

CHAPTER 2 GLOBAL PLANT ATTACHMENTS

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1 **BEFORE THE CALIFORNIA**
2 **PUBLIC UTILITIES COMMISSION**

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8 DEPRECIATION
9 Rebuttal Testimony of
10 Earl M. Robinson
11 On Behalf of
12 California Water Service Company
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1 **1. Q. Please state your name and business address.**

2 A. My name is Earl M. Robinson and my business address is AUS Consultants, 792

3 Old Highway 66, Suite 200, Tijeras, New Mexico 87059.

4 **2. Q. Are you the same Earl M. Robinson that provided direct testimony in this**
5 **case?**

6 A. Yes.

7 **Introduction**

8 **3. Q. What is the purpose of your rebuttal testimony?**

9 A. The purpose of my rebuttal testimony is to address the positions taken and
10 statements made by the Division of Ratepayer Advocates (DRA) witness Sung
11 Han. Mr. Han is responsible for “Chapter 8-Depreciation of the DRA’s Company-
12 Wide Report on the Results of Operations of CWS”

13 **4. Q. Are the depreciation proposals set forth in your direct testimony and**
14 **Depreciation Study Reports for this proceeding reasonable and appropriate?**

15 A. Yes. The Company’s proposed depreciation rates, based upon the straight line
16 method, broad group procedure, and average remaining life technique, are well
17 founded and fully supported by a detailed analysis of the history of the
18 Company’s plant in service, net salvage data, and the factors anticipated to
19 impact the Company’s property over the remaining lives of the asset groups.

20 **5. Q. What specific items will your rebuttal testimony address?**

21 A. 1. That the use of the traditional method for recovering future net salvage
22 (inclusive of a cost of removal component) via the annual depreciation rate, *for*

1 **all property accounts**, and its incorporation within the proposed depreciation
2 rate for each depreciable property group is the most sound and fair approach for
3 both ratepayers and the Company for recovering the anticipated level of end of
4 life cost of removal attributable to plant presently providing service to the
5 Company's customers. The ARL depreciation technique most appropriately
6 develops depreciation rates because it considers all factors impacting
7 depreciation rates and thus will most accurately recover the Company's
8 unrecovered total cost over the remaining useful life of the property.

9 2. That the Company's depreciation study reports calculated and
10 presented the segmentation of the Company's book depreciation reserves by
11 recovery component along with account level annual depreciation rates
12 developed in a similar manner (depreciation rates for each recovery component,
13 i.e., plant only, gross salvage, and cost of removal).

14 3. That the Company's past and current treatment of Tank Painting as a
15 Fixed Capital unit of property is consistent with the Uniform System of Accounts
16 and generally accepted accounting principles. CWS, has consistently used its
17 current accounting treatment relative to Tank Painting for numerous (nearly 25)
18 years to record the capitalization of the component cost.

19 **Sung Han Recommendation**

20 **6. Q. Please summarize the recommendations of Mr. Han.**

21 A. There are three primary areas within Mr. Han depreciation recommendations
22 that I will address as follows:

1 1. Relative to cost of removal for Mains and Services, Mr. Han recommends
2 that the cost of removal incurred during the replacement of Mains and Services
3 be included as part of the cost of the newly placed Mains and Services (in
4 circumstances where Mains and Services are being replaced). Furthermore, Mr.
5 Han recommends, if the cost of removal is incurred in conjunction with
6 permanent abandonment, the cost of removal should be expensed.

7 2. Mr. Han recommends that CWS maintain two separate subaccounts for
8 Account 250 Depreciation Reserve, one reflecting the reserve for the recovery of
9 plant investments and the other reflecting the depreciation accrual for future
10 cost of removal.

11 3. Mr. Han recommends that as of 2014, CWS should record Tank Painting
12 as a regulatory asset and amortize it over 15 years, as opposed to a capital
13 property unit investment.

14 **EM Robinson Detailed Response to Sung Hang's Proposals & Methods**

15 **Mains and Services Cost of Removal**

16

17 **7. Q. What is your response to Mr. Han's proposal to charge Mains and Services**
18 **cost of removal to either new installation (if the property is being replaced or**
19 **to expense (if the property is being abandoned)?**

20 A. As previously noted, relative to cost of removal for Mains and Services, Mr. Han
21 recommends that the cost of removal incurred during the replacement of Mains
22 and Services be included as part of the cost the newly replaced Mains and

1 Services. Furthermore, Mr. Han recommends, if the cost of removal is incurred
2 for permanent abandonment, the cost of removal should be expenses.

3 Both of these proposals are inconsistent with public utility generally
4 accepted accounting principles, and more importantly, in conflict with the
5 California Uniform System of Accounts and the NARUC Uniform System of
6 Accounts.

7 Specifically within California, and within the California Uniform System
8 of Accounts for Water Utilities, Class A dated January 1, 1955 Section X-
9 RESERVES B. it states for Account 250-Reserve for Depreciation of Utility
10 Plant:

11 “At the time of retirement of depreciable utility plant in
12 service, this account shall be charged with the book cost of
13 the property retired and the *cost of removal*, and shall be
14 credited with the salvage value and any other amounts
15 recovered, such as insurance.”

16
17 This California USoA statement provides a direct requirement regarding
18 the treatment of cost of removal/retirement (which is the product of property
19 retirements). The intent of the accounting process is to identify and ratably
20 recover such end of life costs along with the property’s original cost investment
21 that is being consumed in providing service to the Company’s customers. The
22 accounting process enables the Company to timely record and account for the
23 applicable expended end of life cost to its books and records. To either charge the
24 cost of removal/retirement to the new plant that is replacing the existing property
25 or to expense it in cases where property is being abandoned, as proposed by Mr.

1 Han, results in an intergenerational inequity either as a result of deferring the
2 recovery to future customers (via the charge to the replacement property) or as a
3 result of charging the cost (expensing) to a single accounting period. In either
4 circumstance, Mr. Han’s proposal fails to properly and ratably charge the plant’s
5 end of life cost to the customers that benefited from the use/consumption over the
6 life of the property.

7 In addition, the California Public Utilities Commission Standard Practice
8 U-4 “Determination of Straight-Line Remaining Life Depreciation Accrual” states
9 on page 5 of the publication “...a basic depreciation objective is that of
10 recovering the original cost of fixed capital (*less estimated net salvage*) [net
11 salvage is gross salvage less cost of removal/retirement] over the useful life of the
12 property by means of an equitable plan of charges [depreciation expense] to
13 operating expenses.....”.

14 Likewise, the NARUC Uniform System of accounts defines “Straight-line
15 remaining life method, as applied to depreciation accounting, means the plan
16 under which the service value of property is charged to operating expenses (and to
17 clearing accounts if used), and credited to the accumulated depreciation account
18 through equal annual charges during its service life. *Remaining life implies that*
19 *estimates of future life and salvage will be reexamined periodically* and that
20 depreciation rates will be corrected to reflect any changes in these estimates.

21 Furthermore on page 18 of the NARUC publication “Public Utility
22 Depreciation Practices” under the topic “Salvage Consideration” it states “Under
23 presently accepted concepts, the amount of depreciation to be accrued over the

1 life of an asset is its original cost less salvage. Net salvage is the difference
2 between gross salvage that will be realized when the asset is disposed of and the
3 cost of retiring it. Positive net salvage occurs when gross salvage exceeds cost of
4 retirement and negative net salvage occurs when cost of retirement exceeds gross
5 salvage. Net salvage is expressed as a percentage of plant retired by dividing the
6 dollars of net salvage by the dollars of original cost of plant retired.”

7 On page 12 of the California U-4 under “Future Net Salvage” it states “In
8 estimating the percent net salvage, past experience, when available from the
9 accounting records, should be determined before arriving at the final estimate.
10 However, future conditions often change materially from the past experience
11 because of reduced salvage value of older units or changed conditions in the
12 salvage market or in cost of removal. Also, the past retirement experience of
13 most utility plant is based on but a small portion of today’s existing plant.”[at
14 ages younger than average service life].

15 In this regard, historical and forecast net salvage studies were performed
16 and included in the study reports for each of the 3 operating areas comprising
17 California Water Service Company’s utility property. The results of the historical
18 net salvage studies fully supports the conservative current proposed estimates for
19 future net salvage included in the depreciation rates for Account 343-Mains and
20 Account 345-Services.

21 In summary, the depreciation rates set forth in CWS’ depreciation
22 exhibits have incorporated the development of annual depreciation rates using
23 the standard average remaining life technique as set forth in the California U-4

1 depreciation manual. Mr. Han's proposal is clearly results oriented driven given
2 that for two accounts, namely, Mains and Services, he proposes an alternative
3 approach for the cost of removal component recovery. That is, for all the other
4 property accounts he makes no specific recommendation as to the development
5 of depreciation rates and the recovery treatment for cost of removal. Absent
6 any specific reference by Mr. Han relative to the treatment for other property
7 accounts it is understood that depreciation rate preparation process
8 incorporated in the Company's filed depreciation studies was accepted by Mr.
9 Han.

10 **8. Q. Do you have other additional comments regard further specific statements**
11 **that Mr. Han made in his Chapter 8 report as it relates to Cost of Removal**
12 **for Mains and Services? Please comment.**

13 A. Yes.

14 **9. Q. On page 8-4 of his Chapter 8 report, Mr. Han states that CWS proposes to**
15 **use a zero percent for cost of removal for East Los Angeles, Hermosa-**
16 **Redondo, Livermore, Los Altos, Marysville, Oroville, Salinas, Stockton,**
17 **Westlake, and Coastal Springs and Lucerne Service Areas of Redwood**
18 **Valley District. Is he correct?**

19 A. No. There were 3 CWS depreciation studies performed, namely for Metro,
20 Valley, and Dominguez. Net salvage for each of the studies was analyzed and net
21 salvage percent proposed across each account within the three separate study
22 areas. Accordingly, for each of the applicable districts within the separate

1 Metro, Valley, and Dominguez studies, the same percentage level of Mains and
2 Services net salvage were incorporated into the proposed depreciation rates.

3 **10. Q. Mr. Han states that the reason for CWS's estimates for the cost of removal**
4 **rations for mains and services are so high (is) because these mains and**
5 **service were installed 40 to 60 years ago. Please comment.**

6 A. The process of net salvage analysis is consistent across all property groups and is
7 in accordance with both standard depreciation analysis procedures and the
8 California U-4 depreciation manual.

9 More importantly, cost of removal always has been and always will be an
10 end of life cost relative to property that has been retired from service. That is,
11 experienced past cost of removal has occurred relative to property being retired
12 from service. Likewise, the relationship of future cost of removal will equally be
13 related to property being retired from service at end of life. If the Company is to
14 experience a life of 40 to 60 years for mains and services, on average,
15 retirements for the property group will have to occur at such ages. In fact, the
16 historical net salvage experience to date has typically occurred at average ages
17 less than average service life. Hence the level of historically experienced net
18 negative salvage is less than the level that can be anticipated in further periods.

19 **11. Q. Mr. Han argues that CWS recorded only a small amount of COR during the**
20 **past five years (\$1.2 million) as compared to gross plant additions of \$114**
21 **million during 2012. Is that a correct or rational comparison?**

1 A. Absolutely not. It is totally apples and oranges. The referenced \$1.2 million is an
2 end of life cost attributable to the retirement of a limited portion of the
3 Company's current plant in service installed years ago. The correct relationship
4 is the cost of removal as a percentage of the level of original cost of book
5 retirements. As retirements in future years continue to grow, the level and
6 percent of cost of removal will grow to ever higher levels. In the meantime, a
7 ratable portion of the estimated future net salvage needs to be incorporated
8 into present day depreciation rates so that customers that are currently
9 consuming the property, in the receipt of service, pay their fair share of the first
10 and end of life cost of the property that is serving them.

11 **12. Q. Lastly, on this subject, Mr. Han argues that current ratepayers should not be**
12 **charged for cost of removal because most of the cost of removal is incurred**
13 **as a part of mains or service replacements and that the cost should be**
14 **recorded to new work. Is he correct?**

15 A. No, the costs of removal charges are not related to new work. By the very
16 definition, cost of removal/retirement is the portion of work and related costs
17 associated with the removal/retirement/disconnection of the property being
18 replaced. The cost "is not" attributable to the far larger cost for the new work
19 portion of the new property currently being placed into service. This is clearly
20 evident by the earlier statement that Mr. Han made regarding the fact that over
21 the past five years the Company expended \$1.2 million on cost of

1 removal/retirement while it spent \$114 million alone during 2012 for new
2 construction.

3 **Mains & Services Depreciation Rate Errors**

4 **13. Q. Notwithstanding the above discussion of the incorrect treatment for Cost of**
5 **Retirement/Removal for Mains and Services, are there other errors in the**
6 **depreciation rates that are contained in Mr. Han’s depreciation rate**
7 **schedules?**

8 A. Yes. On page 8-4 of his Chapter 8 discussion on depreciation Mr. Han stated
9 “DRA has reviewed the depreciation study and CWS’ proposed changes and
10 found them reasonable except the cost of removal ratios for underground
11 facilities, such as Acct. 343 Mains and Acct. 345 Services (Cost of Removal for
12 Mains and Services was discussed just above)”. Accordingly, based upon that
13 statement the plant only depreciation rates relative to Mains and Services for each
14 of the operating districts should be the same as those contained in the AUS
15 depreciation study report and as filed by CWS. They are not. The Plant Only
16 account level depreciation rates for Mains and Service listed on the DRA
17 schedules are considerably less that those proposed by the AUS report. Rebuttal
18 Exhibit EMR-1 summarizes the depreciation rate variances between the AUS
19 Depreciation Study report and those contained on the DRA Exhibits. That is, in
20 reviewing the exhibit it will be noted that for the overwhelming major of the CWS
21 districts, the proposed plant only depreciation rate for Mains and Services (which
22 Mr. Han, in depreciation summary, found them reasonable and acceptable,

1 nevertheless, the depreciation rates for those property groups, in the DRA exhibit,
2 are considerably lower.

3 **Separate Depreciation Reserves By Recovery Component**

4 **14. Q. Mr. Han recommends that CWS maintain two separate subaccounts for**
5 **Account 250 Depreciation Reserve. Please comment.**

6 A. Mr. Han recommends that CWS maintain recommends that CWS maintain two
7 separate subaccounts for Account 250 Depreciation Reserve, one reflecting the
8 reserve for the recovery of plant investments and the other reflecting the
9 depreciation accrual for future cost of removal. However, Mr. Han does not
10 specifically state what amounts are to be recorded in the referenced book
11 reserve sub category.

12 Mr. Han received, reviewed, and should be well aware that within Section
13 1 (Tables 1 and 1a for each district) of each of the AUS Consultants 3
14 depreciation reports titled “California Water Service Company Metro Districts
15 Depreciation Study as of December 31, 2010”; “California Water Service
16 Company-Valley Districts Depreciation Study as of December 31, 2010”,
17 “Dominguez Water Company Depreciation Study as of December 31, 2010” AUS
18 Consultants developed/identified account/sub-account level book depreciation
19 reserves by recovery component plus developed and recommended proposed
20 depreciation rates by recovery component.

21 Each of the applicable book depreciation reserves by recovery component
22 (plant only, gross salvage, and cost of removal) given consideration to all factors

1 affecting the applicable depreciation reserves. For example, with regard to cost of
2 removal, the reserve incorporates both the amounts of accrued depreciation for the
3 recovery of cost of removal as well as the expenditures to date for cost of
4 removal.

5 **Mains & Services Depreciation Rate Errors**

6 **Tank Painting**

7 **15. Q. Why is it appropriate to capitalize subsequent Tank Painting (after the initial**
8 **construction) as a unit of property in the Company fixed capital accounting**
9 **and recover the cost through depreciation expense?**

10 A. Recording Tank Painting as a Fixed Capital unit of property is consistent with the
11 Uniform System of Accounts and generally accepted accounting principles. CWS
12 has consistently used its current accounting treatment for numerous (nearly 25)
13 years to record the capitalization of the construction component cost. During
14 that time period the Company has filed an extensive quantity of filings with the
15 Commission in which the Commission has completed an equally extensive
16 quality of records reviews and routinely accepted the Company's accounting
17 practices.

