031.66
52019	ART'S TRENCH PLATE &	Trench Plate Rental	04/26/2016	410.00
52034	CWEA	Annual Memebership Renewal - John	04/26/2016	164.00
Total for Department: 34 WATER DISTRIBUTION				34,509.81
Department: 35 METER SERVICES				
51940	AMERICAN EXPRESS	Backflow Certifications	04/06/2016	25,774.39
Total for Department: 35 METER SERVICES				25,774.39
Total for Fund:01 WATER FUND				643,515.51

Check No.	Vendor/Employee	Transaction Description	Date	Amount
Fund: 02 SEWER FUND				
Department: 00				
51959	CITY OF OCEANSIDE	Sewer Treatment - April 2016	04/11/2016	63,836.54
52028	CITY OF OCEANSIDE	Sewer Treatment - May 2016	04/26/2016	63,836.54
Total for Department: 00				127,673.08
Department: 61 WASTEWATER				
51940	AMERICAN EXPRESS	2015 Out of State Sales Tax	04/06/2016	314.35
51990	RAIN FOR RENT RIVERSIDE	Sewer Bypass Pump	04/11/2016	6,319.05
51991	RHO MONSERATE C.C.H.A.	Electric Charge	04/11/2016	369.97
51994	SAN DIEGO GAS & ELECTRIC	Monthly Electric Service	04/11/2016	12.00
52006	WEST COAST AUTO REGISTRATIC	License and Registration for New Was	04/11/2016	80.00
52016	AIRGAS USA, LLC	Monthly Agreement	04/26/2016	108.24
52018	AMERIGAS - TEMECULA	Propane Gas	04/26/2016	694.40
52025	BABCOCK LABORATORIES, INC	Monthly Water Analysis	04/26/2016	155.00
52030	CONTROL MAINT & REPAIR INC	Thermographic Imaging for All Lift St	04/26/2016	1,275.00
52031	COUNTY OF SAN DIEGO-DPW	Road Permits	04/26/2016	627.50
52033	CROP PRODUCTION SVC INC,	Chain, Line Head	04/26/2016	83.15
52034	CWEA	Annual Memebership Renewal - Ed B	04/26/2016	164.00
52048	JOHNSON POWER SYSTEMS	Lift Station 4 - Tune-up Generator	04/26/2016	2,548.05
52073	UTILITY SYSTEMS SCIENCE & SO	Stallion - Sensor Calibration Kit	04/26/2016	1,252.80
Total for Department: 61 WASTEWATER				14,003.51
Total for Fund:02 SEWER FUND				141,676.59

