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Commissioner	:	<u>Guzman-Aceves</u>
Administrative Law Judge	:	<u>Garrett Toy</u>
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PUBLIC ADVOCATES OFFICE
CALIFORNIA PUBLIC UTILITIES COMMISSION

REPORT AND RECOMMENDATIONS

in

Application 20-10-018

PUBLIC VERSION

Los Angeles, California
October 19, 2021

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MEMORANDUM

In this Report, the Public Advocates Office at the California Public Utilities Commission (“Cal Advocates”) presents its analyses, findings, and recommendations pertaining to the *Application (“A.”) of Southern California Edison Company (“SCE”) for Authority to Increase Rates for its Class C Catalina Water Utility and Recover Costs from Water and Electric Customers.*

Cal Advocates Project Coordinator for this proceeding is Mehboob Aslam. Emily Fisher is Cal Advocates’ Legal Counsel. Cal Advocates witnesses’ qualifications are set forth in Appendix A of this report. The following table identifies Cal Advocates’ witnesses and the chapters they are sponsoring:

Chapters	Description	Witness
	Executive Summary	Mehboob Aslam
1	Customer and Sales Forecast	Jeff Roberts
2	Operations & Maintenance (O&M) Expenses	Chris Ronco
3	Administrative & General (A&G) Expenses	Chris Ronco
4	General Office Allocations	Chris Ronco
5	Taxes	Chris Ronco
6	Plant In Service	Sari Ibrahim
7	Rate Base	Isaac Gendler
8	Water Quality	Isaac Gendler
9	Customer Service	Isaac Gendler
10	Balancing and Memorandum Account	Jeff Roberts
11	Water Loss	Jeff Roberts
12	Cost Recovery Options	Jeff Roberts
13	Rate Design	Jeff Roberts
14	Escalation Years Revenue Requirement	Mehboob Aslam

EXECUTIVE SUMMARY

On October 30, 2020, SCE filed its instant general rate case (“GRC”) application requesting authorization to increase rates charged for water services on Catalina Island to \$9,314,000. This represents an increase of more than 125% over the last authorized amount of \$4,130,000 adopted in SCE’s previous GRC.¹ In addition to this increase in base rates, SCE requests to implement surcharges that would recover approximately \$29 million in additional water system costs from its energy customers. More specifically, SCE requests to charge its energy customers \$18.5 million in alleged drought-related costs and \$10.3 million in deferred revenue associated with phasing-in its proposed increases to water system base rates.

During the period that SCE uses to estimate its proposed budgets and cost recovery, the company unexplainably lost approximately one-third of its product water. In fact, the last recorded year of data provided by SCE indicates that 39.10% of the water it produced was not delivered to customers, but rather reported as “unaccounted-for.”² It is difficult to imagine a business without monopoly status operating in a competitive environment losing nearly forty percent of its product each year and expecting to recover all the costs incurred in producing this loss. As an economic regulator and proxy or substitute for competition,³ the Commission should reduce SCE’s proposed budgets to an amount that accounts for a more reasonable amount of water loss.

Adjusting for SCE’s extraordinary water loss and removing costs that were avoidable, double-counted, over-estimated, or inadequately supported results in an annual water system budget of approximately \$3.7 million or about ten percent less than the amount SCE was last authorized to collect from base rates. Without the need for a

¹ See Decision (D).14-10-048 *Adopting the All-Party Settlement on Revenue Requirement and Rate Design Issues for Southern California Edison Company’s Santa Catalina Island Water Operations* (October 20, 2014).

² Unaccounted-for water is also identified as “non-revenue-water” or “NRW.”

³ See D.96-04-050, *Re Southern California Edison Company*, 65 CPUC 2d 362 (April 10, 1996) (stating that the Commission’s “objective through regulation is to act as a substitute for competition”).

1 significant increase in base rates, SCE’s proposed rate phase-in and transfer of \$10.3 in
2 deferred revenue to energy customers is unnecessary. Thus, necessary adjustments to the
3 remaining balance of SCE’s proposed transfer of costs to energy customers results in a
4 recoverable balance of \$4.7 million that should be recovered from water system
5 customers consistent with the Commission's standard practices.

6 Regarding rate design or how SCE is authorized to recover its reasonable costs
7 from different water system customers, SCE’s current rate design has not been reviewed
8 or updated in over a decade. As such, several adjustments are needed to prevent full-time
9 and low-income residential customer rates from subsidizing part-time or relatively larger
10 customers. These adjustments include increasing the proportion of total revenue
11 collected as monthly service charges, following standard industry practices for the pricing
12 of different-size customer connections, and modifying rate tiers to provide both strong
13 conservation signals and a more affordable, basic quantity of water for human
14 consumption.

15 Of final significance, the Commission should order modifications to tariff
16 language to prevent SCE from continuing to make indiscriminate denials of service.
17 Currently, SCE is authorized to deny service requests for “any reason” it deems
18 necessary. In addition to being a highly unusual authorization for a public utility with a
19 monopoly obligation to serve, SCE’s demonstrated ability to deny all new service
20 requests may explain why SCE has been able to maintain its total number of service
21 connections at just one less than the amount that would otherwise trigger additional
22 reporting requirements to the Commission.

23 Table 1, below, compares the Summary of Earnings proposed by SCE with that
24 recommended by Cal Advocates. Table 2 compares current and proposed bills for
25 average residential and commercial customers.

1

Table 1: Summary of Earnings Comparisons for Test Year 2022⁴

Summary of Earnings at Proposed Rates			
Thousands			
Items	SCE	Cal Advocates	Difference
Total Operating Revenues	9,314	\$3,688	(5,626)
Production Expenses	4,231	1,866	(2,365)
Uncollectibles	17	5	(12)
Administrative and General	1,830	782	(1,048)
Franchise Requirements	93	25	(68)
Revenue Credits	(143)	(97)	46
Escalation	333	194	(139)
Depreciation	964	283	(681)
Taxes	755	177	(578)
Total Expenses	8,080	3,235	(4,845)
Net Operating Revenues	1,234	\$453	(781)
Rate Base	16,075	5,899	(10,176)
Rate of Return	7.68%	7.68%	

2

3

4

⁴ Cal Advocates' values shown in Table 1 reflect an overall reduction of 32.1% in revenue requirement due to SCE's extreme water loss.

1

Table 2: Residential Customers Bill Comparison

Meter Size	# of Customers	SCE Current Rates	SCE Proposed Rates⁵	Cal Advocates Proposed	% Change
5/8 x 3/4 INCH	1294	\$84.08	\$427.16	\$62.81	-25.29%
3/4 INCH	16	\$92.91	\$475.09	\$82.26	-11.46%
1 INCH	118	\$162.27	\$833.77	\$151.72	-6.50%
1 1/2 INCH	21	\$620.14	\$3,044.40	\$615.42	-0.76%
2 INCH	26	\$512.04	\$2,630.60	\$612.08	19.54%
3 INCH	1	\$306.85	\$1,612.26	\$695.99	126.81%
4 INCH	4	\$366.82	\$1,922.70	\$1,156.38	215.25%

2

3

⁵ Proposed rates derived from year 5 of phased-in \$22.0 million revenue requirement as provided in SCE-08 p. 21, Table V-10.

CHAPTER 1 CUSTOMERS AND SALES FORECAST

(Witness: Jeff Roberts)

I. INTRODUCTION

Southern California Edison Catalina Water Utility (“SCE”) calculates 1,999 customers with total water sales of 83.384 million gallons in TY 2022.⁶ This forecast is used as the basis for a rate design that will recover authorized revenues.

This chapter will focus on the customer forecast and SCE’s policies and practices regarding issuance of new connection permits, sometimes referred to as new allocation. Specifically, SCE has initially denied all requests for new connection permits since its previous GRC in 2014.⁷ Only one request for new allocation was granted during this time at the Commission’s direction due to an informal complaint filed by a business on the island.⁸ There are many consequences resulting from SCE’s decision to deny new permit requests and the implications of which will be explored in this chapter.

II. SUMMARY OF RECOMMENDATIONS

SCE has an obligation to serve customers within its service area who request water service.⁹ By consistently denying new connection and allocation requests, SCE has been avoiding its legal obligation to serve. Outdated and arbitrary language in SCE’s tariffs has allowed SCE to avoid its service obligations.¹⁰ The Commission should require SCE to modify its tariff language to prevent SCE from continuing to arbitrarily deny new connection requests.

⁶ Exhibit No. WPSCE02, p. 8.

⁷ Attachment 1-1, SCE Response to DR JR6-05 (PubAdv-SCE-020-JR) Q.02.a-b.

⁸ Attachment 1-3, SCE Response to DR JR6-06 (PubAdv-SCE-036-JR) Q.01.a-d.

⁹ See Decision (D.)96-10-066, *In Re Rulemaking on Commission's Own Motion into Universal Serv., to Comply with Mandates of Assembly Bill 3643* (October 25, 1996), 68 CPUC 2d 524 (noting that “by accepting the franchise obligation from the state to serve a particular area, the public utility is obligated to serve all the customers in the service area who request service”).

¹⁰ See SCE Tariff Rule 3: Application for Service, Sheet 5 D.3.b (stating that “...[when] fresh water is not available from the Company because demand for fresh water exceeds the limit of the safe annual yield, *or for any other reason*” (emphasis added)).

Moreover, SCE’s continuous practice of denying applications for new connections has likely resulted in under-counting and under-forecasting TY customer counts. The 27 customers that were denied service in the period since SCE’s previous GRC, should be included in the customer TY forecast once the Commission ensures that SCE issues new permits appropriately and consistently with its duty to provide water utility services on Catalina Island.

III. ANALYSIS

SCE forecasts total water sales in TY 2022 of 83.384 million gallons.¹¹ Individual customer consumption data for the period March 2019 to February 2020 indicated a total water usage of approximately 92.392 million gallons. The following sections discuss customer counts by class, SCE’s decision to deny new connection permits, and a review of the sales adjustment mechanisms currently in place.

A. Denial of New Connection Permits

It is a well-established regulatory principle that when a utility is granted a franchise obligation by the state, that utility is then obligated to provide service to any customer within its service area who requests it.¹² SCE’s decision to deny service is directly at odds with this core regulatory principle.

When asked to explain why it has not issued new permits for additional connections,¹³ SCE responded:

The issuance of allocations is governed by SCE tariff Rule No. 3 D.1 which states that SCE is unable to assign/honor freshwater allocations during Stages 1 through 4. Catalina Island entered Stage 1 Conservation in June of 2013 and did not exit rationing or conservation until February 2019. Therefore, SCE was unable to assign/honor any freshwater allocations during that time. Following the prolonged drought condition on Catalina

¹¹ SCE-02, p. 8.

¹² See D.96-10-066, *In Re Rulemaking on Commission's Own Motion into Universal Serv., to Comply with Mandates of Assembly Bill 3643* (October 25, 1996), 68 CPUC 2d 524 (noting that “by accepting the franchise obligation from the state to serve a particular area, the public utility is obligated to serve all the customers in the service area who request service”).

¹³ Attachment 1-1, Response to DR JR6-05 Q.2.a.

1 Island, SCE is currently assessing the water supply, storage, and demand
2 factors to determine the amount of water available to allocate consistent
3 with the water allocation process as outlined in SCE's water tariffs.¹⁴
4

5 The water allocation process in SCE's tariffs referenced here pertains to the Commission
6 authorized safe annual yield as outlined in SCE's preliminary statement.¹⁵ Essentially,
7 safe annual yield is the level at which SCE is able to draw water from its aquifers without
8 risking the integrity of the geological formations.¹⁶ As it relates to the issuance of new
9 connections, if current system demand is below the safe annual yield, the company is able
10 to issue new allocations. If demand is at or above the safe annual yield, the company is
11 then unable to issue new allocations. However, this point is moot. The company has not
12 demonstrated that the safe annual yield was the determining factor in its decision to deny
13 new permits. Moreover, the restrictions using safe annual yield in SCE's tariffs were
14 implemented in 1990; over thirty years ago.¹⁷ Since then, SCE has put two desalination
15 plants into operation. The safe annual yield calculated in SCE's tariffs does not reflect
16 this new source of supply.

17 At the very least, the company should have resumed issuance at the conclusion of
18 recent drought restrictions. For reference, drought restrictions were activated in June
19 2013 and lasted until February 15, 2019, when SCE lifted the Stage 1 mandatory
20 conservation restrictions.¹⁸ The company provided a list of new connection permits that
21 were denied, which Cal Advocates compiled in Table 1-1 below:
22

¹⁴ Attachment 1-1, SCE Response to DR JR6-05 Q.2.a (PubAdv-SCE-020-JR Q.02.a-b).

¹⁵ Schedule No. FWY See https://library.sce.com/content/dam/sce-doelb/public/regulatory/tariff/santa-catalina-island-water/schedules/general/WATER_SCHEDULES_FWY.pdf

¹⁶ Safe Yield: "The rate at which groundwater can be withdrawn without causing long-term decline of water levels" See <https://www.watereducation.org/aquapedia/safe-yield>.

¹⁷ Advice Letter 43-W Effective May 14, 1990

¹⁸ See Advice Letter 89-W Stage 1 Mandatory Water Conservation Effective June 1, 2013; Advice Letter 109-W Lifting Stage 1 Mandatory Water Conservation Effective February 15, 2019.

Table 1-1: Permits Denied During Drought Restrictions¹⁹

Permits Denied Between June 1, 2013-Feb 15, 2019	Permits Denied After Feb 15, 2019
12	15

Contrary to what would be expected, the company denied *more* permits in the 14 months *after* the drought restrictions than during the five years when the restrictions were in place. SCE has denied permits for home remodels, construction of new housing, a hospital, a community center/pool, and a new ice cream shop.²⁰ This is a major issue for a small community like Catalina Island. The protest of City of Avalon et al. stated the problem succinctly:

There has been no growth on Catalina Island since the Previous GRC. There cannot be growth if the water provider cannot or does not issue permits for additional connections which has largely been the case since the Previous GRC.²¹

The Commission should be most alarmed at the finding of the denial of a permit for a new apartment complex—depriving the city of Avalon of much needed additional housing. The protest of the City of Avalon et al. confirms this, stating “[The Catalina Island Company], the principal employer on the Island for its tourist related businesses, is particularly frustrated as it has been unable to build the housing it needs for its employees.”²² This lack of available housing hurts low-income residents the most. As referenced in the protest, The Catalina Island Company (“SCICO”) provides various tourist-related employment opportunities to residents on the island. At the time of

¹⁹ Attachment 1-2, SCE’s Response to DR JR6-05 Q.2.b, Excel Spreadsheet “Permits not Issued for Additional Connections.”

²⁰ Attachment 1-2, SCE’s Response to DR JR6-05 Q.2.b, Excel Spreadsheet “Permits not Issued for Additional Connections.”

²¹ See A.20-10-018, Protest of City of Avalon et al. (December 2, 2020) (“Protest of City of Avalon et al.”), p.9.

²² See Protest of City of Avalon et al., p. 9.

1 writing, SCICO has thirteen employment opportunities available, twelve of which
2 provide salaries that meet the criteria described by the Commission as low-income, that is
3 80 percent of the area median income.²³

4 Because the company's decision to deny connection permits detrimentally affects
5 low-income residents; it is at odds with the Commission's Environmental and Social
6 Justice Action Plan ("ESJ Action Plan"). Specifically, goal number seven—to promote
7 economic and workforce development opportunities in ESJ communities.²⁴ With the
8 Commission's commitment to ESJ goals in mind, the denial of new connection permits
9 by SCE for low-income housing should not be allowed to continue.

10 SCE's refusal to issue permits was the subject of two complaints filed by Catalina
11 water customers.²⁵ In a data request, Cal Advocates asked: "Has any person or entity
12 filed a complaint seeking injunctive relief or other legal remedy against SCE, related to
13 SCE's denial of a request for a connection permit or SCE declining to issue a new
14 connection permit?"²⁶ The company noted two instances. In one case, The Catalina
15 Island Museum filed an informal complaint with the Commission to obtain a freshwater
16 allocation during stage 2 of mandatory conservation. The Commission resolved this
17 complaint and SCE granted the museum 0.83 acre-feet-year ("AFY") in 2015.²⁷ This is
18 equivalent to approximately 261,000 gallons per year or the average amount of demand
19 for approximately 30 residential connections. Of the other 27 new connection permits
20 SCE denied, only three applicants requested amounts larger than the 0.83AFY granted in
21 2015.

22 The disclosure that an allocation for new water was granted also contradicts SCE's
23 data request response stating that "...SCE was unable to assign/honor *any* freshwater

²³ Employment Opportunities at Catalina Island Company. Accessed 02/22/21 *See*
<https://www.visitcatalinaisland.com/employment/opportunities/>.

²⁴ *See* CPUC's *Nine Goals of the ESJ Action Plan*, at <https://www.cpuc.ca.gov/esjactionplan/>.

²⁵ Attachment 1-3, SCE Response to DR JR6-06/PubAdv-SCE-036-JR Q.01.a-d.

²⁶ Attachment 1-3, SCE Response to DR JR6-06 Q. 1.d.

²⁷ Attachment 1-3, SCE Response to DR JR6-06, PubAdv-SCE-036-JR Q.01.a-d.

1 allocations during that time.”²⁸ By accommodating the new demand from the Catalina
2 Island Museum, however, it would appear that SCE *was* able to assign/honor new
3 freshwater allocation requests.

4 The history and practices surrounding SCE’s denial of new connection permits
5 demonstrates three things:

- 6 1. SCE has the ability to provide new water allocations and
7 approve new connection permits, but the company is
8 unwilling to do so.
- 9 2. If SCE was able to provide new water allocations during
10 Stage 2 of the mandatory drought restrictions in 2015, the
11 company should be able to offer new connection permits
12 considering drought restrictions are no longer in place.
- 13 3. The Commission has already demonstrated its ability, through
14 the complaint resolution process, to compel SCE to issue new
15 allocations on Catalina Island.

16 To rectify the problems associated with SCE’s refusal to issue new permits and to
17 prevent the company from arbitrarily denying new connection requests, the Commission
18 should modify the language set forth in SCE’s preliminary statement and tariff rules.

19 Specifically, SCE’s tariff rules permit the company to deny new connection and
20 allocation requests “When fresh water is not available from the Company because
21 demand for fresh water exceeds the limit of the safe annual yield, or for any other
22 reason.”²⁹ First, this specific language “for any other reason” is unreasonable because it
23 is gives SCE the freedom to deny new connection requests and evade its obligation to
24 serve. Second, the safe annual yield is over thirty years old and has become largely
25 irrelevant as its calculation does not include production from two desalination plants in
26 operation.

27 The Commission should require SCE to file a Tier 2 advice letter, within 30 days
28 of a final decision in this proceeding, to modify its tariff language so that the company

²⁸ Attachment 1-1, SCE’s Response to DR JR6-05 Q.2.a (emphasis added).

²⁹ SCE Tariff Rule 3: Application for Service, sheet 5 D.3.b.

will no longer be allowed to indiscriminately deny permits. Additionally, the Commission should review the results of SCE's tariff modifications periodically before SCE's next GRC filing to ensure that SCE is no longer unjustly denying water service to Catalina Island residents and businesses.

B. Customer Forecast

SCE's decision to deny connection permits has the additional effect of undercounting and underrepresenting the likely test year customer forecast. SCE forecasts a total of 1,999 customers in TY 2022. The exact breakdown by customer class is provided in Table 1-2 below:

Table 1-2: SCE Customer Forecast by Tariff Schedule TY 2022

Customer Counts		
Tariff Schedule	Description	Count
W-1-GS	Commercial	346
W-1-R	Residential	1148
W-1-R-CARE	Residential CARE	143
W-1-RDS	Residential Dual	64
W-1-RDS-CARE	Residential Dual CARE	1
W-1-RDS-10	Residential Dual Employee Discount	1
W-1-RM	Residential Multi Family	59
W-10	Residential Employee Discount	59
W-3	Irrigation	66
W-4	Fire Protection	112
	Total	1999

The company arrived at this forecast by calculating the average rate of change over the previous 4 years (2016-2019) as outlined in Standard Practice U-25-W. The resulting calculation yielded a negative -0.21 percent growth rate for both Residential and

Non-Residential accounts, and a positive growth rate of +3.2 percent for Fire Protection.³⁰

Typically, a water system exhibits a natural cycle of some customers discontinuing service, and new customers signing up for service. Because SCE initially denied all new connection permits in the previous five years, the company's forecast artificially depresses the likely customer counts in the test year. Analogous to the ebb and flow of a tide, SCE's forecast acknowledges the ebbs but not the flows.

SCE denied a total of 27 new connection permits since its last GRC for Residential and Non-Residential customer classes. The Table 1-3 below provides the details of these denied connection permits per their respective customer classes.

Table 1-3: Connection Permits Denied by Customer Class³¹

New Connection Permits Denied				
Tariff Schedule	Description	Permits Denied	New Construction	Remodel
W-1-GS	Commercial	4	3	1
W-1-R	Residential	19	5	14
W-1-RDS	Residential Dual*	2	3	0
W-1-RM	Residential Multi Family	2	2	0
W-4	Fire Protection	0	0	0
	Total	27	13	15

*SCE denied a permit for two new residential duplexes in one application

To arrive at a reasonable customer forecast for the test year, the Commission should take into account the above customers who wish to be served by SCE but had their applications denied. Thus, these prospective customers should be added to the test year forecast.

³⁰ SCE-07, p. 11.

³¹ Attachment 1-2, compiled from SCE's Response to DR JR6-05 Q.2.b, Excel Spreadsheet "Permits not Issued for Additional Connections."

1 More importantly, two commercial customers in the fire protection tariff (“W-4”)
2 were found to be regularly recording volumetric usage.³² This tariff is intended to bill
3 only for a monthly fixed charge and volumetric usage is only permitted for fire tests or
4 fire emergencies.³³ However, in just a 12-month period ending February 2020, these two
5 customers had recorded nearly 50,000 gallons of volumetric usage, which is
6 approximately the average annual usage of two regular residential connections. The
7 company has given no indication that those customers paid for any of this usage, nor
8 given an indication as to how long this has been occurring. After Cal Advocates brought
9 this anomaly to the company’s attention in a data request, SCE acknowledged that these
10 customers had been placed on the wrong tariff and corrected these customer accounts to
11 the correct commercial tariff “W-1-GS” as of March 2021.³⁴

12 It is a basic obligation of a water system’s management to correctly administer its
13 tariff.³⁵ SCE failed to meet this obligation, as evidenced by the repeated volumetric
14 usage recorded in this tariff, where any usage would reflect an extraordinary event.

15 To correct for the two accounts that were receiving water under an incorrect tariff,
16 two customers should be subtracted from SCE’s W-4 tariff count, and two customers
17 added to W-1-GS. This reclassification and the inclusion of customer growth is presented
18 in Table 1-4 below.

³² See Confidential Attachment 1-3, Data Request JR6-07 Q.04.

³³ Schedule W-4 Special Condition 7 “Unauthorized use, defined as any use of water for purposes other than private fire protection, fire abatement training, or maintenance of the private fire protection facility, except for uncontrollable usage due to faulty or damaged equipment, is prohibited under this Schedule.”

³⁴ Confidential Attachment 1-3, Response to Data Request JR6-07 Q.04, PubAdv-SCE-055-JR Q.04.

³⁵ See D.16-12-003 *Addressing WRAM Balances, Rate Design, Conservation and Rationing Rules, and Other Issues for the Monterey District* (December 1, 2016), p. 4 (authorizing a penalty phase in the proceeding to examine whether California-American Water “should be penalized for failure to reasonably administer its tariffs”).

Table 1-4: Cal Advocates Test Year Customer Forecast

Customer Counts		
Tariff Schedule	Description	Count
W-1-GS	Commercial	352
W-1-R	Residential	1167
W-1-R-CARE	Residential CARE	143
W-1-RDS	Residential Dual	66
W-1-RDS-CARE	Residential Dual CARE	1
W-1-RDS-10	Residential Dual Employee Discount	1
W-1-RM	Residential Multi Family	61
W-10	Residential Employee Discount	59
W-3	Irrigation	66
W-4	Fire Protection	110
	Total	2,026

By including customer growth into the forecast, the total customer count estimated for 2022 becomes 2,026. This is more realistic than SCE’s forecast, which does not take into account reasonable customer growth. The Commission should adopt Cal Advocates customer forecast for TY2022.

C. Consumption Adjustment Mechanism

SCE has a Consumption Adjustment Mechanism (“CAM”) in place to update the adopted sales forecast and adjust rates annually.³⁶ The Commission authorized the CAM to “minimize the potential for large multi-year accumulation of revenue under-collection, operating in connection with the Water Revenue Adjustment Mechanism/Modified Cost

³⁶ SCE-05, p. 48.

1 Balancing Account (WRAM/MCBA) revenue decoupling mechanism...”³⁷ According to
2 the program, SCE submits an advice letter annually to update the adopted sales forecast,
3 then submits an advice letter to implement new rates.

4 However, on August 27, 2020 the Commission revised its policy and eliminated
5 the use of the full decoupling WRAM/MCBA for water utilities.³⁸ Consistent with the
6 revised policy, SCE requests, and the Commission should approve, a transition from a
7 full-decoupling WRAM/MCBA to a Monterey-style Water Revenue Adjustment
8 Mechanism/Incremental Cost Balancing Account(“WRAM/ICBA”).³⁹ Because the
9 WRAM/MCBA will no longer be active, the CAM will no longer serve its intended
10 purpose and the Commission should discontinue this mechanism accordingly.

11 **IV. CONCLUSION**

12 SCE’s decision to deny new connection permits has stifled growth on Catalina
13 Island and created frustrating problems for residents and businesses. SCE has an
14 obligation to serve customers in its service area who request service and the company has
15 not been doing so. To ensure SCE complies with its regulatory obligations, the
16 Commission should (1) modify the relevant tariff language allows SCE to deny new
17 connection permits, (2) order SCE to resume issuance of new connection permits, and
18 (3) adopt Cal Advocates’ customer forecast of 2,026 for the TY 2022.

³⁷ SCE Preliminary Statement Part R.

³⁸ See D.20-08-047, *Decision and Order* in Rulemaking (R.) 17-06-024, p. 103, Finding of Fact 16 (noting that the WRAM/MCBA “is not the best means to minimize intergenerational transfers of costs” compared to available alternatives). D.20-08-047.

³⁹ See Cal Advocates Report, Chapter 10: Balancing and Memorandum Accounts; SCE-05, pp.48-49.

1

LIST OF ATTACHMENTS FOR CHAPTER 1

#	Attachment	Description
1	Attachment 1-1	SCE Response to Data Request JR6-05 (PubAdv-SCE-020-JR), Q.02.a-b
2	Attachment 1-2	SCE Response to DR JR6-05 Q.2.b, Excel Spreadsheet “Permits not Issued for Additional Connections
3	Attachment 1-3 (CONFIDENTIAL)	SCE Response to Data Request JR6-06, PubAdv-SCE-036-JR Q.01.a-d

2

ATTACHMENT 1-1

**SCE Response to Data Request JR6-05
(PubAdv-SCE-020-JR), Q.02.a-b**

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 2 0 - J R

To: Public Advocates Office
Prepared by: Mary Schickling
Job Title: Business Ops Analysis, Sr. Specialist
Received Date: 1/8/2021

Response Date: 1/15/2021

Question 02.a-b:

The protest filed by the City of Avalon et al. states “There cannot be growth if the water provider cannot or does not issue permits for additional connections, which has largely been the case since the Previous GRC.”

- a. Please explain why SCE has not issued new permits for additional connections.
- b. Please list the permits that were requested and not issued since the previous GRC with a reason why each permit was not issued.

Response to Question 02.a-b:

- a. The issuance of allocations is governed by SCE tariff Rule No. 3 D.1 which states that SCE is unable to assign/honor freshwater allocations during Stages 1 through 4. Catalina Island entered Stage 1 Conservation in June of 2013 and did not exit rationing or conservation until February 2019. Therefore, SCE was unable to assign/honor any freshwater allocations during that time. Following the prolonged drought condition on Catalina Island, SCE is currently assessing the water supply, storage, and demand factors to determine the amount of water available to allocate consistent with the water allocation process as outlined in SCE’s water tariffs.
- b. Please see the attached excel spreadsheet. Please see response to 2a for the reason why the permits were not issued.

ATTACHMENT 1-2

**SCE Response to DR JR6-05 Q.2.b, Excel Spreadsheet
“Permits not Issued for Additional Connections”**

Date Received	Location	New Const	Remodel	Type of Request	Requested Usage (acre feet per year)
1/22/14	501 & 505 Crescent		X	New Ice Cream shop & Retail	2.41
12/11/14	13 Lower Terrace		X	Add Hot Tub & Lounge	0.002
12/18/14	145 Olive St	X		New 3 Brm House	0.27
1/29/15	312 Metropole		X	Add a bdrm	0.09
8/10/15	309 Beacon		X	Converting basement to dorm living	0.15
1/20/17	326 W Whitley	X		Add a bdrm	0.09
9/14/17	345 Eucalyptus		X	Add a bdrm	0.09
9/18/17	383 E Whitley Ave		X	Add 2 bdrm	0.18
9/19/17	1 Cemetery Rd	X		New meter on old line	0.45
11/2/17	100 Banning Drive	X		Apartment Complex	10.38
11/9/17	111 Crescent		X	Add comm washer	0.30
9/5/18	100 Falls Canyon Rd	X		Hospital	3.00
4/4/19	Former Field of Dreams	X		Community Center & Pool	3.73
6/5/19	138 Whitley Ave	X		Additional Dwelling Unit	0.09
7/1/19	126 Marilla Ave		X	Remodel Existing Duplex	0.18
7/8/19	310 E Whitley Ave		X	Remodel Existing Duplex	0.09
7/12/19	336 & 336 1/2 Eucalyptus		X	Remodel Existing Duplex	0.09
7/22/19	126, 128,130, 132 Hill St	X		Build 2 new Duplexes	1.08
9/25/19	117 Vieudelou	X		Additional Dwelling Unit	0.18
10/22/19	Avalon Canyon Rd		X	Remodel single family house	0.18
1/22/20	123 Marilla	X		Add 2 bdrm	0.18
1/23/20	236 Catalina	X		Build new building with 3 units, (1) 4 brm, (2) 2brm	0.72
1/24/20	110 Chimes Tower Rd	X		Existing 3 brm house on large lot. Subdivide lot & build new 2 brm house.	0.18
3/30/20	32 Cabrillo Dr		X	Add 1 bdrm	0.09
4/20/20	337 Descanso		X	Demolish existing 3 Brm duplex and replace with 5 Brm Single Family Residence.	0.18
4/23/20	23 Pebbly Beach Rd.	X		Add a restroom	0.14
10/15/20	104 Old Reservoir Rd	X		Add 1 hose bib	0.0009
				TOTAL	24.52

ATTACHMENT 1-3

**SCE Response to Data Request JR6-06,
PubAdv-SCE-036-JR Q.01.a-d**

(CONFIDENTIAL)

CHAPTER 2 OPERATION AND MAINTENANCE EXPENSES

(Witness: Chris Ronco)

I. INTRODUCTION

Operation and maintenance (“O&M”) expenses are categorized into accounts by the Uniform Systems of Account (“USOA”).⁴⁰ SCE’s O&M accounts contain expenses for purchased power, filters, chemicals, salaries of the employees that maintain the water system, materials used for maintenance, contract work and transportation. SCE forecasts Test Year (“TY”) 2022 O&M expenses at \$4,230,970.⁴¹ This forecasted amount represents a 50.57% increase from SCE’s 2019 recorded amount.⁴² From 2015-2019, SCE’s recorded O&M expenses increased by an average of only 2.21% annually. SCE’s O&M forecast methodology is based on the last recorded year 2019 with non-recurring or one-time expenses supposedly removed, plus additional adjustments to several O&M accounts and escalation.⁴³

II. SUMMARY OF RECOMMENDATIONS

SCE’s use of the last recorded year (2019) to forecast its TY O&M expenses results in forecasted amounts that are not supported by historical data trends. Accordingly, Cal Advocates recommends that the Commission:

- Require the use of the water industry standard escalation rates, as opposed to energy industry escalation rates.⁴⁴
- Require SCE to use a five-year average of O&M expenses, when appropriate, to forecast the TY amount.

⁴⁰ Standard Practice U-39-W establishes the various USOA accounts and their proper use for Class B, C and D water utilities.

⁴¹ SCE Results of Operation Model, workbook: G1) GRC, tab: O&M Reports, cell: 10J. A subcategory of O&M not included in the \$4,230,970 is administrative and general (“A&G”) expenses, which are discussed in more detail in Chapter 4 of this Report.

⁴² SCE-02, p. 5.

⁴³ O&M expenses are categorized into accounts by the Uniform System of Accounts (USOA). Commission Standard Practice U-39-W establishes the various USOA accounts and their proper use for Class B, C and D water utilities.

⁴⁴ SCE-06, p. 12.

- Ensure removal of any one-time expenses that improperly impact the forecasted amount.
- Reduce SCE's proposed adjustments to the O&M accounts indicated in Table 2-1, below.⁴⁵

Table 2-1: Comparison of TY O&M USOA Budgets

USOA Account	SCE Proposed	Cal Advocates Recommended	SCE > Cal Advocates	Cal Advocates as % of SCE
615 – Power for Pumping	\$267,000	\$236,398	\$30,602	89%
618 – Other Volume Related Expenses	\$143,962	\$106,839	\$37,123	74%
630 – Employee Labor	\$1,800,941	\$1,445,521	\$355,420	80%
640 - Materials	\$208,000	\$ 158,366	\$49,634	76%
650 – Contract Work	\$1,650,000	\$725,000	\$925,000	44%
660 – Transportation Expenses	\$161,000	\$ 76,437	\$84,563	47%
TOTAL	\$4,230,903	\$2,748,561 ⁴⁶	\$1,482,342	65%

III. ANALYSIS

SCE bases its O&M expense forecast on 2019 recorded expenses. O&M expenses increased by 5.18% in 2019, which is unusually high compared to other historical years.⁴⁷ In contrast, SCE's five-year average increase in O&M expenses is 2.21%. The five-year average provides more historical data points for estimating future O&M expenses.

⁴⁵ These budgets are the non-escalated amounts. Escalated amounts are discussed in the individual account sections.

⁴⁶ Cal Advocates recommended O&M expense amount is \$2.748 million. However, Cal Advocates recommends that the amount of \$2.748 million should further be reduced by 32.1% due to SCE's unreasonable 39.1% water loss rate. The final Cal Advocates recommend amount of production (O&M) expenses is \$1.866 [(\$2.748 x (1-32.1%))] million as depicted in the Summary of Earnings Table 1-1 in Chapter-1 of this report.

⁴⁷ SCE-02, p. 5.

1 Therefore, Cal Advocates recommends using a five-year average of O&M account
2 expenses to forecast the base amount of O&M instead of just 2019 data, unless otherwise
3 noted in the specific account discussion. While the five-year period from 2015-2019
4 includes drought years, SCE removed state mandated drought-related expenses from the
5 historical USOA account data.⁴⁸ Removal of these expenses means that the recorded data
6 captures the costs for each account under normal water operations, ensuring that the five-
7 year average O&M increase more accurately reflects the historic trend of costs associated
8 with maintaining SCE operations.

9 **A. Escalation Factors**

10 In addition to the specific recommendations to each O&M account discussed in
11 the following sections, there are further differences in account estimates caused by the
12 different escalation rates used by Cal Advocates and SCE. For example, for its non-labor
13 O&M escalation factors, SCE uses indexes of O&M combined materials and services
14 costs by the functional O&M categories of distribution and administration and general
15 provided by the IHS Markit Power Planner.⁴⁹ For its labor escalation factors, SCE uses
16 three sources: 1) Average Hourly Earnings (“AHE”) based on recorded SCE payroll data,
17 2) Collective Bargaining Agreements specifying straight time wage increases for
18 represented employees, and 3) IHS Markit Power Planner forecast of labor escalation
19 rated for U.S. electric utilities.

20 **B. The Commission should require SCE to escalate O&M**
21 **expenses in accordance with the RCP escalation factors.**

22 Cal Advocates recommends using the most recent estimates of inflation compiled
23 from the data provided by third-party economic forecaster, as is standard for the water

⁴⁸ See Attachment 2-1, SCE Response to Cal Advocates DR CR8-002, CWRMA 2014-2019. SCE tracked drought-mandated expenses in the Catalina Water Rationing Memorandum Account (“CWRMA”). As noted in Chapter 11 of Cal Advocates’ Report, however, the Commission should disallow certain expenses SCE tracked in the CWRMA that were not due to drought-related mandates.

⁴⁹ SCE-06, p. 14.

industry. Table 2-2 shows the escalation factor in accordance with the RCP for each O&M line item.

Table 2-2: Escalation Factors in Accordance with the RCP⁵⁰

Line Item	Escalation Rate Calculation	TY Escalation Factor ⁵¹
Purchased Chemicals	Non-Labor 60%/Compensation per hour ⁵²	1.0725
Payroll	Labor ⁵³	1.0560
Pensions and Benefits	Labor	1.0560
Other O&M and A&G	Non-Labor 60%/Compensation per hour	1.0725
Payroll Taxes	Labor	1.0560
Other Taxes (excluding income)	Non-Labor 60%/Compensation per hour	1.0725
Loans, Insurance, Contract Services, Rents	CPI-U (previous 12 months) ⁵⁴	1.0700

The Commission should use the resulting rates from Table 2-2 for SCE's O&M accounts instead of the rates SCE proposes, which are based on electric utility operations.⁵⁵ Table 2-3 summarizes the amount difference incurred from escalation for years 2022-2024 between Cal Advocates' and SCE's escalation factors.

⁵⁰ D.04-06-018, p. 14.

⁵¹ The escalation factor is used for escalation of account amounts. The formula for the escalation factor is as follows: *escalation factor of year = escalation factor of previous year x (1 + escalation rate of year)*.

⁵² These are escalation rates published monthly in memos by the Public Advocates Office Energy Cost of Service & Natural Gas Branch. Attachment 2-2 are the two memos published at the time SCE filed its application.

⁵³ Attachment 2-2.

⁵⁴ Attachment 2-3, the memo issued by the Water Division which established the CPI-U in 1919 for water utilities.

⁵⁵ Attachment 2-4, a comparison of SCE's and Cal Advocates' escalation factor for TY 2022 by USOA.

Table 2-3: Escalation Amounts for 2022-2024

Year	SCE Escalation	Cal Advocates Escalation ⁵⁶	SCE > Cal Advocates	Cal Advocates as % of SCE
2022	\$333,000	\$286,000	\$47,000	85%
2023	\$530,000	\$366,000	\$164,000	69%
2024	\$717,000	\$463,000	\$254,000	64%

C. Account 615 – “Power for Pumping”

Account 615 – Power for Pumping, covers the electricity cost of operating water utility equipment. The equipment includes pumps and the desalination plants. SCE forecasts the TY expense amount at \$267,296, including escalation.⁵⁷

D. The Commission should remove unsupported 2019 expenses and use the resulting five-year average to forecast Account 615 expenses.

Two items SCE listed under Account 615 only occurred once in the five-year period. These items were labeled as “Volume Related Expenses” for the cost of pumping fresh and desalinated water in SCE’s groundwater and distribution systems, noted in SCE’s general ledger data as totaling \$130,732.⁵⁸ SCE states that it currently tracks these expenses in its Water Revenue Adjustment Mechanism Balancing Account, and that they are expected to reoccur.⁵⁹ However, invoices SCE provided to support the Volume Related Expenses do not reflect the amounts SCE indicated for this expense in the general ledger data.

⁵⁶ Similar to Cal Advocates recommended non-escalated O&M total discussed on pp. 3-2 of this report, this recommended escalation amount is further reduced due to SCE’s unreasonable 39.1% water loss. For example, the final Cal Advocates recommend amount of escalation for TY 2022 is \$194,000 [(\$286,000 x (1-32.1%))] million as depicted in the Summary of Earnings Table 1 in the Executive Summary of this report.

⁵⁷ \$267,000 is the 2019 recorded amount for Account 615. See SCE-02, p. 8.

⁵⁸ A general ledger is the record-keeping system in which a company keeps accounting data. It is the basic source of a company’s actual recorded costs.

⁵⁹ Attachment 2-5, SCE’s Response to Cal Advocates DR CR8-006, Q5.

<<BEGIN CONFIDENTIAL>>

A comparison of the 2019 Volume Related expenses according to the invoices and GL is shown in Table 2-4 below.

**Table 2-4: Comparison of Invoice and GL Amounts
for Volume -Related Expenses⁶⁰**

Item	November Invoices	November GL	December Invoices	December GL	Total Invoice	Total GL
Power for Pumping (Fresh)						
Power for Pumping (Desal)						
Total						

SCE provided invoices supporting [REDACTED] of the [REDACTED] Volume Related Expenses total, a difference of [REDACTED].

<<END CONFIDENTIAL>>

To accurately account for the Volume Related Expense entries in the forecast for Account 615, the unsupported amount should be removed from the recorded 2019 total. The Commission should include the corrected 2019 Account 615 total in a five-year average of Account 615 expenses for the TY forecast. The Commission should adopt the resulting TY forecast with escalation of \$253,529.

**E. The Commission should prohibit the escalation of
Account 615 expenses in attrition years 2023 and 2024.**

Escalation factors should not apply to Account 615 expenses for 2023 and 2024.⁶¹
The Commission's RCP prohibits escalating supply related costs during a GRC's

⁶⁰ Confidential Attachment 2-6, SCE's Response to Cal Advocates DR CR8-006, Q.5.a-biii, Confidential_November 2019 Electric Bill and Confidential_December 2019 Electric Bill.

⁶¹ Escalation factors are applied to Account 615 in the SCE Results of Operation Model, workbook: G1) GRC, tab: O&M | In Use.

1 escalation and attrition years.⁶² The RCP states that “revenue requirement amounts
2 otherwise subject to rate recovery, e.g., through balancing or memorandum accounts,
3 shall not be subject to escalation.”⁶³ SCE includes the differences of actual and
4 authorized Account 615 expenses in its Modified Cost Balancing Account, therefore
5 these should not be escalated past the TY. While SCE Catalina is a Class-C water utility
6 and the RCP applies to Class-A water utilities, SCE has demonstrated that it is subject to
7 the RCP by consistently relying on RCP provisions.⁶⁴ Therefore, the Commission should
8 disallow SCE’s proposed escalation increase for Account 615 in 2023 and 2024.

9 **F. Account 618 – “Other Volume Related Expenses”**

Account 618 – “Other Volume Related Expenses” contains the costs of chemicals, filters, and other consumables. SCE forecasts the TY expense amount at \$143,960, which is the 2019 recorded amount plus a \$50,000 adjustment.⁶⁵ With escalation, SCE forecasts \$144,121 in test year expense.

10 **G. The Commission should adopt a five-year average**
11 **methodology to forecast Account 618 and remove the**
12 **labor costs included in the \$50,000 adjustment.**

13 The \$50,000 adjustment SCE proposes consists of labor costs and materials related
14 to a new granular activated carbon (“GAC”) treatment system and six new filtration
15 systems, installed since the previous Catalina Water GRC (A.10-11-009).⁶⁶ The GAC
16 treatment system requires use of disinfectant chemicals, and SCE indicates that the six
17 new filtration filters must be replaced every 60-90 days.⁶⁷ In its breakdown of the

⁶² D.07-05-062, VII. Escalation and Attrition Advice Letter Procedure.

⁶³ D.07-05-062, VII. Escalation and Attrition Advice Letter Procedure, p. A-19.

⁶⁴ SCE routinely relies on the Rate Case Plan (RCP), for example, to limit the scope of its discovery request responses to five years. *See* Attachment 2-7, SCE Response to Public Advocates DR CR8-007, Q.1 (providing one example of several instances in which SCE relies on the RCP under D.07-05-062 to limit the scope of responses to five years, 2015-2019).

⁶⁵ SCE-02, p. 10.

⁶⁶ SCE-02, p. 10.

⁶⁷ Attachment 2-8, SCE’s Response to Cal Advocates’ DR CR8-004, Q.4.b.i.

1 \$50,000 adjustment, SCE identified labor costs of \$10,000 associated with maintaining
2 the GAC system, and \$13,000 associated with replacing the six filters.⁶⁸

3 SCE should not include labor costs in Account 618. In accordance with Standard
4 Practice 39, employee labor costs of performing maintenance, adding chemicals, and
5 replacing filters should be assigned to Account 630 – Employee Labor.⁶⁹ If contractors,
6 rather than SCE employees, performed these functions, the labor costs should be assigned
7 to Account 650 – Contract Work.⁷⁰ Accordingly, the Commission should remove the
8 \$23,000 labor expense from the \$50,000 adjustment for Account 618. The remaining
9 \$27,000 adjustment for GAC-related materials, plus the Account 618 five-year average of
10 \$79,839, brings the recommended TY forecast to \$106,839. With escalation, the
11 Commission should adopt a TY forecast of \$114,581.

12 **H. The Commission should prohibit the escalation of**
13 **Account 615 expenses in attrition years 2023 and 2024.**

14 Like Account 615, Account 618 is a supply cost O&M account. The RCP
15 prohibits escalation of supply costs in attrition years due to the inclusion of it in the
16 Modified Cost Balancing Account.⁷¹ Accordingly, escalation of Account 618 expenses
17 for 2023-24 is not permitted.

18 **I. Account 630 – “Employee Labor”**

19 Account 630 – “Employee Labor” includes the wages of employees who support
20 the operation, maintenance, and repair of the water system.⁷² SCE forecasts TY Account
21 630 expenses at \$1,800,941 which is the 2019 recorded amount plus the cost of two
22 backfilled vacant positions.⁷³ With escalation, SCE’s forecast is \$1,981,426.

⁶⁸ Attachment23-9, SCE’s Response to Cal Advocates’ DR CR8-004, Q.4, Question 4 Supplemental.

⁶⁹ Standard Practice 39, p. B44.

⁷⁰ Standard Practice 39, p. B45.

⁷¹ See discussion in Section B of this chapter, page 3-7 on applicability of RCP requirements.

⁷² SCE-02, p. 11.

⁷³ SCE-02, p. 13.

J. The Commission should apply a two-year wage average to forecast Account 630 and deny SCE's proposal to backfill two vacant positions.

Due to a 2017 change in staff organization affecting how employee wages are allocated between the Catalina water, electric, and gas utility operations,⁷⁴ SCE was able to provide only two years' worth of wage data for Catalina water employees included in Account 630.⁷⁵ However, SCE's wage data does not match the total recorded account amounts in the GL. SCE's recorded GL numbers for Account 630 in 2018 and 2019 are \$1,499,680 and \$1,677,407, respectively.⁷⁶

Table 2-5 below shows total 2018 and 2019 wages of employees working on both gas and water operations, with the allocation to water operations.

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Table 2-5: Total Salary of Employees Included in Account 630⁷⁷

Position	Total 2018 Salary	Total 2019 Salary	Allocation to Water %	Water 2018 Salary	Water 2019 Salary
Water & Gas Foreman					
Water & Gas Foreman					
Water & Gas System Mechanic					
Water & Gas System Mechanic					

⁷⁴ In late 2017, SCE included Catalina water operations in its electric/gas Generation organization. As a result, a portion of the total wages for certain positions is allocated to water operations on Catalina Island. SCE-02, p. 3.

⁷⁵ Confidential Attachment 2-10, SCE's Response to Cal Advocates' DR CR8-008, Q.2.a. Confidential_PubAdv-SCE-033-CR - 2018-2019 Wages.

⁷⁶ SCE Results of Operation Model, workbook: O1) O&M Dashboard, tab: O&M | In Use, cell: 47AB-47AC.

⁷⁷ Confidential Attachment 2-10, SCE's Response to Cal Advocates' DR CR8-008, Q.2.a. Confidential_PubAdv-SCE-033-CR - 2018-2019 Wages.

Position	Total 2018 Salary	Total 2019 Salary	Allocation to Water %	Water 2018 Salary	Water 2019 Salary
Water & Gas System Mechanic					
Water & Gas System Mechanic					
Water & Gas System Mechanic					
Water & Gas System Mechanic					
Apprentice Water Gas & Operator					
Utilityman					
ICE Foreman					
ICE Technician					
ICE Technician					
ICE Technician					
TOTAL					

1

2

As shown in the table, the total wages for water operations in 2018 and 2019,

3

██████████ and ██████████ respectively, do not match the GL amounts of ██████████ and

4

██████████

5

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6

Due to the discrepancy between the GL recorded amounts and wage data, the

7

breakdown of employee wages could provide a more accurate estimate of SCE's future

8

labor costs than the 2018-019 GL recorded amounts for Account 630. According to the

9

Commission's Standard Practices, Account 630 should contain the wages of employees,

1 with no mention of other expenses to include.⁷⁸ Therefore, the Commission should adopt
2 a TY Account 630 forecast amount of \$1,445,521, which is the two-year average of 2018
3 and 2019 wages.

4 SCE's two proposed backfilled positions are an Utilityman and an
5 Instrumentation, Control and Electrical ("ICE") technician, for an adjustment of
6 \$124,000.⁷⁹ SCE has provided no evidence to support the need for these positions, such
7 as a time-motion study or other analysis to justify the \$124,000 adjustment.⁸⁰

8 Further, in response to a request for the breakdown of the \$124,000 between the
9 two backfilled positions, SCE included a third position, Plant Engineer, representing
10 \$21,000 of the \$124,000 adjustment.⁸¹ According to SCE's own testimony, however, the
11 Plant Engineer position is included in Account 670 (Office Salaries).⁸² The Plant
12 Engineer salary should not be included in an adjustment to Account 630, particularly if it
13 has already been included elsewhere. Accordingly, given the lack of evidence that the
14 backfilled positions are necessary and the apparent error in assigning Plant Engineer
15 salary to the Account 630 adjustment, the Commission should deny SCE's request for the
16 \$124,000 adjustment.

17 Based on the two-year average wage forecast, the Commission should adopt a TY
18 escalated forecast of \$1,526,429 for Account 630.

19 **K. Account 640 – "Materials"**

20 Account 640 – "Materials" contains the cost of supplies and materials used in the
21 operation, maintenance, and repair of the water system. SCE forecasts TY expenses of
22 \$208,000 for Account 640, consisting of the 2019 recorded amount, plus a \$100,000

⁷⁸ Standard Practice 39, p. B44.

⁷⁹ SCE-02, p. 13.

⁸⁰ SCE's explanation for the backfilled position adjustment is that management expertise has determined a need for more employees. Attachment 3-11, SCE's Response to Cal Advocates' DR CR8-008, Q.5.

⁸¹ Attachment 2-12, SCE's Response to Cal Advocates' DR CR8-008, Q.4.a. PubAdv-SCE-033-CR-04.

⁸² SCE-02, p. 25.

1 adjustment for the replacement of a reverse osmosis (“RO”) membrane in Desalination
2 Plant 2.⁸³ With escalation, SCE’s forecast is \$208,230.

3 **L. The Commission should apply a five-year average to**
4 **forecast Account 640 and amortize the cost of the RO**
5 **membrane over a five-year period.**

6 SCE claims that a rise in total dissolved solids (“TDS”) in the water at Plant 2 was
7 attributable to the old RO membrane.⁸⁴ SCE’s cost breakdown for the \$100,000
8 adjustment, however, fails to indicate that replacement of the RO membrane is not an
9 annual expense that should be included for Account 640 forecast purposes.⁸⁵ SCE
10 replaced the membrane in January 2021 for the first time since its original installation in
11 late 2015.⁸⁶ Over the five-year life of the original RO membrane at Plant 2, SCE
12 successfully maintained TDS secondary drinking water standards.⁸⁷ The TDS levels
13 were 170 parts per million (“ppm”) below the standard of 500 ppm at the time of the
14 membrane replacement. This indicates that the RO membrane can reasonably maintain
15 drinking water standards for at least five years and should not require replacement
16 annually. Therefore, SCE should amortize the \$100,000 RO membrane cost over a five-
17 year period. This will equate to a \$20,000 adjustment for Account 640.

18 With a \$20,000 adjustment for the RO membrane replacement, the recommended
19 Account 640 TY forecast with escalation is \$169,843.

20 **M. Account 650 – “Contract Work”**

21 Account 650 – “Contract Work” contains the costs of repair and maintenance
22 work performed by an outside party. SCE forecasts TY expenses at \$1.650 million, which
23 includes 2019 recorded expenses plus a \$1.147 million adjustment. With escalation,

⁸³ SCE-02, p. 16.

⁸⁴ SCE-02, p. 16.

⁸⁵ Attachment 2-13, SCE Response to Cal Advocates’ DR CR8-007, Q.3.

⁸⁶ Attachment 2-13, SCE Response to Cal Advocates’ DR CR8-007, Q.3.

⁸⁷ Attachment 2-14, SCE’s Response to Cal Advocates’ DR CR8-007, Q.2.

SCE's forecast is \$1.652 million. The 2019 base year is appropriate for Account 650 because several projects which required contract labor ended before 2019, so those prior year costs should not be included in the forecast.⁸⁸

N. The Commission should remove \$925,000 of SCE's \$1.147 million adjustment to the Account 650 TY Forecast.

The \$1.147 million adjustment consists of additional contract labor anticipated by SCE.⁸⁹ Table 2-6 provides an itemization of SCE's proposed and Cal Advocates' recommended reductions to the Account 650 adjustment.

Table 2-6: Proposed vs. Recommended Account 650 Adjustment Components

Account 650 Adjustment Component	SCE Proposed⁹⁰	Cal Advocates Recommended
Incremental sampling in support of Catalina Special Projects	\$519,000	\$0
GWUDI and LCR compliance	\$40,000	\$12,000
New NPDES permit requirement	\$20,000	\$20,000
Annual well maintenance support	\$100,000	\$0
Wildfire mitigation	\$43,000	\$0
Water facility preventative inspection and maintenance	\$200,000	\$140,000
Support of SCE's asset management program	\$150,000	\$50,000
Tank and water infrastructure coating maintenance ⁹¹	\$75,000	\$0
TOTAL	\$1,147,000	\$222,000

⁸⁸ These projects included development of a Hazardous Energy Control program, asset management and enterprise resource management ("SAP") integration, GIS mapping, and drought support. SCE-02, p. 19.

⁸⁹ SCE-02, p. 19.

⁹⁰ Attachment 2-15, SCE Response to Cal Advocates' DR CR8-009, Q.5.

⁹¹ SCE failed to initially account for the \$75,000 amount in testimony.

1 *Incremental sampling in support of Catalina Special Projects*

2 The largest component of SCE's \$1,147,000 forecast adjustment is \$519,000 for
3 contract work supporting supplemental water sampling and analysis for water quality
4 during an ongoing environmental assessment of water distribution.²² SCE claims that
5 this adjustment is to support monitoring the water supply system and quality in the areas
6 supplied by the Two Harbors pipeline.²³ The Two Harbors pipeline contains traces of
7 harmful materials such as polychlorinated biphenyls ("PCB"). The recovery of costs
8 from assessing SCE's entire system, including the Two Harbors pipeline, is addressed in
9 a separate proceeding. In the final decision of that proceeding, the Commission
10 authorized establishment of SCE's Catalina Water Pipeline Assessment Memorandum
11 Account ("CWPAMA").²⁴ The Commission approved the CWPAMA for the purpose of
12 tracking and recording all costs incurred from a system-wide assessment of Catalina
13 water distribution pipelines, both in-use and decommissioned. The contract work
14 involved in the \$519,000 is to serve the purpose of measuring the quality of water
15 delivered by Two Harbors pipeline. As an assessment of the effectiveness of the pipeline,
16 SCE should track these water quality monitoring costs in the CWPAMA, rather than in
17 Account 650. Accordingly, the Commission should exclude \$519,000 in incremental
18 sampling costs from the requested adjustment.

19 *GWUDI and LCR compliance*

20 SCE forecasts \$40,000 per year for sampling, analyzing, and preparing reports in
21 compliance with the Lead and Copper Rule ("LCR") and the Groundwater Under the
22 Direct Influence of Surface Water ("GWUDI") water quality regulations.²⁵ SCE's

²² SCE-02, p. 19.

²³ Attachment 2-16, SCE's Response to Cal Advocates' DR CR8-018, Q.2.a.

²⁴ D.21-02-009, p. 1.

²⁵ SCE-02, p. 19.

breakdown of the \$40,000 indicates \$10,000 for analysis and reporting for the LCR and \$18,000 for GWUDI and the rest for the contract labor.⁹⁶

SCE has used contracted labor for analysis and reporting pursuant to the LCR and GWUDI regulations in the past.⁹⁷ Therefore, Account 650 recorded expenses should already reflect these costs. SCE provided no evidence indicating a need for increased analysis and reporting, nor has SCE entered into any contracts or agreements indicating future additional expenses related to LCR and GWUDI compliance.⁹⁸ Accordingly, the Commission should remove \$28,000 of the \$40,000 adjustment since there is no evidence showing an increase is needed for the regulatory water quality work and no contracts were provided to support the forecasted cost.

Annual well maintenance support

In the past, SCE has utilized a combination of in-house and contracted labor to perform well maintenance.⁹⁹ SCE currently proposes to transition exclusively to contract work for all well maintenance due to the need for specialized equipment and expertise.¹⁰⁰ Due to this transition, SCE forecasts \$100,000 in additional contract labor for well maintenance.¹⁰¹ Exclusive use of contract labor for well maintenance, however, should result in a reduction of SCE's in-house labor costs. No such reduction in employee wage costs appears in SCE's forecast for Account 630.¹⁰² Accordingly, the Commission should either deny SCE's request for a \$100,000 adjustment to contract labor for well maintenance or require SCE to offset the adjustment with a proportionate reduction to Account 630.

⁹⁶ Attachment 2-17, SCE's Response to Cal Advocates' DR CR8-009, Q.2.b.

⁹⁷ Attachment 2-16, SCE's Response to Cal Advocates' DR CR8-018, Q.2.a.

⁹⁸ Attachment 2-18, SCE's Response to Cal Advocates' DR CR8-009, Q.3.a.

⁹⁹ Attachment 2-16, SCE's Response to Cal Advocates' DR CR8-018, Q.2.a.

¹⁰⁰ Attachment 2-16, SCE's Response to Cal Advocates' DR CR8-018, Q.2.a.i.

¹⁰¹ SCE-02, p. 20.

¹⁰² SCE-02, p. 11.

1 *Wildfire mitigation*

2 SCE relies on a mix of in-house and contract labor for wildfire mitigation
3 activities. SCE employees perform minor vegetation control and corrective maintenance,
4 and contractors perform more extensive vegetation control and removal, in addition to
5 maintenance and wildfire mitigation-related construction projects.¹⁰³ SCE forecasts a
6 \$43,000 adjustment for contract labor to perform wildfire mitigation related to its water
7 facilities.¹⁰⁴ SCE's breakdown of the adjustment amount indicates approximately
8 \$30,000 for expanded vegetation clearance and \$13,000 for Historic Fire Risk Index
9 ("HFRI").¹⁰⁵ Despite requests for information, SCE has not provided any supporting
10 documentation for the proposed costs, such as invoices, purchase orders, or contracts.¹⁰⁶
11 In the absence of support for the recorded expenses, the Commission should deny the
12 \$43,000 adjustment.

13 *Water facility preventative inspection and maintenance*

14 SCE forecasts \$200,000 per year for contract labor to perform routine water
15 facility inspections and maintenance.¹⁰⁷ The breakdown of the \$200,000 adjustment
16 identifies four cost items: 1) Tank Inspection, 2) Wrigley Cover Cleaning, 3) Tank
17 Maintenance, and 4) Aerator Cleaning.¹⁰⁸ SCE adequately accounts for the first three
18 items, but not the fourth (aerator cleaning).¹⁰⁹ SCE has provided no supporting evidence,
19 such as contracts, purchase orders of past expenses, or other documentation of expense

¹⁰³ Attachment 2-16, SCE's Response to Cal Advocates' DR CR8-018, Q.2.a.

¹⁰⁴ SCE-02, p. 20.

¹⁰⁵ Attachment 2-19, SCE's Response to Cal Advocates' DR CR8-009, Q.2.e.

¹⁰⁶ Attachment 2-18, SCE's Response to Cal Advocates' DR CR8-009, Q.3.a.

¹⁰⁷ SCE-02, p. 20.

¹⁰⁸ Attachment 2-20, SCE's Response to Cal Advocates' DR CR8-009, Q.2.f.

¹⁰⁹ A purchase order between SCE and Coast Diving Service, Inc. supports the tank inspections component of the adjustment. Per the General Ledger, SCE did not record the tank inspection amount in 2019, so including it in the adjustment is reasonable. The cover cleaning and tank maintenance cost amounts are both supported by a purchase order between SCE and Layfield Environmental. *See* Confidential Attachment 2-21, SCE Response to Cal Advocates' Data Request CR8-009, Q.3.a.

1 estimates to justify the \$60,000 portion of adjustment for aerator cleaning. Further, there
2 is no mention of aerator cleaning in the portion of SCE's testimony discussing water
3 facility maintenance.¹¹⁰ Accordingly, the Commission should deny \$60,000 of SCE's
4 request for a \$200,000 water facility maintenance adjustment.

5 *Support for SCE's asset management program*

6 SCE forecasts an adjustment of \$150,000 per year for contract work supporting its
7 asset management program.¹¹¹ Of this amount, SCE has provided adequate support for
8 only \$50,000.¹¹² In lieu of providing a breakdown of the remaining \$100,000 SCE
9 asserts that the remaining \$100,000 amount is a preliminary estimate based on
10 management expertise.¹¹³ This lack of explanation or analysis supporting \$100,000 of
11 the adjustment suggests that the forecasted amount is unreasonably speculative.
12 Accordingly, the Commission should deny SCE's request for the unsupported portion of
13 the asset management program adjustment.

14 *Tank and water infrastructure coating maintenance*

15 SCE indicates that \$75,000 of the adjustment amount in the Account 650 forecast,
16 not accounted for in opening testimony, is for tank and water infrastructure coating
17 maintenance.¹¹⁴ This cost item, however, lacks adequate support for inclusion in the
18 forecast. SCE has provided no explanation or breakdown of the \$75,000 amount, or

¹¹⁰ SCE-02, p. 20.

¹¹¹ SCE-02, p. 20.

¹¹² The only contract or invoice SCE provided to support this adjustment is a 2020 purchase order from Raftelis Financial Consultants Inc. for contract work on the asset management program. <<BEGIN CONFIDENTIAL>>

[REDACTED] <<END CONFIDENTIAL>>

¹¹³ Attachment 2-25, SCE's Response to Cal Advocates' DR CR8-009, Q.2.g.

¹¹⁴ SCE failed to account for \$75,000 of the \$1,147,000 adjustment in its original testimony. In response to Cal Advocates' data request, SCE stated that the amount is for tank coating maintenance. Attachment 2-27, SCE's Response to Cal Advocates' DR CR8-009, Q.5.

1 documentation of the activity. Therefore, the Commission should exclude \$75,000 from
2 the TY forecast for Account 650.

3 Based on the foregoing discussion, the Commission should adopt a total
4 adjustment of \$222,000 for the Account 650 TY forecast and add this adjustment to the
5 2019 recorded amount for an escalated forecast amount of \$775,501.

6 **O. Account 660 – Transportation Expenses**

7 Account 660 – “Transportation Expenses” includes the cost of maintaining and
8 using all vehicles in support of water operations. SCE forecasts TY expense amounts at
9 the recorded 2019 amount of \$161,000. With escalation, this TY forecast is \$161,178.
10 From 2018 to 2019, SCE experienced an increase of over 100% in Account 660
11 expenses.¹¹⁵ This increase is due to a change in SCE’s allocation of transportation
12 expenses between its Catalina water, gas, and electricity operations. SCE changed the
13 allocation method to assign 40% of its total Catalina utility transportation expense to
14 water operations, which added \$100,800 to Account 660 in 2019.¹¹⁶

15 **P. The Commission should apply a five-year average to**
16 **forecast Account 660.**

17 The historically high amount of transportation expenses in 2019 conflicts with past
18 trends and more data points should be included in the forecast. A five-year average would
19 better capture SCE’s past budgeting for this account. Additionally, SCE fails to fully
20 explain the method to calculate the 40% allocation of SCE Catalina’s total Transportation
21 Service Department (“TSD”) to water operations. The only explanation provided is that
22 the method relies on past trends, management expertise and future expectations.¹¹⁷ When
23 Cal Advocates further questioned SCE as to how 40% was the decided upon percentage,
24 SCE claimed that the “2019 O&M expense by Catalina utility is reasonably close to the

¹¹⁵ SCE-02, pp. 22-23.

¹¹⁶ Attachment 2-28, SCE’s Response to Cal Advocates’ DR CR8-010, Q.3.

¹¹⁷ Attachment 2-28, SCE’s Response to Cal Advocates’ DR CR8-010, Q.3.

1 allocation of distributive costs.”¹¹⁸ This is not supporting the 40% allocation decision
2 because SCE was already allocating 40% of transportation expense to water operations in
3 2019. SCE essentially used the result of their own allocation as proof that they conducted
4 an analysis to determine the allocation percent. This further shows that the 2019 expenses
5 should not be the sole indicator of future transportation expenses since the allocation
6 method is not supported by any analysis.

7 The Commission should adopt a five-year average forecast for the Account 660,
8 which with escalation is \$81,976.

9 **IV. CONCLUSION**

10 The Commission should allow 65% of SCE’s proposed O&M TY expense budget.
11 The primary reasons for differences are due to SCE ignoring historic trends, using only
12 2019 as the base year forecast which at times is an outlier for expense amount, and
13 adjusting the base year with unsupported amounts.

¹¹⁸ Attachment 2-29, SCE’s Response to Cal Advocates’ DR CR8-020, Q.1.

LIST OF ATTACHMENTS FOR CHAPTER 2

#	Attachment	Description
1	Attachment 2-1	SCE Response to DR CR8-002, CWRMA 2014-2019
2	Attachment 2-2	Escalation Memos
	Attachment 2-3	CPI-U Escalation Memo
4	Attachment 2-4	TY Escalation Factor Comparison by USOA
5	Attachment 2-5	DR CR8-006, Q5
6	Attachment 2-6 (CONFIDENTIAL)	DR CR8-006, Q.5.a-b.iii
7	Attachment 2-7	DR CR8-007, Q.1
8	Attachment 2-8	DR CR8-004, Q.4.b.i
9	Attachment 2-9	DR CR8-004, Q.4, Question 4 Supplemental
10	Attachment 2-10 (CONFIDENTIAL)	DR CR8-008, Q.2.a
11	Attachment 2-11	DR CR8-008, Q.4.a. PubAdv-SCE-033-CR-04
12	Attachment 2-12	SCE Response to DR CR8-008, Q.5
13	Attachment 2-13	SCE Response to DR CR8-007, Q.3
14	Attachment 2-14	SCE Response to DR CR8-007, Q.2
15	Attachment 2-15	SCE Response to DR CR8-009, Q.5
16	Attachment 2-16	SCE Response to DR CR8-018, Q.2.a
17	Attachment 2-17	SCE Response to DR CR8-009, Q.2.b
18	Attachment 2-18	SCE Response To DR CR8-009, Q.3.A
19	Attachment 2-19 (CONFIDENTIAL)	Response to Cal Advocates DR CR8-018, Q.3.a
20	Attachment 2-20	SCE Response to DR CR8-009, Q.2.e
21	Attachment 2-21	SCE Response to DR CR8-009, Q.2.f

#	Attachment	Description
22	Attachment 2-22 (CONFIDENTIAL)	SCE Response to DR CR8-009, Q.3.a
23	Attachment 2-23 (CONFIDENTIAL)	SCE Response to DR CR8-009, Q.3.a
24	Attachment 2-24 (CONFIDENTIAL)	SCE Response to DR CR8-009, Q.3.a, Raftelis PO
25	Attachment 2-25	SCE Response to DR CR8-009, Q.2.g
26	Attachment 2-26	SCE Response to DR CR8-009, Q.5
27	Attachment 2-27	SCE Response to Public Advocates DR CR8-010, Q.3

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ATTACHMENT 2-1

**SCE Response to DR CR8-002,
CWRMA 2014-2019**

Catalina Water Rationing Memo Account
2014-2021
P9153, GL#1432671

Item Description	January	February	March	April	May	June	July	August	September	October	November	December	Total YTD
Beginning Balance	-	5,066	9,407	10,624	11,787	24,593	68,724	292,876	497,271	1,333,403	1,754,088	2,233,778	2,233,778
Water Rationing Plan Incremental Expense													
Allocation Request and Code Enforcement					445	1,774	5,934	7,990	9,744	12,333	11,869	16,423	66,512
Flow Restrictor Fabrication/Install/Removal												2,082	2,082
Water Conservation Devices					8,996	13	2,923	71	2,317	3,545	7,232	1,036	26,133
Public Outreach					2,700	237	36,606	2,704	95,868	7,094	20,208	32,779	198,195
Transportation Expenses								53	446	786	116	62	1,462
Professional Services											60		60
Materials/Equipment									103	14		586	703
Contract Work													-
SCE Labor							1,584	1,892	508				3,984
Office Supplies and Expenses							2,696	2,501	161	1,985	32	67	7,443
General Expenses						1,480			6,763	1,042			9,285
Accruals												4,197	4,197
Subtotal	-	-	-	-	12,142	3,504	49,743	15,210	115,909	26,798	39,518	57,233	320,057
O&M Expenses Arising from Exceptional Unforeseen Circumstances													
West End Emergency Water Supply													
Water Supply/Hauling							41,519	129,058	313,854	47,110	158,017	750,149	1,439,706
MT Response Team						39,049	112,060	29,171	127,576	145,574	52,205	4,265	509,899
Transportation Expense						225	7,467	2,885	89,101	2,425	3,245		105,347
Professional Svcs							5,920	4,547	10,813		95		21,375
Materials/Equipment							6,364	5,569	985				12,918
Moved to Howland's Well							283	15,982	155,264	197,527	225,437	492,219	1,086,712
Contract Work													-
MT Response Team - Move to Capital							782	1,940	22,008				24,730
Construction Permits - Move to Capital													-
Subtotal	-	-	-	-	-	39,273	174,395	189,151	719,601	392,635	439,000	1,246,632	3,200,688
Water Hauling													
Water Supply/Hauling													-
Employee Expenses		20											20
SCE Labor	5,046	4,340	1,217	1,162	663	1,349							13,776
Subtotal	5,066	4,340	1,217	1,162	663	1,349	-	-	-	-	-	-	13,796
Well Rehabilitation													
Equipment/Fixture	-	-	-	-	-	-	-	-	-	-	-	-	-
Well Rehabilitation	-	-	-	-	-	-	-	-	-	-	-	-	-
Professional Services	-	-	-	-	-	-	-	-	-	-	-	-	-
Employee Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
Contract Work	-	-	-	-	-	-	-	-	-	-	-	-	-
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle Ranch Reservoir Level Surveys													
SCE Labor									538	1,124	1,007	1,783	4,451
Subtotal	-	-	-	-	-	-	-	-	538	1,124	1,007	1,783	4,451
Groundwater Sustainability													
Well Monitoring	-	-	-	-	-	-	-	-	-	-	-	-	-
Supplemental Contractor Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment/Fixture	-	-	-	-	-	-	-	-	-	-	-	-	-
Materials/Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Office Supplies and expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Drought Operation and Maintenance	5,066	4,340	1,217	1,162	663	40,622	174,395	189,151	720,139	393,759	440,006	1,248,415	3,218,935
Total Incremental Drought Expense	5,066	4,340	1,217	1,162	12,804	44,126	224,138	204,361	836,048	420,556	479,524	1,305,648	3,538,992
Less Revenues from Customer Fines	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Rate	0.09%	0.09%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.11%	0.10%	0.10%	0.10%	
Interest	0	1	1	1	2	4	15	33	84	129	166	241	675
Ending Balance	5,066	9,407	10,624	11,787	24,593	68,724	292,876	497,271	1,333,403	1,754,088	2,233,778	3,539,667	3,539,667

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	January	February	March	April	May	June	July	August	September	October	November	December	Total YTD
Beg. Balance	3,539,667	3,280,219	3,323,849	3,476,056	3,639,696	3,897,491	4,075,955	4,263,903	4,419,472	4,519,997	4,603,567	4,616,700	4,616,700
Water Rationing Plan Incremental Expense													
Allocation Request and Code Enforcement	9,155	14,688	15,169	9,157	9,357	1,264	13,470	12,816				3,259	88,335
Flow Restrictor Fabrication/Install/Removal	811	632			1,017	210	1,433	2,138	1,137				7,377
Water Conservation Devices	62	113	179	1,026	1,289	3,219	46	24		2,093	6	66	8,123
Public Outreach	368	2,867	5,997	557	7,265	619	967	140	229	2,657	593	7,241	29,500
Transportation Expenses	285		285						3,180	582	489	(2,512)	2,309
Professional Services			6,335			32,689	4,490			108			43,622
Materials/Equipment	324												324
Contract Work											582		582
SCE Labor						38							38
Office Supplies and Expenses	2		2		768		(150)	3		150	42		817
General Expenses					190		333			6	110	(680)	(41)
Accruals	(4,197)											1,782	(2,415)
Subtotal	6,811	18,300	27,967	10,739	19,887	38,038	20,588	15,120	4,546	5,596	1,822	9,155	178,571
O&M Expenses Arising from Exceptional Unforeseen Circumstances													
West End Emergency Water Supply													
Water Supply/Hauling	92,273	4,433	10,028	134,712	193,130	92,380	110,322	1,344		-			638,622
MT Response Team	9,974	8,105	81,663	12,134	16,190	22,345	37,057	9,140	620	23,971		(3,132)	218,067
Transportation Expense		161		2,514	2,847	320	853	315					7,010
Professional Svcs			20										20
Materials/Equipment													-
Moved to Howland's Well	(371,686)	10,647	29,353	1,868	18,651	20,921	(12,703)	24,254	7,490	6,192	1,939	(544,868)	(807,942)
Contract Work													-
MT Response Team - Move to Capital													-
Construction Permits - Move to Capital													-
Subtotal	(269,439)	23,346	121,063	151,229	230,817	135,965	135,530	35,053	8,110	30,163	1,939	(548,000)	55,777
Water Hauling													
Water Supply/Hauling								66,901	83,201	26,710		34,224	211,036
Employee Expenses													-
SCE Labor													-
Subtotal	-	-	-	-	-	-	-	66,901	83,201	26,710	-	34,224	211,036
We I Rehabilitation													
Equipment/Fixture	-	-	-	-	-	-	-	-	-	-	-	-	-
Well Rehabilitation	-	-	-	-	-	-	-	-	-	-	-	-	-
Professional Services	-	-	-	-	-	-	-	-	-	-	-	-	-
Employee Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
Contract Work	-	-	-	-	-	-	-	-	-	-	-	-	-
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle Ranch Reservoir Level Surveys													
SCE Labor	2,811	1,654	2,836	1,346	2,933	1,590	1,884	2,102	2,041	1,515	1,830	1,028	23,570
Subtotal	2,811	1,654	2,836	1,346	2,933	1,590	1,884	2,102	2,041	1,515	1,830	1,028	23,570
Groundwater Sustainability													
Well Monitoring							20,259	27,613		11,026	6,160	8,540	73,598
Supplemental Contractor Labor						2,473	1,296	2,645	1,955	1,265	690	690	11,014
Equipment/Fixture							7,903	5,665					13,568
Materials/Equipment													-
SCE Labor													-
Office Supplies and expenses					3,844								3,844
Accrual										6,460	-	-	6,460
Subtotal	-	-	-	-	3,844	2,473	29,459	35,923	1,955	18,750	6,850	9,230	108,483
Subtotal Drought Operation and Maintenance	(266,628)	25,000	123,900	152,575	237,594	140,028	166,873	139,978	95,308	77,138	10,619	(503,518)	398,866
Total Incremental Drought Expense	(259,817)	43,300	151,867	163,314	257,480	178,066	187,461	155,099	99,854	82,734	12,441	(494,363)	577,437
Less Revenues from Customer Fines	-	-	-	-	-	-	-	-	-	-	-	(5,625)	(5,625)
Interest Rate	0.13%	0.12%	0.12%	0.11%	0.10%	0.12%	0.14%	0.13%	0.18%	0.22%	0.18%	0.20%	
Interest	369	330	340	326	314	399	486	470	670	836	691	728	5,962
Ending Balance	3,280,219	3,323,849	3,476,056	3,639,696	3,897,491	4,075,955	4,263,903	4,419,472	4,519,997	4,603,567	4,616,700	4,117,440	4,117,440

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	January	February	March	April	May	June	July	August	September	October	November	December	Total YTD
Beg. Balance	4,117,440	4,123,663	4,130,606	4,175,844	4,264,052	4,355,105	4,430,765	4,480,404	4,544,872	4,604,677	4,641,712	4,707,975	4,707,975
Water Rationing Plan Incremental Expense													
Allocation Request and Code Enforcement	477	9,853	8,177	4,175	11,946	6,865	6,890	3,370	3,900	17,925	10,311	13,780	97,670
Flow Restrictor Fabrication/Install/Removal	265	433				49	1,203		437	446	188		3,021
Water Conservation Devices	16	1,870	60	2,297	79	67	257	3,672	340	1,258	266	339	10,520
Public Outreach	2,387	(5,384)	1,106	3,285	215	3,540	32,944	2,460	46,640	575	30,647	12,767	131,183
Transportation Expenses	291	291	321	35	582			291	394	291	89	984	3,568
Professional Services									900			2,649	3,549
Materials/Equipment													-
Contract Work													-
SCE Labor							1,769	2,988	2				4,760
Office Supplies and Expenses	788	105		98			2,265	(146)	1,900		188	95	5,294
General Expenses			873		600				692	1,346	239	30	3,781
Accruals	(1,782)											2,309	527
Subtotal	2,443	7,168	10,537	9,889	13,421	10,522	45,329	12,636	55,206	21,842	41,928	32,953	263,873
O&M Expenses Arising from Exceptional Unforeseen Circumstances													
West End Emergency Water Supply													
Water Supply/Hauling		(7,803)	16,071	70,081		21,429		21,429		7,143	19,482	16,071	163,903
MT Response Team	19		132	25									176
Transportation Expense													-
Professional Svcs		85											85
Materials/Equipment													-
Moved to Howland's Well			12,813	2,441									15,254
Contract Work													-
MT Response Team - Move to Capital													-
Construction Permits - Move to Capital													-
Subtotal	19	(7,718)	29,016	72,548	-	21,429	-	21,429	-	7,143	19,482	16,071	179,418
Water Hauling													
Water Supply/Hauling	6,920					25,455						40,940	73,315
Employee Expenses													-
SCE Labor				82									82
Subtotal	6,920	-	-	82	-	25,455	-	-	-	-	-	40,940	73,397
We I Rehabilitation													
Equipment/Fixture													-
Well Rehabilitation					70,630			24,105					94,735
Professional Services						7,195	810	1,200	1,170				10,375
Employee Expenses				139								110	249
Contract Work													-
SCE Labor				155		834							988
Subtotal	-	-	-	294	70,630	8,028	810	25,305	1,170	-	-	110	106,347
Middle Ranch Reservoir Level Surveys													
SCE Labor	1,228	944	894	2,131	756	1,854	352	878	960	1,128	599	628	12,352
Subtotal	1,228	944	894	2,131	756	1,854	352	878	960	1,128	599	628	12,352
Groundwater Sustainability													
Well Monitoring			2,589	5,130	4,405		7,560			3,068			22,751
Supplemental Contractor Labor	460	345	575	1,035		460					1,840	1,150	5,865
Equipment/Fixture													-
Materials/Equipment													-
SCE Labor					118								118
Office Supplies and expenses													-
Accrual	(6,460)	4,589	-	(4,589)		6,120	(6,120)	2,340	450	1,620	-	(4,410)	(6,460)
Subtotal	(6,000)	4,934	3,164	1,576	4,523	6,580	1,440	2,340	450	4,688	1,840	(3,260)	22,274
Subtotal Drought Operation and Maintenance	2,167	(1,841)	33,074	76,631	75,909	63,345	2,602	49,952	2,580	12,959	21,921	54,489	393,787
Total Incremental Drought Expense	4,609	5,327	43,611	86,520	89,330	73,867	47,931	62,587	57,786	34,801	63,849	87,442	657,660
Less Revenues from Customer Fines	-	-	-	-	-	-	-	-	-	-	-	(71,600)	(71,600)
Interest Rate	0.47%	0.47%	0.47%	0.48%	0.48%	0.49%	0.46%	0.50%	0.53%	0.58%	0.62%	0.74%	
Interest	1,614	1,616	1,626	1,688	1,723	1,793	1,708	1,880	2,020	2,234	2,415	2,930	23,247
Ending Balance	4,123,663	4,130,606	4,175,844	4,264,052	4,355,105	4,430,765	4,480,404	4,544,872	4,604,677	4,641,712	4,707,975	4,726,747	4,726,747

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	January	February	March	April	May	June	July	August	September	October	November	December	Total YTD
Beg. Balance	4,726,747	4,739,997	4,797,192	4,845,688	4,864,596	4,894,307	4,947,199	4,969,137	5,006,662	5,018,578	5,029,043	5,037,149	5,037,149
Water Rationing Plan Incremental Expense													
Allocation Request and Code Enforcement	9,966	9,565	12,764	1,808	5,612	5,131	3,592	2,309	3,848	4,105	1,539		60,239
Flow Restrictor Fabrication/Install/Removal			262		467								729
Water Conservation Devices	63	387	512	20	46	493	439	27	37	32	1,152	(287)	2,920
Public Outreach	140	3,989	3,663	1,251	1,885	8,337	1,624	2,724	1,939	974			26,525
Transportation Expenses	1,164								1,164	291			2,619
Professional Services												(43,514)	(43,514)
Materials/Equipment													-
Contract Work													-
SCE Labor		23		476	268	291		53					1,111
Office Supplies and Expenses			94		359					1	49		503
General Expenses				102									102
Accruals	(2,309)												(2,309)
Subtotal	9,023	13,964	17,294	3,657	8,637	14,252	5,655	5,113	6,989	5,403	2,740	(43,801)	48,925
O&M Expenses Arising from Exceptional Unforeseen Circumstances													
West End Emergency Water Supply													
Water Supply/Hauling		10,714	12,500	8,929	12,500	10,714	11,428						66,785
MT Response Team													-
Transportation Expense													-
Professional Svcs													-
Materials/Equipment													-
Moved to Howland's Well													-
Contract Work													-
MT Response Team - Move to Capital													-
Construction Permits - Move to Capital													-
Subtotal	-	10,714	12,500	8,929	12,500	10,714	11,428	-	-	-	-	-	66,785
Water Hauling													
Water Supply/Hauling		28,260						27,510					55,770
Employee Expenses													-
SCE Labor													-
Subtotal	-	28,260	-	-	-	-	-	27,510	-	-	-	-	55,770
We I Rehabilitation													
Equipment/Fixture			100										100
Well Rehabilitation													-
Professional Services			14,350			22,890							37,240
Employee Expenses			162										162
Contract Work													-
SCE Labor													-
Subtotal	-	-	14,612	-	-	22,890	-	-	-	-	-	-	37,502
Middle Ranch Reservoir Level Surveys													
SCE Labor	842	854	595	801	754	526	24						4,396
Subtotal	842	854	595	801	754	526	24	-	-	-	-	-	4,396
Groundwater Sustainability													
Well Monitoring					5,760								5,760
Supplemental Contractor Labor	230	345											575
Equipment/Fixture													-
Materials/Equipment													-
SCE Labor													-
Office Supplies and expenses													-
Accrual				1,800	(1,800)								-
Subtotal	230	345	-	1,800	3,960	-	-	-	-	-	-	-	6,335
Subtotal Drought Operation and Maintenance	1,072	40,173	27,707	11,530	17,214	34,131	11,452	27,510	-	-	-	-	170,788
Total Incremental Drought Expense	10,095	54,136	45,002	15,187	25,850	48,382	17,107	32,623	6,989	5,403	2,740	(43,801)	219,713
Less Revenues from Customer Fines	-	-	-	-	-	-	-	-	-	-	-	(95,550)	(95,550)
Interest Rate	0.80%	0.77%	0.87%	0.92%	0.95%	1.10%	1.17%	1.18%	1.18%	1.21%	1.28%	1.43%	
Interest	3,155	3,059	3,494	3,721	3,861	4,509	4,832	4,902	4,927	5,063	5,366	5,977	52,865
Ending Balance	4,739,997	4,797,192	4,845,688	4,864,596	4,894,307	4,947,199	4,969,137	5,006,662	5,018,578	5,029,043	5,037,149	4,903,775	4,903,775

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	January	February	March	April	May	June	July	August	September	October	November	December	Total YTD
Beg. Balance	4,903,775	4,590,311	4,642,684	4,651,818	4,659,843	4,672,669	4,680,768	4,691,105	4,699,419	4,708,389	4,719,944	4,730,543	4,730,543
Water Rationing Plan Incremental Expense													
Allocation Request and Code Enforcement													-
Flow Restrictor Fabrication/Install/Removal													-
Water Conservation Devices													-
Public Outreach		0	3		4		0	0	3			33	42
Transportation Expenses													-
Professional Services		177	1,779	273	563		2,066	26	390		961	2,527	8,762
Materials/Equipment													-
Contract Work													-
SCE Labor													-
Office Supplies and Expenses													-
General Expenses													-
Accruals													-
Subtotal	-	178	1,782	273	566	-	2,066	26	393	-	961	2,560	8,804
O&M Expenses Arising from Exceptional Unforeseen Circumstances													
West End Emergency Water Supply													
Water Supply/Hauling	(24,730)												(24,730)
MT Response Team													-
Transportation Expense													-
Professional Svcs	(1,473)												(1,473)
Materials/Equipment													-
Moved to Howland's Well	(293,546)												(293,546)
Contract Work		45,698			4,372								50,070
MT Response Team - Move to Capital													-
Construction Permits - Move to Capital													-
Subtotal	(319,749)	45,698	-	-	4,372	-	-	-	-	-	-	-	(269,680)
Water Hauling													
Water Supply/Hauling													-
Employee Expenses													-
SCE Labor													-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Well Rehabilitation													
Equipment/Fixture	-	-	-	-	-	-	-	-	-	-	-	-	-
Well Rehabilitation	-	-	-	-	-	-	-	-	-	-	-	-	-
Professional Services	-	-	-	-	-	-	-	-	-	-	-	-	-
Employee Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
Contract Work	-	-	-	-	-	-	-	-	-	-	-	-	-
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle Ranch Reservoir Level Surveys													
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundwater Sustainability													
Well Monitoring	-	-	-	-	-	-	-	-	-	-	-	-	-
Supplemental Contractor Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment/Fixture	-	-	-	-	-	-	-	-	-	-	-	-	-
Materials/Equipment	-	-	-	-	-	-	-	-	2,489	-	-	-	2,489
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Office Supplies and expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	2,489	-	-	-	2,489
Subtotal Drought Operation and Maintenance	(319,749)	45,698	-	-	4,372	-	-	-	-	2,489	-	-	(267,191)
Total Incremental Drought Expense	(319,749)	45,875	1,782	273	4,938	-	2,066	26	393	2,489	961	2,560	(258,387)
Less Revenues from Customer Fines	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Rate	1.59%	1.69%	1.90%	2.00%	2.03%	2.08%	2.12%	2.12%	2.19%	2.31%	2.45%	2.52%	
Interest	6,286	6,497	7,352	7,753	7,887	8,099	8,271	8,288	8,577	9,066	9,638	9,937	97,651
Ending Balance	4,590,311	4,642,684	4,651,818	4,659,843	4,672,669	4,680,768	4,691,105	4,699,419	4,708,389	4,719,944	4,730,543	4,743,039	4,743,039

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	January	February	March	April	May	June	July	August	September	October	November	December	Total YTD
Beg. Balance	4,743,039	4,753,118	4,762,981	4,772,864	4,782,688	4,792,413	4,801,638	4,810,401	4,818,699	4,826,530	4,833,769	4,840,295	4,840,295
Water Rationing Plan Incremental Expense													
Allocation Request and Code Enforcement	-	-	-	-	-	-	-	-	-	-	-	-	-
Flow Restrictor Fabrication/Install/Removal	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Conservation Devices	-	-	-	-	-	-	-	-	-	-	-	-	-
Public Outreach	-	-	-	-	-	-	-	-	-	-	-	-	-
Transportation Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
Professional Services	-	-	-	-	-	-	-	-	-	-	-	-	-
Materials/Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
Contract Work	-	-	-	-	-	-	-	-	-	-	-	-	-
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Office Supplies and Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
General Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
Accruals	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
O&M Expenses Arising from Exceptional Unforeseen Circumstances													
West End Emergency Water Supply													
Water Supply/Hauling	-	-	-	-	-	-	-	-	-	-	-	-	-
MT Response Team	-	-	-	-	-	-	-	-	-	-	-	-	-
Transportation Expense	-	-	-	-	-	-	-	-	-	-	-	-	-
Professional Svcs	-	-	-	-	-	-	-	-	-	-	-	-	-
Materials/Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
Moved to Howland's Well	-	-	-	-	-	-	-	-	-	-	-	-	-
Contract Work	-	-	-	-	-	-	-	-	-	-	-	-	-
MT Response Team - Move to Capital	-	-	-	-	-	-	-	-	-	-	-	-	-
Construction Permits - Move to Capital	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Hauling													
Water Supply/Hauling	-	-	-	-	-	-	-	-	-	-	-	-	-
Employee Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Well Rehabilitation													
Equipment/Fixture	-	-	-	-	-	-	-	-	-	-	-	-	-
Well Rehabilitation	-	-	-	-	-	-	-	-	-	-	-	-	-
Professional Services	-	-	-	-	-	-	-	-	-	-	-	-	-
Employee Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
Contract Work	-	-	-	-	-	-	-	-	-	-	-	-	-
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle Ranch Reservoir Level Surveys													
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundwater Sustainability													
Well Monitoring	-	-	-	-	-	-	-	-	-	-	-	-	-
Supplemental Contractor Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment/Fixture	-	-	-	-	-	-	-	-	-	-	-	-	-
Materials/Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Office Supplies and expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Drought Operation and Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Incremental Drought Expense	-	-	-	-	-	-	-	-	-	-	-	-	-
Less Revenues from Customer Fines	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Rate	2.55%	2.49%	2.49%	2.47%	2.44%	2.31%	2.19%	2.07%	1.95%	1.80%	1.62%	1.70%	
Interest	10,079	9,863	9,883	9,824	9,725	9,225	8,763	8,298	7,830	7,240	6,526	6,857	104,113
Ending Balance	4,753,118	4,762,981	4,772,864	4,782,688	4,792,413	4,801,638	4,810,401	4,818,699	4,826,530	4,833,769	4,840,295	4,847,152	4,847,152

ATTACHMENT 2-2

Escalation Memos

MEMORANDUM

Date: September 30, 2020

To: R. Rauschmeier, Program Manager, Public Advocates Office; R. Kahlon, Director, Water Division

From: M. Kanter, Regulatory Analyst, Public Advocates Office Energy Cost of Service & Natural Gas Branch
J. Montero, Regulatory Analyst, Public Advocates Office Communications & Water Policy Branch

File No.: S-2559

Subject: Public Advocates Office September 2020 Summary of Compensation Per Hour

The following data are provided to Commission water utilities staff to enable them to utilize Public Advocates Office composite non-labor escalation methodology. The numbers are to be used in conjunction with the non-labor factors provided in Public Advocates Office monthly escalation memorandum to bring historic dollars to base year dollars and to inflate recorded dollars to test year levels. The annual change in Compensation per Hour is applicable to contracted services, while the non-labor factor is related to material and supply purchases. In accordance with a 1991 agreement between the CPUC Water Division and the California Water Association (CWA), the monthly non-labor rate is to be weighted by 60 percent and the Compensation per Hour Index weighted 40 percent. If you have any questions regarding the application of these factors, please contact me.