18 Now in the current rate proceeding, Mr. Han has taken the position that
19 "The plant account instruction allows only the first tank painting to be included
20 in the cost of plant". Mr. Han goes on to state "The instruction for "Structure
21 and Improvement" clearly list "Painting, first" and limits that only the first tank

1 painting is allowed to be included in the plant accounts.” Mr. Han’s position is
2 clearly in error and appears to be results driven.

3 While page 59 of the California Uniform System of Accounts (under 342
4 Reservoirs and Tanks does have a parenthetical (See Utility Plant Instruction 10)
5 note, the note is referenced to Structures and Improvements and list such items
6 as Ash Pits, Boilers, Bulkheads, Chimneys, Drainage and Sewer Systems,
7 Elevators, Floor Coverings, Lighting Fixtures, Painting-first, Powerboards, Storm
8 Windows and Doors, Tunnels-Intake and Discharge, etc. In other words, the true
9 intent of the footnote is related to Building Structures and Improvements and
10 not Reservoirs and Tanks. Reservoirs and Tanks have none of the above
11 referenced components. Furthermore, it is very logical that the capitalization of
12 buildings would include the “first painting” only given that painting would not be
13 a unit of property, is limited in scope in comparison to the building cost, and
14 therefore for would be expensed when repainted.

15 Conversely, Water Storage Tanks have major coating systems that are
16 identified as a unit of property, are a material portion of the tank construction,
17 and are required to be renewed for the property to achieve its useful life.

18 The California Uniform System of Accounts does not limit the cost to only
19 the first painting of Reservoirs and Tanks. The list of items in the US of A (under
20 Utility Plant Instruction 10) is a representative sample, not necessary all inclusive,
21 of the items to be included in the depreciable property group. As noted above, the
22 category “Painting, First” is contained under Buildings. Reservoirs and Tanks are

1 clearly not Buildings, and there is no such listing of “Painting, First” on page 60
2 of the USoA that lists representative property components for Account 342
3 Reservoirs and Tanks.

4 Furthermore, California Utility Plant Instruction 12 includes the following:
5

6 A. “For the purpose of avoiding undue refinement in accounting for additions to
7 and retirements and replacements of utility plant, all property shall be
8 considered as consisting of (1) units of property and (2) minor items of
9 property.”

10
11 B. Units of property.

12
13 1. “When a unit of property is added to utility plant, the cost thereof shall be
14 added to the appropriate utility plant account.....”

15
16 2. “When a unit of property is retired from utility plant, with or without
17 replacement, the book costs thereof shall be credited to the utility plant
18 account in which it is included.....”

19
20 Likewise, the NARUC Uniform System of Accounts makes no such
21 reference. The listing of items under Account 330-Distribution Reservoirs and
22 Standpipes simply lists a sample of items to be included in the account.

23 However, under Accounting Instruction #27 Utility Plant-Additions &
24 Retirements-Item A it is stated that “Each utility shall use such list of retirement
25 units as is in use by it at the effective date hererof or as may be prescribed by the
26 Commission, with the option, however, of using smaller units, provided the
27 *utility’s practice in this respect is consistent.*”

28
29 In item B.1. it is further stated that “When a retirement unit is added to the utility
30 plant, the cost thereof shall be added to the appropriate utility plant account.....”

31
32 Likewise item B.2. states “When a retirement unit is retired from utility plant,
33 with or without replacement, the book cost thereof shall be credited to the utility
34 plant account in which it is included...”

1
2 Under the Company's accounting treatment, Tank Painting is a unit of
3 property and is therefore a valid addition and retirement item. The Company has
4 consistently been using such an accounting treatment (capitalizing and retiring)
5 for Tank Painting costs for an extensive quantity of years throughout its many
6 operating districts.

7 The Company makes large capital expenditures to achieve the useful life
8 of the Storage Tanks and, therefore, should be allowed to apply the cost to
9 ratepayers over the service life of the coating, since the benefit of the coating is to
10 customers in each of those years. As with all assets where the utility makes an up front
11 investment and ratepayers fund that investment over time, the utility should be allowed
12 a reasonable rate of return on the undepreciated or unamortized portion of the
13 investment. Without continuing to make such investments, the properties would
14 deteriorate with the probability of early failure thus requiring significantly larger
15 investments (at an added cost to customers) for new replacements of the
16 existing tanks.

17 **16. Q. Does this conclude your rebuttal testimony?**

18 A. Yes, it does.

Section 2.2 A

ANTELOPE VALLEY DISTRICT
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PREVIOUSLY ADOPTED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

Rebuttal Exhibit EMR-1

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAIN	1.59%	0.39%	0.00%	1.98%	1.65%	0.00%	0.00%	1.65%	-0.06%	0.39%	0.00%	0.33%
103450	SERVICES	1.90%	0.44%	0.00%	2.34%	1.70%	0.00%	0.00%	1.70%	0.20%	0.44%	0.00%	0.64%

Section 2.2 A

BAKERSFIELD DISTRICT
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PREVIOUSLY ADOPTED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

Rebuttal Exhibit EMR-1

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAINT	1.70%	1.23%	0.00%	2.93%	1.38%	0.00%	0.00%	1.38%	0.32%	1.23%	0.00%	1.55%
103450	SERVICES	1.81%	2.65%	0.00%	4.46%	1.00%	0.00%	0.00%	1.00%	0.81%	2.65%	0.00%	3.46%

BAYSHORE DISTRICT
2012 General Rate Case
SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
(AT PROPOSED DEPRECIATION RATES)
Table 9-B2
(IN DOLLARS)

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAINS	1.71%	0.75%	0.00%	2.46%	1.36%	0.00%	0.00%	1.36%	0.35%	0.75%	0.00%	1.10%
103450	103450-Services-Trans & Distr Mains	1.97%	2.88%	0.00%	4.85%	1.14%	0.00%	0.00%	1.14%	0.83%	2.88%	0.00%	3.71%

BEAR GULCH DISTRICT
2012 General Rate Case
SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
(AT PROPOSED DEPRECIATION RATES)
Table 9-B2
(IN DOLLARS)

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAINS	1.62%	0.74%	0.00%	2.36%	1.32%	0.00%	0.00%	1.32%	0.30%	0.74%	0.00%	1.04%
103450	103450-Services-Trans & Distr Mains	1.77%	0.00%	0.00%	1.77%	1.18%	0.00%	0.00%	1.18%	0.59%	0.00%	0.00%	0.59%

Section 2.2 A

Rebuttal Exhibit EMR-1

CHICO DISTRICT
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PREVIOUSLY ADOPTED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

ACCOUNT NO.	DESCRIPTION	AUS/CWS				DRA				DIFFERENCE			
		PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAINS	1.73%	1.22%	0.00%	2.95%	1.43%	0.00%	0.00%	1.43%	0.30%	1.22%	0.00%	1.52%
103450	103450-Services-Trans & Distr Mains	1.88%	2.66%	0.00%	4.54%	1.14%	0.00%	0.00%	1.14%	0.74%	2.66%	0.00%	3.40%

Section 2.2 A

DIXON DISTRICT
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PREVIOUSLY ADOPTED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

Rebuttal Exhibit EMR-1

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAINS	1.71%	1.16%	0.00%	2.87%	1.30%	0.00%	0.00%	1.30%	0.41%	1.16%	0.00%	1.57%
103450	103450-Services-Trans & Distr Mains	2.31%	2.57%	0.00%	4.88%	1.12%	0.00%	0.00%	1.12%	1.19%	2.57%	0.00%	3.76%

DOMINGUEZ DISTRICT
2012 GENERAL RATE CASE
SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
(AT PREVIOUSLY ADOPTED DEPRECIATION RATES)
Table 9-B2
(IN DOLLARS)

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAIN	1.41%	0.41%	0.00%	1.82%	1.53%	0.00%	0.00%	1.53%	-0.12%	0.41%	0.00%	0.29%
103450	SERVICES	1.93%	0.45%	0.00%	2.38%	1.65%	0.00%	0.00%	1.65%	0.28%	0.45%	0.00%	0.73%

Section 2.2 A

EAST LOS ANGELES DISTRICT
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PROPOSED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

Rebuttal Exhibit EMR-1

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAIN	1.72%	0.00%	0.00%	1.72%	1.34%	0.00%	0.00%	1.34%	0.38%	0.00%	0.00%	0.38%
103450	SERVICES	2.07%	0.00%	0.00%	2.07%	0.75%	0.00%	0.00%	0.75%	1.32%	0.00%	0.00%	1.32%

Section 2.2 A

HERMOSA REDONDO
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PROPOSED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

Rebuttal Exhibit EMR-1

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAIN	1.73%	0.00%	0.00%	1.73%	1.28%	0.00%	0.00%	1.28%	0.45%	0.00%	0.00%	0.45%
103450	SERVICES	2.06%	0.00%	0.00%	2.06%	1.12%	0.00%	0.00%	1.12%	0.94%	0.00%	0.00%	0.94%

KERN RIVER VALLEY DISTRICT
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PREVIOUSLY ADOPTED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

Rebuttal Exhibit EMR-1

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAIN:	1.29%	0.37%	0.00%	1.66%	1.27%	0.00%	0.00%	1.27%	0.02%	0.37%	0.00%	0.39%
103450	SERVICES	0.72%	0.41%	0.00%	1.13%	0.63%	0.00%	0.00%	0.63%	0.09%	0.41%	0.00%	0.50%

Section 2.2 A

KING CITY DISTRICT
2012 General Rate Case
SUMMARY OF ANNUAL DEPRECIATION RATES, BY ACCOUNT

Rebuttal Exhibit EMR-1

Table 9-B2
(IN PERCENT)

ACCOUNT		AUS/CWS SALVAGE				DRA SALVAGE				DIFFERENCE SALVAGE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	RATE	TOTAL	PLANT RATE	COR RATE	RATE	TOTAL	PLANT RATE	COR RATE	RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAIN	2.07%	1.34%	0.00%	3.41%	1.54%	0.00%	0.00%	1.54%	0.53%	1.34%	0.00%	1.87%
103450	SERVICES	2.11%	2.65%	0.00%	4.76%	1.28%	0.00%	0.00%	1.28%	0.83%	2.65%	0.00%	3.48%

Section 2.2 A

LIVERMORE DISTRICT
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PREVIOUSLY ADOPTED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

Rebuttal Exhibit EMR-1

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	Transmission & Distribution Mains	1.64%	0.00%	0.00%	1.64%	1.33%	0.00%	0.00%	1.33%	0.31%	0.00%	0.00%	0.31%
103450	103450-Services-Trans & Distr Mains	1.91%	0.00%	0.00%	1.91%	1.16%	0.00%	0.00%	1.16%	0.75%	0.00%	0.00%	0.75%

Section 2.2 A

LOS ALTOS DISTRICT
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PREVIOUSLY ADOPTED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

Rebuttal Exhibit EMR-1

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAIN	1.70%	0.00%	0.00%	1.70%	1.31%	0.00%	0.00%	1.31%	0.39%	0.00%	0.00%	0.39%
103450	103450-Services-Trans & Distr Mains	1.99%	0.00%	0.00%	1.99%	1.18%	0.00%	0.00%	1.18%	0.81%	0.00%	0.00%	0.81%

Section 2.2 A

Rebuttal Exhibit EMR-1

MARYSVILLE DISTRICT
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PROPOSED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAIN	1.83%	0.00%	0.00%	1.83%	1.18%	0.00%	0.00%	1.18%	0.65%	0.00%	0.00%	0.65%
103450	103450-Services-Trans & Distr Mains	1.97%	0.00%	0.00%	1.97%	1.13%	0.00%	0.00%	1.13%	0.84%	0.00%	0.00%	0.84%

Section 2.2 A

Rebuttal Exhibit EMR-1

OROVILLE DISTRICT
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PROPOSED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAIN	1.89%	0.00%	0.00%	1.89%	1.41%	0.00%	0.00%	1.41%	0.48%	0.00%	0.00%	0.48%
103450	103450-Services-Trans & Distr Mains	1.98%	0.00%	0.00%	1.98%	1.12%	0.00%	0.00%	1.12%	0.86%	0.00%	0.00%	0.86%

Section 2.2 A

Rebuttal Exhibit EMR-1

PALOS VERDES DISTRICT
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PROPOSED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAIN	1.80%	0.00%	0.00%	1.80%	1.20%	0.00%	0.00%	1.20%	0.60%	0.00%	0.00%	0.60%
103450	SERVICES	2.15%	0.00%	0.00%	2.15%	0.72%	0.00%	0.00%	0.72%	1.43%	0.00%	0.00%	1.43%

RANCHO DOMINGUEZ
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PREVIOUSLY ADOPTED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

Rebuttal Exhibit EMR-1

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAIN:	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
103450	SERVICES	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Section 2.2 A

REDWOOD - COAST SPRINGS DISTRICT
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PROPOSED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

Rebuttal Exhibit EMR-1

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAIN	1.55%	0.00%	0.00%	1.55%	1.62%	0.00%	0.00%	1.62%	-0.07%	0.00%	0.00%	-0.07%
103450	SERVICES	1.73%	0.00%	0.00%	1.73%	1.70%	0.00%	0.00%	1.70%	0.03%	0.00%	0.00%	0.03%

Section 2.2 A

REDWOOD - LUCERNE DISTRICT

Rebuttal Exhibit EMR-1

2012 General Rate Case

SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT

(AT PREVIOUSLY ADOPTED DEPRECIATION RATES)

Table 9-B2

(IN DOLLARS)

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAIN	1.46%	0.00%	0.00%	1.46%	1.43%	0.00%	0.00%	1.43%	0.03%	0.00%	0.00%	0.03%
103450	SERVICES	1.58%	0.00%	0.00%	1.58%	1.49%	0.00%	0.00%	1.49%	0.09%	0.00%	0.00%	0.09%

REDWOOD - UNIFIED DISTRICT
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PROPOSED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

Rebuttal Exhibit EMR-1

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAINS	1.56%	0.42%	0.00%	1.98%	1.56%	0.00%	0.00%	1.56%	0.00%	0.42%	0.00%	0.42%
103450	SERVICES	1.73%	0.56%	0.00%	2.29%	1.57%	0.00%	0.00%	1.57%	0.16%	0.56%	0.00%	0.72%

Section 2.2 A

Rebuttal Exhibit EMR-1

SALINAS DISTRICT
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PREVIOUSLY ADOPTED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAINS	1.77%	0.00%	0.00%	1.77%	1.41%	0.00%	0.00%	1.41%	0.36%	0.00%	0.00%	0.36%
103450	103450-Services-Trans & Distr Mains	1.90%	0.00%	0.00%	1.90%	1.07%	0.00%	0.00%	1.07%	0.83%	0.00%	0.00%	0.83%

Section 2.2 A

Rebuttal Exhibit EMR-1

SELMA DISTRICT
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PREVIOUSLY ADOPTED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

ACCOUNT		AUS/CWS SALVAGE				DRA SALVAGE				DIFFERENCE SALVAGE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	RATE	TOTAL	PLANT RATE	COR RATE	RATE	TOTAL	PLANT RATE	COR RATE	RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAIN	5.81%	-2.83%	0.00%	2.98%	1.41%	0.00%	0.00%	1.41%	4.40%	-2.83%	0.00%	1.57%
103450	SERVICES	1.98%	2.67%	0.00%	4.65%	1.32%	0.00%	0.00%	1.32%	0.66%	2.67%	0.00%	3.33%

Section 2.2 A

Rebuttal Exhibit EMR-1

STOCKTON DISTRICT
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PREVIOUSLY ADOPTED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAIN	1.63%	0.00%	0.00%	1.63%	1.23%	0.00%	0.00%	1.23%	0.40%	0.00%	0.00%	0.40%
103450	103450-Services-Trans & Distr Mains	1.96%	0.00%	0.00%	1.96%	0.85%	0.00%	0.00%	0.85%	1.11%	0.00%	0.00%	1.11%

Section 2.2 A

Rebuttal Exhibit EMR-1

VISALIA DISTRICT
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PREVIOUSLY ADOPTED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAINS	1.67%	1.19%	0.00%	2.86%	1.41%	0.00%	0.00%	1.41%	0.26%	1.19%	0.00%	1.45%
103450	SERVICES	1.71%	2.69%	0.00%	4.40%	1.18%	0.00%	0.00%	1.18%	0.53%	2.69%	0.00%	3.22%

Section 2.2 A

WESTLAKE DISTRICT
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PREVIOUSLY ADOPTED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

Rebuttal Exhibit EMR-1

ACCOUNT		AUS/CWS			DRA				DIFFERENCE				
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAIN	1.64%	0.00%	0.00%	1.64%	1.29%	0.00%	0.00%	1.29%	0.35%	0.00%	0.00%	0.35%
103450	SERVICES	2.24%	0.00%	0.00%	2.24%	2.03%	0.00%	0.00%	2.03%	0.21%	0.00%	0.00%	0.21%

Section 2.2 A

Rebuttal Exhibit EMR-1

WILLOWS DISTRICT
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PREVIOUSLY ADOPTED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAINS	1.88%	1.29%	0.00%	3.17%	1.46%	0.00%	0.00%	1.46%	0.42%	1.29%	0.00%	1.71%
103450	103450-Services-Trans & Distr Mains	2.02%	2.64%	0.00%	4.66%	1.17%	0.00%	0.00%	1.17%	0.85%	2.64%	0.00%	3.49%

GENERAL OFFICE
 2012 General Rate Case
 SUMMARY OF ANNUAL DEPRECIATION ACCRUAL, BY ACCOUNT
 (AT PREVIOUSLY ADOPTED DEPRECIATION RATES)
 Table 9-B2
 (IN DOLLARS)

ACCOUNT		AUS/CWS				DRA				DIFFERENCE			
NO.	DESCRIPTION	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL	PLANT RATE	COR RATE	SALVAGE RATE	TOTAL
Transmission and Distribution													
103431	TRANSMISSION AND DISTRIBUTION MAIN	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
103450	SERVICES	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

**CALIFORNIA WATER SERVICE COMPANY (Cal Water)
GENERAL RATE CASE APPLICATION 12-07-007**

Rebuttal Testimony – DRA Company-Wide Report on the Results of Operations of Cal Water, Dated March 1, 2013, Page 8-8, 4. Tank Painting (TP)
Witness John Tootle, Corporate Counsel

1 TP Question No. 1

2
3 Please state your name, title and qualifications.