Check No.	Vendor/Employee	Transaction Description	Date	Amount
Fund: 03 GENERAL FUND				
Department: 00				
52027	CB&T / ACWA-JPIA	Monthly Health and Vision Insurance	04/26/2016	9,310.26
Total for Department: 00				9,310.26
Department: 20 BOARD				
51940	AMERICAN EXPRESS	Director Stewart - ACWA Conference	04/06/2016	1,123.56
51941	FIRST BANKCARD	Robert's Rules of Order	04/06/2016	22.32
Total for Department: 20 BOARD				1,145.88
Department: 25 SANFORD-BOARD MEMBER				
51940	AMERICAN EXPRESS	Director Sanford - 2016 CSDA Legislat	04/06/2016	456.96
Total for Department: 25 SANFORD-BOARD MEM				456.96
Department: 29 WALKER-BOARD MEMBER				
51961	COUNCIL OF WATER UTILITIES	Tory Walker's Attendance at COWU M	04/11/2016	25.00
Total for Department: 29 WALKER-BOARD MEMB				25.00
Department: 36 GARAGE				
51940	AMERICAN EXPRESS	Replacement Springs Kit for Pneumati	04/06/2016	576.03
51944	HOME DEPOT	Upright Broom, Sponges, Steel Wool	04/06/2016	49.45
51966	DION INTERNATIONAL	Unit #72 - Diagnose and Repair	04/11/2016	3,110.73
51967	EAGLE EYE FABRICATION.COM	Unit #32 - Utility Box	04/11/2016	875.00
51970	FALLBROOK AUTO PARTS	Idler Pulley, Tensioner Assembly	04/11/2016	566.38
51971	FALLBROOK OIL CO	Fuel Deliveries	04/11/2016	4,368.54
51973	FLYERS ENERGY LLC	Fleet Oil	04/11/2016	1,222.53
51976	HAWTHORNE MACHINERY COMF	Unit #105 - Pin	04/11/2016	163.54
51984	NETWORK FLEET, INC.	Monthly Airtime Charges for GPS Tra	04/11/2016	780.00
51986	PARKHOUSE TIRE, INC.	Unit #110 - O.T.R. Road Service	04/11/2016	206.34
51989	QUALITY CHEVROLET	Unit #23 - Hoses and Connectors	04/11/2016	188.48
52001	THE LIGHTHOUSE	Unit #4 - LED Work Lights	04/11/2016	256.63
52029	COMMUNICATIONS SERVICES	Unit #3 - UHF Mobile Radio, Antenna	04/26/2016	562.03
52039	FALLBROOK AUTO PARTS	Unit #73 - Switch, W W Solvent	04/26/2016	257.87
52041	FALLBROOK OIL CO	Fuel Deliveries	04/26/2016	3,318.01
52046	FORD OF ESCONDIDO	Unit #36 - Kit	04/26/2016	52.44
52051	MK DIAMOND PRODUCTS, INC	Water Tank with Hoses and Valve	04/26/2016	192.96
52055	PARKHOUSE TIRE, INC.	Unit #75 - Rear Tires, Labor	04/26/2016	2,568.15
52057	PETTY CASH	Reimburse Rene DelRio for Parts	04/26/2016	3.51
52061	SAFETY-KLEEN	Parts Washer, Brake Cleaner	04/26/2016	397.47
52079	COMMUNICATIONS SERVICES	Unit #32 - New Fleet Truck Radio	04/28/2016	692.15
Total for Department: 36 GARAGE				20,408.24
Department: 41 ADMINISTRATION/HR				
0	ACCELA, INC. #774375	RMWD Program Changes	04/26/2016	332.50
0	RUTAN & TUCKER, LLP	Professional Services Through Februa	04/11/2016	737.50
51940	AMERICAN EXPRESS	Credit Due	04/06/2016	13,495.55
51941	FIRST BANKCARD	I15 Fastrak Replenishment	04/06/2016	162.43
51942	FIRST BANKCARD	Lunch - OPS Manager Interview Panel	04/06/2016	1,799.33
51943	FIRST BANKCARD	Amazon - Proximity Card	04/06/2016	1,168.88
51944	HOME DEPOT	Lamp for Flag	04/06/2016	30.21
51946	ACCELA, INC. #774375	RMWD Program Changes	04/11/2016	8,287.50
51953	BONSALL PEST CONTROL	Monthly Pest Control	04/11/2016	90.00
51956	CAPITAL ONE COMMERCIALS	Miscellaneous Kitchen Supplies, Batte	04/11/2016	848.72
51961	COUNCIL OF WATER UTILITIES	Tom Kennedy's Attendance at COWU	04/11/2016	25.00
51962	COVERALL NORTH AMERICA, INC	Monthly Service	04/11/2016	995.00
51968	ED SHOBE PLUMBING	Snake Urinal - Bldg. #2	04/11/2016	110.00