COMPENSATION PER HOUR

Annual Rate of Change
Non-farm Business Sector, Seasonally Adjusted

<u>Year</u>	<u>Annual Change</u>
2009	0.9%
2010	1.9%
2011	2.2%
2012	2.6%
2013	1.3%
2014	2.8%
2015	3.1%
2016	1.1%
2017	3.5%
2018	3.4%
2019	3.6%
2020	5.9%
2021	1.3%
2022	2.4%
2023	2.6%
2024	3.1%

MEMORANDUM

Date : September 30, 2020

To : R. Rauschmeier, Program Manager, Public Advocates Office; R. Kahlon,
Director, Water DivisionFrom : M. Kanter, Regulatory Analyst, Public Advocates Office Energy Cost of
Service & Natural Gas Branch
J. Montero, Regulatory Analyst, Public Advocates Office Communications &
Water Policy Branch

File No. : S-2559

Subject: Public Advocates Office: Estimates of Non-labor
and Wage Escalation Rates for 2020 through 2024 from the
September 2020 IHS Global Insight U.S. Economic Outlook

The purpose of the monthly Escalation Memorandum is to inform division management of the trends in the general price level of utility non-labor expenses and wage contracts. Data are provided for 13 years, which include eight historic years, the estimated current year, and four forecasted years.

The following table summarizes the major changes in forecasted labor and non-labor inflation for years 2020 through 2024. Data for 2019 are provided as benchmarks. The factors for August 2020 are presented for comparison.

FORECASTED INFLATION					
	Labor		Non-labor		
	<u>09/20</u>	<u>08/20</u>	<u>09/20</u>	<u>08/20</u>	
2019	2.4%	2.4%	0.1%	0.1%	
2020	1.8%	1.8%	-0.7%	-0.9%	
2021	1.2%	1.0%	3.2%	2.4%	
2022	2.5%	2.3%	2.9%	3.0%	
2023	2.3%	1.9%	2.9%	2.5%	
2024	1.9%	1.6%	2.2%	1.9%	
Compounded	12.7%	11.6%	11.0%	9.1%	

A more extensive explanation of the derivation and use of the above factors and a complete presentation of the escalation factors from 2012 through 2024 are provided in the attached appendix.

ATTACHMENT 2-3

CPI-U Escalation Memo

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



February 5, 2020

TO ALL CLASS B, C, AND D WATER AND SEWER UTILITIES

Subject: Rate Adjustment due to CPI-U for 2019

On March 31, 1992, the Commission issued Decision 92-03-093, authorizing Class C and D water utilities to file each year by advice letter for a rate increase based on the most recent year-end increase in the Consumer Price Index for All Urban Consumers (CPI-U).¹ Subsequent resolutions (Res.) W-4493², Res. W-4540³ and Res. W-4658⁴, authorized sewer and Class B water utilities to file a CPI-U advice letter each year.

The CPI-U for 2019 is 2.3%.

Any Class B, C, and D water utility, and sewer utility, that is presently earning a lower rate of return (ROR) than its most recently authorized and is not presently subject to a test year, attrition year, or other general rate increase, is authorized to file for a CPI-U increase once each year, by advice letter. If your utility missed filing a CPI-U for one year, it **may not file retroactively** for that CPI-U in the following year.

Please follow the Summary of Earnings (SOE) format shown in Attachment 1 to determine your authorized and actual ROR. You would then compare these RORs to determine if the actual is less than or greater than authorized (see excerpt from Standard Practice U-27-W in Attachment 4).

Please file an advice letter (in accordance with General Order 96-B) requesting a CPI-U adjustment, **only** if the ROR based on actual revenues **does not** exceed the authorized ROR and if the projected revenue (with the CPI-U) **does not exceed** the authorized ROR. Please follow the following procedures when filing:

1. File an advice letter similar to that shown in Attachment 2.
2. Please also include a Cover Sheet (Attachment 3) to your advice letter, and the Service List from your last General Rate Case, with your CPI-U request.
3. Please provide a copy of your 2019 Annual Report which is required to be filed by March 31, 2020.
4. If a utility has been authorized a Rate of Margin (ROM) instead of a Rate of Return, please substitute that measure when comparing Authorized versus Actual Revenues.
 - a. $\text{Actual ROM} = 1 - (\text{Operating Expenses} / \text{Operating Revenues})$.

¹ Announced by the Bureau of Labor Statistics, U.S. Department of Labor.

² September 2, 2004.

³ June 16, 2005.

⁴ September 20, 2007.

ATTACHMENT 2-4

TY Escalation Factor Comparison by USOA

Account #	Account Description	Cal	
		SCE	Advocates
		2022	2022
615	Power	1.001	1.072
618	Other Volume Related Expense	1.001	1.072
678	Office Services and rentals	1.046	1.070
640	Materials	1.001	1.072
650	Contract Work	1.001	1.070
660	Transportation Expense	1.001	1.072
670	Office Salaries	1.100	1.056
671	Management Salaries	1.100	1.072
676	Uncollectible accounts expense	1.000	1.000
630	Employee Labor	1.100	1.056
681	Office Supplies and Expenses	1.046	1.072
682	Professional Services	1.046	1.070
688	Regulatory Compliance Expense	1.046	1.072
689	General Expense	1.046	1.072
689.927	Franchise Fees	1.000	1.000
800.1	A&G Allocation	1.046	1.072
800.2	Capitalized A&G Expense	1.000	1.000

ATTACHMENT 2-5

DR CR8-006, Q5

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET Pub Adv - SCE - 031 - CR

To: Public Advocates Office
Prepared by: Rudy Briseno
Job Title: Financial Analysis, Advisor
Received Date: 1/21/2021

Response Date: 1/28/2021

Question 05.a-b:

The following question is referring to SCE's response to DR CR8-004 (Volume Related Expenses), question 1:

Please explain the following recorded expense incurred in 2019:

- a. Row 485, Cost Center Description: "Volume Related Expenses (Fresh) BA"
 - i. What is the purpose of this expense?
 - ii. Please provide a general ledger breakdown of the recorded \$54,380 amount for this expense.
 - iii. Please provide the invoices for this expense.
 - iv. Does SCE foresee incurring this expense again before the end of 2022? If so, why?
- b. Row 486, Cost Center Description: "Volume Related Expenses (Desal) BA"
 - i. What is the purpose of this expense?
 - ii. Please provide a general ledger breakdown of the recorded \$76,353 amount for this expense.
 - iii. Please provide the invoices for this expense.
 - iv. Does SCE foresee incurring this expense again before the end of 2022? If so, why?

Response to Question 05.a-b:

a.i. The purpose of this expense is for power for pumping for the groundwater and distribution system which currently records to SCE's WRAM Balancing Account (BA).

a.ii. This is a summary of the annual amounts recorded in the WRAMBA for 2019. Please see table below for breakdown of these amounts.

Item	November	December	Total
Power for Pumping (Fresh)	42,762	11,617	54,380
Power for Pumping (Desal)	55,785	20,567	76,353

a.iii. Please see attached electric bills for August-December 2019.

ATTACHMENT 2-6

DR CR8-006, Q.5.a-b.iii

(CONFIDENTIAL)

ATTACHMENT 2-7

DR CR8-007, Q.1

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET Pub Adv - SCE - 032 - CR

To: Public Advocates Office
Prepared by: Rudy Briseno
Job Title: Financial Analysis, Advisor
Received Date: 1/21/2021

Response Date: 1/28/2021

Question 01:

Provide the annual general ledger transaction details from 2005-2019 for the Uniform Systems of Accounts ("USOA") Account 640 – "Materials" in Excel format. For years 2005-2010 (prior to the switch in 2011), include the account objects previously recorded in Account 640 that are now recorded in Account 618.

Response to Question 01:

SCE objects to Question 01 to the extent that the question seeks O&M expense data beyond the historic period of 2015-2019 for A.20-10-018. O&M expense data prior to 2015 is not reasonably related to SCE's request in A.20-10-018, and there is no need to go beyond the ordinary scope of discovery. Although SCE is a Class C Water Utility, SCE is following the Commission's guidance in Appendix A of D. 07-05-062 (Section II.B, p. A-24) for Class A Water Utilities, which requires the utility to provide five years of historical data in its general rate case testimony. Thus, SCE has not reviewed, analyzed, or relied on O&M expense data beyond the historical period of 2015-2019 in its Application.

SCE's response as it relates to 2015-2019 expense data:

Please see attached excel file containing annual general ledger transaction details for 2015-2019 for Account 640 – Materials. This was the historic period reviewed by SCE in preparing its operating expense estimates for the current GRC.

ATTACHMENT 2-8

DR CR8-004, Q.4.b.i

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET Pub Adv - SCE - 013 - CR

To: Public Advocates Office

Prepared by: Danny Lu

Job Title: Advisor

Received Date: 12/15/2020

Response Date: 12/22/2020

Question 04.a-b:

Referring to the Prepared Testimony of Ronald Hite, SCE-02, page 10, please provide in Excel format a breakdown of the \$50,000 adjustment made to 2019 recorded expenses for the test year forecast.

- a. Identify the cost of the additional disinfectants for the new granular activated carbon treatment system at Wrigley reservoir.
- b. Identify the cost of changing-out the six filters designed for capturing coal-tar enamel.
 - i. Per the consultant's recommendation(s), how frequently should SCE Catalina Water change out or replace the coal-tar enamel filters?
 - ii. Please provide (a) copy(ies) of any analysis conducted or report(s) prepared by the consultants supporting the recommended schedule for replacing the coal-tar enamel filters.

Response to Question 04.a-b:

- a. See Excel file titled "Question 4 Supplemental" for cost estimates.
- b. See Excel file titled "Question 4 Supplemental" for cost estimates.
 - i. Per the consultant's recommendation, the frequency for filter change outs are as follows: every 60 days for Million Gallon Tank, Two Harbors-Isthmus Pressure Station, and USC filtration systems and every 90 days for Escondido, Little Harbor, Empire and Buffalo Corral filtration systems.
 - ii. SCE's consultant is currently in the process of finalizing a Technical Memorandum which will include the recommended filter replacement schedules as stated in the previous response.

ATTACHMENT 2-9

DR CR8-004, Q.4, Question 4 Supplemental

Wrigley GAC				\$/yr
	Materials (Disinfectant+ Misc.)			6,500
	Lab analysis			9,000
	Labor			10,000
Two Harbors Filtration Systems		Frequency		\$/yr
	Materials (Filters + Misc.)	60 days		5,000
		90 days		6,500
	Labor			13,000
	Total			50,000

ATTACHMENT 2-10

DR CR8-008, Q.2.a

(CONFIDENTIAL)

ATTACHMENT 2-11

DR CR8-008, Q.4.a. PubAdv-SCE-033-CR-04

Break down for Adjustment for \$124K						
	Normal Time (\$)	Premium Time (\$)	Travel (\$)	Total (\$)		Allocation
ICE Technician	120,146	24,029	16,200	160,375		64,150
Catalina Utilityman	65,771	13,154	16,200	95,125		38,050
Plant Engineer	21,000	-	-	21,000		21,000
Total	206,917	37,183	32,400	276,500		123,200

ATTACHMENT 2-12

SCE Response to DR CR8-008, Q.5

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 3 3 - C R

To: Public Advocates Office
Prepared by: Juliet Zabasajja
Job Title: Sr. Advisor
Received Date: 1/26/2021

Response Date: 2/2/2021

Question 05:

Referring to the Prepared Testimony of Ronald Hite, SCE-02, pages 11-13, please provide the following:

Justify the need for the two backfilled positions with a time-motion study of SCE Catalina Water operations. Include in the study working hours going back five years before the date(s) identified in 4.a. Use these working hours to show the workload which requires additional labor.

Response to Question 05:

SCE did not perform a time-motion study to determine the need for the two backfilled positions. The need to backfill the positions was based on managerial experience and an assessment of the operational gap created by the vacated positions resulting from the retirements in 2018 discussed in SCE-02 Page 13.

ATTACHMENT 2-13

SCE Response to DR CR8-007, Q.3

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 3 2 - C R

To: Public Advocates Office
Prepared by: Frank Derek Beach
Job Title: Sr. Supervisor
Received Date: 1/21/2021

Response Date: 1/28/2021

Question 03:

Provide a cost breakdown of the forecasted \$100,000 to replace the RO membrane. Be sure to identify any reoccurring cost components and the frequency at what which SCE expects the cost to occur.

Response to Question 03:

Item	Amount
Materials	
- Membranes	\$55,000
- Miscellaneous Parts/Fittings	\$5,000
Contract	
- Labor	\$24,000
- Membrane Post Analysis	\$6,000
Contingency	\$10,000
TOTAL	\$100,000

This is the first replacement of membranes since installation and testing in late 2015. The frequency of future membrane replacements will depend on numerous factors and there is no estimate at this time.

ATTACHMENT 2-14

SCE Response to DR CR8-007, Q.2

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 3 2 - C R

To: Public Advocates Office

Prepared by: Danny Lu

Job Title: Advisor

Received Date: 1/21/2021

Response Date: 1/28/2021

Question 02.a-b:

Provide the analysis that shows the rise in total dissolved solids ("TDS") at Desalination Plant 2 and the need for a new reverse osmosis ("RO") membrane. Be sure to include:

- a. The amount of TDS at Desalination Plant 2 since the installation of the current RO membrane, at monthly intervals.
- b. The difference in parts per million (ppm) between the current TDS level and the 500 ppm requirement.

Response to Question 02.a-b:

- a) Please refer to the Desalination Plant 2 Operational reports for monthly TDS values. The reports (Monthly Desal Production Reports) can be found at the OneDrive link included in the body of the email.
- b) The difference in ppm between the current TDS level and the 500 ppm in December 2020 is 170 ppm.

ATTACHMENT 2-15

SCE Response to DR CR8-009, Q.5

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 3 4 - C R

To: Public Advocates Office
Prepared by: Juliet Zabasajja
Job Title: Sr. Advisor
Received Date: 1/26/2021

Response Date: 2/2/2021

Question 05:

Referring to the Prepared Testimony of Ronald Hite, SCE-02, 17-21, please provide the following information:

There is an unexplained \$75,000 adjustment out of the \$1,147,000 adjustment to the 2019 base year amount for Account 650. Please explain the reason for the \$75,000 adjustment and include any analysis in Excel format.

Response to Question 05:

The adjustment out of the \$1,147,000 adjustment to the 2019 base year amount for account 650 was to account for expenses related to tank and water infrastructure coating maintenance. SCE plans to complete one tank coating maintenance with an estimated cost of \$75,000 per tank. Please see attachment PubAdv-SCE-034-CR-05.xlsx for the excel analysis.

ATTACHMENT 2-16

SCE Response to DR CR8-018, Q.2.a

Southern California Edison
A 10-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 4 9 - C R

To: Public Advocates Office
Prepared by: Cooper Cameron
Job Title: Senior Advisor
Received Date: 2/24/2021

Response Date: 3/3/2021

Question 02.a:

Referring to SCE Catalina Water's response to DR CR8-009, please provide the following information:

For all eight of the contract work projects included in the adjustment for Account 650, please answer the following:

- a. Was SCE using in-house labor for these projects in previous years?
 - i. If so, why is SCE choosing to now contract the work?
 - ii. Are there any associated capitalized contract labor costs as well? If yes, identify where these capitalized costs are accounted for in the workpapers.

Response to Question 02.a:

SCE only provided seven adjustments for Account 650 in response to CR8-009, Question 02.a-g. SCE is providing responses at it relates to those seven adjustments.

- 1. Two Harbors Special Sampling
 - a. This work is related to the ongoing Two Harbors pipeline project and was not performed in prior years.
 - i. SCE is choosing to perform this work to closely monitor the water supply system and quality in the areas supplied by the Two Harbors pipeline until the facility can be removed from service. Work of this technical and specialized nature is appropriately performed by contract resources.
 - ii. There are no capitalized labor costs associated with these O&M activities.
- 2. LCR and GWUDI Sampling, Analysis, and Reporting
 - a. While SCE labor physically collects or supports the collection of the samples in support of these regulatorily required monitoring activities, SCE has always relied on contract resources to perform the analysis and report preparation associated with these recurring activities.
 - i. There are no capitalized labor costs associated with these O&M activities.
- 3. New NPDES Permit Requirements
 - a. While SCE labor physically collects or supports the collection of the samples in support of this regulatorily required activity, SCE has always relied on contract resources to perform the analysis and report preparation associated with these recurring activities.
 - i. There are no capitalized labor costs associated with these O&M activities.

4. Well Maintenance

- a. At times in prior years, SCE used a combination of in-house labor and contract services to perform well maintenance.
 - i. SCE is choosing to transition to contract services due to the technical and specialized nature of well maintenance activities. Well contractors have the specialized equipment, knowledge, and expertise to perform well maintenance activities more effectively and efficiently than SCE in-house labor. For example, when using in-house labor to perform certain well maintenance activities, the water department would rely on the boom truck and crew dedicated to electric utility operations to pull the well. A well contractor with a well development rig has equipment specifically designed for pulling wells and performing well maintenance activities, and can do so safely, efficiently, and effectively.
 - ii. There are no capitalized labor costs associated with these O&M activities.

5. Wildfire Mitigation

- a. Wildfire mitigation activities are performed by a combination of in-house labor and contract services. In-house labor typically performs minor routine vegetation control (e.g., weeding around facilities) and corrective maintenance, with contract resources performing more substantial, programmatic vegetation control activities (e.g., plant/tree removal and treatment), maintenance items, and construction (i.e., fencing) associated with SCE's wildfire mitigation efforts on the island.
 - i. SCE is relying on contract services to perform the incremental wildfire mitigation activities due to the extent of the activities to be performed and the specialized equipment, knowledge, and expertise of SCE contractors. Additionally, hiring contractors to perform incremental wildfire mitigation activities allows water operations personnel to focus on the core function of providing safe and reliable service to customers.
 - ii. There are no capitalized labor costs associated with these O&M activities.

6. Routine Inspection and Maintenance

- a. No, SCE has relied on contract resources to perform these inspection and maintenance activities in prior years.
 - i. There are no capitalized labor costs associated with these O&M activities.

7. Asset Management

- a. Work associated with the asset management program did not occur in the Catalina water utility in prior years. As such, SCE did not rely in in-house labor to perform this work in prior years. The asset management program will rely on both internal and contract resources.
 - i. There are no capitalized labor costs associated with these O&M activities.

ATTACHMENT 2-17

SCE Response to DR CR8-009, Q.2.b

2.b	Project Element	Estimated Cost (\$)
	LCR - Analysis and Report Prep	10,000
	LCR - Labor	10,000
	GWUDI - Analysis and Report Prep	18,000
	GWUDI - Labor	1,600
	Total	39,600

ATTACHMENT 2-18

SCE Response To DR CR8-009, Q.3.A

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 3 4 - C R

To: Public Advocates Office
Prepared by: Danny Lu
Job Title: Advisor
Received Date: 1/26/2021

Response Date: 2/2/2021

Question 03.a:

Referring to the Prepared Testimony of Ronald Hite, SCE-02, 17-21, please provide the following information:

Please identify the outside contractors SCE has engaged, or plans to engage, for each activities listed in 2.a-g.

a. Provide copies of any contracts or agreements SCE has executed with the contractors identified above.

Response to Question 03.a:

Contractors:

Environmental assessment - Geosyntec

Lead and Copper/GWUDI -TBD

NPDES – WECK, Enthalpy

Well Maintenance – Cascade, Richard Slade and Assoc.

Wildfire Mitigation - TBD

Routine inspections and maintenance – Coast Diving, Layfield Environmental

Asset Management – Raffetis

Purchase order amounts may differ from project estimates as certain contractors perform specific scope activities which may not represent the entirety of the planned work. The attached confidential purchase orders and price lists are what SCE currently has in place for the contractors identified above.

ATTACHMENT 2-19

Response to Cal Advocates DR CR8-018, Q.3.a

(CONFIDENTIAL)

ATTACHMENT 2-20

SCE Response to DR CR8-009, Q.2.e

2.e	Project Element	Estimated Cost (\$)
	HFRI Inspection	2,800
	HFRI Remediation (O&M)	10,500
	Expanded Clearances - Assessment	4,000
	Expanded Clearances - Permits	5,000
	Expanded Clearances - Treatment	16,000
	Expanded Clearances - Fencing (O&M)	5,000
	Total	43,300

ATTACHMENT 2-21

SCE Response to DR CR8-009, Q.2.f

2.f	Project Element	Estimated Cost (\$)
	Tank Inspection	65,632
	Wrigley Cover Cleaning	26,095
	Tank Maintenance	50,000
	Aerator Cleaning	60,000
	Total	201,727

ATTACHMENT 2-22

SCE Response to DR CR8-009, Q.3.a

(CONFIDENTIAL)

ATTACHMENT 2-23

SCE Response to DR CR8-009, Q.3.a

(CONFIDENTIAL)

ATTACHMENT 2-24

SCE Response to DR CR8-009, Q.3.a, Raftelis PO

(CONFIDENTIAL)

ATTACHMENT 2-25

SCE Response to DR CR8-009, Q.2.g

2.g	Project Element	Estimated Cost (\$000s)
	Asset Management Program	150
	Total	150
	<p>The \$150K amount is a preliminary estimate based on management/professional experience in support of a department wide asset management initiative. SCE is currently in the process of further defining the scope and cost</p>	

ATTACHMENT 2-26

SCE Response to DR CR8-009, Q.5

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 3 4 - C R

To: Public Advocates Office
Prepared by: Juliet Zabasajja
Job Title: Sr. Advisor
Received Date: 1/26/2021

Response Date: 2/2/2021

Question 05:

Referring to the Prepared Testimony of Ronald Hite, SCE-02, 17-21, please provide the following information:

There is an unexplained \$75,000 adjustment out of the \$1,147,000 adjustment to the 2019 base year amount for Account 650. Please explain the reason for the \$75,000 adjustment and include any analysis in Excel format.

Response to Question 05:

The adjustment out of the \$1,147,000 adjustment to the 2019 base year amount for account 650 was to account for expenses related to tank and water infrastructure coating maintenance. SCE plans to complete one tank coating maintenance with an estimated cost of \$75,000 per tank. Please see attachment PubAdv-SCE-034-CR-05.xlsx for the excel analysis.

ATTACHMENT 2-27

SCE Response to Public Advocates DR CR8-010, Q.3

Southern California Edison
A.10-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 3 5 - C R

To: Public Advocates Office
Prepared by: Rudy Briseno
Job Title: Financial Analysis, Advisor
Received Date: 1/27/2021

Response Date: 2/3/2021

Question 03.a:

Referring to the Prepared Testimony of Ronald Hite, pages 21-23, please provide the following information:

Page 22 refers to the large increase in expenses for Account 660 occurring in 2019. SCE claims the increase is from an adjustment to the allocation of transportation expenses to reflect the additional time spent servicing water fleet vehicles relative to the other utilities. Please describe the transportation expense allocation process and explain how the adjustment amount was determined. Include any analysis or calculations in Excel format. In addition, please explain the reason(s) why water fleet vehicles require more service time than other utility vehicles.

a. Provide the amount allocated to other SCE Catalina Island utilities' vehicles expenses in 2019, and the total allocable amount amongst all SCE Catalina Island transportation expenses.

Response to Question 03.a:

Catalina Island operations were transitioned from the Transmission & Distribution (T&D) organization to Generation in 2018. In mid-2018, accounting for the Catalina vehicles was updated from a T&D distributive cost center to a Catalina specific account that allocated 40% of transportation costs to the water utility. Similar to the allocation of employee time across the Catalina utilities, vehicle allocation relies heavily on management expertise, taking into account past trends and future expectations for allocation of resources.

As stated on pages 21-23 of SCE-02, water fleet vehicles require more service time than other utility vehicles due to the rugged and rural terrain of the island which takes a toll on fleet vehicles. When water utility fleet vehicles require major maintenance or replacement, the vehicles are shipped off the island to SCE's main garage in Westminster.

In 2019, Catalina incurred \$252K of total vehicle costs from SCE's Transportation Services Department (TSD), of which 40% or \$101K was allocated to the Water. This does not include other non-vehicle/non-TSD related transportation expenses which record to Account 660.

CHAPTER 3 ADMINISTRATIVE AND GENERAL EXPENSES

(Witness: Chris Ronco)

I. INTRODUCTION

SCE A&G accounts contain expenses for administrative labor, management salaries, office services and rentals, office equipment, third party administrative support and general expenses. SCE forecasts TY A&G expenses at \$1,940,094, which is a 12.60% increase from the 2019 recorded amount.¹¹⁹ SCE forecast methodology for most A&G expenses is based on the last recorded year 2019 with one-time expenses supposedly removed, plus additional adjustments depending on the expense account and specific needs. The Franchise Fee Requirements, Uncollectibles Accounts Expense and General Office (“GO”) Allocations are also included within the A&G expense category for the sake of this report. The details for GO Allocation are discussed in Chapter Four.¹²⁰

II. SUMMARY OF RECOMMENDATIONS

SCE’s use of the last recorded year (2019) and several adjustments made to forecast its TY A&G expenses results in forecasted amounts that are not supported by historical data. Accordingly, Cal Advocates recommends that the Commission:

- Require the use of the standard escalation rates in accordance with the Commission’s RCP as discussed in *Chapter 3, Section A*.
- Require SCE to use a five-year average of A&G expenses, when appropriate, to forecast the TY amount.
- Ensure removal of any one-time expenses that improperly impact the forecasted amount.

¹¹⁹ SCE Results of Operation Model, workbook: G1) GRC, tab: O&M Reports, cells: 12J+13J+14J.

¹²⁰ SCE uses a different forecasting method for these three accounts.

- Reduce SCE's proposed adjustments to the O&M accounts indicated in *Table 3-1*, below.¹²¹

Table 3-1: Comparison of TY A&G USOA Budgets

USOA Account	SCE	Cal Advocates	SCE > Cal Advocates	Cal Advocates as % of SCE
670 – Office Salaries	\$395,992	\$221,398	\$174,594	55%
671 – Management Salaries	\$154,000	\$134,599	\$19,401	87%
678 – Office Services and Rentals	\$48,000	\$19,574	\$28,426	41%
681 – Office Supplies and Expenses	\$97,000	\$44,952	\$52,048	46%
682 – Professional Services	\$361,000	\$361,000	\$0	100%
689 – General Expenses	\$463,671	\$327,555	\$136,116	71%
676 – Uncollectible Accounts Expense	\$16,746	\$7,267	\$9,479	43%
689.927 – Franchise Fees ¹²²	\$93,032	\$36,878	\$56,154	40%
800.1 – GO A&G Allocation	\$1,080,612	\$535,020	\$545,592	50%
800.2 – Capitalized A&G Expenses ¹²³	-\$769,959	-\$491,801	-\$278,158	64%
TOTAL	\$1,940,094	\$1,196,442 ¹²⁴	\$743,652	62%

¹²¹ These budgets are the non-escalated amounts. Escalated amounts are discussed in the individual account sections.

¹²² SCE calculates the franchise fee amount as: *Franchise Fee Amount = Revenue Requirement X Franchise Fee Rate*. The difference in franchise fee amounts comes from the difference in SCE's proposed and Cal Advocates recommended revenue requirement.

¹²³ SCE calculates its Capitalized A&G Expenses as: *Capitalized A&G Expenses = Total A&G X Capitalized Expense Ratio*. The difference in Capitalized A&G Expenses comes from the difference in SCE's proposed and Cal Advocates recommended total A&G amount.

¹²⁴ Cal Advocates recommended A&G amount is \$1.196 million. However, the amount of \$1.196 million includes the recommended amounts of \$7,262 for Uncollectibles and \$36,877 for Franchise Requirement

III. ANALYSIS

To capture historic trends, a five-year average should be used as the base for A&G accounts instead of just a single year, with a few exemptions. A single year data point does not reflect the year-to-year variance that typically occurs in expenses. A five-year average generally provides a more reasonable estimate of typical recurring expenses on an account basis if appropriate.

A. Account 670 – “Office Salaries”

Account 670 – “Office Salaries” includes the labor costs associated with providing general administration of Catalina water operations.¹²⁵ SCE forecasts TY Account 670 expense amount at \$395,992 which is the base year 2019 plus a \$306,000 adjustment. With escalation, SCE’s forecast is \$435,677.

B. The Commission should add \$306,000 to the recorded 2019 Account 670 amount and use the resulting two-year average to forecast the account expenses.

SCE began including its water utility operations in its Generation organization in late 2017.¹²⁶ Due to this organization shift, Account 670 is one of the exemptions for which a five-year average is not appropriate. Prior to 2018 SCE had a different salary system for water operations. Employees included in Account 670 who shared time between utilities were then supposed to have their time and salaries properly allocated to water operations. SCE failed to do so in 2018 and 2019.¹²⁷ SCE is now requesting to add an adjustment of \$306,000 to the base year of 2019 as the Account 670 forecast method.

which are shown separately as \$5,000 for Uncollectible, and \$25,000 for Franchise Requirement in the Summary of Earnings Table 1-1 after the downward adjustment of 32.1% reduction due to SCEs unreasonable water loss rate of 39.1%. In addition, implementation of an overall downward adjustment of 32.1% due to SCE’s unreasonable water loss rate would result in Cal Advocates recommend A&G expense of \$0.782 million $[(\$1.196 - \$0.007262 - \$0.036877) \times (1-32.1\%)]$ as depicted in the Summary of Earnings Table 1 of Executive Summary of this report.

¹²⁵ SCE-02, p. 23.

¹²⁶ SCE-02, pp. 3-4.

¹²⁷ Attachment 3-1, SCE Response to DR CR8-008, Q.7.

1 This adjustment consists of the water operations portion of seven employees' salaries
2 whose time spent working was not properly allocated.¹²⁸

3 Instead of adding the \$306,000 as a separate direct adjustment, SCE should
4 include this amount in 2019 recorded expenses to accurately reflect when the expenses
5 occurred. An Account 670 forecast treating 2019 Office Salaries as a past recorded
6 expense—which it is—ensures that the forecast is based on the actual historical expense
7 average. The Commission should adopt an Account 670 forecast based on the average of
8 Account 670 expenses for the years since SCE's reorganization of the salary system
9 (2018 and 2019) and adding the misallocated amount of \$306,000 into 2019, for an
10 escalated TY Account 670 forecast of \$233,790.

11 **C. Account 671 – “Management Salaries”**

12 Account 671 – “Management Salaries” contains the salaries of managers and
13 supervisors who oversee daily operations, maintenance, and compliance of the Catalina
14 water system.¹²⁹ SCE forecasts the TY expense amount at the recorded 2019 amount of
15 \$154,000. With escalation, it is at \$169,433.

16 **D. The Commission should adopt the recorded 2018 amount**
17 **as the forecast for Account 671.**

18 SCE indicates that Account 671 experienced a \$16,000 increase from 2018 to
19 2019 but was unable to explain the increase.¹³⁰ This inability to explain the increase
20 means that 2019 is not a reliable base year for forecasting because the expenses cannot be
21 accounted for and thus may be one-time expenses. The Commission should adopt the
22 2018 recorded amount as the TY forecast because SCE did not include water operations
23 in its Generation organization in prior years. In addition, the actual recorded 2018
24 expense is not the \$138,000 as reported in SCE's testimony. SCE's general ledger and

¹²⁸ SCE-02, p. 25.

¹²⁹ SCE-02, p. 25.

¹³⁰ Attachment 3-2, SCE Response to DR CR8-008, Q.10.

Results of Operation model both show the 2018 recorded amount as \$134,000.¹³¹ The difference of \$19,401 should be removed from the forecast and the escalated TY forecast should be \$142,133.

E. Account 678 – “Office Services and Rentals”

Account 678 – “Office Services and Rentals” contains costs SCE incurs for rent and office services such as security.¹³² SCE forecasts the TY Account 678 expense amount at \$48,000, an increase of over 3600% from the 2019 recorded amount of \$1,294. With escalation, the forecast is \$50,211. This increase is due to SCE’s proposal to discontinue its allocation of Catalina Common plant expenses across all utility operations on the island. Instead, SCE proposes that its electric operations incur the direct costs of the Pebbly Beach Generating Station (“PBGS”), and the water utility will reimburse electric operations, i.e., pay rent for use of the office and other operating space.¹³³

SCE claims that rent payment process will lessen the financial impact on water customers by removing the burden of capital investments for PBGS from water rates¹³⁴. SCE notes that common plant projects, like PBGS resurface paving, for example, put pressure on the small water customer base in terms of increases in capital expenditures, justifying the switch to a monthly rent structure for water operations.¹³⁵

Without the proposed shift to the monthly operating rent structure, SCE estimates that water customers will face \$13,000 in monthly common plant expenses.¹³⁶ This is compared to SCE’s monthly rent calculation of \$3,923.¹³⁷ Cal Advocates agrees with the

¹³¹ SCE Results of Operation Model, workbook: G1) GRC, tab: O&M Reports, cell: 41AB.

¹³² SCE-02, p. 29.

¹³³ SCE-02, p. 41.

¹³⁴ SCE-02, p. 41.

¹³⁵ SCE-02, p. 42.

¹³⁶ SCE-02, p. 42.

¹³⁷ SCE-02, p. 43.

shift to the rent payment system, however SCE’s calculation of the rent amount contains several errors that need to be corrected.

F. The Commission should adopt the 5-year average of Account 678 as the base forecast amount and use Cal Advocates proposed rent calculation for water operation use of PBGS facilities as the adjustment.

SCE calculated a square footage cost estimate of PBGS based on assessed land values in LA County for eight other similar commercial properties.¹³⁸ SCE estimated a rough order of magnitude cost estimate of \$50 to \$200 per square foot based on these eight commercial property sales and took the average of the low and high range as the estimated land value, at \$125 per square foot.¹³⁹ The estimate was skewed high, however, due to a single outlier sale price amount nearly four times greater than any of the other data points. Graph 3-1 shows the eight land sale prices per square foot.

Graph 3-1: Land Sales Used for PBGS Rent Calculation



¹³⁸ SCE-02, p. 42.

¹³⁹ Attachment 3-3, SCE’s Response to Cal Advocates’ DR CR8-011, Q.3. Commercial Land Sale. A rough order estimate is a method which uses past expenses to provide a general, quick estimate of future costs.

1 Sale 6 is an outlier of the data set at \$370.95; Sale 5 is the next closest in price at
2 \$112.18. Instead of a rough order estimate, a median cost per square foot of the eight land
3 sales should be used to calculate PBGS rent to mitigate the effect of outlier data on the
4 calculation. The median of the eight sales is \$45.92. The product of this median value and
5 the total square footage of PBGS results in an estimated market value of PBGS property
6 at \$254,305.

7 SCE estimates a rental rate of return of 8% on the total market value of PBGS
8 property, based on professional experience, market conditions, and the level of return an
9 investor would expect, as well as the water utility's authorized rate of return of 7.68%¹⁴⁰
10 The authorized rate of return of 7.68% is the authorized return for SCE and to be
11 consistent with the general rate case, the Commission should adopt it instead of 8% for
12 the PBGS rent calculation.

13 Next, SCE uses the five-year average of labor expenses for gas and water
14 employees to find the water utility's percentage share of the PBGS rent owed to electric
15 operations.¹⁴¹ In response to Cal Advocates request, SCE admitted to an error in its
16 testimony and calculation of the PBGS percent share between gas and water.¹⁴² SCE's
17 proposed calculation has 85% of the rent for water operations, however the labor
18 expenses did not take into account the reclassification of non-labor expenses from
19 account 630 to 689. The correct percent for water operations should be 83%.

20 Table 3-2 compares SCE's and Cal Advocates' calculations of monthly rent to be
21 paid by water customers to the electric utility for the water utility use of PBGS facilities.
22

¹⁴⁰ Attachment 3-4, SCE Response to DR CR8-011, Q.4.

¹⁴¹ SCE-02, p. 43, Table II-5.

¹⁴² Attachment 3-5, SCE Response DR CR8-011, Q.5.

Table 3-2: Rent Adjustment for Account 678

Line No.	Calculation Component	SCE	Cal Advocates
1	Land Value per Square Foot	\$125	\$45.92
2	Land Market Value (Line 1 x 5,538)	\$692,250	\$254,305
3	Rate of Return	8%	7.68%
4	Annual Rent (Line 2 x Line 3)	\$55,380	\$19,531
5	Monthly Rent (Line 4 / 12)	\$4,615	\$1,628
6	Percent Share for Water	85%	83%
7	Water Monthly Rent (Line 4 x Line 5)	\$3,923	\$1,351

The Commission should adopt Cal Advocates annual rent amount of \$19,531 as the adjustment to Account 678. This adjustment, added to the five-year average of the account, brings the total escalated TY forecast amount to \$20,944.

G. Account 681 – “Office Supplies and Expenses”

Account 681 – “Office Supplies and Expenses” contains the costs of printing, stationery, general accounting supplies, repair, maintenance and telephone, and other office expenses.¹⁴³ SCE uses the recorded 2019 amount of \$97,000 as its TY forecast. With escalation, SCE’s forecast is \$101,469.

H. The Commission should remove one-time equipment repair expenses from 2019 and use the resulting five-year average to forecast Account 681 expenses.

Account 681 expenses almost doubled from 2018 to 2019, increasing from \$49,447 to \$96,904, mainly due to “Equipment Maintenance & Repair.”¹⁴⁴

¹⁴³ SCE-02, p. 31.

¹⁴⁴ Attachment 3-6, SCE Response to DR CR8-011, Q.6.a.

1 <<BEGIN CONFIDENTIAL>>

2 In 2019, SCE recorded about [REDACTED] of expense items associated with equipment
3 maintenance and repair. The detailed line items for this [REDACTED] total indicate whether the
4 maintenance and repair costs are recurring, non-recurring, or just a one-time expense.
5 SCE identified [REDACTED] of non-recurring equipment maintenance and repair costs in
6 2019.¹⁴⁵ [REDACTED] of that amount was considered a one-time expense.

7 <<END CONFIDENTIAL>>

8 The Commission should apply the five-year average with one-time costs removed
9 from 2019 to determine the TY forecast for Account 681 and approve a TY escalated
10 forecast of \$48,210.

11 **I. Account 689 – “General Expenses”**

12 Account 689 – “General Expenses” includes all other administrative and general
13 expenses not included in other accounts.¹⁴⁶ SCE forecasts the TY expense amount at
14 \$463,471 which is the 2019 recorded amount with a \$33,000 credit entry removed. With
15 escalation, this forecast is \$485,033.

16 **J. The Commission should approve a TY forecast for**
17 **Account 689 based on a five-year average after removal of**
18 **all large one-time credit entries.**

19 SCE has recorded two large one-time Account 689 credit entries during the past
20 five years.¹⁴⁷ In 2016, Account 689 included an accounting adjustment of \$1,010,734 to
21 record a contribution received because of a lawsuit for the 2007 Island Fire.¹⁴⁸ Removing
22 this entry brings the 2016 amount to \$457,093.

¹⁴⁵ Confidential Attachment 3-7, SCE’s Revised Response to DR CR8-019, Q.1a-c (PubAdv-SCE-050-CR-01.a-c).

¹⁴⁶ SCE-02, p. 35.

¹⁴⁷ Attachment 3-9, SCE Response to Cal Advocates’ PubAdv-SCE-Verbal-004-02. Row 1732.

¹⁴⁸ Attachment 3-9, SCE Response to Cal Advocates’ PubAdv-SCE-Verbal-004-02. Row 1732.

1 Another credit entry for \$33,543 was recorded in 2019 due to an accounting
2 adjustment for labor and non-labor expense from the asset management processing.¹⁴⁹
3 Removing this entry brings the 2019 amount to \$467,000. With removal of the above
4 one-time credits, the five-year average of Account 689 is \$327,555. Accordingly, the
5 Commission should adopt this amount escalated to \$351,293 as the TY forecast for
6 Account 689.

7 **K. Account 676 – “Uncollectibles”**

8 Account 676 – Uncollectibles” includes losses due to uncollected customer
9 accounts.¹⁵⁰ SCE forecasts uncollectable expenses by multiplying utility revenue
10 requirement (or operating revenue) by an “uncollectable rate”:

11
$$\text{Uncollectible Expense Amount} = \text{Revenue Requirement} \times \text{Uncollectible Rate}$$

12 For its proposed Account 676 TY forecast, SCE applies the 0.180% uncollectible
13 rate proposed in its most recent electric GRC.¹⁵¹ SCE calculates this electric
14 uncollectable rate based on a five-year average of electric customers’ uncollectible
15 rates.¹⁵² SCE then calculates the Catalina Account 676 forecast by multiplying the
16 electric uncollectible rate by proposed Catalina Water operating revenue, resulting in
17 projected uncollectable expenses of \$16,746.¹⁵³

18 **L. The Commission should base the Account 676 expense**
19 **forecast on the five-average of water utility uncollectible**
20 **amounts rather than electric uncollectable rates.**

21 An uncollectible rate based on electric customer data is not appropriate for SCE’s
22 Catalina water uncollectable account expenses forecast. SCE’s water and electric
23 operations differ greatly in terms of service area, customer demographics, and rates.

¹⁴⁹ Attachment 3-10, SCE Response to Cal Advocates’ DR CR8-012, PubAdv-SCE-039-CR-03a-b.

¹⁵⁰ SCE considers an account uncollectable after six months. See SCE-02, p. 27.

¹⁵¹ SCE-02, p. 28.

¹⁵² See A.19-08-013, Opening Brief of Southern California Edison Company (September 11, 2020), p. 167.

¹⁵³ SCE-02, p. 28.

Applying the electric uncollectible rate to a water account may result in a distorted forecast of uncollectible expenses, evidenced by the trend of fewer water accounts considered uncollectible over the past three years.¹⁵⁴ SCE’s TY forecast of uncollectible expenses should be based on a five-year average of water customer’s uncollectible amounts, as illustrated below in Table 3-3.

Table 3-3: Five-Year Historical Data of SCE’s Account 676

Year	Operating Revenue	Uncollectible Amount ¹⁵⁵
2015	\$2,631,076	\$6,412
2016	\$3,197,548	\$6,732
2017	\$3,174,747	\$7,270
2018	\$3,322,210	\$7,608
2019	\$3,629,454	\$8,311
	5-Year Average	\$7,267

Accordingly, the Commission should adopt a TY 2022 forecast of \$7,267 for Account 676, based on the five-year average illustrated in Table 3-2.

M. Account 800.1 – “Administrative and General Allocation”

SCE forecasts an allocation of \$1,080,612, or 0.064% to water operations, from its total General Office (“GO”) expenses serving all three utility operations. The Commission should deny an increase from the previously adopted GO allocation amount of \$535,020 because SCE is not in compliance with USOA guidelines.¹⁵⁶

¹⁵⁴ Attachment 3-11, SCE Response to DR CR8-013, Q.2.b. (PubAdv-SCE-040-CR-02).

¹⁵⁵ SCE Results of Operation Model, workbook: O1) O&M Dashboard, tab: O&M | In Use, cells: 46Y-46AC.

¹⁵⁶ For further discussion of USOA compliance issues, see Chapter4 of this report.

1 **N. Account 674 – “Employee Pension and Benefits”**

2 Account 674 – “Employee Pension and Benefits” includes the accruals under the
3 employee pension plans and funds committed to payments for employee accident,
4 sickness, hospital, and death benefits.¹⁵⁷ SCE failed to properly report and forecast
5 Account 674 in its previous GRC when it used the GO allocation method to forecast
6 Account 674 amounts, as they are proposing to do so in this current GRC.¹⁵⁸ Instead of
7 using Account 674, SCE used portions of the amount allocated from GO for its water
8 employees’ pensions and benefits. SCE has not resolved this issue in this GRC. It is still
9 using the GO allocated expense amount as a substitute for proper USOA compliance for
10 Account 674.

11 **O. The Commission should deny SCE’s request for increased**
12 **General Office allocation for Account 674.**

13 All parties to the previous Catalina GRC, including SCE, agreed that in future
14 GRCs it will comply with USOA guidelines.¹⁵⁹ The lack of USOA compliance allows
15 SCE to allocate portions of the GO expense amount to water employee’s pensions and
16 benefits in a non-transparent manner. SCE was unable to provide the amount of the GO
17 allocated amount it proposed toward employee pensions and benefits when requested by
18 Cal Advocates. SCE responded that it was unable to provide a stand-alone amount
19 separated from the GO allocated expense total.¹⁶⁰ The Commission should deny the
20 increase in GO allocated expenses until SCE properly tracks the water related expenses
21 including those for pensions, benefits, and insurance.

¹⁵⁷ Standard Practice 39, p. B47.

¹⁵⁸ See A.10-11-009, Proposed Decision of ALJ Barnett Granting the Application in Part (April 23, 2012), p. 19.

¹⁵⁹ D.14-10-048, p. 7.

¹⁶⁰ Attachment 3-2, SCE Response to DR CR8-008, PubAdv-SCE-033-CR Q.02 a-e.

1 **P. Account 684 – Insurance**

2 Account 684 – “Insurance” includes all insurance costs applicable to the
3 accounting period, including workers' compensation, liability, vehicle, fire and theft or
4 robbery insurance.¹⁶¹ Similar to Account 674, SCE fails to comply with the USOA in
5 Account 684. A lack of USOA compliance with forecasting these two accounts leads to a
6 lack of transparency in how much SCE’s water ratepayers are paying for employee
7 insurance, pensions, and benefits.

8 **IV. CONCLUSION**

9 The Commission should allow 62% of SCE’s proposed A&G TY expense budget.
10 The primary reasons for differences between SCE’s proposed expense forecasts and Cal
11 Advocates’ recommendations are SCE’s failure to consider historic trends, using only
12 2019 as the base year forecast in instances when 2019 is an outlier for the proposed
13 expense amounts, and adjusting the base year with unsupported amounts. Further, SCE
14 fails to comply with USOA standards for Account 674 and 684 and Commission
15 directives from its previous general rate case. Accordingly, the Commission should deny
16 SCE’s requested increase in the GO Allocated amount to water operations.

¹⁶¹ Standard Practice 39, p. B48.

1

LIST OF ATTACHMENTS FOR CHAPTER 3

#	Attachment	Description
1	Attachment 3-1	SCE Response to DR CR8-008, Q.7
2	Attachment 3-2	SCE Response to DR CR8-008, Q.10
3	Attachment 3-3	SCE Response to Public Advocates DR CR8-011, Q.3. Commercial Land Sale
4	Attachment 3-4	SCE Response to DR CR8-011, Q.4
5	Attachment 3-5	SCE Response to Public Advocates DR CR8-011, Q.5
6	Attachment 3-6	SCE Response to DR CR8-011, Q.6.a.
7	Attachment 3-7 (CONFIDENTIAL)	SCE Revised Response to DR CR8-019, Q.1a-c. (PubAdv-SCE-050-CR-01.a-c)
8	Attachment 3-8	SCE Response to DR CR8-009, Q.6
9	Attachment 3-9	PubAdv-SCE-Verbal-004-02
10	Attachment 3-10	SCE Response to DR CR8-012 (PubAdv-SCE-039-CR-03a-b)
11	Attachment 3-11	SCE Response to DR CR8-013, Q.2.b. (PubAdv-SCE-040-CR-02)

2

ATTACHMENT 3-1

SCE Response to DR CR8-008, Q.7

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET Pub Adv - SCE - 033 - CR

To: Public Advocates Office
Prepared by: Juliet Zabasajja
Job Title: Sr. Advisor
Received Date: 1/26/2021

Response Date: 2/2/2021

Question 07.a-b:

Referring to the Prepared Testimony of Ronald Hite, SCE-02, pages 23-25, please provide the following:

Explain why SCE did not allocate the time of the seven other Generation employees for their water-related activities during the 2015-2019.

a. Explain the process SCE uses to determine the amount of time Generation employees work on water operations, as opposed to energy.

b. Provide a total dollar amount that should have been allocated for the seven other Generation employees' water-related activities in 2019 in Excel format. Itemize the amount by employee.

Response to Question 07.a-b:

The Catalina Utilities were previously part of the Transmission and Distribution organization prior to the reorganization into the Generation organization in late 2017. When the transfer into Generation occurred, the Catalina Regulatory Compliance department was moved under the existing Generation Regulatory Support Services department, which allocates expenses primarily to Generation's hydroelectric assets. In 2019 the allocation of Catalina regulatory support costs to Generation Regulatory Support Services was identified and corrected in the 2020 budget to point the Catalina Regulatory Compliance costs back to the Catalina utilities.

- a. The process of allocating time across the three Catalina utilities (water, gas, and electric) relies heavily on manager expertise to inform the breakout. Judgement factors include historical practices, current level of support, and future operational support expectations.
- b. Please see attached Excel file titled "PubAdv-SCE-033-CR 07.b" for allocated costs to the Catalina water utility.

ATTACHMENT 3-2

SCE Response to DR CR8-008, Q.10

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 3 3 - C R

To: Public Advocates Office
Prepared by: Juliet Zabasajja
Job Title: Sr. Advisor
Received Date: 1/26/2021

Response Date: 2/2/2021

Question 10.a:

Referring to the Prepared Testimony of Ronald Hite, SCE-02, pages 25-27, please provide the following:

Explain the \$16,000 increase from \$138,000, recorded for Account 671 in 2018, to \$154,000 recorded in 2019.

- a. Provide a cost breakdown of the \$16,000 difference in Excel format.

Response to Question 10.a:

After a review of line item details for 2018 and 2019 recorded amounts, SCE is currently unable to isolate the specific cause of the \$16,000 increase charged to Account 671 without conducting a more thorough analysis. As the adjustment amount represents less than one-half of one percent of SCE's current authorized revenue requirement, SCE was unable to perform this level of analysis among the other concurrently due data requests. SCE plans to conduct a further analysis and supplement its response to this question accordingly.

ATTACHMENT 3-3

SCE Response to Public Advocates DR CR8-011, Q.3. Commercial Land Sale

Vacant Commercial Land Sales Summary - Catalina & Coastal Regions

Sale No.	Location	Sale Date	Doc. ID	Zoning	Area (Acres)	Area (SF)	Sale Price	Sale Price \$/Acre	Sale Price \$/SF
1	23789 Stuart Ranch Rd. Malibu, CA 90265 APN: 4458-022-907	9/7/2018	0908910	Commercial	22.24	968,774	\$25,970,000	\$1,167,716	\$26.81
2	29136 Pacific Coast Hwy. Malibu, CA 90265 APN: 4466-021-028	9/7/2018	0908910	LC-C2	18.85	821,106	\$16,530,954	\$876,974	\$20.13
3	NEC of Del Amo and Prairie Avenue Torrance, CA 90503 APN: 7352-015-004; 005; 006	8/7/2018	0792745	TOMI-HVY	31.2	1,359,072	\$49,250,000	\$1,578,526	\$36.24
4	Marina Drive Seal Beach, CA 90740 APN: 043-171-02; 043-172-08; 13	6/11/2018	0212579	Commercial /Hospitality	10.86	473,062	\$36,630,000	\$3,372,928	\$77.43
5	12910-12964 Panama St. Los Angeles, CA 90066 APN: 4223-008-006 thru 008; 010; 013	5/23/2018	0509313	LANM2	5.73	249,599	\$28,000,000	\$4,886,562	\$112.18
6	14132 Michigan Avenue Santa Monica, CA 90404 APN: 4283-013-024	10/19/2017	1198219	NC	0.41	17,860	\$6,625,000	\$16,158,537	\$370.95
7	John Gibson Blvd. San Pedro, CA 90731 APN: 7440-016-001	9/28/2017	1114969	M3	18.17	791,485	\$25,000,000	\$1,375,894	\$31.59
8	El Segundo Blvd. El Segundo, CA 90245 APN: 4138-014-050, 4138-014-051	5/3/2017	0489959	ESCM	7.00	304,920	\$16,952,000	\$2,421,714	\$55.59

Min:	\$876,974	\$20.13
Max:	\$16,158,537	\$370.95
Average:	\$3,958,525	\$90.88

ATTACHMENT 3-4

SCE Response to DR CR8-011, Q.4

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 4 1 - C R

To: Public Advocates Office
Prepared by: Cooper Cameron
Job Title: Senior Advisor, Regulatory Affairs & Compliance
Received Date: 2/2/2021
Response Date: 2/9/2021

Question 04:

How was the estimated rental rate of return of 8% calculated? Provide relevant workpapers in Excel format.

Response to Question 04:

The assumed rental rate of return of 8% is an estimate based on professional experience, market conditions, and the level of return an investor would expect in other industries with similar levels of risk. The estimated rental rate of return is also in-line with the authorized rate of return of 7.68% for SCE's electric utility operations. There are no relevant Excel workpapers to support this estimate.

ATTACHMENT 3-5

SCE Response to Public Advocates DR CR8-011, Q.5

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 4 1 - C R

To: Public Advocates Office
Prepared by: Amanda C Baltz
Job Title: Sr. Specialist
Received Date: 2/2/2021

Response Date: 2/9/2021

Question 05:

Please reconcile the difference between the Water Labor Expenses in Line No. 1 of Table II-5 on page 43, and the recorded amounts for Account 630 in the Results of Operation Model (file "O1 O&M Dashboard", tab "O&M | In Use", line 47, rows Y-AD).

Response to Question 05:

The numbers presented in Table II-5 align with the annual report and inadvertently exclude the reclassification of non-labor expenses from account 630 to 689. The differences shown in the attached spreadsheet, "630 Employee Labor_Catalina Water.xlsx", Line 3 (excel row 11) represent the reclassification adjustment.

ATTACHMENT 3-6

SCE Response to DR CR8-011, Q.6.a.

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 4 1 - C R

To: Public Advocates Office
Prepared by: Juliet Zabasajja
Job Title: Sr. Advisor
Received Date: 2/2/2021

Response Date: 2/9/2021

Question 06.a:

Referring to the Prepared Testimony of Ronald Hite, SCE-02, pages 31-33, please provide the following information:

6. Explain the \$46,000 recorded expense increase in Account 681 from 2018 (\$51,000) to 2019 (\$97,000).

a. Provide a breakdown of the \$46,000 increase in Excel format. Identify any costs that are reoccurring and state at what frequency SCE expects them to occur in future

Response to Question 06.a:

Please see attached Excel file showing a breakdown of the \$46,000 increase in Account 681 from 2018 to 2019. This increase is due to expenses related to miscellaneous purchases made by corporate credit card in support of various O&M projects and activities. Expense amounts charged by credit card are assigned an expense type by the preparer, including Equipment Maintenance & Repair, which settles to cost element Offc Equip-Rpr&Maint which is mapped to Account 681. As these costs are related to O&M activities to support an aging system infrastructure, SCE expects to continue incurring similar costs to continue to ensure reliable availability of the assets on an ongoing basis. While it is uncertain which costs would re-occur and when, SCE does anticipate incurring similar expenses at similar levels in the future.

ATTACHMENT 3-7

**SCE Revised Response to DR CR8-019, Q.1a-c.
(PubAdv-SCE-050-CR-01.a-c)**

(CONFIDENTIAL)

ATTACHMENT 3-8

SCE Response to DR CR8-009, Q.6

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 3 4 - C R

To: Public Advocates Office
Prepared by: Juliet Zabasajja
Job Title: Sr Advisor
Received Date: 1/26/2021

Response Date: 2/2/2021

Question 06:

Referring to the Prepared Testimony of Ronald Hite, SCE-02, 33-35, please provide the following information:

Page 33 states that Account 682 includes the cost of external professional services including consultants and engineers. Explain the reason for the significant decrease in the account from \$785,000 in 2018 to \$361,000 in 2019. If required work was shifted to in-house employees, please identify the SCE employees by title and position are now forecasted to perform the work.

Response to Question 06:

The reduction in Account 682 from \$785,000 to \$361,000 in 2019 resulted from reduced environmental work activities supported by external professional services. Examples include Water Sampling (GWUDI) performed every three years, increased water sampling in 2018 performed during the well redevelopment activities and the GAC treatment permitting, also expensed in 2018.

The work was performed by external resources and did not shift to in-house employees.

ATTACHMENT 3-9

PubAdv-SCE-Verbal-004-02

1	Year	Cost Center	Cost Center Desc	Cost Element	Cost Element Desc	USoA	USoA Description	Amount
1724	2016	F502245	MAINT/DISTRIB FACIL	6165105	Electrical Construction, Transmission Li	650	Contract Work	0.55
1725	2016	F502245	MAINT/DISTRIB FACIL	6165140	Construction Management Services	650	Contract Work	404.23
1726	2016	F502245	MAINT/DISTRIB FACIL	6165150	Construction Services - Other	650	Contract Work	0.02
1727	2016	F502245	MAINT/DISTRIB FACIL	6165155	Mechanical Services	650	Contract Work	(4,236.72)
1728	2016	F502245	MAINT/DISTRIB FACIL	6165170	Tool/Work Equip Services	650	Contract Work	(113,875.88)
1729	2016	F502245	MAINT/DISTRIB FACIL	6165180	Telecom System/Equip Services	650	Contract Work	250.02
1730	2016	F502245	MAINT/DISTRIB FACIL	6165185	Electrical Services	650	Contract Work	123.86
1731	2016	F502245	MAINT/DISTRIB FACIL	6165988	Construction Services - Correction	650	Contract Work	(454.26)
1732	2016	F502245	MAINT/DISTRIB FACIL	6169888	Contract - Other - Correction	689	General Expense	(1,010,734.54)
1733	2016	F502654	MAINT/TREAT FACIL EFFLUENT	6160515	Temporary/Supplementary - Admin/Non-Tech	650	Contract Work	55.47
1734	2016	F502654	MAINT/TREAT FACIL EFFLUENT	6160525	Contingent Worker-Affordable Care Act B	650	Contract Work	0.08
1735	2016	F502654	MAINT/TREAT FACIL EFFLUENT	6161145	General Support/Business Services	682	Professional Services	62.40
1736	2016	F502654	MAINT/TREAT FACIL EFFLUENT	6161155	Mobile Equipment/Vehicle Maintenance & R	660	Transportation Expense	443.69
1737	2016	F502654	MAINT/TREAT FACIL EFFLUENT	6161200	Building/Facility Repairs & Maintenance	689	General Expense	0.43
1738	2016	F502654	MAINT/TREAT FACIL EFFLUENT	6161205	Cleaning / Janitorial Services	650	Contract Work	15.83
1739	2016	F502654	MAINT/TREAT FACIL EFFLUENT	6161210	Security / Protection Services	678	Office Services and rentals	0.33
1740	2016	F502654	MAINT/TREAT FACIL EFFLUENT	6161215	Office Equip / Equipment - Repair & Main	681	Office Supplies and expenses	17,862.04
1741	2016	F502654	MAINT/TREAT FACIL EFFLUENT	6161235	Copying , Printing & Graphics Services	681	Office Supplies and Expenses	-
1742	2016	F502654	MAINT/TREAT FACIL EFFLUENT	6165015	Decontamination & Waste Disposal Service	650	Contract Work	0.68
1743	2016	F502654	MAINT/TREAT FACIL EFFLUENT	6165020	Construction, Civil/Structural	650	Contract Work	7.12
1744	2016	F502654	MAINT/TREAT FACIL EFFLUENT	6165045	Construction, Property/Building	650	Contract Work	39,000.00
1745	2016	F502654	MAINT/TREAT FACIL EFFLUENT	6165110	Electrical Construction, Substations	650	Contract Work	25,219.80

ATTACHMENT 3-10

**SCE Response to DR CR8-012
(PubAdv-SCE-039-CR-03a-b)**

Variance Journal Entry Calculation													
Step 1 - Calculate total difference between FCC recorded in ECC and FERC Module output. This is amount needed to be trued up.													
FCC	YTD FERC	YTD CCVar	YTD Final FERC	YTD CO - FERC Variance	YTD % Var	Co Code	Reg Ind	Labor	NonLabor	REG ACCT	AMOUNT	920/921 Status	
FS30009	482,330.30	453,039.38	482,330.30	(29,290.92)	6.47%	2001	414J	286,815.89	195,514.41	9414730	(29,290.92)	NOT 920/921	
FS30022	417,983.07	388,739.14	417,983.07	(29,243.93)	7.52%	2001	414J	230,475.87	187,507.20	9414730	(29,243.93)	NOT 920/921	
Step 2 - Split the amount between labor and non labor													
FCC	CO - FERC Variance	Co Code	Reg Ind	Labor	NonLabor	TOTAL	Analysis	REG ACCT 1	AMOUNT	% Labor	Labor Amt	NonLabor Amt	Profit Center
FS30009	(29,290.92)	2001	414J	286,815.89	195,514.41	482,330.30		9414730	(29,290.92)	59%	(17,417.73)	(11,873.19)	P0009
FS30022	(29,243.93)	2001	414J	230,475.87	187,507.20	417,983.07		9414730	(29,243.93)	55%	(16,125.10)	(13,118.83)	P0009
											(33,542.84)		

ATTACHMENT 3-11

**SCE Response to DR CR8-013, Q.2.b.
(PubAdv-SCE-040-CR-02)**

Number of customers who were late at least once in the years 2017 through 2020 and became uncollectible	
Month	Volume
Feb-18	1
Mar-18	0
Apr-18	2
May-18	0
Jun-18	3
Jul-18	1
Aug-18	0
Sep-18	3
Oct-18	6
Nov-18	2
Dec-18	1
Jan-19	1
Feb-19	2
Mar-19	3
Apr-19	0
May-19	1
Jun-19	1
Jul-19	2
Aug-19	0
Sep-19	1
Oct-19	2
Nov-19	1
Dec-19	0
Jan-20	2
Feb-20	0
Mar-20	1
Apr-20	0
May-20	1
Jun-20	0
Jul-20	2
Aug-20	2
Sep-20	0
Oct-20	3
Nov-20	0
Dec-20	1

1 **CHAPTER 4 GENERAL OFFICE ALLOCATIONS**

2 (Witness: Chris Ronco)

3 **I. INTRODUCTION**

4 SCE allocates A&G costs from its GO between the three utility services it
5 provides: gas, electric and water. The largest of the three operations is electric with its
6 service area covering large portions of Southern California. SCE is requesting to allocate
7 to its water operations \$1,080,612 or 0.064% of its total GO A&G expenses. This is a
8 102% increase from SCE's previously authorized allocation of \$535,020.¹⁶²

9 SCE calculates its GO A&G allocation using the Four-Factor Allocation method
10 described in the Commission's Standard Practices 6. Under the Four-Factor Allocation
11 method, the GO allocation for the three utilities is determined by each utility's: 1) direct
12 operating expenses (excluding uncollectibles); 2) gross plant; 3) number of employees;
13 and 4) number of customers.¹⁶³ SCE uses 2019 recorded data to calculate its proposed
14 GO allocation.¹⁶⁴

15 **II. SUMMARY OF RECOMMENDATIONS**

16 The Commission should require SCE to maintain the Catalina water utility GO
17 A&G allocation at \$535,020 because SCE did not comply with USOA standards for
18 water utilities, pursuant to the Commission's decision in the previous Catalina water
19 GRC.¹⁶⁵ In addition, SCE's proposed increase is primarily due to a 53% increase of total
20 GO A&G amounts from the time of its previous GRC to 2019.¹⁶⁶ This increase is not
21 proven to have any benefit to SCE water customers. The GO Allocation amount should

¹⁶² A.10-11-009, Joint Motion of Southern California Edison Company, Protestants, The Utility Reform Network, and the Office of Ratepayer Advocates for Admission of Additional Evidence into the Evidentiary Record (March 18, 2014).

¹⁶³ Standard Practices 6, p. 2.

¹⁶⁴ Workpaper SCE-06, Index, p. 30.

¹⁶⁵ D.14-10-048, p. 7.

¹⁶⁶ Attachment 4-1, SCE Response to DR CR8-005, PubAdv-SCE-033-CR Q.1, Gross Four-Factor Allocation of A&G.

1 stay at the previously authorized amount of \$535,020 which becomes \$573,792 with
2 escalation to TY 2022.

3 **III. ANALYSIS**

4 **A. Improper Allocation of GO A&G Expenses**

5 SCE's proposed use of the Allocated GO A&G expenses contradicts the
6 Commission's decision in the previous Catalina Water GRC. The Commission noted that
7 SCE failed to follow standard USOA procedures applicable to water utilities, stating that
8 "for future Catalina water service annual reports and rate request proceedings, SCE will
9 present its application or advice letter in a form consistent with the USOA for water
10 utilities."¹⁶⁷

11 In the present GRC, SCE has shifted expenses from Account 640 to Account 618
12 but has not resolved the issues with Account 674 and 684. Instead of using USOA
13 accounts to record and forecast pension, benefit, and insurance costs, SCE is proposing to
14 continue to use portions of the allocated GO A&G expense.¹⁶⁸ The Commission should
15 not allow SCE to increase the GO expense allocation to its Catalina water customers until
16 SCE complies with USOA guidelines by recording employee pensions, benefits, and
17 insurance costs, and properly forecasting these account amounts in its next general rate
18 case.

19 **B. Increased GO Expenses without Benefit to Water** 20 **Customers**

21 The Four-Factor Allocation Method calculates the average of the four factors'
22 percentages for each of the company's utilities and applies it to the company's total GO
23 A&G expenses to determine the amount allocated.¹⁶⁹ In SCE's case, one of the utilities
24 benefits the most from GO operations due to its huge service area size and administrative
25 requirements. In the past ten years, SCE's electric operations have had at least 99.50% of

¹⁶⁷ D.14-10-048, p. 7.

¹⁶⁸ SCE-02, pp. 27-35.

¹⁶⁹ Standard Practice 6.

1 the share for all four factors.¹⁷⁰ The other two utilities, gas and water, represent a fraction
2 of the amount of SCE's resources and customer base for electric services.

3 In 2010, the year SCE submitted its previous GRC, the company had a recorded
4 GO A&G amount of \$1,107,822,015. As of 2019, it has increased to \$1,701,071,190, an
5 increase of 53%.¹⁷¹ The Four Factor Method does not consider the benefits this increase
6 provides to SCE's different utility customers. SCE does not include evidence that the
7 increase in GO expenses since its previous authorized allocation amount was calculated
8 provides any benefit for Catalina water customers. Due to the lack of demonstrated
9 benefit and failure of SCE to follow USOA requirements, the water customers should not
10 face the burden of an increase in allocation.

11 **IV. CONCLUSION**

12 Due to SCE's failure to comply with USOA guidelines and the Commission's
13 directive to discontinue using Allocated GO expenses, the Commission should deny
14 SCE's request to increase its water utility GO expense allocation. The large increase in
15 GO A&G expenses, without evidence that it benefits SCE's water customers, should not
16 be allocated to the small water customer base. The Commission should reject any
17 additional GO allocation amount over the previously authorized amount of \$535,020,
18 inclusive of employee pensions, benefits, and insurance costs.

¹⁷⁰ Attachment 4-1, SCE Response to Public Advocates DR CR8-005 (PubAdv-SCE-033-CR), Q.1, Gross Four-Factor Allocation of A&G.

¹⁷¹ Attachment 4-1, SCE Response to Public Advocates DR CR8-005 (PubAdv-SCE-033-CR) Q.1, Gross Four-Factor Allocation of A&G.

1

LIST OF ATTACHMENTS FOR CHAPTER 4

#	Attachment	Description
1	Attachment 4-1	SCE Response to Public Advocates DR CR8-005 Q.1, Gross Four-Factor Allocation of A&G
2	Attachment 4-2	SCE Response to Public Advocates DR CR8-008 (PubAdv-SCE-033-CR), Q.02 a-e

2

ATTACHMENT 4-1

SCE Response to Public Advocates DR CR8-005 Q.1, Gross Four-Factor Allocation of A&G

Southern California Edison Company

Catalina Water 2022 GRC

Four-Factor Allocation - 2010

Whole Dollars

Line N°	Category	Gas	Water	Electric	Total
1.	2010 Year end Customers	1,090	1,971	4,909,662 1/	4,912,723
2.	Allocation	0.02%	0.04%	99.94%	100.00%
3.	2010 Year end Employees	2 3/	10 3/	18,230 1/	18,242
4.	Allocation	0.01%	0.05%	99.93%	100.00%
5.	2010 O&M	2,542,402	3,053,229	6,533,571,874	6,539,167,505
6.	Allocation	0.04%	0.05%	99.91%	100.00%
7.	2010 Year end Gross Utility Plant	4,269,272	30,587,900	33,797,042,712	33,831,899,884
8.	Allocation	0.01%	0.09%	99.90%	100.00%
9.	Average percentage	0.021%	0.058%	99.921%	100.000% 0.079173%
10.	Administrative & General (A&G)			2/	1,107,822,015
11.	Gross Four-Factor Allocation of A&G	234,442	642,652	1,106,944,921	1,107,822,015

1/ SCE 2010 Annual Report

2/ FF1

3/ Employees are divided between gas and water based on labor expense

Southern California Edison Company

Catalina Water 2022 GRC

Four-Factor Allocation - 2011

Whole Dollars

Line N°	Category	Gas	Water	Electric	Total
1.	2011 Year end Customers	1,400	1,978	4,929,149 1/	4,932,527
2.	Allocation	0.03%	0.04%	99.93%	100.00%
3.	2011 Year end Employees	2 3/	10 3/	18,069 1/	18,081
4.	Allocation	0.01%	0.06%	99.93%	100.00%
5.	2011 O&M	2,542,359	2,273,954	7,563,556,731	7,568,373,044
6.	Allocation	0.03%	0.03%	99.94%	100.00%
7.	2011 Year end Gross Utility Plant	4,269,272	31,099,233	36,494,972,268	36,530,340,773
8.	Allocation	0.01%	0.09%	99.90%	100.00%
9.	Average percentage	0.021%	0.053%	99.926%	100.000% 0.073827%
10.	Administrative & General (A&G)			2/	1,131,210,808
11.	Gross Four-Factor Allocation of A&G	239,599	595,543	1,130,375,666	1,131,210,808

1/ SCE 2011 Annual Report

2/ FF1

3/ Employees are divided between gas and water based on labor expense

Southern California Edison Company

Catalina Water 2022 GRC

Four-Factor Allocation - 2012

Whole Dollars

Line N	Category	Gas	Water	Electric	Total
1.	2012 Year end Customers	1,356	1,980	4,950,465 1/	4,953,801
2.	Allocation	0.03%	0.04%	99.93%	100.00%
3.	2012 Year end Employees	2 3/	10 3/	16,515 1/	16,527
4.	Allocation	0.01%	0.06%	99.93%	100.00%
5.	2012 O&M	2,591,964	1,530,977	7,502,290,058	7,506,412,999
6.	Allocation	0.03%	0.02%	99.95%	100.00%
7.	2012 Year end Gross Utility Plant	4,267,656	31,343,796	39,047,837,653	39,083,449,105
8.	Allocation	0.01%	0.08%	99.91%	100.00%
9.	Average percentage	0.021%	0.050%	99.929%	100.000%
					0.071498%
10.	Administrative & General (A&G)			2/	1,145,332,086
11.	Gross Four-Factor Allocation of A&G	243,165	575,727	1,144,513,194	1,145,332,086

1/ SCE 2012 Annual Report

2/ FF1

3/ Employees are divided between gas and water based on labor expense

Southern California Edison Company

Catalina Water 2022 GRC

Four-Factor Allocation - 2013

Whole Dollars

Line N	Category	Gas	Water	Electric	Total
1.	2013 Year end Customers	1,348	1,958	4,977,729 1/	4,981,035
2.	Allocation	0.03%	0.04%	99.93%	100.00%
3.	2013 Year end Employees	2 3/	10 3/	13,599 1/	13,611
4.	Allocation	0.01%	0.07%	99.91%	100.00%
5.	2013 O&M	2,683,715	5,103,862	8,318,865,729	8,326,653,306
6.	Allocation	0.03%	0.06%	99.91%	100.00%
7.	2013 Year end Gross Utility Plant	4,271,948	32,161,909	35,991,609,331	36,028,043,188
8.	Allocation	0.01%	0.09%	99.90%	100.00%
9.	Average percentage	0.021%	0.066%	99.913%	100.000%
					0.087297%
10.	Administrative & General (A&G)			2/	1,190,561,327
11.	Gross Four-Factor Allocation of A&G	255,507	783,817	1,189,522,003	1,190,561,327

1/ SCE 2013 Annual Report

2/ FF1

3/ Employees are divided between gas and water based on labor expense

Southern California Edison Company

Catalina Water 2022 GRC

Four-Factor Allocation - 2014

Whole Dollars

Line N°	Category	Gas	Water	Electric	Total
1.	2014 Year end Customers	1,379	1,988	5,005,401 1/	5,008,768
2.	Allocation	0.03%	0.04%	99.93%	100.00%
3.	2014 Year end Employees	2 3/	10 3/	13,600 1/	13,612
4.	Allocation	0.01%	0.07%	99.91%	100.00%
5.	2014 O&M	1,965,974	6,628,461	10,106,467,260	10,115,061,695
6.	Allocation	0.02%	0.07%	99.92%	100.00%
7.	2014 Year end Gross Utility Plant	4,280,225	30,790,180	39,031,999,510	39,067,069,915
8.	Allocation	0.01%	0.08%	99.91%	100.00%
9.	Average percentage	0.018%	0.064%	99.917%	100.000% 0.082529%
10.	Administrative & General (A&G)			2/	1,164,602,471
11.	Gross Four-Factor Allocation of A&G	211,424	749,711	1,163,641,336	1,164,602,471

1/ SCE 2014 Annual Report

2/ FF1

3/ Employees are divided between gas and water based on labor expense

Southern California Edison Company

Catalina Water 2022 GRC

Four-Factor Allocation - 2015

Whole Dollars

Line N°	Category	Gas	Water	Electric	Total
1.	2015 Year end Customers	1,413	2,006	5,033,330 1/	5,036,749
2.	Allocation	0.03%	0.04%	99.93%	100.00%
3.	2015 Year end Employees	2 3/	10 3/	12,678 1/	12,690
4.	Allocation	0.02%	0.08%	99.91%	100.00%
5.	2015 O&M	2,047,051	5,595,636	7,408,461,930	7,416,104,617
6.	Allocation	0.03%	0.08%	99.90%	100.00%
7.	2015 Year end Gross Utility Plant	5,309,774	34,512,448	41,754,083,123	41,793,905,345
8.	Allocation	0.01%	0.08%	99.90%	100.00%
9.	Average percentage	0.021%	0.069%	99.910%	100.000% 0.090195%
10.	Administrative & General (A&G)			2/	1,058,830,939
11.	Gross Four-Factor Allocation of A&G	222,677	732,331	1,057,875,932	1,058,830,939

1/ SCE 2015 Annual Report

2/ FF1

3/ Employees are divided between gas and water based on labor expense

Southern California Edison Company

Catalina Water 2022 GRC

Four-Factor Allocation - 2016

Whole Dollars

Line No	Category	Gas	Water	Electric	Total
1.	2016 Year end Customers	1,396	2,007	5,060,528 1/	5,063,931
2.	Allocation	0.03%	0.04%	99.93%	100.00%
3.	2016 Year end Employees	2 3/	10 3/	11,947 1/	11,959
4.	Allocation	0.02%	0.08%	99.90%	100.00%
5.	2016 O&M	2,524,722	3,197,548	7,259,717,040	7,265,439,310
6.	Allocation	0.03%	0.04%	99.92%	100.00%
7.	2016 Year end Gross Utility Plant	5,337,467	39,924,433	44,531,479,788	44,576,741,688
8.	Allocation	0.01%	0.09%	99.90%	100.00%
9.	Average percentage	0.023%	0.064%	99.913%	100.000% 0.086959%
10.	Administrative & General (A&G)			2/	999,751,494
11.	Gross Four-Factor Allocation of A&G	227,480	641,889	998,882,125	999,751,494

1/ SCE 2016 Annual Report

2/ FF1

3/ Employees are divided between gas and water based on labor expense

Southern California Edison Company

Catalina Water 2022 GRC

Four-Factor Allocation - 2017

Whole Dollars

Line No	Category	Gas	Water	Electric	Total
1.	2017 Year end Customers	1,383	2,012	5,094,818 1/	5,098,213
2.	Allocation	0.03%	0.04%	99.93%	100.00%
3.	2017 Year end Employees	2 3/	10 3/	12,234 1/	12,246
4.	Allocation	0.02%	0.08%	99.90%	100.00%
5.	2017 O&M	1,969,770	3,932,211	7,500,148,688	7,506,050,669
6.	Allocation	0.03%	0.05%	99.92%	100.00%
7.	2017 Year end Gross Utility Plant	6,268,777	38,300,909	46,394,267,402	46,438,837,088
8.	Allocation	0.01%	0.08%	99.90%	100.00%
9.	Average percentage	0.021%	0.064%	99.915%	100.000% 0.084795%
10.	Administrative & General (A&G)			2/	974,482,525
11.	Gross Four-Factor Allocation of A&G	202,693	623,620	973,656,211	974,482,525

1/ SCE 2017 Annual Report

2/ FF1

3/ Employees are divided between gas and water based on labor expense

Southern California Edison Company

Catalina Water 2022 GRC

Four-Factor Allocation - 2018

Whole Dollars

Line No	Category	Gas	Water	Electric	Total
1.	2018 Year end Customers	1,394	2,012	5,126,985	5,130,391
2.	Allocation	0.03%	0.04%	99.93%	100.00%
3.	2018 Year end Employees	2	11	12,219	12,232
4.	Allocation	0.02%	0.09%	99.89%	100.00%
5.	2018 O&M	2,006,548	3,727,256	10,709,135,916	10,714,869,720
6.	Allocation	0.02%	0.03%	99.95%	100.00%
7.	2018 Year end Gross Utility Plant	6,330,758	40,594,927	48,437,843,592	48,484,769,277
8.	Allocation	0.01%	0.08%	99.90%	100.00%
9.	Average percentage	0.019%	0.062%	99.919%	100.000%
10.	Administrative & General (A&G)				3,834,946,311
11.	Gross Four-Factor Allocation of A&G	721,986	2,374,430	3,831,849,895	3,834,946,311

1/ SCE 2018 Annual Report

2/ FF1

3/ Employees are divided between gas and water based on labor expense

Southern California Edison Company

Catalina Water 2022 GRC

Four-Factor Allocation - 2019

Whole Dollars

Line N	Category	Gas	Water	Electric	Total
1.	2019 Year end Customers	1,408	2,000	5,151,098	5,154,506
2.	Allocation	0.03%	0.04%	99.93%	100.00%
3.	2019 Year end Employees	2	11	12,720	12,733
4.	Allocation	0.02%	0.09%	99.90%	100.00%
5.	2019 O&M	2,711,972	3,842,539	8,711,825,979	8,718,380,490
6.	Allocation	0.03%	0.04%	99.92%	100.00%
7.	2019 Year end Gross Utility Plant	6,385,691	43,781,778	51,555,424,774	51,605,592,243
8.	Allocation	0.01%	0.08%	99.90%	100.00%
9.	Average percentage	0.022%	0.064%	99.915%	100.00%
10.	Administrative & General (A&G)				1,675,347,648
11.	Gross Four-Factor Allocation of A&G	362,309	1,064,271	1,673,921,068	1,675,347,648
12.	Administrative & General (A&G)				
13.	ADJUSTMENTS:				
	FERC 927		2/	(104,346,142)	2019 FERC Form 1
	Capitalized A&G		2/	225,318,190	2019 FERC Form 1
	STIP (40% reduction)		2/	(59,672,284)	2019 Recorded Nominal Amount x 40%
	LTI (100% reduction)		2/	(14,081,644)	2019 Recorded Nominal Amount
	EIC (40% reduction)		2/	(1,143,966)	2019 Recorded Nominal Amount
	Executive Benefits (54.015% reduction)		2/	(6,674,405)	2019 Recorded Nominal Amount x 54.015%
	Disability Programs (10% reduction)		2/	(727,075)	2019 Recorded Nominal Amount
	SB 901		2/	(12,949,132)	2019 Recorded Labor & Benefit Costs
				25,723,542	
					1,701,071,190
14.	Four-Factor Allocation of A&G	367,872	1,080,612	1,699,622,707	1,701,071,190
15.	Total Adjustments to Allocation	5,563	16,341	25,701,638	25,723,542
		0.000%	0.001%	1.511%	
16.	Net Four-Factor Allocation of A&G	367,872	1,080,612	1,699,622,707	1,701,071,190

1/ SCE 2019 Annual Report

2/ FF1

3/ Employees are divided between gas and water based on labor expense

ATTACHMENT 4-2

**SCE Response to Public Advocates DR CR8-008
(PubAdv-SCE-033-CR), Q.02 a-e**

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 3 3 - C R

To: Public Advocates Office
Prepared by: Juliet Zabasajja
Job Title: Sr. Advisor
Received Date: 1/26/2021

Response Date: 2/2/2021

Question 02.a-e:

Referring to the Prepared Testimony of Ronald Hite, SCE-02, please provide the following information in Excel format:

Provide the payroll information for all employees, managers or supervisors that perform work for water utility operations. Include positions recorded in Account 630, Account 670, and Account 671 from 2010-2019. Be sure to include the following for each position:

- a. The total annual salary, including pay allocated to energy if applicable.
- b. The cost of insurance for the employee including workers' compensation, liability, vehicle, fire and theft or robbery insurance provided.
- c. The total accruals under the employee's pension plan.
- d. The account (630, 650, 671) in which the employee's payroll costs are recorded.
- e. Indicate whether each position allocates time between water and energy operations or allocates time solely to water. If the position does allocate time between utilities, please show the water allocation amount of the total salary shown in 2.a.

Response to Question 02.a-e:

SCE objects to the extent that the question seeks O&M expense data beyond the historic period of 2015-2019 for A.20-10-018. O&M expense data prior to 2015 is not reasonably related to SCE's request in A.20-10-018, and there is no need to go beyond the ordinary scope of discovery.

Although SCE is a Class C Water Utility, SCE is following the Commission's guidance in Appendix A of D.07-05-062 (Section II.B, p. A-24) for Class A Water Utilities, which requires the utility to provide five years of historical data in its general rate case testimony. Thus, SCE has not reviewed, analyzed, or relied on O&M expense data beyond the historical period of 2015-2019 in its Application.

SCE's response as it relates to 2015-2019 expense data:

- a. Please see attached excel file titled "Confidential_PubAdv-SCE-033-CR – 2018-2019 Wages" containing 2018 and 2019 budgeted salaries for positions supporting the Catalina water utility. 2018 was the first year the budget was prepared by the generation organization and represents the information that is reasonably available at this time.
- b. Insurance costs are not reasonably available for the Catalina water utility on a standalone basis. Insurance costs are allocated the Catalina water utility using the Four-Factor analysis as discussed in Section II.A.1 of SCE-06.

CHAPTER 5 TAXES

(Witness: Chris Ronco)

I. INTRODUCTION

SCE's total taxes include taxes on income, payroll, and ad valorem taxes. This chapter focuses on taxes on income and the Accumulated Deferred Income Taxes ("ADIT") resulting from taxes on income.

II. SUMMARY OF RECOMMENDATION

The Commission should adopt \$261,000 as SCE's TY total tax expense.¹⁷² Based on available information, SCE appears to have properly addressed the effects of the 2017 Tax Cuts and Jobs Act ("TCJA") in its results of operations for this general rate case.¹⁷³ Differences between SCE's projection and Cal Advocates' recommendation in total estimated taxes are largely due to differences in forecasted operating revenues, expenses, and plant additions.

SCE forecasts total tax expense for TY at \$755,000.¹⁷⁴ The Commission should adopt Cal Advocates' TY total tax expense shown in Table 1: Results of Operation model in the Executive Summary of this report. The various components of the total tax amount are discussed below.

III. ANALYSIS

A. Taxes on Income

SCE forecasts taxes on income for TY at \$448,000. Taxes on income is calculated using the following formula:

¹⁷² Cal Advocates recommended O&M expense amount is \$0.261 million. However, the amount of \$0.261 million should further be reduced by 32.1% due to SCE's unreasonable 39.1% water loss rate. The final Cal Advocates recommend amount of taxes is \$0.177 [(\$0.261 x (1-32.1%))] million, as depicted in the Summary of Earnings Table 1-1 in Chapter 1 of this report.

¹⁷³ SCE-04, p. 18.

¹⁷⁴ SCE-04, p.12.

1 *Total Taxes on Income = Federal Income Tax + California*
2 *Corporation Franchise Tax + Plant Deferred Tax – Credits Against*
3 *Tax* ¹⁷⁵

4 This chapter will only focus on the Federal Income Tax (“FIT”), the California
5 Corporation Franchise Tax (“CCFT”) and the Credits Against Tax components of the
6 Total Taxes on Income. The Credits Against Tax lowers the future expected income
7 taxes. The only credit SCE uses is the Investment Tax Credit (“ITC”).¹⁷⁶ The amortized
8 amount SCE forecasts for the TY is \$5,000, which remains unchanged with Cal
9 Advocates recommendations.¹⁷⁷

10 SCE uses the state corporate income tax rate of 8.84% to compute CCFT.¹⁷⁸ SCE
11 forecasts a TY CCFT of \$86,000. Cal Advocates agrees with the 8.84% rate, though due
12 to differences in operating revenue, expenses, and plant additions, the CCFT amounts
13 differ.¹⁷⁹

14 SCE uses a FIT rate of 21%.¹⁸⁰ With its proposed operating revenue and
15 expenses, SCE forecasts \$39,000 for FIT. Cal Advocates recommended FIT forecast only
16 differs due to the differences in operating revenue, expenses, and plant additions.¹⁸¹ The
17 TCJA also influences ADIT, which SCE correctly accounts for.

18 **B. ADIT**

19 Deferred income tax is the difference between the taxable revenue and book
20 revenue. SCE calculates the difference using Schedule M adjustments.¹⁸² SCE made
21 Schedule M adjustments to both CCFT and FIT to arrive at the ADIT for both amounts.

¹⁷⁵ Workpaper SCE-04, Index p. 30.