4
5 Response to TP Question No. 1

6
7 My name is John Tootle, and I am Corporate Counsel with Cal Water. My
8 qualifications are attached hereto.

9
10 TP Question No. 2

11
12 Can you provide a short background on the recording, accounting and
13 ratemaking Tank Painting issues between Cal Water and DRA?

14
15 Response to BP-Project Question No. 2

16
17 Yes, in its General Rate Case (GRC) application and direct testimony
18 (Application), Cal Water included Tank Painting¹ costs as a separate plant account,
19 Account 342.10 (Cal Water Recommendation). Cal Water has followed this recording,
20 accounting and ratemaking practice since 2000.

21 Division of Ratepayer Advocates (DRA) recommendations, set forth in its
22 Company-Wide Report on the Results of Operations, dated March 1, 2013 (DRA
23 Testimony),² wherein DRA recommends that all Tank Painting projects be removed from
24 plant addition estimates (Account 342.10 Tank Painting), be treated as a recoverable
25 regulatory asset, and amortized over a 15-year period with the unamortized balance
26 allowed to accrue interest at the 90-day commercial paper rate³ (DRA
27 Recommendation).

28
29 TP Question No 3

30
31 Do you agree with DRA's Recommendation for recording, accounting and
32 ratemaking treatment of Tank Painting costs?

33
34 Response to TP Question No. 3

35
36 No, Cal Water does not agree with DRA's Recommendation. DRA's
37 Recommendation is not conclusively supported by the Uniform System of Accounts for
38 Water Utilities (Class A), effective date January 1, 1955 (USOA), as represented, does
39 not comply with prior Commission decisions, fails to promote sound operating practices,
40 and, most importantly, does not follow the fundamental financing principle – matching
41 the term of financing with the life of the financed asset.

¹ Tank Painting and Tank Coating are used interchangeably

² DRA Company-Wide Report on the Results of Operations of Cal Water, Dated March 1, 2013, Page 8-8, 4. Tank Painting

³ibid

**CALIFORNIA WATER SERVICE COMPANY (Cal Water)
GENERAL RATE CASE APPLICATION 12-07-007**

Rebuttal Testimony – DRA Company-Wide Report on the Results of Operations of Cal Water, Dated March 1, 2013, Page 8-8, 4. Tank Painting (TP)
Witness John Tootle, Corporate Counsel

1 DRA wants to treat tank painting as a “long-term” life asset with a fifteen (15)
2 year amortization deployment of funds by Cal Water investors, but only allow investors
3 “short-term” rate of return on their invested funds at the 90-Day Commercial Paper Rate.
4 Such an unfair and unjust policy and practice is perilous, undermining the fundamental
5 “cost of service” ratemaking principle, and will lead eventually to higher financing costs
6 to both the utility and its ratepayers.

7
8 TP Question No. 4

9
10 Is DRA’s recommendation conclusively supported by USOA as set forth in DRA
11 Testimony?

12
13 Response TP Question No. 4

14
15 No, USOA does not explicitly state accounting or ratemaking treatment for Tank
16 Painting or Tank Coating costs. Generally, as the Commission states within the USOA:

17
18 *In adopting and prescribing said system of accounts the*
19 *Commission does not commit itself to approve or accept*
20 *any item set out in any account for the purpose of fixing*
21 *rates or of determining other matters which may come*
22 *before it...the Commission will determine, when passing*
23 *on matters before it, what consideration and weight shall*
24 *be given to the various items in the several accounts⁴.*

25
26 Clearly, the Commission did not intend how recording and accounting in
27 accordance with the USOA shall dictate Commission ratemaking policies and treatment.

28
29
30
31
32 TP Question No. 5

33
34 Does Cal Water agree with DRA Testimony that Cal Water’s Recommendation is
35 unsupported by USOA instructions and “[t]he plant account instruction[s] allows only the
36 first tank painting to be included in the cost of plant[?]”⁵

37
38 Response to TP Question No. 5

39

⁴ Uniform System of Accounts for Water Utilities (Class A), effective date January 1, 1955
(USOA) page 4 attested to by William R. Johnson, Commission Secretary

⁵ DRA Company-Wide Report on the Results of Operations of Cal Water, Dated March 1, 2013,
Page 8-8, 4. Tank Painting

**CALIFORNIA WATER SERVICE COMPANY (Cal Water)
GENERAL RATE CASE APPLICATION 12-07-007**

Rebuttal Testimony – DRA Company-Wide Report on the Results of Operations of Cal Water, Dated March 1, 2013, Page 8-8, 4. Tank Painting (TP)
Witness John Tootle, Corporate Counsel

1 No, DRA has misinterpreted the USOA instructions and account explanations in
2 the USOA to solely support DRA's Recommendation.

3 "Painting, first⁶" is listed under Instruction 10, paragraph (D) Items of Cost and
4 Heading(A) Buildings, which lists a number of items associated with Buildings and not
5 Reservoirs. The true intent of the list, within the footnote, is related to Building
6 Structures and Improvements and not Reservoirs and Tanks.

7
8 TP Question No. 5

9
10 Does Cal Water agree with DRA Testimony "a tank is a unit of property; however,
11 tank painting is not a unit of property because tank painting cannot *exist* [emphasis
12 added] without the tank[?]"⁷

13
14 Response to TP Question No. 5

15
16 No, there are numerous components of property, which are needed to
17 functionally complete a unit of property (that may be classified under USOA as either
18 "units" or "items" of property)⁸ but do not perform their function until attached to the
19 property or, as DRA Testimony states, "exist."– wiring, design/organization and various
20 other component parts, which do not take on their function until attached to the property.

21
22 TP Question No. 6

23
24 Does Cal Water agree with DRA Testimony that "repainting of a tank should be
25 maintenance of a tank and not a plant item because it cannot function as an *operating*
26 [emphasis added] unit[?]"⁹

27
28 Response to TP Question No. 6

29
30 Likewise, DRA Testimony that repainting of a tank should be maintenance of a
31 tank and not a plant item because it cannot function as an "operating unit" is also
32 misconstrued. The only referral within Instruction 12¹⁰ to "operating" deals with
33 accounting for the acquisition of an "operating system" under utility plant instruction 4.
34 There is no requirement that units of property are not independent "operating" units.

35
36 TP Question No. 7

37

⁶ USOA page 47

⁷ DRA Company-Wide Report on the Results of Operations of Cal Water, Dated March 1, 2013,
Page 8-8, 4. Tank Painting

⁸ USOA page 49

⁹ DRA Company-Wide Report on the Results of Operations of Cal Water, Dated March 1, 2013,
Page 8-8, 4. Tank Painting

¹⁰ USOA page 49

**CALIFORNIA WATER SERVICE COMPANY (Cal Water)
GENERAL RATE CASE APPLICATION 12-07-007**

Rebuttal Testimony – DRA Company-Wide Report on the Results of Operations of Cal Water, Dated March 1, 2013, Page 8-8, 4. Tank Painting (TP)
Witness John Tootle, Corporate Counsel

1 What does USOA Instruction 12 say?
2

3 Response to TP Question No. 7
4

5 First, Instruction 12 states:
6

7 A. *For the purpose of avoiding undue refinement*
8 *in accounting for additions to and retirements*
9 *and replacements of utility plant, “all property”*
10 *[emphasis quotations added] shall be*
11 *considered as consisting of (1) units of property*
12 *and (2) minor items of property.¹¹*
13

14 Therefore, Tank Painting must be either a unit of property or an item of property.
15 If the Commission wants to classify Tank Painting as a unit of property, there is no
16 prohibition nor is there a conflict with the USOA. The USOA defines “Units of Property”:
17

18 *“Units of Property” means those items of utility plant*
19 *which, when retired, with or without replacement,*
20 *are accounted for by crediting the book cost thereof*
21 *to the utility plant account in which included.¹²*
22

23 Furthermore, Instruction 12 states with regard to accounting for items of property:
24

25 *A minor item of depreciable property is replaced*
26 *independently of the unit of which it is a part, the*
27 *cost of replacement shall be charged to the*
28 *maintenance account appropriate for the item,*
29 *except that if the replacement effects a substantial*
30 *betterment (the primary aim of which is to make the*
31 *property affected more useful, more efficient of*
32 *greater durability, or greater) capacity.¹³*
33
34

35 A “unit of property” does not have to be an independent and standalone “existing”
36 piece of property or an “operating” piece of property to be classified as a unit or
37 certainly as an “item” of property. The Commission has broadly defined these terms to
38 allow for the Commission’s discretion in the ratemaking situation.

39 Clearly, the Commission never intended to restrain itself and only allow the “first
40 Painting” of a reservoir to be capitalized. Commission recognize that changes come
41 with time and, today, Tank Painting has dramatically changed and significantly improved
42 the durability and longevity of tanks.

11 Ibid

12 Ibid

13 Ibid

**CALIFORNIA WATER SERVICE COMPANY (Cal Water)
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Rebuttal Testimony – DRA Company-Wide Report on the Results of Operations of Cal Water, Dated March 1, 2013, Page 8-8, 4. Tank Painting (TP)
Witness John Tootle, Corporate Counsel

1 Water Storage Tanks have major coating systems that can be identified as a unit
2 of property, are a material portion of the tank construction, and are required to be
3 renewed for the property to achieve its useful life.
4

5 TP Question No. 8

6
7 Is DRA's Recommendation consistent with other Commission Decisions?
8

9 Response to TB Question No. 8

10
11 No, attached is a list of fifty-five (55) Commission Decisions that reference Tank
12 Painting or Coating, using Westlaw query, TANK /S PAINT! COAT!. None of the
13 decisions treat Tank Painting as a Regulatory Asset.
14

15 All the Commission's prior decisions recognize Tank Painting as an expense or
16 long-term expenditure, which is either capitalized and added to rate base or amortized
17 and the unamortized balance included in Working Cash or rate base, whereby the
18 Company is allowed to earn its full rate of return. None of the prior Commission
19 decisions attempts to finance a long-term deployment of funds with short-term financing.
20

21 TP Question No. 6

22
23 Has Cal Water consistently followed the same procedures for recording,
24 accounting and ratemaking treatment for Tank Painting costs?
25

26 Response to TP Question No. 6

27
28 Yes, Cal Water has consistently followed Cal Water's Recommendation for the
29 most recent general rate cases and has capitalized 100% of Tank Painting costs in Acct.
30 342.10. In these most recent proceedings, Cal Water has extensively provided DRA and
31 the Commission with documents and records setting forth its recording, accounting and
32 ratemaking treatment. DRA and the Commission has equally extensively reviewed Cal
33 Water's submissions and filings, and the Commission has routinely accepted Cal
34 Water's Recommendation for recording, accounting and ratemaking purposes.
35

36 To maintain consistency, Cal Water recommends that the Commission continue
37 following its prior decisions and approved recording, accounting and ratemaking
38 treatment.

39 Prior to 2000, Cal Water and the Staff had agreed Tank Painting costs should be
40 60% capitalized and 40% expensed. Prior to 1993, Cal Water expensed 100% Tank
41 Painting costs either within the Test Year or within the rate case period of three years.
42

43 TP Question No. 9

44 Why is Tank Painting not a Regulatory Asset?
45

46 Response to TP Question No. 9

**CALIFORNIA WATER SERVICE COMPANY (Cal Water)
GENERAL RATE CASE APPLICATION 12-07-007**

Rebuttal Testimony – DRA Company-Wide Report on the Results of Operations of Cal Water, Dated March 1, 2013, Page 8-8, 4. Tank Painting (TP)
Witness John Tootle, Corporate Counsel

1
2 Regulatory Assets include amounts of regulatory-created assets, not included in
3 other accounts, resulting from the ratemaking actions of the regulatory agency.

4 Amounts included in these accounts are established by those charges that would
5 normally be included in the current period under the general requirements of the USOA,
6 but for it being probable that such items will be included in a different period for the
7 purposes of developing the rates that the utility is authorized to charge for its utility
8 services.

9 Tank painting is an ordinary operating expense incurred routinely in the water
10 service-providing industry. Commission action to capitalize, amortize or expense Tank
11 Painting is not sufficient to justify classification as a Regulatory Asset. General
12 accounting principles dictate that expenses be categorized appropriately.

13 Furthermore, classification as a Regulatory Asset does not dictate that the
14 unamortized balance should be a the short-term, 90-day Commercial Rate, when the
15 amortization period is long-term, in this case 15 years.

16
17 TP Question No. 10

18
19 Is the primary issue being raised whether the Commission should for ratemaking
20 purpose finance a long-term deployment of funds (an investment) with a short-term
21 financing return?

22
23 Response to TP Question No. 10

24
25 Yes, the Commission has many different recording, accounting and ratemaking
26 choices to apply to Tank Painting, but the Commission should not
27 choose DRA's Recommendation because it simply undermines "cost of service"
28 ratemaking. If the Commission chooses to treat Tank Painting as an expense, then the
29 Commission should allow recovery in the short-term, certainly with the GRC time period.
30 If the Commission chooses to treat Tank Painting as a long-term "unit" or "item" of
31 property, shareholders should receive a long-term return on their deployment of funds.

32 Commission prior decisions have consistently followed this fundamental
33 financing principle. To disregard this principle will have unfavorable long-term
34 ramifications to "cost of service" ratemaking and unfavorable financing terms for the
35 utility and ratepayer.

36
37 TP Question No. 11

38
39 What is the primary ramification or concern with DRA's Recommendation?

40
41 Response to TP Question No. 11

42
43 Shareholders will become aware that they may not have the opportunity to earn a
44 fair rate of return on their investment because they are being required to fund expense
45 items, on which they are not receiving recovery.

CALIFORNIA WATER SERVICE COMPANY (Cal Water)
GENERAL RATE CASE APPLICATION 12-07-007

Rebuttal Testimony – DRA Company-Wide Report on the Results of Operations
of Cal Water, Dated March 1, 2013, Page 8-8, 4. Tank Painting (TP)
Witness John Tootle, Corporate Counsel

1 TP Question No. 12

2
3 Do you have any further comments on the issues addressed with Tank Painting?
4

5 Response to TP Question No. 12

6
7 Yes, the USOA does not explicitly state accounting treatment for subsequent
8 tank paintings. And, even if it did, the Commission never intended its ratemaking
9 decisions to be constrained or restricted by the USOA at the time of adoption.

10 Since the USOA publication, tank painting chemicals have significantly advanced
11 and become integral to maintaining the durability of tanks. The USOA recognizes the
12 first tank painting as being included in the costs of tank construction.