Check No.	Vendor/Employee	Transaction Description	Date	Amount
51972	FALLBROOK WASTE AND RECYC	Monthly Refuse and Recycle	04/11/2016	335.55
51981	MITEL LEASING	Lease Agreement	04/11/2016	575.70
51982	MODULAR BUILDING CONCEPTS	Rental Agreement	04/11/2016	726.84
51983	NATIONAL SAFETY COMPLIANC	DOT Certified Drug Testing	04/11/2016	79.95
51985	OCCUPATIONAL HEALTH CENTE	DOT Physical Recertification	04/11/2016	420.00
51987	PITNEY BOWES INC.	Postage Machine Supplies	04/11/2016	367.18
51992	SAN DIEGO COUNTY FARM BURE	Regional Agricultural Water Managem	04/11/2016	4,637.50
51994	SAN DIEGO GAS & ELECTRIC	Monthly Electric Service	04/11/2016	150.89
51996	SHERRY KIRKPATRICK	Reimbursement for Furniture Purchase	04/11/2016	2,120.04
51997	SOUTHWEST ANSWERING SERVI	Monthly Answering Service	04/11/2016	794.89
52000	TEMECULA TROPHY CO.	Name Plates - Director Bigley & Stew	04/11/2016	80.31
52004	VILLAGE NEWS	Publication of Resolution	04/11/2016	300.00
52009	WESTERN LANDSCAPE MAINT PI	Landscape Maintenance Service	04/11/2016	483.00
52010	XEROX CORP.	Monthly Lease	04/11/2016	1,351.38
52020	AT&T	Monthly Phone Service	04/26/2016	167.58
52021	AT&T	Monthly Phone Service	04/26/2016	531.94
52022	AT&T LONG DISTANCE	Monthly Phone Service	04/26/2016	16.05
52032	COVERALL NORTH AMERICA, IN	Restroom and Kitchen Cleaning Suppl	04/26/2016	922.09
52035	DATAPROSE INC.	Monthly Newsletters	04/26/2016	1,299.92
52036	DELL BUSINESS CREDIT	Associate Engineer PC	04/26/2016	1,482.96
52042	FEDEX	Delivery Service	04/26/2016	85.89
52047	IMAGE SOURCE	Monthly Copy Count	04/26/2016	341.06
52050	MIDGE THOMAS	Reimbursement for Lost Interest - Def	04/26/2016	261.64
52053	OCCUPATIONAL HEALTH CENTE	DOT Regulation Random	04/26/2016	41.00
52054	ONESOURCE DISTRIBUTORS, LLC	Lights	04/26/2016	194.08
52057	PETTY CASH	Reimburse Dawn Washburn for Certifi	04/26/2016	133.33
52059	RAFTELIS FINANCIAL CONSULTA	Professional Services for March 2016	04/26/2016	2,575.00
52062	SAN DIEGO COUNTY ASSESSOR/I	Acct #34-1239-0 - Recording Fee for I	04/26/2016	13.00
52065	SHRED-IT USA LLC	Service Agreement	04/26/2016	121.28
52066	SPECIAL DISTRICT RISK	Property/Liability Insurance	04/26/2016	504.10
52067	STREAMLINE	Monthly Web Management Fee	04/26/2016	300.00
52071	TIME WARNER CABLE	Monthly Internet Connection	04/26/2016	1,250.00
52074	VERIZON WIRELESS	Monthly Cellular Service	04/26/2016	2,350.52
52076	XEROX FINANCIAL SERVICES	Monthly Lease	04/26/2016	567.14
Total for Department: 41 ADMINISTRATION/HR				53,664.43
Department: 43 SAFETY				
0	MSDSOONLINE, INC.	Annual Service Agreement	04/11/2016	499.00
51940	AMERICAN EXPRESS	4 Cycle Fuel	04/06/2016	1,078.92
51958	CHRIS HAND	Reimbursement for Work Safety Boots	04/11/2016	150.00
51995	SEARCH GEAR INTERNATIONAL,	Addition to Confined Space Rescue G	04/11/2016	686.46
51998	T.R.Y. ENTERPRISES, INC.	Patrol Services - Huntley Pump Station	04/11/2016	985.00
52005	WAYNE NAULT	Reimbursement for Work Safety Boots	04/11/2016	150.00
52015	AIRGAS SAFETY INC	Two-Tone Vests	04/26/2016	1,201.84
52017	ALL THINGS FALLBROOK	Employee Relations - T-Shirts for Saf	04/26/2016	591.55
52026	CABELA'S, INC	Flotation Vests, Fixed Blade Knives	04/26/2016	226.79
52044	FIREHAWK FIRE AND SAFETY	Annual Recertification of District Fire	04/26/2016	1,633.37
Total for Department: 43 SAFETY				7,202.93
Department: 51 FINANCE				
52035	DATAPROSE INC.	Monthly Mailing of Water Bills and N	04/26/2016	2,862.84
52068	TAMMY RAKUSAN	Reimburse Tammy Rakusan for Lunch	04/26/2016	62.30
Total for Department: 51 FINANCE				2,925.14
Department: 52 CUSTOMER SERVICE				
51980	MISSION RESOURCE CONSERVAT	Home Water Use Evaluations - March	04/11/2016	250.00
51999	TCN, INC	Monthly 48 Hour Notice Calls	04/11/2016	18.28
52035	DATAPROSE INC.	Monthly Mailing of Water Bills and N	04/26/2016	2,698.15

Check No.	Vendor/Employee	Transaction Description	Date	Amount
Total for Department: 52 CUSTOMER SERVICE				2,966.43
Department: 91 ENGINEERING				
51940	AMERICAN EXPRESS	Property Detail Report	04/06/2016	215.39
51977	HOCH CONSULTING	Prepared WPCP, Encroachment Permi	04/11/2016	4,350.00
52023	ATKINS NORTH AMERICA, INC	Water/WasteWater Master Plan 2015 U	04/26/2016	28,793.64
52052	NOBEL SYSTEMS	Springbrook Integration, GIS Updates	04/26/2016	9,450.00
52056	PETERS PAVING & GRADING	Parking Lot Expansion	04/26/2016	37,190.60
52075	WEST COAST GEOTECHNICAL, IN	Compaction Survery for District Parki	04/26/2016	394.00
Total for Department: 91 ENGINEERING				80,393.63
Total for Fund:03 GENERAL FUND				178,498.90