¹⁷⁶ Attachment 5-1, SCE’s Response to Cal Advocates’ DR CR8-016 Q.6.

¹⁷⁷ Workpaper SCE-04, Index p. 51.

¹⁷⁸ Workpaper SCE-04, Index p. 32.

¹⁷⁹ SCE Results of Operation Model, workbook: T2) Income Taxes, tab: Summ, cells: 34F

¹⁸⁰ Under the TCJA, SCE’s FIT rate was reduced from 35% to 21%. Workpaper SCE-04, p. 18.

¹⁸¹ SCE Results of Operation Model, workbook: T2) Income Taxes, tab: Summ, cells: 31F

¹⁸² Workpaper SCE-04, p. 13.

1 The ADIT is the accumulation of this difference over annual periods and is a component
2 of rate base.¹⁸³ The reduction in the FIT rate from 35% to 21% created Excess ADIT,
3 which is the portion of deferred income taxes that ratepayers funded in rates prior to the
4 reduction in the FIT. SCE properly returns this Excess ADIT to customers using the
5 Average Rate Assumption Method (“ARAM”).¹⁸⁴ The difference in ADIT is mainly due
6 to the variance in income produced for each of SCE’s asset types.¹⁸⁵ Total ADIT
7 amounts are applied as reductions to rate base to arrive at Cal Advocates’ final
8 recommended rate base, discussed in Chapter Seven.

9 **IV. CONCLUSION**

10 Cal Advocates and SCE generally do not differ on methodologies employed to
11 forecast regulated income tax expense. The differences in TY taxes are primarily due to
12 recommended operating revenue, expenses, and plant additions. The Commission should
13 approve the TY tax expense amount of \$261,000.

¹⁸³ Rate Base = total net plant + working cash – accumulated deferred income tax (ADIT)

¹⁸⁴ Workpaper SCE-04, page 19.

¹⁸⁵ SCE has eight categories of assets which it incurs ADIT from. Differences between Cal Advocates and SCE’s amounts are a result from Cal Advocates recommendations in forecasted operating revenues, expenses, and plant additions.

1

LIST OF ATTACHMENTS FOR CHAPTER 5

#	Attachment	Description
1	Attachment 5-1	SCE Response to Public Advocates DR CR8-016, Q.6.

2

ATTACHMENT 5-1

SCE Response to Public Advocates DR CR8-016, Q.6.

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 4 6 - C R

To: Public Advocates Office
Prepared by: Nay Sok Lay
Job Title: Tax, Advisor
Received Date: 2/17/2021

Response Date: 2/24/2021

Question 06.a:

Referring to the Prepared Testimony of M. Childs, SCE-04, Section V.B. please provide the following information:

Provide a list of all credits SCE Catalina Water has used for tax years 2015-2019 to reduce the taxes on income.

a. For each credit listed, provide the forecasted test year 2022 amount of reduction in state and federal taxes on income.

Response to Question 06.a:

Please see RO Model workbook "T2) Income Taxes.xlsx", worksheet "ITC", for the credit and forecasted amount for test year 2022 that is used to reduce the Federal and state income tax liability.

CHAPTER 6 PLANT IN SERVICE

(Witness: Sari Ibrahim)

I. INTRODUCTION

SCE seeks to add \$15,185,440 into rate base to account for both historical capital projects and forecasted capital expenditures. Of this total amount, \$9,984,766 is from historical capital projects completed between 2012 and 2019.¹⁸⁶ The remaining \$5,200,674 is for projected capital expenditures between 2020 and 2024.¹⁸⁷ The expenditures cover a range of projects from regulatory and safety projects to water supply and infrastructure improvements.

Cal Advocates has reviewed SCE's historical and projected capital projects and identified numerous issues of concern, mainly related to insufficient planning in managing the Catalina Water system. Several of SCE's proposed projects are unnecessary and their costs could be avoided. SCE's recovery of these costs would impose an undue burden on Catalina customers, who already experience water costs among the highest in California.¹⁸⁸

II. SUMMARY OF RECOMMENDATIONS

It is unreasonable for customers to fund many of SCE's historic and future projects. In particular, the Commission should remove costs associated with the Howlands Landing Well 3 Well and Pipeline construction, the Million Gallon Tank Renovation and Rebuild, and the Water SCADA Upgrade project. Furthermore, the Commission should adjust SCE's proposed capital budgets to remove costs associated with SCE's proposed Desalination Building Upgrade, Water Meter Replacement

¹⁸⁶ See A.20-10-018-SCE 2022 Catalina Water GRC Testimony SCE-03 (SCE Capital Testimony), p. 1, table I-1, later amended by A.20-10-018-SCE-Various-2022 Catalina Water GRC Testimony SCE-08 (SCE Supplemental Testimony), p. 4 (reducing total historical capital expenditures by \$1 million).

¹⁸⁷ SCE Capital Testimony p. 53, Table I-25.

¹⁸⁸ Protest of City of Avalon et al., p. 26.

Program, Water Valve Replacement Program. The Commission should also reduce SCE's proposed Wildfire Mitigation budget by \$220,000.

For ratemaking purposes, the Commission should not allow recovery of any costs associated with the Desalination Enhancement Project that exceed the \$10 million grant SCE will receive from the Department of Water Resources.

A summary of Cal Advocates recommendations is included in Table 6-1 and 6-2 below.

Table 6-1 SCE Historical Capital vs Cal Advocates Recommended

Item No.	Project Name	In Service Date	SCE Grand Total	Cal Advocates Recommended Recovery	Cal Advocates as % of SCE
1	Desalination Plant 2	Apr. 2016	\$523,932	\$0	0%
2	Howlands Landing Well 3 Well and Pipeline	Jul. 2015	\$1,653,457	\$0	0%
3	Howlands Landing Well 3 Treatment System	Nov. 2017	\$1,574,450	\$1,574,450	100%
4	Disinfection Byproduct Mitigation	May. 2018	\$754,439	\$754,439	100%
5	Airport Tanks Lead-Based Abatement and Demolition	Aug. 2017	\$178,827	\$178,827	100%
6	Water System Fall Protection Improvements	Feb. 2018	\$165,495	\$165,495	100%
7	Wrigley Road Terrace Water Main Relocation	Jan. 2019	\$82,714	\$82,714	100%
8	Vieudelou Water Main Relocation	Jan. 2013	\$41,368	\$41,368	100%
9	Mt. Ada Tank Fall Protection Improvements	Jan. 2012	\$12,950	\$12,950	100%
10	Million Gallon Tank (MGT) Renovation and Rebuild	Jun. 2016	\$2,272,462	\$0	0%

Item No.	Project Name	In Service Date	SCE Grand Total	Cal Advocates Recommended Recovery	Cal Advocates as % of SCE
11	Water SCADA Upgrade	May.2019	\$1,413,362	\$0	0%
12	Water Valve Replacement	Jun. 2018	\$443,500	\$443,500	100%
13	HL3 Well Replacement and Pump Modification	Feb. 2018	\$368,635	\$368,635	100%
14	Middle Ranch Well 1A Pump Replacement	Dec. 2018	\$109,136	\$109,136	100%
15	Middle Ranch Well 6A Pump Replacement	July. 2019	\$72,999	\$72,999	100%
16	Middle Ranch Well 5A New Pump and Motor	Nov. 2016	\$69,995	\$69,995	100%
17	Seawater Well 1 Pump Replacement	Jun. 2019	\$54,693	\$54,693	100%
18	Middle Ranch Well 5A Pump Replacement	Oct. 2018	\$54,232	\$54,232	100%
19	Hamilton Cove "C" Station Pipeline Spool and Valves	Dec. 2013	\$36,840	\$36,840	100%
20	Seawater Well 2 Pump Replacement	Nov. 2019	\$34,321	\$34,321	100%
21	Mt. Ada Pump Electric Panel Replacement	Nov. 2019	\$29,778	\$29,778	100%
22	Sweetwater Well New Pump and Motor	Oct. 2018	\$27,013	\$27,013	100%
23	Middle Ranch Well 5A Turbidity Analyzer Replacement	Jan. 2019	\$5,511	\$5,511	100%
24	Cottonwood Well 1A Control Panel Replacement	Oct. 2019	\$4,659	\$4,659	100%

Item No.	Project Name	In Service Date	SCE Grand Total	Cal Advocates Recommended Recovery	Cal Advocates as % of SCE
	TOTAL		\$9,984,766	\$4,121,555	38%

1 **Table 6-2 SCE's Forecast Budget vs Cal Advocates Recommended**

Item No.	Project Name	In Service Date	SCE Grand Total	Cal Advocates Recommended Budgets	Cal Advocates as % of SCE
1	Desalination Enhancements - Phase 1 - SW Well System	Dec. 2022	\$1,117,475	\$0	0%
2	Desalination Enhancements - Phase 1 - Desal Facility	Dec. 2022	\$1,036,453	\$0	0%
3	Desalination Enhancements - Phase 1 - Distribution System	Dec. 2022	\$556,072	\$0	0%
4	Desalination Communication Line Replacement	Dec. 2020	\$50,000	\$50,000	100%
5	Desalination Building Upgrade	Dec. 2023	\$250,000	\$0	0%
6	Water Meter Replacement Program - 2021	Dec. 2021	\$92,890	\$0	0%
7	Water Meter Replacement Program - 2022	Dec. 2022	\$95,322	\$0	0%

Item No.	Project Name	In Service Date	SCE Grand Total	Cal Advocates Recommended Budgets	Cal Advocates as % of SCE
8	Water Meter Replacement Program - 2023	Dec. 2023	\$97,914	\$0	0%
9	Water Meter Replacement Program - 2024	Dec. 2024	\$82,142	\$0	0%
10	Water Valve Replacement - 2020	Nov.2020	\$416,355	\$0	0%
11	Water Valve Replacement - 2022	Nov.2022	\$439,241	\$0	0%
12	Water Valve Replacement - 2024	Nov.2024	\$463,209	\$0	0%
13	Versify Operator Rounds and Logs	Dec. 2021	\$100,000	\$100,000	100%
14	Water System Control Valve Replacements	Dec. 2020	\$100,000	\$0	0%
15	Wildfire Mitigation	Apr. 2022	\$303,600	\$83,600	28%
	TOTAL		\$5,200,674	\$233,600	4%

III. ANALYSIS

A. Historical Projects

1. Desalination Plant 2

The Commission should require SCE to reflect as a reduction to rate base the total DWR grant award amount of \$3,610,575 for the construction of Desalination Plant 2, in addition to all other contributions SCE has received for the project.¹⁸⁹ Because the entire

¹⁸⁹ The City of Avalon and the County of Los Angeles gave SCE \$500,000 each in contributions towards the construction of Desalination Plant 2.

1 cost of the project is covered by contributions, no direct costs associated with the
2 construction of Desalination Plant 2 project should be borne by ratepayers.

3 SCE was awarded external funding in support of construction of its Desalination
4 Plant 2 project. The California Department of Water Resources (DWR awarded grant
5 funding to SCE in the amount of \$3,610,575.¹⁹⁰ According to SCE’s application to the
6 DWR, the grant was to equal SCE’s total project cost.¹⁹¹ In addition to the DWR grant,
7 the City of Avalon and the County of Los Angeles each contributed \$500,000 toward the
8 Desalination Plant 2 project to alleviate the impact of project costs on customers.¹⁹²

9 DWR confirmed as of December 2020 that the desalination plant construction
10 grant amount had not changed, and \$3,610,575 in grant funding was awarded and
11 available.¹⁹³ SCE identifies a DWR grant amount of only \$2,100,000, however.¹⁹⁴ SCE
12 has not adequately explained this discrepancy between its testimony and the DWR grant
13 award information, stating that after receipt of the DWR agreement terms, and “given the
14 current status of contract negotiations,” SCE revised the anticipated grant amount from
15 \$3,610,575 to \$2,100,000 “in order to better reflect the potential level of grant
16 funding.”¹⁹⁵

17 SCE could not provide further clarification on which items SCE believes will not
18 be reimbursed and why. SCE provided the following when asked in a data request for
19 further clarification:

20 SCE currently estimates that approximately \$2,100,000 of the initial grant award
21 may be maintained upon executing a grant funding agreement and after excluding costs

¹⁹⁰ SCE Capital Testimony, p. 6:27.

¹⁹¹ <https://water.ca.gov/News/Public-Notices/April-19/Public-Meeting-and-Comment-Period-Prop-1-Grants-May-2019>, last accessed on 2:20PM on 3/24/2021.

¹⁹² SCE Capital Testimony, p. 6:21-22.

¹⁹³ See Attachment 6-1, Email reply to Sari Ibrahim, Public Advocates Office from Sean Sou, Supervising Engineer Department of Water Resources, received 12:00PM 12/11/2020.

¹⁹⁴ See SCE Capital Testimony p. 7, Table I-4.

¹⁹⁵ See Attachment 6-#, SCE Response to Public Advocates DR SIH-02 (Pub Adv-SCE-006-SI), Q.01. f.

1 of construction labor, special services, SCE overhead, and SCE labor. SCE does not yet
2 have an itemized breakdown of the expenses that SCE does not anticipate being
3 reimbursed for by grant funds. Itemized breakdowns will be prepared upon execution of a
4 grant funding agreement.¹⁹⁶

5 SCE has not provided more than a speculative explanation for why it anticipates
6 receiving less grant funds than the amount DWR awarded. DWR indicates no changes in
7 the award amount as of December 2020. Based upon information obtained from DWR,
8 the construction cost of Desalination Plant 2 should be fully covered by the DWR
9 grant.¹⁹⁷

10 SCE's Capital Testimony shows two \$500,000 cash contributions in 2016 and
11 2017, representing contributions from the City of Avalon and the County of Los Angeles,
12 offset by a return of \$1,000,000.¹⁹⁸ SCE states, however, that it did not return any
13 portion of the contributions to either the City of Avalon or the County of Los Angeles.¹⁹⁹
14 SCE later served supplemental testimony revising the drought and environmental capital
15 costs from \$7.024 million to \$6.024 million to reflect that the \$1,000,000 in contributions
16 had not been returned.²⁰⁰

17 When Cal Advocates asked SCE how it has reflected the reduced plant costs in its
18 Results of Operations (RO) model, SCE replied that the contributions were already
19 included and reflected.²⁰¹ When asked for a breakdown of plant items included in the
20 recorded rate base calculations for the RO model, SCE stated that it did not have that

¹⁹⁶ Attachment 6-17, SCE Response to Public Advocates DR SIH-10 (PubAdv-SCE-024-SI), Q.01.

¹⁹⁷ The grant funds were based on SCE's application requesting funding for the construction of Desalination Plant 2. DWR awarded a grant amount equal to SCE's total request.

¹⁹⁸ SCE Capital Testimony, p. 7 Table I-4.

¹⁹⁹ Attachment 6-14, SCE Response to Public Advocates DR SIH-02 (Pub Adv-SCE-006-SI), Q.01.g.

²⁰⁰ SCE Supplemental Testimony p. 4:9-10.

²⁰¹ The Results of Operations (RO) model is used to model a utilities expenses and rate base to determine the utilities revenue requirement. See Attachment 6-19, SCE Response to Public Advocates DR SIH-16 (Pub Adv-SCE-051-SI), Q.01.

1 information.²⁰² To be clear, SCE indicated that it does not possess the details of what
2 specific individual plant items comprise the total rate base that it seeks ratepayers to fund
3 and upon which SCE shareholders earn a rate of return.

4 Utilities have a financial incentive to forego grants and third-party contributions in
5 favor of financing their own projects. Projects funded by grants and contributions do not
6 provide SCE with a rate of return on invested capital, which is the sole source of
7 shareholder profit included in customer rates. In fulfilling its role as a substitute for
8 competition, the Commission should not allow customer rates to reflect utility business
9 decisions that would be indefensible in a competitive environment. Whether SCE
10 deliberately refused portions of available grant funds or failed to obtain the full amount
11 awarded by DWR through inadvertent error, Catalina ratepayers should not bear the
12 burden of the discrepancy between the awarded amount and what SCE anticipates and
13 reflects in proposed rates. Absent an adequate explanation of the discrepancy, the
14 Commission should deny SCE's request for ratepayer funding of \$523,932 in historical
15 capital costs associated with the Desalination Plant 2 project.

16 **2. Howlands Landing Well 3**

17 The Commission should deny SCE's request to add \$1,653,457 in costs associated
18 with the construction of the Howlands Landing Well 3 ("HL-3") and pipeline into rate
19 base because the costs of these projects were the result of inadequate planning and
20 facility management.

21 HL-3 is one of three wells used to meet the demands of the Isthmus and West End
22 systems. HL-3 serves as the primary source of drinking water for both systems.²⁰³ The
23 original Howlands Landing Well ("HL-1") was a hand-dug beach well, constructed in the
24 1930s.²⁰⁴ HL-1 failed in June 2014 due to increased salinity from seawater intrusion, a

²⁰² Attachment 6-9, SCE Response to Public Advocates DR IG-03 (Pub Adv-SCE-015-IG), Q.05.

²⁰³ SCE Capital Testimony p. 8:7-8.

²⁰⁴ SCE Capital Testimony p. 8:6-7.

1 problem that was readily foreseeable and could have been addressed before the well
2 failed.²⁰⁵

3 When seawater intrusion rendered HL-1 unusable, SCE constructed HL-3 as an
4 emergency replacement well between September and October 2014. During
5 construction, to meet demand SCE had to haul in water from other areas of the island.
6 SCE spent a total of \$3,232,988 in emergency-related water supply costs due to the
7 failure of HL-1.²⁰⁶ Further, during construction of HL-3, SCE discovered that levels of
8 iron in the raw water exceeded the California State Secondary Maximum Contaminant
9 Levels (“SMCL”).²⁰⁷ To bring the water to acceptable levels, SCE constructed a
10 treatment system, adding \$1,574,450 to the cost of the HL-3 project.²⁰⁸

11 Seawater intrusion is a very common problem in coastal zones. SCE had been
12 aware of seawater intrusion issues at HL-1 since at least 1976.²⁰⁹ Seawater intrusion
13 occurs when groundwater wells withdraw more water than can be naturally replenished,
14 which lowers the groundwater water level leading to seawater entering the aquifer.²¹⁰
15 Modeling the rate of seawater intrusion is essential for sustainable groundwater resources
16 management.²¹¹

17 SCE did not properly model its groundwater resources to avoid seawater intrusion
18 and was inadequately prepared to respond to the seawater intrusion problem. SCE hired
19 an outside consultant, Boyle Engineering Corporation (“Boyle Engineering”) in 2004 to
20 prepare a Water Resources Management Plan. SCE used the values from 2004 plan to

²⁰⁵ SCE Capital Testimony p. 8:7-8.

²⁰⁶ See SCE-05, Memorandum and Balancing Accounts Testimony, p. 26, Table II-7.

²⁰⁷ SCE Capital Testimony, p. 11:11-12.

²⁰⁸ SCE Capital Testimony, p. 14, Table I-6.

²⁰⁹ See Attachment 6-1, 1979 USC Water Facilities Agreement, p. 2.

²¹⁰ <https://ca.water.usgs.gov/sustainable-groundwater-management/seawater-intrusion-california.html> last accessed on 11:40AM on 3/25/2021

²¹¹ <https://ca.water.usgs.gov/sustainable-groundwater-management/seawater-intrusion-california.html> last accessed on 11:40AM on 3/25/2021.

1 update its groundwater modeling study and safe yields in 2008.²¹² SCE now plans to
2 reaffirm daily pumping quantities and annual quantities by December 2021 and
3 December 2022, respectively.²¹³ Seventeen years is an unreasonable amount of time
4 between updating groundwater modeling, especially given the history of seawater
5 intrusion and extremely limited groundwater resources on Catalina Island.²¹⁴ A lack of
6 timely planning and monitoring indicates that SCE had not taken appropriate, reasonable
7 steps to manage the HL-3 facility and protect the integrity of the groundwater supplied by
8 this well.

9 In December 2016, HL-3 production reduced considerably.²¹⁵ An inspection in
10 June 2017 showed that the well casing had failed and surrounding well packing had
11 entered the well column.²¹⁶ SCE then had to re-drill a replacement well (“HL-3R”) at a
12 cost of \$368,635.

13 Because SCE allowed HL-1 to fail without reasonable planning and mitigation of
14 seawater intrusion issues, the construction of HL-3 under emergency circumstances
15 resulted in excessive, avoidable costs. SCE’s total cost of nearly \$7 million to construct
16 HL-3, the treatment system, and the replacement well HL-3R, was unreasonably high for
17 a 43 gallon-per-minute well. Accordingly, the Commission should deny SCE’s request to
18 include \$1,653,457 in utility plant for HL-3 costs.

19 **3. Million Gallon Tank Renovation and Rebuild**

20 The Commission should deny SCE’s request to add \$2,272,462 into rate base for
21 the Million Gallon Tank (MGT) 2015 Renovation and Rebuild. The MGT’s primary
22 function is to supply fire suppression water for one client, the University of Southern

²¹² Attachment 6-18, SCE Response to Public Advocates DR SIH-15 (Pub Adv-SCE-048 – SI), Q.2.

²¹³ Attachment 6-18, SCE Response to Public Advocates DR SIH-15 (Pub Adv-SCE-048 – SI), Q.2.

²¹⁴ DWR Best Management Practices for the Sustainable Management of Groundwater, Modeling suggest continuous revisions and refinement of groundwater models as new data is made available annually or through the 5-year review process.

²¹⁵ SCE Capital Testimony p. 37:9-10.

²¹⁶ SCE Capital Testimony p. 37:9-11.

1 California Wrigley Marine Science Center (“USC” or “USC Marine Lab”).²¹⁷

2 Accordingly, costs of the MGT rebuild should not be applied to the entire customer rate
3 base.

4 **4. Portion of Costs That Should be Covered by USC**

5 SCE constructed the MGT in 1967-1968 and is the sole owner of the facility.²¹⁸

6 Under a 1979 contract between USC and SCE, 90 percent of MGT’s storage capacity
7 (900,000 gallons) is dedicated to fire suppression water for the USC Marine Lab.²¹⁹

8 According to the contract, USC should be responsible for 90 percent of the costs
9 of the MGT Renovation and Rebuild project.²²⁰ SCE invoiced USC for project costs in
10 the amount of \$2,990,409.06,²²¹ of which SCE only lists \$2,879,639²²² in contributions to
11 the project, closer to 50 percent of the total project cost of \$5,152,101.²²³

12 The Commission’s Rule 15 Main Extensions states that if special facilities are
13 required for service and at least 50 percent of the design capacity of the facility is
14 required to supply the new main extension, the cost of the new facility is to be paid by the
15 applicant for the main extension.²²⁴ In the case of the MGT, at least 90 percent of the
16 facility is used for USC’s fire suppression needs. Rule 15 D.3 further states that the cost
17 of facilities other than hydrants and distribution mains required to provide supply,
18 pressure, or storage primarily for fire protection purposes, or portions of such facilities

²¹⁷ SCE Capital Testimony p. 28:15-16.

²¹⁸ Attachment 6-16, SCE Response to Public Advocates DR SIH-09 (Pub Adv-SCE-023-SI), Q.01.

²¹⁹ See Attachment 6-2, SCE-USC 1979 contract, p. 2:21-30.

²²⁰ See Attachment 6-2, SCE-USC 1979 contract, p. 2:22-25 (stating that the university USC will reimburse SCE equal to the ratio of fire protection costs to the total costs of the project. In this case the fire protection makes up 90 percent of the use of the tank.

²²¹ WPSCE 03 Part 03, p. 235 (SCE Invoice to USC dated July 3, 2017).

²²² SCE Capital Testimony, p. 31, Table I-13.

²²³ SCE Capital Testimony p. 31, Table I-13.

²²⁴ Rule 15, Section C.1.b. Revised Cal. P.U.C. Sheet No.393-W.

1 allocated in proportion to the capacity designed for fire protection purposes, shall be paid
2 to the utility as a contribution in aid of construction.²²⁵

3 **5. Polychlorinated-biphenyls**

4 As originally constructed, the MGT had a coal tar enamel lining containing
5 polychlorinated-biphenyls (“PCBs”).²²⁶ At the time of construction, PCBs were not yet
6 regulated by the United States Environmental Protection Agency (“USEPA”). The
7 USEPA began regulating PCBs in 1976 under the Toxic Substances Control Act.²²⁷
8 During renovation of the tank in 2014, SCE claims that the lining of the MGT was
9 removed to comply with regulatory detection requirements.²²⁸ SCE was aware of
10 sediment containing PCBs in the MGT from a tank cleaning performed in 2005.²²⁹ An
11 inspection of the MGT in September 2013 indicated extensive corrosion to the tank floor
12 and blistering of the tank lining.²³⁰ SCE initiated the renovation project in 2014,²³¹ nine
13 years after confirming the presence of PCBs in sediment in the MGT.

14 During the MGT renovation and rebuild, SCE set up 13 temporary tanks with a
15 storage capacity of 10,000 gallons each to maintain supply.²³² SCE also designed and
16 installed a temporary saltwater pump system to meet fire suppression needs.²³³ SCE
17 could have constructed different systems to meet the fire suppression needs of the USC
18 lab and the drinking water needs of the USC lab and Two Harbors community. For
19 example, similar to the majority of island plumbing for toilets, seawater could possibly be

²²⁵ Rule 15, Section D.3 Revised Cal. P.U.C. Sheet No.393-W.

²²⁶ SCE Capital Testimony, p. 29:18-19.

²²⁷ See <https://www.epa.gov/laws-regulations/summary-toxic-substances-control-act>.

²²⁸ SCE Capital Testimony, p. 29:21-22.

²²⁹ See Attachment 6-16, SCE Response to Public Advocates DR SIH-09 (Pub Adv-SCE-023-SI) Q.03.

²³⁰ SCE Capital Testimony, p. 28:18-20.

²³¹ SCE Capital Testimony, p. 31:5.

²³² SCE Capital Testimony, p. 29:5-8.

²³³ SCE Capital Testimony, p. 29:10-11.

1 used to meet fire suppression needs, instead of using 900,000 gallons or 2.76-acre ft of
2 drinking water which is more than 10 percent of the Island’s annual water needs.²³⁴ SCE
3 states that a seawater fire suppression system would be “very costly to build and
4 maintain,” however.²³⁵ SCE asserts that because a large part of the coast in the
5 surrounding area is designated as a “State Marine Conservation Area” or “Special
6 Closure,” the permitting process for a new direct intake line or seawater well(s) would be
7 prohibitively difficult.²³⁶ However, SCE did not provide any supporting analysis or
8 documentation and without a cost benefit analysis or quantitative data, SCE’s claim
9 remains unsupported.

10 Because the MGT’s primary purpose is to provide fire suppression service for the
11 USC Marine Lab, SCE should ensure that USC has contributed its legal share of the
12 Renovation and Rebuilding project costs pursuant to contractual requirements and
13 Commission rules. The Commission should deny SCE’s request to include \$2,272,462 in
14 rate base for recovery of the MGT Renovation and Rebuild from all other customers.

15 **6. Water Supervisory Control and Data Acquisition Upgrade**

16 The Commission should deny SCE’s request to add \$1,413,362 into plant for the
17 Supervisor Control and Data Acquisition (SCADA) Refurbishment/Upgrade Project. The
18 project was unnecessary, and ratepayers should not be forced to pay for unneeded system
19 elements.

20 SCADA systems allow for remote data acquisition and monitoring. The costs
21 associated with the installation of the original SCADA system were reviewed as part of
22 SCE’s last GRC. Administrative Law Judge (“ALJ”) Barnett’s Proposed Decision,
23 though not adopted, discussed the costs of the original SCADA system at length and its
24 reasoning is informative for the present discussion, particularly concerning the

²³⁴ Based on the authorized consumption from the 2015-2019 AWWA audits.

²³⁵ Attachment 6-16, SCE Response to Public Advocates DR SIH-09 (Pub Adv-SCE-023-SI), Q.6.

²³⁶ Attachment 6-16, SCE Response to Public Advocates DR SIH-09 (Pub Adv-SCE-023-SI), Q.6.

1 importance of cost-benefit analysis for determining whether particular system upgrades
2 are appropriate.²³⁷

3 The Proposed Decision reasoned that SCE's costs of installing the original
4 SCADA system, totaling \$2,327,000 and representing 60% of Catalina Water's operating
5 revenue, were excessive for a water utility system of SCE Catalina's size.²³⁸ The
6 Proposed Decision stated that the only consideration that would justify an expenditure of
7 that size would be "tremendous cost savings,"²³⁹ and quoted Mr. Ronald Hite, SCE
8 Catalina Island Utilities District Manager, as stating that "[one] of the tenets of a
9 professional engineering assessment is that the recommendation must be cost-
10 effective."²⁴⁰ In the present proceeding, however, SCE has not performed a cost-benefit
11 analysis that would justify or support the costs of upgrading the SCADA system.²⁴¹

12 SCE states that the decision to upgrade the SCADA system was based on findings
13 of a SCADA Condition Assessment ("SCADA Report"), completed in 2016.²⁴² The
14 SCADA Report tested the functionality of the SCADA system, covering five main
15 systems including Middle Ranch, Pumphouse NO.2, Wrigley Reservoir/Summit Station,
16 PRS-E/Baker Tanks, and the Isthmus System.²⁴³ Testing indicated that all five systems
17 were fully functional in accordance with the general system description, with the

²³⁷ Attachment 6-3, A.10-11-009, Proposed Decision of ALJ Barnett, pp. 30-36. The Proposed Decision was issued before the parties reached an all-party settlement in the proceeding.

²³⁸ See Attachment 6-3, Proposed Decision of ALJ Barnett, p. 31.

²³⁹ Attachment 6-3 Proposed Decision of ALJ Barnett, p. 31.

²⁴⁰ Attachment 6-3 Proposed Decision of ALJ Barnett, p. 31.

²⁴¹ See Attachment 6-15 SCE Response to Public Advocates DR SIH-08 (Pub Adv-SCE-022-SI), Q.03. In response to Cal Advocates' request for any analysis indicating proposed savings resulting from the SCADA upgrades, SCE stated that no cost-benefit analysis was performed because SCE viewed the SCADA Upgrade project as "necessary to effectively and efficiently operate and monitor the water system."

²⁴² SCE Capital Testimony, p. 32:17-20. See SCADA Report included in SCE's application in WPSCE-03, Part 04, pp. 261-357 for the March 2016 SCADA Condition Assessment. See also Attachment 6-15, SCE Response to Public Advocates DR SIH-08 (Pub Adv-SCE-022-SI), Q.02 (referring to the SCADA Report as the source of information on failures of the SCADA system before SCE performed the upgrades).

²⁴³ WPSCE-03, Part 04, pp. 261-357 March 2016 SCADA Condition Assessment.

1 exception of analyzers and settings needing reactivation/reconfiguration.²⁴⁴ Including the
2 analyzer at the Wrigley Reservoir which was installed but never connected or
3 permitted.²⁴⁵ The analyzer at the PRS-E was also installed but never connected or
4 permitted.²⁴⁶

5 When SCE installed the SCADA system, it did so without proper justification or a
6 cost benefit analysis. The original system was also installed without fully covering the
7 remote parts of the Island's water system. SCE has failed to adequately demonstrate that
8 its expenditures on upgrades to the SCADA system were justified or reasonable.
9 Therefore, the Commission should deny SCE's request to include \$1,413,362 in plant for
10 upgrades to the SCADA system.

11 **B. Forecast Projects**

12 **1. Desalination Enhancements Phase 1**

13 The Commission should deny SCE's request to add \$2,710,000 into rate base
14 associated with the Desalination Enhancements – Phase 1 projects. DWR awarded SCE
15 \$10,000,000 in grants for the project. SCE should only complete necessary updates with
16 the grant funds.

17 SCE operates two desalination plants on Santa Catalina Island to help meet
18 drinking water demands. The first desalination plant was constructed in conjunction with
19 the Hamilton Cove condominiums and contributed to SCE to operate.²⁴⁷ SCE used the
20 plant only intermittently and by 1992 allowed the plant's licenses to operate to expire.
21 SCE did not complete the relicensing process until 2003, following upgrades to the
22 plant.²⁴⁸

²⁴⁴ SCADA Report, pp.19, 28, 33, 39 and 43.

²⁴⁵ SCADA Report, p. 34.

²⁴⁶ SCADA Report, p.39.

²⁴⁷ Protest of City of Avalon et al., pp. 17-18.

²⁴⁸ Protest of City of Avalon et al., pp. 17-18.

1 The second desalination plant was constructed in 2016. Desalination Plant 2 was
2 constructed in part as a response to mandatory conservation rationing imposed due to
3 continued drought conditions. The new source of drinking water from the second plant
4 helped delay stage 3 water rationing by approximately nine months.²⁴⁹

5 There is minimal population growth on the Island. The Hamilton Cove
6 condominiums, which completed construction in 1991, added 210 connections
7 representing the largest growth on the island's water system in 58 years.²⁵⁰ The
8 population growth rate on the Island has been one percent per year for the last 20
9 years.²⁵¹ The City of Avalon also anticipates little growth in the coming years.²⁵²

10 Current demands are adequately met by SCE's water system.²⁵³ A three-year
11 water balance looking at historical trends from 2016-2019 showed an excess balance in
12 most systems.²⁵⁴

13 SCE states that its proposed \$12.71 million desalination enhancements are
14 intended to increase production capabilities of the desalination system, increase storage
15 capacities of desalinated water, and replace the seawater wells.²⁵⁵ A summary of the
16 proposed activities and costs is provided in Attachment 6-5.²⁵⁶

17 While SCE considers increasing desalination production capabilities, SCE's water
18 system currently has a significant source of wasted resources in terms of lost water. In
19 2015, SCE lost 51.926 acre-ft in real water losses of the 278.24 acre-ft it supplied for the

²⁴⁹ SCE Capital Testimony p. 6:14-15.

²⁵⁰ Protest of City of Avalon et al., pp. 17-18.

²⁵¹ Protest of City of Avalon et al., p. 4.

²⁵² Protest of City of Avalon et al., p. 4.

²⁵³ See Attachment 6-4, SCE Response to Public Advocates DR SIH-07 (Pub Adv-SCE-021-SI), Q.03.

²⁵⁴ Attachment 6-4, SCE Response to Public Advocates DR SIH-07 (Pub Adv -SCE-021-SI), Q. 01.a-c, "3-Year Water Balance" spreadsheet.

²⁵⁵ SCE Capital Testimony, pp. 56-58.

²⁵⁶ Attachment 6-5 data is based on SCE Response to Public Advocates DR SIH-01 (PubAdv-SCE-005-SI), Question 01.b.

1 year.²⁵⁷ By 2019, the real water loss increased to 156.978 acre-ft of the 421.290 acre-ft
2 supplied.²⁵⁸ A 37.26% real water loss would be extreme for any water utility, let alone a
3 water utility where supply is extremely limited and costly.²⁵⁹

4 In Advice Letter 123-2 filed on January 29, 2021, SCE requested to increase its
5 freshwater yields. SCE's previous freshwater yield was 515 acre-ft per year for the entire
6 Island Integrated Fresh Water System.²⁶⁰ The revised integrated fresh water system
7 capacities would split the system into two subsystems and give the Middle Ranch-
8 Avalon-Toyon subsystem a yield of 511 acre-ft annually, including a leakage of 44 acre-
9 ft.²⁶¹ The Isthmus-West End subsystem would have a safe annual yield of 89 acre-ft
10 accounting for 8 acre-ft of leakage. In total the safe annual yield would see an increase of
11 75 acre-ft.

12 Groundwater production on the island is significantly cheaper and requires less
13 power expenditure than desalination. Even without increases in either groundwater or
14 desalination production, however, SCE can address demand concerns by reducing waste
15 and water loss.

16 Cal Advocates does not oppose using the grant funds available to SCE to perform
17 the desalination enhancements. The grant funds should cover a significant portion of the
18 scope listed in Table 6-3. SCE should tailor the enhancements to fit within the \$10
19 million grant fund budget. SCE's production meets the island's demand. Before
20 imposing costs of increased production on ratepayers, SCE needs to address its potable
21 water loss rate.

²⁵⁷ SCE 2015 AWWA Water Audit SCECAT_1910006_WaterAudit_2015 Excel Sheet.

²⁵⁸ SCE 2019 AWWA Water Audit SCECAT_1910006_WaterAudit_2019 Excel Sheet.

²⁵⁹ See Attachment 6-11, SCE Response to Public Advocates DR SIH-01 (Pub Adv-SCE-005-SI), Q.01.a. (indicating that SCE has not performed a cost-benefit analysis examining reducing water loss versus capital expenditures on desalination upgrades).

²⁶⁰ Attachment 6-6, Cal. PUC Sheet No. 287-W.

²⁶¹ Attachment 6-7, Advice Letter 123-W, p. 4, Table 1.

2. Desalination Building Upgrade

The Commission should deny SCE's request for \$50,000 in 2022 and \$200,000 in 2023 associated with the Desalination Building Upgrade Project. The request is unsupported.

Desalination Plant 1 was constructed in 1989. The plant is housed in a metal building with a steel support structure. SCE claims that the metal walls and roof of the building have severely corroded over time. SCE plans to replace the outer shell of the structure and refurbish the existing steel frame.²⁶²

In its testimony, the only alternative SCE lists to replacing the shell of the structure is "the full replacement of the steel support structure as well as the exterior and roof materials, essentially constructing an entirely new building"²⁶³ But in an SCE internal email dated May 18, 2020, SCE's Plant Engineer recommends that siding be replaced and the leaks in the roof repaired.²⁶⁴ SCE's Plant Engineer also requests an evaluation of the structure, which is supported by SCE's own internal notes calling for the evaluation of the structure.

Cal Advocates requested a cost breakdown for the \$250,000. SCE has no detailed breakdown of the estimated cost of the project. SCE based its cost estimate on a "rough order of magnitude estimate based on operator experience."²⁶⁵ SCE does not have an evaluation stating the structure's shell needs complete replacement, or that the repairs are not possible, or even a cost breakdown of how SCE plans on spending the \$250,000.

SCE has not provided reasonable support for its claim that the structure's shell needs replacement and has not provided an itemized budget for the \$250,000 requested for the project. Without a detailed budget or a condition assessment supporting replacement, Cal Advocates cannot verify the need or cost of this project. Accordingly,

²⁶² SCE Capital Testimony, p. 65.

²⁶³ SCE Capital Testimony, p. 65:11-13.

²⁶⁴ Attachment 6-11, SCE Response to Public Advocates DR SIH-01(Pub Adv-SCE-005-SI), Q.05.a.

²⁶⁵ Attachment 6-11, SCE Response to Public Advocates DR SIH-01(Pub Adv-SCE-005-SI), Q.05.b.

1 the Commission should deny SCE's request for \$250,000 for upgrades to Desalination
2 Building 1.

3 **3. Water Meter Replacement Program**

4 The Commission should deny SCE's request for \$92,890 in 2021, \$95,322 in
5 2022, \$97,914 in 2023, and \$82,142 in 2024 for the Water Meter Replacement Program.
6 Instead, SCE should file an advice letter to request an extension as allowed by GO 103-
7 A.

8 In the current GRC, SCE is requesting a total of \$368,267 to replace 1,336 meters
9 over a four-year period.²⁶⁶ SCE states that the replacements are necessary to comply with
10 GO 103-A and reduce meter inaccuracies and apparent losses. GO 103-A requires
11 replacement or retesting of meters after twenty years for meters smaller than 1 inch,
12 fifteen years for 1-inch meters and ten years for meters larger than 1 inch. GO 103-A
13 allows for a utility to file an extension through an advice letter based on relevant
14 economic factors and meter accuracy.²⁶⁷

15 SCE ratepayers already pay some of the highest rates in California²⁶⁸, and SCE
16 has the highest revenue per connection of all Class-C and Class- B water utilities.²⁶⁹ In
17 the interest of reducing ratepayer burdens to the greatest extent possible, SCE may have
18 compelling economic factors upon which to base its request for an extension of time to
19 comply with the GO 103-A requirements.

20 The second factor for requesting an extension is meter accuracy. Meter accuracy
21 is reflected in the Apparent Losses portion of AWWA Water Audits. Over 2015 through
22 2019, apparent losses made up a very small percentage of SCE's total supplied water.
23 Tables 6-4 and 6-5 summarize SCE's apparent losses for years 2015 through 2019.
24

²⁶⁶ SCE Capital Testimony, pp. 63-64.

²⁶⁷ See General Order 103-A, IV.6.A(2).

²⁶⁸ Protest of City of Avalon et al., p. 26.

²⁶⁹ From publicly available Water Division 2010 through 2019 annual reports.

Table 6-3 Meter Reading Inaccuracies Compared to Total Water²⁷⁰

Year	Apparent Losses	Meter Reading Inaccuracies as Part of Apparent Losses	Total Water Supplied	Meter Reading As % Of Total Water Supplied
	acre-ft	acre-ft	acre-ft	
2015	2.978012145	2.282412145	278.24	0.820%
2016	1.259984246	0.008459246	279.37	0.003%
2017	1.681452132	0.244132132	333.1	0.073%
2018	1.112107644	-0.421464856	350.151	-0.120%
2019	1.6954	0	421.29	0.000%

Table 6-4 Cost of Apparent Losses Compared to Total Revenue²⁷¹

Year	Apparent Losses	Customer Meter Reading Inaccuracies as Part of Apparent Losses	Annual Cost of Apparent Losses	Total Revenue	Apparent Loss As % Of Revenue
	acre-ft	acre-ft			
2015	2.978012	2.282412	\$31,897	\$2,631,076	1.21%
2016	1.260	0.008	\$13,495	\$2,898,061	0.47%
2017	1.681	0.244	\$18,010	\$3,174,747	0.57%
2018	1.112	-0.421	\$16,177	\$3,322,210	0.49%
2019	1.695	0.000	\$27,103	\$3,629,454	0.75%

The cost of the proposed meter replacement far outweighs the marginal increase in meter accuracy. Based on the available data, the meters are in good working condition

²⁷⁰ From SCE's AWWA 2015-2019 Water Audits.

²⁷¹ From SCE's AWWA 2015-2019 Water Audits

1 and within AWWA accuracy limits.²⁷² Therefore, SCE should file for an extension for
2 the service life of its current meters, rather than replacing them unnecessarily.

3 **4. Water Valve Replacement**

4 The Commission should deny SCE's request for \$416,355 in 2020, \$439,241 in
5 2022, and \$463,209 for water valve replacement. Replacement based on age alone can
6 be a costly approach. Without a condition-based assessment of the valves, the
7 Commission should not authorize any replacements.

8 Since the last GRC in 2010, SCE replaced 12 inoperable valves and installed two
9 new valves in 2018 for a total cost of \$443,500.²⁷³ In the current GRC as part of its
10 forecast projects, SCE is seeking \$1,318,806 for valve replacements, a three-fold increase
11 over the previous request.²⁷⁴

12 SCE states that the valves are to be replaced programmatically.²⁷⁵ SCE lacks the
13 proper plans or assessments for such a project. SCE plans to have an asset management
14 plan complete in December 2021.²⁷⁶ Cal Advocates requested an inventory of water
15 valves and information including the age, condition, and date of last assessment, along
16 with a list of the valves to be replaced. SCE replied with the Water Valve List, which is
17 included as Attachment 6-8. The Water Valve List had minimal information and nothing
18 regarding the condition of the valves or even their age as requested. SCE also replied
19 with the list shown in figure 6-1.

²⁷² Addendum to AWWA Manual M6 AWWA Manual M6, November 2018.

²⁷³ SCE Capital Testimony, p. 36, Table I-16.

²⁷⁴ SCE Capital Testimony, p. 62, Table I-31.

²⁷⁵ SCE Capital Testimony, p. 60:20.

²⁷⁶ Attachment 6-13, SCE Response to Public Advocates DR SIH-05 (Pub Adv-SCE-017-SI), Q.01.

Figure 6-1 SCE's List of Water Valves to be Replaced²⁷⁷

Valve	Size (inches)	Date of Install/ Age of Valve	Location Description	SAP Equip ID	LONGITUDE	LATITUDE
102	6	~1962	5 Corners	207021547	118°19'43.47"W	33°20'25.85"N
5	4	~1962	Lower Terrace, North of Beacon	207021558	118°19'31.77"W	33°20'26.99"N
15	6	~1962	5 Corners	207021543	118°19'43.47"W	33°20'26.05"N
115	4	~1962	Eucalyptus, S of Beacon	207021528	118°19'38.34"W	33°20'30.77"N
122	4	~1962	Cabrillo, N of #32	207021481	118°19'55.27"W	33°20'22.36"N
129	6	~1962	North End of Middle Terrace	207021571	118°19'22.39"W	33°20'33.20"N
25	4	~1962	Beacon, E of Sumner	207021475	118°19'39.19"W	33°20'31.51"N
33	4	~1962	Descanso, S of Third St	207021525	118°19'32.17"W	33°20'32.70"N
37	4	~1962	Crescent, E of Catalina	207021514	118°19'30.84"W	33°20'35.82"N

SCE is asking for \$1,318,806 for valve replacement and does not even have a complete list of valves they plan to replace. Relying solely on an age-based approach to asset management is problematic and may end up with unnecessary replacements and extra costs, by unnecessarily replacing fully functional assets. A condition-based assessment provides a wholistic comprehensive overview of assets' needs and might determine that fewer, or none, of the valves need replacement. Without a thorough condition-based assessment it is impossible to determine the system's actual replacement needs.

Absent a condition assessment or a cost benefit analysis, SCE has not adequately supported its request for \$1,318,806 for valve replacements. Therefore, the Commission should deny SCE's request for the water valve replacement budget.

²⁷⁷ See Attachment 6-11, SCE Response to Public Advocates DR SIH-01 (Pub Adv-SCE-005-SI), Q.1.b.

1 **5. Water System Control Valve Replacements**

2 The Commission should deny SCE’s request for \$100,000 in 2020 for Water
3 System Control Valve Replacement. The water system control valves have undergone
4 extensive recent maintenance and rebuilds which should extend their service life.²⁷⁸

5 The water system control valves are valves used for pressure and flow control
6 throughout the water system. SCE states that the valves had reached the point where
7 replacement was necessary.²⁷⁹ Between 2013 and 2019, SCE spent close to \$60,000 on
8 maintenance on the valves.²⁸⁰ The maintenance included rebuilding the valves,
9 overhauls, and other activities that should extend the service life of the valves.

10 Absent any supporting documentation for the current state of the valves, and
11 analysis showing it is beneficial to replace the valves, the Commission should deny
12 SCE’s requested budget for the water system control valve replacement.

13 **6. Wildfire Mitigation**

14 The Commission should deny \$220,000 of the \$303,600 SCE is requesting for
15 Wildfire Mitigation. Of the amount the Commission should deny, \$100,000 is for
16 unidentified system hardening activities. The remaining \$120,000 is for yet-to-be
17 identified Public Safety Power Shutoff (PSPS) resilience.

18 SCE is requesting to add into rate base \$98,000 in 2020, \$172,900 in 2021, and
19 \$32,700 in 2022 for wildfire mitigation related projects.²⁸¹ SCE indicates that \$80,000 in
20 2020 and \$40,000 in 2021 would apply to PSPS-related projects, and \$100,000 in 2021
21 would apply to system hardening activities.²⁸² SCE indicates that currently it is assessing

²⁷⁸ See Attachment 6-11, SCE Response to Public Advocates DR SIH-01 (PubAdv-SCE-005-SI), Q.07.a, “Control Valve Maintenance Orders 2013-2019” (providing an extensive list of maintenance performed on the control valves).

²⁷⁹ SCE Capital Testimony, p. 72:8-11.

²⁸⁰ See Attachment 6-11, SCE Response to Public Advocates DR SIH-01 (Pub Adv-SCE-005-SI), Q.03.a.

²⁸¹ SCE Capital Testimony p. 74, Table I-39.

²⁸² Attachment 6-11, SCE Response to Public Advocates DR SIH-01 (Pub Adv-SCE-005-SI), Q.08.a. (Wildfire Capital Forecast Breakdown Excel Sheet).

possible PSPS-related needs.²⁸³ However, SCE has provided no specific projects, proposals, or information as to how it intends to use the funds.²⁸⁴

SCE could not provide a breakdown of wildfire mitigation spending despite the fact that a third of the budget was planned for use in 2020. SCE bases its \$120,000 PSPS budget estimate on “operator expertise,” and states that no detailed cost breakdown or information for this project is available.²⁸⁵

SCE is requesting \$120,000 for PSPS-related activities with no planned details or cost breakdowns. SCE also is the electric utility on the island and provides all the power for the water utility. Employees who work in the water utility are shared and work directly with the electric utility. SCE’s 2019 Water System Sanitary Survey (“Sanitary Survey”) indicated that the island’s seawater wells and desalination plants already had backup power in the event of emergency.²⁸⁶

SCE’s 2019 Sanitary Survey also indicated that a “defensible space of 100 feet (California Public Resources Code 4291) is maintained around all sources and structures managed by the Company.”²⁸⁷ Without a clear plan as to where the funds are going to be spent, the Commission should deny \$220,000 in wildfire mitigation projects.

IV. CONCLUSION

For SCE’s historical projects, the Commission should require SCE to properly reflect all grants and contributions received for the Desalination Plant 2 project in rate base. The Commission should disallow the costs associated with the Howlands Landing Well 3 Well and Pipeline construction, the Million Gallon Tank Renovation, and the Water SCADA Upgrade project.

²⁸³ Attachment 6-12, SCE Response to Public Advocates DR SIH-11 (Pub Adv-SCE-028-SI), Q.01.d.

²⁸⁴ Attachment 6-12, SCE Response to Public Advocates DR SIH-11 (Pub Adv-SCE-028-SI), Q.02.d.

²⁸⁵ Attachment 6-12, SCE Response to Public Advocates DR SIH-11 (Pub Adv-SCE-028-SI), Q.02.d.

²⁸⁶ Attachment 6-10, 2019 Sanitary Survey Memorandum, p. 20.

²⁸⁷ Attachment 6-10, 2019 Sanitary Survey Memorandum, p. 20.

1 For SCE's forecast projects, the Commission should disallow costs associated
2 with the Desalination Enhancement Project that exceed the \$10 million grant SCE will
3 receive from the Department of Water Resources. The Commission should also remove
4 requested budgets for the Desalination Building Upgrade, the Water Meter Replacement
5 Program, and the Water Valve Replacement Program. Additionally, the Commission
6 should remove \$220,000 from SCE's proposed Wildfire Mitigation Program.

7 In this GRC, SCE is requesting an addition of \$10,984,766 in historical capital
8 expenditures and \$5,200,674 in forecast projects into plant. Based on available
9 documentation of SCE's historical and forecasted expenditures, a majority of projects
10 lack adequate support or justification for inclusion in customer rates. The Commission
11 should authorize \$4,121,555 in historical expenditures and \$233,600 in forecast projects
12 for inclusion in SCE's test year plant.²⁸⁸

²⁸⁸ A breakdown of the historical capital projects/forecasted projects and related budgets is included in Tables 6-1 and 6-2.

LIST OF ATTACHMENTS FOR CHAPTER 6

#	Attachment	Description
1	Attachment 6-1	Department of Water Resources Grant Funding Email
2	Attachment 6-2	Desalination Building Status: Advice Letter 123-W
3	Attachment 6-3	Proposed Decision of ALJ Barnett in A.10-11-019
4	Attachment 6-4	SCE Responses to Public Advocates DR SIH-07 (PubAdv-SCE-021-SI), Three-Year Water Balance
5	Attachment 6-5	Desalination Enhancement Project Breakdown
6	Attachment 6-6	CPUC Sheet No. 287-W
7	Attachment 6-7	Advice Letter 123: CPUC Sheet No. 287-W
8	Attachment 6-8	Water Valve List
9	Attachment 6-9	Response DR IG-03 PubAdv-SCE-015-IG Q.05
10	Attachment 6-10	2019 Sanitary Survey Cover Letter Memo- SCE Catalina 1910006
11	Attachment 6-11	SCE Responses to Public Advocates DR SIH-01 (PubAdv-SCE-005-SI)
12	Attachment 6-12	SCE Responses to Public Advocates DR SIH-11(PubAdv-SCE-028-SI)
13	Attachment 6-13	SCE Responses to Public Advocates DR SIH-05m(PubAdv-SCE-017-SI)
14	Attachment 6-14	SCE Response to Public Advocates DR SIH-02 (PubAdv-SCE-006-SI)
15	Attachment 6-15	SCE Responses to Public Advocates DR SIH-08 (PubAdv-SCE-022-SI)
16	Attachment 6-16	SCE Responses to Public Advocates DR SIH-09 (PubAdv-SCE-023-SI)
17	Attachment 6-17	SCE Responses to Public Advocates DR SIH-10 (PubAdv-SCE-024-SI)
18	Attachment 6-18	SCE Response to Public Advocates DR SIH-15 (PubAdv-SCE-048-SI)
19	Attachment 6-19	SCE Responses to Public Advocates DR SIH-16 (PubAdv-SCE-051-SI)

ATTACHMENT 6-1

Department of Water Resources Grant Funding Email

Ibrahim, Sari

From: Sou, Sean@DWR <Sean.Sou@water.ca.gov>
Sent: Friday, December 11, 2020 12:00 PM
To: Ibrahim, Sari
Cc: Luke A Schaner; Pezzetti, Toni@DWR; Pulido, Jennifer@DWR
Subject: RE: Southern California Edison Company Desalination Projects Grant Funding

Hello Sari,

The correct amount awarded for SCE's Catalina Desalination Plant 2 is \$3,610,575. No funding has been disbursed to SCE pending completion of the funding agreement. There has been some delays from SCE in completing the funding agreement.

Thx,
Sean

From: Ibrahim, Sari <Sari.Ibrahim@cpuc.ca.gov>
Sent: Friday, December 11, 2020 11:09 AM
To: Sou, Sean@DWR <Sean.Sou@water.ca.gov>
Subject: Southern California Edison Company Desalination Projects Grant Funding

Hello Sean,

I was looking to get some more information regarding the grant DWR awarded to the Southern California Edison Company for the construction of the Catalina Desalination Plant 2 (reference number **3860-P01-342**) . The information at <http://bondaccountability.resources.ca.gov/Project.aspx?ProjectPK=24785&PropositionPK=48> states that SCE was awarded \$3,610,575. Could you:

- 1) Please confirm whether the total grant amount is still \$3,610,575 as indicated on the webpage above; if not, please state the current total grant amount.
- 2) Please provide the disbursement date(s) and amount(s) of grant funds paid to SCE to-date, if any.
- 3) If the full grant amount has not yet been paid to SCE, please note when the remaining balance is expected to be paid, and any conditions or prerequisites for SCE to receive payment of the full grant amount.

Thank you very much for all the help,

Sari Ibrahim| Utilities Engineer
Public Advocates Office www.publicadvocates.cpuc.ca.gov
California Public Utilities Commission www.cpuc.ca.gov
(213) 266-4737

ATTACHMENT 6-2

1979 USC Water Facilities Agreement

May 11, 1979

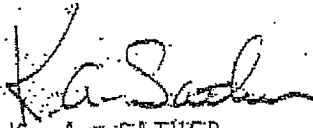
DICK DURANT

SUBJECT: Water Facilities Agreement - USC

In accordance with our recent conversation, I am attaching various correspondence from my file which:

1. Acknowledges payment received from USC
2. Edison's title to the "Enlarged Water Facilities"
3. Edison's 10% participation in the water tank's capacity
4. Discussion relative to USC and SCI sharing cost of facilities
5. Edison's policy statement covering fire flow capacities.

Should you need any additional information, please do not hesitate to contact me.


K. A. SATHER

KAS:dh-

cc: R. B. Beck

May 3, 1979

RICHARD K. DURANT

SUBJECT: Water Facilities Agreement - U.S.C.

Attached for your review is a copy of an agreement between SCE and USC dated November 7, 1967 for water facilities in the Two Harbor area. This involved a one million gallon water tank, pipeline and other appurtenances installed to assist USC in meeting its fire protection obligations as well as to meet public utility water demands at the laboratory and areas adjacent thereto.

In sizing the tank, the Los Angeles County Fire Department required USC to provide water fire flow protection at the rate of 2,500 gallons per minute for a minimum period of six consecutive hours for the laboratory or a total of 900,000 gallons storage. SCE added 100,000 gallons to the tanks storage capacity for operational purposes with USC paying 90% of the tanks cost and SCE 10%.

In 1976, because of a salt water intrusion problem at Howland's well, SCE installed a 6" line from the million gallon tank to the Isthmus to meet public utility water demands for that area.

The Santa Catalina Island Company is currently planning to construct various projects at the Isthmus, i.e. employee housing, youth camp, warehouse, etc. and will require a minimum of 1,500 gallons per minute for a two hour duration or a total of 180,000 gallons for fire protection per the Los Angeles County Fire Department, which exceeds our existing storage capacity in the area (excluding the million gallon tank).

I am requesting your opinion as to whether the subject agreement would preclude SCE from using the million gallon tank for fire flow protection requirements for the planned Santa Catalina Island Company projects.

Please advise at your earliest convenience.


K. A. SATHER

KAS:dh
Attachment

cc: R. B. Beck
J. M. Scofield

WATER FACILITIES AGREEMENT

THIS AGREEMENT, made as of November 1, 1967, by and between SOUTHERN CALIFORNIA EDISON COMPANY ("Edison"), a corporation, and the UNIVERSITY OF SOUTHERN CALIFORNIA ("USC"), a California nonprofit corporation.

W I T N E S S E T H:

WHEREAS, USC is now constructing buildings and other facilities for the operation of a marine biology laboratory complex (hereinafter collectively called "Laboratory") in the vicinity of Fisherman's Cove in Santa Catalina Island, County of Los Angeles, State of California; and

WHEREAS, the Fire Department of the County of Los Angeles has required that USC provide water fire flow protection at the rate of 2500 gallons per minute for a minimum period of six consecutive hours for the Laboratory; and

WHEREAS, Edison has determined that it will be necessary to construct a water tank, pipeline and other appurtenances to provide for the water needs of its future customers at the Laboratory and areas adjacent thereto and has estimated that the cost of such water tank, pipeline and other appurtenances to provide such water service for all purposes other than for fire protection would be Seventy-two Thousand, Five Hundred Dollars (\$72,500) (hereinafter called "Estimated Cost"); and

WHEREAS, in order to assist USC in meeting its fire protection obligations and to minimize the alteration of the lands adjacent to the Laboratory as well as to meet the public utility water demands at the Laboratory and areas adjacent thereto, Edison is willing to construct, maintain and operate an enlarged water tank, pipeline and other appurtenances (hereinafter collectively called "Enlarged Water Facilities", which are more particularly described in Exhibit No. Two hereto which

ORIGINAL

1 by this reference is made a part hereof) adequate to meet such
2 fire protection and other water needs in, under, upon and over
3 that certain real property described in Exhibit No. One hereto
4 which by this reference is made a part hereof, subject to the
5 terms, covenants and conditions set forth hereinafter.

6 NOW, THEREFORE, with reference to the above recitals
7 and in consideration of the mutual covenants herein contained,
8 the parties hereto agree as follows:

9 1. Edison agrees to construct the Enlarged Water
10 Facilities.

11 2. Upon the completion of such construction, Edison
12 agrees to determine the actual construction cost (hereinafter
13 called "Completed Cost") of the Enlarged Water Facilities and
14 to advise USC of same. USC agrees that upon receipt of such
15 advice, it will pay to Edison the difference ("Fire Protection
16 Cost") between the Completed Cost and the Estimated Cost.

17 3. Edison further agrees that, so long as it is
18 obligated to provide public utility water service to the
19 Laboratory, it will operate and maintain the Enlarged Water
20 Facilities.

21 4. USC agrees that, upon receipt of a bill therefor
22 from Edison, it will reimburse Edison for that portion of the
23 cost of such operation and maintenance determined by multiplying
24 such cost by the ratio of the Fire Protection Cost to the
25 Completed Cost. Said bills shall be rendered not more often than
26 at quarterly intervals but not less than once per year. Said
27 expenses of operation and maintenance shall include, but not be
28 limited to those incurred for painting or otherwise protecting
29 the water tank and for the ad valorem taxes, if any, assessed
30 and levied against the Enlarged Water Facilities.

31 5. Since all water consumed at the Laboratory will
32 be billed in accordance with Edison's Tariff Schedules regularly

1 on file with the Public Utilities Commission of the State of
2 California; USC will not be obligated to reimburse Edison here-
3 under for any portion of the costs incurred to pump water into
4 the water tank.

5 6. It is understood and agreed that Edison is making
6 no representation or warranty with respect to the fire flow
7 capabilities of the Enlarged Water Facilities. It is further
8 understood and agreed that Edison is not offering hereby to pro-
9 vide public utility fire protection service.

10 7. Every notice, request, bill or other statement
11 provided for in this Agreement shall be in writing directed to
12 the party to whom given and shall be deemed to be delivered when
13 delivered personally or when deposited in the United States
14 mail, postage prepaid, and addressed as follows:

15 Southern California Edison Company
16 Post Office Box 527
Avalon, California 90704

17 University of Southern California
18 University Park
Los Angeles, California 90007
19 Attention: Carl M. Franklin,
Financial Vice President

20 or such other post office address or persons as such party shall
21 from time to time designate for such purpose by written notice
22 to the other party to this Agreement.

23 8. No waiver by either party of any default of the
24 other party under this Agreement shall operate as a waiver of
25 any future default whether of a like or a different character.

26 9. This Agreement shall inure to the benefit of and
27 be binding upon the successors and assigns of each of the
28 parties hereto.

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IN WITNESS WHEREOF, the parties hereto have executed
this Agreement as of the day and year first above written.

SOUTHERN CALIFORNIA EDISON COMPANY

APPROVED AS TO
FORM
BY W. C. Barnes
Notary Public
Nov. 8, 1967

By [Signature]
Executive Vice President

By [Signature]
Assistant Secretary

UNIVERSITY OF SOUTHERN CALIFORNIA

By _____

By _____

EXHIBIT NO. ONE
(Water Storage Site)

That certain real property in the County of Los Angeles, State of California, described as follows:

That portion of Lot 86 of the Map of Santa Cataline Island, recorded on February 28, 1952, as L.A.C.A. Map No. 59, in Book 1, page 7, of Assessor's Maps, in the office of the County Recorder of said County, described as follows:

Beginning at a found U.S.C. & G. S. Triangulation Station "Channel", said station being particularly described as Coordinate N472, 983.28, El. 320,625.26 said "Channel" Station bears South 70° 52' 12" East 7503.69 feet from U.S.C. & G. S. Triangulation Station "Cherry-2", said station being particularly described as Coordinate, North 475,442.21, El. 313,536.29; thence South 52° 55' 10" West, 3065.29 feet to a 4 inch by 4 inch wood post and tack said post being particularly described as Coordinate N471,135.26, El. 318,180.00 and being the TRUE POINT OF BEGINNING of this description; thence South 60° 29' 45" East, 172.00 feet to a 4 inch by 4 inch wood post and tack, said post being particularly described as Coordinate N471,050.56, El. 318,329.69; thence South 29° 30' 15" West, 138.00 feet to a 4 inch by 4 inch wood post and tack, said point being particularly described as Coordinate N471,050.56, El. 318,329.69; thence South 29° 30' 15" West, 138.00 feet to a 4 inch by 4 inch wood post and tack, said post being particularly described as Coordinate N470,930.46, El. 318,361.73; thence North 60° 29' 45" West, 172.00 feet to a 4 inch by 4 inch wood post and tack said post being particularly described as Coordinate N471,015.16, El. 318,112.04; thence North 29° 30' 15" East, 138.00 feet to the TRUE POINT OF BEGINNING.

All of the 4 inch by 4 inch post and tack referred to in the above are marked with metal tag R.C.E.7211, up 18 inches.

The Coordinates and bearings used in the description of land hereinabove referred to are based on the California State Plane Coordinate System Zone 6.

All distances shown are ground distances. To convert to grid distances, multiply ground distances by 0.9999508.

EXHIBIT NO. TWO

The Enlarged Water Facilities include the following:

- (a) A welded steel water tank with a capacity of one million gallons;
- (b) A 10 3/4" O.D. 10 gauge welded steel pipeline approximately 2300 feet in length; and
- (c) Such other appurtenances as Edison now or hereafter deems necessary or desirable to maintain and operate the said water tank and pipeline.

ATTACHMENT 6-3

Proposed Decision of ALJ Barnett in A.10-11-019

Decision **PROPOSED DECISION OF ALJ BARNETT** (Mailed 4/23/2012)

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Southern California Edison Company (U338E) for Authority to, Among Other Things, Increase Its Authorized Revenues For Santa Catalina Island Water Operations, And to Reflect That Increase In Rates.

Application 10-11-009
(Filed November 15, 2010)

Russell Archer, Attorney at Law, for Southern California Edison Company, Applicant.

Selina Shek, Attorney at Law, for the California Public Utilities Commission Division of Ratepayer Advocates.

Christine Mailloux, Attorney at Law, for The Utility Reform Network.

Norris J. Bishton, Jr., Attorney at Law, for City of Avalon, et al., Protestants.

DECISION GRANTING THE APPLICATION IN PART

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Appendix A - Settlement Agreement

Appendix B - Factors

DECISION GRANTING THE APPLICATION IN PART**1. Summary**

Southern California Edison Company seeks an approximately 80% increase over current rates for its Catalina water subsidiary on Santa Catalina Island. The current revenue at present rates is \$3,948,000; at proposed rates it increases to \$7,118,000, an increase of \$3,170,000. The water company rates, at present rate levels, are by far the highest in the State of California. The application was protested by the Division of Ratepayer Advocates, The Utility Reform Network, and a group of Santa Catalina Island public and private interests including the City of Avalon, Catalina Island Chamber of Commerce, Santa Catalina Island Company, Santa Catalina Island Conservancy, Guided Discoveries, Conference of Catalina Condos and Apartments, and Hamilton Cove Homeowners Association.

This decision reviews the water company's operating expenses and rate base, disallows them when appropriate, and adopts SCE's alternate rate proposal to keep level the present revenue requirement. We have disallowed approximately \$0.4 million of operating expenses; approximately \$7.5 million in rate base; and by adopting SCE's alternate rate proposal, shifted \$7.780 million of increased costs in the water company's rate base as a one-time cost to electric rates. The result of our disallowances and adjustments makes no change in the current revenue requirement of \$3.842 million.

2. Background

With a surface area of 75 square miles, Santa Catalina Island is situated approximately 30 miles southwest of Huntington Beach in southern California. The primary industry on Catalina Island is tourism. Avalon, located on the east

end of the island, is the only city and major population center on the island. Figures from the 2010 census show that Avalon had a population of 3,728, with another 200+ persons in the balance of the island. The total permanent population on Catalina Island is now estimated at over 4,000. During holidays, weekend, and the summer months, the population can swell to over 10,000. The island's summer temperature averages 75 degrees, while in winter the temperature averages 65 degrees. Catalina Island has a semi-arid climate. On average the sun shines 267 days a year and the average rainfall is 14 inches per year. As of December 31, 2010, Catalina Island had 1,934 metered service connections. Catalina Island derives its primary water supply (totaling 512 acre-feet in 2005) from a system of wells, springs, and reservoirs.

The water system on Catalina Island is not complex. It is really five separate systems, all of which are basically the same. Water is pumped from wells to a tank or tanks; then flows by gravity to the point of use. The only treatment is chlorination. The main system serves the city of Avalon and includes 95% of the connections. To serve Avalon, water from the three wells in Middle Canyon is pumped to the Wrigley Reservoir and then to the Baker Tanks. It then flows by gravity to the points of use. In this system, Pump House #2 moves water less than two miles with an approximate 400 foot rise. In terms of water systems, that is insignificant. There is a desalination plant which is monitored and maintained, primarily by changing filters. Because of the height of the Baker Tanks and the Wrigley Reservoir, pressure regulators are required. Avalon is not in danger of suddenly losing water. If the pump house went down, there is enough water in the Wrigley Reservoir and the Twin Tanks to supply Avalon for two or three weeks during the high use season.

The other four systems each consist of a well or wells, pumps, a tank or tanks and gravity feed to the point of use. They serve only 5% of the connections. One system serves a daily use campground and the small airport. One system serves one camp. One system serves two camps. The Isthmus system, the largest of the systems outside of Avalon, serves the Two Harbors area, three camps, and the University of Southern California's (USC) facility.

3. Burden of Proof

Because of the sharp conflicts in much of the testimony, and because of the large sought increase in a small water company, we restate our position on a utility's burden of proof as recently stated in a similar proceeding involving a large rate increase request by another water utility:

Cal-Am bears the burden of proving by a preponderance of the evidence that the proposed rates are just and reasonable. We will review Cal-Am's presentation in the context of the increasingly severe water supply limitations in Cal-Am's Monterey district and the significant financial burdens imposed on residential and business customers by the substantial rate increases sought by Cal-Am in these consolidated applications. This context requires that proposed expenditures be demonstrably necessary for reliable service and provide value to customers. We understand that the cost of providing an efficient and safe water supply is rapidly increasing and we will, where necessary, approve substantial increase in expenditures, but we intend to carefully scrutinize Cal-Am's justifications for such proposals. (Decision (D.) 09-07-021 at 6-7.)

Further, we may find that Southern California Edison Company (SCE) has not met its burden of proof even where no adverse party served testimony on the issue in question, and deny cost recovery as a result.¹

In Apple Valley Ranchos Water Company (Apple Valley) for authority to increase rates, D.05-12-020, we held:

There is a natural litigation advantage enjoyed by utilities in that we must rely in significant part on their evidence and experts; this advantage reinforces the importance of placing the burden of proof in ratemaking applications on the applicant utilities. Apple Valley has the sole obligation to provide a convincing and sufficient showing to meet the burden of proof, and any active participation of other parties can never change that obligation. (D.05-12-020 at 5.)

4. Compliance With Uniform System of Accounts

DRA, TURN, and a group of Catalina public and private interests including the City of Avalon, Catalina Island Chamber of Commerce, Santa Catalina Island Company, Santa Catalina Island Conservancy, Guided Discoveries, Conference of Catalina Condos and Apartments, and Hamilton Cove Homeowners Association (Protestants) complain that SCE has ignored Resolution No. 4665, dated November 1, 2007, SCE's Catalina Water Company's last rate increase, in which SCE was ordered to use Uniform System of Accounts

¹ D.96-01-011 (SCE 1995 GRC), 1996 Cal. PUC LEXIS 23, *81-85. The Commission denied cost recovery of SCE's share of the abandoned California-Oregon Transmission project because the utility failed to meet its burden of proof. No party presented testimony opposing SCE's request, but The Utility Reform Network (TURN) and the Division of Ratepayer Advocates (DRA) raised issues regarding the insufficiency of the utility's showing in support of that request. The Commission agreed with TURN and DRA, and denied cost recovery.

(USOA) accounting.² For example, Protestants state that SCE has never complied with the requirements applicable to reporting operating revenue; never reported the revenue it receives for fire protection; never complied with the requirement that it report its metered revenue according to five subcategories (single-family residential, commercial and multi-residential, large water users, safe drinking water bond surcharge, and other meter revenue); and never complied with the requirement that it report its other water revenue. Further, where it did follow the USOA and recorded the totals in its annual reports, frequently it did not rely on those recorded numbers in presenting its rate case.

DRA reviewed SCE's adjustments in the 600 account series to verify compliance with USOA's accounting practices, but did not perform a formal audit. DRA reviewed many spreadsheets from SCE's Results of Operations (R/O) model and concluded that SCE is in compliance with USOA accounting practices, but SCE should have corrected its testimony, workpapers, and models to eliminate all misleading references to Federal Energy Regulatory Commission (FERC) accounts. For future rate cases involving Catalina's water service, DRA recommends that the Commission again require SCE to present its application in a format that is consistent with the USOA and that does not contain any references to FERC accounts.

Requiring a utility to follow the USOA is not exalting form over substance; it permits a reviewing body, and interested persons, to track revenues and expenses year by year with a measure of consistency. This proceeding is a prime

² Ordering Paragraph 14. "Southern California Edison Company, Catalina Island Water System, shall follow the USOA in its annual reports submitted to the Commission."

example of the problems caused by failure to follow standard regulatory practices. This is particularly true when failure to follow the USOA causes confusion in analyzing a utility's annual reports.

5. Annual Reports v. Ratemaking Adjustments

SCE states:

SCE acknowledges that the use of "FERC accounts" throughout our testimony and workpapers added to the confusion that even DRA had when evaluating our O&M showing, and should be replaced and corrected to read "accounts" instead. However, if Protestants truly wanted to understand SCE's case (instead of just re-stating old arguments about SCE's operations), they could have consulted with SCE staff, as did DRA's analyst, regarding SCE's accounting and naming conventions. In fact, DRA concluded that SCE is compliant with USOA.³

It is not Protestants' responsibility to prove or disprove SCE's case. The Commission has noted the advantage a utility has and we have instructed that the utility has the sole obligation to provide a convincing and sufficient showing to meet the burden of proof. (D.05-12-020 at 5.)

Even though DRA recommended that SCE "correct its testimony, workpapers and models,"⁴ SCE declined to do so. SCE continues to attempt to meet its burden of proof with testimony it admits is, at best, confusing. Throughout SCE's testimony it uses historical data going back to 2005 to justify the amount SCE seeks in its proposed revenue requirement. Unfortunately, SCE's testimonial historical data and the historical data contained in SCE's annual reports substantially differ. And that difference raises serious concerns.

³ Exhibit SCE-04 at 7, II. 9-14.

⁴ Exhibit DRA-1 at 1-6, II. 1-2.

Every annual report filed with the Commission must be on a form provided by the Commission, with the appropriate USOA accounts, and a declaration under penalty of perjury by an officer of the company that the information provided is complete and correct. We have the annual reports from 2005 through 2010. They markedly differ from each other and from the testimony offered by SCE; especially the difference between the 2010 Annual Report and the testimony of SCE's witness regarding the 2010 actual number. We will discuss this in detail below, when reviewing SCE's individual accounts. Protestants contend that the historical data used by SCE to justify the expenses it seeks to include in its revenue requirement are totally at odds with the data it has provided the Commission in its annual reports, and, as a consequence, do not form any basis for meeting SCE's burden of proof. Protestants raise a valid point.

When there is a discrepancy between the amounts shown in the annual reports and the amounts testified to by the expert at the hearing, that in itself raises a conflict in the evidence, causes confusion, and goes to the essence of SCE's meeting its burden of proof. Such a discrepancy raises two questions: 1) whether this is a result of shoddy record keeping, or 2) whether there are merely two ways to consider raw data to reach a conclusion? In either case, it reflects poorly on SCE and ineluctably affects our findings.

6. Current Economic Condition

SCE has been the primary provider of utility service (including water distribution and commercial customers) since 1962.⁵ Over this 50-year period, SCE has been authorized to increase its water base distribution rates only two times, once in 1985, and subsequently in 2007.

An important economic driver of water consumption is the number of visitors to Catalina. SCE finds that the number of cross-channel and cruise ship passengers (a proxy for the number of visitors) is statistically significant in explaining variations in historical water consumption. Visitors to Catalina have been steadily declining for a number of years. For example, between 2006 and 2009 the number of cross-channel and cruise ship passengers fell by 20%. For 2010, SCE is forecasting 698,056 visitors. The visitor forecast for 2011 reflects the expectation of a modest improvement in personal income levels, which in turn is predicted to result in somewhat higher recreational spending and higher visitation rates.

An indicator of the recession's impact on Catalina Island is the "idle meter rate" (defined as the number of idle meters divided by the number of installed meters). The idle meter rate serves as a proxy for business conditions on Catalina as it indicates the number of households and businesses that are unoccupied or no longer in business. Between year-end 2008 and 2009, the residential idle meter percentage jumped from 1.3% to 2.1% and the non-residential idle meter rate increased from 2.2% to 2.7%. Present data suggest that the residential idle meter rate is starting to slowly decline, with the likelihood of

⁵ D.64420 authorized SCE to purchase all the water, gas, and electric service facilities in Catalina.

lower household foreclosure rates and business failures as the economy improves.

SCE is forecasting a decline in Catalina water sales in 2010 compared to 2009, but a modest recovery in water sales in 2011 in line with predicted increases in tourism and an improving economy. Sales in 2012 are still estimated to be 13.8% below the 2008 sales level.

7. Expenses

7.1. Account 615 Power for Pumping

SCE⁶ based its request for test year 2011 on its estimate that it would spend \$291,000 in 2010, seeking the same amount for the test year. Subsequent to filing its application, SCE filed its Annual Report for 2010, representing that it spent only \$19,321 for Power for Pumping. Protestants' expert⁷ testified that because SCE seeks the same amount for test year 2011 as it spent in 2010, \$19,321 should be included for test year 2011.

⁶ SCE's principal expert witness, Roland Hite, is SCE's District Manager for SCE's Catalina Island Utilities. His resume includes: Senior Project Manager; Edison's Regional Manager for the Asia/Pacific region; Project Manager for Guam Power Authority; started at SCE in 1988.

⁷ Protestants expert witness, Brian J. Brady, is a consultant specializing in water utilities. He is a registered civil engineer in California. His resumé includes: General Manager – Imperial Irrigation District; General Manager – Rancho California Water District; Chairman, CEO – Dominguez Services Corporation; 12 years in various capacities as an engineer for SCE

ACCOUNT 615 POWER FOR PUMPING			
Year	HITE, SCE-01, p. 16	Annual Reports	
2005	\$387,000	\$0	2005 Annual Report, Work Papers, p. 115
2006	\$370,000	\$330,622 ⁸	2007 Annual Report, Work Papers, p. 187
2007	\$306,000	\$262,594	2007 Annual Report, Work Papers, p. 187
2008	\$312,000	\$309,002	2008 Annual Report, Work Papers, p. 226
2009	\$256,000	\$265,283	2009 Annual Report, Work Papers, p. 264
2010	\$291,000	\$19,321	2010 Annual Report, Exhibit P-5, p. 23

SCE replies that the \$19,321 figure in its 2010 Annual Report was an error which will be corrected in its 2011 Annual Report. The past five years of Power for Pumping costs were between \$256,000 and \$387,000. We find for test year 2011, \$291,000 is reasonable.

7.2. Account 630 – Employee Labor

Protestants recommend that SCE's estimate of \$819,000 be reduced by \$114,500, the probable annual savings due to the Supervisory Control and Data Acquisition (SCADA) system, to \$634,500. SCE showed that its most recent annual reports reported labor costs exceeding \$900,000 per year. SCE's estimate of test year 2011 labor costs of \$819,000 is reasonable. The SCADA system issue is discussed below in Section 10.1.

⁸ The 2006 Annual Report shows \$0 for this account; it was corrected in the 2007 Annual Report.

ACCOUNT 630 LABOR			
Year	HITE, SCE-01, p. 16	Annual Reports	
2005	\$1,024,000	\$431,491	2005 Annual Report, Work Papers, p. 115
2006	\$895,000	\$436,931	2006 Annual Report, Work Papers, p. 149
2007	\$878,000	\$802,036	2007 Annual Report, Work Papers, p. 187
2008	\$926,000	\$972,332	2008 Annual Report, Work Papers, p. 226
2009	\$952,000	\$963,128	2009 Annual Report, Work Papers, p. 264
2010	\$819,000	\$1,110,766	2010 Annual Report, Exhibit P-5, p. 23

7.3. Account 640 – Materials

SCE is seeking \$251,000 for Materials for Test Year 2011, the same amount it claims to have spent in 2010.

ACCOUNT 640 MATERIALS			
Year	HITE, SCE-01, p. 21	Annual Reports	
2005	\$312,000	\$0	2005 Annual Report, Work Papers, p. 115
2006	\$456,000	\$406,779 ⁹	2007 Annual Report, Work Papers, p. 187
2007	\$570,000	\$627,314	2007 Annual Report, Work Papers, p. 187
2008	\$298,000	\$295,277	2008 Annual Report, Work Papers, p. 226
2009	\$204,000	\$203,585	2009 Annual Report, Work Papers, p. 264
2010	\$251,000	\$158,864	2010 Annual Report, Exhibit P-5, p. 23

SCE's witness testified as follows regarding this account:

Materials captured in this account can be characterized in two broad categories; chemicals and hardware. Chemicals are used for activities such as water disinfection, treatment, and analysis. Hardware includes items used in pumping, transporting, and

⁹ The 2006 Annual Report shows \$0 for this account; it was corrected in the 2007 Annual Report.

storing water. The transportation of these chemicals and hardware items are also captured in this account and includes activities such as trucking on the mainland, as well as flying or barging over materials to Catalina Island.¹⁰

Protestants point out that the USOA is clear as to what should be included in Account 640.

640. Materials

This account shall include all materials and supplies used in operation and maintenance of the water system, other than repair and maintenance materials charged to Account 650, Contract Work and chemicals charge to Account 618, Other Volume Related Expenses.

Protestants claim that chemicals are not to be charged to this account,¹¹ but instead should be charged to Account 618. Protestants argue that it is impossible to tell if any of the items charged to this account are the type of expenses the Commission ordered reported in Account 640. Therefore, Protestants recommend that the entire Materials account should be disallowed.

SCE counters that while it is true that chemicals are included as part of this account, in SCE's operations chemicals are considered to be materials. Going forward, (starting in the 2011 Annual Report) chemicals can be categorized into Account 618 and SCE agrees to do so. For ratemaking purposes, the Commission's Water Division and DRA have historically accepted SCE's inclusion of chemicals in this account. We will include the \$251,000 for ratemaking purposes, but SCE is admonished to comply with the USOA.

¹⁰ Exhibit SCE-01 at 20, II. 13-19.

¹¹ D.85-04-076 at 40.

7.4. Account 650 – Contract Work

SCE is seeking \$1,016,944 for Contract Work for test year 2011, the same amount it spent in 2010. SCE's witness testified that SCE's recorded expenses for contract work adjusted to constant 2009\$ were as depicted in the following table, which also sets out the dollar amounts shown for Account 650 Contract Work in SCE's Annual Reports for the years 2005-2010:

ACCOUNT 650 CONTRACT WORK			
Year	HITE, SCE-01, p. 23	Annual Reports	
2005	\$484,000	\$0	2005 Annual Report, Work Papers, p. 115
2006	\$732,000	\$616,807 ¹²	2007 Annual Report, Work Papers, p. 187
2007	\$786,000	\$693,860	2007 Annual Report, Work Papers, p. 187
2008	\$541,000	\$1,257,388	2008 Annual Report, Work Papers, p. 226
2009	\$826,000	\$151,223	2009 Annual Report, Work Papers, p. 264
2010	\$1,017,000	\$1,010,618	2010 Annual Report, Exhibit P-5, p. 23

Contract Work is a major item of SCE's revenue requirement. In 2010, the amount spent represents 25% of SCE's estimated operating revenues of \$4,066,000. Contract Work is 14% of SCE's proposed revenue requirement. Contract Work is a broad general category. At a minimum, Protestants assert that in order to meet its burden of proof, a utility should present evidence listing the services for which it intends to contract in the test year, the anticipated cost of the services, and the reason it is using the services. This is particularly true of those services that could be performed by SCE's own employees. SCE's witness testified that SCE contracts for "maintenance of equipment at the pumping and

¹² The 2006 Annual Report shows \$0 for this account; it was corrected in the 2007 Annual Report.

treating facilities such as valve repair, cleaning and rebuilding of equipment; calibration of instruments and equipment; repair and replacement of failed equipment [and] ... collection ... of water samples.”¹³ Protestants state it is hard to imagine what is left for SCE’s employees to do. These are all tasks normally performed by a utility’s employees. The only item listed by SCE that is normally contracted for by water utilities is the analysis of water samples. This should only involve sending samples collected by SCE’s employees to the mainland for testing.

Protestants’ analysis persuades us. SCE predicts test year Contract Work at \$1,017,000 while Employee Labor is only forecast at \$819,000. Contract Work is estimated to more than double SCE’s entire work force for the purpose of maintaining equipment, repairing valves, etc., work usually performed by employees. SCE has not shown why 2011 differs from prior years where Contract Work was substantially below the requested amount. SCE has not shown why Contract Work can’t be done by SCE’s own employees. SCE has not met its burden of proof. But, as there is a need for Contract Work, we estimate that \$600,000 is a reasonable amount in test year 2011.

7.5. Account 660 – Transportation Expenses

The water that is provided throughout the island travels through more than 32 miles of pipeline outside the city of Avalon. SCE’s operating permit requires SCE to monitor the water distribution system on a daily basis. In addition, there is a need to have vehicles and equipment to address water leaks as needed, in order to minimize the interruption of water services throughout

¹³ Exhibit SCE-01 at 22.

the service territory. SCE's inventory of vehicles includes four service trucks, one backhoe, a dump truck, and a small pick-up truck. Reliable operations of these vehicles requires ongoing maintenance and repair, the costs of which are charged to this account. SCE is requesting a total of \$49,000 for test year 2011; the same expense as 2010.

Account 660 Transportation Expenses			
Year	HITE, SCE-01, p.25	Per Annual Reports	
2005	\$71,000	\$0	2005 Annual Report, Work Papers, p. 115
2006	\$62,000	\$56,395 ¹⁴	2007 Annual Report, Work Papers, p. 187
2007	\$36,000	\$33,373	2007 Annual Report, Work Papers, p. 187
2008	\$41,000	\$40,139	2008 Annual Report, Work Papers, p. 226
2009	\$374,000	\$34,171	2009 Annual Report, Work Papers, p. 264
2010	\$49,000	\$748	2010 Annual Report, Exhibit P-5, p. 23

Protestants recommend only \$748, the amount shown in SCE's 2010 annual report. Because of the constant use of equipment to service the water system, we consider \$49,000 on the high side, but reasonable to ensure reliable operation of vehicles.

7.6. Account 670 – Office Salaries

SCE seeks \$110,000 for Account 670 Office Salaries. SCE's recorded expenses for Office Salaries adjusted to constant 2009\$ were as depicted in the following table, which also sets out the dollar amounts shown for Account 670 in SCE's annual reports for the years 2005-2010.

¹⁴ The 2006 Annual Report shows \$0 for this account; it was corrected in the 2007 Annual Report.

Account 670 Office Salaries			
Year	HITE, SCE-01, p.27	Per Annual Reports	
2005	\$82,000	\$0	2005 Annual Report, Work Papers, p. 115
2006	\$85,000	\$131,857 ¹⁵	2007 Annual Report, Work Papers, p. 187
2007	\$105,000	\$132,382	2007 Annual Report, Work Papers, p. 187
2008	\$154,000	\$202,182	2008 Annual Report, Work Papers, p. 226
2009	\$110,000	\$109,643	2009 Annual Report, Work Papers, p. 264
2010	\$110,000	\$13,089	2010 Annual Report, Exhibit P-5, p. 23

The difference between what Mr. Hite testified are SCE's recorded expenses for Office Salaries and what SCE represents to the Commission in its annual reports is confusing. SCE's witness testified that SCE requests the same amount for test year 2011 as it recorded in 2010, i.e., \$110,000. Protestants point out that SCE's 2010 Annual Report shows \$13,089 recorded, for this account; therefore, we should allocate just \$13,089.

This is not the only account where SCE's testimony regarding recorded amount differs from the amounts recorded in its annual reports. Again, these discrepancies make it very difficult to find that SCE has met its burden of proof. However, we must apply common sense. The testimony states that Office Salaries for the water company account for three part-time employees (the three split their time between SCE's Catalina gas, electric, and water companies). In our view, \$13,089 is inadequate to meet the salaries of three part-time employees. The 2009 annual report amount of \$109,643 appears sufficiently reliable on which to base a forecast. We find SCE's recommended \$110,000 to be reasonable.

¹⁵ The 2006 Annual Report shows \$0 for this account; it was corrected in the 2007 Annual Report.

7.7. Account 671 – Management Salaries

SCE seeks \$35,000 for Account 671 Management Salaries. Mr. Hite testified that SCE's recorded expenses for Management Salaries adjusted to constant 2009\$ were as depicted in the following table, which also sets out the dollar amounts shown for Account 671 in SCE's annual reports for the years 2005-2010:

Account 671 Management Salaries			
Year	HITE, SCE-01, p.28	Per Annual Reports	
2005	\$38,000	\$0	2005 Annual Report, Appendix A, p. 115
2006	\$39,000	\$21,602 ¹⁶	2007 Annual Report, Appendix A, p. 187
2007	\$52,000	\$48,767	2007 Annual Report, Appendix A, p. 187
2008	\$61,000	\$59,621	2008 Annual Report, Appendix A, p. 226
2009	\$35,000	\$1,151	2009 Annual Report, Appendix A, p. 264
2010	\$35,000	\$54,291	2010 Annual Report, Exhibit P-5, p. 23

SCE's estimate of \$35,000 for test year 2011 is reasonable.

7.8. Account 674 – Employee Pension and Benefits

The USOA states what should be reported using this account:

674. Employee Pensions and Benefits

This account shall include all accruals under employee pension plans to which the utility has irrevocably committed such funds, and payments for employee accident, sickness, hospital and death benefits, or insurance therefore. Include also expenses for medical, educational or recreational activities of employees.