13 Today, tank painting or coating can significantly extend the life and durability of a
14 tank. Sound operating practices dictate that painting and coating should be performed
15 to maximize the useful life of a tank or reservoir.

16 Notwithstanding, how the Commission chooses to characterize Tank Painting,
17 the Commission should follow “cost of service” ratemaking. To follow the “cost of
18 service” principle, the Commission must treat Tank Painting as either a long-term or
19 short-term item expenditure of funds and accordingly match the type of financing with its
20 determination.

21 As seen on the list of prior Commission decisions, the Commission has available
22 many different choices, but the Commission has never adopted DRA’s Recommendation
23 and should not abandon its “cost of service” policies.

24 The Commission should adopt Cal Water’s Recommendation as with prior
25 decisions and match the long-term benefits associated with advances in Tank Painting
26 to the life of the Tank Painting protection. The Commission should accordingly
27 compensate the shareholder for deployment of funds for a similar period.
28

29 BP-Project Question No. 13

30
31 Does this conclude your Rebuttal Testimony?
32

33 Response to BP-Project Question No 13

34
35 Yes, this concludes my Rebuttal Testimony.

District	Project ID	Budget Year	Station/ Tank	Amount Proposed	DRA's Recommendation
Antelope Valley	00061958	2013	Sta. 1 Tank 1 Leona Valley	\$ 111,278.4	Allow
	00064951	2015	Sta. 1 Tank 2 Lancaster	\$ 88,224.0	Allow
Bakersfield	00017999	2012	Sta. 148 Tank 1	\$ 125,900.0	Approved from 2009 GRC
	00019739	2012	Sta. 176 Panorama Tank 2	\$ 613,500.0	Approved from 2009 GRC
	00026087	2013	Sta. 73 T3 Primavera	\$ 129,266.4	Allow
	00026129	2013	Sta. 73-T1	\$ 102,918.0	Allow
	00027051	2015	Sta. 147 T4	\$ 124,057.2	Allow
	00027067	2013	Sta. 100 Hillcrest Tank 4	\$ 279,489.6	Allow
	00027108	2013	Sta. 100 Tank 1	\$ 197,610.0	Allow
	00051728	2014	Sta. 153 Tank 1	\$ 42,787.2	Allow
	00051808	2015	Sta. 45 Tank 2	\$ 225,576.0	Allow
	00053268	2013	Sta.100 Tank 2	\$ 122,523.6	Allow
	00058573	2014	Sta. 176 Tank 1	\$ 673,666.8	Allow
	00059612	2013	Sta. 73 Tank 4	\$ 121,282.8	Allow
	00060849	2013	Sta.85 Tank 5	\$ 192,853.2	Allow
	00061572	2014	Sta. 194 Tank 1	\$ 225,886.8	Allow
00061734	2015	Sta. 155 Tank 1	\$ 158,922.0	Allow	
00061754	2014	Sta. 196 Tank 1	\$ 128,611.2	Allow	
Bayshore	00021331	2012	Sta. 27 Tank 1 - Beresford	\$ 294,400.0	Allow
	00026387	2015	Sta. 25 Lincoln	\$ 28,521.6	Allow
	00030168	2013	Sta. 123 T4	\$ 136,471.2	Allow
	00030209	2013	Sta. 17 Tank 1	\$ 207,529.2	Allow with cost adjustment
	00031468	2014	Sta. 24 Yorktown Tank 1	\$ 50,796.0	Allow
	00036828	2013	Sta. 112	\$ 269,079.6	Allow
	00044049	2014	Sta. 12 Tank 1	\$ 94,752.0	Disallow
	00045009	2015	Sta. 17 T3	\$ 36,189.6	Disallow
	00057228	2015	Sta.119 Tank 1	\$ 165,439.2	Disallow
	00062013	2014	Sta. 120 Tank 1	\$ 64,748.4	Allow
00062053	2015	Sta. 112 Beverly Tank 2	\$ 159,900.0	Allow	
00078954	2015	Sta. 25 Lincoln Tank 3	\$ 36,589.1	Allow	
Bear Gulch	00018138	2013	Sta. 5 Intermediate Tank 8	\$ 70,954.8	Disallow
	00018134	2013	Sta. 5 Intermediate Tank 8 & 9	\$ 181,778.4	Disallow
	00061375	2013	Sta.21 Arrowhead Tank 1	\$ 237,400.8	Disallow
	00029009	2015	Sta. 21	\$ 170,954.4	Allow
Dixon	00025570	2014	Sta. 1 T1	\$ 130,448.4	Allow
Dominguez So. Bay	00027867	2014	Sta. 275 Tank 1	\$ 53,618.4	Allow
	00053608	2014	Sta. 277 Tank 1	\$ 51,313.2	Allow
	00061773	2015	Sta. 203 Tank 1	\$ 543,013.2	Allow with cost adjustment
	00062160	2015	Sta. 297 Tank 1	\$ 24,427.2	Allow
East Los Angeles	00025551	2013	Sta. 40 Res 10 C	\$ 294,991.2	Allow
	00025569	2014	Sta. 42 Res 11B	\$ 698,878.8	Allow
	00051670	2014	Sta. 55 T1	\$ 117,505.2	Allow
	00061833	2015	Sta. 58 T1 (Res. 15)	\$ 879,420.0	Allow with cost adjustment
	00061872	2015	Sta. 10 Tank 2 (Res. 13B)	\$ 117,552.0	Allow
Hermosa Redondo	00027192	2013	Sta. 26 Res.C	\$ 442,758.0	Allow
	00028627	2013	Sta. 9 Res. 9C	\$ 274,693.2	Allow
	00030507	2013	Sta. 9 Res. 9 B	\$ 284,098.8	Allow with cost adjustment
	00051648	2013	Sta. 26 Res. 1 D	\$ 260,906.4	Disallow
	00053329	2013	Sta. 5 T1 (Res. 10A)	\$ 222,296.4	Allow
Kern River Valley	00020408	2012	Sta. 8 Tank 1	\$ 23,900.0	Approved from 2009 GRC
	00020415	2012	Sta. 11 Tank 1	\$ 59,300.0	Approved from 2009 GRC
	00051988	2014	Bodfish Sta. 11 Tank 1	\$ 63,850.8	Allow
	00059632	2014	Kernville Sta.1 Tank 1 (Treatment Plant Bay Tank)	\$ 113,610.0	Allow
	00063328	2014	Sta. 14 Tank 1	\$ 44,895.6	Allow
King City	00061953	2015	Sta. 11 Tank 1	\$ 150,732.0	Disallow

District	Project ID	Budget Year	Station/ Tank	Amount Proposed	DRA's Recommendation
Livermore	00041127	2013	Sta. 18 Tank 1	\$ 211,236.0	Allow with cost adjustment
	00050629	2013	Sta. 9 Tank 4	\$ 83,042.4	Allow
	00050668	2014	Sta. 22 Tank 1 (Granada)	\$ 150,560.4	Disallow
	00050728	2014	Liv Sta.22 Tank 2	\$ 258,380.4	Allow with cost adjustment
Los Altos	00019416	2013	Sta.42 Tank 3 (Vineyard)	\$ 241,777.8	Defer to next GRC
	00025650	2013	Sta. 14-T2 - Maryknoll	\$ 259,138.8	Defer to next GRC
	00079094	2013	Sta. 2 Tank 1	\$ 217,075.2	Allow
	00025649	2015	Sta. 121 T1, T2 & T3	\$ 180,873.6	Defer Tanks 2 & 3 to next GRC; Allow Tank 1 with cost adjustment
	00073093	2015	Sta. 42 T2	\$ 347,590.8	Allow
Oroville	00019412	2012	Sta.16 Tank 1 - Hi-Duty Res.2	\$ 235,800.0	Approved from 2009 GRC
Palos Verdes	00053648	2014	Sta. 23 Tank 2	\$ 577,857.6	Allow with cost adjustment
	00062032	2014	Sta. 50 Tank 1 (Res. 21)	\$ 49,749.6	Allow
RWV - Lucerne	00061812	2015	Sta. 4 Tank 1 Lucerne	\$ 92,361.6	Defer to next GRC
RWV - Unified Area	00061894	2015	Sta. 2 Tank 1 (Guerneville) Armstrong Valley	\$ 92,361.6	Defer to next GRC
Salinas	00062103	2014	Sta. 53 Tank 1	\$ 134,557.2	Disallow
Stockton	00025514	2014	Sta. 001	\$ 497,484.0	Allow
	00060773	2014	Sta. 32 T2 and T3	\$ 253,867.2	Allow
	00062075	2014	Sta. 82 Tank 7	\$ 176,920.8	Allow
	00062112	2014	Sta. 81 Tank 2	\$ 176,920.8	Allow
	00061392	2015	Sta. 3 Tank 4	\$ 182,628.0	Allow
Visalia	00051768	2014	Sta. 59 Tank 3	\$ 133,641.6	Allow
Westlake	00027089	2015	Sta. 9 Tank 1 Notter	\$ 235,886.4	Allow

*Vulnerability Assessment Update Project
AWWA J100 RAMCAP Methodology
Capital Project Rebuttal Document*

California Water Service Company



April 2013

2012 GENERAL RATE CASE

RAMCAP J100 VULNERABILITY ASSESSMENTS REBUTTAL

This rebuttal is organized into six (6) sections. The following section (**Section 1**), entitled, *Project Background*, provides a brief synopsis of the original project conceptualization, context, goals, and objectives. Next, **Section 2**, articulates DRA’s position on this project. **Section 3**, entitled, *Cal Water Position* provides the core statement of Cal Water’s position on this project in response to the DRA written testimony. Then, **Section 4**, entitled, *Cal Water Rebuttal*, provides the main content that frames and describes Cal Water’s final position on this project (principal rebuttal testimony). **Section 5**, entitled, *Closing Remarks*, provides a final closing statement and iterates Cal Water’ position. Finally, **Section 6**, entitled, *References*, highlights a few specific reference items that were consulted during the formulation of this document. Several **Attachments** are also included at the end of the document highlighting supplemental reference materials.

Section 1 – Project Background

The chief goal of this project is to update Cal Water’s existing Vulnerability Assessments (VAs) with detailed site and/or service area risks that present from a company-wide infrastructure, operations, and business continuity perspective. The project is motivated in part by the recent San Bruno event, wild fires in the Palos Verdes area, emergency response conditions in Stockton, Salinas, and East Los Angeles, and more generalized (and emerging) concerns pertaining to risk management and business continuity that are present within the heavily infrastructure-based utility sectors, finance and insurance sectors, and associated regulatory environments [1]. It also follows as a natural “bottom-up” viewpoint and extension of Cal Water’s recent Enterprise Risk Management (ERM) project undertaken in 2011 and 2012. The AWWA J100 RAMCAP (all-hazards) criteria and investigative methodology will be assumed for this project. Certain key industries – including chemical, transportation, telecommunications, and power – have already been regulated, or are on the verge of being regulated

Section 2.4 A

by this standard, and it is Cal Water's contention that this new standard will be an Environmental Protection Agency (EPA) or Department of Homeland Security (DHS) regulatory requirement for the water and wastewater utility sectors within the next 12 to 18 months. A representative list of risk elements that the project will examine, and incorporate into the revised Vulnerability Assessments is as follows: (1) storms – including hurricane and tornado; (2) earthquake; (3) landslide; (4) flood and tsunami; (5) supply curtailment through drought or other stresses; (6) power failures; (7) fires; (8) chemical releases; (9) pandemic; (10) vandalism, and; (11) sabotage. The results of the overall assessment will be used to develop recommendations – both physical and operational – that reduce risk and increase system resilience. Some additional noteworthy points associated with the proposed RAMCAP project are as follows:

- * Cal Water's existing Vulnerability Assessments were heavily focused on physical security as a direct fall-out of the September 11, 2001 World Trade Center attacks. The new RAMCAP standard is considerably more comprehensive, and will incorporate an "all hazards" perspective and investigative methodology;
- * The project will update or replace the existing Vulnerability Assessments that were completed circa 2002 – 2003. As such, the proposed effort will bring Cal Water's Vulnerability Assessment library up to current timing and reasonably expected methodological standards;
- * The RAMCAP evaluation methodology leverages similarities between a wide range of incidents and triggering events. Based on this, the resulting mitigation options and recommendations encompassing a wide variety of incidents will be similar. As such, the new VAs can be maintained more efficiently without the need to change multiple plans each time something needs to be revised. Conversely, blanket revisions that cover a number of individual plans can be made easily;

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- * In an effort to step or smooth rate impacts, a disproportionate amount of the work is proposed for 2014 and 2015. This means that most of the rate impacts will not go into effect until 2015 and 2016. Cal Water believes that this timing and phasing offers the “best balance” of factors related to finishing an important undertaking, while also being sensitive to some noted regulatory uncertainties, as well as the total dollar value (rate impact) of the work;

Finally, this project has a notable public health and welfare dimension via Cal Water’s continuity of business, and its linkage to customer service (including emergency response). In addition, completing this project within this General Rate Case underscores Cal Water’s priority to accurately assess risk and vulnerability factors to which both Cal Water and its customers are exposed, and it also supports and underscores the company’s commitment to establishing timely and cost-effective risk mitigation solutions.

Section 2 – DRA Position

DRA, in its Report on Results of Operations of Cal Water’s Chico District, recommends that RAMCAP projects for all districts be deferred to a future GRC for the following reasons:¹

1. Uncertainty regarding whether RAMCAP will be an industry requirement based on the AWWA J100 standard.
2. Lack of available information on other Class A water utilities conducting RAMCAP according to the standard.
3. Inconsistency in the pricing information provided by the winning bid consultant.

The page numbers for all of the DRA written testimony regarding the RAMCAP project is summarized in **Table 1 below**.

¹ DRA Report on Results of Operations of California Water Service Company, Chico District, Pages 7-18 to 7-21

Table 1
Summary of DRA Report References
RAMCAP Vulnerability Assessments

District	Project ID	Budget Year	Completion Year	Start Page	End Page
Bear Gulch	79915	2013	2013	7-29	7-29
Dominguez	79995	2013	2013	7-47	7-47
Livermore	79953	2013	2013	7-26	7-26
Los Altos Suburban	79954	2013	2013	7-21	7-21
Mid-Peninsula	80002	2013	2013	7-46	7-46
South San Francisco	79999	2013	2013	7-46	7-46
Hermosa Redondo	79974	2014	2014	7-16	7-16
Palos Verdes	79993	2014	2014	7-20	7-21
Westlake	79967	2014	2014	7-14	7-14
Bakersfield	79957	2014	2015	7-29	7-29
East Los Angeles	79961	2014	2015	7-16	7-16
Stockton	79963	2014	2015	7-34	7-35
Antelope Valley	79955	2015	2015	7-20	7-20
Chico	79956	2015	2015	7-18	7-21
Dixon	79958	2015	2015	7-13	7-13
Kern River Valley	79962	2015	2015	7-13	7-13
King City	79966	2015	2015	7-12	7-12
Marysville	79975	2015	2015	7-8	7-9
Oroville	79997	2015	2015	7-10	7-10
Redwood Valley	79998	2015	2015	7-16	7-16
Salinas	80000	2015	2015	7-46	7-46
Selma	80001	2015	2015	7-8	7-8
Willows	80003	2015	2015	7-11	7-11
Visalia	79994	2015	2015	7-18	7-19

Notes

Project ID 80002 - Mid Peninsula - encompasses both the San Carlos and San Mateo service areas.

The written testimony from DRA for Projects 79999 and 80002 is contained within the Bayshore Report on the pages noted above.

Section 3 – Cal Water Position

Cal Water has reviewed DRA's recommendation to defer the proposed RAMCAP Vulnerability Assessment Project(s), *and disagrees with the recommendation*. Cal Water contends that this project *should not be deferred*, since the proposed work will benefit both current and future Cal Water customers and business processes as it relates to the improved characterization, evaluation, and management of operational risk within Cal Water's service territories. Support for this position is provided in the following discussion.

Section 4 – Cal Water Rebuttal

Based on the information provided in **Section 2**, the focal points for this rebuttal can generally be organized around the following three points articulated by DRA in their recommendation for deferral:

- * DRA Item 1: Regulatory Uncertainty;
- * DRA Item 2: Lack of a Class A Water Utility Precedent;
- * DRA Item 3: Bid Pricing Errors or Inconsistencies;

In addition, Cal Water provides more information that bolsters the justification for this project along the following lines:

- * Standards promulgated by AWWA;
- * SAFETY Act Designation and Legal Coverage;
- * Natural hazard concerns, especially regarding flood, fire, and seismic activity;
- * Reduced insurance costs from better risk characterization and management;
- * Aging infrastructure risk;
- * Timing concerns associated with increasing cost for technical services;
- * Timing concerns associated with legal and regulatory windfalls;
- * Corporate governance and public responsibility.