Check No.	Vendor/Employee	Transaction Description	Date	Amount
Fund: 52 SEWER CAPITAL REPLACEMENT				
Department: 00				
52023	ATKINS NORTH AMERICA, INC	Water/WasteWater Master Plan 2015 U	04/26/2016	28,793.64
52045	FIRST AMERICAN TITLE INSURAN	Preliminary Titel Report for Property /	04/26/2016	1,000.00
52049	KENNEDY/JENKS CONSULTANTS	Lift Station 1 Replacement	04/26/2016	34,165.00
				63,958.64
Total for Department: 00				63,958.64
				63,958.64
Total for Fund:52 SEWER CAPITAL REPLACEMEN				63,958.64

Check No.	Vendor/Employee	Transaction Description	Date	Amount
Fund: 53 SEWER CAPITAL EXPANSION				
Department: 00				
51949	AMES CONSTRUCTION, INC	Two 42" Steel Casings - includes labor	04/11/2016	156,479.25
52070	TETRA TECH, INC.	As-Needed Construction Support Serv	04/26/2016	8,721.60
				165,200.85
Total for Department: 00				165,200.85
				165,200.85
Total for Fund:53 SEWER CAPITAL EXPANSION				165,200.85

Check No.	Vendor/Employee	Transaction Description	Date	Amount
Fund: 60 WTR CAP EXPANSION/REPLACEMENT				
Department: 00				
51940	AMERICAN EXPRESS	Legal Services - General	04/06/2016	997.50
52024	B & C CRANE SERVICE, INC.	Deliver Pressure Reducing Station	04/26/2016	580.00
52037	DUDEK	Water Reclamation Plant & Recycled ¹	04/26/2016	16,270.00
52038	EAGLE PAVING	Afton Farms - Seal Coat	04/26/2016	1,870.00
52072	TK CONSTRUCTION	Afton Farms Waterline Extension	04/26/2016	11,203.40
Total for Department: 00				30,920.90
Total for Fund:60 WTR CAP EXPANSION/REPLAC				30,920.90

Check No.	Vendor/Employee	Transaction Description	Date	Amount
		Grand Total		1,223,771.39

OFFICE
 PETTY CASH - 2/9/16 THROUGH 3/21/16
 RECEIPTS:

ITEM #	AMOUNT	GL ACCT NUMBER	PAYEE	DATE	DETAIL
1	15.00	03-41-72000	VICTOR VEENSTRA	3/25/2016	REIMBURSE VICTOR VEENSTRA FOR LUNCH AT TRAINING SEMINAR
2	14.31	03-41-72000	JENN WISE	3/25/2016	REIMBURSE JENN WISE FOR LUNCH AT TRAINING SEMINAR
2	13.23	03-41-72000	BRIAN FONSECA	3/25/2016	REIMBURSE BRIAN FONSECA FOR LUNCH AT TRAINING SEMINAR
3	13.23	03-41-72000	RUBEN LOPEZ	3/25/2016	REIMBURSE RUBEN LOPEZ FOR LUNCH AT TRAINING SEMINAR
4	11.34	03-41-72000	KENNY DIAZ	3/25/2016	REIMBURSE KENNY DIAZ FOR LUNCH AT TRAINING SEMINAR
5	8.27	03-41-56513	DAWN WASHBURN	3/30/2016	REIMBURSE DAWN WASHBURN FOR CERTIFICATES & GOLD SEALS
6	42.11	01-32-72010	MARK CLINE	4/8/2016	ANCHOR - MUSHROOM 15LBS
7	15.00	03-41-72000	JUSTIN DEMARY	4/19/2016	REIMBURSE JUSTIN DEMARY FOR LUNCH AT TRAINING SEMINAR
8	15.00	03-41-72000	ARMANDO LOPEZ	4/19/2016	REIMBURSE ARMANDO LOPEZ FOR LUNCH AT TRAINING SEMINAR
9	15.00	03-41-72000	JENN WISE	4/19/2016	REIMBURSE JENN WISE FOR LUNCH AT TRAINING SEMINAR
10	12.95	03-41-72000	KENNY DIAZ	4/19/2016	REIMBURSE KENNY DIAZ FOR LUNCH AT TRAINING SEMINAR
11	3.51	03-36-63000	RENE DEL RIO	4/20/2016	REIMBURSE RENE DEL RIO FOR PARTS
TOTAL	\$ 178.95				