¹⁶ The 2006 Annual Report shows \$0 for this account; it was corrected in the 2007 Annual Report.

SCE does not show an expense in this account; instead water employees' pension and benefits expenses are allocated to the utility through the Administrative and General (A&G) expense adjustment discussed below.

Protestants contend that Account 674 exists so that ratepayers and their representatives can determine if this expense is reasonable. Failure to use this account precludes SCE from seeking to include, directly or indirectly, employee pension and benefits expenses in its revenue requirement.

We discuss this issue below in Section 8.

7.9. Account 676 – Uncollectibles

SCE is seeking \$9,000, based upon the same percentage (.229%) of revenue in its electrical GRC for uncollectibles.¹⁷ Protestants argue SCE's collection experience for its gigantic electrical utility bears no relationship to its collection experience for its water utility on Catalina Island. SCE has apparently collected everything it billed because it never reported any uncollectibles to the Commission. Consequently, it should not be allowed any amount for uncollectibles.

SCE responds that water customers are on the same bill as electric customers so the uncollectibles would be the same. This is a common-sense approach and we agree.

7.10. Account 681 – Office Supplies and Expenses

SCE seeks \$15,000 for Account 681 Office Supplies and Expenses. Mr. Hite testified that SCE's estimate for office supplies and expenses adjusted to constant

¹⁷ Exhibit SCE-01 at 94, II. 6-9.

2009\$ were as depicted in the following table which also sets out the dollar amounts shown for Account 681 in SCE's annual reports for the years 2005-2010:

Account 681 Office Supplies and Expenses			
Year	HITE, SCE-01, p.30	Per Annual Reports	
2005	\$3,000	\$0	2005 Annual Report, Work Papers, p. 115
2006	\$10,000	\$9,311 ¹⁸	2007 Annual Report, Work Papers, p. 187
2007	\$8,000	\$7,882	2007 Annual Report, Work Papers, p. 187
2008	\$16,000	\$15,809	2008 Annual Report, Work Papers, p. 226
2009	\$13,000	\$13,001	2009 Annual Report, Work Papers, p. 264
2010	\$15,000	\$914	2010 Annual Report, Exhibit P-5, p. 23

We note that for the years 2006-2009, the amounts claimed as recorded expenses by SCE's witness correspond to the amounts reported in the annual reports for those years. Protestants assert there is no reason to believe that the amount reported for 2010 is any less accurate. SCE seeks the same amount in Test Year 2011 as was spent in 2010. Consequently, SCE should be allowed \$914 for the office supplies and expenses in Test Year 2011.

It is difficult to understand how "adjustments made for escalation and other ratemaking mechanisms" (SCE Reply Brief at 4) can explain how a mundane account for office supplies could fluctuate from \$13,000, to \$914, to \$15,000. On its face \$914 seems wrong. In Exhibit SCE-01, SCE states that its office expense in 2010 is estimated at \$15,000 and that SCE requests the same amount in 2011. The 2010 annual report shows \$914 for this account. SCE has

¹⁸ The 2006 Annual Report shows \$0 for this account; it was corrected in the 2007 Annual Report.

not met its burden of proof. A practical estimate for the account seems closer to \$10,000, which we find reasonable.

7.11. Account 689 – General Expenses

SCE seeks \$31,000 for Account 689 General Expenses. Mr. Hite testified that SCE's recorded expenses for general expenses adjusted to constant 2009\$ were as depicted in the following table, which also sets out the dollar amounts shown for Account 689 in SCE's annual reports for the years 2005-2010:

Account 689 General Expenses			
Year	HITE, SCE-01, p.34	Per Annual Reports	
2005	\$314,000	\$1,990,984	2005 Annual Report, Work Papers, p. 115
2006	\$243,000	\$940,455	2006 Annual Report, Work Papers, p. 149
2007	\$156,000	\$167,088	2007 Annual Report, Work Papers, p. 187
2008	\$8100	\$211,570	2008 Annual Report, Work Papers, p. 226
2009	\$31,000	\$230,760	2009 Annual Report, Work Papers, p. 264
2010	\$31,000	\$670,738	2010 Annual Report, Exhibit P-5, p. 23

Mr. Hite's testimony varies widely from what SCE reported to the Commission for this account. He claims that "the majority of the charges to this account are related to the travel and lodging expenses for Catalina employees attending meetings and training on the mainland and other SCE employees' temporary stay on the Island to assist with water operations."¹⁹

There is no way to judge the reasonableness of the amount sought for this account. Resolution W-4665 found that in 2005 the water company had operating revenue of \$1,300,610. The annual report for 2005 says travel and lodging for the water company was \$1,990,984. Mr. Hite says the correct number

¹⁹ Exhibit SCE-01 at 32, II. 11-14

was \$314,000. How could either number be accurate? We see similar discrepancies in the years 2006-2010. Reluctantly, because we know that a certain level of travel and lodging are needed to operate the water company, we will find \$31,000 to be reasonable.

7.12. Account 480.2 – Other Operating Revenue (OOR)

SCE proposes to assign \$153,000 in forecasted revenue received from cellular telephone companies as a credit against the revenue requirement in the test year. Protestants argue that the credit should be increased to reflect \$846,000 in revenue received in prior years. SCE contends that such a result would be a violation of the prohibition against retroactive ratemaking. We agree. We will include \$153,000 in OOR.

8. Administrative and General (A&G) Expenses

SCE requests \$535,000 in A&G expenses for its Catalina water operations, which is the allocation of 0.06% of SCE's overall A&G expenses. SCE's overall A&G expense of \$1.056 billion consists of SCE's company-wide A&G expenses, which, SCE claims, includes the currently-unallocated portion of the expenses that directly relate to the support of the Catalina water operations. Among other A&G expenses, SCE's electric customers are currently paying for the pensions and benefits of SCE's Catalina water employees. SCE states that it is trying to allocate a fair portion of SCE's overall A&G expenses to water ratepayers, expenses that are related to services that those ratepayers enjoy. If the Commission approves this re-allocation, SCE will in the future report the allocated components in its water annual reports in the appropriate accounts, in compliance with USOA guidelines. This will apply to Accounts 618, 674, and 676.

SCE used the “four-factor allocation” method to allocate 0.06% (or \$640,000) of its company-wide A&G expenses to its Catalina water operation.²⁰ SCE subsequently corrected that number downward to \$535,000 in response to TURN’s testimony. SCE states the reason it allocated company-wide A&G to Catalina water is that previously there was a discrepancy between how it allocated costs for common plant expenditures (which have always been allocated to the water utility) and A&G expenses (which have previously been borne by electric ratepayers).²¹ The \$535,000 figure is a proxy for all of the A&G expenses associated with SCE’s services that Catalina water customers currently use, including: the pension and benefits costs for Catalina water employees; legal, accounting, regulatory, and other employee costs that perform work for the water utility; off-Island information technology and other support services; and many others.²²

Standard Practice U-6-W sets forth the procedures a California water company should follow for indirect allocations such as A&G expenses. The standard states that:

... indirect expenses may be so general in nature as to require pro-rations based on a combination of several pertinent factors. Considering the relative complexity and magnitude of the

²⁰ Exhibit SCE-04, Ch. III. at 16-21; *see also* Standard Practice U-6-W “Standard Practice for Allocation of Administrative and General Expenses and Common Utility Plant and the Four-Factor Method,” D.07-11-037 (Golden State Water Company); D.10-11-035 (Golden State Water Company); D.87-11-062 (Park Water Company – Vandenberg Disposal Division); D.09-03-007 (Suburban Water Systems); D.03-10-005 (California Water Service Company).

²¹ Exhibit SCE-04, Ch. III at 16.

²² Hite, Tr. Vol. 4 at 430:25-433:6.

operations usually involved, it is believed that the application of the arithmetical average of the percentages derived from the use of four factors listed below produces results within the range of reasonableness in most instances. The four factors are as follows:

1. Direct operating expenses, excluding uncollectibles, general expenses, depreciation and taxes;
2. Gross plant;
3. Number of employees (using direct operating payroll, excluding general office payroll, as the best measure of this component; and
4. Number of customers (subscribers for telephone).

SCE utilized these same four factors in its four-factor allocation to allocate indirect A&G expenses from the electric utility to the Catalina water utility.

Southern California Edison's Four-Factor Allocation					
Line No	Description	Gas	Water	Electric	Total
1.	2009 Year end Customers Allocation	0.03%	0.04%	99.93%	100%
2.	2009 Year end Employees Allocation	0.02%	0.05%	99.93%	100%
3.	2009 O&M Allocation	0.03%	0.08%	99.87%	100%
4.	2009 Year end Gross Utility Plant Allocation	0.01%	0.08%	99.91%	100%
5.	Average percentage	0.02%	0.06%	99.92%	100%

DRA has proposed a figure of \$189,000, premised on its opposition to SCE's proposed new line items for A&G. SCE's A&G allocation stems from applying the four-factor methodology to SCE's total company A&G amounts. DRA asserts it did not have sufficient time to analyze this proposal, coordinate with other DRA staff working on the SCE electric GRC and verify that duplication of expenses did not occur. Instead, DRA included a pension and benefit estimate that is based upon an amount from the last GRC.

DRA says SCE created confusion in its workpapers and the R/O model because the model incorporates the FERC accounting nomenclature. Because SCE's R/O model and workpapers are almost as complex as what it has provided in its electric GRCs in terms of number of spreadsheets and levels of detail, SCE has failed to demonstrate the reasonableness and validity of its new proposal. Moreover, if SCE desires unique treatment for the Catalina water system (versus other Class C water systems) it should develop a simpler R/O model, which is user-friendly and consistent with the models used by other regulated water utilities. DRA recommends that SCE be required to submit a better R/O model for its next Catalina water GRC.

Protestants point out that SCE's water utility is a tiny part of a gigantic electrical generating and distribution company. Protestants claim that the district manager of the water company had little knowledge of whether the water utility benefits from the A&G expense. A&G expense was not included in his monthly budgeted expenses to actual expenses report. For the 48 years prior to this application, SCE allocated no A&G expense to its water or gas utility, allocating these expenses to its electrical customers. SCE is a large electric utility; it owns one tiny gas utility and one tiny water utility. In sum, Protestants contend that SCE's A&G expenses exist to support its electric business, not its water utility on Catalina Island. Protestants describe the situation as one where we have a utility providing water and gas in a very small geographical area while providing electricity in a much larger area and incurring substantial administrative expenses in connection with its electrical business that in no way benefit the gas and water utility. It is not reasonable to expect the small gas and water utility to bear a fractional portion of expenses that in no way benefit them.

Protestants argue that the evidence does not establish the reasonableness of departing from SCE's practice, apparently followed since 1962, of allocating A&G expenses to its electrical customers. Since the electrical customers coming to the Island are major users of water, charging them for whatever little benefit the water utility gets from SCE's A&G expenses, as SCE apparently has done since 1962, is both reasonable and equitable. SCE claims that A&G expenses are the way it seeks to include its pension and benefits costs in its proposed revenue requirement. Protestants argue that the proper way is to use Account 674 Pensions and Benefits. By properly reporting these expenses in accordance with USOA in its annual reports, SCE can obtain an amount for pensions and benefits in future GRCs. Protestants state that SCE has not met its burden of proof with regard to A&G expenses, and nothing should be allowed.

We agree with SCE. Although common capital plant costs have been historically allocated among its three utilities (SCE systemwide electric, SCE Catalina water, and SCE Catalina gas), A&G costs were not (10% allocation to SCE's systemwide electric). The \$535,000 proposed A&G cost recovery (0.06%) is a proxy for all of the A&G expenses associated with SCE's services that Catalina water customers currently use, including: the pension and benefits costs for Catalina water employees; legal, accounting, regulatory, and other employee costs that perform work for the water utility; off-Island information technology and other support services; and may others. SCE has made a corresponding -0.06% reduction in its proposed electric rates.²³ SCE has demonstrated through the four-factor allocation method (which is Commission-

²³ See Exhibit SCE-04, SCE Rebuttal at 16; A.10-11-015, Exhibit SCE-25.

endorsed per Standard Practice U-6-W) that its proposal allocates a fair portion of company-wide A&G costs to Catalina water rates. Catalina water employees have real Pensions and Benefits costs, which make up a substantial portion of overall A&G expenses. We adopt SCE's proposed A&G cost recovery.

9. Overview of Capital Accounts

The scoping memo provides that the issues within the scope of this proceeding include capital projects and rate base going back to 1985. Protestants raise this issue because of the great disparity between what SCE spent for capital improvements in the past and what it has spent in recent years. Deferring capital improvements both increases their cost and causes current ratepayers to bear the burden of what should have been spread over earlier years.

Mr. Brady, expert witness for Protestants, reviewed SCE's capital expenditures since 1985. Here are his findings:

- In 1985, SCE spent \$64,900 on capital improvements, and its rate base for the Catalina Water subsidiary, adopted by the Commission, was \$4,538,000.
- From 1985 to 2000, a period of 15 years, capital improvements averaged \$175,129 per year. Thirty-four percent of the amount for capital improvements was spent on new wells. Only \$74,397 was spent per year on maintaining existing infrastructure.
- Capital improvements between 2000 and 2005 were included in Advice Letter W000144, filed December 9, 2005. In that Advice Letter, SCE sought to increase its rate base by \$5,986,000. In Resolution No. 4665, issued November 1, 2007, the Commission added \$6,838,965 to the rate base and adopted a rate base for SCE of \$10,851,000 for 2007.
- In this GRC, SCE seeks to increase its rate base by \$15,930,000.
- From 1985 to 2000, a period of 15 years, SCE spent \$2,626,941, or \$175,129 per year, on capital improvements. From 2000 to 2010, a period of 10 years, SCE spent \$18,758,965, or \$1,875,897 per year.

Such spending in the period 2005-2010 is either as a result of neglect of the system in prior years or an attempt to make the utility more saleable, or a combination of the two.

Protestants assert that there is a correlation between SCE' sudden change in its pattern of capital expenditures and its desire to sell its water utility. None of the capital improvements made since 2000 were made because of customer growth. There has been little growth in the service connections since 2000. Protestants state that current ratepayers should not have to pay for capital improvements that are a result of deferred maintenance or which are intended to make the water utility more saleable. We discuss the specific additions to rate base below.

9.1. Station Office Betterment

SCE seeks approval of \$1,295,500, the amount to be added to its rate base at a later date, as the water utility's 25% share of the \$5,182,000 SCE is spending to remodel offices. Protestants contend there is no evidence as to how 25% was arrived at.

Mr. Hite testified that the office employees working for the water utility consisted of the following:

- Two clerks who work part-time for the gas utility and part-time for the water utility.
- One customer service representative working for all three utilities.
- Mr. Hite himself who is working for all three utilities.²⁴

²⁴ RT 315, l. 3-15.

Mr. Hite testified that there were 29 office employees working in the remodeled office. Needless to say, the four part-time water utility employees referenced above do not make up 25% of the office employees.

Again, SCE has failed to meet its burden of proof with regard to the money it seeks for Station Office Betterment. Assigning 25% of the cost to the water utility appears arbitrary and is not based upon any reasonable attempt to allocate the cost between the three utilities based upon the number of office employees of each utility who use the office space. SCE is not seeking to have the requested amount included in its rate base in this proceeding because the project will not be completed in 2011. Approval of the requested amount at this time will be denied. SCE may request a reasonable amount for this project in its next water rate case.

10. Capital Projects and Rate Base

This section provides descriptions of the capital projects expected to be completed and placed into service between 2005 and the end of 2010. The table below lists each project, the related capital expenditures, and our adopted rate base amount.

**Summary of Capital Expenditures
(\$ millions)**

Project	SCE Request	Adopted
Water SCADA	\$2.187	.500
Pump House #2 Replacement	\$4.568	2.510
Pebbly Beach Water Line Replacement	\$0.393	.343
Middle Ranch Canyon Bedrock Piezometers	\$0.392	.392
West End Pipeline Replacement	\$0.755	.755
Isthmus Area Water supply & SCADA	\$0.975	.389500
Thompson Reservoir Siphon	\$2.160	2.160

Catalina Island Fire Watershed and Above-Ground System Restoration Projects	\$3.204	0
Total	\$14.634	7.090

In November 2007, we issued Resolution W-4665 which found reasonable, and adopted, a rate base for SCE's Catalina water company of \$5.14 million in 2005, increasing to \$10.4 million in 2008. Today SCE seeks a rate base of \$23.8 million for test year 2011; an increase of approximately 130% in three years. We review the projects that are included in that increase to determine if they are reasonable.

10.1. Water Supervisory Control and Data Acquisition (SCADA) System

SCE seeks the \$2,327,000 it spent for a SCADA system added to rate base. A SCADA system obtains data, such as the level of water in a tank, and transmits it to a central location. The system can also be designed to allow equipment located in a remote area to be started or stopped from a central location. The SCADA system installed by SCE did not integrate the five individual water systems. Rather, it provides information at a central location and some control over equipment from the central location. It went into operation in late 2007.

Protestants do not oppose the installation of a SCADA system, but claim SCE spent far too much for the system. Ratepayers should only have to pay for a system suitable to the size of the water utility, obtained at a reasonable cost. Protestants recommend \$500,000 as a reasonable cost. TURN recommends total denial of costs. It later agreed with Protestants that \$500,000 was reasonable. DRA supports SCE.

Protestants assert that in attempting to justify the system, SCE greatly exaggerated the extent and complexity of the five individual systems operated

by the water utility, and also greatly exaggerated the extent of the SCADA system. Mr. Hite testified that the SCADA system provides integrated control and monitoring capabilities for the water facilities at the following locations:

1. Pebbly Beach Generating Station
(central location for control and monitoring)
2. Pump House #2
3. Middle Ranch Wells
4. Wrigley Reservoir
5. Baker Tanks
6. Million Gallon Tank
7. Pressure Reducing Stations

The SCADA system for the Million Gallon Tank is included in the Isthmus Area Water Supply and SCADA project discussed below. Protestants' expert testified that all of the other locations are part of the system that serves Avalon. We conclude that this project did not integrate the many remotely-located components of a geographically extensive and very complex system. Rather, it provides data and control over a single system serving Avalon.

SCE seeks to add \$2,327,000, including the Isthmus portion of the system, to its rate base for the SCADA system. SCE's water revenue in 2009 was \$3,843,870. It had operated without a SCADA system for over 45 years. A decision to put in a system that cost 60% of operating revenue can only be based upon one consideration – tremendous cost savings. This fact is recognized by SCE. Mr. Hite testified: "One of the tenets of a professional engineering

assessment is that the recommendation must be cost-effective. ... This type of automation assists to reduce overall costs.”²⁵

To justify the cost of the SCADA system, SCE’s engineers prepared a document in which they predicted with 100% probability the following cost savings:

O&M & Admin. Labor/Personnel	\$184,500 per year
O&M \$ Admin. non-labor (Nat’l, Transp/IMM, Tools, Contr)	\$284,906 per year
SCADA Water Loss Reduction Savings	\$120,161 per year ²⁶

SCE points to this document as the justification for installing the SCADA system.²⁷ SCE has not offered one bit of evidence as to how the SCADA system has reduced costs. Mr. Hite could not identify any savings attributable to the SCADA system.

Mr. Brady discussed what other water utilities paid for SCADA systems, having himself purchased and upgraded several systems:

- The extent of the system is based upon what a utility can afford relative to its revenue stream, normally just what you absolutely need.
- Fallbrook Water District is four or five times larger than SCE’s water utility and its SCADA system cost just under \$500,000 and it also controls a wastewater treatment plant.
- Borrego Springs’s SCADA system cost \$300,000.

²⁵ Exhibit SCE-04 at 26, II. 17-19 at 27, I. 10.

²⁶ Exhibit P-8, Appendix G.

²⁷ Appendix G: The SCADA system had a \$4.3 million net present value benefit, which is a benefit—to-cost ratio of more than 2 to 1. (See, Exhibit SCE-04 at 28, II. 1-2.)

- Foothill Municipal Water District's SCADA system was estimated at \$500,000 and came in at \$365,000, and the water system is twice the size of SCE's.

Mr. Brady also explained why SCE's SCADA system cost so much:

- SCE spent \$100,000 on an engineering assessment and \$1,000,000 on engineering for a system that cost \$865,000 to install.
- SCE should have gone out for bids to companies that regularly install SCADA systems and include the cost of engineering and project management in the cost of the equipment because the engineering and technology is fairly standardized.
- There is nothing particularly unusual about Catalina Island that would impede the installation of a SCADA system.

TURN refers us to SCE's rebuttal which claimed "the SCADA system had a \$4.3 million net present value benefit, which is a **benefit-to-cost ratio of more than 2 to 1.**"²⁸ Appendix G of SCE's rebuttal testimony shows a calculation of over \$4 million in savings that will result from the increased efficiency of operations due to the SCADA system. TURN points to several problems with SCE's calculations. First and foremost, nowhere in SCE's testimony and supporting papers does the utility include the dollar savings from the increased efficiency of the SCADA system as an offset to the request in their application. Under SCE's approach, its customers bear all of the costs, but its shareholders reap all of the benefits. Furthermore, Mr. Hite admitted that SCE has not, even four years later, quantified any benefits from this system:

Q Your answer is nonresponsive. I'm asking you about savings, dollar savings that would translate to ratepayers. It is your answer that you cannot say with any certainty whether even \$0.01 was saved of this item here O&M, administrative, nonlabor, material

²⁸ SCE Exhibit-04 at 27-28 (emphasis in original).

transportation, IMM tools and contract, outside contracting, since the SCADA system was put in?

A What I've said was there was a savings. I couldn't quantify that without looking further into the details. (RT at 346.)

TURN asserts it is easy for SCE to claim that there are efficiencies from SCADA, but those claims are not based on cost savings in the data presented in this record.

SCE's witness testified that prior to the installation of the SCADA system, remotely-located water facilities were operated by personnel dispatched to each of the various locations during normal business hours. Given the remoteness of various sections of the system, the system was operated manually and very little monitoring instrumentation existed prior to the upgrade. Accordingly, potential problems with the system could go undetected for long periods of time because they could not be monitored remotely due to their antiquated instrumentation and controls. With the installation of the SCADA system, the system now can be monitored around the clock by the central control room located at the Pebbly Beach Station. As a result, operators and/or maintenance personnel can be dispatched in a timely manner to correct any trouble situations. Witness Hite said the installation of a SCADA system provides more reliable operation and maintenance as it provides real time data on the system, provides for better water management, automatically records any and all regulatory-required data, and provides for a more secure and safe operation because of the installation of intrusion monitors.

SCE disagrees with Protestants' and TURN's conclusions regarding water SCADA and asserts that the small water utility example cited by both TURN and Protestants is really not comparable to SCE's water operation on Catalina Island. SCE's water operation faces different challenges than a typical small water

utility. It is a lot easier to get to outlying facilities on paved streets or flat graded roads than it is over mountainous terrain on roads subject to being washed out or too steep and muddy to traverse. Thus, SCE contends that the SCADA system is cost-effective, and has the additional justification of reliable data acquisition for regulatory purposes. As Appendix G demonstrates, the SCADA system had a \$4.3 million net present value benefit, which is a benefit-to-cost ratio of more than 2 to 1.

SCE admits that SCE operated its water utility for over 45 years without a SCADA system. However, as Mr. Hite testified, operating the water system prior to the installation of the SCADA system is not as reliable, is more labor intensive, and could lead to unacceptable operating and reliability issues. The equipment and instrumentation and controls are not suitable for connection to a SCADA system as they are outdated. SCE maintains that the timing for the installation of the SCADA system is appropriate, because it was installed with other more recent system changes such as the replacement of Pump House #2. In response to SCE's data request, Protestants provided an evaluation that Mr. Brady conducted for the small Borrego Water District. In that assessment, Mr. Brady concluded that its water SCADA system was technologically appropriate for this small, remote water utility. SCE contends that Protestants' own witness acknowledges that a SCADA system is appropriate for small water utilities.

Mr. Hite said TURN's testimony suggests that spending \$1,200 for every customer on a SCADA system is not reasonable. In his opinion, TURN's conclusion is incorrect because it neglects the need for the SCADA system and the subsequent benefits derived, including the benefit-to-cost ratio described above.

In our opinion the SCADA system is too expensive for this small water company. Therefore, we will allow only \$500,000 of capital expenditure for the SCADA system. It is a system that cost \$2,327,000 for a company whose water revenue in 2009 was \$3,843,870, a cost of almost \$1,200 per customer. The SCADA system may be convenient but it is not necessary. However, it is useful and for that reason we will allow \$500,000. Merely because SCE spent \$2,327,000 does not make the expenditure reasonable. That is why we have reasonableness review hearings. SCE must demonstrate that the expenditure is reasonable: in our opinion, the conflicting evidence shows that \$500,000 is a reasonable expense for the SCADA system.

10.2. Pump House #2

SCE seeks \$4,567,753 for the replacement of Pump House #2. No party disputes that the pump house itself and the single horizontal pump inside needed to be replaced. The dispute is over costs. Protestants believe the cost should have been about \$2 million, which is all that should be allowed.

The pump house and its equipment were in service in 1930. The pump house and its single pump were 32 years old when SCE took over the water utility. It is the lynch-pin of the system that serves 95% of its ratepayers. The primary source of water for Avalon is three wells in Middle Canyon. Pump House #2 pumps that water to the Wrigley Reservoir which serves Avalon.

There were 1,965 water service connections in 2007, and there were 1,977 service connections in 2010, an increase of 12 connections. Demand is flat, if not lessening.

Protestants' expert, Mr. Brady, reviewed SCE's workpapers and testified that 50% of the pump house replacement cost, or \$2,268,696, was for SCE's engineering and management of the project. Material and Construction was

only \$2,229,057, and that includes \$510,000 for three vertical pumps, which Mr. Brady testified were unwarranted when a single horizontal pump had served for 80 years.

Mr. Brady testified that an engineering assessment was made to determine whether the 80+ year old pump house, which was falling down, needed to be replaced. This study took SCE's engineers over 14 months (2,470 man-hours) to complete, at a cost of \$210,000, to reach the obvious conclusion: the pump house was falling down and the pump needed to be replaced. It took over 16,000 man-hours to design the pump station that houses just three pumps. This is equivalent to eight engineers working full time for over one year. Despite the incredible amount of time charged to the project for engineering, the plans had significant errors, which resulted in \$500,000 in change orders. Mr. Brady testified that a pump station this size should require three months of onsite construction, even on Catalina Island. The construction management cost was \$527,515 and the project management cost was \$142,578. This totals \$670,093, or the equivalent of four men working for one year on a three-month project.

Protestants admit that the pump house and its single pump needed to be replaced, but state that SCE has not met its burden of proof that the amount SCE spent for the project -- \$4,567,753 -- is reasonable. In Protestants' opinion, \$2,000,000 is reasonable. Protestants argue that regulated utilities and particularly Class C utilities are typically extremely cautious about expending capital because of their limited resources. As a result, the issue is usually under-spending, not over-spending. Unlike the typical Class C water utility, SCE has virtually an unlimited capital supply from the standpoint of its water utility. However, simply because a water utility spends money on capital improvements, does not mean that the ratepayers have to repay it.

Mr. Hite testified that Pump House #2 performs a vital function in the water system in that it is the sole means of transferring water between the Island's water supply and SCE's customers in Avalon. He said the pump house replacement has been deferred for years because until recently it has continued to perform as originally intended. The pumping facility had only recently begun to experience reliability problems. In addition to correcting reliability issues, the old pump house was not very secure or safe, and security and safety are now a large part of SCE's engineering and operating criteria. Mr. Hite said that SCE had years of experience with regard to water systems and pump houses. The engineering required to design or improve steam electric generating stations, hydroelectric generating facilities, and fuel oil storage pumping and piping systems is all applicable to water systems and pump houses. All of the engineers and designers in SCE's Engineering and Technical Services (E&TS) group have many years of appropriate experience. Over the years, the E&TS group has designed, installed, and started up many pumping systems.

Protestants argue that moving the pump house 60 feet up the valley would have saved \$250,000 in tree removal and foundation costs. Mr. Hite said there is no evidence in support of this number. Furthermore, moving the pump house 60 feet up the valley would have had it located outside of the existing lease area with the Catalina Island Conservancy. Acquiring new land lease rights would have added time to the schedule and expense to the overall project.

Protestants argue that SCE spent an inordinate amount of engineering cost/time, 2,470 man hours, to reach an obvious conclusion. Mr. Hite countered the time was necessary because it also included the time to perform preliminary engineering for a number of alternatives, to develop the scope of the work, material list, resource schedule for each alternative, and to perform the cost

estimates for each alternative. It also included a number of scope changes during the process. This work in developing the scope of work for various alternatives is part of a standard engineering evaluation.

Protestants argue that the pump house was over-designed, resulting in unneeded construction. Mr. Hite countered that in addition to the pump house, there were additional items included in the cost of the project:

1. The design for the relocation of the Middle Ranch Canyon Creek.
2. A new flood control channel was designed which also required the design of a footbridge across the channel. This design had to be redone to cope with the watershed threat as a result of the May 2007 wildfire.
3. A no-climb fence required for water system security.
4. A new concrete driveway
5. A new Motor Control Center and electrical switchgear.
6. The following items required by the Los Angeles County Fire Department (LACFD):
 - a. A new fire suppression system consistent for the severe hazard Zone IV region of Catalina;
 - b. A new, exterior underground fire water system with a hydrant for use by the LACFD; and
 - c. A graded three-point turn area to accommodate LACFD fire trucks.

In addition, the LACFD required a fire water flow of 1,250 gallons per minute (gpm) which SCE could not provide without expanding the size of the entire pump house water supply. SCE expended a considerable amount of time negotiating a variance with the LACFD to get them to accept a smaller fire water flow (775 gpm) that could be provided by the existing water system. This negotiation resulted in significant savings.

Mr. Hite testified that Protestants argue, without any analysis, that the engineering for a project this size should not have been over 10% of the total cost. Protestants do not provide support or data for this number. The 10% number might be reasonably accurate for a "greenfield site," but it does not take into consideration the unique circumstances of designing a retrofit installation, some of which were:

1. The "as-is" conditions had to be verified;
2. Demolition packages had to be prepared;
3. System, equipment, components, construction methods, etc. had to be examined and designs made to accommodate the complex design conditions that exist on the site and to minimize the costs of transportation to and from an island location; and
4. There were numerous regulatory and permit compliance required changes.

Mr. Hite testified the engineering required for this project is consistent with projects that are similar in size, scope, and complexity. While it is true that SCE spent \$1,388,603 on Engineering, Technical Support & Permits, this amount is warranted by the scope of work and the scope changes during the course of the project.

Protestants stated that despite the incredible amount of time charged to the project for engineering, the plans had errors which resulted in \$500,000 in change orders. Mr. Hite testified that that figure is overstated and not supported with factual evidence. He said Protestants have apparently equated scope changes with errors. While there may be inevitable errors in a design, by far the greatest cost changes in this project are related to the changes in scope and/or unforeseen events once the project had begun. The great majority of the approximately \$500,000 in change orders relates to a single change order in the

amount of approximately \$350,000 as a direct result of the unanticipated May 2007 fire.

Protestants state that “The cost of over \$510,000 for pumps and motors is over twice what the cost should be for a pump station this size.” Mr. Hite testified that Protestants’ number is simply wrong. He said that the materials cost for the project totaled approximately \$510,000, including approximately \$95,000 in scope changes during the project to up-rate the pump capabilities and add the fire system as required by the fire department. The pumps and motor did not cost \$510,000; they cost \$225,000; the total cost for all of the construction materials was \$510,000.

Protestants state that MCS Construction received a contract of \$1 million to construct Pump House #2 and argue that it would have been considerably less if the project had not been over-designed by SCE’s engineers. Mr. Hite responded that Protestants’ claims are erroneous. The final contract for MCS Construction was approximately \$1.5 million, and with the \$510,000 for materials the total cost of these two items is approximately \$2 million. The remainder of the \$2,229,057 (approximately \$230,000) was for such items as tree removal and trimming, and other construction-related contracts such as environmental remediation, inspection services, etc.

Mr. Hite contends Protestants argue without any factual analysis that the construction schedule should have been only three months. This argument is not a realistic reflection of the actual facts surrounding the construction of the pump house. The schedule was considerably longer due to the scope changes that occurred during construction, most notably the flood channel redesign necessitated by the May 2007 fire. The fire itself also delayed the project schedule.

Mr. Hite contends that Protestants argue without any factual analysis that SCE spent \$142,578 on project management costs and \$527,515 for construction management for a total cost of \$670,093, or four men for one year on a three-month project. This project took over two years for all of the work to be done including the preliminary engineering, permitting, final engineering, construction, start-up, testing and turnover to Operations. To manage this project required \$142,578 and \$528,000 in project and construction management. SCE claims the \$4,567,753 replacement cost for Pump House #2 is both reasonable and justified and should be included in the GRC.

DRA supports SCE because SCE utilized competitive bidding in selecting the contractors and supply vendors to build the new pump house, and it awarded the work to the lowest bidder (about 30% lower than the second lowest bidder). Any cost increases in this project were due to change orders/scope changes. These changes included constructing the Fire Department Connection (FDC), diverting the existing stream that flows in front of the old pump house to preserve the environment, and installing special fences to prevent the Island wildlife from entering the facility. SCE explained to DRA that the LACFD requested the FDC and the Island Conservancy requested diverting the stream and fence. There were all special provisions that are not typical of a water utility's plant construction projects. Lastly, the pump house is similar to other facilities DRA has observed with other Class A water utilities.

Our concern is the cost, especially the engineering costs. We agree that the construction was necessary, but the engineering costs were excessive. There is something radically wrong when the experts can differ so widely on the time necessary to replace, at the site, a pump house and one pump for a Class C water company. Mr. Brady says three months; Mr. Hite says two years. SCE charged

\$2,267,000 for engineering and project management by its own engineering department out of a total cost of over \$4,500,000. This was not part of a competitive bid. DRA argues that the pump house is similar to other facilities DRA has observed with Class A water utilities. That observation is the heart of the problem. SCE's water utility is a Class C water utility. It has less than 2,000 connections. A Class A utility has at least five times the customers and should be able to afford more elaborate facilities. When possible we should avoid saddling ratepayers with facilities they cannot afford. The SCADA system is a prime example; the excessive pump house costs are another. We agree with Mr. Brady: a Class C utility operator would have constructed the pump house at a much lower cost. We find that \$2,500,000 is a reasonable cost to put in rate base for Pump House #2.

10.3. Pebbly Beach Water Line Replacement

In 2006, SCE installed a new fresh drinking water pipeline to the Pebbly Beach Village at a cost of \$393,420. Only DRA opposes its costs, because of cost-sharing of a combined fire water and drinking water project with the Santa Catalina Island Company that fell through. In DRA's view, SCE's customers should not have to pay for fire water infrastructure, which in this case is the responsibility of the Island Company. SCE explained that when the Island Company delayed on the potential joint project, SCE unilaterally went forward and built the drinking water line *only*. The Island Company built its own fire water line. Accordingly, SCE is asking that its customers pay only for drinking water infrastructure, which is used and useful and providing service to SCE's ratepayers. We agree. The \$393,420 cost for the Pebbly Beach Water Line Replacement project is reasonable and justified and should be approved.

10.4. Middle Ranch Canyon Bedrock Piezometer Project Costs

SCE seeks \$392,064 for this project. No party objects to these project costs and they should be approved.

10.5. West End Pipeline Replacement Project

SCE seeks \$754,951 for this project. Protestants agree that the pipeline needed to be replaced, but, they contend, it should have been replaced long ago. They claim this is another project where engineering and project management -- \$280,298, or 37% of the project cost -- is much greater than a project of this nature should incur. This was simply a project to replace a 60-year old pipe that failed. SCE said it does not replace safe piping that might not need replacing for years or decades. Mr. Brady testified that Commission-regulated water utilities have a regular program of updating and upgrading their systems and replacing infrastructure. SCE's approach puts the cost of replacement on current ratepayers when a pipeline fails, instead of spreading it over the years the ratepayers are benefiting from the pipeline. Protestants recommend that current ratepayers should not be saddled with costs that should have occurred earlier; the amount SCE seeks should be reduced by 50%. We disagree. The water line needed to be replaced, and the \$754,951 cost is reasonable.

10.6. Isthmus Area Water Supply and SCADA

SCE seeks to have \$975,147 added to its rate base for repairs to the Million Gallon Tank, for installation of a portion of the SCADA system, and for installation of a supply line to a single customer. The SCADA installation cost was \$140,000. The single customer is the Banning House at the Isthmus; the installation cost \$340,000. The cost of repairs to the Million Gallon Tank was \$495,000.

The Isthmus Area Water Supply system used the Million Gallon Tank as the core of its operation. The Million Gallon Tank was constructed in 1967 as part of the “Enlarged Water Facilities” project in order to meet the fire water needs of the University of Southern California (USC) Marine Biology Laboratory located in Fisherman’s Cover. The tank was constructed to hold 900,000 gallons of fire water storage and an extra 100,000 gallons of storage capacity to serve the Isthmus community on the west end of the Island. Studies between 2002 and 2006 indicated that the tank level frequently fell well below the required 900,000 gallon level necessary for fire protection. This was not only unacceptable based on the 900,000 gallon commitment for fire water supply, but it also meant that the remaining 100,000 gallon storage that acted as backup to the Isthmus water system was often not available in case of an emergency. The Isthmus system also feeds the Banning House (a hotel in the Isthmus area) which sits about 150 feet above the rest of the system. Water pressure had decreased to an unacceptable level. In order to alleviate this problem, a new 3-inch polyethylene pipe loop was constructed to the Banning House.

Mr. Hite testified that the work was necessary for fire protection and safety reasons, to comply with SCE’s agreement with the USC laboratory, and to solve other associated piping and controls problems in the Isthmus water supply system. The Million Gallon Tank was built solely to provide fire protection for USC’s facilities located at the Isthmus. The LACFD required USC to have 900,000 gallons available for fire protection. It was built pursuant to an agreement dated November 1, 1967, between USC and SCE²⁹ which provides

²⁹ Exhibit SCE-06.

that “so long as [SCE] is obligated to provide public utility water service to the Laboratory, [SCE] will operate and maintain the Enlarged Water Facilities.”³⁰ Paragraph 4 of the agreement provides a cost-sharing formula; a letter dated May 3, 1979, provided by SCE shows a cost-sharing formula of 90% to USC and 10% to SCE.³¹

SCE has not met its burden of proof with regard to the entire \$975,000. A substantial portion of the amount sought should have been borne by USC. Ratepayers should not be charged for maintaining USC’s fire protection tank. We calculate the appropriate amount as follows:

SCE Request		\$975,000
Less Banning House	\$340,000	
Less SCADA	<u>\$140,000</u>	
		<u>\$495,000</u>
Less 90% to USC		<u>-445,500</u>
Rate base – Million Gallon Tank		\$ 49,500
- Banning House		<u>340,000</u>
Total Rate Base		\$389,500

We find it reasonable to add \$389,500 to SCE’s rate base for the repairs of the Million Gallon Tank and the line to the Banning House.

10.7. Thompson Reservoir Safety Drain System (Siphon)

10.7.1. Background and Project Need

The Thompson Dam Middle Ranch Reservoir captures rainwater runoff, and is hydrologically connected to the groundwater wells which provide the majority of the Island’s fresh water. During a routine inspection in 2004 of the

³⁰ *Id.* at paragraph 3 of the Water Facilities Agreement.

³¹ *Id.*

dam that impounds the reservoir, the California Department of Water Resources Division of Safety of Dams (DSOD) questioned the operability of the 10-inch emergency drain line that was a part of the original construction of the dam prior to SCE taking over the water system on Catalina in 1962. The drain was subsequently tested and found to be inadequate to meet the DSOD requirements due to plugging.³² The line was cleared, but it soon partially plugged once again. In parallel, SCE conducted engineering calculations that demonstrated the inability of the originally-installed 10-inch drain line to meet current DSOD criteria for a 7-day drawdown, even if the plugging were completely eliminated. Thus, SCE determined that new drainage facilities sufficient to comply with DSOD requirements needed to be installed.

SCE installed a siphon at Thompson Reservoir at a cost of \$2.160 million, so that the reservoir could be quickly drained in the event that the structural integrity of the dam is damaged in an emergency, in accordance with DSOD regulations. DRA supports the cost of the project. TURN questions its costs. Protestants argue that the project is a result of a failure to maintain existing infrastructure. The DSOD questioned the operability of the 10-inch emergency drain line. Protestants say this is not surprising. The drain had to be regularly operated and maintained. SCE failed to do so. Ultimately, the drain was abandoned and replaced with a siphon, but not, in Protestants' opinion, before an inordinate amount of money was spent on an engineering assessment -- \$659,000, or 31% of the amount sought; an incredible 63% of the project cost was spent on engineering and project management. Regarding the maintenance

³² The emergency drain is necessary to relieve pressure in case of a seismic event or other emergency that weakens the dam.

issue, SCE explained that the original drain, even if perfectly maintained, would not have met the new DSOD requirements. We find that Protestants' arguments do not adequately consider the necessity of this safety- and regulatory-requirement-driven project.

While the overhead costs seem high, the problems encountered during the safety review provide sufficient explanation. The \$2.160 million cost for the Thompson Reservoir Siphon project is reasonable and justified.

10.8. Catalina Island Fire – Watershed and Above-Ground System Restoration

SCE spent approximately \$3.2 million to repair and replace necessary capital infrastructure after the May 10, 2007 wildfire that destroyed more than 4,200 acres of watershed area and severely damaged the potable water system to the city of Avalon. SCE requests that the entire \$3.2 million be included in rate base. DRA recommended that SCE only recover approximately \$920,000 from ratepayers, and that SCE's insurance policy should have covered the balance. Protestants argue for a complete disallowance of the \$3.2 million, essentially maintaining that SCE should have obtained fire insurance that would have covered all of the damage.

SCE's fire insurance has a \$5,000,000 deductible. Protestants argue that the only reason SCE has a \$5,000,000 deductible is to benefit its electrical ratepayers and its shareholders, because such a deductible greatly reduces the overall cost of insurance for its electric business. However, the deductible has the effect of making the water utility's ratepayers self-insurers, something they cannot afford to be.

Mr. Brady testified that a water utility acting reasonably carries fire insurance. It is not reasonable for a water utility to make ratepayers

self-insurers. On cross-examination, Mr. Brady was asked what the water district he now heads pays for insurance. He testified that the district has \$110 million in assets, that it pays \$58,000 a year for general liability and property damage insurance, and that the policy has a \$25,000 deductible. The fire portion of the policy costs \$31,000, with a \$10,000 deductible.

DRA was able to obtain the property insurance deductible information from eight water utilities, of which we take official notice. In order to preserve the confidentiality of each company, DRA presented generalized information that shows a given deductible amount based on the level of rate base:

Rate Base Level	Deductible
\$450 to 600 million	\$100,000
\$80 to 90 million	\$50,000
\$300 to 800 million	\$25,000
\$45 to 50 million	\$10,000
\$28 to 38 million	\$5,000

It is clear that a \$5,000,000 deductible applicable to SCE's water utility is not reasonable. SCE should have provided fire insurance covering its water utility with a small deductible. Based upon DRA's information, that deductible should be \$5,000. We cannot find that it is reasonable to include these fire-related infrastructure replacement expenditures in rate base and therefore disallow the entire \$3.2 million.

11. Potential Sale of the Water Utility

It is Protestants' contention that starting in approximately 2002, SCE's capital expenditures were motivated in substantial part by the rundown condition of the system's infrastructure and its small rate base which made the utility unattractive to potential buyers. Protestants claim that while the expenditures are of marginal benefit to ratepayers, they were not made simply to

assure ratepayers a safe water supply at reasonable rates, as SCE contends. They were made, in substantial part, to make the water utility saleable. Current ratepayers should not have to bear the burden of deferred capital expenditures or capital expenditures intended to make the water utility attractive to a buyer.

SCE agrees that it has been attempting to sell its water utility, but SCE argues that if it sells its water assets at a price equal to its investment in the assets as planned, it will make no profit. SCE will actually lose money because of the several hundred thousand dollars of sale-related transaction costs it has incurred and is continuing to incur, all of which SCE is specifically tracking and charging to a shareholder expense account. SCE denies Protestants suggestion that SCE simply decided to sell the assets for \$35 million, then decided to put millions of dollars of investment at risk in an effort to bring rate base in line with that number, all so that SCE could complete a transaction in which it will lose money.

We prefer not to involve ourselves in deciding whether or not a potential sale influenced the capital expenditures. The better course is to review the capital expenditures within the criteria of a general rate case to determine if the expenditures assure the ratepayers of a Class C water company a safe water supply at reasonable rates. We have analyzed those expenditures in the preceding sections of this decision. Therefore, we find that the potential sale (or not) of the water company is irrelevant to the issues in this application.

12. Depreciation

TURN proposed to reduce depreciation expense by \$200,000 as a step toward mitigating the impact of SCE's proposed near-doubling of the Catalina water utility revenue requirement. Protestants agree with TURN. SCE says its proposed depreciation rates are just and reasonable. DRA agrees with SCE.

TURN argues that reducing depreciation expense will not harm shareholders in the long term; it will just defer recovery of costs to the future. SCE responds that this is a common argument that fails to capture the long-term effects of deferring depreciation expense. In fact, the deferral of depreciation expense harms customers and shareholders alike over the life of the assets. SCE says TURN fails to address that, although the deferral of depreciation expense benefits current ratepayers, the burden of funding the deferral is passed on to future ratepayers who will be paying amounts greater than the service value of assets received.

We have deferred depreciation expense in the past to mitigate rate shock, and may do so in the future; but it is not warranted in this rate case given that this decision maintains the existing revenue requirement.

13. Taxes

No party challenges SCE's forecast tax expense, as modified by our adopted revenues, and it will be adopted.

14. Rate of Return

SCE's proposed rate of return in this proceeding is 8.74%, almost the same number authorized for SCE's company-wide operations (8.75%). DRA noted that the use of SCE's company-wide rate of return provides a direct benefit to Catalina customers by lowering the revenue requirement, when compared to the higher rate of return granted to Class C and D water utilities by the Commission. Thus, Catalina customers have been enjoying this savings since SCE has owned the operations. TURN, however, argues that SCE's rate of return for its water operations should be set as if it were a Class A water utility. SCE asserts there is no basis for such a proposal. No intervenor claims that SCE's water utility is a Class A water utility.

We agree with SCE. It is reasonable to adopt 8.74% as the rate of return for the Catalina Water subsidiary, an approach that is consistent with precedent and is beneficial to ratepayers.

15. Alternate Ratemaking Proposal

SCE proposes that, if the Commission decides that it would be inequitable for Catalina water customers to bear the entire cost of service reflected in SCE's rate increase proposal, an alternate cost recovery mechanism is acceptable to SCE. SCE's proposal will have the effect of keeping average Catalina water rates stable while ensuring SCE's full recovery of the reasonable and prudent capital expenditures and ongoing costs to operate the system. SCE's alternate proposal would remove approximately \$19 million from rate base (thus keeping the revenue requirement to be recovered from Catalina water customers at the same level as current revenue requirements), and seek a one time recovery of the approximately \$19 million from SCE's approximately 4.8 million electric customer accounts.

SCE recognizes that this alternate rate recovery structure is novel, but notes that Catalina water capital infrastructure (which represents the bulk of the money transferred to electric rate base under this alternate scenario) benefits a much broader group than the limited water ratepayer base. About 805 of Catalina's businesses are dependent upon the tourism industry, and the water infrastructure that serves those businesses is therefore largely built to serve tourists, and not only water ratepayers. In fact, although Catalina has only 1,934 water ratepayers, it has approximately 750,000 annual visitors. These tourists all use and enjoy the water infrastructure. Correspondingly, about 80% of Catalina's water ratepayers work in the tourism industry. This shift of costs will reduce SCE's proposed 2011 test year revenue requirement to \$3.948 million.

Upon Commission approval of this cost recovery structure, SCE would file an advice letter to recover these costs through electric rates from customers across SCE's system over a one year period. Nowhere has SCE identified the approximately \$19 million it proposes to remove from its water utility's rate base. The amount SCE seeks to remove exceeds the \$15,930,000 it seeks to add to its rate base.

We agree that SCE's water utility exists not only to serve the permanent residents on Catalina, but also the many tourists that come to Catalina from the mainland, the majority from areas where SCE provides electric service. According to the 2010 US Census, about 4,000 people live on the island. This number contrasts with the number of tourists:

- Over 600,000 visitors who come to the island on cross-channel boats.
- 68,000 visitors to the seven camps which cater primarily to school-age children.
- 40,000 visitors who come to the island by private plane.
- Private boaters who come to the island and stay at the various yacht clubs.
- 6,000 visitors who stay at the various campgrounds open to the public.

Approximately 750,000 people visit the island every year. There are over 200 times more visitors than there are residents. The water system primarily serves those visitors. Protestants argue there is no easy way to pass on the cost of water to the tourists who use it. Businesses serving tourists must compete with mainland attractions that enjoy much lower water rates. SCE's proposal is a reasonable way to at least partially achieve that goal. Many Catalina ratepayers who already have what are currently the highest rates in California face a

doubling or more of their current bills. The ratepayers would welcome the relief, as was made clear at the public hearing.

Protestants support SCE's alternate proposal.

Both DRA and TURN oppose the alternate proposal. DRA classifies the proposal as a subsidy which provides no benefit to the 4.8 million SCE electrical customers, ignoring the fact that it is those customers who make up a significant proportion of the visitors to Catalina Island. As a class, the 4.8 million customers do benefit.

TURN claims there is no common nexus, other than corporate ownership, between Catalina ratepayers and SCE electric service customers, also ignoring the fact that a significant proportion of the visitors come from the class consisting of SCE's electrical ratepayers. They do not come in any great number from San Diego or Northern California, as TURN suggests.

We adopt SCE's alternate rate proposal. SCE proposes an allocation methodology whereby approximately \$19 million of water utility plant in service would be allocated to electric operations in furtherance of the goal of reasonable rates for water utility customers. This proposal is supported by the water customers. The objections of DRA and TURN are not persuasive. From the viewpoint of the customers providing the subsidy the kind of utility service being subsidized is irrelevant. Due to the unique circumstances of SCE's diverse public utility operations and consistent with the principles underlying regional water rates, we grant SCE's request. Because our objective is to avoid a rate increase, we shift \$7.780 million (rather than \$19 million) of the water company's rate base to the electric side.

Our adoption of SCE's alternate proposal is consistent with past decisions regarding SCE's operations on Catalina Island and with more general principles

regarding cost allocation. In a prior SCE Catalina water case we reviewed favorably what we had done on the electric side when we shifted \$2 million of the Catalina Island electric revenue requirement to the mainland electric ratepayers. In D.83-10-045 we said:

Through integrating electric rates with the mainland in 1983, as authorized by D.82-03-059 dated March 16, 1982 in Application (A.) 611038, approximately \$1 million in annual base rate revenue requirements was shifted from Catalina to mainland electric ratepayers. Also, sometime in 1984 the current Energy Cost Adjustment Clause (ECAC) surcharge for Catalina will terminate, resulting in an annual reduction of about \$250,000.^{fn}

^{fn} The surcharge was established by D.93129 dated June 2, 1981 in A.59830 to amortize the amount in the Catalina Balancing Account upon merging Catalina ECAC rates with ECAC mainland rates. This ECAC merging also shifted approximately \$1 million in Catalina revenue requirements to mainland electric ratepayers. (D.83-10-045 in A.83-01-35 at 4.)

In our discussion of A&G expenses, *supra*, we noted that for 48 years prior to this application, SCE allocated no A&G expenses to its water or gas utility, allocating those expenses to its electrical customers. In addition, the four-factor allocation of common overheads is at best an approximation, with the strong possibility of cross-subsidization. Common costs are allocated between gas and electric customers in utilities such as PG&E and SDG&E. The possibility of cross-subsidization is evident, but minor. So it is here. The shift of \$7.780 million in a company with a \$10 billion revenue requirement is a de minimis impact to electric ratepayers which will keep water rates on Catalina Island just and reasonable. It is appropriate. There is a compelling need for rate relief on Catalina Island and the adopted alternate proposal will have a minimal impact on SCE's 4.8 million electric ratepayers. (cf. Re, Single Tariff Pricing, D.00-06-075 at 15-19.)

15.1. 2011 Results of Operation Comparison (\$000)

		SCE		
		SCE present	Recommended	
		<u>Rates</u>	<u>Rates</u>	<u>Adopted Rates</u>
<u>Operating Revenue</u>				
	General Metered Sales	\$ 3,948	\$ 7,118	\$ 3,842
		\$ 3,948	\$ 7,118	\$ 3,842
<u>Operating Expenses</u>				
615	Purchased Power	\$ 291	\$ 291	\$ 291
681	Other Volume Related Expenses	0	0	0
630	Employee Labor	\$ 819	\$ 819	\$ 819
640	Materials	\$ 251	\$ 251	\$ 251
650	Contract Work	\$ 1,017	\$ 1,017	\$ 600
660	Transportation Expenses	\$ 49	\$ 49	\$ 49
664	Other Plan Maintenance	0	0	0
670	Office Salaries	\$ 110	\$ 110	\$ 110
671	Management Salaries	\$ 35	\$ 35	\$ 35
674	Employee Benefits	0	0	0
676	Uncollectibles Expense	\$ 9	\$ 16	\$ 9
678	Office Services & Rentals	0	0	0
681	Office Supplies & Expenses	\$ 15	\$ 15	\$ 10
682	Professional Services	0	0	0
684	Insurance	0	0	0
688	Regulatory Commission Expense	0	0	0
689	General Expenses	\$ 31	\$ 31	\$ 31
	A&G Allocation	\$ 674	\$ 535	535
800	Minus expenses capitalized	0	(\$ 148)	(\$ 147)
480	Revenue Credits	(\$ 154)	(\$ 154)	(\$ 154)
689	Franchise Fees	\$ 39	\$ 71	\$ 38
	Escalation	\$ 157	\$ 152	\$ 135
	Subtotal	\$ 3,343	\$ 3,090	\$ 2,612
	Depreciation	\$ 774	\$ 774	\$ 592
	Taxes Other Than Income	\$ 282	\$ 282	\$ 180
	Income Taxes	(\$ 462)	\$ 890	(\$ 360)
	Total Deductions	\$ 3,937	\$ 5,036	\$ 3,024
	Net Revenue	\$ 11	\$ 2,082	\$ 818
	Rate Base	\$ 23,808	\$ 23,780	\$ 9,357 ³³
	Rate of Return	0.05%	8.75%	8.74%

³³ \$7,780,000 has been transferred to electric rates per SCE's alternate rate proposal.

**16. Recovery of the purchased Power Expenses
Memorandum Account (PPEMA) and Catalina Water
CARE Memorandum Account (CWCMA)**

SCE requests cost recovery of the expenses recorded in the PPEMA and CWCMA from the inception of these accounts through the date of a final decision in this application. A summary of the undercollected balances of \$194,000 recorded in the PPEMA and the CWCMA from 2008 through September 30, 2010, is set forth below. In accordance with Resolution W-4665, SCE proposes to recover the undercollected balances in the PPEMA and the CWCMA through rates effective upon the issuance of a Commission decision in this proceeding, over a one year period. SCE proposes to update its undercollected balances when it submits its compliance advice filing upon receiving a final Commission decision. SCE also proposes to eliminate the PPEMA and CWCMA once the Commission authorizes SCE to include the undercollected balances in rates. No party objects; this approach is reasonable and recovery is approved. SCE should file a Tier 2 advice letter to amortize the balances in the PPEMA and CWCMA as of the effective date of this decision.

Southern California Edison Company
September 30, 2010 Balance
Thousands of Dollars

PPEMA	\$127,000
CWCMA	\$67,000
Total	\$194,000

17. Rate Design Issues – Settlement

SCE, DRA, TURN, and Protestants (collectively, Joint Parties) move the Commission to adopt the Joint Parties' Settlement of Rate Design Issues

(settlement), Appendix A. We adopt the Settlement as reasonable in light of the whole record, consistent with law, and in the public interest.

The Joint Parties discussed and reviewed the various parties' proposals regarding revenue allocation and rate design. A goal of the discussions was to correct the disparity between residential and non-residential cost recovery in the current rate design. Thus, the majority of the discussion centered on developing an allocation structure that provided equity across rate classes while sending a strong conservation signal during the high usage summer period. The Joint Parties recognized the goals of equitable cost recovery and conservation could be achieved by adjusting: (1) the amount of revenue recovered through fixed charges as opposed to volumetric charges; (2) the allocation of volumetric revenue recovered from the residential and non-residential classes and; (3) the differential between the summer and winter volumetric rates. By adjusting these parameters, the Joint Parties ensure the overall revenue allocation is representative of the usage distribution across rate classes, where 49% of the water is used by the residential class and the remaining 51% used by the non-residential classes. The overall revenue allocation in the Settlement results in 49% of revenues recovered from the residential class with the balance recovered from non-residential classes. When applied to SCE's forecasted sales and current (and adopted) revenue requirements, the Settlement results in an overall average rate for the residential class of \$30.40 per 1,000 gallons. The overall average for the non-residential class is \$30.00 per 1,000 gallons. The addition of SCE's requested revenue requirement results in overall averages of \$56.30 and \$55.50 per 1,000 gallons for the residential and non-residential classes, respectively.

A comparison of the average monthly bills associated with current rates and settlement rates is shown in the table below. The average bills resulting from the settlement are shown at two different revenue requirement levels to illustrate the effects of the Settlement adjustments alone (Column C), and the effects of the Settlement adjustment with SCE's requested revenue requirement increase in this application (Column D). For example, a residential customer with an average monthly bill of \$74.04 under current rates and the current revenue requirement would have a bill of \$90.49 as a result of the revenue allocation and rate design changes proposed in this Settlement alone. Adding the full revenue requirement changes proposed in this application to the settlement rate design would result in an average monthly bill of \$167.65 for this same residential customer. Similarly, a commercial customer with an average monthly bill of \$549.98 under current rates would have a bill of \$500.84 as a result of the Settlement revenue allocation and rate design changes. Adding the full revenue requirement adjustment proposed in this application to the settlement rate design would result in an average monthly bill of \$927.84 for this same commercial customer.

Average Monthly Bill by Customer Type³⁴

(A)	(B)	(C)	(D)	(C)/(B)	(D)/(B)
Customer Type	Current Rate	Settlement Rates at Current Rev. Req.	Settlement Rates at Full Rev. Req.	Impact at Current Rev. Req.	Impact at Full Rev. Req.
Res	\$74.04	\$90.49	\$167.65	22%	126%
Res-Dual	\$195.58	\$206.30	\$382.73	5%	95%
Res-CARE	\$74.00	\$88.38	\$163.73	19%	121%
Res-CARE-Dual	\$65.16	\$77.58	\$143.73	19%	121%

³⁴ The rates shown in this table are illustrative only. The actual rates are set forth in Appendix B.

Res-DE	\$89.35	\$106.39	\$197.09	19%	121%
Dual	\$105.99	\$117.23	\$217.17	11%	105%
Res-MM ¹	\$881.54	\$552.34	\$1,023.26	-37%	16%
Com	\$549.98	\$500.84	\$927.84	-9%	69%
Com-CARE	\$27.92	\$41.36	\$76.62	48%	174%
IRRI	\$345.00	\$326.67	\$605.19	-5%	75%
FIRE	\$44.76	\$49.11	\$90.98	10%	103%
Total	\$165.34	\$165.65	\$306.88	0%	86%

¹ Monthly bills shown are at the Master Meter Level.

17.1. The Settlement is Reasonable in Light of the Record

Rate design and revenue allocation are essentially a zero sum game – in the water context, if commercial customers’ revenue allocation goes up, residential customers’ revenue allocation must go down. Protestants’ opening position was that commercial customers should pay less and residential customers should pay more than under SCE’s proposed revenue allocation. DRA’s opening position was the opposite, i.e., that residential customers should pay less and commercial customers should pay more than under SCE’s proposed revenue allocation. The settlement is a fair compromise essentially in the middle of those two positions. In addition, the Settlement resolves other issues around rate design and revenue allocation that are unique to Catalina Island, including issues surrounding multi-family units and campgrounds. Overall, the settlement is reasonable in light of the record.

17.2. Rate Design

SCE, DRA, TURN, and Protestants have reached a nearly-comprehensive settlement on rate design issues. The one exception to the rate design settlement is SCE’s proposal to continue the Domestic Employee (DE) discounted rate of 25%. Protestants do not agree with the discount. This discount (which has a *de minimus* effect on rates) is currently implemented pursuant to a

Commission-approved tariff and it should be continued. We believe the proposed rate design reached in that settlement to be just and reasonable, as is the DE discount.

17.3. The Settlement is Consistent With Law

In agreeing to the terms of the Settlement, the Joint Parties explicitly considered the relevant statutes and Commission decisions. The Settlement does not violate applicable statutes or prior Commission decisions.

17.4. The Settlement is in the Public Interest

The Settlement resolves long-standing disputes between Protestants and SCE regarding revenue allocation and rate design issues and also issues TURN and DRA raised regarding the alternative rate design proposals. Therefore, adoption of the Settlement will likely result in the avoidance of future litigation and the conservation of scarce Commission resources. In addition, DRA and TURN, representing a broader group of California ratepayers, are signatories to the Settlement. Accordingly, the Settlement is in the public interest.

18. Comments on Proposed Decision

The proposed decision of ALJ Barnett in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were by SCE, DRA, TURN, and Protestants. We have reviewed the comments and modify the proposed decision as follows: we allow \$500,000 for SCADA; allow \$535,000 for A&G expenses; reduce the operating revenue by \$106,000; and reduce the rate of return from 8.75% to 8.74%. Rate base has increased by \$3.791 million and the amount transferred to electric rates has been reduced from \$10.704 million to \$7.786 million.

19. Assignment of Proceeding

Michael R. Peevey is the assigned Commissioner and Robert Barnett is the assigned Administrative Law Judge in this proceeding.

Findings of Fact

1. SCE's water utility is a Class C water utility, with the highest rates of any water utility in California.
2. The past five years of Account 615-Power for Pumping costs were between \$256,000 and \$387,000. We find that for test year 2011, \$291,000 is reasonable.
3. Test year 2011 Account 630-Labor costs of \$819,000 are reasonable.
4. Test year 2011 Account 640-Materials costs of \$251,000 are reasonable.
5. SCE has not shown why 2011 differs from prior years where Account 650-Contract Work was substantially below the requested amount of \$1,017,000. Nor has SCE shown why the annual reports differ substantially from Mr. Hite's statement of yearly expenditures. SCE has not met its burden of proof. But, as there is a need for Contract Work, we estimate that \$600,000 is a reasonable amount in test year 2011.
6. Because of the constant use of equipment to service the water system, we consider test year 2011 Account 660-Transportation Expenses of \$49,000 on the high side, but reasonable.
7. We find SCE's recommended test year 2011 Account 670-Office Salaries of \$110,000 to be reasonable.
8. SCE's estimate of \$35,000 for test year 2011 Account 671-Management Salaries is reasonable.
9. SCE's water customers are on the same bill as electric customers so the uncollectibles would be the same. Account 670-Uncollectibles Expense of \$9,000 for test year 2011, is reasonable.

10. SCE has not met its burden of proof for Account 681-Office Supplies. A practicable estimate for the account is \$10,000 for test year 2011, which we find reasonable.

11. Because travel and lodging are needed to operate the water company, we find \$31,000 to be reasonable for Account 689-General Expenses for test year 2011.

12. For test year 2011, we find \$153,000 in Account 480.2-Other Operating Revenue, to be reasonable.

13. For test year 2011 A&G Expenses of \$535,000 are reasonable.

14. Approval of the requested amount for station office betterment is denied. SCE may request a reasonable amount for this project in its next water rate case.

15. We allow \$500,000 of capital expenditure for the SCADA system. It is a system that cost \$2,327,000 for a company whose water revenue in 2009 was \$3,843,870, a cost of almost \$1,200 per customer. The SCADA system is convenient but not necessary. However, it is useful and for that reason we allow \$500,000.

16. SCE seeks \$4,567,753 for the replacement of Pump House #2. No party disputes that the pump house itself and the single horizontal pump inside needed to be replaced. The dispute is over costs. Protestants recommend recovery of \$2 million.

17. The pump house and its equipment were in service in 1930. The pump house and its single pump were 32 years old when SCE took over the utility. 50% of the cost, or \$2,268,696, was for SCE's engineering and management of the project. Material and Construction was only \$2,220,057, which includes \$510,000 for three vertical pumps to replace the single horizontal pump which had served for 80 years. It took SCE about two years to complete the project.

18. SCE charged \$2,267,000 for engineering and project management by its own engineering department out of a total cost of over \$4,567,000. This was not part of a competitive bid.

19. DRA states that the pump house is similar to other facilities DRA has observed with Class A water utilities. SCE's water utility is a Class C water utility. It has less than 2,000 connections. A Class A utility has at least five times the customers and should be able to afford more elaborate facilities. When possible, we should avoid saddling ratepayers with facilities they cannot afford. The pump house was built at an excessive cost. A Class C utility operator would have constructed the pump house at a much lower cost. We find that \$2,500,000 is a reasonable cost to put in rate base for Pump House #2.

20. The \$393,420 cost for the Pebbly Beach Water Line Replacement project is reasonable.

21. The \$392,064 for Middle Ranch Canyon Bedrock Piezometer Project costs is reasonable.

22. The West End Pipeline needed to be replaced; the \$754,951 cost is reasonable.

23. The Million Gallon Tank was built solely to provide fire protection for USC's facilities located at the Isthmus. The LACFD required USC to have 900,000 gallons available for fire protection. It was built pursuant to an agreement dated November 1, 1967, between USC and SCE which provides that "so long as [SCE] is obligated to provide public utility water service to the Laboratory, [SCE] will operate and maintain the Enlarged Water Facilities." Paragraph 4 of the agreement provides a cost-sharing formula; a letter dated May 3, 1979, provided by SCE shows a cost-sharing formula of 90% to USC and 10% to SCE.

24. SCE has not met its burden of proof with regard to the entire \$975,000 for the Isthmus Area water supply and SCADA. A substantial portion of the amount sought should have been borne by USC. Ratepayers should not be charged for maintaining USC's fire protection tank.

SCE Request		\$975,000
Less Banning House	\$340,000	
Less SCADA	<u>\$140,000</u>	
		\$495,000
Less 90% to USC		<u>-445,500</u>
Rate base – Million Gallon Tank		\$ 49,500
- Banning House		<u>340,000</u>
Total Rate Base		\$389,500

We find it reasonable to add \$389,500 to SCE's rate base for the repairs of the Million Gallon Tank and the line to the Banning House.

25. In regard to the Thompson Reservoir Safety Drain System, the original drain, even if perfectly maintained, would not have met the new DSOD requirements. Protestants' arguments do not adequately consider the necessity of this safety- and regulatory-requirement-driven project. While the overhead costs seem high, the problems encountered during the safety review explain why. The \$2.160 million cost for the Thompson Reservoir Siphon project is reasonable.

26. DRA was able to obtain the property insurance deductible information from eight water utilities, of which we take official notice, which shows a given deductible amount and the magnitude of rate base that a company would have.

Rate Base Level	Deductible
\$450 to 600 million	\$100,000
\$80 to 90 million	\$50,000
\$300 to 800 million	\$25,000
\$45 to 50 million	\$10,000

\$28 to 38 million

\$5,000

27. A \$5 million insurance deductible applicable to SCE's water utility is not reasonable. SCE should have provided fire insurance covering its water utility with a small deductible. That deductible should be \$5,000.

28. The \$3.2 million Catalina Island Fire Restoration Project Capital Expenditure is disallowed because SCE should have provided fire insurance for its water subsidiary.

29. We have deferred depreciation expense in the past to mitigate rate shock, but it is not needed in this rate case, based on the alternative approach we are adopting.

30. No party challenges SCE's forecast tax expense, as modified by our adopted revenues, and it will be adopted.

31. SCE's proposed rate of return in this proceeding is 8.74%, almost the same number authorized for SCE's company-wide operations (8.75%). It is reasonable, consistent with precedent, and benefits ratepayers.

32. SCE shall recover the expenses recorded in the PPEMA and CWCMA from the inception of these accounts through the date of a final decision in this Catalina Water 2011 GRC, by filing a Tier 2 advice letter.

33. The rate design settlement is reasonable in light of the record.

34. The rate design settlement is consistent with law and in the public interest.

35. Schedule W-10 – General Metered Fresh Water Residential Service to Utility Employees continues to be applicable to SCE employees.

36. The sales forecast presented in SCE's application is adopted and implemented with the Settlement rate design

Conclusions of Law

1. The rate design set forth in Appendix A is just and reasonable.
2. The rates and charges set forth in Appendix B are just and reasonable.
3. SCE shall shift \$7.780 million of its water company rate base to its electric revenue requirement. SCE shall file an advice letter to recover these costs through electric rates from customers across SCE's system over a one-year period.

O R D E R**IT IS ORDERED** that:

1. Southern California Edison Company shall file within 30 days after the effective date of this order, in accordance with General Order 96-B, and make effective on not less than five days' notice, the revised tariff schedules included as Appendix B to this order. The revised tariff schedules shall apply to service rendered on and after their effective date.
2. Southern California Edison Company (SCE) shall shift \$7.780 million of its water company rate base to its electric revenue requirement. SCE shall file an advice letter to recover these costs through electric rates from customers across SCE's system over a one-year period. Based on this shift and the various disallowances and adjustments adopted today, the revenue requirement for SCE's Catalina Island water subsidiary is \$3.842 million.
3. Southern California Edison Company shall file a Tier 2 advice letter to amortize the balances in the Power Expenses Memorandum Account and Catalina Water CARE Memorandum Account as of the effective date of this decision.

4. Application 10-11-009 is closed.

This order is effective today.

Dated _____, at San Francisco, California.

ATTACHMENT 6-4

**SCE Responses to Public Advocates DR SIH-07
(PubAdv-SCE-021-SI), Three-Year Water Balance**

3-Year Water Balance

Fixed Variables and Unit Conversions

Days/year	365
Days/month	30.4
Hours/day	24
CCR MDD PF (annu)	2.25
CCR PHD PF	1.5
PHD Requirement (4.00
2017 NRW %	27.40%
2018 NRW %	31.70%
2019 NRW %	39.10%



Abbreviations and Acronyms:

A: Avalon	MG: Million Gallons
AD: Average Day	MGT: Million Gallon Tank
ADD: Average Day Demand	Min: Minimum
AFY: Acre-Feet Per Year	MR: Middle Ranch
B: Blackjack	NRW: Non-revenue Water
CCR: California Code of Regulations	PF: Peaking Factor
G: Gallons	PHD: Peak Hourly Demand
GPD: Gallons Per Day	T: Toyon
I: Isthmus	WE: West End
Max: Maximum	WL: Whites Landing
MD: Maximum Day	
MDD: Maximum Day Demand	

Summary Table

Year ¹	System	Demand Factors (based on sales)							Demand Factors (with NRW)				Source Capacity			Balance		
		Annual (Gallons)	ADD (GPD)	Peaking Factor (Max. Day)	MDD (GPD)	Peaking Factor (Peak Hour)	PHD (GPH)		ADD (GPD)	MDD (GPD)	PHD (GPH)	4-hour Peak Hourly (Gallons)	Average Day (GPD)	Maximum Day (GPD)	4-hour Peak Hourly (Gallons)	Average Day (GPD)	Maximum Day (GPD)	4-hour Peak Hourly (Gallons)
2017	MR/A/T	69,646,994	190,814	2.25	429,331	1.50	26,833		262,829	591,365	36,960	147,841	445,482	1,030,320	603,720	182,653	438,955	455,879
2017	I/WE	7,694,000	21,079	2.25	47,429	1.50	2,964		29,035	65,329	4,083	16,332	58,766	112,320	218,720	29,731	46,991	202,388
2017	B	228,000	625	2.25	1,405	1.50	88		860	1,936	121	484	1,161	2,880	87,980	300	944	87,496
2017	WL	1,632,500	4,473	2.25	10,063	1.50	629		6,161	13,861	866	3,465	12,677	57,600	59,600	6,516	43,739	56,135
2018	MR/A/T	79,713,295	218,393	2.25	491,383	1.50	30,711		300,816	676,837	42,302	169,209	445,482	1,030,320	603,720	144,666	353,483	434,511
2018	I/WE	7,063,900	19,353	2.25	43,545	1.50	2,722		26,657	59,979	3,749	14,995	58,766	112,320	218,720	32,108	52,341	203,725
2018	B	250,000	685	2.25	1,541	1.50	96		943	2,123	133	531	1,161	2,880	87,980	217	757	87,449
2018	WL	1,985,300	5,439	2.25	12,238	1.50	765		7,492	16,857	1,054	4,214	12,677	57,600	59,600	5,185	40,743	55,386
2019	MR/A/T	82,642,711	226,418	2.25	509,441	1.50	31,840		311,871	701,710	43,857	175,427	445,482	1,030,320	603,720	133,611	328,610	428,293
2019	I/WE	7,766,200	21,277	2.25	47,874	1.50	2,992		29,308	65,942	4,121	16,485	58,766	112,320	218,720	29,458	46,378	202,235
2019	B	541,700	1,484	2.25	3,339	1.50	209		2,044	4,600	287	1,150	1,161	2,880	87,980	-884	-1,720	86,830
2019	WL	1,862,700	5,103	2.25	11,482	1.50	718		7,029	15,816	988	3,954	12,677	57,600	59,600	5,648	41,784	55,646

Notes and Assumptions

1. 2019: for Blackjack (B) System: this period spanned the Airport in the Sky runway repaving project; this contributes to the higher demand

Source Capacity Assumptions

System ²	Source	AD (GPD)	MD (GPD)
MR/A/T	Middle Ranch Wells	312,460	771,800
MR/A/T	Desal Facility	121,502	247,000
MR/A/T	Toyon Well	11,520	11,520
I/WE	Cottonwood Wells	31,680	31,680
I/WE	Sweetwater Well	11,606	18,720
I/WE	Howland Well	15,480	61,920
B	Blackjack Well	1,161	2,880
WL	Whites Landing Well	12,677	57,600

2. MR/A/T System: Factors MR Well 6A being offline; I/WE System: Factors Cottonwood 1A being offline

Storage Assumptions

System	Tank/Reservoir	Storage Limit (G)	Operational (G)	Fire Demand ³ (G)
MR/A/T	Wrigley Reservoir	9,449,679	269,000	3,260,000
MR/A/T	Baker	375,000	113,000	
MR/A/T	Toyon	100,000	50,000	
I/WE	MGT	1,000,000	50,000	900,000
I/WE	Twin Tanks	200,000	100,000	
I/WE	Howland	100,000	50,000	
B	Blackjack	175,000	87,500	
WL	Whites Landing	100,000	50,000	

3. Wrigley Reservoir Fire Demand: 2 MG (1972 Hamilton Cove Project Agreement) + (3,500 GPM x 6 hours)

3. MGT Fire Demand: 0.9 MG (1967 Water Facilities Agreement)

ATTACHMENT 6-5

Desalination Enhancement Project Breakdown

Desalination Enhancement Project Breakdown¹

Line	Description		Amount
1	<u>SW Well System</u>		
2		Mobilization	\$118,000
3		Demolition	\$35,000
4		Install (1) Salt Water Well (75 ft deep, 350 gpm)	\$434,000
5		Grading & Drainage Improvements	\$139,000
6		Rip-Rap Improvements	\$1,256,000
7		Contaminated Soil Allowance	\$125,000
8		Well Lifting Device	\$46,000
9		Electrical & Controls Improvements	\$158,000
10		SCADA Programming	\$65,000
11		Utility Upgrades/New Service	\$88,000
12		Catalina Adjustment/Travel/Transport	\$470,000
13		Contingency	\$441,000
14		Engineering	\$441,000
15		Construction Management	\$294,000
16		SCE Oversight	\$147,000
17		Planning & Permitting	\$984,000
18		Subtotal	\$5,241,000
19	<u>Desal Facility Enhancements</u>		
20		Mobilization	\$134,000
21		Demolition	\$311,000
22		Plant Inlet Valve Modifications	\$115,000
23		Plant Piping Modifications	\$186,000
24		Brine Discharge Piping & Drain Sump Replacement	\$437,000
25		P2 Cartridge Filtration System Modifications	\$221,000

¹ DATA REQUEST SET Pub Adv-SCE-005-SI Response to Question 01.b.

26		Replace P1 Calcite Tanks	\$39,000
27		Alternative Remineralization Post-Treatment System (+ Programming)	\$318,000
28		Enhanced Chemical Batching & Dosing Systems (Required with Alternative Remineralization System)	\$58,000
29		P2 Calcite Tanks	\$100,000
30		New Carbon Dioxide Tank System	\$295,000
31		Contaminated Soil Allowance	\$250,000
32		Electrical & Controls Improvements	\$260,000
33		SCADA Programming	\$87,000
34		Utility Upgrades/New Service	\$0
35		Catalina Adjustment/Travel/Transport	\$540,000
36		Contingency	\$503,000
37		Engineering	\$503,000
38		Construction Management	\$336,000
39		SCE Oversight	\$168,000
40		Planning & Permitting	\$0
41		Subtotal	\$4,861,000
42	<u>Distribution Storage Enhancements</u>		
43		Mobilization	\$58,000
44		Excavation & Grading	\$60,000
45		Concrete Retaining Wall	\$75,000
46		Concrete Tank Foundation	\$125,000
47		500,000 Gallon Water Storage Tank	\$510,000
48		Piping and Valves	\$120,000
49		Electrical & Controls Improvements	\$125,000
50		SCADA Programming	\$25,000
51		Utility Upgrades/New Service	\$0
52		Contaminated Soil Allowance	\$50,000
53		Catalina Adjustment/Travel/Transport	\$230,000

54		Contingency	\$276,000
55		Engineering*	\$747,000
56		Construction Management	\$138,000
57		SCE Oversight	\$69,000
58		Planning & Permitting	\$0
59		Subtotal	\$2,608,000
60	Total		\$12,710,000

ATTACHMENT 6-6

CPUC Sheet No. 287-W



Southern California Edison
Rosemead, California

Original
Cancelling

Cal. PUC Sheet No. 287-W
Cal. PUC Sheet No.

Schedule No. FWY
FRESH WATER YIELD

Sheet 1

APPLICABILITY

Applicable to all fresh water service provided from the Integrated Fresh Water System.

TERRITORY

Santa Catalina island, Los Angeles County.

RATES

	<u>Acre-Feet Per Year</u>
Total fresh water resources from the Integrated Fresh Water System available for allocation.....	515

SPECIAL CONDITIONS

1. Integrated Fresh Water System. The Integrated Fresh Water System is that system which supplies fresh water from the production facilities listed below:

Middle Ranch Reservoir	Bullrush Well
Cottonwood Canyon Wells	Eagle's Nest Well
Hollands Landing Wells	Sweetwater Well
Poultry Farm Tunnel	St. Catherine's Well
Golf Links Tunnel	Toyon Canyon Well

2. Isolated Fresh Water Systems. Fresh water production facilities that are not listed in Special Condition No. 1, above, are considered Isolated Fresh Water Systems. Fresh water from Isolated Fresh Water Systems is not included in the Safe Annual Yield of the Integrated Fresh Water System and this Schedule does not apply to an Isolated Fresh Water System.

(To be inserted by utility)

Advice 43-W
Decision 90-05-033

Issued by

Ronald Daniels
Vice President

(To be inserted by Cal. PUC)

Date Filed May 14, 1990
Effective May 14, 1990
Resolution _____

ATTACHMENT 6-7

Advice Letter 123-W

January 29, 2021

**ADVICE 123-W
(U 338-W)**

**PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA
WATER DIVISION**

SUBJECT: Revisions to Schedule FWY, Fresh Water Yield and Rule 3,
Application for Service

Southern California Edison Company (SCE) hereby submits to the California Public Utilities Commission (Commission) the following changes to its Santa Catalina Island (Catalina) water tariffs. The revised tariffs are listed on Attachment A and are attached hereto.

PURPOSE

In accordance with Resolution W-4665 (Resolution), SCE respectfully submits this advice letter to modify SCE Water Tariff Schedule FWY – Fresh Water Yield (Schedule FWY) and Rule 3 – Application For Service (Rule 3), for water service on Santa Catalina Island (Catalina or Island) to align with the Revised Ground Water Modeling Study (Study) for SCE's Catalina Water Utility submitted in Advice 64-W pursuant to the Resolution.

SCE proposes these changes to its water tariffs to:

- Modify the boundaries of the Integrated Fresh Water System;
- Define a methodology for determining water availability for allocation purposes as supply and demand conditions change over time; and
- Allow historical usage levels to be considered in calculating the water requirement of a customer proposing to change their existing facilities and water allocation.

BACKGROUND AND DISCUSSION

SCE's Catalina water system is comprised of four distinct systems across the Island:¹

- Middle Ranch-Avalon-Toyon Integrated Fresh Water System (Middle Ranch-Avalon)
- Isthmus-West End Integrated Fresh Water System (Isthmus-West End)
- Whites Landing Isolated Fresh Water System (Whites Landing)
- Blackjack Isolated Fresh Water System (Blackjack)

Whites Landing and Blackjack are considered Isolated Fresh Water Systems and are not listed in Advice 64-W. The other two systems, Middle Ranch-Avalon-Toyon and Isthmus-West End, are currently combined in Schedule FWY as the Integrated Fresh Water System. The main system is Middle Ranch-Avalon-Toyon, serving the primary demand center of Avalon (including Hamilton Cove), adjacent camps and coves, and customers in Middle Ranch. The second largest system is the Isthmus-West End system, serving the USC Marine Lab, community of Two Harbors, camps and coves on the west end, and several customers supplied directly from the Two Harbors pipeline. In this Advice Letter, SCE proposes to modify Schedule FWY to recognize the current physical isolation of the Middle Ranch-Avalon-Toyon and Isthmus-West End systems.

On December 12, 1989, SCE submitted Application (A.)89-12-019 to Increase Water System Capacity and Revise Fresh Water Allocation Procedures on Santa Catalina Island.² The purpose of A.89-12-019 was to add the new Desalination Plant and Toyon Canyon Well to SCE's list of production facilities and increase the Safe Annual Yield (SAY) for the Integrated Fresh Water System in recognition of these new sources.

On May 4, 1990, the Commission issued Decision (D.)90-05-033, authorizing SCE to immediately increase the SAY of the Catalina water system to 515 acre-feet per year³ and subsequently increase the SAY to 600 acre-feet per year upon completion of the desalination project.⁴ On May 14, 1990, SCE submitted Advice Letter 43-W, filing changes to water tariffs pursuant to D.90-05-033. Among these changes was the establishment of water tariff Schedule FWY.

On December 9, 2005, SCE submitted Advice W000144, requesting authority to increase water rates for Catalina water customers. On November 1, 2007, the Commission issued Resolution W-5665 authorizing a general rate increase for Catalina

¹ See Attachment D for a map showing the Catalina water systems.

² A.89-12-019 was amended on December 28, 1989.

³ D.90-05-033, Ordering Paragraph No. 2.

⁴ D.90-05-033, Ordering Paragraph 1; the agreement for the construction and installation of a desalination facility between SCE and Hamilton Cove Associates Limited Partnership referenced in D.90-05-033 was amended on March 30, 1992.

water customers. The Resolution also required that SCE submit a ground water modeling study to the Commission within 180 days of the effective date of the Resolution demonstrating whether a revision to SCE's safe annual yield is warranted.⁵

On April 29, 2008, SCE submitted Advice 64-W Submission of a Revised Ground Water Modeling Study (Study) for SCE's Catalina Water Utility. On May 28, 2008, the Commission's Water Division issued its acceptance of Advice 64-W with an effective date of May 29, 2008.

Water Tariff Schedule FWY – Fresh Water Yield

SCE's list of water sources and capacities is housed within Schedule FWY. The Study submitted in Advice 64-W effectively modified the sources and capacities included under Schedule FWY. However, the Schedule FWY tariff was never updated to reflect the results of the Study accepted in Advice 64-W. SCE has made the appropriate modifications to Schedule FWY in the present submittal to align with the results of the Study.

SCE has additionally modified Schedule FWY to define the physical isolation points within the Integrated Fresh Water System. This is a further modification to Schedule FWY than was authorized in the Resolution. The modification results in the delineation of Integrated Fresh Water System by subsystem and facilities as summarized in in Table 1 below.

⁵ Resolution W-4665, Ordering Paragraph 11.

Table 1
Revised Integrated Fresh Water System Capacities

Line No.	Subsystem	Facility ¹	Values (acre-feet per year)
1	Middle Ranch-Avalon-Toyon	Middle Ranch Wells	372
2		Pebbly Beach Desalination Facility	111
3		Toyon Canyon Well	16
4		Bullrush Well	24
5		Eagles Nest Well	32
6		Subtotal	555
7		Leakage	-44
8		Subtotal (with Leakage)	511
9	Isthmus-West End	Cottonwood Canyon Wells	52
10		Howlands Landing Wells	32
11		Sweetwater Well	13
12		Subtotal	97
13		Leakage	-8
14		Subtotal (with Leakage)	89
15	Total		600

¹ Some names reflect updated terminology from the list contained in Advice 64-W

SCE has added a Special Condition to Schedule FWY to describe the methodology for determining water availability as supply and demand conditions change over time. The water availability methodology is detailed in Attachment A. An illustrative example of the water availability calculation using the revised methodology is provided in Attachment E. The current results of the methodology are summarized in Table 2 below.⁶ Current supply and demand trends calculate a deficit of 36,900 gallons per day on a maximum day basis.

Table 2
Water Balance (Middle Ranch-Avalon-Toyon System, December 2019)

	Average Day (gallons per day)	Maximum Day (gallons per day)	Peak 4-hour (gallons per hour)
Water Availability	24,300	-36,900	21,930

Water Tariff Rule No. 3 – Application For Service

SCE's process for reviewing fresh water allocation requests is defined in Water Tariff Rule 3. SCE has modified Rule 3 to allow historical usage levels of existing facilities to

be considered when a customer requests a change in service. Under the revised Rule 3, if a customer proposed change in water allocation, when added to the customer's reduced historical water use, results in a value less than the Rule 3 formula for that type of structure, a water allocation may be assigned. The revised process allows SCE to expand consideration for new allocation requests with customers on the fresh water allocation wait list.

PROPOSED TARIFF CHANGES

SCE's Water Rule Number 3 – Application For Service, is modified as reflected in Attachment A.

Schedule FWY, Fresh Water Yield, is modified as reflected in Attachment A.

The modifications to Schedule FWY and Rule Number 3 included in this advice letter are made pursuant to the Resolution and consistent with Advice 64-W and present operational constraints.

This advice filing will not increase any rate or charge, cause the withdrawal of service, or conflict with any other schedule or rule.

INDEX OF ATTACHMENTS

- Attachment A – Tariff Sheets
- Attachment B – SCE Advice Letter 64-W
- Attachment C – Public Water System 1910006 List of Approved Sources
- Attachment D – Map of Catalina's Integrated Fresh Water System
- Attachment E – Water Availability Methodology Illustrative Example

TIER DESIGNATION

Pursuant to General Order (GO) 96-B, General Rule 5.1 and Water Industry Rule 7.3.1; this advice filing is submitted with a Tier 2 designation.

EFFECTIVE DATE

SCE requests that this advice filing be effective 30 days after the date of this submittal, February 28, 2021, consistent with General Order 96-B, General Rule 7.3.4 and Water Industry Rule 7.3.2.

⁶ Water availability calculated as of December 31, 2019.

NOTICE

Anyone wishing to protest this advice filing may do so by letter via U.S. Mail, facsimile, or electronically, any of which must be received no later than 20 days after the date of this advice filing. Protests should be submitted to:

Director, Water Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, California 94102
E-mail: water_division@cpuc.ca.gov
Facsimile: (415) 703-2200

In addition, protests and all other correspondence regarding this advice letter should also be sent by letter and transmitted via facsimile or electronically to the attention of:

Gary A. Stern, Ph.D.
Managing Director, State Regulatory Operations
Southern California Edison Company
8631 Rush Street
Rosemead, California 91770
Facsimile: (626) 302-6396
Telephone: (626) 302-9645
E-mail: AdviceTariffManager@sce.com

and

Tara S. Kaushik
Managing Director, Regulatory Relations
c/o Karyn Gansecki
Southern California Edison Company
601 Van Ness Avenue, Suite 2030
San Francisco, California 94102
Facsimile: (415) 929-5544
E-mail: Karyn.Gansecki@sce.com

There are no restrictions on who may file a protest, but the protest shall set forth specifically the grounds upon which it is based and shall be submitted expeditiously.