Rebuttal of DRA Item 1 –Cal Water acknowledges that a clear legislative or regulatory mandate to update existing Vulnerability Assessments (VAs) does not currently exist. This conclusion is/was based on communications with both EPA and DHS at various regional and federal offices, as detailed in **Data Request JMI-002**. However, as evidenced by information provided in that same document, attempts to legislatively impose stricter security standards on the water sector have been numerous in the past few years. And despite being repeatedly blocked, new versions or amendments are introduced in each new legislative session, and they have been introduced by both Houses of Congress. Current political gridlock and an inability to reconcile conflicting areas of responsibility between the Environmental Protection Agency (EPA) and the Department of Homeland Security (DHS) appear to be the main obstacles. That being said, it is Cal Water’s contention that these obstacles are in the process of resolution, and this resolution – once complete – will trigger a windfall of legal requirements for the water utility sector. Of particular concern in this case is that this legal windfall will require Cal Water to complete a company-wide RAMCAP vulnerability assessment project in a very short time-frame, as already witnessed in the early 2000s as a result of the Public Health Security and Bioterrorism Preparedness and Response Act of 2002. In this case, the water sector was required to complete their Vulnerability Assessments in as little as nine months [2]. If a similar schedule was to be adopted for the water sector, it would force Cal Water and their current consultant (R.E. Patterson & Associates) to approximately quadruple their allocated resources and workload in order to accommodate the legal requirement. Cal Water contends that this outcome would be very onerous in terms of direct and indirect costs (including a possible or forced re-scoping and rebidding process, overtime premiums, and rechanneled workflows and priorities).

Cal Water wishes to emphasize that the lack of a legal or legislative requirement to update does not negate the fact that Cal Water’s existing VAs are now nine to ten years old, were written to only focus on security measures to protect from possible terrorist attacks, and did not address vulnerabilities to natural disasters,

Section 2.4 A

or other system stresses. The above age and timing parameters alone lie in contrast to statements made within the G-430-09 and G-440-11 Standards of AWWA, which cite a recommended review and updating schedule of five years (**Attachment A**). In light of these considerations – and also in contrast – this project’s original conceptualization and justification was ultimately designed to:

- * Anticipate and be sensitive to legislative movement and intent on the security, vulnerability, and risk fronts within the water utility sector. By extension, Cal Water contends that – in light of the known and documented regulatory movement – though slow – it could be viewed as publically irresponsible to not begin some kind of formal effort to update and improve its library of Vulnerability Assessments. Additional discussion of this issue is also provided below.

- * Address public health and welfare factors, as well as Cal Water business continuity factors, all within the context of a more current and comprehensive (“all hazards”) risk perspective and investigative methodology. This project ultimately underscores Cal Water’s priority to accurately assess risk and vulnerability factors to which both Cal Water and its customers are exposed.

Rebuttal of DRA Item 2 – Cal Water acknowledges that at the time of discovery, they were unaware of any Class A water utilities in either California, or in the nation, that are currently engaged in completing a Vulnerability Assessment update consistent with the RAMCAP methodology or standard. This conclusion was based on responses obtained from a number of Bay Area Emergency and Security Information Collaborative (BAESIC) community members, including Contra Costa Water District (CCWD), San Jose Water Company (SJWC), and Santa Clara Valley Water District (SCVWD). All of these purveyors reported at the time that there were no near-term plans to update any VAs that they currently have on record.

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However, subsequent to the November 2012 discovery process, and also in support of this rebuttal, Cal Water contacted Mr. Kevin M. Morley for additional input and perspective on the overall subject of RAMCAP vulnerability assessment formulations. Mr. Morley currently serves as the Security and Preparedness Program Manager within the Government Affairs Division of AWWA (contact information is provided as **Attachment B**). One of Mr. Morley's principal roles is to act as an information liaison and facilitator within the realm of water sector Emergency Response and Preparedness. Based on a telephone conversation on March 11, 2013, Cal Water was able to confirm that a number of significant water utilities have completed, are performing, or are in various phases of scoping and procurement of RAMCAP Vulnerability Assessments (**Table 2**). Cal Water contends that at least one of these utilities (American Water) functions under a Class A water utility designation and mandate. In addition, while not directly conforming to many of the public or municipal systems noted in **Table 2** (say, in terms of underlying business or organizational model), it is important to note that universal concerns pertaining to public welfare protection, comprehensive risk management, and emergency preparedness, along with an attendant organizational culture, are shared – and collectively link – the water utility space. Based on this information, Cal Water now contends that these examples show the existence of actionable precedents within the industry relative to the RAMCAP assessment methodology.

Table 2 – Water & Wastewater Utilities Performing RAMCAP J100 Vulnerability Assessments

Utility	City & State
American Water	Chattanooga, TN
American Water	Delran Township, NJ
Broward County	Fort Lauderdale, FL – Greater Area
City of Chicago	Chicago, IL
City of Long Beach	Long Beach, CA
City of Richmond	Richmond, VA
City of Sacramento	Sacramento, CA
District of Columbia Water and Sewer Authority	Washington, DC
Gwinnett County Water Resources Department	Atlanta, GA – Greater Area
Washington Suburban Sanitary Commission	Laurel, MD
Water Works Board of the City of Birmingham	Birmingham, AL

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Rebuttal of DRA Item 3 –Cal Water acknowledges that a computational error migrated into **Table 1** in response to **Data Request JMI-002**. This error appears to have originated during the formatting stage of the documentation process, in which an extra data column (total facility count) was integrated into the summation process (thus producing a form of double-counting, and the implication of a two-hundred percent total, i.e., total facility count was included twice). This error has been corrected, and the revised data is presented in **Table 3** and **Figure 1 below**. **Figure 1** shows a relatively consistent pattern between the total district-level facility percentages and the district-level bid values provided by Cal Water’s consultant. More specifically, a majority of cases show that the district bid amount percentage marginally exceeds the associated total facility count percentage, and reflects a measure of contingency added by Cal Water’s consultant, as explained below.

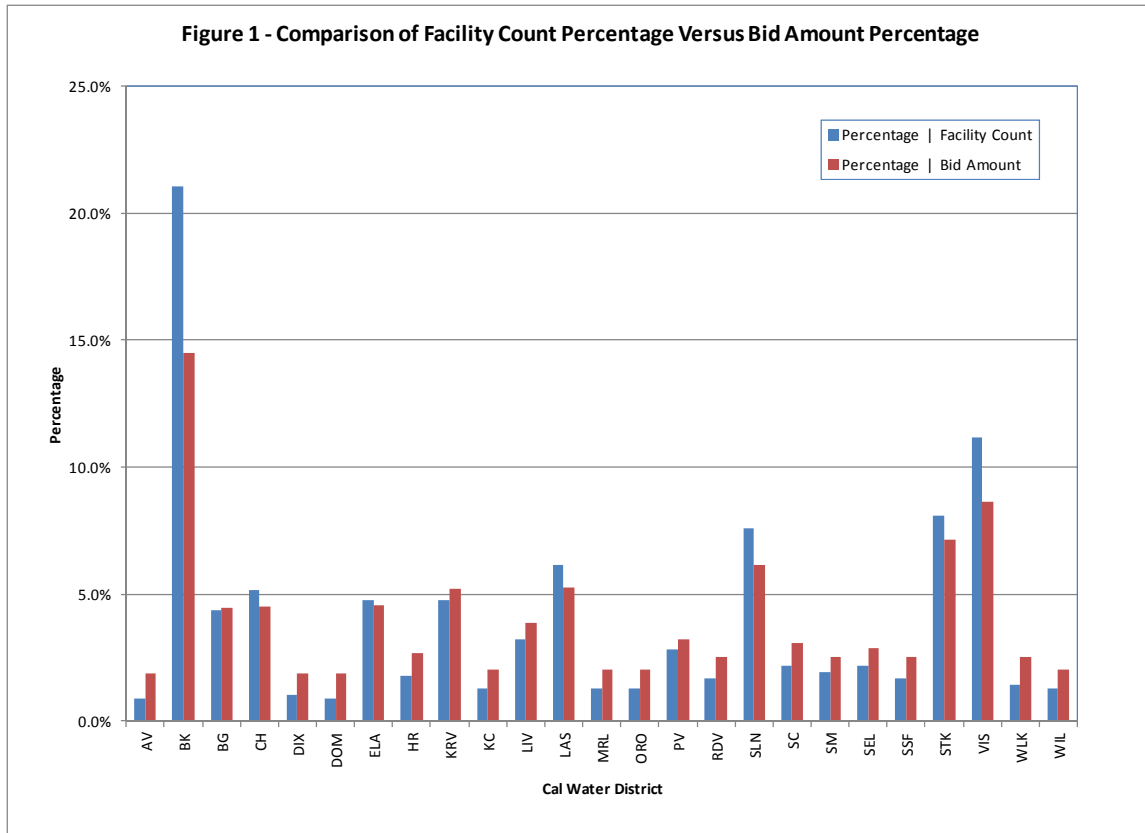
Table 3 RAMCAP Vulnerability Assessment Project Description of Facility Breakdown and Vendor Cost Allocation									
District	Type I Facility	Type II Facility	Type III Facility	Type IV Facility	Elevated Tanks	Facility Total	Facility Percentage	Bid Total	Bid Percentage
AV	4	2	1	0	0	7	0.9%	\$ 30,915.83	1.9%
BK	135	19	9	0	1	164	21.1%	\$ 239,820.83	14.5%
BG	13	18	1	2	0	34	4.4%	\$ 73,895.83	4.5%
CH	30	5	1	0	4	40	5.1%	\$ 74,895.83	4.5%
DIX	7	0	0	0	1	8	1.0%	\$ 30,915.83	1.9%
DOM	5	2	0	0	0	7	0.9%	\$ 31,090.83	1.9%
ELA	22	8	7	0	0	37	4.8%	\$ 75,770.83	4.6%
HR	4	4	6	0	0	14	1.8%	\$ 44,020.83	2.7%
KRV	24	11	1	1	0	37	4.8%	\$ 85,890.83	5.2%
KC	6	3	0	0	1	10	1.3%	\$ 33,395.83	2.0%
LIV	6	15	4	0	0	25	3.2%	\$ 63,900.83	3.9%
LAS	28	16	4	0	0	48	6.2%	\$ 87,295.83	5.3%
MRL	7	2	0	0	1	10	1.3%	\$ 33,595.83	2.0%
ORO	4	4	1	1	0	10	1.3%	\$ 33,595.83	2.0%
PV	12	5	5	0	0	22	2.8%	\$ 53,430.83	3.2%
RDV	7	4	1	1	0	13	1.7%	\$ 41,910.83	2.5%
SLN	50	7	2	0	0	59	7.6%	\$ 101,970.83	6.2%
SC	4	10	3	0	0	17	2.2%	\$ 50,545.83	3.1%
SM	2	8	5	0	0	15	1.9%	\$ 41,510.83	2.5%
SEL	14	1	2	0	0	17	2.2%	\$ 47,270.83	2.9%
SSF	4	5	2	2	0	13	1.7%	\$ 41,510.83	2.5%
STK	48	6	2	1	6	63	8.1%	\$ 118,600.83	7.2%
VIS	73	10	2	0	2	87	11.2%	\$ 142,995.83	8.6%
WLK	1	5	2	3	0	11	1.4%	\$ 41,810.83	2.5%
WIL	8	1	0	0	1	10	1.3%	\$ 33,595.83	2.0%
Total Percentage	518 66.6%	171 22.0%	61 7.8%	11 1.4%	17 2.2%	778 100.0%	--- 100%	\$ 1,654,155.72 ---	--- 100%

Type	Description
I	Single pump (well or booster)/or tank, chlorination treatment
II	Multiple pumps, tank storage totaling less than 750,000 gal, contaminant removal treatment
III	Storage totaling greater than 1,000,000 gal, well field
IV	Treatment plant, open reservoir

Notes

Facility counts were developed from various Cal Water databases, e.g., EIS, GIS, CMMS, district photo album, etc.

The values in this summary will have a variance of 5% (+/-)



In an effort to further understand the Patterson & Associates bid strategy and associated pricing variations, and also in support of this rebuttal, Cal Water (again) contacted Mr. Russell Patterson in order to gain additional clarification on the formulation of their bid. Based on a telephone conversation on March 22, 2013, Mr. Patterson related the fact that the bid variations across districts (particularly the bid value overshoot) are largely due to some contingency factors related to travel, district-level project administration (coordination of sub-consultants and personnel), as well as some training and orientation around the J100 Standard [3]. That being said, Cal Water acknowledges that there are a handful of districts in which the bid amount percentage is below the facility count percentage (BK, CH, ELA, LAS, SLN, STK, and VIS). Based on this, the company both acknowledges and recognizes that VA efforts in these districts will require heightened project oversight to ensure that overall workflow, work-product, and budget expenditures remain in reasonable balance. However, the company contends that these isolated bid variations do not render the complete bid package invalid. Finally, Cal Water added its own district-based cost

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contingency to help cover any variable costs that may arise over the course of the project.

So to conclude based on this data table correction and follow-up inquiry, Cal Water contends that the R.E. Patterson bid is “reasonable” – both by district and facility count, and also in sum – given the scope details provided at the time. In addition, it has been shown that the noted district-level bid variations stem from rational concerns, and/or, that heightened project controls can and will be enforced where there are some cost-facility pricing variations. As such, Cal Water now dismisses the component of DRA’s position that is framed around bid pricing inconsistencies.

Additional Considerations –In addition, Cal Water provides the following additional information to emphasize the need for the proposed RAMCAP Project. Specific areas of focus included in the discussion below pertain to: (1) water utility standards promulgated by AWWA; (2) SAFETY Act designation and legal coverage; (3) natural hazard concerns; (4) reduced insurance cost; (5) critical infrastructure risks; (6) project timing factors that lead to higher costs; (7) project timing factors that lead to shortened regulatory deadlines, and; (8) corporate governance and public responsibility.

Governing AWWA Standards

As noted above, Cal Water’s existing VAs are now nine to ten years old, and were written to focus only on security measures to protect from possible terrorist attacks – they did not address vulnerabilities to natural disasters, or other system stresses. The above age and timing parameters alone lie in stark contrast to statements made within the G-430-09 and G-440-11 Standards of AWWA, which cite a recommended review and updating schedule of five years, as noted in **Excerpts 1 and 2**. An excerpted disclosure of these two standards is also provided in **Attachment A**.

Excerpt 1



American Water Works
Association

The Authoritative Resource on Safe Water®

ANSI/AWWA G430-09
(First Edition)

AWWA Standard

Security Practices for Operation and Management



Effective date: May 1, 2009.
First edition approved by AWWA Board of Directors Jan. 25, 2009.
Approved by American National Standards Institute Jan. 28, 2010.

6666 West Quincy Avenue
Denver, CO 80235-3098
T 800-926-7337
www.awwa.org

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SECURITY PRACTICES FOR OPERATION AND MANAGEMENT 7

or risk assessments) and providing security leadership. Other security-related roles and responsibilities include security program management, physical intrusion and contamination detection, and incident command roles during emergency response and recovery. Additional roles and responsibilities should be identified on a utility-specific basis as appropriate.

4.3.2 *Establish security expectations for staff.* The utility shall identify and disseminate security expectations for staff and periodically review performance.

Sec. 4.4 Up-to-Date Assessment of Risk (Vulnerability)

4.4.1 *Perform a vulnerability or risk assessment.* The utility shall perform a vulnerability or risk assessment.

4.4.1.1 *Vulnerability or risk assessment.* The utility's vulnerability or risk assessment may utilize publicly or commercially available vulnerability or risk assessment methodologies, such as RAM-W™ or VSAT™, that allow the assessment to be replicated, but at a minimum the assessment shall include the following elements:

- Characterization of the water or wastewater system, including its mission and objectives,
- Identification and prioritization of adverse consequences to avoid,
- Determination of critical assets that might be subject to malevolent acts that could result in undesired consequences,
- Assessment of the likelihood (qualitative probability) of such malevolent acts from adversaries,
- Evaluation of existing countermeasures,
- Analysis of current risk and development of a prioritized plan for risk reduction.