Comparative Water Sales YTD from Prior Years

FISCAL YEAR 2015-2016

Quantity of Meters	User Code	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Acre Feet
601	AD	29891	26212	33050	25166	24907	20638	12532	10056	19640	18699			507
404	AG	143174	124130	153414	124219	109795	85664	48608	35648	94227	87294			2,310
6	C	4342	3764	4773	2948	1761	665	428	0	0	0			43
221	CM	28620	33259	34668	28374	14569	11399	8431	8591	11738	13519			443
37	CN	6680	7040	5931	3994	5788	3061	1002	1129	781	2559			87
1	D	8	10	10	8	4	6	5	4	5	8			0
24	IS	2773	2779	2486	3073	3299	2641	828	796	2141	1784			52
88	MF	11351	10279	10887	9952	9664	8600	8072	6667	7745	8832			211
326	SC	162756	144892	188145	132002	133998	109284	46707	38985	108085	92783			2,658
1038	SD	245736	213120	257965	197426	188412	162042	82599	57837	154618	131816			3,883
5091	SF	148565	143394	162611	135022	120702	96893	69375	52518	95128	95988			2,572
7837		783896	708879	853940	662184	612899	500893	278587	212231	494108	453282			12,766

FISCAL YEAR 2014-2015

Quantity of Meters	User Code	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Acre Feet
426	A	118146	136346	116938	122567	99702	62354	19943	44790	50073	88589			1,973
341	C	102461	111946	90197	95608	76060	51612	29802	38013	48038	79301			1,660
36	CN	3175	3510	3579	2898	1119	372	1	0	22	1943			38
5558	D	220019	244786	204723	208649	178916	121527	67259	80149	98723	153107			3,622
96	MF	15917	16081	14016	14241	13689	10249	8659	8017	8763	13075			282
323	SC	207708	245358	221301	241409	186106	108701	25015	79139	84982	166849			3,596
1040	SD	284083	332533	282418	297792	260513	165578	46135	109682	137028	236291			4,940
7820		951509	1090560	933172	983164	816105	520393	196814	359790	427629	739155	0	0	16,112

FISCAL YEAR 2013-2014

Quantity of Meters	User Code	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Acre Feet
426	A	130393	132497	140319	122581	96941	51347	71276	81582	56931	61956			2,171
340	C	90317	89194	104313	86744	69704	35242	44886	34899	56147	54616			1,529
36	CN	2965	1618	1737	1857	2284	15	1519	1101	67	798			32
5558	D	225641	246575	245482	210918	178078	101726	123160	142121	107350	114416			3,892
96	MF	14703	17278	17433	14438	14631	9475	11113	9537	9765	9486			294
323	SC	197030	222678	232163	204607	160984	95935	144898	137843	135058	119791			3,790
1040	SD	293327	327443	324488	276743	237162	132450	171852	204192	148580	146423			5,194
7819		954376	1037283	1065935	917888	759784	426190	568704	611275	513898	507486	0	0	16,903



**SEWER EQUIVALENT DWELLING UNITS (EDUs) STATUS REPORT
APRIL 2016**

STATUS SUMMARY	EDUs
Total Treatment Capacity Purchased from Oceanside	8,333.33
Less 5% Contractual Allowance	416.67
EDUs Set Aside by Board for Emergencies	60.00
EDUs Connected	3,897.80
EDUs Unconnected	1,306.04
Total EDUs Available for Purchase:	2,652.83

DEVELOPMENTS WITH UNCONNECTED EDUs	EDUs	CAPACITY FEES PAID
Others (Misc. SFR)	17.20	\$ 251,104
Horse Creek Ridge/ Passarelle	850.57	\$ -
Palomar College	100.00	\$ -
Polo Club (Vista Valley Dev.)	59.85	\$ 1,022,775
Pala Mesa Highlands (Beazer Homes)	124.00	\$ 965,007 *
Golf Green Estates (Dev. Solutions)	102.46	\$ 1,743,180
Lake Vista Estates (Arestad)	2.76	\$ 27,195
Vista Valley Country Club	5.00	\$ 85,450
Silver Holdings	9.00	\$ 153,810
Olive Hill Estates (Pardee Homes)	35.20	\$ 755,378
TOTAL UNCONNECTED:	1,306.04	\$ 5,003,899

*Deferred Total Payment until Building Permits are Issued.