SCE is serving copies of this advice filing to the service list for interested parties shown on the attached GO 96-B and A.10-11-009 service lists in accordance with Water Industry Rule 4.1 of GO 96-B. Address change requests to the GO 96-B service list should be directed by electronic mail to AdviceTariffManager@sce.com or at (626) 302-4039. For changes to all other service lists, please contact the Commission's Process Office at (415) 703-2021 or by electronic mail at Process_Office@cpuc.ca.gov.

Further, in accordance with Public Utilities Code Section 491, notice to the public is hereby given by filing and keeping the advice filing at SCE's corporate headquarters. To view other SCE advice letters filed with the Commission, log on to SCE's web site at <https://www.sce.com/wps/portal/home/regulatory/advice-letters>.

For questions, please contact Cooper Cameron at (626) 302-3406 or by electronic mail at Cooper.Cameron@sce.com.

Southern California Edison Company

/s/ Gary A. Stern, Ph.D.
Gary A. Stern, Ph.D.

GAS:cc:jm
Enclosures

**CALIFORNIA PUBLIC UTILITIES COMMISSION
DIVISION OF WATER AND AUDITS**

Advice Letter Cover Sheet

Utility Name: Southern CA Edison	Date Mailed to Service List: January 29, 2021
CPUC Utility #: WTC 338	Protest Deadline (20th Day): February 18, 2021
Advice Letter #: 123-W	Review Deadline (30th Day): February 28, 2021
Tier <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> Compliance	Requested Effective Date: February 28, 2021
Authorization Resolution W-4665	Rate Impact: \$ N/A N/A%
Description: Revisions to Schedule FWY, Fresh Water Yield and Rule 3, Application for Service	

The protest or response deadline for this advice letter is 20 days from the date that this advice letter was mailed to the service list. Please see the "Response or Protest" section in the advice letter for more information.

Utility Contact: Darrah Morgan	Utility Contact 2: Jeanette Melgar
Phone: (626) 302-2086	Phone 2: (626) 302-4039
Email: advicetariffmanager@sce.com	Email 2: Jeanette.melgar@sce.com
DWA Contact: Tariff Unit	
Phone: (415) 703-1133	
Email: Water.Division@cpuc.ca.gov	

DWA USE ONLY

DATE

STAFF

COMMENTS

[] APPROVED

[] WITHDRAWN

[] REJECTED

Signature: _____

Comments: _____

Date: _____

**CALIFORNIA PUBLIC UTILITIES COMMISSION
DIVISION OF WATER AND AUDITS**

Advice Letter Cover Sheet

Schedules FWY

Schedules FWY

Rules 3

Rules 3

Rules 3

Table of Content

Table of Contents

Table of Contents

☐ APPROVED

☐ WITHDRAWN

☐ REJECTED

Signature: _____

Comments: _____

Date: _____

Cal. P.U.C. Sheet No.	Title of Sheet	Cancelling Cal. P.U.C. Sheet No.
Revised 1250-W Original 1251-W	Schedules FWY Schedules FWY	Original 287-W
Revised 1252-W Revised 1253-W Revised 1254-W	Rules 3 Rules 3 Rules 3	Revised 821-W Original 291-W Original 292-W
Revised 1255-W Revised 1256-W Revised 1257-W	Table of Contents Table of Contents Table of Contents	Revised 1219-W Revised 1220-W Revised 1182-W

Schedule No. FWY
FRESH WATER YIELD

Sheet 1

APPLICABILITY

Applicable to all fresh water service provided from the Integrated Fresh Water System.

TERRITORY

Santa Catalina island, Los Angeles County.

RATES

	Acre-Feet <u>Per Year</u>	
Total fresh water resources from the Integrated Fresh Water System available for allocation		(T)
Middle Ranch Avalon Toyon System.....	511	(N)
Isthmus West End System	89	(N)

SPECIAL CONDITIONS

1. Integrated Fresh Water System. The Integrated Fresh Water System is that system which supplies fresh water from the production facilities listed below:

<u>Middle Ranch-Avalon-Toyon System</u>	(N)
Middle Ranch Wells	(T)
Pebbly Beach Desalination Facility	(N)
Toyon Canyon Well	
Bullrush Well	
Eagle's Nest Well	
 <u>Isthmus-West End System</u>	 (N)
Cottonwood Canyon Wells	
Howland's Landing Wells	(T)
Sweetwater Well	
	(L)

(Continued)

(To be inserted by utility)

Advice 123-W
Decision _____

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Carla Peterman
Senior Vice President

(To be inserted by Cal. PUC)

Date Filed Jan 29, 2021
Effective _____
Resolution W-4665

Schedule No. FWY
FRESH WATER YIELD

Sheet 2

(Continued)

SPECIAL CONDITIONS (Continued)

2. Integrated Fresh Water System. Water availability for fresh water allocations assigned pursuant to Water Tariff Rule 3 will be calculated using the variables listed below. Water allocations may be assigned by SCE in its sole discretion if the calculation methodology results in a surplus of allocable water on an annual and maximum day basis. (N)
- Source Capacity:** Total amount of water supply available, expressed as a flow, from all sources permitted for use.
- Demand:** Historical average day, maximum day, and 4-hour peak hourly water demand. Demand includes at least 10 years of metered sales, water loss factor, and committed allocations.
- Water Loss:** The percent of non-revenue water by volume of water supplied, calculated using the American Water Works Association's (AWWA) water audit software methodology.
- Committed Allocations:** Allocations assigned by SCE that are not fully reflected in the metered sales history. (N)
3. Isolated Fresh Water Systems. Fresh water production facilities that are not listed in Special Condition No. 1, above, are considered Isolated Fresh Water Systems. Fresh water from Isolated Fresh Water Systems is not included in the Safe Annual Yield of the Integrated Fresh Water System and this Schedule does not apply to an Isolated Fresh Water System. (L)(T)
(L)

(To be inserted by utility)

Advice 123-W
Decision _____

2P8

Issued by
Carla Peterman
Senior Vice President

(To be inserted by Cal. PUC)

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Resolution W-4665

Rule No. 3
APPLICATION FOR SERVICE

Sheet 1

A. Application for Service**1. Content**

Each applicant for service may be required to sign, on a form provided by the Utility, an application which will set forth:

- a. Date and place of application.
- b. Location of premises to be served.
- c. Date applicant will be ready for service.
- d. Whether the premises have been heretofore supplied with water by the Utility.
- e. Purpose for which service is to be used.
- f. Address to which bills are to be mailed or delivered.
- g. Whether applicant is owner or tenant of, or agent for the premises.
- h. Rate schedule desired where optional rates are in effect.
- i. Such other information as the Utility may reasonably require.

2. Purpose

The application is merely a written request for service and does not bind the applicant to take service for a period of time longer than that upon which the flat rate charge, minimum charge, or readiness to serve charge of the applicable rate schedule is based; neither does it bind the Utility to serve, except under reasonable conditions.

B. Individual Liability for Joint Service

Two or more parties who join in one application for service shall be jointly and severally liable for payment of bills and shall be billed by means of single periodic bills.

C. Change in Customer's Equipment or Operations

A customer making any material change in the size, character or extent of the equipment or operations for which the Utility's service is utilized shall immediately give the Utility written notice of the extent and nature of the change.

D. Santa Catalina Island Fresh Water Allocation Plan

1. Fresh Water Allocation provisions shall be applicable for all fresh water service provided from the respective subsystem in the Integrated Fresh Water System (T) described in Special Condition No. 1 of Schedule FWY, Fresh Water Yield, except for periods when fresh water conservation and rationing stages, as set forth in Rule 14.1, Santa Catalina Island Fresh Water Rationing Plan, are in effect. During water rationing the following will apply:

(Continued)

(To be inserted by utility)

Advice 123-W

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Carla PetermanSenior Vice President

(To be inserted by Cal. PUC)

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Resolution W-4665

Rule No. 3
APPLICATION FOR SERVICE

Sheet 4

(Continued)

D. Santa Catalina Island Fresh Water Allocation Plan (Continued)

2. Fresh Water Allocation (Continued)

- b. The Company shall maintain, and hold open for public inspection at the Company's Santa Catalina Island Office, a first-come, first-served Fresh Water Allocation List and shall provide fresh water service on a first-come, first-served basis, within the respective subsystem, and up to or within the limit of the safe annual yield, set forth in Schedule FWY, as authorized by the California Public Utilities Commission to: (T)

- (i) new service connections, or
- (ii) existing service connections where a change in the customer's facilities or fresh water use will result in an additional fresh water requirement.

- c. The customer shall notify the Company, in writing, whenever a new service connection is planned, or if a change in the customer's existing facilities or fresh water use is planned. For a change in a customer's existing facilities, the Company may consider historical usage levels in calculating the overall water requirement. If this calculation results in a value less than the Rule 3 formula for that type of structure, the Company may update the customer's Fresh Water Allocation on a case-by-case basis. (T)

3. Fresh Water Allocation Process

- a. When fresh water is available, determined as described in Special Condition 2 of Schedule FWY, up to or within the limit of the safe annual yield: (T)

All applicants for new service connections or an increased water allocation to an existing connection shall provide the Company with a completed water questionnaire and such other information as the Company may request to establish the applicant's fresh water needs. Applicants will then be placed on the Company's Fresh Water Allocation List and may be granted a water allocation by the Company, unless the applicant requires a building permit from either the City of Avalon or the County of Los Angeles.

Applicants for fresh water service who require a building permit to complete their service connection and are under the jurisdiction of the City of Avalon, must first contact the City and obtain an authorization for consideration of a water allocation. Upon obtaining an authorization for consideration of a water allocation from the City and providing the Company with a completed water questionnaire, as specified above, the applicant will be placed on the Company's Fresh Water Allocation List and may be granted a water allocation by the Company.

(Continued)

(To be inserted by utility)

Advice 123-W

Decision _____

4P7

Issued by

Carla Peterman
Senior Vice President

(To be inserted by Cal. PUC)

Date Filed Jan 29, 2021

Effective _____

Resolution W-4665

Rule No. 3
APPLICATION FOR SERVICE

Sheet 5

(Continued)

D. Santa Catalina Island Fresh Water Allocation Plan (Continued)

3. Fresh Water Allocation Process (Continued)

a. (Continued)

Applicants for fresh water service who require a building permit to complete their service connection and are under the jurisdiction of the County of Los Angeles, will be placed on the Company's Fresh Water Allocation List, within the respective subsystem, and may be granted a water allocation when the applicant provides evidence acceptable to the Company of an approved request for a building permit from the County of Los Angeles and a completed water questionnaire, as specified above.

(T)
(T)

b. When fresh water is not available from the Company because demand for fresh water exceeds the limit of the safe annual yield, or for any other reason:

All applicants for new service connections or an increased water allocation to an existing connection shall provide the Company with a completed water questionnaire and such other information as the Company may request to establish the applicant's fresh water needs. Unless the applicant requires a building permit from either the City of Avalon or the County of Los Angeles, the applicant will be placed on the Company's Fresh Water Allocation List. The Company will notify the applicant when the Company determines that enough fresh water is available to serve the applicant's needs in order of eligibility

Applicants for fresh water service who require a building permit to complete their service connection and are under the jurisdiction of the City of Avalon, must first contact the City. The Company will place the applicant on the Fresh Water Allocation List when the City notifies the Company that the applicant is eligible to be placed on the Fresh Water allocation List. The Company will notify the applicant and the City when the Company determines that enough fresh water is available to grant a water allocation to the applicant. The applicant, upon notification from the City, shall provide the Company with a completed water questionnaire as specified above.

Applicants for fresh water service who require a building permit to complete their service connection and are under the jurisdiction of the County of Los Angeles, will be placed on the Company's Fresh Water Allocation List when the applicant notifies the Company, in writing, of the need for fresh water service and provides evidence acceptable to the Company of the scope of the project. The Company will notify the applicant when the Company determines that enough fresh water is available to serve the applicant's needs. The applicant, upon notification from the Company, shall provide the Company with a completed water questionnaire as specified above.

(Continued)

(To be inserted by utility)

Advice 123-W

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(To be inserted by Cal. PUC)

Date Filed Jan 29, 2021

Effective _____

Resolution W-4665



Southern California Edison
Rosemead, California

Revised Cal. PUC Sheet No. 1255-W
Cancelling Revised Cal. PUC Sheet No. 1219-W

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(Continued)

(To be inserted by utility)

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(Continued)

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-----------------	-----------------------	---------------------------------

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(Continued)

(To be inserted by utility)

Advice 123-W
Decision _____

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(T)

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(To be inserted by utility)

Advice 123-W
Decision _____

Issued by

Carla Peterman
Senior Vice President

(To be inserted by Cal. PUC)

Date Filed Jan 29, 2021
Effective _____
Resolution W-4665

ATTACHMENT B

SCE Advice Letter 64-W

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3298



MAY 28 2008

May 22, 2008

REVENUE & TARIFFS DEPT.

File No. 602-19

Akbar Jazayeri
Vice President, Regulatory Operations
Southern California Edison Company
PO Box 800
Rosemead, CA 91770

Dear Mr. Jazayeri:

The Commission has received and filed the utility's Advice Letter No. 64-W that was submitted in compliance with Resolution W-4665 dated November 1, 2007.

Enclosed is a copy of the advice letter, with an effective date of May 29, 2008, for the utility's files.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'Josie R. Babaran'.

JOSIE R. BABARAN
Staff Services Analyst
Water & Sewer Advisory Branch

Enclosures

April 29, 2008

**ADVICE 64-W
(U 338-W)**

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA
WATER DIVISION

SUBJECT: Submission of a Revised Ground Water Modeling Study for
SCE's Catalina Water Utility

PURPOSE

In compliance with Resolution W-4665 (Resolution) authorizing a general rate increase for water service on Santa Catalina Island (Catalina), Southern California Edison Company (SCE) hereby submits for filing an update to its ground water modeling study to determine whether a revision to its safe annual yield is warranted.

BACKGROUND

On December 9, 2005, SCE filed Advice W000144 to request authority under Section VI of General Order (GO) 96-A and Section 454 of the Public Utilities Code to increase authorized water revenues for SCE on Catalina, a Class C water utility, by 248 percent or \$3,220,390 over 2005 revenues, for a 9.07 percent return on rate base for Test Year 2006. The purpose of the rate increase was to recover increased operating expenses and to provide an adequate rate of return on plant investment. SCE proposed that the 2006 revenue increase be phased in over a three-year period in order to mitigate the impact of this rate increase on its Catalina water service customers. SCE included a proposal to modify its existing rate design for water service on Catalina to include a third tier volumetric rate, for high usage customers, to encourage conservation of water resources.

The Resolution, issued on November 1, 2007, authorized an increase of \$2,569,390, or 198 percent relative to 2005 revenues, for an 8.77 percent return on rate base for Test Year 2006. This results in Test Year 2006 revenue of \$3,870,000. In order to mitigate the impacts on Catalina customers, the authorized revenue requirement increase will be phased in over four years from 2007 to 2010. The Resolution also adopted rates for 2007 and 2008 and approved SCE's proposal to change the current two-tier rate

structure to a three-tier structure. SCE implemented authorized 2007 rates on November 15, 2007 (Advice 59-W) and authorized 2008 rates on January 1, 2008 (Advice 60-W).

Ordering Paragraph 11 of the Resolution requires that SCE file an advice letter and submit a ground water modeling study to the Commission within 180 days of the effective date of the resolution demonstrating whether a revision to SCE's safe annual yield is warranted.

No cost information is required for this advice filing.

This advice filing will not increase any rate or charge, cause the withdrawal of service, or conflict with any other schedule or rule.

STUDY RESULTS

Based on an update to the safe annual yield study performed by SCE in 1990, SCE does not believe a revision to the current safe annual yield of 600 acre-feet is warranted at this time.

The currently authorized safe annual yield of 600 acre-feet consists of the following water sources:

Water Source	Values (acre-feet)
Middle Ranch Reservoir	372
Cottonwood	52
Howland's Landing	32
Poultry Farm Tunnel	7
Golf Links Tunnel	3
Bullrush	24
Eagle's Nest	32
Sweetwater	13
St. Catherine's	16
Toyon	16
Desalination Plant	85
Subtotal	652
Leakage	(52)
Total	600

Since the time this safe annual yield was authorized in 1990, no new water sources have been developed on Santa Catalina Island. In fact, several of the water sources included in this safe annual yield are no longer providing water to the system and should be removed from the calculation. Sources no longer providing water include the St. Catherine wells, the Poultry Farm tunnels, and the Golf Links tunnels.

The St. Catherine wells have not operated for nearly twenty years, and are not presently equipped with pumps. Because of this inactivity, these wells would require significant rehabilitation in order to be made operational, and it is possible these wells would not produce even if returned to service.. In that case, additional wells would need to be constructed and original wells abandoned.

The Poultry Farms and Golf Links Tunnels derive their water from natural springs equipped with spring boxes, and the water is conveyed through pipelines laid in small tunnels. These systems have not operated in years and may no longer be operational. Development of water from these springs would require construction of production wells, conveyance piping and electrical power lines.

Removal of these three sources of water reduces the safe annual yield total to 574 acre-feet a year. SCE recommends that this shortfall be made up by increasing the safe annual yield of the desalination plant, which SCE believes is capable of safely producing more than the 85 acre-feet included in the authorized 1990 safe annual yield.

Based on the information above, SCE proposes revising the safe annual yield as shown in the table below:

Water Source	1990 Totals (acre feet)	2008 Totals (acre feet)
Middle Ranch Reservoir	372	372
Cottonwood	52	52
Howland's Landing	32	32
Poultry Farm Tunnel	7	0
Golf Links Tunnel	3	0
Bullrush	24	24
Eagle's Nest	32	32
Sweetwater	13	13
St. Catherine's	16	0
Toyon	16	16
Desalination Plant	85	111
Subtotal	652	652
Leakage	(52)	(52)
Total	600	600

Production data for sources included in the study have been relatively consistent over the past four years, averaging an annual water production level of 585.4 acre-feet per year from 2004-2007. The annual production level, by source, is included in the following table:

(in acre feet)	2004	2005	2006	2007	4-Yr Avg
Middle Ranch Well 1A	125.8	136.7	111.7	31.5	101.4
Middle Ranch Well 5A	81.9	94.2	57.4	131.9	91.4
Middle Ranch Well 6	112.8	101.5	162.4	207.4	146.0
Cottonwood Well 1A	23.5	38.5	33.0	28.8	31.0
Cottonwood Well 2	22.5	4.9	16.4	6.8	12.7
Howland's Landing	33.4	33.6	42.5	36.0	36.4
Poultry Farm Tunnel	0.0	0.0	0.0	0.0	0.0
Golf Links Tunnel	0.0	0.0	0.0	0.0	0.0
Bullrush	8.9	6.9	5.9	0.0	5.4
Eagle's Nest	0.0	0.0	0.0	0.0	0.0
Sweetwater	20.0	1.0	13.9	8.8	10.9
St. Catherine's	0.0	0.0	0.0	0.0	0.0
Toyon	15.1	17.6	14.7	13.2	15.2
Desalination Plant	154.2	131.6	140.1	114.6	135.1
Total Production	598.1	566.5	598.0	579.0	585.4

TIER DESIGNATION

Pursuant to D.07-01-024, Water Industry Rule 7.3.1(3), this advice letter is submitted with a Tier 1 designation.

EFFECTIVE DATE

This advice filing will become effective on May 29, 2008, the 30th calendar day after the date filed.

NOTICE

Anyone wishing to protest this advice filing may do so by letter via U.S. Mail, facsimile, or electronically, any of which must be received no later than 20 days after the date of this advice filing. Protests should be mailed to:

Director, Water Division
CPUC
505 Van Ness Avenue
San Francisco, California 94102
E-mail: water.division@cpuc.ca.gov
Facsimile: (415) 703-2200

Copies should also be mailed to the attention of the Director, Energy Division, Room 4004 (same address above).

In addition, protests and all other correspondence regarding this advice letter should also be sent by letter and transmitted via facsimile or electronically to the attention of:

Akbar Jazayeri
Vice President of Regulatory Operations
Southern California Edison Company
2244 Walnut Grove Avenue
Rosemead, California 91770
Facsimile: (626) 302-4829
E-mail: AdviceTariffManager@sce.com

Bruce Foster
Senior Vice President, Regulatory Affairs
c/o Karyn Gansecki
Southern California Edison Company
601 Van Ness Avenue, Suite 2040
San Francisco, California 94102
Facsimile: (415) 673-1116
E-mail: Karyn.Gansecki@sce.com

There are no restrictions on who may file a protest, but the protest shall set forth specifically the grounds upon which it is based and shall be submitted expeditiously.

In accordance with Section 4, General Order No. 96-B, SCE is serving copies of this advice filing to the interested parties shown on the attached GO 96-B and Resolution W-4665 service lists. Address change requests to the GO 96-B service list should be directed by electronic mail to AdviceTariffManager@sce.com or at (626) 302-4039. For changes to all other service lists, please contact the Commission's Process Office at (415) 703-2021 or by electronic mail at Process_Office@cpuc.ca.gov.

Further, in accordance with Public Utilities Code Section 491, notice to the public is hereby given by filing and keeping the advice filing at SCE's corporate headquarters.

To view other SCE advice letters filed with the Commission, log on to SCE's web site at <http://www.sce.com/AboutSCE/Regulatory/adviceletters>.

For questions, please contact Daniel Marsh at (626) 302-6586 or by electronic mail at Daniel.marsh@sce.com.

Southern California Edison Company

Akbar Jazayeri

AJ:dm:jm
Enclosures

ATTACHMENT C

Public Water System 1910006 List of Approved Sources

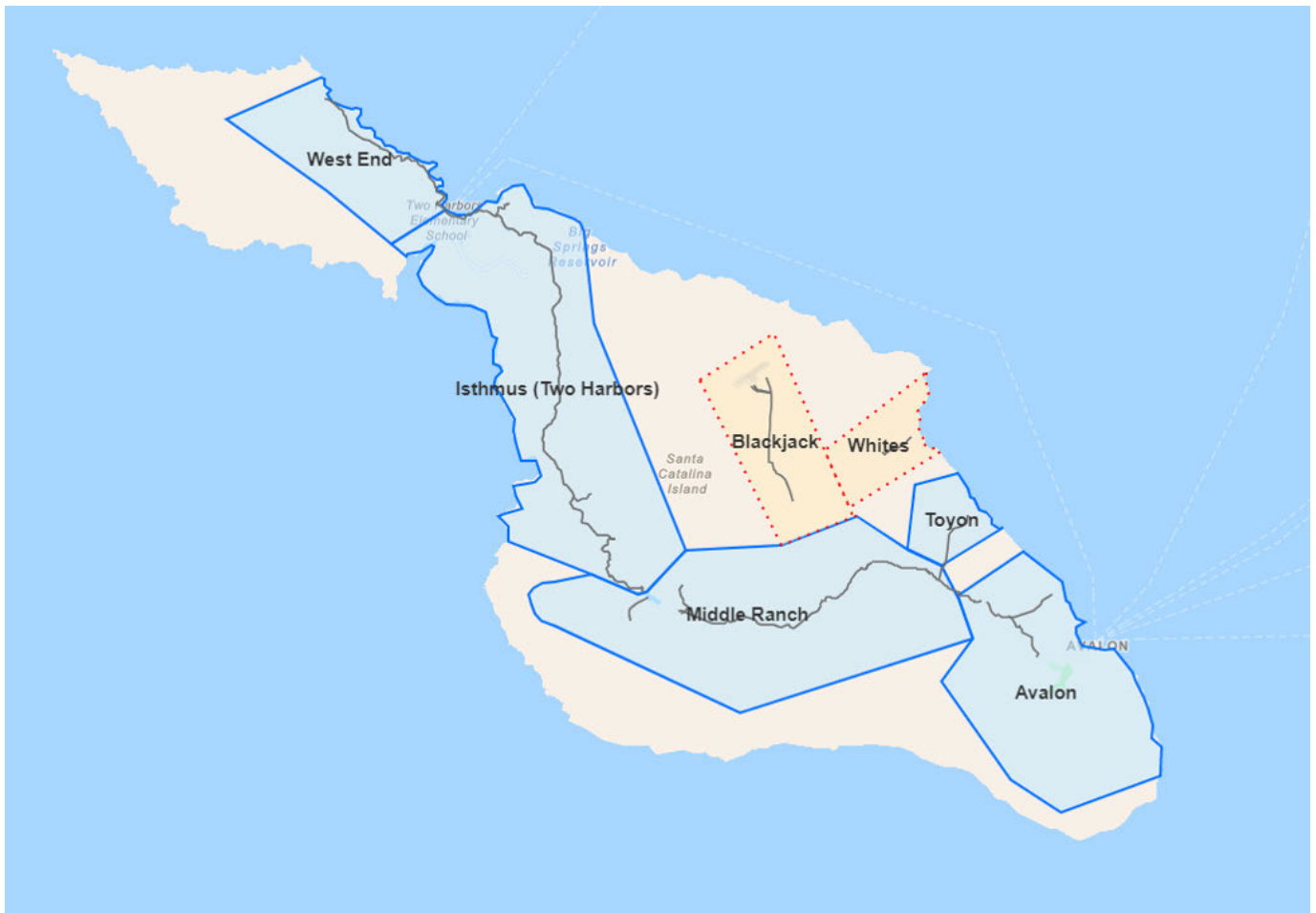
Public Water System 1910006 – List of Approved Sources

Source	PS Code	Status
Blackjack Well 01	1910006-023	Active
Cottonwood Well 02	1910006-005	Active
Cottonwood Well 01A	1910006-006	Active
Howlands Landing Well 01	1910006-012	Active
Sweetwater Canyon Well 01A	1910006-014	Active
Middle Ranch Well 01A	1910006-016	Active
Middle Ranch Well 05A	1910006-031	Active
Middle Ranch Well 06A	1910006-030	Active
Toyon Canyon Well 03	1910006-019	Active
Whites Landing Well	1910006-020	Active
Quarry Seawater Well 01	1910006-038	Active
Quarry Seawater Well 02	1910006-039	Active
Howlands Landing Well 03R	1910006-044	Active

ATTACHMENT D

Map of Catalina's Integrated Fresh Water System

Catalina Island Integrated Fresh Water System



ATTACHMENT E

Water Availability Methodology Illustrative Example

Illustrative Example of Water Availability Methodology

AFY: acre feet per year

MGD: million gallons per day

GPH: gallons per hour

Middle Ranch-Avalon-Toyon System Calculation (10-year, 2010-2019)

Variable	Annual (Average Day)		Maximum Day ¹		Peak Hourly ¹	
	(AFY)	(MGD)	(MGD)	(GPH)		
Source Capacity		+ 499	+ 0.4455	+ 1.0303		+ 137,760
Demand (Sales)		- 329.61	- 0.2943	- 0.7537		- 81,800
Water Loss	28.1%	- 128.56	- 0.1148	28.1% - 0.2940	28.1%	- 31,910
Committed Allocations		- 13.56	- 0.0121	- 0.0195		- 2,120
Balance		+27.27	+0.0243	- 0.0369		+21,930

1. Considers peaking factors of 1.614 (Maximum Day) and 2.605 (Peak Hourly)

Source Capacity Detail:

Water Source	Annual (Average Day)		Maximum Day	Peak Hourly
	(AFY) ¹	(MGD)	(MGD)	(GPH)
Middle Ranch Wells	350	0.3125	0.7718	32,158
PBGS Desal Facility	136.1	0.1215	0.2470	10,292
Toyon	12.9	0.0115	0.0115	480
Storage	-	-	-	94,830
Total	499	0.4455	1.0303	137,760

1. Comparing these capacities to Advice Letter 64-W, specifically the table of water sources on page 3, the Middle Ranch Wells and Toyon sources decrease by a combined 25.1 AFY and the Desalination Plant (PBGS Desal Facility) increases by 25.1 AFY

Committed Allocations Detail:

Allocation	Annual (Average Day)		Maximum Day ¹	Peak Hourly ¹
	(AFY)	(MGD)	(MGD)	(GPH)
Hamilton Cove	12.3	0.0110	0.0177	1,923
Trailhead	0.72	0.0006	0.0010	113
151/153 Olive	0.54	0.0005	0.0008	84
Total	13.56	0.0121	0.0195	2,120

1. Considers peaking factors of 1.614 (Maximum Day) and 2.605 (Peak Hourly)

ATTACHMENT 6-8

Water Valve List

WATER VALVES

Valve #	Location	Valve Size "	Valve Type	# of turns	2017 Notes	GPS (Lat./Long.)
1	Pebbly Beach Rd., between Mole and Crescent (at volleyball court)	4	Gate	14 1/4		
2	Crescent Ave at Lower Terrace (8 ft north of valve #3)	10	Gate	33 1/4		
3	Crescent Ave and Lower Terrace (8 ft south of valve #2)	4	Gate	13 1/2		
4	Cresecent Ave, East of Pebbly Beach Rd	4	Gate	13 1/2		
5	Lower Terrace, North of Beacon	4	Gate	13 1/2		
6	Beacon, SE corner of Catholic Church	4	Gate	14 1/4		
7	Clemente, S of Beacon	4	Gate	14		
8	Clemente, N of Tremont	4	Gate	14 1/4		
9	Corner of Claressa, N of Tremont	4	Gate	13 3/4		
10	Tremont (between Claressa and Descanso)	4	Gate	13 3/4		
11	Corner of Descanso & Tremont	4	Gate	14		
12	Catalina, N of Tremont	4	Gate	14		
13	Eucalyptus, N of Tremont	4	Gate	14		
14	Falls Canyon Rd, S of Tremont, NE of Regulator Vault	8	Gate	27 3/4		
15	Falls Canyon Rd and Tremont, inside pressure Regulator Vault	6	Gate	21 1/4		
16	Tremont, West of Sumner	8	Gate	26 1/4		
17	Sumner, N of Tremont	4	Gate	13 1/2		
18	Corner of Claressa & Beacon, S of Beacon	4	Gate	14 1/4		
19	Corner of Claressa & Crescent, N of Beacon	4	Gate	14 1/4		
20	Beacon, E of Descanso	4	Gate	14		
21	Corner of Descanso & Beacon, S of Beacon	4	Gate	13 1/2		
22	Corner of Descanso & Beacon, N of Beacon	4	Gate	13 3/4		
23	Catalina, S of Beacon	4	Gate	13 1/2		
24	Catalina, N of Beacon	4	Gate	14 1/2		
25	Beacon, E of Sumner	4	Gate	14 1/2		
26	Sumner in front Catalina Lodge	4	Gate	13 1/2	Installed 1995	
27	Beacon, W of Sumner	4	Gate	14 1/2		
28	Sunny Lane, S of Beacon	1 1/4	Ball	1/4		
29	Beacon, E of Metropole	4	Gate	14		
30	Metropole, S of Beacon	4	Gate	14 1/2		
31	Beacon, W of Metropole	4	Gate	14 1/2		
32	Third St, Corner of Catalina	4	Gate	14 1/2		
33	Descanso, S of Third St	4	Gate	13 1/2		
34	Corner of Third St & Claressa, W of Claressa	4	Gate	13 1/2		
35	Claressa and Crescent	4	Gate	13 1/2		
36	Crescent, W of Claressa	4	Gate	13 1/4		+33.342866, -118.324512
37	Crescent, E of Catalina	4	Gate	13 3/4		
38	Catalina, S of Crescent	4	Gate	13 1/2		+33.343314, -118.325380
39	Front of Jacks Restaurant, near Vons Express (Feeds Alley)	2	Ball	1/4		
40	Crescent, E of Sumner	4	Gate	13 1/2		+33.343922, -118.325900

41	Sumner, S of Crescent	4	Gate	13 1/2		
42	W of Sumner (Near Chi Chi Club)	2	Ball	2 " stop cock		
43	Crescent, E of Metropole	4	Gate	13 1/2		
44	Crescent, south of bluewater patio (Square Lid)	2	Ball	1/4		
45	Metropole, S of Crescent	4	Gate	15	Could not locate	
46	Crescent, E of Whittley		Gate	buried		
47	Whittley, S of Crescent	4	Gate	14 1/2		
48	Marilla, S of Crescent	4	Gate	15		
49	Crescent, S of St. Catherine Way	4	Gate	14		+33.345082, -118.326969
50	Crescent, E of Maiden Lane (across from stairway to Tuna Club)	4	Gate	13		
51	Crescent, E of Maiden Lane	4	Gate	15		
52	Maiden Lane at Crescent	4	Gate	14		
53	Olive St & Crescent	3	Gate	4 1/2		
54	Olive St, N of Vieudelou next to gas valve #48	3	Gate	7 1/2	2" stopcock	
55	E Whittley, S of Lower Corner (middle of street)	4	Gate	13 1/2		
56	E Whittley, S of Lower Corner (near wall)	4	Gate	13 1/4		
57	East Whittley, E of Whittley	4	Gate	14		
58	Whittley, S of East Whittley (lower corner)	4	Gate	13 3/4		
59	Whittley at Whittley Arms Appts.		Gate	CLOSED		
60	Marilla, N of Upper Hiawatha		Gate	CLOSED		
61	Upper Hiawatha at Marilla	6	Gate	20 3/4		
62	Hiawatha at Las Lomas	6	Gate	21		
63	Las Lomas at Hiawatha	6	Gate	20		
64	Driveway S of 225 Hiawatha (Casa Solana)	6	Gate	21 1/2		
65	Corner of Marilla and Hiawatha (W of Marilla)	4	Gate	13 1/4		
66	Marilla, N of Hiawatha (Valve is normally Closed)		Gate	CLOSED		
67	Marilla, S of Vieudelou	4	Gate	14 1/4		
68	Vieudelou at Marilla	4	Gate	13 3/4		
69	Vieudelou @ Olive (In Wooden Vault)	4	Gate	14	At dead end.	
70	Intersection of Vieudelou at Hill St. (Between 114 & 124)	4	Gate	14	Removed?	
71	Vieudelou at Chimes Tower Rd (S of Zane Grey)	6	Gate	20 1/4		
72	Vieudelou at Las Lomas Rd (Stagecoach rd)	6	Gate	19 3/4		
73	E Whittley, across from 371	6	Gate	21 1/2		
74	Whittley Reservoir	8	Gate	26 1/2		
75	Whittley Reservoir	6	Gate	20 1/2		
76	Whittley Reservoir	8	Gate	26 1/4		
77	Whittley Reservoir	8	Gate	26 1/4		
78	Whittley Reservoir	6	Gate	20		
79	Whittley Reservoir		Gate	CLOSED		
80	Top of Metropole	4	Gate	13 1/2		
81	Metropole, N of Tremont	4	Gate	13 1/2		+33.341795, -118.331295
82	Quail Canyon at Falls Canyon	4	Gate	14 1/2		
83	Alley behind Pancake Cottage	2	Ball	1/4		

84	Falls Canyon Rd, SW of Hospital (behind wall)	3	Gate	9		
85	Hill St at McAleavy's House	2	Ball	1/4		
86	La Mesa Rd- approx 100 ft S of Wrigley Home (near fire hydrant)	4	Gate	14 1/2		
87	Casino, NW side		Gate	None		
88	Pebbly Beach Generating Station (Parking lot in front)		Gate	Abandoned		
89	Hiawatha, W of Clay valve	2	Ball	1/4		
90	Pebbly Beach Village, North end	3	Gate	7		
91	Pebbly Beach, South end		Gate	2" closed	Removed from service temporarily	
92	Three Palms rd, behind Pebbly Beach Village		Gate	Abandoned		
93	Three Palms rd, behind Pebbly Beach Village		Gate	Abandoned		
94	Halfway Tank		Gate	Abandoned		
95	Marilla, E of Whittley		Gate	2 1/4		
96	Top of Whittley & East Whittley	6	Gate	20 3/4		
97	Las Lomas & Whittley	6	Gate	21		
98	East Whittley at Whittley	8	Gate	26		
99	Pebbly Beach Rd, Near new Trailhead building site	10	Gate	33	10" HP	
100	S Side of Tremont, across from Eucalyptus	10	Gate	33 1/2	10" HP	
101	Bottom of Country Club Dr	6	Gate	22 1/2		
102	Falls Canyon Rd, South of Tremont	6	Gate	22		
103	Country Club Drive and Tremont	6	Gate	22		+33.340537, -118.338776
104	Cemetery Rd 40 ft from stop sign	2	Ball	1/4	Discontinued	
105	South of 4" RP, across from Holiday Inn Hotel	4	Gate	14 1/2		
106	Pebbly Beach Generating Station	10	Gate	33 1/2		
107	Pebbly Beach Generating Station		Gate	Abandoned		
108	Lower Terrace Rd	10	Gate	33		
109	Clemente and Wrigley drive (feeds Monkeytown)	2	Ball	1/4		
110	Casino parking lot		Gate	Closed		
111	East end of Beacon, Canyon Terrace, west of #18	2	Ball	1/4		
112	Clemente, (Feeds Bahia Vista)	4	Gate	14 3/4		
113	Tremont & Eucalyptus	4	Gate	14 1/4		
114	Tremont, W of Metropole (near Tremont Hall)	8	Gate	26		
115	Eucalyptus, S of Beacon	4	Gate	13 1/2		
116	Upper Dump Rd		Gate		Discontinued	
117	Cemetery Rd, by stop sign at "Y" (New 6" AC Wtr main for canyon club hotel)	8	Gate	25 3/4		
118	Cemetery Rd, 20' S of #4 Dam Entrance		Gate	CLOSED		
119	Lower Olive, behind Seaport Village	2	Ball	1/4		
120	Country Club Rd & Cabrillo Drive, East	4	Gate	14 1/4		
121	Cabrillo, N of #22	4	Gate	13 3/4		
122	Cabrillo, N of #32	4	Gate	13 1/2		
123	Cabrillo, SE of #23	4	Gate	14 3/4		
124	Cabrillo, SE of #23	4	Gate	14		
125	Cabrillo Drive & Cemetery Rd	4	Gate	13 1/2		
126	Sol Vista, E of pool	10	Gate	32		

127	Sol Vista, S of #72 (in planter)	10	Gate	32 1/2		
128	Falls Canyon Rd, across from AHS Gym	4	Gate	13 1/2		
129	North End of Middle Terrace	6	Gate	20 1/2		
130	North End of Upper Terrace	10	Gate	33 1/2		
131	Baker Dam Rd (feeds Tanks)	8	Gate	28 1/2		
132	Cemetery Rd, below Baker Dam (Entrance 6")	6	Gate	20		
133	Quail Canyon Rd, across from stables 10"	10	Gate	32 1/4		
134	Quail Canyon Rd at stables 4"	4	Gate	15		
135	Quail Canyon Rd at stables 10"	10	Gate	33 3/4		
136	Quail Canyon Rd	4	Gate	14 1/4		
137	Tremont, across from B-1, E side	8	Gate	28 1/4		
138	Quail Canyon Rd, across from #3 Pump Station (Pole Yard)	2	Ball	1/4		
139	Whittley, in front of #243 Installed in 1994	3	Gate	9		
140	Tremont, across from B-1, feeds Eucalyptus Hill	8	Gate	26 1/4		
141	Tremont, W of #114, feeds Eucalyptus Hill	8	Gate	26 1/2		
142	Banning Drive, W side	4	Gate	14 1/4		
143	Banning Drive, E side	4	Gate	13 1/4		
144	Las Lomas, N of Canyon Club, feeds Eucalyptus Hill, S of B/F preventor valve	4	Gate	14 1/4		
145	AHS Ball Field (behind shop building)	4	Gate	13 1/2		
146	207 Calle del Sol, 6' north of gas valve	4	Gate	13 1/2		
147	Above Tremont 8"	8	Gate	26 1/2		
148	S of Valve #144 Closed	4	CLOSED?	14 1/2		
149	Sonlight Auto, across from Sewage Plant 4' riser		Gate	Blank		
150	In front of Lloyds	4	Gate	12 1/2		
151	Gate at Birdpark		Gate			
152	Birdpark Apt Entrance		Gate			
153	Near Gate at Entrance Birdpark Apt		Gate			
154	Pebbly Beach Road near Barbara Pearson dock (in planter near valve 1)	4	Gate			+33.343463, -118.323406
155	Casino Way just west of Casino in road close to planter	4	Gate			+33.344690, -118.327275
156	Country Club Road near lower end of Cabrillo Drive	10	Gate			+33.339816, -118.330635
157	Crescent Ave. at end of Sumner Ave. (in front of Lloyds/ocean side of Planter)		Gate			

Fire Sprinkler System						
Valve #	Location	Valve Size	Valve Type	# of turns	Notes	GPS (Lat./Long.)
1-S	Island Inn Metropole Ave	4	Gate	15 1/2		
2-S	Bluewater	4	Gate	14 1/2		
3-S	Chi Chi Club Sumner Ave	4	Gate	14		
4-S	US Bank FS, In front of 123 Metropole (Vons) Ave. alley	4	Gate	15 1/2	Packing Leaks	+33.344113, -118.326969
5-S	LA County Sheriffs Dept, Sumner Ave					
6-S	Jack's Catalina Ave	4	Gate	14 1/2		
7-S	Glenmore Hotel Sumner Ave	4	Gate	14 1/4		

Hamilton Cove						
Valve #	Location	Valve Size	Valve Type	# of turns	Notes	GPS (Lat./Long.)
H-1	Playa Azul, 200' W of Guard shack	8	Gate	25 1/4		
H-2	Playa Azul, 3 ' w of w. stairs to bldg # 5					
H-3	Playa Azul, in front of P.R. Sta "C"					
H-4	Intersection, Play Azul & Camino de flores E. Side	8	Gate	27 3/4		
H-5	Intersection, Play Azul & Camino de flores W. Side	8	Gate	28		
H-6	Camino de flores, 100 ' E of intersection w/ Playa Azul in gutter	8	Gate	28 1/2		
H-7	Camino de flores, 100 ' E of intersection w/ Playa Azul in street	8	Gate	28		
H-8	Camino de flores, SE of Pool across from high voltage vault	8	Gate	27.25		
H-9	Playa Azul, 25' E of intersection w/ Gaviota	8	Gate	28		
H-10	Intersection of Playa Azul & Gaviota	8	Gate	28		
H-11	Intersection, La Paloma at Playa Azul	8	Gate	27.5		
H-12	Intersection, Play a Azul at La Paloma	8	Gate	27.5		
H-13	Intersection, La Paloma at Gaviota	8	Gate	27.75		
H-14	Middle of Gaviota 18' N of Stairs to units 77-81 Middle of Gaviota	8	Gate	28.5		
H-15	Mar de Cortez between Maint Bldg & Station feed maint bldg	8	Gate	29		
H-16	Mar de Cortez near H-15 feeds Const office	8	Gate	27.75		
Two Harbors System						
Valve #	Location	Valve Size	Valve Type	# of turns	Notes	GPS (Lat./Long.)
Iso-1	Escondido Hayfield	10	Gate	33 1/2		
Iso-2	SCE Utility Road, 300' Below Big Springs Turn Off	10	Gate	33 1/2		
Iso-3	Flats Between Cottonwood and Sweetwater	10	Gate	33 1/2		
Iso-4	Sweetwater Road, South of Eagles Nest	10	Gate	33 1/2		
Iso-5	Avalon Side of Little Harbor	10	Gate	33 1/2		
Iso-6	Two Harbors Side of Little Harbor	10	Gate	33 1/2		

ATTACHMENT 6-9

Response DR IG-03 PubAdv-SCE-015-IG Q.05

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 1 5 - I G

To: Public Advocates Office
Prepared by: Sarah Tran
Job Title: Senior Advisor
Received Date: 12/17/2020

Response Date: 12/23/2020

Question 05:

Referring to the Theoretical Reserve and Remaining Life Calculation (Theo_Reserves) worksheet, column two “Utility Acct” lists general asset categories. In Excel format, please identify the specific asset(s) corresponding to each line entry in the worksheet.

Response to Question 05:

The “Theo Reserve” tab contains a summary of gross plant balances for each utility account by vintage year. SCE maintains its plant balances at this level and does not keep records of costs by specific asset. Instead, SCE uses a work order system that captures the additions and retirements to plant by individual work order. Each work order assigns costs to specific utility accounts contributing to the overall balance housed on the ledger. Depreciation parameters (life, net salvage) and rates are then analyzed and developed at this utility account level of detail.

ATTACHMENT 6-10

**2019 Sanitary Survey Cover Letter
Memo- SCE Catalina 1910006**

State Water Resources Control Board Division of Drinking Water

August 31, 2020

Mr. Ronald Hite, District Manager
Southern California Edison Company – Santa Catalina
P.O. Box 527
1 Pebbly Beach Road
Avalon, CA 90704

Dear Mr. Hite:

SYSTEM NO. 1910006 – 2019 WATER SYSTEM SANITARY SURVEY

Thank you for the courtesy and cooperation that Southern California Edison Company – Santa Catalina (Company) extended to Terrence Kim and me during the sanitary survey of the Company's water supply system on December 2, 3, and 5, 2019. Eight elements were evaluated in this sanitary survey as described in the enclosed sanitary survey memorandum.

The purpose of this letter is to advise the Company of the inspection findings for the elements listed in the enclosed memorandum. Based on the recent inspection, review of files with the Company and the State Water Resources Control Board, Division of Drinking Water (Division), and other related evaluations, the Division finds that the Company provides wholesome, potable water to its customers and the Company's water system is maintained in satisfactory condition.

A courtesy copy of the sanitary survey memorandum prepared for this sanitary survey and worksheets completed during the sanitary survey to evaluate the condition of the Company's facilities per the eight sanitary survey elements are enclosed. A copy of the 2019 Annual Report to the Drinking Water Program submitted by the Company to the Division is attached to the enclosed memorandum.

The Division is providing the deficiencies, comments, and recommendations below based on the recent sanitary survey and other related evaluations of the Company's water system. Please provide the status of these items to the Division as they are corrected.

1. The Company shall complete and submit data sheets for the facilities listed below within 60 days of the date of this memorandum (memo).
 - a. HL Well 3R
 - b. HL Treatment Plant
 - c. Wrigley Reservoir Treatment Plant
 - d. Isthmus Twin Tanks Booster Station
 - e. Pump House 2:
 - i. Air stripper
 - ii. Storage Tank
 - f. Wrigley Reservoir
 - g. Howlands Tank

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

- h. Isthmus Twin Tanks 1 and 2
 - i. Million Gallon Tank
 - j. White's Landing Tank
 - k. Toyon Tank
 - l. Airport Tank
 - m. Blackjack Tank
 - n. Mt. Ada Tank and air stripper
 - o. Mt. Ada Booster Station
 - p. Stables Booster Station
 - q. Desalination Plant 1 Booster Station
 - r. Airport Booster Station
 - s. Baker Tanks 4, 5, and 6
 - t. High Pressure Tank
 - u. TWT 1
2. The facilities listed below featured air relief vents that did not terminate facing downward, were not covered with a screen mesh, or featured a damaged screen mesh (Appendix 4). The Company shall ensure that these air relief vents terminate facing downward and are covered with an intact screen mesh within 60 days of the date of this memo.
- a. Middle Ranch Well 5A featured a gray pipe attached to a pressure gauge that terminates facing downward. This pipe terminus was not covered with a cap or screen mesh.
 - b. HL Well 1 featured an air relief vent attached to the well discharge pipe located inside the HL Well 1 building enclosure that did not terminate facing downward and was not covered with a screen mesh.
 - c. The pipeline carrying a blend of HL Well 1 water and HL Treatment Plant effluent featured an air relief vent located immediately outside of the HL Well 1 building enclosure that was not covered with a screen mesh.
 - d. An air relief vent on the Blackjack Tank outlet pipe did not feature a screen mesh.
 - e. During the 2018 sanitary survey, Cottonwood Well 1A had an air relief vent adjacent to the wellhead with a screen mesh that was corroded.
 - f. During the 2018 sanitary survey, Sweetwater Canyon Well 1A had an air relief vent upstream of the discharge pipe check valve and another air relief vent downstream of the discharge pipe check valve, connected to the chlorine injection point. Neither air relief vent featured a screen mesh.
 - g. During the 2018 sanitary survey, an air relief vent next to Howlands Tank on the connection pipeline to the Isthmus Twin Tanks did not feature a screen mesh.

3. The wells listed below featured threaded hose bibs located upstream of discharge pipe check valves (Appendix 4). Within 60 days of the date of this memo, the Company shall remove the threads from these hose bibs, relocate the hose bibs downstream of the discharge pipe check valve, replace these hose bibs with downturned unthreaded sample taps, or install a vacuum breaker and cap on the hose bib.
 - a. Middle Ranch Well 5A featured a threaded hose bib upstream of the well discharge pipe check valve.
 - b. Middle Ranch Well 6A featured a threaded hose bib upstream of the well discharge pipe check valve with a vacuum breaker installed but with no cap installed on the vacuum breaker.
 - c. Blackjack Well 1 had a threaded hose bib located upstream of the discharge pipe check valve.
 - d. HL Well 1 had a threaded hose bib located upstream of the discharge pipe check valve.
 - e. During the 2018 sanitary survey, Cottonwood Well 1A had one threaded hose bib located upstream of the discharge pipe check valve.
 - f. During the 2018 sanitary survey, Cottonwood Well 2 did not have an unthreaded sample tap facing downward located upstream of the check valve but it had two threaded hose bibs located upstream of the discharge pipe check valve.
4. Several wells featured appurtenances that did not terminate facing downward and were not covered with a screen mesh or cap. These appurtenances appeared to be casing vents, sounding tubes, gravel chutes, or similar features. All well casing vents need to terminate at least three pipe diameters above the ground facing downward and be covered with a screen mesh. If these appurtenances are sounding tubes, gravel chutes, or another type of appurtenance other than casing vents, the Company shall securely seal or cap these appurtenance openings to prevent contamination of the underlying groundwater. These improvements shall be completed within six (6) months of the date of this memo.
 - a. Blackjack Well 1 featured a casing vent on the wellhead that terminates facing upward and was plugged with a wooden peg with chlorine injection tubing inserted into the peg.
 - b. Whites Landing Well featured an appurtenance located on the side of the well casing above grade that was plugged with a wooden peg with chlorine injection tubing inserted into the wooden peg. There were gaps between the wooden peg and the appurtenance opening.
 - c. HL Well 1 featured a casing vent with a torn screen mesh and the chlorine injection point was not completely sealed. The torn screen mesh needs to be replaced and the chlorine injection point needs to be improved such that the wellhead is completely sealed.

- d. The Middle Ranch Well 5A casing vent had a torn screen mesh that needs to be replaced.
 - e. During the 2018 sanitary survey, Cottonwood Well 1A featured two appurtenances on the wellhead that terminate facing upward, one plugged with a wooden peg and the other one sealed with electrical tape and with chlorine injection tubing inserted. There was another appurtenance adjacent to the wellhead that terminated facing upward and was covered with green rubber sheets.
 - f. During the 2018 sanitary survey, Cottonwood Well 2 featured an appurtenance adjacent to the wellhead that terminated facing upward and was plugged with a wooden peg.
 - g. During the 2018 sanitary survey, a decommissioned well located inside the Cottonwood Well 1A chlorination building featured two appurtenances adjacent to the decommissioned well concrete pedestal that were capped with wooden pegs. These appurtenances need to be properly decommissioned to prevent contamination of the underlying groundwater.
5. Several facilities were not observed during the 2019 sanitary survey. The Company shall provide photographs of the facilities listed below to the Division within 60 days of issuance of this memo.
- a. Cottonwood Well 1A
 - b. Cottonwood Well 2
 - c. Sweetwater Canyon Well 1A
 - d. Howlands Tank
 - e. High Pressure Tank
 - f. The roofs and interiors of all other storage tanks
6. Permit Amendment #1910006PA-006 required the Company to provide an updated BSSP and GWR amendment to CSSP to the Division by November 19, 2018. The Company submitted an updated BSSP dated February 11, 2019 to the Division. However, it needs to be revised such that upstream repeat sampling sites are downstream of storage tanks and wells and upstream of the routine sites. The Company shall submit a revised BSSP and GWR amendment to CSSP to the Division within 60 days of the date of this memo.
7. Quarry Seawater Well 1 monitoring is past due for thiobencarb, gross beta, arsenic, cyanide, fluoride, mercury, perchlorate, thallium, and nitrate. Quarry Seawater Well 1 shall be monitored immediately for these constituents.
- a. Thiobencarb monitoring was most recently completed on 6/21/2018 and in two consecutive quarters on 6/29/2017 and 9/22/2017. Thiobencarb monitoring is required in two consecutive quarters once every three years and once per year in all other years. Thiobencarb monitoring shall be conducted immediately and by 12/2020.

- b. Inorganic constituents:
 - i. Nitrate monitoring was most recently completed on 3/31/2020 and is required quarterly.
 - ii. The Division's WQIR water quality database does not have any nitrate + nitrite results from Quarry Seawater Well 1. Nitrate + nitrite monitoring is required once every three years.
 - iii. Monitoring for arsenic, cyanide, fluoride, mercury, perchlorate, and thallium was most recently completed on 6/21/2018 and is required annually.
 - c. Gross beta monitoring was most recently completed on 12/15/2016 and is required once every three years per Permit Amendment #1910006PA-005.
 - d. Monitoring for aluminum, antimony, barium, beryllium, cadmium, total chromium, nickel, selenium, VOCs, general mineral, and general physical constituents except for thiobencarb was most recently completed on 6/26/2019 and is required annually. Boron monitoring was most recently completed on 6/29/2017 and is required once every three years. Monitoring for these constituents is next due by 12/2020 although it is strongly recommended to monitor earlier in the year to account for repairs, drought, or other unforeseen events that prohibit monitoring.
 - e. SOC monitoring including thiobencarb but excluding 1,2,3-TCP was most recently completed in two consecutive quarters on 6/29/2017 and 9/22/2017 and shall be conducted immediately and again by 12/2020. SOC monitoring including 1,2,3-TCP but excluding thiobencarb is required in two consecutive quarters once every three years.
8. Quarry Seawater Well 2 monitoring is past due for thiobencarb, gross beta, arsenic, cyanide, fluoride, mercury, perchlorate, thallium, and nitrate. Quarry Seawater Well 2 shall be monitored immediately for the following constituents:
- a. Thiobencarb monitoring is required in two consecutive quarters once every three years and once per year in all other years. Thiobencarb monitoring was most recently completed on 7/2/2018 and in two consecutive quarters on 6/29/2017 and 9/22/2017. Thiobencarb monitoring shall be conducted immediately and by 12/2020.
 - b. Nitrate monitoring was most recently completed on 3/31/2020 and is required quarterly.
 - c. Monitoring for arsenic, cyanide, fluoride, mercury, perchlorate, and thallium was most recently completed on 7/2/2018 and is required annually.
 - d. Monitoring for gross beta was most recently completed on 12/15/2016 and is required once every three years per Permit Amendment #1910006PA-005.
 - e. Monitoring for aluminum, antimony, barium, beryllium, cadmium, total chromium, nickel, selenium, VOCs, general mineral, and general physical constituents except for thiobencarb was most recently on 6/26/2019 and is required annually.

Boron monitoring was most recently completed on 6/29/2017 and is required once every three years. Monitoring for these constituents is next due by 12/2020 although it is strongly recommended to monitor earlier in the year to account for repairs, drought, or other unforeseen events that prohibit monitoring.

- f. SOC monitoring including thiobencarb but excluding 1,2,3-TCP was most recently completed in two consecutive quarters on 6/29/2017 and 9/22/2017 and shall be conducted immediately and by 12/2020. SOC monitoring including 1,2,3-TCP but excluding thiobencarb is required in two consecutive quarters once every three years.
9. Cottonwood Well 2 monitoring is past due for iron; perchlorate; VOCs; bentazon; carbofuran; chlordane; 2,4-D; DBCP; dinoseb; diquat; endothall; EDB; glyphosate; oxamyl; pentachlorophenol; and toxaphene. Cottonwood Well 2 shall be monitored immediately for these constituents.
 - a. Monitoring for the SOCs listed above in two consecutive quarters was most recently completed on 3/29/2012 and 6/20/2012 except for endothall, which has not been monitored in two consecutive quarters according to the Division's WQIR water quality database. SOC monitoring is required in two consecutive quarters once every three years. Monitoring for the SOCs listed above shall be conducted immediately and again by 12/2020.
 - b. Iron monitoring was most recently completed on 1/14/2020 and is required quarterly.
 - c. Perchlorate monitoring was most recently completed on 7/22/2015 and is required once every three years.
 - d. VOC monitoring was most recently completed on 6/22/2018 per the Division's WQIR water quality database. VOC monitoring is required annually.
10. Whites Landing Well was most recently monitored on 9/18/2007 for radium-226 and on 3/23/2012 for gross alpha. Thus, Whites Landing Well is past due for radium-226 monitoring and shall be monitored immediately for radium-226. For a gross alpha result below the DLR, half of the gross alpha DLR may substitute for radium-226. Half of the gross alpha DLR is 1.5 pCi/L, which exceeds the radium-226 DLR of 1 pCi/L. The most recent gross alpha result was below the DLR. Thus, radium-226 monitoring is required once every six years.
11. Toyon Canyon Well 3 is past due for cyanide, mercury, nitrate + nitrite, gross alpha, and radium-226 monitoring and shall be monitored immediately for these constituents.
 - a. Cyanide and mercury monitoring was most recently completed on 6/3/2015 and is required once every three years.
 - b. Nitrate + nitrite monitoring was most recently completed on 3/23/2012 and is required once every three years.

- c. Gross alpha monitoring was most recently completed on 3/23/2012 with a result of 3.26 pCi/L. Therefore, gross alpha monitoring is required once every six years.
 - d. Radium-226 monitoring was most recently completed on 9/18/2007 and is past due even when substituting the gross alpha particle activity for radium-226.
- 12. Blackjack Well 1 is past due for radium-226 monitoring, which was most recently completed on 9/18/2007. Gross alpha monitoring was most recently completed on 3/29/2012 with a result below the DLR. As previously mentioned, radium-226 monitoring is required once every six years even when the gross alpha result is below the DLR and when substituting the gross alpha result for radium-226.
- 13. HL Well 1 monitoring is past due for iron; turbidity; perchlorate; nitrate + nitrite; 1,2-dichloroethane; 1,3-dichloropropene; benzene; carbon tetrachloride; cis-1,2-dichloroethylene (cis-1,2-dichloroethene); monochlorobenzene (chlorobenzene); trichlorotrifluoroethane (Freon 113); and 1,2,3-trichloropropane (1,2,3-TCP).
 - a. Iron and turbidity monitoring was most recently completed on 12/11/2019 and is required quarterly as iron and turbidity results exceed the secondary MCLs.
 - b. Perchlorate and nitrate + nitrite monitoring was most recently completed on 6/5/2015 and 10/22/2014, respectively, and is required once every three years.
 - c. Monitoring for 1,2-dichloroethane; 1,3-dichloropropene; benzene; carbon tetrachloride; cis-1,2-dichloroethylene; monochlorobenzene; and trichlorotrifluoroethane was most recently completed on 6/26/2018 and is required annually.
 - d. 1,2,3-TCP initial monitoring consists of four consecutive quarters of monitoring. 1,2,3-TCP monitoring was completed in the first, second, and third quarters of 2018. The fourth quarter of initial monitoring was due by December 31, 2019 per e-mail correspondence from the Division on 6/5/2019 but the Division has not received results via EDT in the fourth quarters of 2018 or 2019.
- 14. Middle Ranch Well 1A monitoring is past due for bentazon; 2,4-D; dinoseb; diquat; endothall; glyphosate; pentachlorophenol; and toxaphene. The Division's WQIR water quality database does not have any results indicating that endothall monitoring was completed in two consecutive quarters at Middle Ranch Well 1A. Monitoring for the other SOC's mentioned above was most recently completed in two consecutive quarters on 3/22/2012 and 6/21/2012. SOC monitoring at Middle Ranch Well 1A is required in two consecutive quarters once every three years. Middle Ranch Well 1A shall be monitored immediately and again by 12/2020 for the SOC's mentioned above.
- 15. HL Well 3R monitoring is past due for iron, manganese, turbidity, chloride, conductivity, TDS, cyanide, mercury, nitrate, nitrate + nitrite, perchlorate, radionuclides, VOCs, SOC's, chlorate, and TOC.
 - a. Permit Amendment #1910006PA-006, Condition #28 requires monthly monitoring at the HL Treatment Plant influent (HL Well 3R) and effluent for iron, manganese, turbidity, chloride, conductivity, TDS, and chlorate during the first three (3)

months following the Permit Amendment #1910006PA-006 issuance date of 9/20/2018 and quarterly TOC monitoring at HL Well 3R. HL Well 3R was monitored for iron, manganese, turbidity, chloride, conductivity, and TDS on 4/24/2019 and 7/9/2019 and for chlorate and TOC on 4/24/2019.

- b. Nitrate monitoring was most recently completed on 7/9/2019 and is required annually.
 - c. Initial monitoring for perchlorate, radionuclides, VOCs, and SOC was due by 12/31/2019 per Permit Amendment #1910006PA-006. Perchlorate initial monitoring consists of collecting two samples in one year, collecting the second sample five to seven months after the first sample, and collecting one of the samples between May 1st and September 30th. Initial monitoring for radionuclides, VOCs, and SOC consists of four consecutive quarters of monitoring.
 - d. The Division has not received any cyanide, mercury, or nitrate + nitrite results via EDT for HL Well 3R. The Division received laboratory reports indicating that cyanide, mercury, and nitrate + nitrite monitoring was most recently completed on 11/3/2017. Cyanide, mercury, and nitrate + nitrite monitoring is required once every three years and is next due by 12/2020 although it is strongly recommended to monitor earlier in the year to account for repairs, drought, or other unforeseen events that prohibit monitoring.
16. Permit Amendment #1910006PA-007, Condition #24 requires monthly TTHM and HAA5 monitoring at PRS C. PRS C was monitored for TTHM and HAA5 monthly from November 2018 to February 2019 and in April 2019, August 2019, and November 2019. PRS C shall be monitored monthly for TTHM and HAA5.
17. Cottonwood Well 1A monitoring for bentazon; carbofuran; chlordane; 2,4-D; dibromochloropropane (DBCP or 1,2-dibromo-3-chloropropane); dinoseb; diquat; endothall; ethylene dibromide (EDB); glyphosate; oxamyl; pentachlorophenol; and toxaphene in two consecutive quarters was most recently completed on 6/23/2017 and 9/25/2017. SOC monitoring is required in two consecutive quarters once every three years and shall be completed immediately and by 12/2020.
18. Several source monitoring results are not present in the Division's WQIR water quality database. The Company shall ensure that its laboratory uploads all monitoring results via EDT to the Division.
19. During the sanitary survey, a hose was attached to an Airport Tank inlet. When not filling Airport Tank with hauled water, this hose needs to be detached from the Airport Tank inlet and the Airport Tank inlet pipe needs to be capped.
20. The Company shall provide photographs of the Middle Ranch Well 1A waste discharge pipe terminus to confirm that it is covered with a screen mesh, blind flange, or an appurtenance that provides an equivalent level of protection to the Division within 30 days of issuance of this memo.

21. The Company currently collects one monthly bacteriological sample from either Cottonwood Well 1A or 2 but not from each well in the same month. Similarly, the Company collects one monthly bacteriological sample from one of Middle Ranch Wells 1A, 5A, and 6A but not from each Middle Ranch well in the same month. It is recommended to collect monthly bacteriological samples from each of these five wells.

22. It is recommended to install a fencing or building enclosure around the following facilities:

- a. Airport Tank and the two adjacent booster pumps.
- b. Toyon Tank
- c. Isthmus Twin Tanks
- d. Million Gallon Tank
- e. Whites Landing Tank
- f. Blackjack Tank
- g. Baker Tanks
- h. High Pressure Tank

If you have any questions regarding this correspondence, please contact Mr. Terrence Kim, P.E., at (818) 551-2044.

Sincerely,

Sutida Bergquist, P.E.
District Engineer
Central District

Enclosures


1. Sanitary Survey Memorandum

ENCLOSURE NO. 1
Sanitary Survey Memorandum

State Water Resources Control Board
Division of Drinking Water

Memorandum

TO: Ms. Sutida Bergquist, P.E.
District Engineer, Central District

FROM: Terrence Kim, P.E.
Associate Sanitary Engineer 
Central District

DATE: August 31, 2020

SUBJECT: 1910006, Southern California Edison Company – Santa Catalina, 2019 Sanitary Survey

On December 2, 3, and 5, 2019, Ms. Sutida Bergquist, District Engineer, and Mr. Terrence Kim, Associate Sanitary Engineer, of the State Water Resources Control Board (SWRCB or State Water Board), Division of Drinking Water (Division), Central District, conducted a sanitary survey of the Southern California Edison Company – Santa Catalina (Company) public water system. Accompanying us on the sanitary survey from the Company were Danny Lu, Regulatory Compliance and Affairs Advisor, and Frank Beach, Water and Gas Supervisor. The survey evaluated eight elements as follows:

- 1) **Source** – Review of a raw water source's features for the purposes of preventing potential contamination or water quality degradation.

The Company has 13 active wells. Two of the wells, Quarry Seawater Wells 1 and 2, produce groundwater under the direct influence of surface water (GWUDI) from the adjacent Pacific Ocean seawater and are considered to be surface water sources. Thus, raw seawater from Quarry Seawater Wells 1 and 2 undergoes treatment at Desalination Plants 1 and 2 for compliance with pathogen reduction requirements of the Surface Water Treatment Rule (SWTR). Quarry Seawater Wells 1 and 2 serve the city of Avalon. Middle Ranch Wells 1A, 5A, and 6A are located near Middle Ranch Reservoir located northwest of Avalon. The Middle Ranch wells serve Avalon and Hamilton Cove, a small community immediately northwest of Avalon.

Cottonwood Wells 1A and 2 and Sweetwater Canyon Well 1A mainly serve the town of Two Harbors. These three wells blend together at Million Gallon Tank (MGT) before serving Two Harbors and the Isthmus Twin Tanks. Howlands Landing (HL) Wells 1 and 3R serve several campgrounds and other small businesses located northwest of Two Harbors. HL Wells 1 and 3R also serve Two Harbors via a connection from Howlands Tank to the Isthmus Twin Tanks. Cottonwood Wells 1A and 2 and Sweetwater Canyon Well 1A also serve the campgrounds and businesses served mainly by HL Wells 1 and 3R via the connection from the Isthmus Twin Tanks to Howlands Tank. Cottonwood Well 2 has been out of service in

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

recent years due to low groundwater levels and, thus, its associated chlorine injection pump has been removed. The Division did not visit Cottonwood Well 1A, Cottonwood Well 2, or Sweetwater Canyon Well 1A during the 2019 sanitary survey.

Whites Landing Well and Toyon Canyon Well 3 serve campgrounds at Whites Landing and Toyon, respectively. Blackjack Well 1 serves a campground at Blackjack in addition to the Santa Catalina Island airport. Blackjack Well 1 was rehabilitated in late 2018.

During the 2019 sanitary survey, several wells featured appurtenances that did not terminate facing downward and were not covered with a screen mesh or cap. These appurtenances appeared to be casing vents, sounding tubes, gravel chutes, or similar features. All well casing vents need to terminate facing downward and be covered with a screen mesh. If these appurtenances are sounding tubes, gravel chutes, or another type of appurtenance other than casing vents, their openings need to be securely sealed or capped to prevent contamination of the underlying groundwater.

- Blackjack Well 1 featured an appurtenance on the wellhead that terminates facing upward and was plugged with a wooden peg with chlorine injection tubing inserted in the peg. This was also observed during the 2018 sanitary survey.
- Whites Landing Well featured an appurtenance located on the side of the well casing above grade that was plugged with a wooden peg with chlorine injection tubing inserted into the wooden peg. There were gaps between the wooden peg and the appurtenance. This was also observed during the 2018 sanitary survey.
- During the 2019 sanitary survey, the HL Well 1 casing vent screen mesh was torn and the wellhead chlorine injection point was not completely sealed. The chlorine injection point needs to be modified so that the wellhead is completely sealed. The casing vent screen mesh needs to be replaced.
- The Middle Ranch Well 5A casing vent screen mesh was torn during the 2019 sanitary survey and needs to be replaced.
- During the 2018 sanitary survey, Cottonwood Well 1A featured two such appurtenances on the wellhead that terminated facing upward, one plugged with a wooden peg and the other one sealed with electrical tape and with chlorine injection tubing inserted. There was another appurtenance adjacent to the wellhead that terminated facing upward and was covered with green rubber sheets. As mentioned above, Cottonwood Well 1A was not observed during the 2019 sanitary survey to verify if these deficiencies were addressed.
- During the 2018 sanitary survey, Cottonwood Well 2 featured an appurtenance adjacent to the wellhead that terminated facing upward and was plugged with a wooden peg. As mentioned above, Cottonwood Well 2 was not observed during the 2019 sanitary survey to verify if this deficiency was addressed.
- During the 2018 sanitary survey, a decommissioned well located inside the Cottonwood Well 1A chlorination building featured two appurtenances adjacent to the decommissioned well concrete pedestal that were capped with wooden pegs. This well was not observed during the 2019 sanitary survey to verify if these

deficiencies were addressed. These appurtenances need to be properly decommissioned to prevent contamination of the underlying groundwater.

Several wells featured threaded hose bibs located upstream of the well discharge pipe check valve. The threads need to be removed from these hose bibs, the hose bib needs to be relocated downstream of the check valve, the hose bib needs to be removed, or a vacuum breaker and cap need to be installed on the hose bib.

- Blackjack Well 1 featured a threaded hose bib located upstream of the well discharge pipe check valve. This was also observed during the 2018 sanitary survey.
- HL Well 1 featured a threaded hose bib upstream of the well discharge pipe check valve. This was also observed during the 2018 sanitary survey.
- Middle Ranch Well 5A featured a threaded hose bib upstream of the well discharge pipe check valve.
- Middle Ranch Well 6A featured a threaded hose bib upstream of the well discharge pipe check valve with a vacuum breaker installed but with no cap on the vacuum breaker.
- During the 2018 sanitary survey, Cottonwood Well 1A featured a threaded hose bib upstream of the well discharge pipe check valve. As mentioned above, Cottonwood Well 1A was not observed during the 2019 sanitary survey to verify that this deficiency has been addressed.
- During the 2018 sanitary survey, Cottonwood Well 2 did not have an unthreaded sample tap facing downward located upstream of the check valve. There were two threaded hose bibs located upstream of the check valve. As mentioned above, Cottonwood Well 2 was not observed during the 2019 sanitary survey to verify if this deficiency has been addressed.

Several wells featured air relief vents that were not covered with a screen mesh. All air relief vents need to be covered with a screen mesh.

- HL Well 1 featured an air relief vent attached to the well discharge pipe inside the building enclosure that did not terminate facing downward and was not covered with a screen mesh. This air relief vent needs to terminate facing downward and be covered with a screen mesh.
- There was an air relief vent on a pipeline carrying a blend of HL Well 1 water and HL Treatment Plant effluent. This air relief vent was located immediately outside the HL Well 1 building enclosure and was not covered with a screen mesh. This was also observed during the 2018 sanitary survey.
- During the 2018 sanitary survey, Cottonwood Well 1A had an air relief vent adjacent to the wellhead that had a corroded screen mesh. As mentioned above, Cottonwood Well 1A was not observed during the 2019 sanitary survey. This air relief vent screen mesh needs to be replaced.

- During the 2018 sanitary survey, Sweetwater Canyon Well 1A had an air relief vent next to the wellhead upstream of the well discharge pipe check valve and another air relief vent downstream of the check valve and connected to the chlorine injection point. Neither air relief vent featured a screen mesh. As mentioned above, Sweetwater Canyon Well 1A was not observed during the 2019 sanitary survey.

The Middle Ranch Well 1A waste discharge terminus was not observed during the 2019 sanitary survey to confirm that it is covered with a screen mesh or another feature that provides similar protection. The Division requested the Company via e-mail correspondence on August 26, 2020 to provide photographs of the Middle Ranch Well 1A waste discharge terminus to demonstrate that it is covered with a screen mesh or another feature that provides similar protection.

Middle Ranch Well 5A features a gray pipe attached to the discharge pipe pressure gauge that terminates facing downward with a terminus that was not covered or screened. The Company needs to attach a cap or screen mesh to this terminus.

The Company does not have any interconnections with other public water systems.

- 2) **Treatment** – Identification of existing or potential sanitary risks by evaluating the design, operation, maintenance, and management of water treatment plants.

Desalination Plants 1 and 2 are located next to the Company office building in Pebble Beach immediately south of Avalon. Desalination Plants 1 and 2 treat raw seawater from Quarry Seawater Wells 1 and 2, which are under the direct influence of surface water from the adjacent Pacific Ocean. Desalination Plants 1 and 2 feature cartridge filtration, reverse osmosis, calcite treaters, and chlorine disinfection to meet pathogen reduction requirements of the Surface Water Treatment Rule and to comply with chloride, specific conductance (conductivity), and total dissolved solids (TDS) recommended secondary maximum contaminant levels (MCLs). Desalination Plant 1 effluent receives disinfection contact time in Treated Water Tank 1 (TWT 1) before being pumped to the distribution system. Desalination Plant 2 effluent receives disinfection contact time in Treated Water Tank 2 (TWT 2) before being pumped to the distribution system. Brine concentrate produced by the Desalination Plants 1 and 2 reverse osmosis treatment systems is discharged to the Pacific Ocean.

The Company currently operates only one of the desalination plants at a given time. The Company does not operate both simultaneously although both desalination plants currently have the capability of operating simultaneously if operating in Brine Mode. The Company may consider operating Desalination Plants 1 and 2 in Brine Mode in future years to meet peak demand. Brine Mode consists of the following:

- All raw seawater from Quarry Seawater Wells 1 and 2 flows to Desalination Plant 1
- The Desalination Plant 1 brine concentrate flows to Desalination Plant 2
- The Desalination Plant 1 effluent bypasses TWT 1. Instead, it flows to TWT-2 to blend with the Desalination Plant 2 effluent, reducing chloride, conductivity, and TDS levels in the Desalination Plant 2 effluent.
 - The Desalination Plant 2 effluent exceeds the chloride, conductivity, and TDS recommended secondary MCLs in Brine Mode due to the Desalination Plant 1 brine concentrate having higher chloride, conductivity, and TDS levels than raw seawater.

- The combined effluent from both desalination plants flows to TWT 2 for disinfection contact time before being pumped to the distribution system.

Pump House 2 features chlorine disinfection, aeration, and three booster pumps to provide corrosion control treatment and chlorine residual for the Middle Ranch wells and to deliver Middle Ranch well water to Wrigley Reservoir. Groundwater from the Middle Ranch wells flows to the top of the aerator unit where it flows down to the bottom of the unit by gravity. Air enters the bottom of the aerator unit and flows to the top of the unit as it comes into contact with the downflowing water, removing carbon dioxide from the water. This reduces the corrosivity of the water, which reduces copper levels in the distribution system for Lead and Copper Rule (LCR) compliance.

Wrigley Reservoir Treatment Plant features three parallel trains of granular activated carbon (GAC) vessels. Each train features two GAC vessels arranged in series in a lead-lag configuration to remove total trihalomethanes (TTHM) from Wrigley Reservoir for compliance with the TTHM MCL. Wrigley Reservoir Treatment Plant was installed as Hamilton Cove has exceeded the TTHM MCL in recent years. Wrigley Reservoir Treatment Plant receives water from Wrigley Reservoir and the plant effluent flows back to Wrigley Reservoir. Wrigley Reservoir Treatment Plant also includes a chlorination system featuring a liquid sodium hypochlorite solution storage container and injection pump to replenish the chlorine residual in the Wrigley Reservoir Treatment Plant effluent as the GAC media removes the chlorine residual from the Wrigley Reservoir Treatment Plant influent. The treatment plant is housed in two steel shipping containers adjacent to Wrigley Reservoir. Two GAC trains are housed in one shipping container and the third GAC train and the chlorination system are housed in the other shipping container. The Division issued Permit Amendment #1910006PA-007 for Wrigley Reservoir Treatment Plant on September 20, 2018. TTHM levels in Wrigley Reservoir have decreased in recent quarters with the most recent result being 45 µg/L on 2/27/2020. Company operators visit Wrigley Reservoir Treatment Plant daily.

Howlands Landing Well 3 Treatment Plant (HL Treatment Plant) is located adjacent to HL Well 3R and features a catalytic adsorption media filter and chlorination system for iron and manganese oxidation and removal. Liquid sodium hypochlorite solution is injected into the HL Well 3R discharge pipe to oxidize iron and manganese in the HL Well 3R raw water. This water then flows to the filter for removal of the oxidized iron and manganese. HL Treatment Plant allows for compliance with the iron, manganese, and turbidity secondary MCLs. The chlorination system also provides a chlorine residual in the HL Treatment Plant effluent and in the HL Well 3R service area distribution system.

Rosedale bag filtration systems are installed at Million Gallon Tank, Isthmus Pressure Reducing Station (PRS), USC Campus, Little Harbor, Rancho Escondido, and Empire for particulate removal. Distribution piping serving these locations are internally lined with tar that may release particulates containing polychlorinated biphenyls (PCBs) into the water. The filtration systems remove these particulates to aid in preventing the release of PCBs into the water. The USC Campus and Isthmus PRS filtration systems each feature a 50 µm filter followed by a 1 µm filter arranged in series. The other filtration systems each feature a 50 µm filter. The 2019 Annual Report to the Drinking Water Program (Annual Report or eAR) states that three in-line bag filtration systems were installed at the west end of the island in 2019, which are the bag filtration systems installed at Little Harbor, Rancho Escondido, and Empire. The filtration bags are replaced once every 60 days.

In addition to the treatment facilities mentioned above, the Company has liquid sodium hypochlorite injection systems at HL Well 1, Blackjack Well 1, Cottonwood Wells 1A and 2, Sweetwater Canyon Well 1A, Whites Landing Well, and Toyon Well 3 to provide a free chlorine residual throughout the distribution system. Mt. Ada Tank and Million Gallon Tank feature spray aeration systems for compliance with the TTHM MCL.

- 3) **Distribution System** – Review of the design, operation, maintenance, and management of distribution systems to prevent contamination of drinking water as it is delivered to customers.

The Company's distribution system consists of Santa Catalina Island. The Company is the only public water system within the island and serving the island. The Company serves a permanent population of 4,096 through 1,920 service laterals serving 1,942 active metered service connections. The distribution system is divided into six systems. The Middle Ranch:Avalon system consists of Avalon, Hamilton Cove, and the southeastern portion of the island and makes up 80% of the island's demand.

There are 15 dead-ends in the distribution system, one with a blowoff. One dead-end was flushed in 2019. A total of 25,000 gallons of water was flushed in 2019, including dead-end flushing and other flushing types. The Company performs flushing as needed.

There are 182 valves in the distribution system, ranging in size from 2 inches to 12 inches. The Company exercised 100 valves in 2019. The Company plans to replace aging distribution system valves in 2020.

Per the 2019 eAR, there are 265 reduced pressure principle (RPP) and double check valve backflow assemblies on service connections or water meters and one air gap separation. 13 RPP and double check valve backflow assemblies were installed in 2019. 257 RPP and double check valve backflow assemblies were tested in 2019, one of which failed. One was replaced or repaired in 2019. The most recent cross-connection control survey was performed on 12/31/2019. Per the 2019 eAR, the Company's cross-connection control program coordinator is Frank Beach but the 2019 eAR does not provide his certification number nor where he obtained his certification or training.

The distribution system pipe material consists of steel, asbestos cement, ductile iron, plastic, copper, and cast iron. The distribution system pipe average age depends on the pipe material but is between ten and 60 years. Table 1 summarizes the distribution system pipe material and average age. There are no user service lines consisting of lead or unknown material. User service lines consist of pipe, tubing, and fittings connecting a water main to an individual water meter or service connection.

Table 1: Distribution System Pipe Material and Age

Pipeline Material	% of Distribution System	Average Age (in Years)
Steel	51	30
Asbestos Cement	25	30
Ductile Iron	10	20
Plastic	8	10
Copper	5	20
Cast Iron	1	60

Per the 2019 eAR, there were 66 service connection breaks and leaks and 36 main breaks and leaks in 2019. Leaks were reported to the Company's operations and were repaired.

- 4) **Finished Water Storage** – Review of the design and major components of finished water storage facilities in order to prevent water quality problems from arising during storage.

Including TWT 1 and TWT 2, the Company has 16 reservoirs with a total storage capacity of 11.2 million gallons. Wrigley Reservoir is a 9 million gallon (MG) concrete below grade reservoir that receives water from the Middle Ranch wells via Pump House 2. Wrigley Reservoir features a hypalon floating cover with several hatches, roof vents, and sump pumps to remove water that accumulates on the cover. Wrigley Reservoir serves both Avalon and Hamilton Cove.

High Pressure Tank is out of service indefinitely due to a leak in the inlet pipe. The Company is determining whether to repair the High Pressure Tank inlet pipe or to decommission High Pressure Tank. High Pressure Tank serves Avalon.

Operators visit each reservoir at least twice per week. Operators climb up to the reservoir roofs annually and as needed. Major cleaning is performed as needed. Million Gallon Tank and Airport Tank were last inspected, cleaned, and relined or recoated in 2015. Howlands Tank was last inspected and cleaned in 2014 and relined or recoated in 2004. Whites Landing Tank was last inspected in 2014, cleaned in 2013, and relined or recoated in 1995. Baker Tanks #4, 5, and 6 and Toyon Tank were last inspected in 2014, cleaned in 2012, and relined or recoated in 2008. Wrigley Reservoir was last inspected and cleaned in 2013 and relined or recoated in 2006. High Pressure Tank was last inspected and cleaned in 2013 and relined or recoated in 1996. Isthmus Twin Tanks 1 (A) and 2 (B) were last inspected and cleaned in 2012 and relined or recoated in 2006. Blackjack Tank was last inspected and cleaned in 2012 and relined or recoated in 1995.

During the 2018 and 2019 sanitary surveys, a hose was attached to an inlet pipe of Airport Tank. This hose is used to fill Airport Tank with hauled water. The hose was covered with a cap. However, this hose should still be detached from the Airport Tank inlet and this inlet pipe needs to be capped when not filling Airport Tank with hauled water.

During the 2019 sanitary survey, water was observed to be leaking from the top of the inlet at the Whites Landing Tank roof. The Whites Landing Tank roof leak has since been repaired.

During the 2018 sanitary survey, air relief vents on the Blackjack Tank outlet pipe and at Howlands Tank on the connection pipeline to the Isthmus Twin Tanks did not have a screen mesh. The Blackjack Tank outlet pipe air relief vent still did not have a screen mesh during the 2019 sanitary survey. The Company needs to install screen meshes on these air relief vents.

No fencing enclosure was present at Toyon Tank, the Isthmus Twin Tanks, Million Gallon Tank, Whites Landing Tank, Airport Tank, Blackjack Tank, Baker Tanks, or High Pressure Tank. Graffiti was observed on Isthmus Twin Tank 1 and Whites Landing Tank. It is recommended to install fencing enclosures around these storage tanks to secure each site.

- 5) **Pumps, Pump Facilities, and Controls** – Review of the design and use of water supply pumping facilities in order to determine overall reliability and identify potential sanitary risks.

The Company has seven booster stations. Operators visit each booster station at least twice per week except as noted below.

There is one vertical turbine booster pump, Isthmus Booster Pump, located adjacent to the Isthmus Twin Tanks that pumps water from the Isthmus Twin Tanks to Howlands Tank.

Adjacent to Airport Tank are one booster pump for potable water and one booster pump for fire flow. Both booster pumps are centrifugal and deliver water from Airport Tank to the airport. As stated above, there is no fencing or building enclosure surrounding Airport Tank or the two booster pumps. It is recommended to enclose Airport Tank and both booster pumps within a fencing or building enclosure to secure the site and facilities.

Mt. Ada Pump Station features two vertical turbine booster pumps. One pump delivers water from Mt. Ada Tank to the distribution system and the other pump delivers water from Mt. Ada Tank to the Mt. Ada Tank spray aerators.

Pump House 2 consists of three vertical turbine booster pumps, Pumps #3, 4, and 5, that pump water from the Pump House 2 aerator to Wrigley Reservoir. Each with a capacity of 300 gallons per minute (gpm).

Desalination Plant 1 features two booster pumps that deliver TWT 1 effluent to Avalon and the Baker Tanks. Desalination Plant 2 features two booster pumps that deliver TWT 2 effluent to Avalon and the Baker Tanks.

Stables Booster Station consists of one vertical turbine booster pump that delivers water from the distribution system to Mt. Ada Tank. Operators visit Stables Booster Station as needed and manually turn the booster pump on and off.

There is a booster pump and aboveground steel storage tank next to Toyon Tank. This pump and storage tank are not owned or operated by the Company and are not connected to the Company's potable water system.

- 6) **Monitoring, Reporting, and Data Verification** – Determination of water system conformance with regulatory requirements through the review of water quality monitoring plans and system records; verification that data reported to the Division are consistent with system records.

Source and Distribution Bacteriological Monitoring

Each week, the Company collects three or four routine distribution system bacteriological samples rotated amongst the 15 routine sites for a total of 15 routine distribution system bacteriological samples per month. Each of the 15 routine sites are monitored monthly for total coliform, E. Coli, heterotrophic plate count (HPC), and chlorine residual. The Wrigley Reservoir effluent is monitored weekly for total coliform, E. Coli, and HPC. In each month that has a fifth week, the Company collects a total of 17 routine distribution system bacteriological samples and one additional Wrigley Reservoir effluent bacteriological sample.

The most recent bacteriological sample siting plan (BSSP) and Groundwater Rule (GWR) amendment to coliform sample siting plan (CSSP) approved by the Division are dated March 1, 2004 and September 28, 2009, respectively. Permit Amendment #1910006PA-006

required the Company to provide an updated BSSP and GWR amendment to CSSP to the Division by November 19, 2018. The Company submitted an updated BSSP dated February 11, 2019 to the Division. The Division requested that the Company revise this BSSP, specifically the upstream repeat sampling sites for Routine Sites #2, 3, 4, 5, 6, and 7. These upstream repeat sampling sites are indicated in the BSSP as storage tanks or wells and need to be changed to distribution system sites that are upstream of the routine sites and downstream of storage tanks and wells. The Division has not received an updated GWR amendment to CSSP.

On December 4, 2018, Routine Site #8, Avalon Bowl, tested positive for total coliform. The Company's contracted laboratory, Weck Laboratories, Inc. (Weck), notified the Company of the result on December 5, 2018 at 5:31 PM. However, the Company did not collect a repeat total coliform sample from Avalon Bowl until December 7, 2018 at 8:30 AM, more than 24 hours after Weck notified the Company of the initial result. In addition, no repeat total coliform samples were collected within five service connections upstream or downstream of Avalon Bowl as required per Section 64424(a)(1) and (b) of the California Code of Regulations, Title 22 (Title 22). Thus, the Division issued a notice of violation (NOV) to the Company on June 11, 2019. Otherwise, the Company has been in compliance with the Total Coliform Rule (TCR) since at least 2018.

The Company collects one monthly bacteriological sample from either Cottonwood Well 1A or 2 but not from both wells in the same month. The Company also collects one monthly bacteriological sample from one of Middle Ranch Wells 1A, 5A, and 6A but not from all three wells in the same month. The Company collects monthly bacteriological samples from the influents of Desalination Plants 1 and 2 and biweekly bacteriological samples from the effluents of Desalination Plants 1 and 2 in the months that they are in service but does not collect monthly bacteriological samples from Quarry Seawater Well 1 or 2. Bacteriological samples are collected monthly from all other wells in each month that a particular well is in service. All bacteriological samples are analyzed for total coliform, E. Coli, and HPC. Desalination Plants 1 and 2 bacteriological samples are also analyzed for Enterococcus. The Company also collects general physical samples monthly from three distribution system sampling sites for temperature, color, odor, and turbidity.

Source General Mineral and General Physical Monitoring

HL Well 3R exceeds the iron secondary MCL. The most recent iron result at HL Well 3R was 930 µg/L (0.93 mg/L), more than three times the secondary MCL of 300 µg/L (0.3 mg/L). Laboratory analyses indicate that HL Well 3R has elevated turbidity levels, oftentimes exceeding the turbidity secondary MCL, although field measurements are below the secondary MCL. The turbidity secondary MCL exceedances in laboratory analyses are due to iron and manganese oxidation while the samples are transported from the well to the laboratory. The HL Treatment Plant effluent is below the iron, manganese, and turbidity secondary MCLs.

Cottonwood Well 2 and HL Well 1 historically have exceeded the iron secondary MCL. HL Well 1 has elevated turbidity levels with the most recent result exceeding the secondary MCL. Sweetwater Canyon Well 1A has elevated manganese levels, exceeding the manganese secondary MCL, but manganese levels have decreased in recent years. Sweetwater Canyon Well 1A was most recently monitored for iron and manganese on 9/26/2019 with results of 310 µg/L (0.31 mg/L) and 50 µg/L, respectively, matching the secondary MCL when the iron result is rounded down to 0.3 mg/L. Table 2 below

summarizes iron, manganese, and turbidity results since 2011 at sources with elevated levels.