4.4.2 *Review and update the vulnerability or risk assessment.* The utility shall review and update its vulnerability or risk assessment.

4.4.2.1 *Periodic review.* The utility shall establish and maintain a schedule for periodic review and update, based on the utility-specific circumstances. The interval shall not exceed five years or maybe more frequent, if required by law or regulation.

4.4.2.2 *Significant events.* The utility shall review and update the vulnerability or risk assessment after significant events, such as major facility construction projects, adding new infrastructure through construction or acquisition, acquiring new information about specific threats, or significant attacks or other events that would cause reconsideration of utility risk.

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Excerpt 2



American Water Works
Association

The Authoritative Resource on Safe Water®

ANSI/AWWA G440-1.1
(First Edition)

AWWA Management Standard

Emergency Preparedness Practices



Effective date: Nov. 1, 2011.
This first edition approved June 12, 2011.
Approved by American National Standards Institute Aug. 26, 2011.

8666 West Quincy Avenue
Denver, CO 80235-3098
T 800.926.7337
www.awwa.org

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EMERGENCY PREPAREDNESS PRACTICES 5

4.3.2 *Establish emergency preparedness expectations.* The utility shall identify and disseminate emergency preparedness expectations for staff and periodically review employee performance and proficiencies.

Sec. 4.4 Risk Assessment

4.4.1 *Perform a risk assessment.* The utility shall perform a risk assessment. The utility's risk assessment may use publicly or commercially available tools or methods, such as ASME-IT1/AWWA J100, that allow the assessment to be replicated.

4.4.2 *Review and update.* The utility shall review and update its risk assessment as new hazards and threats emerge, when facilities are constructed or removed from service, and when other changes occur that significantly affect the results of the risk assessment.

4.4.2.1 *Periodic review.* The utility shall establish and maintain a schedule for periodic review and update that is based on utility-specific circumstances. The schedule for review shall not exceed five years, but can be more frequent, based on operational changes or other incidents that warrant further review.

Sec. 4.5 Preparedness Plans

4.5.1 *Develop the plans.* The utility shall develop and document preparedness plans in a format conducive with their operations. Preparedness plans must include an Emergency Response Plan and may also include other supplemental plans such as a Resource Typing Plan, Crisis Communications Plan, Emergency Water Supply Plan, Disaster Recovery Plan, Mutual Aid and Assistance Plan, and/or a Business Continuity/Continuity of Operations Plan. Various references and tools exist to support these efforts, such as AWWA M19.

4.5.2 *Maintain the plans.* The utility shall maintain the preparedness plans as and when changes are perceived or, at a minimum, on an annual basis.

4.5.3 *Incident Command System and NIMS.* The utility shall be familiar with the concepts of the National Incident Management System (NIMS), to include the Incident Command System (ICS). The utility may include NIMS and ICS in its preparedness plans. Incorporation contributes to an enhanced coordination between utility personnel and outside first responders.

4.5.4 *Standard Operating Procedures (SOP).* The utility shall develop, document, and maintain SOPs specific to preparedness. Examples include the specific, field-response actions following a loss of pressure; procedures if a boil water order is to be issued; or minimum storage requirements to meet the supply and demand, as well as the amount of chemicals needed for treatment.

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SAFETY Act Coverage

As of February 2012, the RAMCAP J100 standard and methodology has received SAFETY Act designation and coverage. The SAFETY Act is promulgated by the Department of Homeland Security (Homeland Security Act of 2002, Title VIII, Subtitle G), and

“is intended to provide critical incentives for the development and deployment of anti-terrorism technologies by providing liability protection for sellers of qualified anti-terrorism technologies” [5].

This above-mentioned liability protection also extends to organizations that deploy SAFETY Act designated technologies [6]. Given this overall legal construct, Cal Water contends that timely project execution under the RAMCAP J100 standard is both prudent and warranted as it relates to the avoidance of legal or other claims of negligence under the SAFETY Act umbrella.

Natural Hazard Concerns

This concern arises from noted natural hazard risks that surround a number of Cal Water Services areas. In particular, earthquake, flood, wind, and wildfire are deemed to be plausible threats in nearly all Cal Water service areas, although specific mention is given to Bear Gulch, Dominguez, East Los Angeles, Hermosa Redondo, Marysville, Oroville, Palos Verdes, San Carlos, San Mateo, South San Francisco, and Stockton. Cal Water contends that due diligence under the RAMCAP methodology is therefore prudent and warranted in order to more completely understand the full level of exposure and potential consequences that these (and other) natural hazards present. The results of this understanding will be used to develop both physical and operational recommendations that reduce risk and increase system resilience. Cal Water contends that these improvements will ultimately lead to greater levels of customer service and protection under normal service loads, as well as under stressed or emergency conditions.

Reduced Insurance Cost

This concern arises from Cal Water's corporate mandate, and historical experience, associated with managing insurance costs for the organization. More specifically, Cal Water engages in an annual to near-annual process of insurance renewals. Of note and interest to Cal Water's insurance underwriter's in each negotiation is the general characterization and management of corporate risk. By extension, when risks are deemed to be reasonably (or comparatively) well-known in terms of expected likelihood and consequence (i.e., total impact to the company), and also "under control" by virtue of rational risk management policies and programs, more favorable insurance rates are offered to reflect this overall characterization and management behavior. These rate reductions can then be used to either purchase greater levels of insurance for the same (original) monetary outlay, or they can be passed-on to the customer in terms of reduced rates. Both cases ultimately serve Cal Water customers by virtue of lower rates and/or improved business continuity (financial capacity). Of note is that this overall outcome (reduced insurance rates) was actually experienced during this past rate negotiation cycle (December 2012), in which certain insurance coverage rates were lowered, thus allowing Cal Water to enhance its overall insurance portfolio for the same amount of total cash outlay [7]. A significant variable in this rate reduction stemmed from completion of the above-mentioned Enterprise Risk Management (ERM) project. Cal Water contends that similar and extended benefits would be obtained through completion of the proposed RAMCAP Vulnerability Assessment project, given that it has similar goals (improved risk characterization) and forms a "bottom-up" extension to ERM.

Critical Infrastructure Risk

This concern arises from both national and company-wide considerations of aging infrastructure and asset management. More specifically, Cal Water's

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critical infrastructure is comprised of about 5,700 miles of water main, 134,400 line and control valves, 970 booster stations, 650 wells, seven (7) surface water treatment plants, 420 water storage facilities, and 450 SCADA transmitting units [4,8]. From an operational risk and criticality perspective, it is of utmost importance to understand the relationship of these components to overall system function and performance – and conversely – to the local and large-scale consequences of their failures. Given that system failures can be triggered by a number of different events – both natural and anthropomorphic in origin – Cal Water contends that a RAMCAP-based Vulnerability Assessment Project would be a valuable undertaking in terms of characterizing critical infrastructure components, their dominant failure modes, and various proximity and geospatial hazards to which these facilities are subject (e.g., critical soils, critical slopes, storm, wind, wildfire, flood, earthquake, dams, waterways, railways, highways, etc.). As noted previously, the results of this understanding would then be used to substantiate project recommendations and asset management activities that reduce risk and increase system resilience. Cal Water contends that these improvements will ultimately lead to greater levels of customer service and protection under normal service loads, as well as under stressed or emergency conditions.

Higher Future Project Cost Due to Inflationary Cost Environment

This concern arises from Cal Water's historical experience associated with increasing cost for technical and/or consulting services over time (inflationary cost environment). For example, numerous Cal Water projects, particularly in the realms of master planning, hydraulic modeling, geotechnical services, and hydro-geological evaluations show that hourly consulting fees tend to increase year-over-year, often on the order of three to ten percent per year, depending upon specialty. These hourly fees then form the basis or derivative structure for both "time and material" bid estimates, as well as "lump-sum" estimates (when a time component is known to exist). Next, internal labor and administrative costs at Cal Water also tend to increase, generally on the order of about 3+ percent per year. Given that the RAMCAP J100 standard and methodology is relatively fixed

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in terms of overall approach and final content (project methodology and deliverables), it is Cal Water's contention (and concern) that deferring this project to the point of potential or forced rebidding at a future time (i.e., future GRC) would actually increase project costs, i.e., Cal Water would be working to obtain the same basic project deliverables within a higher overall cost environment. This outcome would lead to higher customer rates in future GRCs.

Higher Future Project Cost Due to Shortened Regulatory Deadlines

As mentioned above, clear regulatory guidance or mandates requiring updated Vulnerability Assessments have been at a stand-still due to a number of domain authority issues between EPA and DHS. That being said, it is Cal Water's contention that these obstacles are in the process of resolution, and this resolution – once complete – will trigger a windfall of legal requirements for the water utility sector. Of particular concern here is that this legal windfall will require Cal Water to complete a company-wide RAMCAP Vulnerability Assessment project within 9 to 12 months, as already witnessed in 2002 – 2003 (previous discussion). If this timeline were to be adopted, it would force Cal Water and their current consultant to collectively triple or quadruple their allocated resources and workload in order to accommodate the legal requirement. Cal Water contends that: (1) this outcome would be very onerous in terms of direct and indirect costs, and; (2) it may not even be possible, given Cal Water's service footprint throughout the state (i.e., system complexity and diversity), combined with the total universe of risk concerns. For example, additional cost items of concern relate to possible RFP and bid issues (e.g., rescoping and rebidding – work team “ramp-up” – based on the accelerated regulatory schedule), market-driven factors (e.g., heightened competition – and therefore cost – for additional staff and/or consulting services), additional mobilization and travel costs, overtime premiums, and rechanneled personnel and work priorities (disrupted workflows). All of these factors would adversely impact a number of project delivery variables (e.g., scope detail, overall administration, completeness, and final project quality). Based on these concerns, Cal Water submits that this project should move forward within this

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Rate Case in order to help control cost and timeline (i.e., known bid value under a three-year project window), as compared to being forced to complete the project at some other time under a highly-compressed regulatory statute and deadline, of say one year or less.

Corporate Governance and Public Responsibility

Last but not least, Cal Water's recommendation to pursue a RAMCAP-based project revolves around the basic dimensions of corporate governance and (public) responsibility. As noted in **Table 4**, Cal Water serves over 1.7 million people in California across a diverse range of service territories. Given the size and diversity of this service footprint – while also acknowledging the central relationship between safe water and healthy communities and local economies – Cal Water contends that completing a RAMCAP-based Vulnerability Assessment Project during this General Rate Case underscores its corporate commitment to protecting public health and welfare. This commitment springs from the Company's position on the proactive characterization and management of operational hazards and risks, and also from a culture and value system oriented around safety. Such an undertaking also supports and underscores Cal Water's corporate commitment to establishing timely and cost-effective risk mitigation solutions in areas where the RAMCAP methodology and discovery process shows the need for heightened scrutiny and action (e.g., proactive gap closure).

Section 5 – Closing Remarks

Based on the information presented here, it is Cal Water's contention that the above-referenced project(s) should not be deferred, based on current and emerging infrastructure, legislative, public welfare, and customer concerns, as well as based on current due diligence, business prudence, and business continuity dimensions that are directly applicable to Cal Water's operations today.

California Water Service Company Estimated 2012 District Population

Based on 2010 U.S. Census Data & 2012 Average Annual Service Count

Regulated Operations California Water Service Co. District	Single Family Residential Services	Flat Rate Residential Services	Multi Family Residential Services	Estimated Multi Family Units	Total Residential Dwelling Units	Estimated District Population
Antelope Valley	1,316		5	334	1,650	3,404
Bakersfield	33,434	26,419	1,194	32,184	92,036	273,798
Bear Gulch	16,884		84	6,069	22,953	58,098
Chico	18,205	5,053	883	18,147	41,405	97,274
Dixon	2,623		23	652	3,275	9,624
Dominguez	28,646		742	17,315	45,961	144,052
East Los Angeles	20,280		521	18,850	39,130	149,882
Hermosa-Redondo	22,203		1,841	22,810	45,013	95,338
Kern River Valley	4,112	14	7	53	4,179	5,819
King City	2,084		27	1,252	3,336	13,348
Livermore	16,621		83	4,491	21,112	55,800
Los Altos - Suburban	16,831		156	9,230	26,061	67,519
Marysville	1,731	1,250	132	2,192	5,172	12,017
Mid-Peninsula	31,146		648	21,384	52,530	128,037
Oroville	2,521	86	49	1,738	4,345	10,383
Palos Verdes	22,779		221	4,778	27,557	69,762
Redwood Valley	1,804		16	443	2,247	3,637
Salinas	24,301		396	13,169	37,470	118,255
Selma	3,330	2,155	56	1,671	7,156	24,365
South San Francisco	13,910		155	6,729	20,639	59,567
Stockton	37,361		409	20,686	58,047	168,092
Visalia	35,607		938	10,994	46,601	132,158
Westlake	6,158		125	2,204	8,362	19,440
Willows	1,733	267	34	744	2,744	7,035
District Sub-Total	365,619	35,244	8,743	218,119	618,982	1,726,704

Contract Operations Community Served by California Water Service Co.	Single Family Residential Services	Flat Rate Residential Services	Multiple Family Residential Services	Estimated Multi Family Units	Total Residential Dwelling Units	Estimated District Population
City of Bakersfield	37,902	0	385	12,234	50,136	139,498
City of Commerce	366	0	5	889	1,255	4,445
City of Hawthorne	4,509	0	837	10,211	14,720	43,054
City of Montebello	1,228	0	0	200	1,428	4,338
Crane Ridge	21	0	0	0.0	21	47
City Sub-Total	44,026	0	1,227	23,535	67,561	191,382

Total Served	409,645	35,244	9,970	241,654	686,543	1,918,086
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Note: Total Residential Dwelling Units is the summation of Single Family Residential Services, Flat Rate Residential Services, and Estimated Multi Family Units.

Section 6 – References

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- [7] Internal Communication. March 2013. *Corporate Risk Department*. California Water Service Company. San Jose, CA.
- [8] Internal Communication. April 2013. *SCADA Program Manager*. California Water Service Company. San Jose, CA.

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California Water Service Company

Total Capital Budget by District

District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Antelope Valley	\$230,600	\$754,400	\$853,800	\$815,500	\$405,900	\$658,500	\$757,300	\$1,270,700	\$3,293,174	\$603,123
Bakersfield	\$37,553,800	\$11,792,000	\$10,663,000	\$6,243,700	\$17,120,700	\$13,443,900	\$9,196,100	\$14,099,100	\$26,195,564	\$38,124,037
Bayshore						\$104,500	\$364,000	\$249,400	\$86,750	\$91,300
Bear Gulch	\$3,284,300	\$1,848,900	\$3,682,800	\$3,354,300	\$4,543,800	\$2,148,800	\$7,490,900	\$5,685,400	\$8,353,700	\$4,692,300
Chico-Hamilton	\$1,859,100	\$1,677,600	\$1,619,500	\$3,145,300	\$3,343,700	\$4,138,500	\$6,394,100	\$6,230,200	\$5,305,036	\$3,864,246
Dixon	\$190,400	\$296,300	\$789,200	\$125,300	\$1,736,200	\$708,700	\$2,157,400	\$1,528,100	\$2,149,222	\$135,690
Dominguez	\$2,986,800	\$2,334,500	\$1,373,900	\$2,324,700	\$2,421,600	\$2,501,200	\$3,004,300	\$2,568,000	\$6,356,955	\$4,544,325
East Los Angeles	\$2,284,700	\$2,512,300	\$2,148,500	\$3,826,700	\$2,528,000	\$2,868,900	\$9,734,900	\$6,635,300	\$7,865,773	\$3,918,261
Hermosa Redondo	\$2,002,200	\$1,846,700	\$1,859,700	\$2,373,700	\$3,512,300	\$1,993,500	\$1,737,500	\$2,461,300	\$3,837,159	\$1,873,983
Kern River Valley	\$272,200	\$1,107,300	\$987,500	\$7,843,400	\$619,900	\$1,079,500	\$1,269,800	\$1,108,300	\$672,100	\$1,173,463
King City	\$605,800	\$204,000	\$768,600	\$1,054,300	\$1,074,200	\$1,317,100	\$379,100	\$663,400	\$848,062	\$552,689
Livermore	\$1,682,400	\$309,500	\$1,853,400	\$2,646,200	\$2,246,900	\$2,187,200	\$3,068,900	\$2,905,800	\$3,553,814	\$2,973,228
Los Altos - Suburban	\$1,199,600	\$1,886,000	\$1,997,500	\$2,444,500	\$3,169,300	\$2,718,100	\$3,897,100	\$3,592,300	\$2,688,624	\$3,181,982
Marysville	\$1,290,300	\$1,776,400	\$1,169,300	\$256,100	\$1,285,700	\$1,229,100	\$2,122,400	\$1,211,400	\$1,003,194	\$731,616
Mid-Peninsula	\$1,802,800	\$1,811,100	\$2,417,000	\$4,279,000	\$4,504,200	\$2,474,100	\$4,998,500	\$4,251,500	\$6,795,575	\$5,509,772
Oroville	\$444,200	\$964,300	\$449,500	\$555,000	\$472,800	\$1,056,600	\$684,300	\$943,100	\$744,985	\$897,669
Palos Verdes	\$1,345,500	\$1,648,200	\$1,080,200	\$1,045,600	\$1,353,100	\$1,922,600	\$1,439,500	\$5,710,800	\$2,306,894	\$1,656,397
Rancho Dominguez		\$75,200	\$196,700	\$284,300	\$465,600	\$574,400	\$443,000	\$723,200	\$241,612	\$98,150
Redwood Valley	\$146,900	\$1,792,600	\$538,200	\$1,456,200	\$3,621,700	\$401,700	\$1,563,800	\$939,800	\$526,700	\$403,227
Salinas	\$3,436,200	\$3,371,500	\$5,952,000	\$6,787,700	\$6,709,000	\$5,712,600	\$7,625,800	\$6,912,600	\$7,018,142	\$4,972,214
Selma	\$273,500	\$733,600	\$967,900	\$521,600	\$2,075,400	\$2,641,300	\$810,800	\$1,132,700	\$680,559	\$367,054
South San Francisco	\$1,413,800	\$1,713,500	\$1,283,700	\$2,370,400	\$1,663,100	\$3,397,800	\$1,856,900	\$1,972,000	\$2,239,991	\$1,256,288
Stockton	\$2,501,600	\$1,886,100	\$8,328,900	\$10,497,500	\$1,265,600	\$5,407,700	\$7,657,600	\$5,308,100	\$7,303,764	\$2,636,871
Visalia	\$1,866,800	\$1,946,200	\$3,025,000	\$4,786,200	\$6,230,400	\$9,848,900	\$7,960,400	\$10,473,900	\$7,457,912	\$4,584,228
Westlake	\$565,000	\$292,700	\$353,900	\$1,113,200	\$2,632,500	\$1,934,300	\$1,580,800	\$3,398,200	\$10,973,200	\$304,117
Willows	\$190,700	\$74,600	\$173,700	\$110,200	\$284,800	\$1,652,900	\$986,600	\$639,300	\$755,131	\$822,603
General Office	\$6,699,600	\$3,920,700	\$5,375,600	\$8,652,400	\$4,388,600	\$4,099,600	\$13,824,100	\$10,211,800	\$17,636,402	\$8,526,407
Company Total	\$76,128,800	\$48,576,200	\$59,909,000	\$78,913,000	\$79,675,000	\$78,222,000	\$103,005,900	\$102,825,700	\$136,889,993	\$98,495,241

2003 Visalia includes \$502,4000 budgetted for Mullen

California Water Service Company

Total Capital Expenditures by District

District	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Antelope Valley	\$183,526	\$84,191	\$497,791	\$638,480	\$495,690	\$901,635	\$667,155	\$1,085,030	\$604,670	\$787,199
Bakersfield	\$34,383,655	\$20,868,138	\$8,525,322	\$12,323,212	\$16,374,367	\$9,044,249	\$9,776,803	\$9,195,887	\$6,935,490	\$6,713,979
Bayshore	\$0	\$0	\$104,208	\$18,647	\$75,729	\$142,182	\$173,890	\$194,394	\$78,885	\$5,734
Bear Gulch	\$4,596,429	\$3,655,500	\$3,347,413	\$5,733,880	\$4,720,290	\$4,563,862	\$5,519,118	\$5,832,365	\$6,864,167	\$5,207,348
Chico-Hamilton	\$3,493,395	\$1,704,384	\$2,752,191	\$2,299,873	\$4,186,304	\$2,798,314	\$3,772,454	\$3,999,373	\$6,627,312	\$4,847,516
Dixon	\$59,263	\$61,223	\$115,326	\$94,005	\$1,376,829	\$861,857	\$734,162	\$3,437,445	\$1,109,751	\$1,630,564
Dominguez	\$2,137,088	\$1,859,333	\$1,423,162	\$2,038,063	\$2,748,515	\$1,668,198	\$3,114,557	\$2,670,424	\$2,796,569	\$3,296,479
East Los Angeles	\$2,422,371	\$1,660,351	\$2,062,044	\$3,137,642	\$2,609,351	\$3,456,864	\$4,963,735	\$5,179,087	\$8,434,995	\$3,893,852
Hermosa Redondo	\$1,989,530	\$1,052,143	\$2,137,574	\$1,616,701	\$2,672,011	\$3,396,499	\$1,919,206	\$2,123,042	\$2,780,802	\$1,880,658
Kern River Valley	\$330,810	\$999,989	\$944,441	\$2,379,227	\$4,520,960	\$2,890,379	\$1,773,448	\$1,426,882	\$749,561	\$1,188,345
King City	\$365,823	\$206,632	\$232,998	\$688,212	\$991,862	\$1,585,949	\$1,365,435	\$333,882	\$654,498	\$870,040
Livermore	\$1,986,185	\$1,290,666	\$1,231,952	\$2,808,973	\$2,762,718	\$1,717,371	\$2,309,538	\$2,705,733	\$2,142,864	\$2,108,958
Los Altos - Suburban	\$1,211,590	\$1,241,498	\$1,885,158	\$2,854,652	\$2,807,197	\$5,450,869	\$2,526,789	\$4,125,235	\$4,524,791	\$2,770,484
Marysville	\$228,158	\$827,745	\$435,048	\$1,287,447	\$8,805,009	\$805,696	\$631,401	\$917,782	\$533,355	\$871,783
Mid-Peninsula	\$1,906,950	\$1,913,352	\$2,747,231	\$2,503,908	\$3,266,871	\$2,591,767	\$3,427,948	\$4,332,862	\$5,166,153	\$5,088,321
Oroville	\$271,752	\$292,559	\$320,289	\$424,601	\$653,463	\$543,058	\$541,863	\$1,778,073	\$720,611	\$1,832,668
Palos Verdes	\$1,236,568	\$1,030,659	\$1,277,403	\$1,255,451	\$1,699,336	\$1,300,051	\$1,908,498	\$1,745,488	\$1,629,367	\$2,235,018
Rancho Dominguez	\$13,049	\$87,627	\$211,675	\$129,401	\$660,414	\$397,848	\$598,025	\$739,119	\$218,170	\$262,141
Redwood Valley	\$260,716	\$721,819	\$3,083,960	\$1,596,583	\$1,134,368	\$2,857,934	\$5,075,946	\$641,104	\$1,180,153	\$453,146
Salinas	\$2,919,985	\$2,455,746	\$3,386,281	\$4,811,532	\$7,883,292	\$5,158,842	\$10,953,828	\$8,202,504	\$7,422,172	\$9,020,889
Selma	\$196,489	\$625,483	\$1,358,080	\$630,343	\$904,143	\$1,525,655	\$2,260,761	\$1,008,712	\$667,289	\$1,697,996
South San Francisco	\$1,645,596	\$1,056,539	\$1,208,417	\$1,643,001	\$1,516,748	\$1,071,057	\$930,428	\$1,763,710	\$1,711,315	\$1,876,169
Stockton	\$1,929,345	\$1,440,191	\$2,123,719	\$7,100,979	\$12,103,672	\$3,571,318	\$5,172,381	\$4,974,497	\$6,491,148	\$5,172,422
Visalia	\$2,242,996	\$1,712,109	\$3,323,712	\$2,760,697	\$5,713,695	\$6,512,356	\$7,931,200	\$6,685,163	\$9,872,585	\$5,536,815
Westlake	\$412,915	\$271,427	\$348,315	\$561,993	\$750,553	\$2,773,070	\$1,670,143	\$990,400	\$5,075,462	\$4,772,432
Willows	\$159,225	\$302,101	\$246,055	\$25,726	\$365,665	\$635,079	\$886,176	\$921,262	\$604,694	\$443,570
General Office	\$4,494,713	\$3,848,393	\$4,624,405	\$5,006,256	\$5,887,555	\$6,888,411	\$7,027,033	\$9,376,638	\$11,588,075	\$14,767,985
Company Total	\$71,078,122	\$51,269,798	\$49,954,170	\$66,369,485	\$97,686,607	\$75,110,370	\$87,631,921	\$86,386,093	\$97,184,904	\$89,232,511

California Water Service Company
Total Capital Expenditures by District

District		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Antelope Valley	Total	\$183,526	\$84,191	\$497,791	\$638,480	\$495,690	\$901,635	\$667,155	\$1,085,030	\$604,670	\$787,199
	Non-Specific	\$44,550	\$17,035	\$41,470	\$56,934	\$25,019	\$399,490	\$106,539	\$90,039	\$216,359	\$154,784
	Specific	\$138,976	\$67,156	\$456,321	\$581,546	\$470,671	\$502,145	\$560,616	\$994,991	\$388,311	\$632,415
Bakersfield	Total	\$34,383,655	\$20,868,138	\$8,525,322	\$12,323,212	\$16,374,367	\$9,044,249	\$9,776,803	\$9,195,887	\$6,935,490	\$6,713,979
	Non-Specific	\$1,851,604	\$1,705,417	\$2,843,450	\$3,821,716	\$5,002,762	\$3,229,784	\$4,199,964	\$3,716,865	\$2,172,043	\$2,491,025
	Specific	\$32,532,051	\$19,162,721	\$5,681,872	\$8,501,496	\$11,371,605	\$5,814,465	\$5,576,839	\$5,479,022	\$4,763,447	\$4,222,954
Bayshore	Total	\$0	\$0	\$104,208	\$18,647	\$75,729	\$142,182	\$173,890	\$194,394	\$78,885	\$5,734
	Non-Specific	\$0	\$0	\$104,208	\$18,647	\$75,729	\$78,565	\$82,787	\$44,943	\$29,001	\$20
	Specific	\$0	\$0	\$0	\$0	\$0	\$63,617	\$91,103	\$149,451	\$49,884	\$5,714
Bear Gulch	Total	\$4,596,429	\$3,655,500	\$3,347,413	\$5,733,880	\$4,720,290	\$4,563,862	\$5,519,118	\$5,832,365	\$6,864,167	\$5,207,348
	Non-Specific	\$1,503,718	\$1,180,499	\$1,971,971	\$1,904,799	\$1,916,849	\$2,561,969	\$3,047,473	\$1,795,610	\$2,762,258	\$2,142,139
	Specific	\$3,092,711	\$2,475,001	\$1,375,442	\$3,829,081	\$2,803,441	\$2,001,893	\$2,471,645	\$4,036,755	\$4,101,909	\$3,065,209
Chico-Hamilton	Total	\$3,493,395	\$1,704,384	\$2,752,191	\$2,299,873	\$4,186,304	\$2,798,314	\$3,772,454	\$3,999,373	\$6,627,312	\$4,847,516
	Non-Specific	\$998,212	\$905,486	\$1,250,440	\$651,477	\$885,057	\$621,931	\$1,210,891	\$1,170,369	\$2,220,773	\$964,496
	Specific	\$2,495,183	\$798,898	\$1,501,751	\$1,648,396	\$3,301,247	\$2,176,383	\$2,561,563	\$2,829,004	\$4,406,539	\$3,883,020
Dixon	Total	\$59,263	\$61,223	\$115,326	\$94,005	\$1,376,829	\$861,857	\$734,162	\$3,437,445	\$1,109,751	\$1,630,564
	Non-Specific	\$35,912	\$21,434	\$27,689	\$28,140	\$1,227,268	\$115,618	\$167,304	\$77,125	\$116,652	-\$30,308
	Specific	\$23,351	\$39,789	\$87,637	\$65,865	\$149,561	\$746,239	\$566,858	\$3,360,320	\$993,099	\$1,660,872
Dominguez	Total	\$2,137,088	\$1,859,333	\$1,423,162	\$2,038,063	\$2,748,515	\$1,668,198	\$3,114,557	\$2,670,424	\$2,796,569	\$3,296,479
	Non-Specific	\$1,683,387	\$1,031,250	\$497,464	\$1,473,303	\$1,952,571	\$1,157,195	\$1,048,069	\$1,375,322	\$1,250,536	\$1,222,582
	Specific	\$453,701	\$828,083	\$925,698	\$564,760	\$795,944	\$511,003	\$2,066,488	\$1,295,102	\$1,546,033	\$2,073,897
East Los Angeles	Total	\$2,422,371	\$1,660,351	\$2,062,044	\$3,137,642	\$2,609,351	\$3,456,864	\$4,963,735	\$5,179,087	\$8,434,995	\$3,893,852
	Non-Specific	\$1,857,816	\$774,113	\$755,982	\$1,039,436	\$1,345,964	\$2,157,296	\$1,344,976	\$2,216,711	\$6,929,542	\$1,531,502 *
	Specific	\$564,555	\$886,238	\$1,306,062	\$2,098,206	\$1,263,387	\$1,299,568	\$3,618,759	\$2,962,376	\$1,505,453	\$2,362,350
Hermosa Redondo	Total	\$1,989,530	\$1,052,143	\$2,137,574	\$1,616,701	\$2,672,011	\$3,396,499	\$1,919,206	\$2,123,042	\$2,780,802	\$1,880,658
	Non-Specific	\$1,517,954	\$778,975	\$1,066,058	\$1,112,242	\$1,158,297	\$1,218,243	\$1,271,074	\$1,313,567	\$1,140,316	\$798,558
	Specific	\$471,576	\$273,168	\$1,071,516	\$504,459	\$1,513,714	\$2,178,256	\$648,132	\$809,475	\$1,640,486	\$1,082,100
Kern River Valley	Total	\$330,810	\$999,989	\$944,441	\$2,379,227	\$4,520,960	\$2,890,379	\$1,773,448	\$1,426,882	\$749,561	\$1,188,345
	Non-Specific	\$94,757	\$866,892	\$454,701	\$170,188	\$65,363	\$276,551	\$1,226,819	\$177,012	\$74,537	\$25,921
	Specific	\$236,053	\$133,097	\$489,740	\$2,209,039	\$4,455,597	\$2,613,828	\$546,629	\$1,249,870	\$675,024	\$1,162,424
King City	Total	\$365,823	\$206,632	\$232,998	\$688,212	\$991,862	\$1,585,949	\$1,365,435	\$333,882	\$654,498	\$870,040
	Non-Specific	\$25,069	\$143,636	\$79,117	\$68,754	\$170,707	\$112,653	\$42,845	\$120,440	\$162,628	\$149,777
	Specific	\$340,754	\$62,996	\$153,881	\$619,458	\$821,155	\$1,473,296	\$1,322,590	\$213,442	\$491,870	\$720,263
Livermore	Total	\$1,986,185	\$1,290,666	\$1,231,952	\$2,808,973	\$2,762,718	\$1,717,371	\$2,309,538	\$2,705,733	\$2,142,864	\$2,108,958
	Non-Specific	\$889,983	\$822,325	\$591,363	\$1,310,116	\$948,964	\$699,749	\$588,095	\$721,608	\$1,225,172	\$645,476
	Specific	\$1,096,202	\$468,341	\$640,589	\$1,498,857	\$1,813,754	\$1,017,622	\$1,721,443	\$1,984,125	\$917,692	\$1,463,482
Los Altos - Suburban	Total	\$1,211,590	\$1,241,498	\$1,885,158	\$2,854,652	\$2,807,197	\$5,450,869	\$2,526,789	\$4,125,235	\$4,524,791	\$2,770,484
	Non-Specific	\$565,804	\$757,343	\$783,325	\$999,338	\$1,105,226	\$1,007,271	\$1,128,103	\$1,122,742	\$1,053,108	\$1,031,668
	Specific	\$645,786	\$484,155	\$1,101,833	\$1,855,314	\$1,701,971	\$4,443,598	\$1,398,686	\$3,002,493	\$3,471,683	\$1,738,816
Marysville	Total	\$228,158	\$827,745	\$435,048	\$1,287,447	\$8,805,009	\$805,696	\$631,401	\$917,782	\$533,355	\$871,783
	Non-Specific	\$86,332	\$74,098	\$154,184	\$173,282	\$99,280	\$153,041	\$141,904	\$205,384	\$118,095	\$204,787
	Specific	\$141,826	\$753,647	\$280,864	\$1,114,165	\$8,705,729	\$652,655	\$489,497	\$712,398	\$415,260	\$666,996
Mid-Peninsula	Total	\$1,906,950	\$1,913,352	\$2,747,231	\$2,503,908	\$3,266,871	\$2,591,767	\$3,427,948	\$4,332,862	\$5,166,153	\$5,088,321
	Non-Specific	\$1,350,102	\$1,214,671	\$988,377	\$760,720	\$1,228,046	\$779,428	\$1,227,782	\$1,659,006	\$1,776,819	\$1,325,385
	Specific	\$556,848	\$698,681	\$1,758,854	\$1,743,188	\$2,038,825	\$1,812,339	\$2,200,166	\$2,673,856	\$3,389,334	\$3,762,936
Oroville	Total	\$271,752	\$292,559	\$320,289	\$424,601	\$653,463	\$543,058	\$541,863	\$1,778,073	\$720,611	\$1,832,668
	Non-Specific	\$31,111	\$103,543	\$64,074	\$106,278	\$114,927	\$158,874	\$386,360	\$863,135	\$297,843	\$545,965
	Specific	\$240,641	\$189,016	\$256,215	\$318,323	\$538,536	\$384,184	\$155,503	\$914,938	\$422,768	\$1,286,703
Palos Verdes	Total	\$1,236,568	\$1,030,659	\$1,277,403	\$1,255,451	\$1,699,336	\$1,300,051	\$1,908,498	\$1,745,488	\$1,629,367	\$2,235,018
	Non-Specific	\$432,912	\$463,937	\$515,329	\$641,591	\$994,717	\$466,031	\$996,622	\$506,713	\$511,624	\$801,178
	Specific	\$803,656	\$566,722	\$762,074	\$613,860	\$704,619	\$834,020	\$911,876	\$1,238,775	\$1,117,743	\$1,433,840
Rancho Dominguez	Total	\$13,049	\$87,627	\$211,675	\$129,401	\$660,414	\$397,848	\$598,025	\$739,119	\$218,170	\$262,141
	Non-Specific	\$13,049	\$30,364	\$28,661	\$32,917	\$172,812	\$105,740	\$64,354	\$45,360	\$14,229	\$52,743
	Specific	\$0	\$57,263	\$183,014	\$96,484	\$487,602	\$292,108	\$533,671	\$693,759	\$203,941	\$209,398
Redwood Valley	Total	\$260,716	\$721,819	\$3,083,960	\$1,596,583	\$1,134,368	\$2,857,934	\$5,075,946	\$641,104	\$1,180,153	\$453,146
	Non-Specific	\$234,480	\$391,758	\$606,844	\$932,558	\$406,242	\$331,202	\$362,661	\$101,129	\$256,332	\$174,828
	Specific	\$26,236	\$330,061	\$2,477,116	\$664,025	\$728,126	\$2,526,732	\$4,713,285	\$539,975	\$923,821	\$278,318
Salinas	Total	\$2,919,985	\$2,455,746	\$3,386,281	\$4,811,532	\$7,883,292	\$5,158,842	\$10,953,828	\$8,202,504	\$7,422,172	\$9,020,889
	Non-Specific	\$968,682	\$1,167,182	\$1,603,898	\$2,145,503	\$4,128,119	\$2,533,924	\$4,860,013	\$5,472,250	\$2,572,910	\$2,466,512
	Specific	\$1,951,303	\$1,288,564	\$1,782,383	\$2,666,029	\$3,755,173	\$2,624,918	\$6,093,815	\$2,730,254	\$4,849,262	\$6,554,377
Selma	Total	\$196,489	\$625,483	\$1,358,080	\$630,343	\$904,143	\$1,525,655	\$2,260,761	\$1,008,712	\$667,289	\$1,697,996
	Non-Specific	\$131,602	\$135,465	\$102,679	\$100,992	\$192,286	\$88,786	\$175,197	\$264,148	\$275,033	\$325,687
	Specific	\$64,887	\$490,018	\$1,255,401	\$529,351	\$711,857	\$1,436,869	\$2,085,564	\$744,564	\$392,256	\$1,372,309
South San Francisco	Total	\$1,645,596	\$1,056,539	\$1,208,417	\$1,643,001	\$1,516,748	\$1,071,057	\$930,428	\$1,763,710	\$1,711,315	\$1,876,169
	Non-Specific	\$1,465,855	\$222,380	\$281,464	\$1,028,314	\$252,579	\$419,513	\$553,726	\$415,589	\$228,519	\$1,075,175
	Specific	\$179,741	\$834,159	\$926,953	\$614,687	\$1,264,169	\$651,544	\$376,702	\$1,348,121	\$1,482,796	\$800,994
Stockton	Total	\$1,929,345	\$1,440,191	\$2,123,719	\$7,100,979	\$12,103,672	\$3,571,318	\$5,172,381	\$4,974,497	\$6,491,148	\$5,172,422
	Non-Specific	\$1,316,264	\$764,041	\$876,031	\$1,809,370	\$1,751,304	\$1,062,366	\$1,040,576	\$558,613	\$925,426	\$2,317,518
	Specific	\$613,081	\$676,150	\$1,247,688	\$5,291,609	\$10,352,368	\$2,508,952	\$4,131,805	\$4,415,884	\$5,565,722	\$2,854,904
Visalia	Total	\$2,242,996	\$1,712,109	\$3,323,712	\$2,760,697	\$5,713,695	\$6,512,356	\$7,931,200	\$6,685,163	\$9,872,585	\$5,536,815
	Non-Specific	\$1,525,914	\$960,666	\$1,821,240	\$1,075,805	\$1,655,330	\$1,127,941	\$1,401,308	\$976,300	\$1,346,742	\$1,679,364
	Specific	\$717,082	\$751,443	\$1,502,472	\$1,684,892	\$4,058,365	\$5,384,415	\$6,529,892	\$5,708,863	\$8,525,843	\$3,857,451
Westlake	Total	\$412,915	\$271,427	\$348,315	\$561,993	\$750,553	\$2,773,070	\$1,670,143	\$990,400	\$5,075,462	\$4,772,432
	Non-Specific	\$158,940	\$143,916	\$102,759	\$345,559	\$464,239	\$266,564	\$55,656	\$141,918	\$170,908	\$151,233
	Specific	\$253,975	\$127,511	\$245,556	\$216,434	\$286,314	\$2,506,506	\$1,614,487	\$848,482	\$4,904,554	\$4,621,199
Willows	Total	\$159,225	\$302,101	\$246,055	\$25,726	\$365,665	\$635,079	\$886,176	\$921,262	\$604,694	\$443,570
	Non-Specific	\$109,928	\$269,110	\$121,066	\$26,679	\$97,067	\$70,098	\$231,312	\$218,767	\$73,829	\$125,030
	Specific	\$49,297	\$32,991	\$124,989	-\$95						