HL Well 1's most recent results match the conductivity upper secondary MCL and exceed the chloride and TDS recommended secondary MCL. HL Well 3R's most recent results exceed the chloride, conductivity, and TDS upper secondary MCLs. Sweetwater Canyon Well 1A, Cottonwood Wells 1A and 2, Toyon Canyon Well 3, and Blackjack Well 1 exceed the conductivity and TDS recommended secondary MCLs. Cottonwood Well 2 exceeds the chloride recommended secondary MCL. Cottonwood Well 1A historically has exceeded the chloride recommended secondary MCL but the most recent result matched the recommended secondary MCL. Middle Ranch Well 5A's most recent results were below the chloride, conductivity, and TDS recommended secondary MCLs. Whites Landing Well's most recent results exceed the conductivity and TDS recommended secondary MCLs. Middle Ranch Wells 1A and 6A historically exceeded the conductivity and TDS recommended secondary MCLs but the most recent results are below the recommended secondary MCLs. Table 3 below summarizes chloride, conductivity, sulfate, and TDS results since 2011 at sources with elevated levels except for Quarry Seawater Wells 1 and 2, which have elevated levels due to influence from the adjacent Pacific Ocean.

Cottonwood Well 2 is past due for iron and methyl-*tert*-butyl ether (MTBE) monitoring. Cottonwood Well 2 was most recently monitored on 1/14/2020 for iron and on 6/22/2018 for MTBE. Iron monitoring is required quarterly as iron levels exceed the secondary MCL. MTBE monitoring is required annually.

HL Well 1 is past due for iron and turbidity monitoring. HL Well 1 was most recently monitored for iron and turbidity on 12/11/2019. Iron and turbidity monitoring at HL Well 1 is required quarterly as iron and turbidity levels exceed the secondary MCLs.

Quarry Seawater Wells 1 and 2 are past due for thiobencarb monitoring. Thiobencarb monitoring was most recently completed on 6/21/2018 at Quarry Seawater Well 1 and on 7/2/2018 at Quarry Seawater Well 2. Quarry Seawater Wells 1 and 2 were most recently monitored for thiobencarb in two consecutive quarters on 6/29/2017 and 9/22/2017. Quarry Seawater Wells 1 and 2 were most recently monitored for all other general mineral and general physical constituents on 6/26/2019. Thiobencarb monitoring at Quarry Seawater Wells 1 and 2 is required in two consecutive quarters once every three years and once per year in all other years. Monitoring for all other general mineral and general physical constituents is required annually and is due by 12/2020 although it is strongly recommended to complete monitoring earlier in the year to account for drought, repairs, or other unforeseen events.

HL Well 3R is past due for iron, manganese, turbidity, chloride, conductivity, and TDS monitoring. Monitoring for these constituents was last completed on 7/9/2019 at HL Well 3R per the Division's WQIR water quality database. Per Permit Amendment #1910006PA-006, monitoring for these constituents is required monthly in the first three months following issuance of Permit Amendment #1910006PA-006, which was issued on 9/20/2018. Once this is completed, manganese monitoring is required once every three years and monitoring for iron, turbidity, chloride, conductivity, and TDS is required quarterly. The Division's WQIR database does not have any results indicating that HL Well 3R was monitored in two consecutive quarters for thiobencarb and does not have any odor-threshold results for HL Well 3R. The Division received laboratory reports indicating that odor-threshold monitoring was most recently completed on 11/3/2017. The Company needs to ensure that all water

quality monitoring results from laboratory analyses are uploaded to the Division via Electronic Data Transfer (EDT) to ensure compliance with water quality monitoring frequency requirements. Odor-threshold monitoring is required once every three years. Thiobencarb monitoring is required in two consecutive quarters once every three years.

Table 2: Elevated Iron, Manganese, and Turbidity Results Since 2011

Source	Iron (µg/L)	Manganese (µg/L)	Turbidity (NTU)
Cottonwood Well 2	ND – 1,900	ND	ND – 2.5
Cottonwood Well 1A	ND – 200	ND	ND – 0.21
Howlands Landing Well 1	ND – 1,500	ND – 48	ND – 16.0
Sweetwater Canyon Well 1A	ND – 310	50 – 90	ND – 0.33
Middle Ranch Well 5A	ND – 410	ND	ND – 1.6
Quarry Seawater Well 2	ND – 140	ND – 28	ND – 0.91
Howlands Landing Well 3R	490 – 5,000	26 – 50	0.94 - 82
Detection Limit for Purposes of Reporting (DLR)	100	20	0.1
Secondary MCL	300	50	5

ND = Not detected at or above the DLR

Table 3: Elevated Chloride, Conductivity, Sulfate, and TDS Results Since 2011

Source	Chloride (mg/L)	Conductivity (µS/cm)	Sulfate (mg/L)	TDS (mg/L)
Cottonwood Well 2	240 – 290	1,100 – 1,800	37 – 55	680 – 870
Cottonwood Well 1A	240 – 290	1,100 – 1,800	37 – 51	700 – 870
Howlands Landing Well 1	240 – 1,000	1,400 – 4,000	56 – 93	700 – 2,500
Sweetwater Canyon Well 1A	190 – 270	1,200 – 1,800	49 – 79	690 – 970
Middle Ranch Well 1A	96 – 140	860 – 1,100	21 – 66	460 – 630
Toyon Canyon Well 3	120 – 150	910 – 1,300	59 – 82	520 - 710
Whites Landing Well 1	140 – 230	960 – 1,800	26 – 43	630 – 860
Blackjack Well 1	160 – 220	1,100 – 1,500	28 – 420	660 – 800
Middle Ranch Well 6A	88 – 140	820 – 1,000	40 – 460	460 – 600
Middle Ranch Well 5A	85 – 300	780 – 1,700	41 – 75	410 – 900
Howlands Landing Well 3R	270 – 350	930 – 1,900	75 – 86	920 – 1,200
DLR	None	None	0.5	None
Secondary MCL (Recommended)	250	900	250	500
Secondary MCL (Upper)	500	1,600	500	1,000
Secondary MCL (Short Term)	600	2,200	600	1,500

Source Inorganic Monitoring

Cottonwood Well 2 is past due for perchlorate monitoring, which was last completed on 7/22/2015. Perchlorate monitoring is required once every three years at Cottonwood Well 2.

HL Well 1 is past due for perchlorate and nitrate + nitrite monitoring, which was last completed on 6/5/2015 and 10/22/2014, respectively, and is required once every three years.

Toyon Canyon Well 3 is past due for cyanide, mercury, and nitrate + nitrite monitoring, which is required once every three years. Cyanide and mercury monitoring was last completed on 6/3/2015 and nitrate + nitrite monitoring was last completed on 3/23/2012.

Quarry Seawater Wells 1 and 2 are past due for arsenic, cyanide, fluoride, mercury, perchlorate, thallium, and nitrate monitoring. Quarry Seawater Well 1 is also past due for nitrate + nitrite monitoring. Quarry Seawater Wells 1 and 2 were last monitored on 6/21/2018 and 7/2/2018, respectively, for arsenic, cyanide, fluoride, mercury, perchlorate, and thallium, on 3/31/2020 for nitrate, and on 6/26/2019 for aluminum, antimony, barium, beryllium, cadmium, total chromium, nickel, and selenium. The Division's WQIR database does not have any nitrate + nitrite results for Quarry Seawater Well 1. Nitrate monitoring is required quarterly. Nitrate + nitrite monitoring is required once every three years. Monitoring for all inorganic constituents except for asbestos, nitrate, nitrate + nitrite, and nitrite is required annually. Monitoring for aluminum, antimony, barium, beryllium, cadmium, total chromium, nickel, and selenium is due by 12/2020 but it is strongly recommended to complete monitoring earlier in the year to account for drought, repairs, or other unforeseen events.

The Division's WQIR database does not have any cyanide, mercury, or nitrate + nitrite results from HL Well 3R. The Division received laboratory reports indicating that HL Well 3R was most recently monitored for cyanide, mercury, and nitrate + nitrite on 11/3/2017. Monitoring for cyanide, mercury, and nitrate + nitrite is required once every three years at HL Well 3R. The Company needs to ensure that all water quality monitoring results from laboratory analyses are uploaded to the Division via EDT to ensure compliance with water quality monitoring frequency requirements. HL Well 3R is past due for perchlorate initial monitoring. Permit Amendment #1910006PA-006 requires initial monitoring for perchlorate, volatile organic chemicals (VOCs), synthetic organic chemicals (SOCs), and gross alpha, radium-226, radium-228, and uranium at HL Well 3R to be completed by December 31, 2019. Perchlorate initial monitoring consists of collecting two samples five to seven months apart with one sample collected between May 1 and September 30. Perchlorate monitoring was completed on 11/3/2017 and 7/9/2019.

Sweetwater Canyon Well 1A arsenic levels exceed half of the MCL, ranging from 4.5 µg/L to 6 µg/L since 2011.

Source Volatile Organic Chemical (VOC) Monitoring

Cottonwood Well 2 is past due for VOC monitoring, which was most recently completed on 6/22/2018. HL Well 1 was most recently monitored for 1,2-dichloroethane, 1,3-dichloropropene, benzene, carbon tetrachloride, cis-1,2-dichloroethylene, monochlorobenzene (chlorobenzene), and trichlorotrifluoroethane (Freon 113) on 6/26/2018 and is, thus, past due. VOC monitoring is required annually at both wells.

VOC monitoring at Quarry Seawater Wells 1 and 2 is required annually and was most recently completed on 6/26/2019. VOC monitoring is due by 12/2020 but it is strongly recommended to monitor earlier in the year to account for unforeseen events that prohibit monitoring.

HL Well 3R is past due for VOC initial monitoring. Permit Amendment #1910006PA-006 requires initial monitoring for perchlorate, VOCs, SOCs, and gross alpha, radium-226, radium-228, and uranium at HL Well 3R to be completed by December 31, 2019. VOC initial monitoring consists of four consecutive quarters of monitoring. Xylenes monitoring was completed on 6/22/2016, 6/22/2017, and 11/3/2017. Monitoring for all other VOCs was completed on 6/22/2016, 6/22/2017, 11/3/2017, and 7/9/2019.

Source Synthetic Organic Chemical (SOC) Monitoring

Thiobencarb monitoring at Quarry Seawater Wells 1 and 2 is required in two consecutive quarters once every three years and once per year in all other years. Quarry Seawater Wells 1 and 2 monitoring for SOC except for thiobencarb is required in two consecutive quarters once every three years. SOC initial monitoring was required to be completed by December 31, 2019 at HL Well 3R per Permit Amendment #1910006PA-006. SOC monitoring at all other wells is required in two consecutive quarters once every three years for SOC that have not been waived by the Division per the 2020-2022 Vulnerability Assessment and Monitoring Frequency Guidelines (VAMFG).

Cottonwood Well 2 was most recently monitored for bentazon; carbofuran; chlordane; 2,4-D; dibromochloropropane (DBCP or 1,2-dibromo-3-chloropropane); dinoseb; diquat; endothall; ethylene dibromide (EDB); glyphosate; oxamyl; pentachlorophenol; and toxaphene on 3/20/2018 but it has not been monitored in two consecutive quarters since 3/29/2012 and 6/20/2012 for bentazon; carbofuran; chlordane; 2,4-D; DBCP; dinoseb; diquat; EDB; oxamyl; pentachlorophenol; and toxaphene. Endothall monitoring has not been completed in two consecutive quarters since prior to 2011. Thus, Cottonwood Well 2 is past due for monitoring for these SOC.

Cottonwood Well 1A was most recently monitored on 3/19/2018 for bentazon; carbofuran; chlordane; 2,4-D; DBCP; dinoseb; diquat; endothall; EDB; glyphosate; oxamyl; and pentachlorophenol and on 6/22/2018 for toxaphene but it has not been monitored for these SOC in two consecutive quarters since 6/23/2017 and 9/25/2017. Cottonwood Well 1A needs to be monitored for these SOC immediately and again by 12/2020. It is strongly recommended to monitor for SOC in the first two quarters in the year in which monitoring is due to account for any unforeseen events that prohibit monitoring.

Middle Ranch Well 1A was most recently monitored on 3/20/2018 for bentazon; 2,4-D; dinoseb; diquat; endothall; glyphosate; and pentachlorophenol and on 6/25/2018 for toxaphene but it has not been monitored for these SOC in two consecutive quarters since prior to 2011 for endothall and since 3/22/2012 and 6/21/2012 for bentazon; 2,4-D, dinoseb, diquat, glyphosate; and pentachlorophenol. Thus, Middle Ranch Well 1A is past due for monitoring for these SOC.

Monitoring for thiobencarb, chlordane, endrin, heptachlor, heptachlor epoxide, hexachlorobenzene, hexachlorocyclopentadiene, lindane (gamma-BHC), methoxychlor, PCBs, and toxaphene was most recently completed on 6/21/2018 at Quarry Seawater Well 1 and on 7/2/2018 at Quarry Seawater Well 2. Monitoring for SOC except for 1,2,3-trichloropropane (1,2,3-TCP) was most recently completed in two consecutive quarters on 6/29/2017 and 9/22/2017 at Quarry Seawater Wells 1 and 2. Monitoring for SOC at Quarry Seawater Wells 1 and 2 except for 1,2,3-TCP is due immediately and due again by 12/2020.

HL Well 3R is past due for SOC initial monitoring. Permit Amendment #1910006PA-006 requires initial monitoring for perchlorate, VOCs, SOC, and gross alpha, radium-226, radium-228, and uranium at HL Well 3R to be completed by December 31, 2019. SOC initial monitoring consists of four consecutive quarters of monitoring.

Per Title 22, Section 64445, 1,2,3-TCP initial monitoring needed to begin in January of the calendar year after the MCL effective date and consists of four consecutive quarters of monitoring. The 1,2,3-TCP MCL went into effect on December 14, 2017. Thus, 1,2,3-TCP

needed to begin in January 2018 and be completed by the fourth quarter of 2018 at all sources except for HL Well 3R, which needed to be completed by December 31, 2019 per Permit Amendment #1910006PA-006.

HL Well 1 and Blackjack Well 1 were monitored for 1,2,3-TCP in the first, second, and third quarters of 2018 but not in the fourth quarter of 2018 due to maintenance as the well pumps were removed from the casing. Per e-mail correspondence on June 5, 2019, the Division allowed the Company to monitor HL Well 1 and Blackjack Well 1 for 1,2,3-TCP in the fourth quarter of 2019 to satisfy initial monitoring requirements. Blackjack Well 1 was monitored for 1,2,3-TCP on 12/11/2019, satisfying initial monitoring requirements. However, the Division's WQIR database does not have any 1,2,3-TCP results for HL Well 1 in the fourth quarters of 2018 or 2019.

Quarry Seawater Wells 1 and 2 were monitored in the second and third quarters of 2018 but not in the first or fourth quarters of 2018. Thus, the Division issued a NOV to the Company on June 11, 2019, requiring 1,2,3-TCP monitoring at Quarry Seawater Wells 1 and 2 in the first and fourth quarters of 2019 to satisfy initial monitoring requirements. Quarry Seawater Wells 1 and 2 were monitored for 1,2,3-TCP on 2/22/2019 and 12/17/2019, satisfying initial monitoring requirements.

Source Radiological Monitoring

Routine monitoring for gross alpha, uranium, radium-226, and radium-228 is required at each well at least once per nine-year compliance cycle. Per the 2020-2022 VAMFG, in order to substitute a gross alpha particle activity measurement for radium-226 or uranium, half of the gross alpha DLR must be utilized to determine the future monitoring frequency for radium-226 and uranium if the gross alpha result is below the DLR. Half of the gross alpha DLR is 1.5 pCi/L, which is higher than the radium-226 and uranium DLRs of 1 pCi/L. Therefore, the minimum monitoring frequency possible for radium-226 and uranium when substituting the gross alpha particle measurement for radium-226 and uranium is once every six years. Thus, it is strongly recommended to monitor each well for radium-226 and uranium regardless of the gross alpha particle activity measurement.

HL Well 1 has not been monitored for radium-226 since 9/17/2007. HL Well 1 was most recently monitored for gross alpha on 10/22/2014 with a result below the DLR. Therefore, radium-226 monitoring is next due by 10/2020.

Toyon Canyon Well 3 has not been monitored for radium-226 since 9/18/2007. Toyon Canyon Well 3 was most recently monitored for gross alpha on 3/23/2012 with a result of 3.26 pCi/L. Therefore, gross alpha and radium-226 monitoring is past due at Toyon Canyon Well 3.

Whites Landing Well and Blackjack Well 1 have not been monitored for radium-226 since 9/18/2007. Whites Landing Well and Blackjack Well 1 were most recently monitored for gross alpha on 3/23/2012 and 3/29/2012, respectively, with both results below the DLR. Therefore, radium-226 monitoring is past due at both wells.

Quarry Seawater Wells 1 and 2 are past due for gross beta monitoring, which was most recently completed on 12/15/2016. Permit Amendment #1910006PA-005 requires gross beta and boron monitoring once every three years at Quarry Seawater Wells 1 and 2.

Quarry Seawater Wells 1 and 2 have elevated gross beta levels with results of 290 pCi/L and 390 pCi/L, respectively, on 12/15/2016.

HL Well 3R is past due for radionuclide initial monitoring. As mentioned above, Permit Amendment #1910006PA-006 requires initial monitoring for perchlorate, VOCs, SOCs, and gross alpha, radium-226, radium-228, and uranium at HL Well 3R to be completed by December 31, 2019. Radionuclide initial monitoring consists of four consecutive quarters of monitoring for gross alpha, radium-226, radium-228, and uranium.

Howlands Landing Treatment Plant Monitoring

Permit Amendment #1910006PA-006 was issued on September 20, 2018, requiring monitoring at HL Well 3R and the HL Treatment Plant effluent per Table 4 below. HL Well 3R was monitored for iron, manganese, turbidity, chloride, conductivity, and TDS on 4/24/2019 and 7/9/2019 and for chlorate and TOC on 4/24/2019. The HL Treatment Plant effluent was monitored for turbidity, chloride, conductivity, and TDS on 4/24/2019 and for iron, manganese, chlorate, and TOC on 4/25/2019. HL Well 3R and the HL Treatment Plant effluent need to be monitored monthly in three consecutive months for iron, manganese, turbidity, chloride, conductivity, TDS, and chlorate. After this is complete, HL Well 3R and the HL Treatment Plant effluent need to be monitored quarterly for iron, turbidity, TDS, conductivity, and chloride and HL Well 3R needs to be monitored once every three years for manganese. Total organic carbon (TOC) monitoring at HL Well 3R is required quarterly upon issuance of Permit Amendment #1910006PA-006. All monitoring requirements in Table 4 shall be performed via analysis by a certified laboratory unless otherwise noted.

Table 4: Required Monitoring Frequencies at HL Well 3R and HL Treatment Plant Effluent

Constituent	Required Monitoring Frequency	
	HL Well 3R	HL Treatment Plant Effluent
Iron	Monthly in first 3 months. Quarterly thereafter ¹	Monthly in first 3 months. Quarterly thereafter ¹
Manganese	Monthly in first 3 months. Once every 3 years thereafter ²	Monthly in first 3 months. Not required thereafter ³
Turbidity	Monthly in first 3 months. Quarterly thereafter ¹	Monthly in first 3 months. Quarterly thereafter ¹
Chloride	Monthly in first 3 months. Quarterly thereafter ¹	Monthly in first 3 months. Quarterly thereafter ¹
Conductivity	Certified Laboratory: Monthly in first 3 months, quarterly thereafter ¹ Field Test Kit: Weekly	Certified Laboratory: Monthly in first 3 months, quarterly thereafter ¹ Field Test Kit: Weekly
Total Dissolved Solids	Monthly in first 3 months. Quarterly thereafter ¹	Monthly in first 3 months. Quarterly thereafter ¹
Chlorate	Monthly in first 3 months. Not required thereafter ³	Monthly in first 3 months. Not required thereafter ³
Total Coliform	Monthly	Monthly
HPC	Monthly	Monthly
Total Organic Carbon	Quarterly	Not Required
Chlorine Residual	Not Required	Weekly (Field Test Kit) Continuously (Online Analyzer)
pH	Not Required	Continuously (Online Analyzer)

Note: All sampling per Table 4 shall be analyzed by a certified laboratory unless otherwise noted.

¹ Monthly for the first three months following the Permit Amendment #1910006PA-006 issuance date of September 20, 2018. Quarterly thereafter.

² Monthly for the first three months following the Permit Amendment #1910006PA-006 issuance date of September 20, 2018. Once every three years thereafter unless results exceed the secondary MCL per Title 22, Section 64449(c).

³ Monthly for the first three months following the Permit Amendment #1910006PA-006 issuance date of September 20, 2018. Monitoring is not required thereafter.

Source Monitoring Summary

Other than the instances mentioned above, all wells have been below all MCLs, including recommended secondary MCLs, since at least 2011 and are in compliance with monitoring frequency requirements per Title 22 regulations, permit conditions, and the VAMFG. In addition to the monitoring due dates and frequency requirements mentioned above, monitoring for the constituents listed below is required by the end of 2020 although it is strongly recommended to complete this monitoring earlier in the year to account for repairs, drought, or other unforeseen events that could prohibit monitoring.

- Cottonwood Wells 1A and 2: Nitrate and nitrate + nitrite monitoring.
- HL Well 1: Nitrate and VOC monitoring except for 1,2-dichloroethane, 1,3-dichloropropene, benzene, carbon tetrachloride, cis-1,2-dichloroethylene, chlorobenzene, and Freon 113, for which monitoring is past due as mentioned above.

- Sweetwater Canyon Well 1A, Middle Ranch Well 6A, Toyon Canyon Well 3, Whites Landing Well, and HL Well 3R: Nitrate monitoring.
- Blackjack Well and Middle Ranch Wells 1A and 5A: Nitrate and VOC monitoring.

Stage 2 Disinfectants and Disinfection Byproducts Rule and Wrigley Reservoir Treatment Plant Monitoring

The Company is required to collect quarterly samples from two distribution system locations for total trihalomethanes (TTHM) and haloacetic acids (five) (HAA5) based on its population served to comply with the Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2). The Company complies with this requirement by collecting quarterly TTHM and HAA5 samples from Isthmus Pressure Reducing Station and Pressure Reducing Station C (PRS C). PRS C represents water serving Hamilton Cove as PRS C is located immediately upstream of Hamilton Cove. Wrigley Reservoir is the only source of water for both PRS C and Hamilton Cove. The Company submitted a revised Stage 2 monitoring plan to the Division on January 8, 2020 replacing Mt. Ada with PRS C as a Stage 2 sampling location. PRS C has exceeded the TTHM MCL several times since Stage 2 monitoring began in the third quarter of 2014 with a high TTHM level of 160 µg/L in the first quarter of 2017. The PRS C TTHM locational running annual average (LRAA) exceeded the TTHM MCL of 80 µg/L from the fourth quarter of 2016 to the first quarter of 2018. Wrigley Reservoir Treatment Plant was constructed in 2018 to reduce TTHM levels at Wrigley Reservoir and PRS C. PRS C matched the TTHM MCL on 2/21/2018 and all subsequent results are below the MCL. The most recent TTHM result at PRS C is 45 µg/L on 2/27/2020 and the PRS C TTHM LRAA is 51.1 µg/L as of 2/27/2020. The Company is otherwise in compliance with the TTHM and HAA5 MCLs and Stage 2 monitoring frequency requirements.

Permit Amendment #1910006PA-007 was issued on September 20, 2018 and requires monitoring of Wrigley Reservoir Treatment Plant per Table 5 below. In addition to the requirements summarized in Table 5, Permit Amendment #1910006PA-007 requires an initial commissioning period of one five-day work week consisting of daily monitoring and monthly monitoring in the three months following completion of the initial commissioning period as summarized in Table 5. Each location listed in Table 5 needs to be monitored for all constituents listed in Table 5. Subsequent routine monitoring is required as summarized in Table 6.

Table 5: Wrigley Reservoir Treatment Plant Required Initial Monitoring Frequencies

Sampling Location	Constituent	Required Monitoring Frequency
Wrigley Reservoir Treatment Plant Influent	TTHM	Daily during initial 5-day commissioning period
Lead GAC Effluent	HAA5	
Lag GAC Effluent	TOC	Monthly for three (3) consecutive months thereafter
Wrigley Reservoir Treatment Plant Effluent	Chlorine Residual	
Wrigley Reservoir Effluent	pH	
	Temperature	
Pressure Reducing Station C	TTHM and HAA5	Monthly

Table 6: Wrigley Reservoir Treatment Plant Required Routine Monitoring Frequencies

Sampling Location	Constituent	Required Monitoring Frequency
Plant Influent	TTHM	Quarterly
	Total Coliform and HPC	Monthly
GAC Lead Vessel Effluent	TTHM	Quarterly
	Total Coliform and HPC	Monthly
GAC Lag Vessel Effluent	TTHM	Quarterly
	Total Coliform and HPC	Monthly
Plant Effluent	TTHM	Quarterly
	Total Coliform, HPC, Chlorine Residual	Monthly
Wrigley Reservoir Effluent	TTHM	Quarterly
	Chlorine Residual	Daily
Pressure Reducing Station C	TTHM and HAA5	Monthly

The Wrigley Reservoir Treatment Plant influent and effluent, GAC lead vessel effluent, GAC lag vessel effluent, and PRS C were monitored for TTHM, HAA5, TOC, and chlorine residual on 10/15/2018, 10/16/2018, 10/17/2018, 10/18/2018, and 10/19/2018 as part of the initial commissioning period. No pH or temperature readings were recorded at these locations during the initial commissioning period or during any of the three subsequent months.

The Division has not received results from the Wrigley Reservoir effluent for TTHM, HAA5, TOC, pH, or temperature during the initial commissioning period or afterwards. PRS C was monitored monthly for TTHM and HAA5 from November 2018 to February 2019 and in April 2019, August 2019, and November 2019. As mentioned above, PRS C is served solely by Wrigley Reservoir and is, thus, representative of Wrigley Reservoir water quality. As a result, PRS C TTHM and HAA5 monitoring satisfies Wrigley Reservoir effluent TTHM and HAA5 monitoring requirements during the initial commissioning period, the subsequent three months, and thereafter. However, PRS C was monitored for TOC only during the initial commissioning period and in April 2019. As mentioned above, monthly TOC monitoring was required at the Wrigley Reservoir effluent in three consecutive months following the initial commissioning period. Thus, the Wrigley Reservoir effluent or PRS C needs to be monitored for TOC monthly in three consecutive months to satisfy this requirement. In addition, TTHM and HAA5 monitoring is required monthly at PRS C even after the first three months following the initial commissioning period.

The Wrigley Reservoir Treatment Plant influent and effluent, GAC lead vessel effluent, and GAC lag vessel effluent were monitored in April 2019, May 2019, August 2019, October 2019, November 2019, and December 2019 for TTHM, HAA5, and TOC. TOC and HAA5 monitoring is no longer required at these locations. TTHM monitoring is now required quarterly these locations.

The Wrigley Reservoir Treatment Plant GAC lead vessel effluent and GAC lag vessel effluent were monitored monthly for chlorine residual from October 2018 to December 2018 and in February 2019, April 2019, October 2019, and November 2019. Monthly chlorine residual monitoring has been conducted at the Wrigley Reservoir Treatment Plant influent since November 2018 and at the Wrigley Reservoir Treatment Plant effluent from October 2018 to December 2018 and since February 2019. Chlorine residual monitoring is no longer

required at the Wrigley Reservoir Treatment Plant influent and effluent, GAC lead vessel effluent, and GAC lag vessel effluent.

Monthly monitoring for total coliform, E. Coli, and HPC has been completed at the Wrigley Reservoir Treatment Plant influent since November 2018 and at the Wrigley Reservoir Treatment Plant effluent, GAC lead vessel effluent, and GAC lag vessel effluent since October 2018. Total coliform and HPC monitoring is required monthly at the Wrigley Reservoir Treatment Plant influent and effluent, GAC lead vessel effluent, and GAC lag vessel effluent.

Although the Wrigley Reservoir effluent is not part of the distribution system, it is monitored weekly via grab sampling for chlorine residual, total coliform, E. Coli, and HPC in tandem with routine distribution system bacteriological sampling. Since October 2018, the Wrigley Reservoir Treatment Plant effluent chlorine residual has been monitored continuously via an online analyzer and measured daily and these measurements are submitted to the Division as part of monthly water quality report submittals.

Lead and Copper Rule

The Company is required to collect lead and copper samples from 20 distribution system sites once every three years per the Lead and Copper Rule (LCR). The most recent sampling event occurred in September 2017, during which the Company collected 42 lead and copper samples. The 90th percentiles for lead and copper were 2.6 µg/L and 0.44 mg/L, respectively, below the lead and copper action levels of 15 µg/L and 1.3 mg/L, respectively. Prior to that, the Company completed lead and copper sampling at 40 sites in February 2017 and the 90th percentiles for lead and copper were 3.8 µg/L and 0.59 mg/L, respectively. Per Title 22, Section 64675.5(a)(1), and letter correspondence issued by the Division to the Company on February 4, 2020, the Company may reduce lead and copper sampling to once every three years at 20 sites. Therefore, lead and copper sampling is next due at 20 sites by September 30, 2020.

- 7) **System Management and Operation** – Evaluation of water system performance in terms of management and operation, including its long-term viability in meeting water quality goals.

Ronald Hite, Company Catalina District Manager, oversees operation of the Company's water system and directs the activities of field and office personnel. Daily operations of the Company's water system are overseen by Frank Beach, Company Water and Gas Supervisor. Daily operation and maintenance activities of the Company's water system, including receiving and addressing customer complaints, are performed by the Company's operators and staff.

- 8) **Operator Compliance with State Requirements** – Ensuring water systems have qualified professionals that meet all applicable operator certification requirements.

The Company has qualified professionals that meet operator certification requirements. The Company's treatment facilities have classifications up to T3. The Company's distribution system classification is D3. Thus, the chief and shift treatment operators must have a minimum operator certification of T3 and T2, respectively. The minimum chief and shift distribution operator certifications are D3 and D2, respectively. Frank Beach is the chief treatment and distribution operator with certifications of T3 and D4.

Water System Resiliency and Preparedness

The effects of extreme weather on community water system (CWS) facilities and operations is a concern and priority of SWRCB, which is documented by SWRCB in its Comprehensive Climate Change Resolution No. 2017-12, adopted in March 2017. The Division is reviewing each water system's level of resiliency and preparedness for changing climate conditions and extreme weather events, increasing awareness of the potential effects of climate change to facilities and operations, and encouraging the use of the United States Environmental Protection Agency's (EPA) Climate Resilience Evaluation and Awareness Tool (CREAT).

As part of the 2019 eAR, CWSs were asked to identify their vulnerabilities, ranking them as high, medium, or low sensitivity, and proposed or implemented projects to prepare for the impacts from climate change. The Company provided responses to these questions in the 2019 eAR. The Company is implementing conservation measures and fire prevention to address current identified needs and reduce impacts to these vulnerabilities. The Company constructed HL Well 3R, HL Treatment Plant, and Desalination Plant 2 in recent years. HL Well 3R provides additional source capacity for Two Harbors and the western portion of the island. Desalination Plant 2 provides more efficient treatment of raw seawater from Quarry Seawater Wells 1 and 2, producing a higher potable water flow rate than Desalination Plant 1 from the same source capacity while consuming less energy. Although the Company has yet to operate Desalination Plants 1 and 2 in Brine Mode, it would produce even more potable water from the same source capacity. The Company is currently designing additional seawater wells to increase the seawater source capacity, allowing Desalination Plants 1 and 2 to operate simultaneously without needing to operate in Brine Mode, further increasing potable water production compared to Brine Mode. The Company is currently designing other system improvements such as booster pumping and pipelines to deliver water from Desalination Plants 1 and 2 to Wrigley Reservoir and, thus, Hamilton Cove, aiding in TTHM MCL compliance at Hamilton Cove and providing an additional source of supply for Hamilton Cove.

The Company indicated that it is aware of CREAT developed by EPA for identifying climate vulnerabilities. The Company is using CREAT or similar tools to identify vulnerabilities to its sources and facilities. The Division strongly encourages utilities to evaluate infrastructure and operational vulnerabilities to extreme weather and other emergency conditions using tools such as CREAT and engaging in a conversation both within the Company water system organization and with customers on how to plan and prepare for being resilient to provide clean and safe water reliably and adequately under all current and future conditions.

Fire – A defensible space of 100 feet (California Public Resources Code 4291) is maintained around all sources and structures managed by the Company.

Flooding – None of the Company's drinking water facilities are vulnerable to flooding. No known flooding has occurred in this area. However, some remote facilities such as Cottonwood Wells 1A and 2 and Sweetwater Canyon Well 1A may become inaccessible due to flooding of dirt roads during rain events. In addition, a dirt road to access HL Well 1 was damaged in 2014, rendering HL Well 1 inaccessible to automobile and foot traffic from the east.

Backup Power – Backup power is available for Quarry Seawater Wells 1 and 2 and Desalination Plants 1 and 2. This backup power is exercised monthly on average.

Drought – The Company does not have interconnections with other water systems as it is the only public water system on the island. The Middle Ranch:Avalon system features 80% of the

island's water demand and is served by multiple sources such as Middle Ranch Wells 1A, 5A, and 6A. City of Avalon is also served by Quarry Seawater Wells 1 and 2. Desalination Plant 2 was constructed in 2016 in response to drought conditions and subsequent decreasing water levels at Middle Ranch Reservoir. This decreased water levels at Middle Ranch Wells 1A, 5A, and 6A and triggered Stage 3 Mandatory Water Rationing in September 2016. Two Harbors and the western portion of the island are served by multiple sources such as Cottonwood Wells 1A and 2, Sweetwater Canyon Well 1A, and HL Wells 1 and 3R. HL Well 3R was constructed in response to elevated conductivity and TDS levels at HL Well 1 due to drought conditions in 2014. However, smaller portions of the Company's service area such as Toyon, Whites Landing, and the airport are each served by only one source.

Degraded Source Water Quality – Howlands Landing Well 3 was originally drilled in September 2014 as HL Well 1 conductivity and TDS levels became elevated in 2014 presumably due to drought conditions. The HL Well 3 casing collapsed in early 2017 and HL Well 3R was installed within the HL Well 3 casing in September 2017.

Appraisal of Sanitary Hazards and Safeguards

The survey found that the Company's water system is maintained in satisfactory condition and is operated and managed by qualified personnel. Below is a summary of the sanitary survey findings and recommendations:

1. The Company shall complete and submit data sheets for the facilities listed below within 60 days of the date of this memorandum (memo).
 - a. HL Well 3R
 - b. HL Treatment Plant
 - c. Wrigley Reservoir Treatment Plant
 - d. Isthmus Twin Tanks Booster Station
 - e. Pump House 2:
 - i. Air stripper
 - ii. Storage Tank
 - f. Wrigley Reservoir
 - g. Howlands Tank
 - h. Isthmus Twin Tanks 1 and 2
 - i. Million Gallon Tank
 - j. White's Landing Tank
 - k. Toyon Tank
 - l. Airport Tank
 - m. Blackjack Tank
 - n. Mt. Ada Tank and air stripper
 - o. Mt. Ada Booster Station
 - p. Stables Booster Station
 - q. Desalination Plant 1 Booster Station
 - r. Airport Booster Station
 - s. Baker Tanks 4, 5, and 6
 - t. High Pressure Tank
 - u. TWT 1

2. The facilities listed below featured air relief vents that did not terminate facing downward, were not covered with a screen mesh, or featured a damaged screen mesh (Appendix 5). The Company shall ensure that these air relief vents terminate facing downward and are covered with an intact screen mesh within 60 days of the date of this memo.
 - a. Middle Ranch Well 5A featured a gray pipe attached to a pressure gauge that terminates facing downward. This pipe terminus was not covered with a cap or screen mesh.
 - b. HL Well 1 featured an air relief vent attached to the well discharge pipe located inside the HL Well 1 building enclosure that did not terminate facing downward and was not covered with a screen mesh.
 - c. The pipeline carrying a blend of HL Well 1 water and HL Treatment Plant effluent featured an air relief vent located immediately outside of the HL Well 1 building enclosure that was not covered with a screen mesh.
 - d. An air relief vent on the Blackjack Tank outlet pipe did not feature a screen mesh.
 - e. During the 2018 sanitary survey, Cottonwood Well 1A had an air relief vent adjacent to the wellhead with a screen mesh that was corroded.
 - f. During the 2018 sanitary survey, Sweetwater Canyon Well 1A had an air relief vent upstream of the discharge pipe check valve and another air relief vent downstream of the discharge pipe check valve, connected to the chlorine injection point. Neither air relief vent featured a screen mesh.
 - g. During the 2018 sanitary survey, an air relief vent next to Howlands Tank on the connection pipeline to the Isthmus Twin Tanks did not feature a screen mesh.
3. The wells listed below featured threaded hose bibs located upstream of discharge pipe check valves (Appendix 5). Within 60 days of the date of this memo, the Company shall remove the threads from these hose bibs, relocate the hose bibs downstream of the discharge pipe check valve, replace these hose bibs with downturned unthreaded sample taps, or install a vacuum breaker and cap on the hose bib.
 - a. Middle Ranch Well 5A featured a threaded hose bib upstream of the well discharge pipe check valve.
 - b. Middle Ranch Well 6A featured a threaded hose bib upstream of the well discharge pipe check valve with a vacuum breaker installed but with no cap installed on the vacuum breaker.
 - c. Blackjack Well 1 had a threaded hose bib located upstream of the discharge pipe check valve.
 - d. HL Well 1 had a threaded hose bib located upstream of the discharge pipe check valve.
 - e. During the 2018 sanitary survey, Cottonwood Well 1A had one threaded hose bib located upstream of the discharge pipe check valve.

- f. During the 2018 sanitary survey, Cottonwood Well 2 did not have an unthreaded sample tap facing downward located upstream of the check valve but it had two threaded hose bibs located upstream of the discharge pipe check valve.
- 4. Several wells featured appurtenances that did not terminate facing downward and were not covered with a screen mesh or cap. These appurtenances appeared to be casing vents, sounding tubes, gravel chutes, or similar features. All well casing vents need to terminate at least three pipe diameters above the ground facing downward and be covered with a screen mesh. If these appurtenances are sounding tubes, gravel chutes, or another type of appurtenance other than casing vents, the Company shall securely seal or cap these appurtenance openings to prevent contamination of the underlying groundwater. These improvements shall be completed within six (6) months of the date of this memo.
 - a. Blackjack Well 1 featured a casing vent on the wellhead that terminates facing upward and was plugged with a wooden peg with chlorine injection tubing inserted into the peg.
 - b. Whites Landing Well featured an appurtenance located on the side of the well casing above grade that was plugged with a wooden peg with chlorine injection tubing inserted into the wooden peg. There were gaps between the wooden peg and the appurtenance opening.
 - c. HL Well 1 featured a casing vent with a torn screen mesh and the chlorine injection point was not completely sealed. The torn screen mesh needs to be replaced and the chlorine injection point needs to be improved such that the wellhead is completely sealed.
 - d. The Middle Ranch Well 5A casing vent had a torn screen mesh that needs to be replaced.
 - e. During the 2018 sanitary survey, Cottonwood Well 1A featured two appurtenances on the wellhead that terminate facing upward, one plugged with a wooden peg and the other one sealed with electrical tape and with chlorine injection tubing inserted. There was another appurtenance adjacent to the wellhead that terminated facing upward and was covered with green rubber sheets.
 - f. During the 2018 sanitary survey, Cottonwood Well 2 featured an appurtenance adjacent to the wellhead that terminated facing upward and was plugged with a wooden peg.
 - g. During the 2018 sanitary survey, a decommissioned well located inside the Cottonwood Well 1A chlorination building featured two appurtenances adjacent to the decommissioned well concrete pedestal that were capped with wooden pegs. These appurtenances need to be properly decommissioned to prevent contamination of the underlying groundwater.

5. Several facilities were not observed during the 2019 sanitary survey. The Company shall provide photographs of the facilities listed below to the Division within 60 days of issuance of this memo.
 - a. Cottonwood Well 1A
 - b. Cottonwood Well 2
 - c. Sweetwater Canyon Well 1A
 - d. Howlands Tank
 - e. High Pressure Tank
 - f. The roofs and interiors of all other storage tanks
6. Permit Amendment #1910006PA-006 required the Company to provide an updated BSSP and GWR amendment to CSSP to the Division by November 19, 2018. The Company submitted an updated BSSP dated February 11, 2019 to the Division. However, it needs to be revised such that upstream repeat sampling sites are downstream of storage tanks and wells and upstream of the routine sites. The Company shall submit a revised BSSP and GWR amendment to CSSP to the Division within 60 days of the date of this memo.
7. Quarry Seawater Well 1 monitoring is past due for thiobencarb, gross beta, arsenic, cyanide, fluoride, mercury, perchlorate, thallium, and nitrate. Quarry Seawater Well 1 shall be monitored immediately for these constituents.
 - a. Thiobencarb monitoring was most recently completed on 6/21/2018 and in two consecutive quarters on 6/29/2017 and 9/22/2017. Thiobencarb monitoring is required in two consecutive quarters once every three years and once per year in all other years. Thiobencarb monitoring shall be conducted immediately and by 12/2020.
 - b. Inorganic constituents:
 - i. Nitrate monitoring was most recently completed on 3/31/2020 and is required quarterly.
 - ii. The Division's WQIR water quality database does not have any nitrate + nitrite results from Quarry Seawater Well 1. Nitrate + nitrite monitoring is required once every three years.
 - iii. Monitoring for arsenic, cyanide, fluoride, mercury, perchlorate, and thallium was most recently completed on 6/21/2018 and is required annually.
 - c. Gross beta monitoring was most recently completed on 12/15/2016 and is required once every three years per Permit Amendment #1910006PA-005.
 - d. Monitoring for aluminum, antimony, barium, beryllium, cadmium, total chromium, nickel, selenium, VOCs, general mineral, and general physical constituents except for thiobencarb was most recently completed on 6/26/2019 and is required annually. Boron monitoring was most recently completed on 6/29/2017 and is required once every three years. Monitoring for these constituents is next due by 12/2020 although it is strongly recommended to monitor earlier in the year to account for repairs, drought, or other unforeseen events that prohibit monitoring.

- e. SOC monitoring including thiobencarb but excluding 1,2,3-TCP was most recently completed in two consecutive quarters on 6/29/2017 and 9/22/2017 and shall be conducted immediately and again by 12/2020. SOC monitoring including 1,2,3-TCP but excluding thiobencarb is required in two consecutive quarters once every three years.
8. Quarry Seawater Well 2 monitoring is past due for thiobencarb, gross beta, arsenic, cyanide, fluoride, mercury, perchlorate, thallium, and nitrate. Quarry Seawater Well 2 shall be monitored immediately for the following constituents:
- a. Thiobencarb monitoring is required in two consecutive quarters once every three years and once per year in all other years. Thiobencarb monitoring was most recently completed on 7/2/2018 and in two consecutive quarters on 6/29/2017 and 9/22/2017. Thiobencarb monitoring shall be conducted immediately and by 12/2020.
 - b. Nitrate monitoring was most recently completed on 3/31/2020 and is required quarterly.
 - c. Monitoring for arsenic, cyanide, fluoride, mercury, perchlorate, and thallium was most recently completed on 7/2/2018 and is required annually.
 - d. Monitoring for gross beta was most recently completed on 12/15/2016 and is required once every three years per Permit Amendment #1910006PA-005.
 - e. Monitoring for aluminum, antimony, barium, beryllium, cadmium, total chromium, nickel, selenium, VOCs, general mineral, and general physical constituents except for thiobencarb was most recently on 6/26/2019 and is required annually. Boron monitoring was most recently completed on 6/29/2017 and is required once every three years. Monitoring for these constituents is next due by 12/2020 although it is strongly recommended to monitor earlier in the year to account for repairs, drought, or other unforeseen events that prohibit monitoring.
 - f. SOC monitoring including thiobencarb but excluding 1,2,3-TCP was most recently completed in two consecutive quarters on 6/29/2017 and 9/22/2017 and shall be conducted immediately and by 12/2020. SOC monitoring including 1,2,3-TCP but excluding thiobencarb is required in two consecutive quarters once every three years.
9. Cottonwood Well 2 monitoring is past due for iron; perchlorate; VOCs; bentazon; carbofuran; chlordane; 2,4-D; DBCP; dinoseb; diquat; endothall; EDB; glyphosate; oxamyl; pentachlorophenol; and toxaphene. Cottonwood Well 2 shall be monitored immediately for these constituents.
- a. Monitoring for the SOC's listed above in two consecutive quarters was most recently completed on 3/29/2012 and 6/20/2012 except for endothall, which has not been monitored in two consecutive quarters according to the Division's WQIR water quality database. SOC monitoring is required in two consecutive quarters once every three years. Monitoring for the SOC's listed above shall be conducted immediately and again by 12/2020.

- b. Iron monitoring was most recently completed on 1/14/2020 and is required quarterly.
 - c. Perchlorate monitoring was most recently completed on 7/22/2015 and is required once every three years.
 - d. VOC monitoring was most recently completed on 6/22/2018 per the Division's WQIR water quality database. VOC monitoring is required annually.
10. Whites Landing Well was most recently monitored on 9/18/2007 for radium-226 and on 3/23/2012 for gross alpha. Thus, Whites Landing Well is past due for radium-226 monitoring and shall be monitored immediately for radium-226. For a gross alpha result below the DLR, half of the gross alpha DLR may substitute for radium-226. Half of the gross alpha DLR is 1.5 pCi/L, which exceeds the radium-226 DLR of 1 pCi/L. The most recent gross alpha result was below the DLR. Thus, radium-226 monitoring is required once every six years.
11. Toyon Canyon Well 3 is past due for cyanide, mercury, nitrate + nitrite, gross alpha, and radium-226 monitoring and shall be monitored immediately for these constituents.
- a. Cyanide and mercury monitoring was most recently completed on 6/3/2015 and is required once every three years.
 - b. Nitrate + nitrite monitoring was most recently completed on 3/23/2012 and is required once every three years.
 - c. Gross alpha monitoring was most recently completed on 3/23/2012 with a result of 3.26 pCi/L. Therefore, gross alpha monitoring is required once every six years.
 - d. Radium-226 monitoring was most recently completed on 9/18/2007 and is past due even when substituting the gross alpha particle activity for radium-226.
12. Blackjack Well 1 is past due for radium-226 monitoring, which was most recently completed on 9/18/2007. Gross alpha monitoring was most recently completed on 3/29/2012 with a result below the DLR. As previously mentioned, radium-226 monitoring is required once every six years even when the gross alpha result is below the DLR and when substituting the gross alpha result for radium-226.
13. HL Well 1 monitoring is past due for iron; turbidity; perchlorate; nitrate + nitrite; 1,2-dichloroethane; 1,3-dichloropropene; benzene; carbon tetrachloride; cis-1,2-dichloroethylene (cis-1,2-dichloroethene); monochlorobenzene (chlorobenzene); trichlorotrifluoroethane (Freon 113); and 1,2,3-trichloropropane (1,2,3-TCP).
- a. Iron and turbidity monitoring was most recently completed on 12/11/2019 and is required quarterly as iron and turbidity results exceed the secondary MCLs.
 - b. Perchlorate and nitrate + nitrite monitoring was most recently completed on 6/5/2015 and 10/22/2014, respectively, and is required once every three years.
 - c. Monitoring for 1,2-dichloroethane; 1,3-dichloropropene; benzene; carbon tetrachloride; cis-1,2-dichloroethylene; monochlorobenzene; and

trichlorotrifluoroethane was most recently completed on 6/26/2018 and is required annually.

- d. 1,2,3-TCP initial monitoring consists of four consecutive quarters of monitoring. 1,2,3-TCP monitoring was completed in the first, second, and third quarters of 2018. The fourth quarter of initial monitoring was due by December 31, 2019 per e-mail correspondence from the Division on 6/5/2019 but the Division has not received results via EDT in the fourth quarters of 2018 or 2019.
14. Middle Ranch Well 1A monitoring is past due for bentazon; 2,4-D; dinoseb; diquat; endothall; glyphosate; pentachlorophenol; and toxaphene. The Division's WQIR water quality database does not have any results indicating that endothall monitoring was completed in two consecutive quarters at Middle Ranch Well 1A. Monitoring for the other SOC's mentioned above was most recently completed in two consecutive quarters on 3/22/2012 and 6/21/2012. SOC monitoring at Middle Ranch Well 1A is required in two consecutive quarters once every three years. Middle Ranch Well 1A shall be monitored immediately and again by 12/2020 for the SOC's mentioned above.
 15. HL Well 3R monitoring is past due for iron, manganese, turbidity, chloride, conductivity, TDS, cyanide, mercury, nitrate, nitrate + nitrite, perchlorate, radionuclides, VOCs, SOC's, chlorate, and TOC.
 - a. Permit Amendment #1910006PA-006, Condition #28 requires monthly monitoring at the HL Treatment Plant influent (HL Well 3R) and effluent for iron, manganese, turbidity, chloride, conductivity, TDS, and chlorate during the first three (3) months following the Permit Amendment #1910006PA-006 issuance date of 9/20/2018 and quarterly TOC monitoring at HL Well 3R. HL Well 3R was monitored for iron, manganese, turbidity, chloride, conductivity, and TDS on 4/24/2019 and 7/9/2019 and for chlorate and TOC on 4/24/2019.
 - b. Nitrate monitoring was most recently completed on 7/9/2019 and is required annually.
 - c. Initial monitoring for perchlorate, radionuclides, VOCs, and SOC's was due by 12/31/2019 per Permit Amendment #1910006PA-006. Perchlorate initial monitoring consists of collecting two samples in one year, collecting the second sample five to seven months after the first sample, and collecting one of the samples between May 1st and September 30th. Initial monitoring for radionuclides, VOCs, and SOC's consists of four consecutive quarters of monitoring.
 - d. The Division has not received any cyanide, mercury, or nitrate + nitrite results via EDT for HL Well 3R. The Division received laboratory reports indicating that cyanide, mercury, and nitrate + nitrite monitoring was most recently completed on 11/3/2017. Cyanide, mercury, and nitrate + nitrite monitoring is required once every three years and is next due by 12/2020 although it is strongly recommended to monitor earlier in the year to account for repairs, drought, or other unforeseen events that prohibit monitoring.
 16. Permit Amendment #1910006PA-007, Condition #24 requires monthly TTHM and HAA5 monitoring at PRS C. PRS C was monitored for TTHM and HAA5 monthly from

November 2018 to February 2019 and in April 2019, August 2019, and November 2019. PRS C shall be monitored monthly for TTHM and HAA5.

17. Cottonwood Well 1A monitoring for bentazon; carbofuran; chlordane; 2,4-D; dibromochloropropane (DBCP or 1,2-dibromo-3-chloropropane); dinoseb; diquat; endothall; ethylene dibromide (EDB); glyphosate; oxamyl; pentachlorophenol; and toxaphene in two consecutive quarters was most recently completed on 6/23/2017 and 9/25/2017. SOC monitoring is required in two consecutive quarters once every three years and shall be completed immediately and by 12/2020.
18. Several source monitoring results are not present in the Division's WQIR water quality database. The Company shall ensure that its laboratory uploads all monitoring results via EDT to the Division.
19. During the sanitary survey, a hose was attached to an Airport Tank inlet. When not filling Airport Tank with hauled water, this hose needs to be detached from the Airport Tank inlet and the Airport Tank inlet pipe needs to be capped.
20. The Company shall provide photographs of the Middle Ranch Well 1A waste discharge pipe terminus to confirm that it is covered with a screen mesh, blind flange, or an appurtenance that provides an equivalent level of protection to the Division within 30 days of issuance of this memo.
21. The Company currently collects one monthly bacteriological sample from either Cottonwood Well 1A or 2 but not from each well in the same month. Similarly, the Company collects one monthly bacteriological sample from one of Middle Ranch Wells 1A, 5A, and 6A but not from each Middle Ranch well in the same month. It is recommended to collect monthly bacteriological samples from each of these five wells.
22. It is recommended to install a fencing or building enclosure around the following facilities:
 - a. Airport Tank and the two adjacent booster pumps.
 - b. Toyon Tank
 - c. Isthmus Twin Tanks
 - d. Million Gallon Tank
 - e. Whites Landing Tank
 - f. Blackjack Tank
 - g. Baker Tanks
 - h. High Pressure Tank

Appendices

1. Sanitary Survey Worksheets
2. Water System Data Sheets
3. Plans and Programs
4. Correspondence
5. Sanitary Survey Photographs

ATTACHMENT 6-11

**SCE Responses to Public Advocates DR
SIH-01 (PubAdv-SCE-005-SI)**

**Control Valve Maintenance Orders 2013-2019
Desalination Building Status
Wildfire Capital Forecast Breakdown**

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 0 5 - S I

To: Public Advocates Office
Prepared by: Luke A Schaner
Job Title: Major Construction Project Manager
Received Date: 11/25/2020

Response Date: 12/7/2020

Question 01.a-c:

Referring to the Prepared Testimony of Ronald Hite, please provide the following information regarding the Desalination Enhancements Phase 1 project:

a. Has SCE performed any cost benefit analysis to reducing the Catalina system's water loss (151.732 acre-ft/yr in 2019) as compared to increasing the capabilities of its Desalination System? If yes, provide a copy of the cost benefit analysis and recommended course of action. If no, explain why no cost benefit analysis was performed.

b. Please provide a detailed cost breakdown of the Desal Enhancements – Phase 1 Project associated costs shown in Table I-30 on page 60 of the Testimony Supporting Southern California Edison Company's Application for Authority to Increase Rates for its Class C Catalina Water Utility and Recover Costs from Water and Electric Customers – Capital Projects ("Capital Projects Testimony").

Including but not limited to the components listed in Table I-28 on page 58 of the Capital Projects Testimony.

c. The Capital Projects Testimony states on page 59, lines 3-4, that "the final engineering contract was awarded" for the Phase 1 project. Please provide a copy of this contract.

Response to Question 01.a-c:

a. A cost benefit analysis to reducing the system's water loss compared to increasing the capabilities of its desalination system was not performed as part of this project. An analysis was not scoped in or recommended as part of the project's feasibility study conducted in 2016-2017.

b. Table I-30 and I-28 details as listed below. Note that this breakdown is based on the current design definition; and while expected that the project benefit will be achieved at or within the total cost forecast, the specific scope and line items may adjust as the design finalizes. The current design definition for the various elements are: 90% (draft) SW Well System, 90% (draft) Desal Facility, and 30% (draft) Distribution Storage Enhancements.

Line	Description	Amount
1	<u>SW Well System</u>	
2	Mobilization	\$118,000
3	Demolition	\$35,000
4	Install (1) Salt Water Well (75 ft deep, 350 gpm)	\$434,000
5	Grading & Drainage Improvements	\$139,000
6	Rip-Rap Improvements	\$1,256,000

7	Contaminated Soil Allowance	\$125,000
8	Well Lifting Device	\$46,000
9	Electrical & Controls Improvements	\$158,000
10	SCADA Programming	\$65,000
11	Utility Upgrades/New Service	\$88,000
12	Catalina Adjustment/Travel/Transport	\$470,000
13	Contingency	\$441,000
14	Engineering	\$441,000
15	Construction Management	\$294,000
16	SCE Oversight	\$147,000
17	Planning & Permitting	\$984,000
18	Subtotal	\$5,241,000
19	<u>Desal Facility Enhancements</u>	
20	Mobilization	\$134,000
21	Demolition	\$311,000
22	Plant Inlet Valve Modifications	\$115,000
23	Plant Piping Modifications	\$186,000
24	Brine Discharge Piping & Drain Sump Replacement	\$437,000
25	P2 Cartridge Filtration System Modifications	\$221,000
26	Replace P1 Calcite Tanks	\$39,000
27	Alternative Remineralization Post-Treatment System (+ Programming)	\$318,000
28	Enhanced Chemical Batching & Dosing Systems (Required with Alternative Remineralization System)	\$58,000
29	P2 Calcite Tanks	\$100,000
30	New Carbon Dioxide Tank System	\$295,000
31	Contaminated Soil Allowance	\$250,000
32	Electrical & Controls Improvements	\$260,000
33	SCADA Programming	\$87,000
34	Utility Upgrades/New Service	\$0
35	Catalina Adjustment/Travel/Transport	\$540,000
36	Contingency	\$503,000
37	Engineering	\$503,000
38	Construction Management	\$336,000
39	SCE Oversight	\$168,000
40	Planning & Permitting	\$0
41	Subtotal	\$4,861,000
42	<u>Distribution Storage Enhancements</u>	
43	Mobilization	\$58,000
44	Excavation & Grading	\$60,000
45	Concrete Retaining Wall	\$75,000

46	Concrete Tank Foundation	\$125,000
47	500,000 Gallon Water Storage Tank	\$510,000
48	Piping and Valves	\$120,000
49	Electrical & Controls Improvements	\$125,000
50	SCADA Programming	\$25,000
51	Utility Upgrades/New Service	\$0
52	Contaminated Soil Allowance	\$50,000
53	Catalina Adjustment/Travel/Transport	\$230,000
54	Contingency	\$276,000
55	Engineering*	\$747,000
56	Construction Management	\$138,000
57	SCE Oversight	\$69,000
58	Planning & Permitting	\$0
59	Subtotal	\$2,608,000
60	Total	\$12,710,000

*Includes costs incurred and associated with bi-directional Wrigley Pipeline project

c. Please see attachments titled “Confidential_PO_4501124595” and Confidential_PO_4501124595_CO1.”

CONFIDENTIAL

The Attachment(s) Are Marked Confidential In Accordance With D. 16-08-024 and D. 17-09-023.
Basis for Confidentiality In Accompanying Confidentiality Declaration.
Public Disclosure Restricted.

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 0 5 - S I

To: Public Advocates Office
Prepared by: Frank Derek Beach
Job Title: Senior Supervisor
Received Date: 11/25/2020

Response Date: 12/4/2020

Question 05.a-b:

Referring to the Prepared Testimony of Ronald Hite, please provide the following information regarding the Desalination Building Upgrade project:

- a. Engineering report or condition assessment showing the current condition of the Desalination Plant 1 Building.
- b. Detailed breakdown and any supporting documents for the costs shown in table I-34 of the Capital Projects Testimony

Response to Question 05.a-b:

- a. Please see attached pdf document titled “Engineering Notification_Desal Building” initiating a request for an engineering assessment of the Desalination Plant 1 Building.
- b. No detailed cost breakdown information is available for this project. The current project estimate of \$250,000 represents a rough order of magnitude estimate based on operator experience.

Control Valve Maintenance Orders 2013-2019

Order	Start	Finish	Description	Cost
801054468	5/6/2013	5/6/2013	ws- leak cla-val cabrillo mole	2,096.63
801076008	6/10/2013	6/11/2013	Rebuild cla valve at desal plant	1,662.48
801119001	9/11/2013	9/12/2013	DE Clay Valve Pilot Valve Rebuild	0.00
800976291	9/30/2013	9/30/2013	WS 2" "A" Station Clay Valve Replacement	1,278.82
801151219	11/22/2013	11/22/2013	WS E sta,cla valve maintenance	897.10
801150810	11/25/2013	11/25/2013	WS A station,cla-val maintenance	809.23
801152188	11/25/2013	11/25/2013	WS D station,rebuild 6" cla-valve	536.14
801161713	2/10/2014	2/10/2014	WS PRS-B Replace 2" Clay Valve	4,137.54
801264631	8/13/2014	8/13/2014	WS isthmus PRS rebuild 3" cla-valve	254.37
801268821	8/22/2014	8/22/2014	WS E station cla-valve maintenance	288.47
801318497	12/18/2014	12/18/2014	WS rebuild Cla Vals at Baker.	1,103.29
801328113	1/16/2015	1/16/2015	WS pump 2 , 2" cla-val leak	183.18
801343671	3/3/2015	3/3/2015	DE-R&R Bushings & Nipples on Clay-Valve	530.95
801155727	3/31/2015	3/31/2015	WS Tremont Hall-Las Castas/Clay Vv Maint	1,832.46
801407784	8/18/2015	8/18/2015	WS E sta 3" lp cla-val maintenance	587.26
801442153	11/17/2015	11/17/2015	WS C station rebuild 2" cla-valves	896.19
801444938	11/24/2015	11/25/2015	DE-R&R check valve on Cla-valve Pilot	48.76
801459200	1/5/2016	1/5/2016	WS prs A cla valve maint	446.20
801472457	2/5/2016	2/5/2016	DE-installed new pilot for cla-valve	413.95
801480775	2/29/2016	2/29/2016	ws TREMONT HALL CLA VAL OVERHAUL	772.20
801522602	7/8/2016	7/8/2016	DE-Rebuild cla-valve pilots	47.79
801556102	10/19/2016	10/20/2016	WS C station cla-val CRD overhaul	423.52
801566146	11/21/2016	11/21/2016	WS C station cla-val maint	626.90
801566461	11/21/2016	11/21/2016	WS pump 2 cla val maint	122.31
801628846	6/16/2017	6/16/2017	WS 5 Corners Vault Cla Val maintenance.	1,204.65
801637768	7/13/2017	7/13/2017	WS hiawatha cla-val overhaul	1,362.71
801672877	10/31/2017	10/31/2017	WS A station cla-valve maintenance	3,017.11
801675254	11/7/2017	11/7/2017	WS B station cla-val maintenance	3,007.89
801693047	1/16/2018	1/16/2018	D station cla val maintenance	3,103.02
801694113	1/18/2018	1/18/2018	WS E station cla val maintenance	4,374.24
801620628	2/14/2018	2/14/2018	De-Leak on inlet cla valve to desal	254.18
801735771	6/4/2018	6/6/2018	WS D station 6" cla val not closing	402.32
801772811	10/3/2018	10/3/2018	DE- Rebuild pilot for Cla Valve	0.00
801786479	11/15/2018	11/15/2018	DE CLA VAL Pit Mod	0.00
801789460	11/28/2018	11/28/2018	DE-TWT#2 Cla-valve troubleshoot & repair	616.13
801801612	1/8/2019	1/8/2019	WS - C Station cla val failure	2,244.51
801811797	2/8/2019	2/8/2019	DE-Fix Cla-Val for weir level control	282.88
801819932	3/6/2019	3/6/2019	WS Summit 12" Cla Val R &R	1,575.87
801838549	5/6/2019	5/6/2019	WS rebuild cla vals at E station	725.45
801838937	5/7/2019	5/8/2019	DE rebuild cla val control in pit	1,005.80
801840265	5/10/2019	5/10/2019	WS- D Station 6" Cla-Valve	6,595.35
801875829	8/29/2019	9/4/2019	WS Cla-Val System Review - George	1,893.34
801878280	9/6/2019	9/9/2019	DE Rebuld cla val pilot in pit	1,665.16
801884207	9/30/2019	9/30/2019	DE-Cla-val troubleshooting	895.39
801884564	9/30/2019	9/30/2019	DE Rebuild cla val in pit	1,385.65

801895324	10/31/2019	10/31/2019	DE Replace Cla Val in pit	1,567.30
801898191	11/12/2019	11/12/2019	DE repair leak in cla val pit	141.18
801906277	12/10/2019	12/11/2019	WS 5 Corners Cla Val Rebuild	1,417.77
801909373	12/23/2019	12/23/2019	DE-Troubleshoot cla-valve(LV-X2)	735.57

Cooper Cameron

From: Bruce Liu
Sent: Monday, May 18, 2020 7:12 AM
To: John Long
Cc: David Grey; Bruce Liu
Subject: SAP task notification # 203705843 Desal building

John:

A SAP task was assigned to me. notification # 203705843

Description as follow:

The existing Catalina desalination plant #1 building has a heavily corroded cladding and minor to moderate corrosion on the supporting structure members.

This is a request to evaluate the building structure and determine what work can be performed to rehabilitate the building. The report should also include an evaluation for hazards that exist because of the current condition. There have been safety notifications created in the past.

Please include the managers and supervisors in the final report or summaries. Please CC; Ron Hite, Mike Mabel, and Frank Beach in this regard.

Priority is set as High because of the safety concerns. The electrical conduits and cabinets should also be included in the assessment scope. Please set-up job walk with John Long or Frank Beach

My recommendations are to replace siding & repair leak roof.

Please set up a work order for this repair.

Thanks.

***Bruce Liu, PE
Plant Engineer
Eastern Division
Southern California Edison
2492 W San Bernardino Avenue,
Redlands, CA 92374
Cell (909) 957-5192***



Notification	203705843	PN	Eng Assmt Desal Bld & PRV gas yard	
Notific. Status	ATCO NOCO			CMPL

Notification Header

Malfunction Data

Location

Scheduling Overview

Tasks

Reference object

Functional loc.	EC-DE-BLDG	Desalination Building	
Equipment			
Assembly			

Subject

Coding

06/11/2019 17:24:31 PST John G Long (LONGJG) Phone 310-510-4358 34358
The existing catalina desalination plant #1 building has a heavily corroded cladding and minor to moderate corrosion on the supporting structure members.
This is a request to evaluate the building structure and determine what work can be performed to rehabilitate the building. The report should also include an evaluation for hazards that exist because of the current condition. There have been safety notifications created in the past.

Start/End Dates

Required Start	06/12/2019	17:27:33	Priority	High	
Required End	12/31/2019	17:27:33	<input type="checkbox"/> Breakdown		

Responsibilities

Planner group	ECD / 1200	Desalinization Pln	
Main WorkCtr	ECWG_DE / 1200	Water and Gas Foreman	
Person respons.			
Reported by		Notif.date	12/31/2020 17:08:48

Item

Object part			
Damage			
Text			
Cause			
Cause text			

Entry

0 frm

0

06/11/2019 17:24:31 PST John G Long (LONGJG) Phone 310-510-4358 34358

The existing catalina desalination plant #1 building has a heavily corroded cladding and minor to moderate corrosion on the supporting structure members.

This is a request to evaluate the building structure and determine what work can be performed to rehabilitate the building. The report should also include an evaluation for hazards that exist because of the current condition. There have been safety notifications created in the past.

Please include the managers and supervisors in the final report or summaries. CC; Ron Hite, Mike Mabel, and Frank Beach

06/11/2019 17:27:33 PST John G Long (LONGJG) Phone 310-510-4358 34358

Priority is set as High because of the safety concerns. The electrical conduits and cabinets should also be included in the assessment scope.

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 0 5 - S I

To: Public Advocates Office
Prepared by: Tara Prabhu
Job Title: Major Construction Project Manager
Received Date: 11/25/2020

Response Date: 12/4/2020

Question 03.a-c:

Referring to the Prepared Testimony of Ronald Hite, please provide the following information regarding the Water Valve Replacement project:

- a. Inventory of SCE's water valves including their age and condition and date of their last assessment.
- b. List of valves SCE plans to replace.
- c. Detailed breakdown of the costs shown in the Table I-31 on page 62 of the Capital Projects Testimony.

Response to Question 03.a-c:

- a. Please see attached Excel file titled "Water Valve List."
- b. The table below provides the list of water valves currently identified for replacement during the initial replacement phase.

Valve	Size (inches)	Date of Install/ Age of Valve	Location Description	SAP Equip ID	LONGITUDE	LATITUDE
102	6	~1962	5 Corners	207021547	118°19'43.47"W	33°20'25.85"N
5	4	~1962	Lower Terrace, North of Beacon	207021558	118°19'31.77"W	33°20'26.99"N
15	6	~1962	5 Corners	207021543	118°19'43.47"W	33°20'26.05"N
115	4	~1962	Eucalyptus, S of Beacon	207021528	118°19'38.34"W	33°20'30.77"N
122	4	~1962	Cabrillo, N of #32	207021481	118°19'55.27"W	33°20'22.36"N
129	6	~1962	North End of Middle Terrace	207021571	118°19'22.39"W	33°20'33.20"N
25	4	~1962	Beacon, E of Sumner	207021475	118°19'39.19"W	33°20'31.51"N
33	4	~1962	Descanso, S of Third St	207021525	118°19'32.17"W	33°20'32.70"N
37	4	~1962	Crescent, E of Catalina	207021514	118°19'30.84"W	33°20'35.82"N

- c. Please see attached Excel file titled "Valve Replacement Project Estimates."

Wildfire Capital Forecast Breakdown**Catalina Forecast**

Category	2020	2021	2022	Total
HFRI Inspections/Remediations	\$ 18,000	\$ 12,900	\$ 7,700	\$ 38,600
WMP VM-3 Expanded Clearances	\$ -	\$ 20,000	\$ 25,000	\$ 45,000
WMP SH-11 System Hardening	\$ -	\$ 100,000	\$ -	\$ 100,000
PSPS-Related Contingency/Resiliency	\$ 80,000	\$ 40,000	\$ -	\$ 120,000
Grand Total				\$ 303,600

ATTACHMENT 6-12

**SCE Responses to Public Advocates DR SIH-11
(PubAdv-SCE-028-SI)**

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 2 8 - S I

To: Public Advocates Office
Prepared by: Mark Clayton
Job Title: Advisor
Received Date: 1/20/2021

Response Date: 1/27/2021

Question 01:

In response to Data Request SIH-01 (Forecasted Capital Projects) question 8, SCE Catalina Water provided the following table:

Catalina Forecast				
Category	2020	2021	2022	Total
HFRI Inspections/Remediations	\$ 18,000	\$ 12,900	\$ 7,700	\$ 38,600
WMP VM-3 Expanded Clearances	\$ -	\$ 20,000	\$ 25,000	\$ 45,000
WMP SH-11 System Hardening	\$ -	\$ 100,000	\$ -	\$ 100,000
PSPS-Related Contingency/Resiliency	\$ 80,000	\$ 40,000	\$ -	\$ 120,000
		Grand Total	\$	303,600

Provide a detailed description of the proposed activities in each of the following categories noted above:

- a. HFRI Inspections/Remediations
- b. WMP VM-3 Expanded Clearances
- c. WMP SH-11 System Hardening
- d. PSPS-Related Contingency/Resiliency

Response to Question 01:

- a. HFRI Inspections/Remediations

High Fire Risk Informed (HFRI) Inspections and Remediations is a program developed to decrease wildfire ignition risk at SCE electrified assets. We currently have 40 electrified assets identified on Catalina that get inspected on a bi-yearly basis. An inspector goes to each of the inspection points and completes an online inspection survey, takes pictures, and recommends remediations if needed. Data from the survey is fed into an ArcGIS database for tracking and all data is currently provided on a quarterly basis to the WSD. Budget for this program is based on the estimated crew's hours to complete inspections and remediations. As we continue to reinspect assets, we anticipate a lower remediation rate and therefore lower costs in 2022. Typically, remediations have been vegetation management related. Some remediations found move into the system hardening SH-11 budget such

as panel upgrades.

b. WMP VM-3 Expanded Clearances

Expanded Clearances is a vegetation management program that was developed to meet California Code of Regulations Division 4 Part 2 Protection of Forest, range and forage lands: Chapter 3, Code 4291. 21 sites have been identified to treat in 2021-2022. In 2020 we completed a desktop review and field inspection on each site. Treatment plans, photos and notes were uploaded into an ArcGIS database for review and tracking of the program. All data is currently provided to the WSD on a quarterly basis. Official cost estimates have not been obtained at this time, we estimated based on the current cost of expanded clearances performed on similar assets in 2020 on the mainland.

c. WMP SH-11 System Hardening

System hardening is a proactive look at ways to reduce ignition risk on Catalina. During inspections we have found equipment that could be upgraded, repaired, or replaced to reduce ignition risk. We are continually looking for additional system hardening options. Examples of system hardening are installing solar/battery to remove secondary power lines and reducing ignition risk. We also are looking to install fencing at some locations for public safety, reliability, and reduced ignition risk. Fencing will allow us to maintain the vegetation regularly with an established permitted area. Fencing will also keep public and animals from coming into contact with these electrified assets improving public safety and reliability from animal caused outages. Official cost estimates have not been obtained at this time, we estimated the forecast on past fencing and panel replacement costs.

d. PSPS-Related Contingency/Resiliency

A Public Safety Power Shutoff (PSPS) event is when SCE temporarily shuts-off power service when weather conditions create a high risk for wildfire. As the drinking water utility on Catalina, SCE is obligated to provide safe and reliable water service to customers, including during potential PSPS events. Planning for PSPS contingency and water supply resiliency during high fire conditions is essential to public health and safety on the island. SCE is currently assessing the applicability and requirements for PSPS-related contingency and wildfire resilience and plans to subsequently implement system improvements to maintain reliable water service during PSPS events. These remediations may include, but are not limited to, backup generator capabilities and storage enhancements.

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 2 8 - S I

To: Public Advocates Office
Prepared by: Mark Clayton
Job Title: Advisor
Received Date: 1/20/2021

Response Date: 1/27/2021

Question 02:

Provide all supporting documentation including cost estimates for the proposed activities referenced in the question above.

Response to Question 02:

a. HFRI Inspections/Remediations

5.3.4.16 Generation High Fire Risk Informed Inspections in HFRA (IN-5)

In March 2019, SCE began implementing inspections of relevant generation-related assets in HFRA. These inspections included ignition-focused assessments of low-voltage ancillary assets and their associated overhead lines, supporting structures, and any exposed wiring and/or threats from vegetation that require additional mitigation. In addition, high-voltage facilities were inspected to ensure that all overhead connections from the last inspection(s) of transmission and distribution structures had been evaluated and assessed for vegetation clearance buffers, using relevant criteria from transmission and distribution inspections.

SCE performed inspections of all relevant generation assets in HFRA for a total of 449 inspections in 2019. Items requiring remediation were documented and scheduled for maintenance or repair, based upon the risk of the condition. After the gatekeeping process, a total of 243 notifications requiring remediation were identified including:

- 1 Priority 1 notification
- 88 Priority 2 notifications
- 154 Priority 3 notifications

In 2020, SCE will inspect at least 200 Generation-related assets. SCE will also work towards integrating this inspection program into the current inspection routines at these facilities to streamline field efforts. In addition, any improvements made to transmission and distribution inspection efforts will be incorporated, as applicable, to ensure consistent practices across the organization. SCE is also evaluating incorporating these assets into risk modeling efforts to determine a risk-informed approach for this work. The activity will continue through at least another full inspection cycle (currently proposed as a two-year cycle) to determine trends, assess risks, and evaluate the need for further inspections and their frequency for the long-term.

	2020	2021	2022	Total WMP 20-22
Remediation				
Capital¹	\$18,000	\$12,900	\$7,700	\$ 38,600

Note: 1 - assumed less find rate for subsequent years (30% red Yr1, 20% red Yr2&3)

Costs based off 2019 actuals and an estimated steady decrease in remediation findings.

b. WMP VM-3 Expanded Clearances

5.3.5.5.2 Expanded Clearances for Legacy Facilities: (VM-3)

In addition, SCE is evaluating several legacy facilities, many in proximity to historic hydroelectric generation facilities, as recommended in findings from the 2019 inspection efforts. The age of these facilities, proximity to densely forested areas, and (as designed at the time) the smaller 5-100 setback distances and easements pose challenges to address additional mitigation opportunities. Addressing the State's recommended CAL FIRE clearances pursuant to PRC 4291 and PRC 4293 at these facilities will require a multi-year program of assessments, seeking agency approvals, and remediation. In 2020, SCE plans to perform assessments of all identified facilities in HFRA and establish enhanced buffers at 30% of identified facilities.

Capital spend is for added fencing around electrified assets to maintain customer safety and reliability. We looked at fencing jobs that were recently completed in other parts of the SCE territory and added approximately 50% for the best estimate of cost on the Island due to bargaining over materials and increased labor costs. Estimating each site will cost approximately \$9,000 to complete and we have identified 5 high risk sites that would benefit the most from this project.

c. WMP SH-11 System Hardening

5.3.3.19 Legacy Facilities (SH-11)

Findings from the 2019 Enhanced Overhead Inspection (EOI) effort on distribution and generation assets uncovered areas to explore further for legacy facilities, many in proximity to historic hydroelectric generation facilities in HFRA. The age of these facilities, proximity to densely forested areas, and their unique configuration pose challenges to address additional mitigation opportunities. In one such case, the 2019 inspection findings required immediate measures to de-energize a line and seek an alternate source to provide reliable power to a high hazard dam facility and a small (<10 kW) microgrid, solar plus storage solution was deployed. Other facilities and circuits have been identified for further evaluation. SCE plans to conduct a risk-based analysis of these lines and develop site-specific remediation options to either mitigate in place (potentially with covered conductor), reconfigure, rebuild, or provide alternative means of power supply where feasible. Other system hardening activities that may provide additional wildfire risk reduction benefits for these legacy facilities will also be explored. These include, but are not limited to, evaluation and possible deployment of additional avian and wildlife protection measures, assessment of existing grounding grids and lightning arrester systems to ensure their adequacy, and incorporation of these facilities into existing programs moving forward. In 2020, SCE plans to evaluate certain legacy facilities including substations and Generation facilities to assess any potential fire risks and develop an execution strategy to mitigate any findings.

System Hardening					
Mt. Ada Panel Rep	801893302		Capital	\$ 29,777.75	
Airport in Sky Panel Rep	801945643		Capital	\$ 17,098.00	*estimated (2020)
CATA- WS Cottonwood Well 1A Control Pane	801859970	Labor	Capital	\$ 1,542.00	ECWG
		Material	Capital	\$ 3,117.00	
		Total	Capital	\$ 4,659.00	
		TOTAL		\$ 51,534.75	

Based on the 2019 actuals and 2020 estimates we determined our forecast. This includes the system hardening already identified and scheduled as well as room for additional projects as needed.

d. PSPS-Related Contingency/Resiliency

The cost estimates for PSPS-Related Contingency/Resiliency are based preliminary and based on operator expertise for construction projects on Catalina Island. No detailed cost breakdown for this project is available beyond the table included in Question 1.

Additional information on SCE's wildfire mitigation efforts can be found online at <https://www.sce.com/wildfire/wildfire-mitigation-efforts>

ATTACHMENT 6-13

**SCE Responses to Public Advocates DR SIH-05
(PubAdv-SCE-017-SI)**

Southern California Edison
A.20-10-018 – 2022 Catalina Water GRC

DATA REQUEST SET P u b A d v - S C E - 0 1 7 - S I

To: Public Advocates Office
Prepared by: Danny Lu
Job Title: Advisor, Regulatory Affairs & Compliance
Received Date: 12/28/2020

Response Date: 1/8/2021

Question 01:

In response to Data Request SIH-03 (Water System) question 1, regarding the water system master plans, SCE Catalina Water stated: “Several in progress initiatives contribute to this plan development, including the Drought Contingency Plan, Water Reliability Study, Water Availability Study, Groundwater Management Plan, Water System Operation & Maintenance Manual, and Asset Management Plan.” Provide copies of each plan or study. If copies are not available yet, please provide an estimated completion date.

Response to Question 01:

Initiatives	Status
Drought Contingency Plan	Planned Completion Date: August 2021
Water Availability Study	Planned Completion Date: June 2021
Groundwater Management Plan	Completed (see attached)
Water System Operation and Maintenance Manual	Planned Completion Date: April 2021
Asset Management Plan	Planned Completion Date: December 2021

ATTACHMENT 6-14

**SCE Response to Public Advocates DR SIH-02
(PubAdv-SCE-006-SI)**

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 0 6 - S I

To: Public Advocates Office
Prepared by: Luke A Schaner
Job Title: Major Construction Project Manager
Received Date: 11/25/2020

Response Date: 12/7/2020

Question 01.a-g:

Referring to the Prepared Testimony of Ronald Hite, please provide the following information regarding the Desalination Plant 2 project:

- a. A complete copy of the “Engineering 12 Month Assessment Report April 2016 through July 2017 Vol. 1” report included in WPSCE Part 02 section I.B.1 The current copy is missing tables and appendices.
- b. A copy of the vendor contracts mentioned on page 6 of Testimony Supporting Southern California Edison Company’s Application for Authority to Increase Rates for its Class C Catalina Water Utility and Recover Costs from Water and Electric Customers – Capital Projects (“Capital Projects Testimony”).
- c. A copy of the agreement with the County of Los Angeles for the \$500,000 in contributed funds.
- d. The contract with the City of Avalon (WPSCE-03, Part 01 pages 353-362) states that the City of Avalon would receive a portion of their contribution “according to the percentages of their overall respective contributions to the overall final cost of the New Plant.” Explain why SCE returned the full \$500,000 to the City of Avalon if the grant does not fully cover the project costs? e. The Public Meeting and Comment Period announcement for the Desalination Plant 2 project from the California Department of Water Resources (“DWR”) (<https://water.ca.gov/News/Public-Notices/April-19/Public-Meeting-and-Comment-Period-Prop-1-Grants-May-2019>) shows that the requested grant funding was for \$3,610,575 which would cover the total project cost. Please explain the differences in what was presented to the DWR and what SCE is requesting in its GRC application.
- f. Table I-4 on page 7 of the Capital Projects Testimony shows \$2,100,000 in DWR Grant contributions. Please reconcile this amount from Table I-4 with the grant funds of \$3,610,575.
- g. Please provide supporting documentation for the payments made to both the City of Avalon and the County of Los Angeles returning the \$500,000 in contributions.

Response to Question 01.a-g:

- a. See attached pdf titled “2017-10-Plant 2 12M Report_Vol1.”
- b. See attached confidential purchase orders and change orders in support of the Desalination Plant 2 project:
 - a. Confidential_CD L - PO4500910524
 - b. Confidential_GE Osmonics PO_4500757486
 - c. Confidential_Irwin Industries MSA00052000
 - d. Confidential_Irwin PO#4500748691

- e. Confidential_Irwin PO#4500748691_CO1
 - f. Confidential_Irwin PO#4500757869
 - g. Confidential_PO 4500874104_IQA
 - h. Confidential_PO 4500874104_IQA_CO1
 - i. Confidential_PO 4500910510_TR
- c. SCE did not execute an agreement with the County of Los Angeles for the \$500,000 in contributed funds. See attached pdf titled “2017-09-27 – Funding Agreement” as it relates to the County of Los Angeles contribution provided by the City of Avalon.
- d. SCE has not yet returned any portion of the City of Avalon’s \$500,000 contribution as SCE has not received any supplemental grant funds from the State of California. If and when SCE is in receipt of monies from the grant from the State, SCE will abide by the terms of the Agreement and share such monies pro rata between the City and SCE according to the percentages of their respective contributions to the final cost of the desalination plant.
- e. SCE’s DWR funding request reflected total project costs at time of grant application preparation (in early 2018). The GRC application includes trailing project costs in 2018-2019 for work including: O&M Manual updates, permit conditions, and warranty items. These costs were not apparent at the time of the grant application. Table I-1 also excludes indirect project costs such as corporate overheads. The response to item 1.f. clarifies the difference between the grant funding request (\$3,610,575) and the contribution identified in Table I-1 (\$2,100,000).
- f. Following receipt of the DWR agreement terms, and given the current status of contract negotiations, the anticipated grant amount has been updated from \$3,610,575 to \$2,100,000 in order to better reflect the potential level of grant funding.
- g. SCE has not yet returned any portion of the City of Avalon \$500,000 contribution as SCE has not received any supplemental grant funds from the State. SCE has not returned any portion of the County of Los Angeles \$500,000 contribution.

CONFIDENTIAL

The Attachment(s) Are Marked Confidential In Accordance With D. 16-08-024 and D. 17-09-023. Basis for Confidentiality In Accompanying Confidentiality Declaration.
Public Disclosure Restricted.

ATTACHMENT 6-15

**SCE Responses to Public Advocates DR SIH-08
(PubAdv-SCE-022-SI)**

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 2 2 - S I

To: Public Advocates Office
Prepared by: Matthew Zents
Job Title: Major Construction Project Manager
Received Date: 1/8/2021

Response Date: 1/15/2021

Question 02:

Please provide all documentation related to failures of the previous SCADA system.

Response to Question 02:

A detailed assessment on the functionality of the previous SCADA system is provided on pages 261-357 of WPSCE-03 Part 04. Included in this assessment are lists of the functions performed at each SCADA location and the results of testing of those functions.

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 2 2 - S I

To: Public Advocates Office
Prepared by: Matthew Zents
Job Title: Major Construction Project Manager
Received Date: 1/8/2021

Response Date: 1/15/2021

Question 03:

Provide a cost benefit analysis of the installed SCADA upgrades referenced on pages 32-34 of the “2022 Catalina Water General Rate Case Testimony Supporting Southern California Edison Company’s Application for Authority to Increase Rates for its Class C Catalina Water Utility and Recover Costs from Water and Electric Customers – Capital Project” (Capital Testimony).

Response to Question 03:

SCE did not perform a cost-benefit analysis for the Water SCADA Upgrade project as the project was seen as necessary to effectively and efficiently operate and monitor the water system.

ATTACHMENT 6-16

**SCE Responses to Public Advocates DR SIH-09
(PubAdv-SCE-023-SI)**

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 2 3 - S I

To: Public Advocates Office
Prepared by: Vicky Furnish
Job Title: Sr. Manager, Site Assessment and Remediation
Received Date: 1/8/2021

Response Date: 1/15/2021

Question 03:

Provide the date when and how SCE Catalina Water first became aware of potential polychlorinated-biphenyls (PCBs) leaching from the lining of the MGT.

Response to Question 03:

SCE Catalina Water first became aware of the presence of PCBs in the coal-tar enamel coating of Million Gallon Tank (MGT), and the sediment containing that coating, during a tank cleaning in 2005. Sediment samples from the tank were analyzed by a certified lab and indicated the presence of PCBs. Water samples were also taken at multiple locations and PCBs were not detected. As more fully described in the attachment provided in response to Question 05, SCE has conducted extensive drinking water sampling before and after the refurbishment of the MGT and no PCBs have been detected. As such, SCE is not aware of any PCBs “leaching” from the MGT at any point in time.

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 2 3 - S I

To: Public Advocates Office

Prepared by: Danny Lu

Job Title: Advisor

Received Date: 1/8/2021

Response Date: 1/15/2021

Question 06:

Explain whether untreated seawater can be used to permanently meet the fire suppression needs covered by the MGT. If untreated seawater cannot be used for this purpose, please explain why.

Response to Question 06:

Southern California Edison's (SCE) obligation to provide fire suppression to the USC Marine Science Center currently covered by the Million Gallon Tank (MGT) cannot be met by a switch to untreated seawater. The fire flow suppression requirement is to provide fire flow protection at the rate of 2,500 gallons per minute (GPMs) for a minimum of six-consecutive hours or a total of 900,000 gallons storage. There is currently no infrastructure to support a seawater system at the west end of the island where the MGT is located. A switch to untreated seawater would require new piping, pump(s) and/or tank(s).

A standby pump only system is not feasible as it would require either a direct intake or seawater well(s) off the coast operating at 2,500 GPMs. Either of these systems would be very costly to build and maintain. Permitting a new direct intake line or seawater well(s) would be a huge obstacle given that a large part of the coast in the surrounding area is designated as a "State Marine Conservation Area" or "Special Closure".

If the MGT was to be converted to a seawater only tank there is the issue of how to fill the tank. As mentioned above permitting a direct intake line or seawater well(s) is huge obstacle even at a smaller scale. Even if there is a remote possibility for the tank to be filled with seawater, seawater within the tank would have to be treated or refreshed periodically to prevent algae growth. Treatment would accrue additional operating cost and discharging would require an NPDES permit. Additionally, a new potable water storage tank would need to be constructed to meet the drinking water needs of the USC facilities and community of Two Harbors.

ATTACHMENT 6-17

**SCE Responses to Public Advocates DR SIH-10
(PubAdv-SCE-024-SI)**

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 2 4 - S I

To: Public Advocates Office
Prepared by: Luke A Schaner
Job Title: Project Manager
Received Date: 1/15/2021

Response Date: 1/22/2021

Question 01:

In response to DR SIH-06 (DWR Grant Funding) (“SIH-06”) question 1.c. SCE states “Based on this review, SCE anticipates receiving an amount less than the original \$3,610,575 grant award.”

- a. Provide an itemized breakdown of the expenses which SCE anticipates being reimbursed for by the grant funds.
- b. Provide an itemized breakdown of the expenses which SCE does not anticipate being reimbursed for by grant funds, and explain why reimbursement is not anticipated.