California Water Service Company
Total Capital Expenditures by General office Department

GO Total		\$4,494,713	\$3,848,393	\$4,624,405	\$5,006,256	\$5,942,818	\$6,889,087	\$7,027,213	\$9,376,763	\$11,615,701	\$14,795,336
General Office	Total	\$1,326,006	\$482,387	\$706,720	\$1,459,203	\$619,532	\$2,516,944	\$2,255,203	\$1,095,450	\$1,040,373	\$1,319,417
	Non-Specific	\$456,295	\$192,543	\$69,886	\$183,349	\$219,805	\$131,198	\$209,826	\$28,115	\$181,711	\$343,047
	Specific	\$869,711	\$289,844	\$636,834	\$1,275,854	\$399,727	\$2,385,746	\$2,045,377	\$1,067,335	\$858,662	\$976,370
Accounting	Total	\$563	\$805	\$0	\$0	\$0	\$461,884	\$1,000,061	\$46,909	\$366,138	\$196,581
	Non-Specific	\$563	\$805	\$0	\$0	\$0	\$0	\$0	\$0	\$197,648	\$132,959
	Specific	\$0	\$0	\$0	\$0	\$0	\$461,884	\$1,000,061	\$46,909	\$168,490	\$63,622
Purchasing	Total	\$11,425	\$151	\$0	\$1,076	\$1,426	\$15,422	\$28,716	\$7,705	\$0	\$0
	Non-Specific	\$11,425	\$151	\$0	\$1,076	\$1,426	\$15,422	\$23,759	-\$767	\$0	\$0
	Specific	\$0	\$0	\$0	\$0	\$0	\$0	\$4,957	\$8,472	\$0	\$0
Rates & Statistics	Total	\$0	\$0	\$16,178	\$2,358	\$37,272	\$0	\$0	\$0	\$0	\$0
	Non-Specific	\$0	\$0	\$16,178	\$2,358	\$37,272	\$0	\$0	\$0	\$0	\$0
	Specific	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Human Resources	Total	\$18,729	\$3,240	\$26,810	\$69,392	\$15	\$0	\$0	\$0	\$0	\$0
	Non-Specific	\$0	\$3,240	\$26,810	\$69,392	\$15	\$0	\$0	\$0	\$0	\$0
	Specific	\$18,729	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Engineering	Total	\$406,575	\$178,707	\$635,302	\$449,604	\$196,526	\$81,366	\$169,104	\$217,625	\$143,214	\$109,023
	Non-Specific	\$71,612	-\$7,636	\$1,001	\$28,942	\$92,188	\$57,689	\$125,632	\$23,539	\$75,114	\$4,415
	Specific	\$334,963	\$186,343	\$634,301	\$420,662	\$104,338	\$23,677	\$43,472	\$194,086	\$68,100	\$104,608
Field Maintenance	Total	\$15,511	\$7	-\$7	\$21,245	\$0	\$0	\$0	\$28,764	-\$1,901	\$633
	Non-Specific	-\$74	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Specific	\$15,585	\$7	-\$7	\$21,245	\$0	\$0	\$0	\$28,764	-\$1,901	\$633
Water Quality	Total	\$525,221	\$143,482	\$297,999	\$80,709	\$153,360	\$46,591	\$115,109	\$145,460	\$8,472	\$165,641
	Non-Specific	\$48,147	\$32,895	\$115,976	\$16,356	\$13,408	\$10,730	\$16,364	\$0	\$1,760	\$40,753
	Specific	\$477,074	\$110,587	\$182,023	\$64,353	\$139,952	\$35,861	\$98,745	\$145,460	\$6,712	\$124,888
Information Systems	Total	\$2,116,903	\$3,010,823	\$2,886,826	\$2,739,286	\$3,461,541	\$3,005,205	\$3,091,135	\$5,853,675	\$6,873,893	\$7,757,362
	Non-Specific	\$414,812	\$372,165	\$1,315,807	\$806,233	\$612,706	\$1,587,895	\$403,963	\$1,738,069	\$1,897,208	\$2,290,459
	Specific	\$1,702,091	\$2,638,658	\$1,571,019	\$1,933,053	\$2,848,835	\$1,417,310	\$2,687,172	\$4,115,606	\$4,976,685	\$5,466,903
Corporate Comm.	Total	\$0	\$0	\$0	\$0	\$0	\$9,770	\$27	\$0	\$40,060	\$212,942
	Non-Specific	\$0	\$0	\$0	\$0	\$0	\$9,770	\$27	\$0	\$4,736	\$113,058
	Specific	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$35,324	\$99,884
Administration	Total	\$19,619	\$0	\$0	\$0	\$52,292	\$1,625	\$57	\$18,820	\$625,367	\$801,973
	Non-Specific	\$0	\$0	\$0	\$0	\$52,292	\$1,625	\$57	-\$401	\$0	\$441,963
	Specific	\$19,619	\$0	\$0	\$0	\$0	\$0	\$0	\$19,221	\$625,367	\$360,010
Operations	Total	\$43,616	\$21,586	\$24,896	\$11,892	\$0	\$0	\$0	\$0	\$0	\$0
	Non-Specific	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Specific	\$43,616	\$21,586	\$24,896	\$11,892	\$0	\$0	\$0	\$0	\$0	\$0
Facilities	Total	\$10,545	\$7,205	\$29,681	\$171,491	\$1,365,591	\$749,604	\$367,598	\$1,940,995	\$2,513,716	\$4,204,413
	Non-Specific	\$10,545	\$7,205	\$29,681	\$73,778	\$239,789	\$510,585	\$120,094	\$819,139	\$401,677	\$259,569
	Specific	\$0	\$0	\$0	\$97,713	\$1,125,802	\$239,019	\$247,504	\$1,121,856	\$2,112,039	\$3,944,844
Customer Services	Total	\$0	\$0	\$0	\$0	\$55,263	\$676	\$203	\$21,360	\$6,369	\$27,351
	Non-Specific	\$0	\$0	\$0	\$0	\$55,263	\$676	\$180	\$125	\$27,626	\$27,351
	Specific	\$0	\$0	\$0	\$0	\$0	\$0	\$23	\$21,235	-\$21,257	\$0

District #	District	Project #	Station/ Tank
101	Bakersfield	54508	Sta.87 Tank 8
			Sta.148 Tank 2
			Sta.153 Tank 1
			Sta.156 Tank 1
			Sta.156 Tank 2
			Sta.188 Tank 2
			Sta.194 Tank 1
			Sta.210 Tank 1
			Sta.216 Tank 1
			Sta.222 Tank 1
102	Bear Gulch	55048	Sta.5 Tank 9
			Sta.19 Tank 2
			Sta.22 Tank 1
			Sta.27 Tank 4
			Sta.29 Tank 3
			Sta.30 Tank 1
			Sta.32 Tank 1
104	Chico	78554	Sta.66 Tank 1
			Sta.66 Tank 2
			Sta.74 Tank 1
			Sta.81 Tank 1
106	East Los Angeles	53610	Sta.4 Tank 1
			Sta.42 Tank 2
			Sta.58 Tank 1
108	Hermosa Redondo	54930	Sta.5 Tank 1
			Sta.5 Tank 2
109	King City	55128	Sta.10 Tank 1
			Sta.13 Tank 1
110	Livermore	78574	Sta.25 Tank 3
			Sta.23 Tank 1
			Sta.23 Tank 2
			Sta.25 Tank 2
			Sta.29 Tank 1
			Sta.29 Tank 2
111	Los Altos	55069	Sta.10 Tank 2
			Sta.28 Tank 3
			Sta.42 Tank 3
112	Marysville	55309	Sta.15 Tank 1
113	Oroville	55308	Sta.15 Tank 1
			Sta.16 Tank 1
			Sta.47 Tank 1
			Sta.48 Tank 1
			Sta.53 Tank 1
			Sta.54 Tank 1

District #	District	Project #	Station/ Tank
114	Salinas	55108	Sta.68 Tank 1
			Sta.108 Tank 1
			Sta.201 Tank 1
			Sta.204 Tank 1
			Sta.302 Tank 2
116	Mid Peninsula	55090	Sta.24 Tank 2
			Sta.25 Tank 3
			Sta.29 Tank 1
			Sta.30 Tank 1
			Sta.32 Tank 2
			Sta.112 Tank 3
			Sta.118 Tank 2
			Sta.120 Tank 1
Sta.123 Tank 4			
117	Selma	54931	Sta.20 Tank 1
			Sta.21 Tank 1
118	So. San francisco	54990	Sta.12 tank 1
			Sta.13 Tank 1
			Sta.14 Tank 1
			Sta.15 Tank 1
119	Stockton	55449	Sta.69 Tank 1
			Sta.80 Tank 1
120	Visalia	54989	Sta.95 tank 1
			Sta.96 Tank 1
121	Willows	55288	Sta.11 Tank 1
123	Westlake	54908	Sta.8 Tank 1
134	Kern River valley	55089	Sta. 1 Tank 3
			Sta.1 Tank 4
147	Lucerne	69010	Sta.2 Tank 2
			Sta.3 Tank 1
			Sta.4 Tank 1
149	Coast Springs	69029	Sta.7 Tank 4