Response to Question 01:

In May 2015, the Desalination Plant 2 (Plant 2) project was identified as a necessary capital investment to provide immediate and long-term water production benefits to Catalina Island residents. Plant 2 achieved substantial completion and began operations in April 2016. In 2017, an opportunity for grant funding opened through the California Department of Water Resources (DWR) Water Desalination Grant Program. SCE pursued the DWR program to offset as much of the project costs as possible to help reduce the ratepayer impact. After being excluded in the first round of grant awards in early 2018, SCE re-applied under the Continuous Application Process in March 2018. In June 2019, SCE was selected for a grant award of \$3,610,575. In 2020, during the development of the funding agreement, it became apparent that SCE could not retroactively meet all the terms and conditions with a project scope totaling \$3,610,575. For example, SCE is not able to incorporate flow-down language in contracts for work that was completed prior to SCE applying for the grant funding or verify prevailing wage accounting after the fact. This will be SCE’s first DWR grant funding agreement for a capital water project on Catalina and SCE’s working group errantly understood there would be more flexibility during the contracting stage in dealing with a completed project and retroactive award. SCE endeavors to finalize a grant funding agreement with DWR that offsets as much of this project as possible to help reduce the ratepayer impact, albeit lower than the original grant award.

SCE does not yet have an itemized breakdown of the expenses which SCE anticipates being reimbursed for by grant funds; these items primarily include material and equipment costs, travel and transportation costs, and utility costs. SCE currently estimates that approximately \$2,100,000 of the initial grant award may be maintained upon executing a grant funding agreement and after excluding costs of construction labor, special services, SCE overhead, and SCE labor. SCE does

not yet have an itemized breakdown of the expenses that SCE does not anticipate being reimbursed for by grant funds. Itemized breakdowns will be prepared upon execution of a grant funding agreement.

ATTACHMENT 6-18

**SCE Response to Public Advocates DR SIH-15
(PubAdv-SCE-048-SI)**

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 4 8 - S I

To: Public Advocates Office

Prepared by: Danny Lu

Job Title: Advisor

Received Date: 2/23/2021

Response Date: 3/2/2021

Question 02:

SCE Catalina Water’s Capital Projects testimony, on page 8, indicates that SCE Catalina Water replaced Howlands Landing well due to seawater intrusion.. Please describe how SCE Catalina Water determines the safe yield pumping rates or quantities to avoid seawater intrusion in its groundwater wells. Provide all supporting documentation.

Response to Question 02:

SCE Catalina Water associates Howlands Landing Wells 01 and 03R, Toyon Canyon Well 03, and Whites Landing Well 01 as groundwater wells susceptible to seawater intrusion.

The 2004 Water Resources Management Plan prepared by Boyle Engineering Corporation (Boyle Report), identifies the following pumping quantities:

Howland’s Landing Well No. 1

- Tested capacity of 50 GPM
- Current yield of 32 AFY

Toyon Canyon Well 03

- Tested capacity of 8-15 GPM
- Current yield of 16 AFY

Whites Landing Well 01

- Tested capacity of 48 GPM

In 2008, SCE submitted an update to its ground water modeling study, this included safe annual yield values for Howlands’s Landing (32 AFY) and Toyon (16 AFY).

SCE plans to reaffirm the daily and annual pumping quantities for the water resources as part of the water master plan initiative. The daily quantities are expected to be reaffirmed by December 2021 and annual quantities by December 2022.

Operators monitor the flow rate, pressure, conductivity and groundwater level at groundwater wells. Increasing conductivity levels above the normal range would indicate saltwater intrusion is occurring. Pumping rates would be closely monitored and/or adjusted when this occurs. Please see attached operator rounds data for SCE’s three coastal wells (HL3, Toyon, and Whites). Rounds data prior to 2020 are in hard copy format and has not been digitized.

Please see pages 52-198 of WPSCE-05, Part 02 for SCE's Groundwater Management and Sustainability Program for the Catalina water utility.

ATTACHMENT 6-19

SCE Responses to Public Advocates DR SIH-16 (PubAdv-SCE-051-SI)

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 5 1 - S I

To: Public Advocates Office
Prepared by: Sarah Tran
Job Title: Senior Advisor
Received Date: 3/5/2021

Response Date: 3/12/2021

Question 01:

Page 4 of the Supplemental Ratemaking and Phase-In Proposal Testimony states that the historical drought-related expenditures should be \$6.024 million, instead of the \$7.024 million previously noted. Please confirm whether the corresponding RO model adjustment will be performed as follows: by adding (\$1,000) (i.e., -\$1,000) to cell AR 30 of the Budget_Data sheet of the C1) Capital Inputs Excel sheet to increase the Desalination Plant 2 (Grant Contribution) line item. If this is not the method SCE Catalina Water applies to adjust the initial RO model, please describe the method used.

Response to Question 01:

The RO model does not need to be adjusted because it accurately reflects the historical drought-related expenditures of \$6.024 million, inclusive of the \$1 million in Desalination Plant 2 contributions to the City of Avalon. In other words, a negative \$1,000 adjustment to cell AR 30 in the “Budget_Data” sheet in the C1) Capital Inputs.xlsx RO model module is not necessary because it would double count the contributions, resulting in \$5.024 million in capital expenditures. The discrepancy exists only in the testimony, which assumed that SCE will be returning the \$1 million of contributions.

1 **CHAPTER 7 RATE BASE**

2 (Witness: Isaac Gendler)

3 **I. INTRODUCTION**

4 This chapter presents Cal Advocates' analysis and recommendations regarding
5 SCE Catalina's total proposed rate base. Rate base is the total monetary worth of assets
6 that an investor-owned utility is authorized to earn a specified rate of return on.

7 **II. SUMMARY OF RECOMMENDATIONS**

8 Cal Advocates reviewed SCE Catalina's GRC application and responses to data
9 requests, as well as its previous GRC, and data found in SCE's Result of Operations
10 model to evaluate SCE Catalina's rate base. Based on this review, Cal Advocates
11 recommends the following:

12 **A. Rate Base**

13 The Commission should authorize a total rate base amount of \$8,745,000 for
14 2022, \$12,106,000 for 2023, and \$12,630,000 for 2024.

15 **B. Plant in Service**

16 The Commission should authorize plant in service amount of \$33,896,000 in 2022,
17 \$37,555,000 in 2023, and \$38,858,000 in 2024.

18 **C. Net Salvage Rates**

19 The Commission should order SCE to set the net salvage rates for Account 342
20 (Reservoirs and Tanks) from -120% to -15%, Account 343 (Transmission and
21 Distribution Mains) from -35% to 0%, and Account 345 (Services) from -60% to 0% for
22 ratemaking purposes.

23 **D. Accumulated Depreciation**

24 The Commission should authorize an accumulated depreciation amount of
25 \$25,316,000 in 2022, \$25,750,000 in 2023, and \$26,233,000 in 2024.

1 **E. Working Cash**

2 The Commission should authorize a working cash allowance amount of \$574,000
3 in 2022, \$584,000 in 2023, and \$596,000 in 2024. The Commission should also order
4 SCE Catalina to adopt a detailed lead-lag study in its next GRC application.

5 **F. Accumulated Deferred Income Taxes**

6 The Commission should authorize an accumulated deferred income tax allowance
7 of \$410,000 in 2022, \$484,000 in 2023, and \$592,000 in 2024.

8 **G. Depreciation**

9 The Commission should authorize a depreciation amount of \$416,000 in 2022,
10 \$512,000 in 2023, and \$518,000 in 2024.

11 **III. ANALYSIS**

12 **A. Rate Base**

13 SCE requests a total rate base of \$16,075,000 for 2022, \$21,889,000 for 2023, and
14 \$22,043,000 for 2024.²⁸⁹ In contrast, Cal Advocates recommends the total rate base be
15 reduced to \$8,745,000 for 2022, \$12,106,000 for 2023, and \$12,630,000 for 2024 due to
16 differences in gross plant, accumulated depreciation, working cash, and accumulated
17 deferred income taxes. Table 7-1, below, compares SCE Catalina's proposed and Cal
18 Advocates' recommended rate base estimates.

²⁸⁹ WPSCE-04, p. 01: Table I-1: Weighted Average Rate Base (Total Company) 2019 Recorded/2020-2024 Forecast.

1

Table 7-1: SCE Catalina Division in Rate Base

Item	(Dollars in Thousands)					
	SCE Catalina	Public Advocates	SCE Catalina	Public Advocates	SCE Catalina	Public Advocates
	2022		2023		2024	
Gross Plant	41,844	33,896	48,942	37,555	50,534	38,858
Accumulated Depreciation	-25,941	-25,316	-26,903	-25,750	-28,002	-26,233
Total Net Plant	15,903	8,581	22,039	12,005	22,532	12,625
Working Cash	799	574	821	584	842	596
Accumulated Deferred Income Taxes	-627	-410	-971	-484	-1,332	-592
Total Rate Base	16,075	8,745	21,889	12,106	22,043	12,630
Depreciation	964	416	1,158	512	1,193	518

2

B. Gross Plant

3
4 Gross plant is the amount of plant in each account on the books of the utility at the
5 beginning of the year. The Commission should authorize \$33,896,000 of plant in service
6 in 2022, \$37,555,000 in 2023, and \$38,858,000 in 2024. SCE requests \$41,844,000 of

1 plant in service in 2022, \$48,942,000 in 2023, and \$50,534,000 in 2024²⁹⁰ All
2 differences in the estimated plant amounts are due to differences discussed in Chapter 6
3 of this Report.

4 **C. Accumulated Depreciation**

5 Accumulated depreciation is the total monetary value of depreciation that has
6 accumulated over an asset's lifecycle. The Commission should authorize -\$25,316,000 of
7 accumulated depreciation in 2022; -\$25,750,000 in 2023, and -\$26,233,000 in 2024. SCE
8 requests -\$25,941,000 in 2022, -\$26,903,000 in 2023, and -\$28,002,000 in 2024.²⁹¹

9 The net salvage value is the value of an asset at the end of its useful lifespan minus
10 the cost to physically remove the asset. To estimate proposed net salvage values , SCE
11 used the industry average of four Class A water utilities (California Water Services Co.,
12 California American Water Co., Suburban Water Systems, and San Gabriel Valley Water
13 Co.) in California²⁹² and rounded the industry average to the nearest five percent.²⁹³ SCE
14 made an exception for Account 342: Reservoirs and Tanks, which was instead set to be -
15 120% based on a projection of future removal costs for the total volume of tanks in
16 gallons instead of using an industry average.²⁹⁴ SCE's proposed depreciation rates
17 summary and the net salvage calculations are presented in SCE-04, page 9 and 13,
18 respectively.

19 SCE's net salvage rates proposal is problematic for two reasons. First, there is no
20 proper justification for Account 342: Reservoirs and Tanks, to have a unique value when
21 all the other accounts are based on a standardized average. Second, SCE requests the

²⁹⁰ WPSCE-04, p. 02: Table II-2: Weighted Average Rate Plant-in-Service 2019 Recorded/2020-2024 Forecast.

²⁹¹ WPSCE-04, p. 04: Table II-3: Weighted Average Accumulated Depreciation 2019 Recorded/2020-2024 Forecast.

²⁹² Attachment 1-1: Net Salvage Estimation

²⁹³ See Attachment 7-1, SCE Response to Public Advocates DR IG-01, Q.05 (Ratebase-Depreciation & Tax Data); Attachment 7-2, SCE Response to DR IG-003, Q. 01 (Ratebase-Depreciation & Tax Data),

²⁹⁴ WPSCE-04, pp. 27: Account 342 – Reservoirs and Tanks Net Salvage Estimate.

1 negative net salvage for Accounts 343: Transmission and distribution mains, and Account
2 345: Services to recover the future retirement cost due to the overall environmental
3 remediation and service replacement projects which SCE deemed necessary to meet the
4 requirements of Toxic Substance Control Act (TSCA). However, SCE has already filed
5 two separate applications: A.20-04-010 and A-21-06-007 requesting to establish two
6 distinct memorandum accounts to track the expenses related to overall environmental
7 remediation and service replacement projects. More specifically, in A.21-06-007, SCE
8 indicates that the capital costs associated with removal of in-service pipelines will be
9 presented in a “subsequent application addressing those capital-related costs and receive
10 a Commission decision in advance of completing the environmental capital projects.”²⁹⁵
11 Therefore, SCE’s request for negative net salvage value for Account 343 and Account
12 345 contradicts its statement in A.21-06-007 where SCE claims that the recovery of such
13 capital costs will be subject of a subsequent GRC applications.

14 SCE’s proposal of piecemealing the environmental remediation and service
15 replacement projects is unreasonable. The separation of the project costs only reduces
16 transparency and is overall harmful to rate payers. Piecemealing of the project also
17 increases the risk and possibility of rate payers being overcharged as the same costs are
18 being tracked in multiple locations for recovery. Thus, the Commission should not allow
19 the use of negative net salvage values for Account 343 and Account 345.

20 The Commission should also change the -16% net salvage rate of Account 342:
21 Reservoirs and Tanks to -15% to align with SCE’s practice of rounding industry averages
22 to the nearest five percent. Table 7-4, below shows Cal Advocates recommended net
23 salvage rate adjustments, resulting in a total net salvage rate of -9% compared to SCE’s
24 proposed net salvage rate of -37%.

²⁹⁵ A.21-06-007, p. 3.

1

Table 7-2: Net Salvage Rate Proposals

Account Number	Description	Gross Plant (\$000)	SCE Catalina Proposed Net Salvage Rate	SCE Catalina Proposed Net Salvage Value	Cal Advocates' Recommendation Net Salvage Rate	Cal Advocates' Recommendation Net Salvage Value	Net Salvage Rate Difference	Net Salvage Value Difference
312	Collecting and Impounding Reservoirs	2,260	0%	-	0%	-	0%	-
314	Springs and Tunnels	21	0%	-	0%	-	0%	-
315	Wells	4,434	-30%	(1,330)	-30%	(1,330)	0%	-
316	Supply Mains	2,634	-25%	(658)	-25%	(658)	0%	-
324	Pumping Equipment	2,375	-10%	(237)	-10%	(237)	0%	-
332	Water Treatment Equipment	4,931	-5%	(247)	-5%	(247)	0%	-
342	Reservoirs and Tanks	5,989	-120%	(7,187)	-15%	(898)	-105%	(6,289)
343	Transmission and Distribution Mains	6,610	-35%	(2,314)	0%	-	-35%	(2,314)
344	Fire Mains	49	-20%	(10)	-20%	(10)	0%	-
345	Services	4,347	-60%	(2,608)	0%	-	-60%	(2,608)
346	Meters	245	0%	-	0%	-	0%	-
348	Hydrants	0.68779	-20%	(0)	-20%	(0)	0%	-
375	Laboratory Equipment	93	0%	-	0%	-	0%	-
372	Furniture & Equipment	6	0%	-	0%	-	0%	-
321	Structures and Improvements - Pumping Plant	386	-5%	(19)	-5%	(19)	0%	-
331	Structures and Improvements - Water Treatment	790	-5%	(40)	-5%	(40)	0%	-
371	Structures and Improvements - General	4,514	-5%	(226)	-5%	(226)	0%	-
Total Water Plant		39,687	-37%	(14,876)	-9%	(3,572)	-28%	(11,304)

2

D. Working Cash

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Working cash is the amount of money an investor-owned utility needs for operations between payment of expenses and receiving payments from customers for

5

1 water services. SCE based its working cash methodology on the 1/8th rule, such that the
2 working cash is equal to 1/8th of the yearly Operations and Maintenance (O&M) costs.²⁹⁶
3 For Class A and Class B water utilities, the Standard Practice (SP) U-16W requires either
4 a simplified or detailed lead-lag study to be done when estimating working cash.²⁹⁷
5 Technically, SCE is not required to complete a study in conformance with SP U-16W
6 because it is classified as a Class C utility and not a Class A or B. However, the
7 Commission should require SCE to present a detailed lead-lag study for two reasons.
8 First, SCE's operations are impacted by approximately one million visitors to Catalina
9 Island annually,²⁹⁸ which means that the volume of water usage is higher than might
10 otherwise be expected based on the number of connections in a Class C water utility.
11 Second, Cal Advocates recommends an increase to SCE's customer forecast that would
12 likely exceed the maximum number of connections allowed for a Class C utility,
13 potentially resulting in in SCE's reclassification to a Class B utility.²⁹⁹

14 In addition to requiring a lead-lag study, the Commission should authorize a
15 working cash allowance of \$574,000 in 2022, \$584,000 in 2023, and \$596,000 in 2024.
16 SCE requests a working cash allowance of \$779,000 in 2022, \$821,000 in 2023, and
17 \$842,000 in 2024.³⁰⁰ The difference in the working cash allowance is due to the
18 difference in estimated expenses as discussed in chapters two and three of this Report.

19 **E. Accumulated Deferred Income Taxes**

20 The Commission should authorize an accumulated deferred income tax amount of
21 \$410,000 in 2022, \$484,000 in 2023, and \$592,000 in 2024. SCE requests an
22 accumulated deferred income tax of \$627,000 in 2022, \$971,000 in 2023, and \$1,332,000

²⁹⁶ WPSCE-04, p. 06: Working Cash

²⁹⁷ Water utilities under the Commission's jurisdiction are classified by size. Class A are classified as having more than 10,000 service connections and Class B water utilities have between 2,000 and 10,000 connections.

²⁹⁸ WPSCE-01, p. 15: Affordability

²⁹⁹ See Cal Advocates' Report, Chapter 1: Customer and Sales Forecast.

³⁰⁰ WPSCE-04, p. 06: Table III-4: Working Cash 2019 Recorded/2020-2024 Forecast.

1 in 2024.³⁰¹ All differences in the accumulated deferred income tax measurement are due
2 to differences in recommended plant additions as described in Chapter 5 of this Report.

3 **F. Depreciation**

4 The Commission should authorize a depreciation amount of \$416,000 in 2022,
5 \$512,000 in 2023, and \$518,000 in 2024. SCE Catalina requests a depreciation amount of
6 \$964,000 in 2022, \$1,158,000 in 2023, and \$1,193,000 in 2024.³⁰² All differences in
7 depreciation estimates are due to the differences in recommended plant additions and the
8 difference in recommended net salvage rates as discussed earlier in this chapter.

9 **IV. CONCLUSION**

10 The Commission should authorize rate base amounts of \$8,745,000 for 2022,
11 \$12,106,000 for 2023, and \$12,630,000 for 2024.

³⁰¹ WPSCE-04, p. 01: Table I-1: Weighted Average Rate Base (Total Company) 2019 Recorded/2020-2024 Forecast.

³⁰² WPSCE-04, p. 08: Table IV-5: Depreciation Expense 2019 Recorded/2020-2024 Forecast.

1

LIST OF ATTACHMENTS FOR CHAPTER 7

#	Attachment	Description
1	Attachment 7-1	SCE Response to DR IG-001 Question 05, Net Salvage Estimation

2

ATTACHMENT 7-1
SCE Response to DR IG-001 Question 05,
Net Salvage Estimation

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 0 2 - I G

To: Public Advocates Office
Prepared by: Sarah Tran
Job Title: Senior Advisor
Received Date: 11/25/2020

Response Date: 12/4/2020

Question 05:

SCE-04, page 11, states that “Future Net Salvage [is evaluated as] future gross salvage minus future cost of removal,” and “future net salvage [was calculated as an estimate] from the depreciation study.” The depreciation study on WPSCE-04, page 11, shows that future net salvage is driven by cost of removal. Provide the source of the cost of removal for all the values listed in WPSCE-04.

Response to Question 05:

SCE’s estimated Future Net Salvage Rates are driven by the future cost of removal and include no assumption for future gross salvage.

The source of the cost of removal percentages for most accounts are the industry average net salvage rates as described in the response to PubAdv-SCE-002-IG, Question 4, which includes the industry average net salvage rates and an explanation for SCE’s proposed net salvage rate for each account.

For Account 342 (Reservoirs and Tanks), please refer to SCE’s response to PubAdv-SCE-002-IG, Question 6, for additional information on the proposed cost of removal percentage.

1
2

CHAPTER 8 WATER QUALITY

(Witness: Isaac Gendler)

I. INTRODUCTION

This chapter presents Cal Advocates' analysis and recommendations regarding SCE's water quality.

II. SUMMARY OF RECOMMENDATIONS

The Commission should find that SCE's water systems comply with all applicable state and federal water quality standards, based on the most recent Division of Drinking Water ("DDW") findings.³⁰³

III. ANALYSIS

SCE's potable water supply comes from both groundwater wells on Catalina Island and two desalination plants. Groundwater and desalinated water are expected to account for 51.7% and 48.3% of SCE's total water supply respectfully.³⁰⁴ SCE Catalina water quality data in the form of consumer confidence reports from 2009 to 2019 and information from the DDW's Safe Drinking Water Information System website indicates no currently pending issues as to SCE Catalina water quality.³⁰⁵

A. Past DDW Drinking Water Enforcement Actions

DDW issued a notice of violation to SCE for failure to conduct initial monitoring for hexavalent chromium at drinking water sources within six months following the effective date of the regulation establishing the maximum contaminant level (MCL).³⁰⁶

³⁰³ See Water Quality Report for Southern California Edison, Santa Catalina Island Water System in Response to General Rate Case Application A.20-10-018, *available at* https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/News_Room/NewsUpdates/2021/SCE%20A.20-10-018%20Water%20Quality%20Report.pdf.

³⁰⁴ See SCE-03, p. 56, Table I-27.

³⁰⁵ SWDIS Waterboard website, <https://sdwis.waterboards.ca.gov/PDWW/>.

³⁰⁶ See February 17, 2015 SDWIS violation, *available at* https://sdwis.waterboards.ca.gov/PDWW/JSP/Violations.jsp?tinwsys_is_number=2485&tinwsys_st_code=CA (SDWIS Violation <https://tinyurl.com/29jtjke4>) (last accessed on October 14, 2021); Attachment 8-1, SCE Response to Public Advocates DR IG-07 (Customer Service, Water Quality, Taxes), Q.06.

1 Upon notice of violation, SCE immediately collected hexavalent chromium samples at
2 the required drinking water sources. The results for hexavalent chromium were below the
3 MCL at all drinking water sources.³⁰⁷

4 **IV. CONCLUSION**

5 Based on available information, the Commission should find SCE in compliance
6 with state and federal water quality standards based on DDW's most recent findings.

³⁰⁷ See SDWIS Violation, at <https://tinyurl.com/29jtjke4>.

1

LIST OF ATTACHMENTS FOR CHAPTER 8

#	Attachment	Description
1	Attachment 8-1	SCE Response to DR IG-007 Question 06 (Water Quality Violations)

2

ATTACHMENT 8-1

SCE Response to DR IG-007 Question 06 (Water Quality Violations)

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 2 9 - I G

To: Public Advocates Office

Prepared by: Danny Lu

Job Title: Advisor

Received Date: 1/22/2021

Response Date: 1/29/2021

Question 06.a-d:

The Department of Drinking Water reported that SCE had a water quality violation with chromium and hex levels on February 17, 2015. Please provide the following information:

- a. Details of the problem found.
- b. Details of the steps taken to resolve the problem.
- c. Time taken to resolve the problem.
- d. Identify the alternative source of water supply used during the remedial time.

Response to Question 06.a-d:

- a. The notice of violation was for failure to conduct initial monitoring for hexavalent chromium at drinking water sources within six months following the effective date of the regulation establishing the maximum contaminant level (MCL).
- b. Upon notice of violation from the Division of Drinking Water (DDW), SCE immediately collected hexavalent chromium samples at the required drinking water sources. The results for hexavalent chromium were far below the MCL at all drinking water sources.
- c. Once the issue was identified, the operators requested sample bottles from the contracted laboratory and samples were taken immediately.
- d. This was an administrative oversight, not an MCL violation. No alternative source of water supply was needed.

CHAPTER 9 CUSTOMER SERVICE

(Witness: Isaac Gendler)

I. INTRODUCTION

This chapter presents Cal Advocates' analysis and recommendations regarding SCE's customer service.

II. SUMMARY OF RECOMMENDATIONS

In subsequent GRCs, SCE should be required to provide data on its compliance with G.O. 103-A standards for complaints and other performance measures consistent with the requirements of Class B water utility.

SCE should also provide its Risk and Resilience Assessment, an Emergency Management Plan, and an EPA Vulnerability Assessment in the next GRC to demonstrate its compliance with Federal utility mandates.³⁰⁸

III. ANALYSIS

A. The Commission's Consumer Affairs Branch ("CAB") data

CAB is responsible for assisting consumers in answering questions and resolving disputes with their utility providers.³⁰⁹ Cal Advocates examined CAB's data on customer complaints/contacts received from SCE customers for the past eleven years (2009-2019). CAB categorizes customer contacts into the following types:³¹⁰

- 1) Complaints – Denote written consumer contacts in which the consumer is protesting or expressing dissatisfaction with an action or practice of the CPUC, or a regulated or non-regulated utility. These include issues that may be outside the purview of CAB to investigate or outside the regulatory authority of the Commission. These issues are not forwarded to the utility company for resolution but handled as a referral to the

³⁰⁸ America's Water Infrastructure Act of 2018.

³⁰⁹ CPUC website, Consumer Affairs Branch. Consumer Contacts Statistics. (<http://www.cpuc.ca.gov/ccd/>. Date accessed: May 9, 2018).

³¹⁰ "Standard Disclosures for CAB Data," Consumer Service and Information Division, CPUC, revised on 9/3/2014.

appropriate utility, CPUC division, entity, or closed outright with the appropriate letter of explanation.

- 2) Informal Complaints – Denote written consumer contacts expressing dissatisfaction with, or a dispute with a utility regarding issues within the regulatory authority of the CPUC. These issues are forwarded to the utility company for investigation and response.
- 3) Impounds – Impounds are a type of informal complaint sent to the utility for resolution. The disputed charges are held in trust with the Commission’s Fiscal Office pending case resolution. Depending on the outcome, the money may then be distributed to the utility, to the consumer, or a portion to each as the result of a compromise.³¹¹
- 4) Phone Contacts – Denote all consumer calls in reference to concerns, questions, and complaints related to utility companies. These contacts are no longer coded as complaints, inquiries, etc.
- 5) Inquiries – Denote written consumer contacts requesting facts and information for a situation.

Table 9-1 below summarizes the types of contacts CAB received from SCE’s customers over the period of 2014-2019.

Table 9-1: Contacts Received by CAB from SCE Customers³¹²

Contact Type	2014	2015	2016	2017	2018	2019
Complaint	1	0	0	0	0	0
Informal Complaint	0	1	0	1	0	0
Impound	0	0	0	1	0	0
Phone Contact*	1	1	0	3	0	0
Inquiry	0	0	0	0	0	0
Total Contacts	2	2	0	5	0	0

B. G.O. 103-A Compliance

G.O. 103-A outlines performance standards for Class A and B utilities on customer and regulatory complaints.³¹³ Although SCE is currently classified as a Class C

³¹¹ Explanation of Impound Type from March 9, 2017 Email from CAB to Chuqiao Dong of Public Advocates Office.

³¹² CAB Data from Excel Spreadsheet on December 2, 2020 Email from Kenneth Yang of the Consumer Affairs Branch. The data received dated 2009- 2019. Prior to 2014 there was only one recorded complaint (in 2009).

³¹³ CPUC General Order (“G.O.”) 103-A <https://docs.cpuc.ca.gov/PUBLISHED/Graphics/107118.PDF>

1 water utility (i.e., less than 2,000 service connections), Cal Advocates recommends an
2 increase to SCE's customer forecast that would reclassify SCE from a Class C to a Class
3 B water utility.³¹⁴ In addition, SCE currently serves approximately one million visitors
4 annually, which is an average of 2,739 customers per day. As such, SCE should be
5 required to meet the reporting requirements of a Class B utility.

6 **C. Safety**

7 As per the America's Water Infrastructure Act of 2018 (AWIA), SCE is required
8 to submit a Risk and Resilience Assessment and an EPA Vulnerability Assessment by
9 June 30, 2021, and an Emergency Management Plan by December 31, 2021 SCE
10 indicates that it will provide this information by the due dates.³¹⁵

11 **IV. CONCLUSION**

12 SCE should be required to comply performance and reporting requirements of with
13 the G.O. 103-A applicable to a Class B utility.

³¹⁴ See Cal Advocates' Report, Chapter 1.

³¹⁵ America's Water Infrastructure Act of 2018 (AWIA), at <https://www.epa.gov/ground-water-and-drinking-water/americas-water-infrastructure-act-2018-awia>. See Attachment 9-3, SCE Response to Public Advocates DR ISC-007 (Customer Service, Water Quality, Taxes) Q. 3, 4, 5; Attachment 9-7, Safety Deadlines Responses.

1

LIST OF ATTACHMENTS FOR CHAPTER 9

#	Attachment	Description
1	Attachment 9-1	SCE Response to Public Advocates DR ISC-007, Question 01 (Written Complaints Procedures)
2	Attachment 9-2	SCE Response to Public Advocates DR IG-009, Questions 03-05 (Customer Service, Water Quality, Taxes)
3	Attachment 9-3	SCE Response to Public Advocates DR IG-007, Question 02 (Customer Complaint Resolution)
4	Attachment 9-4	SCE Response to Public Advocates DR IG-007, Questions 03-05 (Safety Deadlines)

2

ATTACHMENT 9-1

**SCE Response to Public Advocates DR ISC-007, Question 01
(Written Complaints Procedures)**

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 2 9 - I G

To: Public Advocates Office
Prepared by: Frank Beach
Job Title: Sr. Supervisor
Received Date: 1/22/2021

Response Date: 1/28/2021

Question 01:

Please provide a copy of SCE Catalina's current standard policies and procedures to reduce and resolve customer complaints. If no such standard procedures are in place, explain why they are not, and whether SCE Catalina intends to implement such procedures.

Response to Question 01:

SCE currently does not have any written standard policies and procedures to reduce and resolve customer complaints. In general, all SCE administrative and operational staff are notified of all customer complaints and response actions so they can provide basic information to customers who may call in with a complaint. Given the small, intimate nature of the Catalina Island community, SCE employees are often on a first-name basis with customers and frequently engage with customers in-person. This personal touch is an important aspect of the quality of SCE's drinking water service on the island. Typical practices employed in responding to and resolving specific customer complaints are provided in response to Question 02.

ATTACHMENT 9-2

**SCE Response to Public Advocates DR IG-009, Questions 03-05
(Customer Service, Water Quality, Taxes)**

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 4 4 - I G

To: Public Advocates Office
Prepared by: Frank Derek Beach
Job Title: Senior Supervisor
Received Date: 2/11/2021

Response Date: 2/18/2021

Question 03:

In response DATA REQUEST SET Pub Adv - SCE - 030 – IG Question 03 (Cal Advocates DR ISC 007), SCE states: “Given the small, intimate nature of the Catalina Island community, SCE employees are often on a first-name basis with customers and frequently engage with customers in-person. This personal touch is an important aspect of the quality of SCE’s drinking water service on the island.” Please explain how SCE employees interact in-person with SCE-Catalina customers despite not having a customer-facing staffed office located on the island. Please describe how SCE documents in-person interactions between employees and customers and provide copies of such documentation for 2019.

Response to Question 03:

As stated in the response to SCE-030-IG, Catalina is a small community and in-person interactions occur frequently and take various forms. As SCE's presence is visible throughout the Catalina community, in-person interactions can include an employee being flagged down when driving down the street, customers approaching employees while performing field work (such as installing/replacing a water service or meter, reading meters, etc.), and also while waiting in line at the grocery store or post office. Frequent interactions between customers and SCE personnel occur without a customer-facing staffed office on Catalina. In fact, the majority of SCE's Catalina staff can be seen as customer-facing, given SCE's presence in the community and customer access to SCE employees. SCE does not specifically document in-person interactions between employees and customers.

ATTACHMENT 9-3

**SCE Response to Public Advocates DR IG-007, Question 02
(Customer Complaint Resolution)**

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 2 9 - I G

To: Public Advocates Office
Prepared by: Frank Derek Beach
Job Title: Senior Supervisor
Received Date: 1/22/2021

Response Date: 1/29/2021

Question 02.a-g:

Describe the procedures employed to resolve the following common customer complaints:

- a. Color
- b. Pressure
- c. Taste and Odor
- d. Outages
- e. Turbidity
- f. Other Complaints
- g. Pumping Plant

Response to Question 02.a-g:

a.- Color:

If color is isolated to one customer – When a color complaint is isolated to one customer, staff are instructed to show the customer that the incoming water from the water main is clear and free of color. This can be accomplished by taking a grab sample at a hose bib prior to service the line entering the house or at a neighbor's hose bib prior to their service line entering the house. Staff are instructed to only turn on faucets in the house that draw cold water. Since cold water comes directly from the water main (not through a water heater) typically all cold-water fixtures are free and clear of color on the cold side. In this case, the source of colored water is typically the water heater and customers are then shown when flowing a hot water fixture that colored water discharges. The customer is then told to flush their water heater.

In the case where there is a portion of the customer's water line in the house causing colored water, by flowing in-house fixtures on the cold side, the location can be isolated and revealed to the customer.

Color water present in the water distribution main – Mains will be flushed for color by staff, and general physical samples and bacteriological samples may be collected. This process will continue until the colored water has been removed from the system. All potentially affected customers may be asked to limit water usage for the duration of the event.

b. – Pressure:

Staff respond and provide insight to customers on potential reasons that they have low water

pressure. Typically, pressure problems are a result of localized customer issues not pertaining to the water distribution mains. The customer's private system is evaluated to determine the cause of the onsite low water pressure.

c. - Taste and Odor:

Customer's residence - Staff will immediately respond to taste and odor complaints, grab samples may be taken along with a bacteriological sample if warranted. Sources or locations of potential taste and odor complaints are investigated to either eliminate them as a source, or to pinpoint the area for the complaint. The results of assessment will dictate further action or close the task.

In the distribution system – water mains will be flushed at a low velocity to remove taste and odor issues. General physical samples may be collected along with bacteriological samples. Water mains will be flushed until satisfactory conditions are achieved.

d. – Outages:

During pre-planned outages all affected customers are notified at least 48 hours in advance of the outage and duration of the event.

Emergency outages: staff will make every attempt in the field to notify all affected customers prior to a service outage.

e. – Turbidity:

Customer's residence - Turbidity complaints are responded to immediately. Grab samples by staff are collected, questions are asked of the customer regarding the time, duration, appearance of the complaint. If appropriate, staff will request the customer to flush their private system. Depending upon what is found, the degree of concern of staff and or the customer, staff may collect a bacteriological sample.

In the distribution system - If turbidity is found in the water distribution main, the main will be flushed at a low velocity to remove potential causes of the turbid water. Depending upon the severity of the turbid water, staff may collect a general physical and bacteriological sample(s).

In both aforementioned cases, staff would dedicate time to locating the source of the turbid water.

f. - Other Complaints:

All complaints are dealt with a quick and positive response by staff and are evaluated upon the nature and type of the complaint.

g. - Pumping Plant:

As most of SCE's primary pumping facilities are located in remote areas of the island, noise complaints associated with pumping plants are not an issue in the Catalina water system. That said,

whatever the nature of the complaint is, staff would respond and look into it.

D. Service Quality

In support of SCE's commitment to provide safe and reliable water service to Catalina customers, SCE's dedicated personnel must navigate a wide range of challenging conditions, including physical and geographic challenges and customer perception issues.

1. Measures Taken to Reduce Complaints

Complaints typically fall into four basic categories: 1) high water bill, 2) pressure, 3) taste and/or odor, and 4) other secondary aesthetic complaint (i.e., cloudy or discolored). SCE has a dedicated customer service contact number and trained staff to support water service issues during regular business hours. SCE's customer service representatives are familiar with water and gas service and our company-wide customer service programs.

a) High Water Bill

Complaints of high water bills are promptly addressed with the customer via a multi-step process. The first step in the process is to verify the meter read and accuracy of the billing system information. Where appropriate, the customers are also educated on common household leak identification and prevention. The next step is to remove the meter and send it to the supplier for accuracy testing to confirm the meter is registering within accepted tolerances. If the meter is inaccurate, a billing adjustment is made. If the meter is accurate, SCE works with the customer on payment plan options.

b) Pressure

Pressure complaints are addressed by engaging the customers and providing them with hydrostatic and residual pressure readings at their home. SCE personnel will also communicate with the customer about aged pipe, materials and assess whether the pressure problem may be a volume problem due to aged customer plumbing. SCE personnel will also assess whether the pressure complaints may be the result of a closed or partially closed valve within the customer's plumbing that is restricting flow.

c) Taste and/or Odor

Taste and odor complaints are promptly investigated. The initial response includes engaging the customer and testing the water and inspecting customer-owned appliances, such as water heaters and filter systems. This response frequently results in identifying the source of the odor as organics trapped in the customer's appliances and not the water itself. These interactions help mitigate against future customer complaints on odor by eliminating the real source and educate the customer about ways to avoid such odors.

d) Other Secondary Aesthetic

Secondary Aesthetic complaints such as oxygenation and turbidity (i.e. cloudy water or tiny particles in their water) are address through customer education about the process water undergoes prior to reaching their tap. Oxygenated water frequently occurs in systems with multiple pressure zones and elevations changes like the Catalina water system. SCE will typically recommend installation of a simple aerator on a faucet to reduce oxygenated water. In general, turbid water at the tap is due to aged customer plumbing. SCE personnel will evaluate the customer's residential plumbing for the presence of turbid water. Turbid water frequently results from the customer's water heater and a comparison sample of hot versus cold water will identify the issue. Once identified, a general recommendation of flushing the water heater will be made to the customer. If requested by the customer, SCE personnel will collect a sample and send it to the lab for analysis. The samples are analyzed for bacteriological parameters and for other organic and inorganic materials. Sample results are shared with the customer following any water quality investigation.

ATTACHMENT 9-4

**SCE Response to Public Advocates DR IG-007, Questions 03-05
(Safety Deadlines)**

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 2 9 - I G

To: Public Advocates Office
Prepared by: Danny Lu
Job Title: Advisor, Regulatory Affairs & Compliance
Received Date: 1/22/2021

Response Date: 1/29/2021

Question 03:

The America's Water Infrastructure Act of 2018 (AWIA) requires utilities that serve populations greater than 3,301 people to provide an emergency management plan. Please provide the emergency management plan for SCE Catalina. If there is no emergency management plan, then please provide the expected date for it to be available.

Response to Question 03:

SCE is currently in the process of developing the Emergency Management Plan under AWIA. The certification deadline for a community water system serving 3,301-49,999 people is December 31, 2021. SCE intends to complete the Emergency Management Plan on or before the certification deadline.

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 2 9 - I G

To: Public Advocates Office
Prepared by: Luke A Schaner
Job Title: Strategic Planning, Sr. Advisor
Received Date: 1/22/2021

Response Date: 1/28/2021

Question 04:

AWIA requires utilities that serve populations greater than 3,301 people to provide a risk and resilience assessment. Please provide the risk and resilience assessment for SCE Catalina. If there is no risk and resilience assessment, then please provide the expected date for it to be available.

Response to Question 04:

SCE is currently in the process of performing the risk and resilience assessment under AWIA. The certification deadline for a community water system serving 3,301-49,999 is June 30, 2021. SCE intends to complete the risk and resilience assessment on or before the certification deadline.

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 2 9 - I G

To: Public Advocates Office

Prepared by: Danny Lu

Job Title: Advisor

Received Date: 1/22/2021

Response Date: 1/29/2021

Question 05:

The Public Health Security and Bioterrorism Preparedness and Response Act of 2002 10 requires community water systems serving more than 3,300 people to complete an Environmental Protection Agency (EPA) Vulnerability Assessment. Please provide the EPA Vulnerability Assessment for SCE Catalina. If there is no EPA Vulnerability Assessment, then please provide the expected date for it to be available.

Response to Question 05:

SCE was unable to locate an EPA Vulnerability Assessment as part of the Public Health Security and Bioterrorism Preparedness and Response Act of 2002. SCE will continue to search for the EPA Vulnerability Assessment and if one is not found, the assessment will be included in the risk and resilience assessment under AWIA. The anticipated completion date for the AWIA risk and resilience assessment is June 30, 2021.

CHAPTER 10 BALANCING AND MEMORANDUM ACCOUNTS

(Witness: Jeff Roberts)

I. INTRODUCTION

SCE requests recovery of various memorandum and balancing accounts in this proceeding. Cal Advocates reviewed each request and provides recommendations that are consistent with public utilities code, regulations, standard practice, and past decisions, ensuring just and reasonable rates and the provision of safe and reliable water service.

II. SUMMARY OF RECOMMENDATIONS

The Commission should amortize the balances tracked in three memorandum accounts and transition one account to a pilot program considering a recent Commission decision.

A. Catalina Water Lost Revenue Memorandum Account

The Catalina Water Lost Revenue Memorandum Account (“CWLRMA”) should be amortized in this proceeding. To correctly amortize the balances tracked in this account, the Commission should deny any balances older than three years consistent with Standard Practice U-27-W. The tracked balance should also reflect the volume-related expense savings SCE realized during the period it was in effect. Lastly, each year’s tracked balance should be reduced by the percentage of water lost in each respective year consistent with the recommendation set forth in Chapter 11 of this report.

B. Purchased Power Expense Memorandum Account

The Commission should amortize the balances tracked in the Purchased Power Expense Memorandum Account (“PPEMA”) then terminate this account as SCE is already afforded price protections through either the WRAM/MCBA currently in place, or the Monterey-style WRAM/ICBA account recommended to be implemented as a pilot program.

C. Catalina Water Rationing Memorandum Account

The Commission should amortize the balances tracked in the Catalina Water Rationing Memorandum Account (“CWRMA”) with an adjustment for unreasonable and imprudent investments.

1 **D. Water Revenue Adjustment Mechanism / Modified Cost**
2 **Balancing Account**

3 The Commission should authorize a transition from a full decoupling Water Revenue
4 Adjustment Mechanism (“WRAM”) / Modified Cost Balancing Account (“MCBA”) to a
5 Monterey-Style WRAM/ Incremental Balancing Account (“ICBA”) as a pilot program
6 consistent with a recent Commission decision.

7 **III. ANALYSIS**

8 SCE proposes recovery of the three memorandum accounts discussed in this chapter by
9 levying a separate surcharge on its electric customers’ monthly bills. SCE did not provide
10 sufficient support for this request nor demonstrate an appropriate logical nexus to justify this
11 methodology. However, to streamline the recommendations set forth in this report, this chapter
12 bifurcates this issue and only presents the appropriate recovery amounts for those three
13 memorandum accounts. For detailed discussion on SCE’s proposed recovery methodology,
14 please see Chapter 12 of this report.

15 **A. Catalina Water Lost Revenue Memorandum Account**
16 **(“CWLRMA”)**

17 The Commission authorized the CWLRMA in August 2014 in response to SCE’s Advice
18 Letter 92-W to track lost revenues associated with reduced sales as a result of activating either
19 voluntary or mandatory conservation and rationing through Rule 14.1 and Schedule 14.1.³¹⁶
20 SCE began recording balances in this account beginning August 11, 2014 until February 15,
21 2019 when Stage 1 mandatory water conservation measures were lifted.³¹⁷ In the current
22 proceeding, SCE requests recovery of the revenue under collections because of these
23 restrictions. SCE tracks a under collected balance of \$6,231,677 as of 2019 and the calculation is
24 presented in Table 10-1 below.

³¹⁶ Advice Letter 92-W

³¹⁷ Advice Letter 109-W

Table 10-1: CWLRMA Annual Summary 2014-2019³¹⁸

Line No.	Description	2014	2015	2016	2017	2018	2019
1	Beginning Balance	-	-973,039	-2,472,515	-3,844,104	-4,973,676	-6,021,135
2	Adjusted Authorized Revenue Requirement	1,882,963	4,126,185	4,126,185	4,126,185	4,126,185	341,172
3	Recorded Revenue	910,148	2,629,341	2,771,144	3,044,680	3,194,223	264,310
4	(Under)/Over-Collection (Line 3 - Line 2)	-972,815	-1,496,844	-1,355,041	-1,081,505	-931,962	-76,862
5	Interest	-224	-2,632	-16,548	-48,067	-115,497	-133,680
6	Ending Balance (Line 1 + Line 4 + Line 5)	-973,039	-2,472,515	-3,844,104	-4,973,676	-6,021,135	-6,231,677

The establishment of this memorandum account was contentious from the outset. The Commission received a formal protest to Advice Letter 92-W from the law offices of Bishton & Gubernick (“B-G Law”)—the same firm representing City of Avalon et al. in the current proceeding. In its protest, B-G Law opposed both the establishment and recovery of the CWLRMA and argued that the lost revenues were due to SCE not operating the desalination plant to its full capacity, and that *inadequate water supply*, rather than *mandatory water conservation*, was contributing to the lost revenues and reduced sales.³¹⁹

The Commission’s Division of Water and Audits (“DWA”) noted the arguments against the establishment of this account but authorized it with the caveat that the tracked balances for recovery would be reviewed when SCE files for recovery in a future general rate case proceeding; hence the request in the current proceeding.³²⁰

There are three main issues with SCE’s request for recovery of the CWLRMA: compliance with Standard Practice U-27-W, accounting for reduced expenses during the period of decreased water sales, and reduction in cost recovery in proportion to excessive water loss from the system.

³¹⁸ SCE-05, p. 10

³¹⁹ Advice Letter 92-W p.3

³²⁰ Advice Letter 92-W, p. 4.

B. The company should have filed an application or Tier 3 advice letter to amortize these balances in line with Commission Standard Practice.

Commission Standard Practice U-27-W requires that all charges booked to memo accounts must be less than three years old unless older costs are fully justified.³²¹ The CWLRMA includes balances that are more than six years old. SCE acknowledges its decision to deviate from standard practice by stating “good cause exists to review the entirety of the amounts recorded in the memorandum accounts, including amounts greater than three years old.”³²²

The company makes three arguments to support its decision: 1) Amortization during the drought period would have resulted in a disjointed and piecemeal review, 2) SCE prioritized other proceedings in 2017 thus, requesting recovery in that year would have resulted in rate shock, and 3) The company wanted to first solicit feedback by hosting stakeholder engagement meetings.³²³

These arguments are unconvincing. First, it is normal to recover revenue tracking memorandum accounts like the CWLRMA during drought periods. Despite being in a declared drought period, almost all Class A water utilities under the Commission’s jurisdiction filed advice letters or GRC applications within three years to amortize similar under collections. SCE also filed for recovery of revenue under collections from its pilot WRAM/MCBA revenue decoupling program in 2020.³²⁴ Second, the balance tracked in this account at the beginning of 2017 was roughly \$3.8 million, it has almost doubled since then to \$6.2 million. Contrary to SCE’s contention, the company must have been aware of the growing balances and the increasing likelihood of rate shock as time passed without filing per Commission standard practice. Third, the previous 2011 GRC “highlighted the need for both increased stakeholder engagement and ratemaking mitigation measures to maintain affordability...”³²⁵ This

³²¹ Standard Practice U-27-W J, p. 70.

³²² SCE-05, p. 8.

³²³ SCE-05, pp. 7-9.

³²⁴ See Advice Letter 117-W and 122-W

³²⁵ SCE-05 p.8

1 demonstrates SCE’s awareness, as of 2014 or earlier, of the need to engage with Catalina
2 stakeholders regarding affordability issues. either in 2011 or when the final decision was issued
3 in 2014, that it must begin to engage with Catalina Island stakeholders regarding affordability.
4 Yet the company waited until 2018 to do so.³²⁶ By then, balances had ballooned.

5 The company should have begun submitting advice letters for recovery in either 2015 or
6 2016, the first years when the large under collections were recorded.³²⁷ This would have alerted
7 the Commission that an affordability issue was on the horizon and would have given the
8 Commission time to consider other options. SCE’s decision to delay request for recovery of
9 these balances is a serious nonobservance of standard practice.

10 The standard practice states that any deviation from the three-year recovery must be
11 “fully justified”—SCE did not meet this criterion. At a minimum, the Commission should deny
12 the recovery of interest from balances. Had SCE filed for recovery consistent with standard
13 practice, interest on the balances would not have continued to accrue with compounding effects.
14 Now, interest is being calculated on interest and could accumulate to over \$700,000 by the time
15 a final decision is issued.

16 However, given the serious financial consequences facing ratepayers as a direct result of
17 SCE’s decision to disregard standard practice, denying interest is not enough. The Commission
18 should deny recovery of any tracked balances older than three years. This approach is well
19 within the Commission’s purview and consistent with established standard practice. SCE had a
20 duty to mitigate compounding balances yet chose not to. Thus, the Commission should impose
21 the financial consequences of SCE’s decision on SCE, not on Catalina Island ratepayers. The
22 effect of this recommendation on the calculation of CWLRMA recovery t is highlighted in Table
23 10-2 below.

³²⁶ SCE-05 p.9:4

³²⁷ Standard Practice U-27-W para. 42 “For Class B, C and D water and sewer service utilities, when the total in the reserve account(s) exceeds (positive or negative) 2% of the gross operating revenue authorized in the last GRC or realized in the last annual report, whichever is higher, the reserve account must be amortized.” The 2% threshold for SCE is approximately \$82,600; 2% of \$4,130,000 gross operating revenue authorized in the previous GRC.

Table 10-2: Adjustment for CWLRMA Balances Older than Three Years

Line No.	Description	2014	2015	2016	2017	2018	2019
1	Beginning Balance		(961,841)	-	(914,616)	(1,665,833)	(2,274,557)
2	Adjusted Authorized Revenue Requirement	1,882,963	4,126,185	3,617,477	4,126,185	4,126,185	341,172
3	Recorded Revenue	910,148	2,629,341	2,429,496	3,044,680	3,194,223	264,310
4	Expense Savings Offset	10,974	162,493	109,423	109,661	93,044	10,525
5	Water Loss % Offset		214,049	163,941	220,627	230,195	24,673
6	(Under)/Over-Collection	(961,841)	(1,120,302)	(914,616)	(751,217)	(608,723)	(41,664)
7	Interest			-	-	-	-
8	Ending Balance (Line 1 + Line 4 + Line 5)	(961,841)	(2,082,143)	(914,616)	(1,665,833)	(2,274,557)	(2,316,221)
**2016 balances are prorated 320/365 to reflect the 3 years of eligible amounts from the end of drought restrictions; February 14, 2019							

C. SCE's request for CWLRMA cost recovery does not account for expense savings realized during the period of reduced sales.

SCE's request for recovery of the CWLRMA includes only the lost revenue calculation and does not account for any reduction in expenses. Activation of drought restrictions has the potential to not only to reduce sales volumes, but expenses as well. When a utility sells less water, the utility may spend less on chemicals, power for pumping, and other volume-related expenses. These reduced expenses must be included in the calculation of the CWLRMA as an offset to lost revenue.³²⁸ The expense offset must be calculated in the same manner as the lost revenue calculation—recorded expenses are subtracted from authorized expenses—the net of which offsets lost revenue. The specific accounts that comprise volume-related expenses are: Account 610: Purchased Water, Account 615: Power for Pumping, Account 618: Other Volume Related Expenses, and Account 640: Materials.

SCE indicates that it has not tracked the incremental expenses savings due to reduced sales but has provided an excel sheet detailing the authorized and recorded amounts for volume-

³²⁸ See Pub. Util. Code § 792.5, stating:

Whenever the commission authorizes any change in rates reflecting and passing through to customers specific changes in costs, except rates set for common carriers, the commission shall require as a condition of the order that the public utility establish and maintain a balancing account reflecting the balance, whether positive or negative, between the related costs and revenues, and the commission shall take into account by appropriate adjustment or other action any positive or negative balance remaining in the balancing account at the time of any subsequent rate adjustment.

related expenses during the period that the CWLRMA was in effect, shown in **Table 10-3** below.³²⁹

Table 10-3: SCE Volume -Related Expenses Recorded vs. Authorized³³⁰

Line	Acct.		2014	2015	2016	2017	2018	2019
No.	No.							
1		AUTHORIZED VOLUME RELATED EXPENSES						
2	610	Purchased Water	-	-	-	-	-	-
3	615	Power for Pumping	103,324	303,149	303,149	303,149	303,149	37,375
4	618	Other Volume Related Expenses	-	-	-	-	-	-
5		Total volume related expenses	103,324	303,149	303,149	303,149	303,149	37,375
1		RECORDED VOLUME RELATED EXPENSES						
2	610	Purchased Water	-	-	-	-	-	-
3	615	Power for Pumping	134,549	288,253	275,833	280,793	168,518	32,935
4	618	Other Volume Related Expenses	25,543	49,981	94,833	88,251	76,502	11,584
5		Total volume related expenses	160,092	338,234	370,666	369,044	245,020	44,519
1		DIFFERENCE						
2	610	Purchased Water	-	-	-	-	-	-
3	615	Power for Pumping	(31,225)	14,896	27,316	22,356	134,631	4,439
4	618	Other Volume Related Expenses	(25,543)	(49,981)	(94,833)	(88,251)	(76,502)	(11,584)
5		Total volume related expenses	(56,768)	(35,085)	(67,517)	(65,895)	58,129	(7,145)
					Increase (Under Collection)			(174,281)

Reduced sales volumes should result in reduced volume-related expenses, absent any explanation for a different result. SCE asserts however that its volume related expenses increased and resulted in an under collection.³³¹ However, this is misleading because SCE failed to properly record expenses in its previous GRC which resulted in the Commission authorizing a budget for volume-related expenses in a different account.

In its last GRC, SCE had incorrectly recorded chemical expenses to Account 640: Materials. SCE eventually acknowledged its mistake in that proceeding as noted in the proposed decision, which stated:

329 Attachment 10-1, SCE Response to Data Request JR6-05 Q.1.

³³⁰ Attachment 10-2, Response to Data Request JR6-05 Q.1, PubAdv-SCE-020-JR Q.01 Excel file 2014-2019
“Volume Related Expenses”

³³¹ Attachment 10-1, SCE Response to Data Request JR6-05 Q.1 (PubAdv-SCE-020-JR Q.01).

1 (Starting in the 2011 Annual Report)...chemicals can be categorized into Account 618
2 and SCE agrees to do so....”³³² The proposed decision continues, “For ratemaking purposes, the
3 Commission’s Water Division and DRA have historically accepted SCE’s inclusion of
4 chemicals in this account. We will include the \$251,000 for ratemaking purposes but SCE is
5 admonished to comply with the USOA [Uniform System of Accounts].”³³³

6 In sum, the Commission authorized \$251,000 for Account 640: Materials, which included
7 chemical expenses for ratemaking purposes only. However, after the proposed decision, SCE
8 recorded chemical expenses to Account 618. Correctly accounting for and offsetting the
9 Account 640 chemical expenses results in an expense savings, as shown in Table 10-4 below.
10 This is in line with what would be expected:

11 ///

12 ///

13 ///

³³² See Attachment 6-3, Proposed Decision of ALJ Barnett, p. 13.

³³³ Attachment 6-3, Proposed Decision of ALJ Barnett, p. 13.

Table 10-4: Cal Advocates Volume Related Expenses Recorded vs. Authorized with Adjustment to Include Account 640 - Materials

<i>Catalina Water Volume-Related Expense</i>								
2014-2019								
<i>(\$Nominal)</i>								
Line No.	Acct. No.		2014	2015	2016	2017	2018	2019
1		AUTHORIZED VOLUME RELATED EXPENSES						
2	610	Purchased Water	-	-	-	-	-	-
3	615	Power for Pumping	103,324	303,149	303,149	303,149	303,149	37,375
4	618	Other Volume Related Expenses	-	-	-	-	-	-
4a	640	Materials	98,337	251,000	251,000	251,000	251,000	30,945
5		Total volume related expenses	201,661	554,149	554,149	554,149	554,149	68,320
1		RECORDED VOLUME RELATED EXPENSES						
2	610	Purchased Water	-	-	-	-	-	-
3	615	Power for Pumping	134,549	288,253	275,833	280,793	168,518	32,935
4	618	Other Volume Related Expenses	25,543	49,981	94,833	88,251	76,502	11,584
4a	640	Materials	30,595	53,422	58,672	75,444	216,085	13,275
5		Total volume related expenses	190,687	391,656	429,338	444,488	461,105	57,794
1		DIFFERENCE						
2	610	Purchased Water	-	-	-	-	-	-
3	615	Power for Pumping	(31,225)	14,896	27,316	22,356	134,631	4,439
4	618	Other Volume Related Expenses	(25,543)	(49,981)	(94,833)	(88,251)	(76,502)	(11,584)
4a	640	Materials	67,742	197,578	192,328	175,556	34,915	17,670
5		Total volume related expenses	10,974	162,493	124,811	109,661	93,044	10,525
							Reduction (Over Collection)	511,508
1. The Catalina Water Lost Revenue Memo Account was in effect from August 11, 2014 through February 14, 2019.								
2. 2014 authorized and recorded amounts are prorated at 143/365 based on an effective date of August 11, 2014.								
3. 2019 authorized and recorded amounts are prorated at 45/365 based on the lifting of Stage 1 Water Conservation on February 14, 2019.								
4. Abnormal one-time expense of \$291,066 in 2014 recorded Material Expense removed to isolate chemical expenses								
5. Abnormal one-time expense of \$180,530 in 2018 recorded Material Expense removed to properly reflect chemical expenses								

As indicated in Table 10-4, inclusion of Account 640 – Materials results in a \$511,508 overcollection, and consequently a reduction in SCE’s CWLMA recovery as shown in Table 10-5 below.

Table 10-5: Adjustment for Expense Savings Offset (CWLRLMA)

Line No.	Description	2014	2015	2016	2017	2018	2019
1	Beginning Balance	-	(961,841)	(2,082,143)	(3,125,378)	(3,876,595)	(4,485,318)
2	Adjusted Authorized Revenue Requirement	1,882,963	4,126,185	4,126,185	4,126,185	4,126,185	341,172
3	Recorded Revenue	910,148	2,629,341	2,771,144	3,044,680	3,194,223	264,310
4	Expense Savings Offset	10,974	162,493	124,811	109,661	93,044	10,525
5	Water Loss % Offset		214,049	186,996	220,627	230,195	24,673
6	(Under)/Over-Collection	(961,841)	(1,120,302)	(1,043,234)	(751,217)	(608,723)	(41,664)
7	Interest	-	-	-	-	-	-
8	Ending Balance (Line 1 + Line 4 + Line 5)	(961,841)	(2,082,143)	(3,125,378)	(3,876,595)	(4,485,318)	(4,526,982)

D. Recovery should be reduced proportionately to the annual amount of water loss in SCE's system.

Lastly, the balances tracked in the CWLRMA should be reduced commensurate with the high rate of water loss realized in SCE's water system. In 2019, SCE's total water loss was 39.1%.³³⁴ Lost water provides no customer benefit and is of particular concern given the limited supply on Catalina Island.³³⁵ Chapter 11 of this Report provides details and analysis on this water loss. Specifically discussed in that chapter is the recommendation that, SCE's revenue requirement should be reduced by an amount proportional to the unreasonable water loss that SCE has allowed to occur. Because the Commission has set a reasonable standard of 7% water loss, 32.1% of SCE's reported loss of 39.1% should be considered unreasonable. (i.e., 39.1% minus 7%).

Similar to the need to adjust SCE's proposed budget (i.e., revenue requirement) to exclude costs for lost water that provide no customer benefit, the balances tracked in this memorandum account for which SCE now seeks recovery should be adjusted for water loss. To do this, the tracked balances must be reduced by the amount of water that SCE lost each year, less a 7% baseline amount, for each year the CWLRMA was active. Table 10-6 presents the amount of water lost by SCE for each year and the respective amount applied to the recovery of this account.

³³⁴ See WPSCE01, pp.352-361.

³³⁵ See Cal Advocates Report Chapter 6: Plant in Service.

Table 10-6: Percentage Water Loss Adjustment Calculation

E. Calculation of the CWLRMA Recovery: Combined Recommendations

Combining the aforementioned recovery recommendations for this account, the Commission should 1) reflect the volume-related expense savings SCE realized in the

calculation of the CWLRMA balance, 2) deny SCE's request to recover tracked amounts older than three years because SCE did not follow standard practice, and 3) reduce the recovery each year by the unreasonable percentage of water loss consistent with the recommendation set forth in Chapter 11 of this Report.

Cal Advocates incorporates the above recommendations in Table 10-7 below.

Table 10-7: Eligible CWLRMA Recovery Calculation

Line No.	Description	2014	2015	2016**	2017	2018	2019
1	Beginning Balance	(961,841)	(961,841)	-	(914,616)	(1,665,833)	(2,274,557)
2	Adjusted Authorized Revenue Requirement	1,882,963	4,126,185	3,617,477	4,126,185	4,126,185	341,172
3	Recorded Revenue	910,148	2,629,341	2,429,496	3,044,680	3,194,223	264,310
4	Expense Savings Offset	10,974	162,493	109,423	109,661	93,044	10,525
5	Water Loss % Offset		214,049	163,941	220,627	230,195	24,673
6	(Under)/Over-Collection	(961,841)	(1,120,302)	(914,616)	(751,217)	(608,723)	(41,664)
7	Interest			-	-	-	-
8	Ending Balance (Line 1 + Line 4 + Line 5)	(961,841)	(2,082,143)	(914,616)	(1,665,833)	(2,274,557)	(2,316,221)

**2016 balances are prorated 320/365 to reflect the 3 years of eligible amounts from the end of drought restrictions; February 14, 2019

1 Water Revenue Adjustment Mechanism/Modified Cost Balancing Account (“WRAM/MCBA”)

2 SCE proposes to transition from its WRAM/MCBA to a Monterey-Style WRAM and
3 Incremental Cost Balancing Account (“ICBA”). The Commission authorized a full decoupling
4 WRAM/MCBA as a pilot program on May 2019.³³⁶ SCE has filed for recovery once in Advice
5 Letter 117-W for the WRAM/MCBA balance. However, on August 27, 2020, the Commission
6 revised its policy and eliminated the use of the full decoupling WRAM/MCBA for water
7 utilities.³³⁷ SCE’s request for a pilot Monterey-Style WRAM/ICBA is consistent with this
8 decision. Accordingly, the Commission should authorize a Monterey-Style WRAM/ICBA as a
9 pilot program in this proceeding.

10 Purchased Power Expenses Memorandum Account(“PPEMA”)

11 On January 3, 2008, the Commission authorized a Purchase Power Expenses
12 Memorandum Account (“PPEMA”) for SCE to “track the difference in the actual and authorized
13 purchased power expenses associated with the provision of water service on Santa Catalina
14 Island (Catalina Island).”³³⁸ Thirteen years have passed without the company returning the large
15 overcollection due to ratepayers.

16 After the PPEMA was established, SCE first filed for recovery of an under collected
17 amount of \$45,000 on February 27, 2009.³³⁹ However, this filing was rejected by the Water
18 Division for nonconformance to Appendix D of the Standard Practice U-27-W.³⁴⁰ Shortly
19 afterward, the company filed its 2010 GRC and requested recovery of an under collected
20 balance as of September 30, 2010 of \$127,000.³⁴¹ The final decision issued in 2014 granted
21 recovery of the balance tracked in the PPEMA and ordered SCE to file for recovery by Tier 2
22 advice letter within 30 days.³⁴² SCE did so in Advice Letter 93-W, however the advice letter

³³⁶ May 16, 2019 Effective Date of Resolution W-5192.

³³⁷ D.20-08-047.

³³⁸ Advice Letter 61-W effective January 3, 2008.

³³⁹ Advice Letter 70-W.

³⁴⁰ Advice Letter 93-W p. 2.

³⁴¹ A.10-11-009, p. 7-1.

³⁴² D.14-10-048, Ordering Paragraph 3.

1 was suspended after Water Division’s review. SCE later withdrew the advice letter by stating
2 additional time is required.³⁴³

3 Once SCE had withdrawn the filing on April 3, 2015, there does not appear to be any
4 subsequent SCE’s advice letter filings requesting recovery of the balances in this account; nor
5 has SCE provided any testimony requesting recovery in this GRC. It has now been six years
6 since the company stated it needed more time to file for recovery after being ordered by the
7 Commission to do so. Nonetheless, the balances tracked in this account must be returned to SCE
8 customers.

9 Cal Advocates estimates an over collection of \$563,871 as of December 31, 2019, to be
10 returned as a surcredit on customers’ monthly bills. To arrive at this amount, Cal Advocates
11 compiled the recorded expenses from SCE’s annual reports and calculated the difference
12 between the authorized amounts. Interest is also applied to these balances consistent with
13 language set forth in SCE’s preliminary statement.³⁴⁴ Additionally, balances are adjusted for the
14 years 2014-2019 to reflect the purchased power expense offset incorporated in the CWLRMA
15 request for recovery. Lastly, SCE was granted a full decoupling WRAM/MCBA account in
16 2019 which accounts for any offsets to purchased power expense. The expense offset was
17 tracked for recovery in that account. Cal Advocates calculation is presented in Table 10-8
18 below.

³⁴³ Letter to Daniel Song dated April 3, 2015 Re: Withdrawal of SCE’s Advice 93-W.

³⁴⁴ SCE Preliminary Statement Part M.

Table 10-8: Cal Advocates PPEMA Calculation

Line No.	Description	2008	2009	2010	2011	2012	2013
1	Beginning Balance	-	(45,877)	(38,705)	205,891	319,678	455,523
2	Purchased Power: Authorized	263,730	263,730	263,730	263,730	263,730	263,730
3	Purchased Power: Recorded	309,002	256,283	19,321	150,717	129,002	179,227
4	(Under)/Over-Collection	(45,272)	(38,430)	205,704	318,904	454,406	540,026
5	Interest	(605)	(275)	186	774	1,118	1,022
6	Ending Balance	(45,877)	(38,705)	205,891	319,678	455,523	541,049
		2014	2015	2016	2017	2018	2019
1	Beginning Balance	541,049	510,148	511,265	515,294	523,618	540,138
2	Purchased Power: Authorized	176,992	-	-	-	-	71,753
3	Purchased Power: Recorded	208,881	-	-	-	-	65,870
4	(Under)/Over-Collection	509,160	510,148	511,265	515,294	523,618	546,022
5	Interest	988	1,117	4,029	8,324	16,520	17,849
6	Ending Balance	510,148	511,265	515,294	523,618	540,138	563,871
*Advice 61 Established PPEMA effective 01/03/2008							
**2014 prorated 222/365 Purchased Power Undercollection is recovered in the CWRMA beginning August 11, 2014 through February 15, 2019							
**2019 prorated 90/365: Purchased Power Undercollection is recovered in WRAM/MCBA beginning May 16, 2019 to current							

At the conclusion of this proceeding, this memorandum account should be terminated.

The company is currently authorized price protections for variations in purchased power costs with the full decoupling WRAM/MCBA and will also be afforded incremental cost protections if the Commission authorizes a transition to the Monterey-style WRAM/ICBA as recommended in this proceeding. Therefore, the Commission should order SCE to amortize the balances tracked in the PPEMA and terminate this memorandum account.

Catalina Water Rationing Memorandum Account

In 2010, SCE proposed and was authorized to open the Catalina Water Rationing Memorandum Account (“CWRMA”).³⁴⁵ The CWRMA was authorized to record (1) fines imposed upon customers for violating mandatory usage restrictions, and (2) incremental costs for implementing customer rationing plans.³⁴⁶ Based upon its request, SCE neither sought nor did the Commission authorize recording any other type of revenue or expenses into the account.

³⁴⁵ Attachment 10-3, Advice Letter 74-W.

³⁴⁶ Advice Letter W-74, p. 5, paragraph 4.

Through discovery, confirmed that it has not sought nor been granted modification of the criteria governing the operation of the CWRMA.³⁴⁷

In its current application, SCE seeks recovery from ratepayers of \$4,847,153 in net costs tracked in the CWRMA from 2014 to 2018, with interest incurred till 2019. Contrary to what the Commission authorized to be tracked in the CWRMA, SCE includes three types of entries in the CWRMA: 1) incremental operating and administrative expenses incurred associated with the drought and implementation of the Water Rationing Plan; 2) revenues from penalties and fines paid by customers for violations of water use restrictions as identified in Schedule 14.1; and 3) unforeseen expenses caused by drought conditions.³⁴⁸ Table 10-9 provides a breakdown of SCE's requested \$4,847,153 in the account.

Table 10-9 Total Annual CWRMA Entries³⁴⁹

CWRMA Entry	2014	2015	2016	2017	2018	2019	FINAL
Incremental Expense	\$320,057	\$498,628	\$762,501	\$811,426	\$820,230	\$820,230	\$820,230
Unforeseen Expense	\$3,218,935	\$3,617,801	\$4,011,588	\$4,182,376	\$3,915,185	\$3,915,185	\$3,915,185
Penalties and Fines	\$0	-\$5,625	-\$77,225	-\$172,775	-\$172,775	-\$172,775	-\$172,775
Interest	\$675	\$6,637	\$29,884	\$82,749	\$180,400	\$284,513	\$284,513
TOTAL	\$3,539,667	\$4,117,441	\$4,726,748	\$4,903,776	\$4,743,040	\$4,847,153	\$4,847,153

The unforeseen expenses SCE claims were caused by drought conditions comprise 81% of the total \$4,847,153. However, "unforeseen expenses" was not a category proposed in the original advice letter that established the CWRMA. The only costs the Commission authorized SCE to track were "incremental operating and administrative expenses incurred by SCE as a

³⁴⁷ Attachment 10-4, SCE's Response to Cal Advocates DR CR8-021, Q1.

³⁴⁸ SCE-05, p. 11.

³⁴⁹ Attachment 10-5, SCE's Response to Cal Advocates DR CR8-002, CWRMA 2014-2019.

1 result of implementing a water rationing plan.”³⁵⁰ Included in the \$3,915,185 is the cost of
2 providing emergency water supply to account for the Howlands Landing Well failure.³⁵¹

3 **F. The Commission should deny the \$3,232,988 from the Howlands**
4 **Well Failure for recovery and the \$204,321 of interest incurred**
5 **from it.**

6 The Howlands Landing Well is the primary groundwater source of the West End of the
7 Island and SCE states that it failed in 2014 due to drought conditions. The well did fail in 2014,
8 however SCE could have prepared for this failure. This lack of preparation on SCE’s end led to
9 the \$3,232,988 cost of providing an emergency water supply.³⁵² In addition to the removal of
10 \$3,232,988, the amount also incurred interest totaling \$204,321 which the Commission should
11 not allow SCE to recover. The final CWRMA amount SCE should be allowed to recover is
12 \$1,409,844.

13 The Howlands Landing Well experienced high levels of salinity from seawater
14 intrusion.³⁵³ Seawater intrusion is common issue on Catalina Island exacerbated by drought
15 conditions. SCE has been aware of this issue since the construction of the well. SCE should
16 have planned for seawater intrusion at the Howlands Landing Well to avoid incurring the high
17 cost of providing emergency water supply.

18 The Commission should deny SCE’s request to recover the costs of providing emergency
19 water to account for the Howlands Landing Well failure in the CWRMA. Not only are the
20 expenses related to the well failure in a CWRMA category not authorized by the Commission,
21 but SCE should have reasonably foreseen the well failure. The lack of proper planning to
22 provide safe and reliable drinking water during drought conditions on Catalina Island led to the
23 ultimate failure of the Howlands Landing Well, not the drought conditions alone. Other parties

³⁵⁰ Attachment 10-3, Advice Letter 74-W, p. 5.

³⁵¹ SCE-05, pp. 25-26.

³⁵² Attachment 10-5, SCE’s Response to Cal Advocates DR CR8-002, CWRMA 2014-2019.

³⁵³ Cal Advocates Report on Plant in Service.

including the City of Avalon have also pointed out this cost as unreasonable for SCE to recover from ratepayers.³⁵⁴

Ratepayers should not face the burden of SCE's mismanagement, especially ratepayers who are already facing extremely high rates and are extremely conservative with their water use. SCE should incur the cost of its own failure with the Howlands Landing Well. The CWRMA was established to help SCE recover the costs of implementing a water rationing plan, not the costs from not having one in place.

Total Recovery for Memorandum and Balancing Account Requests

A total of \$3.162 million tracked in SCE's memorandum and balancing accounts are eligible for recovery in this proceeding. Table 10-10 presents the total recovery amount for each account calculated as of December 31, 2019. Consistent with the recommendations presented in Chapter Twelve of this report, this amount may be recovered via amortization over three years consistent with standard practice for a monthly amortization of \$43.44 per customer.³⁵⁵

Table 10-10: Memorandum and Balancing Accounts Combined Recovery

Account Description	SCE Request	Cal Advocates Recommended Recovery
CWLRMA	\$6,231,677	\$2,316,221
CWRMA	\$4,847,152	\$1,409,842
PPEMA	\$0	(563,871)
Total	\$11,078,829	\$3,162,192

IV. CONCLUSION

The amounts recommended by Cal Advocates for recovery of the CWLRMA, PPEMA, and CWRMA are consistent with Standard Practice, Commission precedent and overall reasonableness.

³⁵⁴ See Protest of City of Avalon et al, pp. 19-20. The amount in this protest is \$10,000 lower than the amount SCE provided to Cal Advocates.

³⁵⁵ See Standard Practice U-27, paragraph 64 (stating that "Reserve and memo account amortization surcharges shall be spread over... three years for under collections over 10% of gross revenues"). The \$43.44 amount assumes a three-year amortization, 2,026 customers, and interest rate of 10%.

1

LIST OF ATTACHMENTS FOR CHAPTER 10

#	Attachment	Description
1	Attachment 10-1	Response to Data Request JR6-05 Q.1, PubAdv-SCE-020-JR Q.01
2	Attachment 10-2	Response to Data Request JR6-05 Q.1, PubAdv-SCE-020-JR Q.01 Excel file 2014-2019 “Volume Related Expenses”
3	Attachment 10-3	Advice Letter 74-W
4	Attachment 10-4	SCE Response to Cal Advocates DR CR8-021, Q1
5	Attachment 10-5	SCE Response to Cal Advocates DR CR8-002, CWRMA 2014-2019

2

ATTACHMENT 10-1

**Response to Data Request JR6-05 Q.1,
PubAdv-SCE-020-JR Q.01**

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 2 0 - J R

To: Public Advocates Office
Prepared by: Cooper Cameron
Job Title: Senior Advisor, Regulatory Affairs & Compliance
Received Date: 1/8/2021

Response Date: 1/15/2021

Question 01:

The Catalina Water Lost Revenue Memorandum Account (“CWLRLMA”) “tracks lost revenues associated with reduced sales as a result of activating either voluntary or mandatory conservation and rationing through Rule 14.1 and Schedule 14.1.” Has SCE tracked the incremental expense savings due to reduced sales?

If yes, please provide the calculations for the entire period the CWLRLMA was in effect. If no, please provide the authorized expense levels and actual expense incurred for each variable cost associated with reduced sales for the entire period the CWLRLMA was in effect.

Response to Question 01:

SCE did not track the difference between authorized and recorded amounts for volume-related expenses during the period in which the Catalina Water Lost Revenue Memorandum Account (CWLRLMA) was in effect. SCE began tracking the difference between authorized and recorded amounts for volume-related expense in August 2019 with the implementation of the Water Revenue Adjustment Mechanism/Modified Cost Balancing Account.

Please see the attached Excel file titled “2014-2019 Volume-Related Expenses” for SCE’s authorized and recorded amounts for volume-related expenses for the period that the CWLRLMA was in effect. The file shows that SCE under-collected a total of \$174,281 in volume-related expense for the period the CWLRLMA was in effect.

ATTACHMENT 10-2

Response to Data Request JR6-05 Q.1, PubAdv-SCE-020-JR Q.01 Excel file 2014-2019 “Volume Related Expenses”

Catalina Water Volume-Related Expense
2014-2019
(\$Nominal)

Line No.	Acct. No.		2014	2015	2016	2017	2018	2019
1		AUTHORIZED VOLUME RELATED EXPENSES						
2	610	Purchased Water	-	-	-	-	-	-
3	615	Power for Pumping	103,324	303,149	303,149	303,149	303,149	37,375
4	618	Other Volume Related Expenses	-	-	-	-	-	-
5		Total volume related expenses	103,324	303,149	303,149	303,149	303,149	37,375
1		RECORDED VOLUME RELATED EXPENSES						
2	610	Purchased Water	-	-	-	-	-	-
3	615	Power for Pumping	134,549	288,253	275,833	280,793	168,518	32,935
4	618	Other Volume Related Expenses	25,543	49,981	94,833	88,251	76,502	11,584
5		Total volume related expenses	160,092	338,234	370,666	369,044	245,020	44,519
1		DIFFERENCE						
2	610	Purchased Water	-	-	-	-	-	-
3	615	Power for Pumping	(31,225)	14,896	27,316	22,356	134,631	4,439
4	618	Other Volume Related Expenses	(25,543)	(49,981)	(94,833)	(88,251)	(76,502)	(11,584)
5		Total volume related expenses	(56,768)	(35,085)	(67,517)	(65,895)	58,129	(7,145)

1. The Catalina Water Lost Revenue Memo Account was in effect from August 11, 2014 through February 14, 2019.
2. 2014 authorized and recorded amounts are prorated at 143/365 based on an effective date of August 11, 2014.
3. 2019 authorized and recorded amounts are prorated at 45/365 based on the lifting of Stage 1 Water Conservation on February 14, 2019.

ATTACHMENT 10-3

Advice Letter 74-W

January 26, 2010

**ADVICE 74-W
(U 338-W)**

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA
WATER DIVISION

SUBJECT: Revisions to the Santa Catalina Island Fresh Water Rationing Plan to Conform It to Standard Practice U-40-W, Instructions for Water Conservation, Rationing and Service Connection Moratoria

Southern California Edison Company (SCE) hereby submits for filing the following changes to its tariff schedules. The revised tariff sheets are listed on Attachment A and are attached hereto.

PURPOSE

The purpose of this advice filing is to update SCE's Water Conservation and Rationing Plan to substantially conform it to Standard Practice U-40-W, Instructions for Water Conservation, Rationing and Service Connection Moratoria (Standard Practice U-40-W). This filing revises Rule 14.1, Santa Catalina Island Fresh Water Rationing Plan and Rule 20, Water Conservation; and newly establishes Schedule 14.1, Staged Mandatory Water Conservation and Rationing (Schedule 14.1) and the Catalina Water Rationing Memorandum Account, Part O of the Preliminary Statements.

BACKGROUND

SCE's Santa Catalina Island Fresh Water Rationing Plan was first established by Resolution W-2122 in 1977 and was later modified by Decision (D.)90-05-033. The Plan which is set forth in SCE's Rule 14.1, Santa Catalina Island Fresh Water Rationing Plan¹ (Rule 14.1), consists of the following phases:

¹ Attachment B contains SCE's existing Rule 14.1.

Phase 0: No mandatory restrictions on fresh water under this phase.

Phase 1: Effective when the total usable surface water stored in the Middle Ranch Reservoir (otherwise known as Thompson Reservoir) drops below 600 acre feet. During this phase, customers are required to follow certain water rationing requirements of Rule 14.1.F.

Phase 2: Effective when the total usable surface water stored in the Reservoir drops below 300 acre feet. During this phase, customers' fresh water use is mandatorily restricted and must be reduced to 75 percent of their Base Conservation Amount,² in addition to exercising other water rationing requirements of Rule 14.1.G.

Phase 3: Effective when the total usable surface water stored in the Reservoir drops below 200 acre feet. During this phase, customers' fresh water use is mandatorily restricted and must be reduced to 50 percent of their Base Conservation Amount, in addition to exercising other water rationing requirements of Rule 14.1.H.

Phase 4: Effective when the total usable surface water stored in the Reservoir drops below 50 acre feet. During this phase, customers' fresh water use is mandatorily restricted and must be reduced to 25 percent of their Base Conservation Amount, in addition to exercising other water rationing requirements of Rule 14.1.I.

On December 18, 2007, SCE activated Phase 1 of its water rationing plan, and this phase is currently in effect. SCE now anticipates a need to activate Phase 2, as the total usable surface water stored in the Middle Ranch Reservoir is expected to fall below 300 acre feet by May 2010. In preparation for activating the next phase of water rationing, SCE hereby proposes to update its Water Conservation and Rationing Plan (Plan), based on Standard Practice U-40-W³, by filing a revised Rule 14.1 and by establishing a new Schedule 14.1. These changes are necessary prior to the activation of another phase of SCE's water rationing plan.

² Pursuant to the *existing* Rule 14.1 which will be replaced by this filing, the Base Conservation Amount is defined, in part, as the customer's recorded water consumption, in gallons, billed during each respective Conservation Period (monthly billing period), beginning May 1976 through April 1977, inclusive.

³ Standard Practice U-1-W, modified July 2007 pursuant to General Order 96-B, defines a Standard Practice as, "A Water Division document that provides guidelines (1) to the public and Utilities for preparing, and filing with the Water Division or the Commission, various documents, including formal applications and advice letters, and (2) to Staff for reviewing such documents and creating Water Division work products.

PROPOSAL

SCE's Proposed Water Rationing Plan

SCE has reviewed Standard Practice U-40-W and agrees with most of the provisions of water rationing as outlined in the standards. However, due to the unique nature of Santa Catalina Island, where customers receive water primarily from reservoirs, SCE proposes to update its Plan in the manner which best suits the needs of the Island and of SCE. For the most part, SCE has revised its Plan incorporating the provisions outlined in Standard Practice U-40-W and has fit the Plan within the construct of the sample Rule 14.1 and Schedule 14.1 provided in the Standard Practice. However, the updated Plan generally follows the water rationing plan currently in place. Because SCE's existing water rationing plan has worked quite well, SCE requests to maintain its current general provisions, except to update them for tariff conformance purposes.

SCE proposes the following general terms and conditions. These conditions are set forth in detail in the revised Rule 14.1 and proposed Schedule 14.1 included in Attachment A.

Stage 1: Mandatory Water Conservation and Rationing is declared by SCE or the Commission when water levels in the Middle Ranch Reservoir fall below 600 acre feet. At this phase, customers are required to follow certain water rationing requirements of Schedule 14.1.

Stage 2: Mandatory Water Conservation and Rationing is declared by SCE or the Commission when water levels in the Middle Ranch Reservoir fall below 300 acre feet. During this Stage, customers' fresh water use is mandatorily reduced to 75 percent of their base water usage amount,⁴ In addition, customers are required to follow certain water rationing requirements of Schedule 14.1.

Stage 3: Mandatory Water Conservation and Rationing is declared by SCE or the Commission when water levels in the Middle Ranch Reservoir fall below 200 acre feet. During this Stage, customers' fresh water use is mandatorily reduced to 50 percent of the base water usage amount. In addition, customers are required to follow certain water rationing requirements of Schedule 14.1.

Stage 4: Mandatory Water Conservation and Rationing is declared by SCE or the Commission when water levels in the Middle Ranch Reservoir fall below 50 acre feet. During this Stage, customers' fresh water use is mandatorily reduced to 25 percent of their base water usage amount. In addition,

⁴ For Stages 2 through 4, each customer's base water usage amount is determined based on his/her monthly water usage amount prior to the most recent Stage 1 water conservation and rationing period. In other words, the water usage amount for a given month during activation of a Stage of Mandatory Water Conservation and Rationing will be compared to the water usage amount for the same month (base water usage amount) during the immediate 12-month water usage period prior to the most recent Stage 1 Water Conservation and Rationing Period.

customers are required to follow certain water rationing requirements of Schedule 14.1.

The water level at which each stage is triggered and the mandatory conservation amount required at each level are based upon the estimated remaining life of the Middle Ranch Reservoir. The trigger points are designed to extend the life of the reservoir during emergency drought conditions. At the current water usage rate, and assuming a reservoir level of 600 acre-feet with no additions to the reservoir, the reservoir would be depleted in one year and two months. The trigger for Stage 2, which includes mandatory rationing, is a reservoir level of 300 acre-feet. At this level, assuming no additional water savings, the reservoir would be depleted in six months. However, if rationing brings usage down to 75 percent of current levels, the life of the reservoir would be extended by another two and one half months (i.e., the reservoir would be depleted in eight and one half months). The trigger for Stage 3 is a reservoir level of 200 acre-feet. Assuming water usage at 75 percent of current usage, the reservoir would be depleted in four months. However, if rationing were to reduce usage down to 50 percent of current levels, the life of the reservoir would be extended by five months (i.e., the reservoir would be depleted in nine months). The trigger for Stage 4 is a reservoir level of 50 acre-feet. Assuming water usage at 50 percent of current usage, the reservoir would be depleted in one month. However, if rationing brings usage down to 25 percent of current levels, the life of the reservoir would be extended by seven and one half months (i.e., the reservoir would be depleted in eight and one half months).

The water rationing plan provides certain provisions to allow customers to appeal the tariffs and request other water rationing restrictions such as water reductions per gallon per person. These provisions are in place because some customers have no historical base water usage to use as a threshold for measuring water usage reductions. In addition, the water rationing plan calls for mandatory conservation measures regarding the use of fresh water during the activation of the Stages 1 through 4.

Customer Notification and Communication Plans

Concurrent with the filing of this Tier 2 Advice Letter, SCE has published notice in the four newspapers widely circulated on Santa Catalina Island: the *Avalon Bay News*, the *Catalina Islander*, the *Long Beach Press-Telegram*, and the *Los Angeles Times*.⁵ The notice will also appear at eCatalina.com. The published notice was pre-approved by the Commission's Public Advisor. The notice informs customers that SCE is filing revisions to its tariffs on water conservation and rationing and directs customers to SCE's website for information regarding the revised tariffs. Finally, the notice informs customers of the process for timely protesting this Advice Letter. In addition, SCE regularly appears at Avalon City Council meetings, which are broadcast live on television throughout the City of Avalon and archived at eCatalina.com. SCE has informed and will continue to communicate with the City Council and residents of Avalon about water conservation and rationing.

⁵ Attachment C contains the Notice.

Following the filing of this Tier 2 Advice Letter, SCE will work with the Public Advisor's Office to set a date for a Public Participation Hearing on Santa Catalina Island. Once established, the date of the Public Participation Hearing will be noticed in the newspapers, on customer bills, and announced during City Council meetings in accordance with California Water Code Section 352. The Public Participation Hearing will be held before SCE initiates mandatory water rationing in accordance with California Water Code Section 351.

Prior to initiating mandatory water rationing (Stage 2) through the filing of a Tier 1 Advice Letter, SCE will send to each customer account a letter informing that account holder of the base water usage amount for that account, based on the water used for each month during the 12-month water usage period immediately prior to the most recent Stage 1 water conservation and rationing period. The letter will also state that mandatory water rationing (Stage 2) is likely to be initiated within the next several months. The letter will inform the customer of the amount of water the account will be permitted to use per month once Stage 2 is initiated, which will equal 75 percent of the monthly base water usage amount. Finally, the letter will contain an application for a variance. For most accounts, the base water usage amount will be equal to or greater than the amount that could be obtained by filing a variance. Variance requests will communicate recent growth in household water use due to additional household members and other necessary reasons. Variances will be subject to verification, audit, and adherence to conservation measures.

Concurrent with the filing of any Tier 1 Advice Letter to initiate any stage of mandatory water rationing on Santa Catalina Island, SCE will publish notice in the newspapers, on customer bills, and announce the same in City Council meetings. SCE will continue to accept and process variance applications while any stage of water rationing is in effect.

Establishment of Catalina Water Rationing Memorandum Account

SCE is requesting Commission authority in this Advice Letter to establish the "Catalina Water Rationing Memorandum Account" (CWRMA) associated with water service on Santa Catalina Island in accordance with Rule 14.1 as outlined in Standard Practice U-40-W. SCE proposes to record any: 1) additional revenues from fines billed to and paid by residential customers whose consumption exceeds their allocations or are in violation of the mandatory restrictions as listed in Schedule 14.1; and 2) incremental operating and administrative expenses incurred by SCE as a result of implementing a water rationing plan.

Penalties and water use violation fines will not be applied until a stage of Mandatory Water Conservation and Rationing of water usage, as listed in Schedule 14.1, has been activated. When Schedule 14.1 is in effect and it has been determined that water supplies are again sufficient to meet normal demands and mandatory water conservation and rationing measures are no longer necessary, SCE shall seek

Commission approval through an advice letter to de-activate the particular stage of mandatory rationing in effect.

SCE proposes to revise its Santa Catalina Island water tariffs, Preliminary Statement, Part O, to add the CWRMA. Furthermore, SCE will file an advice letter to seek Commission approval for the disposition of the balance recorded in the CWRMA as set forth in Preliminary Statement, Part O.

PROPOSED TARIFF CHANGES

SCE proposes the following tariff changes:

- The existing Rule 14.1, Santa Catalina Island Fresh Water Rationing Plan, will be replaced, in its entirety, with a revised Rule 14.1 to conform it to Standard Practice U-40-W, Appendix A. This Rule describes the water rationing plan and sets forth voluntary water conservation measures;
- A new Schedule 14.1, Staged Mandatory Water Conservation and Rationing, also conforming to Standard Practice U-40-W, Appendix A, is established which compliments Rule 14.1 and sets forth mandatory water conservation measures;
- The existing Rule 20, Water Conservation, is modified with minor text changes; and
- A new Part O, Catalina Water Rationing Memorandum Account, is being added to the Preliminary Statements.

No cost information is required for this advice filing.

This advice filing will not increase any rate or charge, cause the withdrawal of service, or conflict with any other schedule or rule.

TIER DESIGNATION

Pursuant to General Order (GO) 96-B - Water Industry Rule 7.3.2(5), and in conformance with Standard Practice U-40-W, this advice letter is submitted with a Tier 2 designation.

EFFECTIVE DATE

This advice filing will become effective on February 25, 2010, the 30th calendar day after the date filed.

NOTICE

Anyone wishing to protest this advice filing may do so by letter via U.S. Mail, facsimile, or electronically, any of which must be received no later than 20 days after the date of this advice filing. Protests should be mailed to:

Director, Water Division
CPUC
505 Van Ness Avenue
San Francisco, California 94102
E-mail: water_division@cpuc.ca.gov
Facsimile: (415) 703-2200

In addition, protests and all other correspondence regarding this advice letter should also be sent by letter and transmitted via facsimile or electronically to the attention of:

Akbar Jazayeri
Vice President of Regulatory Operations
Southern California Edison Company
2244 Walnut Grove Avenue
Rosemead, California 91770
Facsimile: (626) 302-4829
E-mail: AdviceTariffManager@sce.com

Bruce Foster
Senior Vice President, Regulatory Affairs
c/o Karyn Gansecki
Southern California Edison Company
601 Van Ness Avenue, Suite 2040
San Francisco, California 94102
Facsimile: (415) 929-5540
E-mail: Karyn.Gansecki@sce.com

There are no restrictions on who may file a protest, but the protest shall set forth specifically the grounds upon which it is based and shall be submitted expeditiously.

In accordance with Section 4 for GO 96-B, SCE is serving copies of this advice filing to the interested parties shown on the attached GO 96-B service list. Address change requests to the GO 96-B service list should be directed by electronic mail to AdviceTariffManager@sce.com or at (626) 302-2930. For changes to all other service lists, please contact the Commission's Process Office at (415) 703-2021 or by electronic mail at Process_Office@cpuc.ca.gov.

Further, in accordance with Public Utilities Code Section 491, notice to the public is hereby given by filing and keeping the advice filing at SCE's corporate headquarters. To view other SCE advice letters filed with the Commission, log on to SCE's web site at <http://www.sce.com/AboutSCE/Regulatory/adviceletters/>.

For questions, please contact Lisa Vellanoweth at (626) 302-2021 or by electronic mail at Lisa.Vellanoweth@sce.com.

Southern California Edison Company

Akbar Jazayeri

AJ:lv:sq
Enclosures

ATTACHMENT 10-4

SCE Response to Cal Advocates DR CR8-021, Q1

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 5 9 - C R

To: Public Advocates Office
Prepared by: Cooper Cameron
Job Title: Senior Advisor, Regulatory Affairs & Compliance
Received Date: 5/5/2021

Response Date: 5/12/2021

Question 01.a-b:

Has SCE requested modification of the criteria governing the operation of the CWRMA since authorization in 2010? If yes, include the following in the response:

- a. Describe what those requested modification(s) entailed.
- b. Was the request approved?
 - i. If yes to b., please provide a copy of the advice letter or other form of Commission approval that allowed the modification(s).

Response to Question 01.a-b:

SCE has not requested any modification to Part O of the Preliminary Statement, which governs the operation of the CWRMA, since being established by Advice Letter 74-W in 2010.

ATTACHMENT 10-5

**SCE Response to Cal Advocates DR CR8-002,
CWRMA 2014-2019**

Catalina Water Rationing Memo Account
2014-2021
P9153, GL#1432671

Item Description	January	February	March	April	May	June	July	August	September	October	November	December	Total YTD
Beginning Balance	-	5,066	9,407	10,624	11,787	24,593	68,724	292,876	497,271	1,333,403	1,754,088	2,233,778	2,233,778
Water Rationing Plan Incremental Expense													
Allocation Request and Code Enforcement					445	1,774	5,934	7,990	9,744	12,333	11,869	16,423	66,512
Flow Restrictor Fabrication/Install/Removal												2,082	2,082
Water Conservation Devices					8,996	13	2,923	71	2,317	3,545	7,232	1,036	26,133
Public Outreach					2,700	237	36,606	2,704	95,868	7,094	20,208	32,779	198,195
Transportation Expenses								53	446	786	116	62	1,462
Professional Services											60		60
Materials/Equipment										103	14	586	703
Contract Work													-
SCE Labor							1,584	1,892	508				3,984
Office Supplies and Expenses							2,696	2,501	161	1,985	32	67	7,443
General Expenses						1,480			6,763	1,042			9,285
Accruals												4,197	4,197
Subtotal	-	-	-	-	12,142	3,504	49,743	15,210	115,909	26,798	39,518	57,233	320,057
O&M Expenses Arising from Exceptional Unforeseen Circumstances													
West End Emergency Water Supply													
Water Supply/Hauling							41,519	129,058	313,854	47,110	158,017	750,149	1,439,706
IMT Response Team						39,049	112,060	29,171	127,576	145,574	52,205	4,265	509,899
Transportation Expense						225	7,467	2,885	89,101	2,425	3,245		105,347
Professional Svcs							5,920	4,547	10,813		95		21,375
Materials/Equipment							6,364	5,569	985				12,918
Moved to Howland's Well							283	15,982	155,264	197,527	225,437	492,219	1,086,712
Contract Work													-
IMT Response Team - Move to Capital													-
Construction Permits - Move to Capital							782	1,940	22,008				24,730
Subtotal	-	-	-	-	-	39,273	174,395	189,151	719,601	392,635	439,000	1,246,632	3,200,688
Water Hauling													
Water Supply/Hauling													-
Employee Expenses	20												20
SCE Labor	5,046	4,340	1,217	1,162	663	1,349							13,776
Subtotal	5,066	4,340	1,217	1,162	663	1,349	-	-	-	-	-	-	13,796
Well Rehabilitation													
Equipment/Fixture	-	-	-	-	-	-	-	-	-	-	-	-	-
Well Rehabilitation	-	-	-	-	-	-	-	-	-	-	-	-	-
Professional Services	-	-	-	-	-	-	-	-	-	-	-	-	-
Employee Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
Contract Work	-	-	-	-	-	-	-	-	-	-	-	-	-
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle Ranch Reservoir Level Surveys													
SCE Labor									538	1,124	1,007	1,783	4,451
Subtotal	-	-	-	-	-	-	-	-	538	1,124	1,007	1,783	4,451
Groundwater Sustainability													
Well Monitoring	-	-	-	-	-	-	-	-	-	-	-	-	-
Supplemental Contractor Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment/Fixture	-	-	-	-	-	-	-	-	-	-	-	-	-
Materials/Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Office Supplies and expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Drought Operation and Maintenance	5,066	4,340	1,217	1,162	663	40,622	174,395	189,151	720,139	393,759	440,006	1,248,415	3,218,935
Total Incremental Drought Expense	5,066	4,340	1,217	1,162	12,804	44,126	224,138	204,361	836,048	420,556	479,524	1,305,648	3,538,992
Less Revenues from Customer Fines	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Rate	0.09%	0.09%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.11%	0.10%	0.10%	0.10%	
Interest	0	1	1	1	2	4	15	33	84	129	166	241	675
Ending Balance	5,066	9,407	10,624	11,787	24,593	68,724	292,876	497,271	1,333,403	1,754,088	2,233,778	3,539,667	3,539,667

Catalina Water Rationing Memo Account
2014-2021
P9153, GL#1432671

	January	February	March	April	May	June	July	August	September	October	November	December	Total YTD
Beg. Balance	3,539,667	3,280,219	3,323,849	3,476,056	3,639,696	3,897,491	4,075,955	4,263,903	4,419,472	4,519,997	4,603,567	4,616,700	4,616,700
Water Rationing Plan Incremental Expense													
Allocation Request and Code Enforcement	9,155	14,688	15,169	9,157	9,357	1,264	13,470	12,816				3,259	88,335
Flow Restrictor Fabrication/Install/Removal	811	632		1,017	1,017	210	1,433	2,138	1,137				7,377
Water Conservation Devices	62	113	179	1,026	1,289	3,219	46	24		2,093	6	66	8,123
Public Outreach	368	2,867	5,997	557	7,265	619	967	140	229	2,657	593	7,241	29,500
Transportation Expenses	285		285						3,180	582	489	(2,512)	2,309
Professional Services			6,335			32,689	4,490			108			43,622
Materials/Equipment	324												324
Contract Work											582		582
SCE Labor						38							38
Office Supplies and Expenses	2		2		768		(150)	3		150	42		817
General Expenses					190		333			6	110	(680)	(41)
Accruals	(4,197)											1,782	(2,415)
Subtotal	6,811	18,300	27,967	10,739	19,887	38,038	20,588	15,120	4,546	5,596	1,822	9,155	178,571
O&M Expenses Arising from Exceptional Unforeseen Circumstances													
West End Emergency Water Supply													
Water Supply/Hauling	92,273	4,433	10,028	134,712	193,130	92,380	110,322	1,344		-			638,622
IMT Response Team	9,974	8,105	81,663	12,134	16,190	22,345	37,057	9,140	620	23,971		(3,132)	218,067
Transportation Expense		161		2,514	2,847	320	853	315					7,010
Professional Svcs			20									-	20
Materials/Equipment													-
Moved to Howland's Well	(371,686)	10,647	29,353	1,868	18,651	20,921	(12,703)	24,254	7,490	6,192	1,939	(544,868)	(807,942)
Contract Work													-
IMT Response Team - Move to Capital													-
Construction Permits - Move to Capital													-
Subtotal	(269,439)	23,346	121,063	151,229	230,817	135,965	135,530	35,053	8,110	30,163	1,939	(548,000)	55,777
Water Hauling													
Water Supply/Hauling								66,901	83,201	26,710		34,224	211,036
Employee Expenses													-
SCE Labor													-
Subtotal	-	-	-	-	-	-	-	66,901	83,201	26,710	-	34,224	211,036
Well Rehabilitation													
Equipment/Fixture	-	-	-	-	-	-	-	-	-	-	-	-	-
Well Rehabilitation	-	-	-	-	-	-	-	-	-	-	-	-	-
Professional Services	-	-	-	-	-	-	-	-	-	-	-	-	-
Employee Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
Contract Work	-	-	-	-	-	-	-	-	-	-	-	-	-
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle Ranch Reservoir Level Surveys													
SCE Labor	2,811	1,654	2,836	1,346	2,933	1,590	1,884	2,102	2,041	1,515	1,830	1,028	23,570
Subtotal	2,811	1,654	2,836	1,346	2,933	1,590	1,884	2,102	2,041	1,515	1,830	1,028	23,570
Groundwater Sustainability													
Well Monitoring							20,259	27,613		11,026	6,160	8,540	73,598
Supplemental Contractor Labor						2,473	1,296	2,645	1,955	1,265	690	690	11,014
Equipment/Fixture							7,903	5,665					13,568
Materials/Equipment													-
SCE Labor													-
Office Supplies and expenses					3,844								3,844
Accrual										6,460	-	-	6,460
Subtotal	-	-	-	-	3,844	2,473	29,459	35,923	1,955	18,750	6,850	9,230	108,483
Subtotal Drought Operation and Maintenance	(266,628)	25,000	123,900	152,575	237,594	140,028	166,873	139,978	95,308	77,138	10,619	(503,518)	398,866
Total Incremental Drought Expense	(259,817)	43,300	151,867	163,314	257,480	178,066	187,461	155,099	99,854	82,734	12,441	(494,363)	577,437
Less Revenues from Customer Fines	-	-	-	-	-	-	-	-	-	-	-	(5,625)	(5,625)
Interest Rate	0.13%	0.12%	0.12%	0.11%	0.10%	0.12%	0.14%	0.13%	0.18%	0.22%	0.18%	0.20%	
Interest	369	330	340	326	314	399	486	470	670	836	691	728	5,962
Ending Balance	3,280,219	3,323,849	3,476,056	3,639,696	3,897,491	4,075,955	4,263,903	4,419,472	4,519,997	4,603,567	4,616,700	4,117,440	4,117,440

Catalina Water Rationing Memo Account
2014-2021
P9153, GL#1432671

	January	February	March	April	May	June	July	August	September	October	November	December	Total YTD
Beg. Balance	4,117,440	4,123,663	4,130,606	4,175,844	4,264,052	4,355,105	4,430,765	4,480,404	4,544,872	4,604,677	4,641,712	4,707,975	4,707,975
Water Rationing Plan Incremental Expense													
Allocation Request and Code Enforcement	477	9,853	8,177	4,175	11,946	6,865	6,890	3,370	3,900	17,925	10,311	13,780	97,670
Flow Restrictor Fabrication/Install/Removal	265	433				49	1,203		437	446	188		3,021
Water Conservation Devices	16	1,870	60	2,297	79	67	257	3,672	340	1,258	266	339	10,520
Public Outreach	2,387	(5,384)	1,106	3,285	215	3,540	32,944	2,460	46,640	575	30,647	12,767	131,183
Transportation Expenses	291	291	321	35	582			291	394	291	89		3,568
Professional Services									900			2,649	3,549
Materials/Equipment													-
Contract Work													-
SCE Labor							1,769	2,988	2				4,760
Office Supplies and Expenses	788	105		98			2,265	(146)	1,900	1	188	95	5,294
General Expenses			873		600				692	1,346	239	30	3,781
Accruals	(1,782)											2,309	527
Subtotal	2,443	7,168	10,537	9,889	13,421	10,522	45,329	12,636	55,206	21,842	41,928	32,953	263,873
O&M Expenses Arising from Exceptional Unforeseen Circumstances													
West End Emergency Water Supply													
Water Supply/Hauling		(7,803)	16,071	70,081		21,429		21,429		7,143	19,482	16,071	163,903
IMT Response Team	19		132	25									176
Transportation Expense													-
Professional Svcs		85											85
Materials/Equipment													-
Moved to Howland's Well			12,813	2,441									15,254
Contract Work													-
IMT Response Team - Move to Capital													-
Construction Permits - Move to Capital													-
Subtotal	19	(7,718)	29,016	72,548	-	21,429	-	21,429	-	7,143	19,482	16,071	179,418
Water Hauling													
Water Supply/Hauling	6,920					25,455						40,940	73,315
Employee Expenses													-
SCE Labor				82									82
Subtotal	6,920	-	-	82	-	25,455	-	-	-	-	-	40,940	73,397
Well Rehabilitation													
Equipment/Fixture													-
Well Rehabilitation					70,630			24,105					94,735
Professional Services						7,195	810	1,200	1,170			110	10,375
Employee Expenses				139									249
Contract Work													-
SCE Labor				155		834							988
Subtotal	-	-	-	294	70,630	8,028	810	25,305	1,170	-	-	110	106,347
Middle Ranch Reservoir Level Surveys													
SCE Labor	1,228	944	894	2,131	756	1,854	352	878	960	1,128	599	628	12,352
Subtotal	1,228	944	894	2,131	756	1,854	352	878	960	1,128	599	628	12,352
Groundwater Sustainability													
Well Monitoring			2,589	5,130	4,405		7,560			3,068			22,751
Supplemental Contractor Labor	460	345	575	1,035		460					1,840	1,150	5,865
Equipment/Fixture													-
Materials/Equipment													-
SCE Labor					118								118
Office Supplies and expenses													-
Accrual	(6,460)	4,589	-	(4,589)		6,120	(6,120)	2,340	450	1,620	-	(4,410)	(6,460)
Subtotal	(6,000)	4,934	3,164	1,576	4,523	6,580	1,440	2,340	450	4,688	1,840	(3,260)	22,274
Subtotal Drought Operation and Maintenance	2,167	(1,841)	33,074	76,631	75,909	63,345	2,602	49,952	2,580	12,959	21,921	54,489	393,787
Total Incremental Drought Expense	4,609	5,327	43,611	86,520	89,330	73,867	47,931	62,587	57,786	34,801	63,849	87,442	657,660
Less Revenues from Customer Fines	-	-	-	-	-	-	-	-	-	-	-	(71,600)	(71,600)
Interest Rate	0.47%	0.47%	0.47%	0.48%	0.48%	0.49%	0.46%	0.50%	0.53%	0.58%	0.62%	0.74%	
Interest	1,614	1,616	1,626	1,688	1,723	1,793	1,708	1,880	2,020	2,234	2,415	2,930	23,247
Ending Balance	4,123,663	4,130,606	4,175,844	4,264,052	4,355,105	4,430,765	4,480,404	4,544,872	4,604,677	4,641,712	4,707,975	4,726,747	4,726,747

Catalina Water Rationing Memo Account
2014-2021
P9153, GL#1432671

	January	February	March	April	May	June	July	August	September	October	November	December	Total YTD
Beg. Balance	4,726,747	4,739,997	4,797,192	4,845,688	4,864,596	4,894,307	4,947,199	4,969,137	5,006,662	5,018,578	5,029,043	5,037,149	5,037,149
Water Rationing Plan Incremental Expense													
Allocation Request and Code Enforcement	9,966	9,565	12,764	1,808	5,612	5,131	3,592	2,309	3,848	4,105	1,539		60,239
Flow Restrictor Fabrication/Install/Removal			262		467								729
Water Conservation Devices	63	387	512	20	46	493	439	27	37	32	1,152	(287)	2,920
Public Outreach	140	3,989	3,663	1,251	1,885	8,337	1,624	2,724	1,939	974			26,525
Transportation Expenses	1,164								1,164	291			2,619
Professional Services												(43,514)	(43,514)
Materials/Equipment													-
Contract Work													-
SCE Labor		23		476	268	291		53					1,111
Office Supplies and Expenses			94		359					1	49		503
General Expenses				102									102
Accruals	(2,309)												(2,309)
Subtotal	9,023	13,964	17,294	3,657	8,637	14,252	5,655	5,113	6,989	5,403	2,740	(43,801)	48,925
O&M Expenses Arising from Exceptional Unforeseen Circumstances													
West End Emergency Water Supply													
Water Supply/Hauling		10,714	12,500	8,929	12,500	10,714	11,428						66,785
IMT Response Team													-
Transportation Expense													-
Professional Svcs													-
Materials/Equipment													-
Moved to Howland's Well													-
Contract Work													-
IMT Response Team - Move to Capital													-
Construction Permits - Move to Capital													-
Subtotal	-	10,714	12,500	8,929	12,500	10,714	11,428	-	-	-	-	-	66,785
Water Hauling													
Water Supply/Hauling		28,260						27,510					55,770
Employee Expenses													-
SCE Labor													-
Subtotal	-	28,260	-	-	-	-	-	27,510	-	-	-	-	55,770
Well Rehabilitation													
Equipment/Fixture			100										100
Well Rehabilitation													-
Professional Services			14,350			22,890							37,240
Employee Expenses			162										162
Contract Work													-
SCE Labor													-
Subtotal	-	-	14,612	-	-	22,890	-	-	-	-	-	-	37,502
Middle Ranch Reservoir Level Surveys													
SCE Labor	842	854	595	801	754	526	24						4,396
Subtotal	842	854	595	801	754	526	24	-	-	-	-	-	4,396
Groundwater Sustainability													
Well Monitoring					5,760								5,760
Supplemental Contractor Labor	230	345											575
Equipment/Fixture													-
Materials/Equipment													-
SCE Labor													-
Office Supplies and expenses													-
Accrual				1,800	(1,800)								-
Subtotal	230	345	-	1,800	3,960	-	-	-	-	-	-	-	6,335
Subtotal Drought Operation and Maintenance	1,072	40,173	27,707	11,530	17,214	34,131	11,452	27,510	-	-	-	-	170,788
Total Incremental Drought Expense	10,095	54,136	45,002	15,187	25,850	48,382	17,107	32,623	6,989	5,403	2,740	(43,801)	219,713
Less Revenues from Customer Fines	-	-	-	-	-	-	-	-	-	-	-	(95,550)	(95,550)
Interest Rate	0.80%	0.77%	0.87%	0.92%	0.95%	1.10%	1.17%	1.18%	1.18%	1.21%	1.28%	1.43%	
Interest	3,155	3,059	3,494	3,721	3,861	4,509	4,832	4,902	4,927	5,063	5,366	5,977	52,865
Ending Balance	4,739,997	4,797,192	4,845,688	4,864,596	4,894,307	4,947,199	4,969,137	5,006,662	5,018,578	5,029,043	5,037,149	4,903,775	4,903,775

Catalina Water Rationing Memo Account
2014-2021
P9153, GL#1432671

	January	February	March	April	May	June	July	August	September	October	November	December	Total YTD
Beg. Balance	4,903,775	4,590,311	4,642,684	4,651,818	4,659,843	4,672,669	4,680,768	4,691,105	4,699,419	4,708,389	4,719,944	4,730,543	4,730,543
Water Rationing Plan Incremental Expense													
Allocation Request and Code Enforcement													-
Flow Restrictor Fabrication/Install/Removal													-
Water Conservation Devices													-
Public Outreach		0	3		4		0	0	3			33	42
Transportation Expenses													-
Professional Services		177	1,779	273	563		2,066	26	390		961	2,527	8,762
Materials/Equipment													-
Contract Work													-
SCE Labor													-
Office Supplies and Expenses													-
General Expenses													-
Accruals													-
Subtotal	-	178	1,782	273	566	-	2,066	26	393	-	961	2,560	8,804
O&M Expenses Arising from Exceptional Unforeseen Circumstances													
West End Emergency Water Supply													
Water Supply/Hauling	(24,730)												(24,730)
IMT Response Team												-	-
Transportation Expense												-	-
Professional Svcs	(1,473)											-	(1,473)
Materials/Equipment												-	-
Moved to Howland's Well	(293,546)											-	(293,546)
Contract Work		45,698			4,372								50,070
IMT Response Team - Move to Capital												-	-
Construction Permits - Move to Capital												-	-
Subtotal	(319,749)	45,698	-	-	4,372	-	-	-	-	-	-	-	(269,680)
Water Hauling													
Water Supply/Hauling													-
Employee Expenses													-
SCE Labor													-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Well Rehabilitation													
Equipment/Fixture	-	-	-	-	-	-	-	-	-	-	-	-	-
Well Rehabilitation	-	-	-	-	-	-	-	-	-	-	-	-	-
Professional Services	-	-	-	-	-	-	-	-	-	-	-	-	-
Employee Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
Contract Work	-	-	-	-	-	-	-	-	-	-	-	-	-
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle Ranch Reservoir Level Surveys													
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundwater Sustainability													
Well Monitoring	-	-	-	-	-	-	-	-	-	-	-	-	-
Supplemental Contractor Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment/Fixture	-	-	-	-	-	-	-	-	-	-	-	-	-
Materials/Equipment	-	-	-	-	-	-	-	-	-	2,489	-	-	2,489
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Office Supplies and expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	2,489	-	-	2,489
Subtotal Drought Operation and Maintenance	(319,749)	45,698	-	-	4,372	-	-	-	-	2,489	-	-	(267,191)
Total Incremental Drought Expense	(319,749)	45,875	1,782	273	4,938	-	2,066	26	393	2,489	961	2,560	(258,387)
Less Revenues from Customer Fines	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Rate	1.59%	1.69%	1.90%	2.00%	2.03%	2.08%	2.12%	2.12%	2.19%	2.31%	2.45%	2.52%	
Interest	6,286	6,497	7,352	7,753	7,887	8,099	8,271	8,288	8,577	9,066	9,638	9,937	97,651
Ending Balance	4,590,311	4,642,684	4,651,818	4,659,843	4,672,669	4,680,768	4,691,105	4,699,419	4,708,389	4,719,944	4,730,543	4,743,039	4,743,039

Catalina Water Rationing Memo Account
2014-2021
P9153, GL#1432671

	January	February	March	April	May	June	July	August	September	October	November	December	Total YTD
Beg. Balance	4,743,039	4,753,118	4,762,981	4,772,864	4,782,688	4,792,413	4,801,638	4,810,401	4,818,699	4,826,530	4,833,769	4,840,295	4,840,295
Water Rationing Plan Incremental Expense													
Allocation Request and Code Enforcement	-	-	-	-	-	-	-	-	-	-	-	-	-
Flow Restrictor Fabrication/Install/Removal	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Conservation Devices	-	-	-	-	-	-	-	-	-	-	-	-	-
Public Outreach	-	-	-	-	-	-	-	-	-	-	-	-	-
Transportation Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
Professional Services	-	-	-	-	-	-	-	-	-	-	-	-	-
Materials/Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
Contract Work	-	-	-	-	-	-	-	-	-	-	-	-	-
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Office Supplies and Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
General Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
Accruals	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
O&M Expenses Arising from Exceptional Unforeseen Circumstances													
West End Emergency Water Supply													
Water Supply/Hauling	-	-	-	-	-	-	-	-	-	-	-	-	-
IMT Response Team	-	-	-	-	-	-	-	-	-	-	-	-	-
Transportation Expense	-	-	-	-	-	-	-	-	-	-	-	-	-
Professional Svcs	-	-	-	-	-	-	-	-	-	-	-	-	-
Materials/Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
Moved to Howland's Well	-	-	-	-	-	-	-	-	-	-	-	-	-
Contract Work	-	-	-	-	-	-	-	-	-	-	-	-	-
IMT Response Team - Move to Capital	-	-	-	-	-	-	-	-	-	-	-	-	-
Construction Permits - Move to Capital	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Hauling													
Water Supply/Hauling	-	-	-	-	-	-	-	-	-	-	-	-	-
Employee Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Well Rehabilitation													
Equipment/Fixture	-	-	-	-	-	-	-	-	-	-	-	-	-
Well Rehabilitation	-	-	-	-	-	-	-	-	-	-	-	-	-
Professional Services	-	-	-	-	-	-	-	-	-	-	-	-	-
Employee Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
Contract Work	-	-	-	-	-	-	-	-	-	-	-	-	-
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle Ranch Reservoir Level Surveys													
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Groundwater Sustainability													
Well Monitoring	-	-	-	-	-	-	-	-	-	-	-	-	-
Supplemental Contractor Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment/Fixture	-	-	-	-	-	-	-	-	-	-	-	-	-
Materials/Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
SCE Labor	-	-	-	-	-	-	-	-	-	-	-	-	-
Office Supplies and expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal Drought Operation and Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Incremental Drought Expense	-	-	-	-	-	-	-	-	-	-	-	-	-
Less Revenues from Customer Fines	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Rate	2.55%	2.49%	2.49%	2.47%	2.44%	2.31%	2.19%	2.07%	1.95%	1.80%	1.62%	1.70%	
Interest	10,079	9,863	9,883	9,824	9,725	9,225	8,763	8,298	7,830	7,240	6,526	6,857	104,113
Ending Balance	4,753,118	4,762,981	4,772,864	4,782,688	4,792,413	4,801,638	4,810,401	4,818,699	4,826,530	4,833,769	4,840,295	4,847,152	4,847,152

CHAPTER 11 WATER LOSS

(Witness: Jeff Roberts)

I. INTRODUCTION

Three metrics are used to measure water loss in utility operation: real losses, apparent losses, and unbilled consumption. The combination of these three is the utility's non-revenue water ("NRW"). Using this metric, in 2019 SCE reported losing 39.1% of its water. This percentage is comparable to war-torn and developing countries: Afghanistan and Chile, for example, lose about the same amount of water during distribution.³⁵⁶

In the accounting for any business, inventory shrinkage is known as the excess amount of inventory listed in the accounting records, but which no longer exists in the actual inventory due to theft, losses, damage, errors etc. For a water utility, water is the product in its inventory, and water losses are its inventory shrinkage. For reference, a typical inventory shrinkage for a retail business is roughly 1.6%.³⁵⁷ A comparable metric for a water utility according to Commission guidelines is 7% or less water loss.³⁵⁸

II. SUMMARY OF RECOMMENDATIONS

The Commission should impute a 32.1% reduction to SCE's proposed revenue requirement to avoid having customers fund the operation of a water system that has unreasonable production losses that exceed industry standards. In functioning as a

³⁵⁶ See, e.g., "40% Non-Revenue Water for Afghanistan 2014 and 2015," available at https://jicwels.or.jp/files/H29_CR_WaterSupplyAdmin-A.pdf, p. 8; "During 2006, the average losses of drinking water reached 34%" (Translated from Spanish), available at http://www.siss.gob.cl/586/articles-3687_recurso_1.pdf, p. 63.

³⁵⁷ National Retail Security Survey see: https://cdn.nrf.com/sites/default/files/2020-07/RS-105905_2020_NationalRetailSecuritySurvey.pdf.

³⁵⁸ See, e.g., D.07-05-062, *Opinion Adopting Revised Rate Case Plan for Class A Water Utilities* (May 24, 2007), Minimum Data Requirements E.4 (directing utilities to "submit a plan to reduce unaccounted water to a specific amount" if unaccounted water "is more than approximately 7% for each district or service area"). Available at https://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/68502.PDF.

1 substitute for competition,³⁵⁹ the Commission should exercise its regulatory authority to
2 exclude expenses and capital in SCE’s revenue requirement that would otherwise not be
3 recoverable in a competitive market.

4 **III. ANALYSIS**

5 Water produced by SCE is transported through a network of pipes to utility service
6 connections. Produced water that does not reach the service connections are the *real*
7 *losses* in the system, typically from system leakage or storage tank overflows. *Apparent*
8 *losses* are those that occur at the metered connection, typically from customer meter
9 inaccuracies, theft, and systematic data handling errors. In addition to real and apparent
10 losses, a company can also lose water through *unbilled authorized use*. For example, a
11 fire protection customer that records regular volumetric usage (specifically prohibited by
12 the tariff) and is not billed for it.³⁶⁰

13 *Non-revenue water* is the combination of real losses, apparent losses, and unbilled
14 authorized usage and reflects the produced volume of water that is not reflected in
15 customer billing.

16 For a helpful reference to system water loss terminology, the American Water
17 Works Association (“AWWA”) water balance is provided in Figure 11-1 below. The
18 components of non-revenue water are highlighted in gray.³⁶¹

³⁵⁹ See D.96-04-050, *Re Southern California Edison Company*, 65 CPUC 2d 362 (April 10, 1996) (stating that the Commission’s “objective through regulation is to act as a substitute for competition”)

³⁶⁰ This report identifies two examples of unbilled authorized use in SCE’s system. See Chapter 13: Rate Design

³⁶¹ Best Practice in Water Loss control: improved Concepts for 21st Century Water Management. See: <https://www.awwa.org/Portals/0/AWWA/ETS/Resources/WLCFlyerFinal.pdf?ver=2015-02-10-083650-287>

Figure 11-1: The IWA/AWWA Water Balance³⁶²

The IWA/AWWA Water Balance						
Volume From Own Sources (corrected for known errors)	System Input Volume	Water Exported (corrected for known errors)	Billed Water Exported			Revenue Water
		Water Supplied	Authorized Consumption	Billed Authorized Consumption	Billed Metered Consumption	Revenue Water
					Billed Unmetered Consumption	
			Unbilled Authorized Consumption	Unbilled Metered Consumption	Unbilled Unmetered Consumption	Non-revenue Water
Water Imported (corrected for known errors)		Water Losses	Apparent Losses	Customer Metering Inaccuracies	Unauthorized Consumption	
				Systematic Data Handling Errors		
				Leakage on Transmission and Distribution Mains		
			Real Losses	Leakage and Overflows at Utility's Storage Tanks		
				Leakage on Service Connections up to the Point of Customer Metering		

NOTE: All data in volume for the period of reference, typically one year.

A. SCE's Water Losses

SCE details its water loss metrics through its AWWA water audits provided in testimony workpapers.³⁶³ This data is compiled in Table 11-2 below.

³⁶² Best Practice in Water Loss Control: Improved Concepts for 21st Century Water Management. See <https://www.awwa.org/Portals/0/AWWA/ETS/Resources/WLCFlyerFinal.pdf?ver=2015-02-10-083650-287>

³⁶³ See WPSCE01.pdf, pp.352-361. To avoid overuse of abbreviations and improve readability, the term “non-revenue water” is used interchangeably with “water loss” unless otherwise specified.

Table 11-2: Non-Revenue Water Compiled from SCE’s AWWA Water Audits 2015-2019 in Acre-Feet Year (AFY)³⁶⁴

	2015	2016	2017	2018	2019
Unbilled Authorized Consumption	3.914	3.980	6.224	5.391	11.282
Apparent Losses	3.525	1.260	1.681	1.203	1.696
Real Losses	51.926	52.890	83.367	116.026	151.732
Non-Revenue Water (Sub-Total)	59.365	58.130	91.272	122.620	164.710
Supplied Water	278.240	279.370	333.100	386.440	421.580
% Water Lost (Non-Revenue Water)	21.3%	20.8%	27.4%	31.7%	39.1%

SCE’s water losses for 2015 and 2016 of 21% and 20%, respectively are already alarmingly high compared to the Commission’s acceptable rate of 7% or less for Class A water utilities.³⁶⁵ However, 2019 is the highest on record—nearly double that of the three years prior—and every category of loss increased from the previous year. SCE has given no indication that this elevated water loss will subside any time in the near future.

Moreover, SCE has provided no explanation for its excessive water loss, and no explanation for why unbilled authorized consumption, apparent losses, and real losses continue to increase. SCE discusses in general terms steps taken to reduce real and apparent losses.³⁶⁶ The increasingly high losses in its system indicate, however, that SCE’s efforts to mitigate water loss has been ineffective. Of further concern is SCE’s inability to explain where or how the water losses are occurring.³⁶⁷

³⁶⁴ Compiled from SCE Testimony Workpapers WPSCE01.pdf, pp. 352-361

³⁶⁵ See D.07-05-062, *Opinion Adopting Revised Rate Case Plan for Class A Water Utilities* (May 24, 2007), E.4. Minimum Data Requirements E.4 (directing utilities to “submit a plan to reduce unaccounted water to a specific amount” if unaccounted water “is more than approximately 7% for each district or service area”). Available at https://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/68502.PDF.)

³⁶⁶ SCE-01, pp. 6-8.

³⁶⁷ Attachment 11-1, SCE Response to Public Advocates DR SIH-14 (PubAdv-SCE-045-SI), Q.08.

1 **B. The Commission’s Role as a Substitute for Competition**

2 One of the core tenets of utility regulation is that the Commission’s ratemaking
3 authority functions as a substitute for competition.³⁶⁸ In the Commissions’ regulatory
4 framework, a utility is granted a monopoly to provide service to a given service area. The
5 utility is then afforded protections by the Commission in exchange for the requirement to
6 provide safe, reliable, and clean water. The utility is then eligible to request a revenue
7 requirement consistent with just and reasonable rates.

8 Thus, a utility that does not perform satisfactorily should be held accountable for
9 its results and the Commission should adjust the revenue requirement accordingly. In a
10 competitive market, a business that has unreasonable inventory loss could not expect to
11 recover the cost of this loss from customers. The higher prices required by this business
12 would be uncompetitive when compared to a company that reasonably managed
13 inventory loss and the business would be forced to accept lower profitability or
14 eventually no longer be in business. In a monopoly market, unreasonable inventory
15 losses are not disciplined by a competitive market and customers can be forced to bear
16 the cost of higher prices for essential services, unless regulators intervene to protect the
17 captive customers.

18 As a business, SCE lost 39.1% of its inventory in 2019. In a competitive market,
19 SCE could not expect to profit from capital investments made to produce inventory that is
20 lost, nor expect to recover associated expenses from customers. However, SCE operates
21 with a monopoly franchise for water service and customers are captive to the rates
22 charges. In order to protect the public from SCE’s monopoly position, the Commission

³⁶⁸ Because regulated utilities exist within and are important to the overall economy, regulation of public utilities cannot be divorced from the operating logic of competition in the rest of the economy. Instead, regulation is a substitute for competition and “should attempt to put the utility sector under the same restraints competition places on the industrial sector.” *A Primer on Public Utility Regulation for New State Regulatory Commissioners*, National Regulatory Research Institute Quoting David Chessler, *The First and Current Competitive Eras in Telecommunications: Lessons from History and Limits of Antitrust Policy Today* (Columbus OH, March 2002). See also Stephen G. Breyer, *Antitrust, Deregulation, and the Newly Liberated Marketplace*, 75 Calif. L. Rev. 1005 (1987) (noting that in general “regulation is a substitute for competition, an alternative means by which policymakers hope to achieve the consumer welfare benefits associated with competition”).

1 must fulfill its role as a substitute for competition and adjust SCE's revenue requirement
2 in this proceeding to prevent customers from being charged for unreasonable water loss.

3 **C. Imputed Water Loss Calculation**

4 It is normal for a utility to lose some water during distribution and most water
5 systems experience some loss. To appropriately impute a water loss, one must know how
6 much water a comparable system loses in a typical year. There are no exact figures to
7 perfectly determine this, however there are some reasonable options to consider. First,
8 according to the Environmental Protection Agency ("EPA"), average water loss in water
9 systems nationwide is 16%.³⁶⁹ This figure is helpful, though not entirely instructive, as it
10 considers both public and private water systems across the nation.

11 Second, the Division of Water Resources ("DWR") recently published data
12 providing the real water losses and total production for all urban water suppliers (both
13 public and private) in California. With this data, the average water loss is calculated to be
14 8.18%.³⁷⁰ This data is more instructive, as it is California-specific.

15 Lastly, the Commission already has water loss standards in place for regulated
16 water systems. The standards set forth in the rate case plan for Class A utilities require a
17 utility to submit a plan to reduce water losses when utilities losses exceed 7%.³⁷¹ Even
18 though the rate case plan is directed towards Class A utilities, the fact that it is directed at
19 private, regulated water systems makes it a more applicable standard than the other two
20 standards mentioned above.

³⁶⁹ United States Environmental Protection Agency Water Audits and Water Loss Control For Public Water Systems. Available at: <https://www.epa.gov/sites/production/files/2015-04/documents/epa816f13002.pdf>

³⁷⁰ 8.18% average urban water loss calculated from urban utility water loss values used by Department of Water Resources to calculate draft proposed water loss control standards. Available at: https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/docs/waterlosscontrol/2020/waterloss_inputs_13april2020.xlsx

³⁷¹ See Rate Case Plan Decision 07-05-062 (stating that "If unaccounted water is more than approximately 7% for each district or service area, submit a plan to reduce unaccounted water to a specific amount.") available at: (https://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/68502.PDF)

1 To determine an imputed water loss percentage to adjust SCE's recoverable costs,
2 the Commission's 7% standard can be used as a baseline to represent a prudently
3 operated water system. The 7% is therefore reduced from the 39.1% water loss
4 experienced by SCE Catalina. The resulting 32.1% can serve as a proxy for the
5 unreasonable and excessive amount of water loss that is occurring on Catalina. The
6 Commission should reduce SCE's revenue requirement to avoid having customers fund
7 the cost of unreasonable production losses that exceed established industry standards.

8 In addition to the Commission reducing SCE's budgets by 32.1% to account for
9 the cost of unreasonable water loss, the Commission should reduce the past costs that
10 SCE now seeks to recover through customers surcharges, as these past costs also include
11 the cost of water losses exceeding established industry standards.

12 The implementation of this imputed water loss factor affects many areas of this
13 proceeding. Specifically, reducing the revenue requirement and amounts in the various
14 memorandum and balancing accounts gives the Commission more options to consider
15 when deciding on the most appropriate cost recovery strategy. For example, a reasonable
16 revenue requirement that results in a decrease to average system rates obviates the need
17 for any phase-in period and eliminates SCE's request for a \$10.3 million Deferred
18 Revenue Requirement Tracking Account ("DRRTA") to be recovered by SCE electric
19 customers. For a more thorough discussion of the effects of this imputed water loss, see
20 Chapter Twelve of this report.

21 **IV. CONCLUSION**

22 The amount of water SCE loses in the operation of its system is on par with
23 developing and war-torn countries. The customers of Catalina rely on the Commission to
24 be a substitute for competition to prevent monopoly abuse and the recovery of costs
25 associated with unreasonable water loss. The Commission should reduce SCE's future
26 budgets and requested recovery of past costs by 32.1% to account for the cost of
27 unreasonable water loss.

1

LIST OF ATTACHMENTS FOR CHAPTER 11

#	Attachment	Description
1	Attachment 11-1	SCE Response to Data Request SIH-14 Q.8 (PubAdv-SCE-045-SI Q.08)

2

ATTACHMENT 11-1

**SCE Response to Data Request SIH-14 Q.8
(PubAdv-SCE-045-SI Q.08)**

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 4 5 - S I

To: Public Advocates Office
Prepared by: Mary Schickling
Job Title: Business Ops Analysis, Sr. Specialist
Received Date: 2/11/2021

Response Date: 2/18/2021

Question 08:

For years 2015 through 2020, provide a table in Excel format summarizing the total annual water loss in acre-feet for each of SCE Catalina Water's systems.

Response to Question 08:

Unfortunately, this information is not available as SCE performs the AWWA Water Audit at the overall system level and not at the individual subsystem level. This analysis will be performed as part of the water master plan development, with this initiative estimated to complete by July 2021.

1 **CHAPTER 12 COST RECOVERY OPTIONS**

2 (Witness: Jeff Roberts)

3 **I. INTRODUCTION**

4 SCE proposes to transfer costs of its water system on Catalina Island to the electric
5 ratepayers of its parent company, Southern California Edison Electric (“SCE electric”).
6 Specifically, SCE proposes to consolidate memorandum accounts, capital expenditures,
7 and portions of its proposed revenue requirement phased in over a multi-year period.³⁷²
8 SCE estimates a balance of \$28.9 million dollars to be transferred via a monthly
9 surcharge to SCE electric ratepayers.³⁷³ In SCE’s previous GRC, the Commission
10 authorized a one-time, limited duration transfer of approximately \$8.9 million of SCE’s
11 water system costs to SCE electric customers, in addition to a capital disallowance
12 incurred by SCE shareholders.³⁷⁴

13 **II. SUMMARY OF RECOMMENDATIONS**

14 Based on a close review of SCE’s request, only \$3.16 million of the \$28.9 million
15 SCE proposes to recover from electric customers should be eligible for recovery. This
16 \$3.16 million balance reflects the necessary adjustments to SCE’s memorandum and
17 balancing accounts and makes alternative cost recovery methods unnecessary.

18 Additionally, the cost transfer that SCE proposes from its Catalina water system to
19 SCE electric customers relies upon the unsupported claim that a strong correlation exists
20 between Catalina water system costs, one million annual visitors to the island, and SCE’s
21 15 million electric customers. However, SCE has provided no conclusive evidence of
22 such a correlation to reasonably justify the proposed water cost subsidy by electric
23 customers. Essentially, SCE fails to demonstrate that the transfer is based on cost

³⁷² *Application (A.)20-10-018 of Southern California Edison Company for Authority to Increase Rates for its Class C Catalina Water Utility and Recover Costs from Water and Electric Customers* (October 30, 2020) (SCE Catalina Water GRC Application), p. 9.

³⁷³ SCE Catalina Water GRC Application, p. 9.

³⁷⁴ *See* D.14-10-048, p. 1.

1 causation, a key principle of Commission ratemaking.³⁷⁵ Therefore, the Commission
2 should reject SCE’s cost transfer proposal.

3 Even if SCE could present compelling evidence that visitors contribute to the costs
4 of water service on the island but somehow escape paying for the water they consume,
5 the Commission’s available options to implement a fee or charge on those visitors are
6 quite limited. SCE and several parties to this proceeding discussed a passenger boat fee
7 for cross-channel carriers as an alternative cost recovery methodology; however, there are
8 significant logistical and jurisdictional hurdles preventing the successful and reasonable
9 implementation of such a fee.³⁷⁶ Mainly, the Commission does not have jurisdiction over
10 many of the transportation methods visitors use to arrive on the island (i.e., private boat,
11 aircraft, or cruise ship). However, the City of Avalon does. In November 2020, the
12 residents of City of Avalon passed a ballot initiative implementing a fee on all major
13 methods of transport to the island to fund the islands’ critical infrastructure. Thus, if it is
14 appropriate to levy a fee on visitors to fund the islands water system, the City of Avalon
15 could implement such a fee.

16 As an alternative to SCE’s cost recovery proposals, if the Commission ultimately
17 determines that water system costs are too great for Catalina’s water customers to bear on
18 their own, a reasonable option would be full or partial absorption of the excess costs by
19 SCE shareholders. Under the Commissions’ regulatory framework, investor-owned
20 utilities (IOUs) are granted an exclusive franchise and an opportunity to earn a reasonable
21 shareholder return, in exchange for the IOU’s obligation to provide safe and reliable
22 service to all customers within its territory.³⁷⁷ However, SCE has not upheld its
23 obligation to serve all customers within its territory by repeatedly denying new service

³⁷⁵ See D.87-12-066, p.115 (noting that avoiding cross-subsidies and supporting cost-causation principles “achieves equity in rates by relating the costs imposed on the utility system to the customer responsible for those costs”).

³⁷⁶ See A.20-10-018, *Concurrent Limited Opening Brief of The Utility Reform Network* (March 19, 2021) (TURN Limited Opening Brief), p. 14; SCE-01. p. 24.

³⁷⁷ *The Regulation of Public Utilities*, 3rd Edition, 1993, Charles F. Phillips, Jr.

1 connection requests.³⁷⁸ As such, SCE shareholders should absorb some of the costs that
2 would otherwise fall on ratepayers.

3 Another cost recovery alternative to be discussed in this chapter is offsetting
4 system costs with the development of impact fees that are assessed on new construction
5 and expansion of service. Sometimes referred to as capacity or development fees, this
6 source of system funding has been adopted by the Commission for several water utilities
7 under its jurisdiction.

8 **III. ANALYSIS**

9 SCE's estimated \$28.9 million proposed transfer to electric customers consists of
10 \$11.59 million in drought/lost revenue accounts ("CWLRLMA/CWRMA"), \$10.3 million
11 in the Deferred Revenue Requirement Tracking Account ("DRRTA"), and \$7.02 million
12 in past miscellaneous capital expenditures.³⁷⁹ However, in supplemental testimony filed
13 August 19, 2021, SCE instead estimates a total transfer request of either \$30.5 million³⁸⁰
14 or \$30.9 million.³⁸¹ Regardless, none of SCE's estimated transfer amounts are consistent
15 with just and reasonable rates. Cal Advocates makes recommendations for each of these
16 accounts in other chapters of this report.³⁸² The following analysis pertains to the
17 necessity and reasonableness of the cost recovery methods SCE currently proposes.

18 **A. Background of SCE's Proposed Cost Transfer**

19 In the decision approving a settlement in SCE's previous GRC, the Commission
20 authorized a one-time transfer of \$8.895 million of Catalina Water rate base to SCE
21 electric customers.³⁸³ The Commission's decision to transfer costs to SCE electric

³⁷⁸ See Cal Advocates' Report, Chapter 1: Sales and Customer Forecast.

³⁷⁹ SCE Catalina Water GRC Application, p. 9 (\$11.59 million is calculated as of December 31, 2021).

³⁸⁰ SCE-09, p. 1.

³⁸¹ SCE-09, p. 17, Table III-2 Estimated Visitor Boat Fee Revenues and Impact All Costs.

³⁸² See Cal Advocates' Report Chapter 10: Balancing and Memorandum Accounts.

³⁸³ See D.14-10-048, p. 1. "Rate base" refers to the utility's total cost of investments on which shareholders earn an authorized return.

1 customers was highly contentious, as indicated by Commissioner Catherine J.K.
2 Sandoval's dissent.³⁸⁴ Commissioner Sandoval observed that no evidence existed of a
3 sufficient cost causation nexus between SCE electric customers and the Catalina Island
4 water system, stating that there was "nothing just or reasonable about forcing SCE
5 electric ratepayers to pay for a water system outside of their service territory simply
6 because the electric and water utilities that service different sets of customers share a
7 parent company."³⁸⁵

8 **1. Alternative Options Considered**

9 SCE's initial testimony presented six alternative cost recovery options that the
10 company had considered prior to deciding on a transfer of costs to electric customers.³⁸⁶
11 However, most of the considered options were either unrealistic or inconsistent with the
12 Commission's basic ratemaking principle of cost causation.³⁸⁷ Potential acquisition of
13 the Catalina water system by a Class A water utility, as encouraged in the Commission's
14 2010 Water Action Plan, was one of the options SCE considered.³⁸⁸ SCE has not
15 indicated, however, that any Class A utility has made serious inquiries into a purchase.
16 Thus, acquisition appears to be an unlikely option unless the Commission encourages
17 SCE and other Class-A water utilities to actively engage in such negotiations.

18 The Utility Reform Network (TURN) stated in its limited opening briefs that SCE
19 should have considered cost recovery methods such as grant funds, third party
20 contributions, lodging tax, extended amortizations, securitized transactions, or

³⁸⁴ See D.14-10-048, Dissent of Commissioner Sandoval, pp. 1-2.

³⁸⁵ See D.14-10-048, Dissent of Commissioner Sandoval, pp. 1-2.

³⁸⁶ SCE-01, pp. 23-28.

³⁸⁷ The proposed high-cost support fund is unrealistic because SCE acknowledges it would require legislative action and would unlikely be available before the conclusion of this proceeding. The visitor boat fee was considered but SCE chose not to pursue that option. The rate mitigation sharing mechanism, cost consolidation, and rate base consolidation were different variations of a cost transfer; all apportion costs from SCE Catalina Water to SCE Electric customers.

³⁸⁸ See CPUC 2010 Water Action Plan p.9, at <https://docs.cpuc.ca.gov/PUBLISHED/Graphics/125501.PDF>.

1 shareholder absorption of the costs.³⁸⁹ Following the submission of parties' limited
2 opening briefs on the proposed cost recovery options presented, the Commission ordered
3 SCE to file supplemental testimony considering additional alternatives.³⁹⁰

4 In its supplemental testimony, SCE provided more detailed analysis of various
5 alternate cost recovery options available in this proceeding. Citing a feasibility study in
6 testimony, the company's preferred choice of the electric cost transfer remained the
7 company's highest ranked option.³⁹¹ However, the feasibility study still failed to
8 establish a reasonable nexus between visitors to the island and SCE electric customers to
9 warrant any transfer of costs. Without an established nexus, SCE's requested cost
10 transfer runs contrary to cost causation principles.

11 **B. Cost Transfer Lacks a Sufficient Nexus**

12 SCE contends that a cost transfer is reasonable because a large majority of visitors
13 to Catalina Island originate from Southern California, where SCE electric's main service
14 areas are located.³⁹² SCE's basic premise is twofold: 1) tourists drive water costs on the
15 island but do not pay for the services they receive, and 2) many of the tourists happen to
16 be SCE electric customers. However, SCE has not supported either of these assertions.

17 First, SCE has provided no evidence showing that visitors actually drive water
18 costs on the island. It is obvious that visitors use water while visiting the island, however
19 the *use of* water is not the same as *driving the cost* of water. For example, Catalina Island
20 has been a tourist destination for many decades; however, SCE has only recently argued
21 that these visitors drive costs and are now financially responsible for the operation of its
22 water system via a cost transfer. The company would need to explain why visitors are
23 driving costs now but not before SCE's first cost transfer in 2014.

³⁸⁹ TURN Limited Opening Brief, p. 16.

³⁹⁰ A.20-10-018, Administrative Law Judge's Ruling on Limited Issues Briefed (May 27, 2021), p. 10.

³⁹¹ SCE-09, p. 28, Table III-4.

³⁹² SCE-01, p. 16.

1 Second, SCE alleges that a cost transfer is reasonable as many visitors to Catalina
2 Island originate from mainland Southern California. Although many visitors do originate
3 from Southern California, SCE’s electric service area does not encompass the entire
4 region.³⁹³ There are numerous energy utilities serving Southern California residents,
5 such as Los Angeles Department of Water & Power, City of Anaheim Public Utilities
6 Department, Burbank Water & Power, San Diego Gas and Electric, and Bear Valley
7 Electric. When asked if SCE had conducted a study or survey to determine approximately
8 what percentage of the Southern California visitors to Catalina Island are actually SCE
9 electric customers, the Company responded that it did not have this information.³⁹⁴
10 Additionally, a 2016 visitor profile report prepared by the Catalina Chamber of
11 Commerce found that 20% of visitors to the island were actually from outside of
12 California, further weakening SCE’s assumption that there is a strong nexus between
13 Catalina visitors and SCE electric customers.³⁹⁵ Even if the majority of visitors to the
14 island were SCE customers, it could not be inferred that all SCE customers at some point
15 visit the island. Nevertheless, SCE’s proposal would impose Catalina water system costs
16 on all SCE electric customers.

17 Finally, SCE’s proposal to impose Catalina water costs on electric customers
18 under the unsupported assumptions that these same customers are the primary visitors to
19 the island and drive the cost of the water system ignores the fact that all the water
20 provided to Catalina visitors is still tarified through Catalina water customer accounts.
21 All of the water consumed by visitors is paid for in the water rates charged to restaurants
22 and owners of the accommodations that visitors use, and the restaurants and lodging
23 providers in turn account for water in the price of meals and lodging. If it could be

³⁹³ SCE-01, p. 23 (indicating that “80% of annual visitors are Californians with over 70 percent residing in Southern California”).

³⁹⁴ Attachment 12-1, SCE Response to Public Advocates DR JR6-03 (PubAdv-SCE-010-JR), Q.01.r.

³⁹⁵ See Economic and Fiscal Impacts and Profile of 2016 Catalina Island Visitors Final Report, p. 6, available at https://assets.simpleviewinc.com/simpleview/image/upload/v1/clients/catalinaislandccvb/CI_Visitors_2016_Final_5b96b461-3a66-4e7f-bc3b-4e5693b1eb53.pdf.

1 shown that visitors are actually driving water costs, the appropriate solution would be rate
2 design adjustments that would better align and allocate the costs of service to the
3 customers who benefit (either directly or indirectly) from the service.

4 Overall, a sufficient nexus does not exist between SCE electric customers and
5 visitors to the island, nor has SCE established that visitors to the island drive the cost of
6 water in its system.

7 C. No Alternative Cost Recovery Option is Necessary

8 SCE asserts that the amounts requested for recovery are so large it would be too
9 financially burdensome to recover from a relatively small user base of roughly 2,000
10 water connections.³⁹⁶ Thus, according to SCE, an alternative recovery method is required
11 in the form of a cost transfer. However, an examination of SCE's proposed recovery
12 indicates that the reasonable and appropriate amounts are much lower than SCE's
13 estimates. For example, Cal Advocates' recommended revenue requirement of \$3.6
14 million would result in a *decrease* from current average system rates. Accordingly, SCE's
15 proposed multi-year phase-in to accommodate its proposed increase in rates would not be
16 necessary. Without the need for a multi-year phase-in, SCE's estimated \$10.3 million in
17 deferred revenue will not accumulate in the associated Deferred Revenue Requirement
18 Tracking Account ("DRRTA").³⁹⁷ Similarly, instead of SCE's proposed transfer of an
19 estimated \$7.024 million of discrete capital expenditures to electric customers, these
20 amounts should instead be included in the rate base calculation to derive the revenue
21 requirement calculated in this proceeding.³⁹⁸ Additionally, many of SCE's estimates for
22 its memorandum accounts recovery are not supported and do not include the offsetting
23 amount of overcollections due back to ratepayers.³⁹⁹

³⁹⁶ SCE-09, pp. 8-9.

³⁹⁷ A.20-10-018, p. 9.

³⁹⁸ See Cal Advocates' Report, Chapter 6: Plant in Service.

³⁹⁹ See Cal Advocates' Report, Chapter 10 (discussing the \$563,871 overcollection due back to ratepayers in the PPEMA account).

1 In sum, only \$3.16 million of SCE’s estimated \$28.9 million of account balances
2 is necessary for recovery.⁴⁰⁰ This amount is consistent with just and reasonable rates and
3 can be recovered from water customers following normal amortization procedures
4 outlined in the Commission’s Standard Practice U-27-W, which results in a customer
5 surcharge of \$43.44 per month for three years.⁴⁰¹ It is important to note that even with
6 this surcharge in place, Cal Advocates’ recommendations that avoid a cost transfer to
7 electric customers result in an average monthly residential water bill of \$106.25.⁴⁰² This
8 average bill is 41% lower than SCE’s monthly residential water bill estimate of \$182.79
9 that does include the transfer of costs to electric customers.⁴⁰³

10 **D. Recovery Options for Current and Future Proceedings**

11 The Commission’s well-established cost causation principle states that costs
12 should be borne by those customers who cause the utility to incur the expense.⁴⁰⁴ SCE’s
13 request to transfer costs incurred in its water system to electric customers presumably out
14 of convenience is directly at odds with this principle.

15 If the Commission deems an alternative cost recovery approach necessary in this
16 proceeding, it should adopt a cost recovery option with a clear cost-causation nexus
17 supported by evidence. The following sections address some of the advantages and
18 disadvantages of other cost recovery possibilities that the Commission may consider.
19

⁴⁰⁰ See Cal Advocates’ Report, Chapter 10, Table 10-9 Memorandum and Balancing Accounts Combined Recovery.

⁴⁰¹ \$3,162,192 balance amortized over three years, assuming .10% commercial paper rate and 2,026 customers.

⁴⁰² \$43.44 surcharge + \$62.81 typical monthly bill = \$106.25. Typical monthly bill calculated as average usage of a 5/8th residential meter customer (1,951 gallons summer, 1,536 gallons winter) and Cal Advocates proposed \$45.93 fixed meter charge and tier 1 volumetric rates of \$10.08 per 1,000 gallons.

⁴⁰³ Residential Bill Impact for 5/8’ Meter See SCE GRC Application Table II-4, p. 17.

⁴⁰⁴ D.87-12-066 p.115 The Commission noted that avoiding cross-subsidies and supporting cost-causation principles “achieves equity in rates by relating the costs imposed on the utility system to the customer responsible for those costs.”

1 **1. Visitor Boat Fee - Tourist Cost Causation**

2 Even if SCE could establish a water system cost causation nexus with Catalina
3 visitors, the Commission would be limited in what fees or charges it would be able to
4 implement due to the logistical and jurisdictional issues involved, as demonstrated by the
5 visitor boat fee option. To recover costs through a fee on visitors travelling to the island,
6 SCE proposed a boat fee, a \$1 one-way passenger fee that would be assessed on the
7 cross-channel carriers (Vessel Common Carriers, or VCCs) to the island.⁴⁰⁵ However,
8 while the Commission has jurisdiction over the services and rates of cross-channel
9 carriers, it is unlikely that the Commission would be able to modify tariff rates for a VCC
10 in this proceeding without notice given to VCCs and due process afforded to them.⁴⁰⁶
11 Implementing a tariff increase on a VCC to recover visitor-generated water system costs
12 would also require some evidence in the record that VCC passengers have somehow
13 avoided payment for costs they cause to or benefits they receive from the Catalina water
14 system.

15 Even if the Commission were able to implement a fee on VCC passengers, the
16 Commission does not have jurisdiction over other means of transportation that visitors
17 use to reach the island. For reference, approximately one million visitors travel to
18 Catalina Island each year, approximately 70% of which arrive by VCC.⁴⁰⁷ This means
19 the Commission would not be able to implement a fee for roughly 30% of the total
20 visitors who arrive by private plane, helicopter, private boat, or cruise ship.

21 However, there is precedent for the City of Avalon assessing fees to fund critical
22 infrastructure that target all visitors to the island. On November 3, 2020, the residents of
23 the City of Avalon passed Measure H: “authorizing an additional tax of \$2.00 for cruise

⁴⁰⁵ For SCE Testimony regarding visitor boat fees, see SCE-01, p.24-25 and SCE Limited Opening Brief, pp. 15-17.

⁴⁰⁶ General Orders No. 117-A & No. 87.

⁴⁰⁷ See “Avalon Passenger Counts by Month, Year, and Type 2009-2021,” *available at* https://assets.simpleviewinc.com/simpleview/image/upload/v1/clients/catalinaislandccvb/Visitor_Counts_10_Year_view_Updated_4_15_21_7f56dd4b-cef9-40d1-8a6f-c547efcbd0a0.pdf

1 ship, ferry, or aircraft passengers and \$1.00 per day per vessel renting moorings
2 generating an estimated \$1.2 million per year to fund the Catalina Island Medical
3 Center.”⁴⁰⁸ This demonstrates the City of Avalon’s ability, with voter approval, to
4 implement fees on all means of transportation to the island in order to fund critical
5 infrastructure. Water, just like medical care, should be considered critical infrastructure
6 for the residents and tourists of Catalina Island.

7 **2. Shareholder Burden of Costs – Obligation to Serve**

8 In its limited opening briefs, TURN has proposed SCE shareholder absorption of
9 costs as an alternative cost recovery option.⁴⁰⁹ TURN notes that if SCE were to operate
10 its Catalina water utility at a loss, either through a negative rate of return or an inability to
11 recover the full amount of investment, that loss would be more appropriately borne by
12 SCE’s shareholders rather than its customers.⁴¹⁰ In supplemental testimony, SCE
13 deemed shareholder absorption of costs as infeasible and chose not to explore it as a
14 viable option, but this alternative merits further discussion.⁴¹¹

15 In SCE’s supplemental testimony, the company outlines the recognized
16 components of the regulatory framework it operates under, stating:

17 Investor-owned utilities are granted an opportunity to recover
18 prudently incurred expenses. In return for these privileges, investor-
19 owned utilities are required to provide safe and reliable service to *all*
20 customers in its service area on a nondiscriminatory basis (i.e.,
21 obligation to serve.)⁴¹²

22 SCE asserts that it has upheld its obligation to serve since 1962 when the
23 Commission authorized its Certificate of Public Convenience and Necessity

⁴⁰⁸ City of Avalon Measure H Results: *See*
[https://ballotpedia.org/Avalon, California, Measure H, Traveler and Boat Mooring Tax for Hospital
Funding Initiative \(November 2020\)](https://ballotpedia.org/Avalon,_California,_Measure_H,_Traveler_and_Boat_Mooring_Tax_for_Hospital_Funding_Initiative_(November_2020))

⁴⁰⁹ TURN Limited Opening Brief, p. 2.

⁴¹⁰ TURN Limited Opening Brief, p. 7.

⁴¹¹ SCE-09, p.2:1-2.

⁴¹² SCE-09, p. 5 (compiled from list format and emphasis added).

1 (“CPCN”).⁴¹³ However, this assertion is not accurate. Since at least 2014, SCE has
2 indiscriminately denied new connection permits and allocation requests, and in doing so,
3 has failed to meet its obligation to serve as a regulated utility.⁴¹⁴

4 Because of SCE’s failure to meet its obligation to serve, the Commission should
5 consider shareholder absorption of reasonably incurred costs as an appropriate recovery
6 method. For example, Cal Advocates recommends that \$3.16 million of SCE’s requested
7 \$28.9 million transfer balance is reasonable for recovery. Any amount deemed
8 reasonable for recovery could be absorbed by shareholders.⁴¹⁵ Some shareholder
9 absorption of costs is appropriate, given SCE’s failure to provide safe and reliable service
10 to all customers in the Catalina water system service area as required by the regulatory
11 compact.

12 **3. Developer Fees**

13 Fees paid by developers of new construction projects could also be an alternative
14 cost recovery source in this and future proceedings. Many IOUs under the Commission’s
15 jurisdiction currently employ developer fees, sometimes referred to as facilities fees, to
16 recover necessary revenues or fund new infrastructure improvements required to serve
17 new connections.⁴¹⁶ This option could generate sizeable revenue to offset the cost of
18 water operations on Catalina and follow precedent established for other California water
19 IOUs.

⁴¹³ SCE-09, p. 3:24-25.

⁴¹⁴ For a thorough discussion of SCE’s indiscriminate denial of new connection and allocation requests, see Chapter 1: Sales and Customer Forecast.

⁴¹⁵ In 2020, SCE reported a net income to shareholders of \$942 million dollars Net income for Southern California Edison from FY 2011 to FY 2020. See <https://www.statista.com/statistics/678761/net-income-of-us-power-company-southern-california-edison/#:~:text=The%20U.S.%20utility%20Southern%20California,U.S.%20dollars%20the%20year%20prior>.

⁴¹⁶ For example, one Southern California IOU’s fees begin at \$8,000 for a 5/8-inch meter and rise incrementally to \$504,000 for a 12-inch meter (San Gabriel Valley Water Company Schedule No. FO-FF Facilities Fees).

1 **E. SCE’s Cost Transfer is Not a Deferred Policy Issue**

2 SCE argues that its proposed cost transfer is not a discrete request, but an
3 underlying policy issue to be addressed in either this proceeding or through an Order
4 Instituting Rulemaking (“OIR”).⁴¹⁷ However this is a mischaracterization of the history
5 surrounding SCE’s request. Neither a new and broad policy determination nor issuance of
6 an OIR is necessary or appropriate, given the Commission’s unequivocal statement in the
7 previous Catalina GRC decision that the transfer approved at that time was in the context
8 of a settlement, not precedential, and not to be repeated.⁴¹⁸

9 In its previous GRC application, SCE had presented a rate base transfer request as
10 a “possible option” for the Commission to consider, not as an implied ongoing
11 subsidization or policy change.⁴¹⁹ There was no indication in the application, settlement,
12 or Commission decision that recovering water system costs from electric customers was
13 anything but a one-time authorization.

14 Further, SCE fails to support its assertion that unless the Commission develops
15 long-term cost recovery alternatives for Catalina water now, the same issues are likely to
16 be revisited each time SCE seeks recovery of water costs in the future.⁴²⁰ SCE’s current
17 proposed transfer amount largely consists of costs due to isolated events that should not
18 be regularly recurring. Further, analysis of SCE’s past and present water operations
19 indicates that no alternative cost recovery methods are necessary in the current
20 proceeding because many of SCE’s proposed costs are unreasonable and should not be
21 approved for recovery.

⁴¹⁷ SCE-09, pp. 5-6.

⁴¹⁸ See D.14-10-048, p. 1.

⁴¹⁹ See Application A-10-11-009, p. 4 (stating that “If the Commission determines it would be inequitable for Catalina water customers to bear the entire cost of service reflected in SCE’s rate increase proposal, SCE would not oppose recovering these costs from systemwide electric customers over a one-year increase”).

⁴²⁰ SCE-09, p. 5:26.

1 **IV. CONCLUSION**

2 SCE has not been able to demonstrate a reasonable nexus between visitors to
3 island and system costs. Nor has SCE been able to support its contention that all of its
4 mainland energy customers are a reasonable proxy for visitors to the island. Most
5 importantly however, no alternative cost recovery methods are currently necessary given
6 that most of the costs that SCE proposes to include in customer rates are demonstrably
7 unreasonable.

1

LIST OF ATTACHMENTS FOR CHAPTER 12

#	Attachment	Description
1	Attachment 12-1	SCE Response to Public Advocates DR JR6-03 (PubAdv-SCE-010-JR), Q.01

2

3

ATTACHMENT 12-1

**SCE Response to Public Advocates DR JR6-03
(PubAdv-SCE-010-JR), Q.01**

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 1 0 - J R

To: Public Advocates Office
Prepared by: Cooper Cameron
Job Title: Senior Advisor, Regulatory Affairs & Compliance
Received Date: 12/8/2020

Response Date: 12/15/2020

Question 01:

In the GRC application testimony SCE-01 page 23, SCE Catalina Water states “80% of annual visitors are Californians with over 70 percent residing in Southern California.” Since areas of Southern California are serviced by electric utilities other than Edison, has SCE Catalina Water conducted a study or survey to determine approximately how many/what percentage of the Southern California visitors to Catalina Island are SCE electric customers? If so, please provide an overview of the survey methodology and results, including the percentage of SCE electric customer visitors compared to a.) total annual Southern California visitors to the island, and b.) total of all annual visitors.

Response to Question 01:

No, SCE has not conducted a study or survey to determine the quantity or percentage of visitors to Catalina Island who are SCE electric customers.

CHAPTER 13 RATE DESIGN

(Witness: Jeff Roberts)

I. INTRODUCTION

A well-designed rate structure recovers authorized revenues and achieves state policy, including the promotion of conservation and the affordability and equity of water rates for all customers—especially lower and middle-income residents who are enrolled in the California Alternate Rates for Energy (“CARE”) program.

II. SUMMARY OF RECOMMENDATIONS

Many areas of SCE’s rate design have not been updated in over a decade and require modification. Specifically, the Commission should re-align SCE’s fixed charge ratios to reflect well-established industry standards. This would end a rate design that benefits larger institutional users to the detriment of smaller residential users. Second, the fixed-to-volumetric ratio of service charges should be set at 50/50 instead of the current 30/70 to mitigate the burden of full-time residents who are more than twice as likely to be enrolled in CARE programs. Third, seasonal rates should be eliminated as they have had an unintended effect of needlessly increasing the monthly bills of full-time residents for basic necessary service during the summer months. Fourth, the Commission should update the tier breakpoints and pricing for a more equitable rate design that recognizes full-time residents require more water than a simple average of consumption per customer would suggest. Fifth, SCE’s fire protection tariffs should be updated to reflect fixed charge standard practice ratios and the rates charged by other water purveyors for similar service. Lastly, the current 25% discount available to company employee’s water service should no longer be funded by all ratepayers.

Each of these recommendations contributes to a more equitable rate design that fairly and justly allocates the costs of operating SCE’s water system to the stakeholders and users on the island.

1 **III. ANALYSIS**

2 The following details the analysis for each of the recommended changes to SCE’s
3 rate design. The tariffs presented at the end of this chapter include all the proposed
4 modifications to the rate design discussed here and reflect Cal Advocates’ recommended
5 revenue requirement.

6 **A. SCE’s Fixed Charges Are Out of Compliance with**
7 **Industry Standards**

8 For over 35 years, the Commission’s Standard Practice for water utility rate design
9 has reflected industry standards pertaining to the setting of fixed rates for different sized
10 water service connections.⁴²¹ These fixed monthly charges are also referred to as
11 monthly, meter, or willingness-to-serve charges. Although the actual rates charged by a
12 water utility may vary based on the cost of service, the ratio of any given meter charge to
13 the smallest meter charge is defined by engineering calculations and do not vary per
14 standard. As meter size increases, the proportional increase in charges recognizes the
15 increased capabilities (and potential demands and therefore costs) of the service.

16 The following Table 12-1 compares SCE’s existing and proposed meter charge
17 ratios to industry standards and those found in Commission Standard Practice U-7-W.
18

⁴²¹ Standard Practice U-7-W para.7

Table 13-1: SCE's Authorized Fixed Charge Ratios

Meter Size / Service Connection	SCE's Current and Proposed Ratio	Industry Standard and CPUC SP U-7 Ratio
5/8	1.00	1.00
0.75	1.40	1.50
1	1.80	2.50
1.5	2.41	5.00
2	3.21	8.00
3	6.71	15.00
4	8.04	25.00
6	13.35	50.00
8	22.55	80.00

From the above table, one can calculate that SCE's existing and proposed monthly service charges for the largest customers is less than three times industry standards. For example, assume a customer with a 5/8 service connection pays \$10 per month in fixed service charges. Under SCE's existing and proposed rate design, a customer with a 2" meter will pay just \$32.10 per month (\$10 for the lowest priced service multiplied by the ratio of 3.21). However, the increased capacity, potential demand and cost of this larger sized service would normally require a monthly fixed charge of \$80 per industry standard (\$10 multiplied by the ratio of 8.0). Because rate design is revenue neutral, the discounted rate afforded customers with larger service connections ends up being paid for by smaller customers through higher fixed charges.

SCE justifies its deviation from industry standard meter charge ratios on the basis that Catalina Water is not classified as a Class A water utility, and "therefore should not be subject to Standard Practice U-7-W Section C.7."⁴²² However, the Commission's Standard Practice U-7-W guidance for meter ratios does not apply solely to Class A water utilities. In fact, the Standard Practice explicitly indicates that the industry standard

⁴²² Attachment 13-1, SCE Response to Public Advocates DR JR6-01 (PubAdv-SCE-004-JR) Q.01.

meter ratios should be used by all classes of service.⁴²³ More importantly, the meter ratios established in the Commission’s Standard Practice are not unique to California but are the same as those established by the AWWA for use throughout the United States.⁴²⁴ Table 12-2 below details the meter ratios (i.e., factors) as outlined in AWWA Manuals and how they are calculated.

Table 13-2: AWWA Fixed Meter Charge Ratios

Meter Capacity & Factors Based on Industry Standards	Meter Size	Meter Capacity (gpm)*	Factor based on 5/8" Meter
	5/8 inch	20	(20/20) = 1.0
	3/4 inch	30	(30/20) = 1.50
	1 inch	50	(50/20) = 2.50
	1-1/2 inch	100	(100/20) = 5.0
	2 inch	160	(160/20) = 8.0
	3 inch	300	(300/20) = 15.0
	4 inch	500	(500/20) = 25.0
	6 inch	1,000	(1000/20) = 50.0
	8 inch	1,600	(1600/20) = 80.0
	10 inch	2,300	(2300/20) = 115.0
*AWWA Manual M6 and Manual M1; WEF Manual of Practice 27. Maximum safe operating capacity. Values depend on type of meter.			

B. Residential and Non-Residential Cost Allocations

A well-crafted rate design aligns the costs of operating a water system equitably across the system’s users. The allocation between Residential and Non-Residential users is an important consideration in this design. SCE’s “Residential” users comprise those customers in the Residential, Residential-Dual, and Residential Multi Family tariffs. Non-Residential users comprise those customers in the General Service (Commercial), and Irrigation tariffs.

In the rate design model used to calculate the tariffs in this proceeding, SCE proposes to allocate 31% of the costs to operate its water system to Residential and 69% to Non-Residential customers; even though the company stated that total usage is

⁴²³ Standard Practice U-7-W references each class of utility fixed charges in section C.11.

⁴²⁴ AWWA Manual M1 Chapter IV.7 – Fixed Charges.

1 comprised of 37% Residential customers and 63% Non-Residential customers.⁴²⁵ Instead
2 of relying on the total usage data, SCE notes that a 31%-69% allocation is more equitable
3 because Catalina Island is a tourist economy and the commercial customers would pass
4 through the costs to tourists visiting the island. Accordingly, the Commission should
5 adopt SCE's proposed cost allocation between Residential and Non-Residential
6 customers.

7 **C. Increase Fixed-Volumetric Charge Ratio**

8 SCE proposes to continue a rate design that funds the operation of its water system
9 through 30% of all revenues collected from fixed charges, and the remaining 70% from
10 volumetric rates ("30-70 rate design"). Traditionally, this has been assumed to encourage
11 conservation by sending strong price signals to consumers about their water use.
12 However, SCE has a large percentage of water users that report little to no volumetric
13 usage during a typical year. This indicates a high prevalence of secondary vacation
14 homes on the island. A review of the consumption data by individual connection reveals
15 that these secondary homes represent approximately 11.42% of all connections.⁴²⁶

16 Secondary homes with no consumption pay the fixed charge portion of a water bill
17 representing just 30% of the cost of service, but none of the volumetric portion
18 representing the other 70%; as they record no volumetric usage.⁴²⁷ This recovery of costs
19 places a larger burden on full-time residents to the benefit of those customers who only
20 periodically inhabit a residence on the island.

⁴²⁵ SCE-07, p. 1:26-27.

⁴²⁶ Delta between average number of residential connections that record zero volumetric usage during the months the more tourist prone months May-October and winter months November-April.

⁴²⁷ SCE increases volumetric prices by 200% during the months June-September with seasonal rates. However, the increase in prices for those four months do not alleviate the burden realized by zero volumetric usage for the majority of the year, nor do they reflect the full six-month period in which part-time residents visit the island as highlighted in Table 13-4.

1 This ratio becomes especially important as CARE customers are twice as likely to
2 be full-time residents.⁴²⁸ Thus, SCE's 30-70 rate design is twice as likely to burden
3 CARE customers to the benefit of part-time residents that own second homes.

4 The Commission should adopt a rate design that is 50% fixed and 50% volumetric
5 ("50/50"). This will help ensure equity between full-time and part-time residential
6 customers and more closely align with recent Commission guidance regarding the
7 percentage of all revenue that is reasonable to collect via fixed charges.⁴²⁹

8 Consistent with this recommendation, SCE should develop and implement a
9 policy to ensure owners of secondary homes do not repeatedly discontinue and continue
10 service to avoid fixed charges for periods of the year they do not inhabit their residences.
11 The Commission should order SCE to modify its tariffs through the Tier II Advice letter
12 process within 60 days of a final decision in this proceeding to reflect these necessary
13 policy parameters.

14 **D. Discontinue Seasonal Rates for Residential Customers**

15 SCE proposes higher seasonal volumetric rates during the summer months.
16 Specifically, SCE proposes to continue doubling the price of volumetric rates for both
17 residential and non-residential customers for the months June through September. The
18 effect of SCE's proposed rate design is that for one third of the year, full-time residents
19 experience a significant increase in their average bill. Given the lower variability in the
20 month-to-month consumption of full-time residential customers (and especially low-
21 income residents), seasonal rates do little more than increase the bills of full-time
22 residential and low-income customers for a portion of each year.

23 Given the complexity of administering a seasonal rate structure, a seasonal rate
24 structure's presumable benefits of promoting conservation and achieving equity between
25 full-time and part-time residents can more simply be achieved with adjustments to rate

⁴²⁸ See Attachment 13-2, SCE **Confidential** Response to Public Advocates DR JR6-01 (PubAdv-SCE-004-JR), Q.5.

⁴²⁹ See D.16-12-026, p.8.

tiers and allocations between fixed and variable charges as presented elsewhere in this testimony. The Commission should require SCE to discontinue its use of seasonal rates which disadvantages full-time and low-income residential customers.

E. Update the Tier Breakpoints for Residential Volumetric Usage

SCE proposes to continue its conservation rate design with a Tier 1 breakpoint set at 0-2000 gallons, Tier 2 at 2,000-6,500 gallons, and Tier 3 at 6,500+ gallons. Table 13-3 compares the Tier breakpoints proposed by SCE with those recommended by Cal Advocates.

Table 13-3: Current % Demand Captured at Tier Breakpoints⁴³⁰

	Tier 1 (gals)	Tier 2 (gals)	Tier 3 (gals)
SCE Tier Breakpoints	0-2,000	2,000-6,500	6,500+
Cal Advocates Tier Breakpoints	0-3,000	3,000-6,000	6,000+

One of the key drawbacks to this tiered design is that similar to seasonal rates, it unduly benefits part-time residents while disadvantaging full-time and low-income residents. SCE proposes to continue its Tier 1 usage breakpoint of 2000 gallons as it is “representative of essential indoor usage.”⁴³¹ This proposal is likely based on the average usage of all residential customers.⁴³² However, because a significant portion of residences are not occupied throughout the year, the average that SCE calculates is artificially low. Removing from the calculation those residences that do not have usage for one month of the year or more, the average residential consumption for full-time residents is 35% higher at 2,695 gallons per month.⁴³³

⁴³⁰ SCE-07, p. 9:9-10.

⁴³¹ SCE-07, p. 8:10-14.

⁴³² 47,024ccf (total residential one year consumption) / 1,480 (residential connections) / 12 months = 2.647ccf or 1,981 gallons. Compiled from a one-year sample of individual consumption data provided in response to Data Request JR6-01 Q.5 (see Attachment 13-2).

⁴³³ Calculated from a one-year sample of individual consumption data provided in response to Data Request JR6-01, Q.5 (see Attachment 13-2).

1 Accordingly, the Commission should authorize an increase in the Tier 1
2 breakpoint to 3000 gallons per month (or approximately 4 centum cubic feet (“ccf”)).
3 Although this appears to be less than the 6ccfs per month that the Commission has
4 established as the necessary quantity for basic service,⁴³⁴ it is consistent because most
5 Catalina residents have separate ocean-water service for toilets.⁴³⁵ Because toilet usage
6 typically accounts for 30% of all residential usage, a Tier 1 breakpoint of 3000 gallons
7 adjusted to account for toilet usage equates to approximately 5.7ccf per month,⁴³⁶ which
8 rounds to exactly the amount the Commission has determined is necessary for basic
9 service.

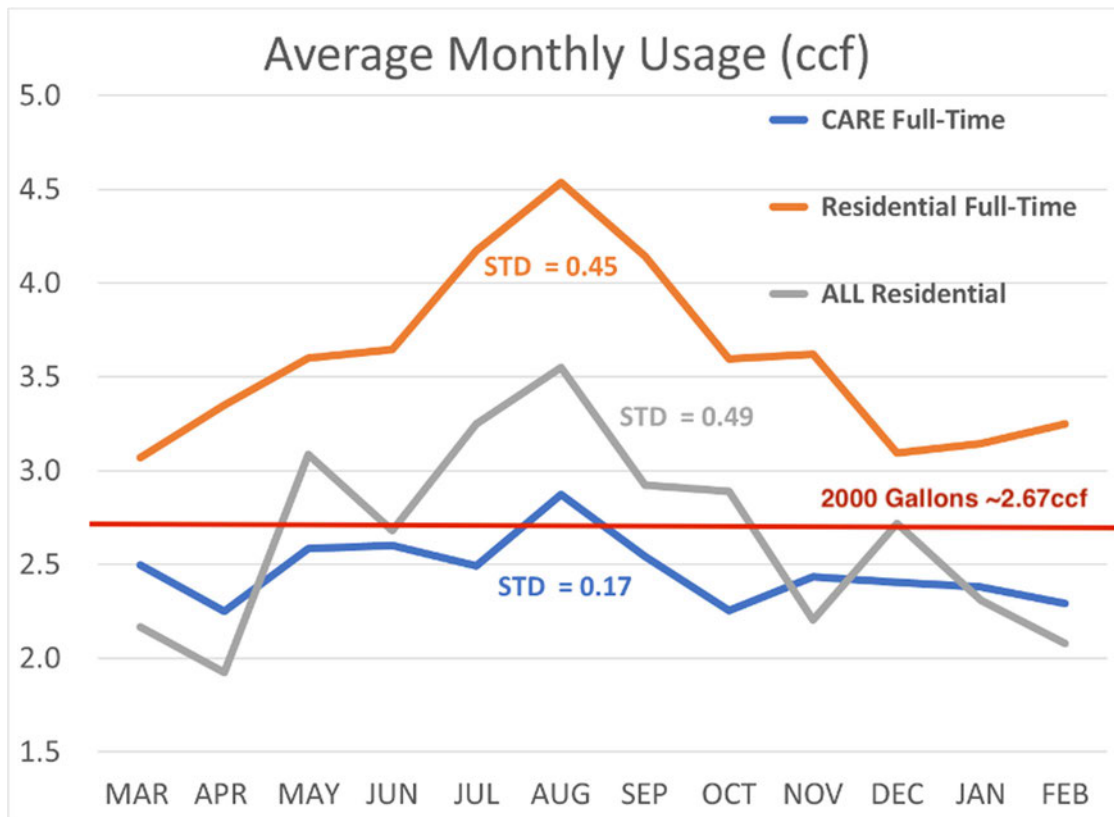
10 Figure 13-4 plots the average monthly usage in ccf for the period March 2019 to
11 February 2020. Note that the average usage for full-time residents exceeds the Tier 1
12 breakpoint proposed by SCE in every month of the year.

⁴³⁴ See D.20-07-032 *Adopting Metrics and Methodologies for Assessing the Relative Affordability of Utility Service* (July 16, 2020), p. 22 (determining that “the definition of essential water service be set at 600 cubic feet per household per month”).

⁴³⁵ SCE-08, p. 8:15-16.

⁴³⁶ $(3000 \text{ gallons}) / (70\%) / (748 \text{ gallons/ccf conversion}) = 5.73 \text{ ccf}$. See EPA WaterSense (noting that “toilets are by far the main source of water use in the home, accounting for nearly 30 percent of an average home's indoor water consumption”), at <https://www.epa.gov/watersense/residential-toilets#:~:text=Toilets%20are%20by%20far%20the,average%20home's%20indoor%20water%20consumption>.

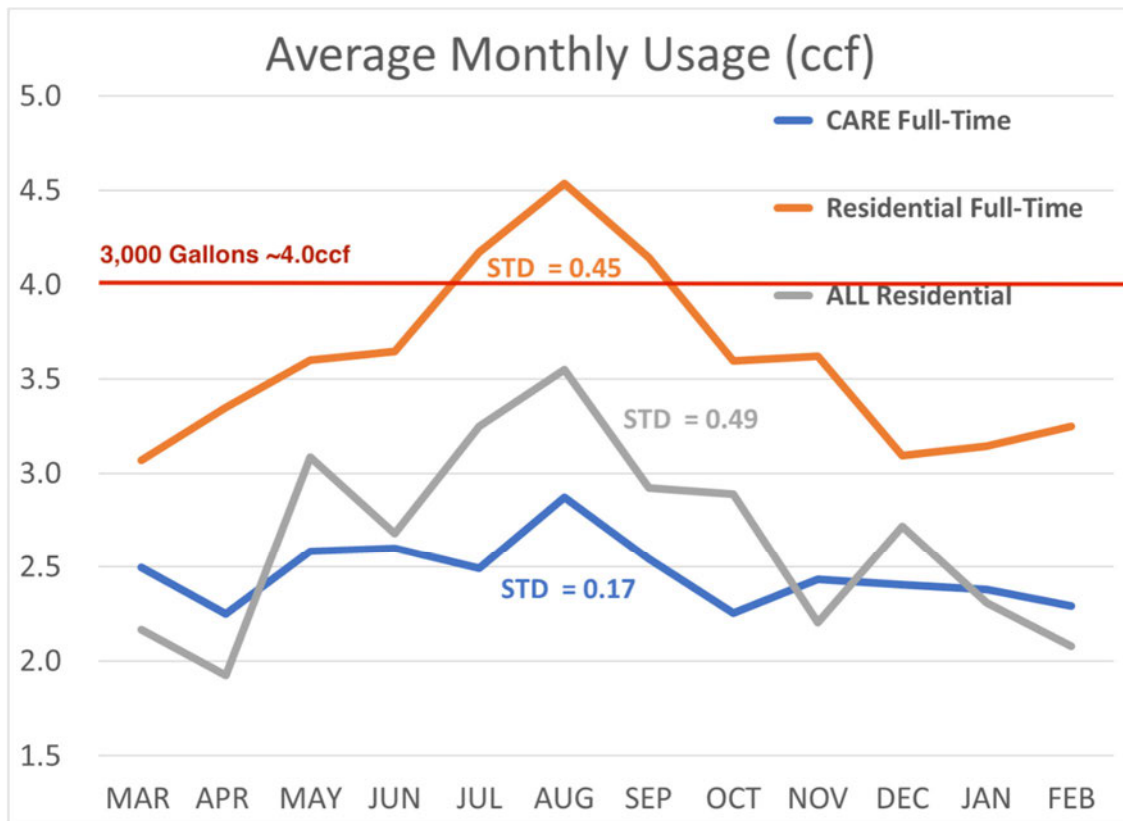
Figure 13-4: Residential Average Monthly Usage Comparison⁴³⁷



An additional benefit of modifying SCE’s proposed tier breakpoints is that the breakpoint itself can be used as a substitute for seasonal rates without burdening full-time and CARE customers with fluctuating rates throughout the year. For example, with seasonal rates, CARE customer bills increase in the summer months, even though their usage stays fairly constant throughout the year. Tier breakpoints set at 4ccf or 3,000 gallons for Tier 1 would capture seasonal demand because average usage in the summer months is above 4ccf. Figure 13-5 shows the usage for full-time residents exceeding the 4ccf Tier 1 breakpoint during the summer months when seasonal rates would otherwise send a similar conservation signal.

⁴³⁷ The standard deviation shows a lower month-to-month variability for CARE residents (0.17 vs. 0.45) indicating essential water use.

Figure 13-5: Residential Average Monthly Usage Comparison



As the figure above shows, adjusting the tier breakpoints to 4ccf or 3,000 gallons achieves one of the main goals of conservation pricing; to send price signals for outdoor water use. In the summer months those users that water lawns and fill pools, pay the higher tier for usage exceeding 4ccf. Using these breakpoints, existing consumption data provides an estimate of what portion of total demand would be realized at what tier level. Table 13-6 compares what percentage of total residential usage would be captured at the Tiers recommended by SCE and Cal Advocates.

Table 13-6: Percent of Total Demand at 4ccf and 8ccf Tier Breakpoints

	Tier 1	Tier 2	Tier 3
SCE Tier Breakpoints	57%	24%	19%
Cal Advocates Tier Breakpoints	70%	12%	18%

Updating Tier breakpoints consistent with Cal Advocates recommendations provides relief to CARE customers, as virtually all CARE customers have usage below the 4ccf Tier 1 breakpoint. This recommendation would be in line with the Commission’s Environment and Social Justice Action Plan (“ESJ Plan”).⁴³⁸ Specifically, goal number three; to strive to improve access to high-quality water for ESJ communities.⁴³⁹ The rate design as proposed in this chapter of Cal Advocates’ Report supports this goal.

Having determined what are reasonable Tier widths, the rate differentials between Tiers must be established. SCE proposes to continue pricing Tier 2 at twice the rate of Tier 1, and Tier 3 being three times that of Tier 1.⁴⁴⁰ SCE’s seasonal rates have set summer volumetric prices at approximately twice the winter rate.⁴⁴¹ To illustrate the highest and lowest of SCE’s proposed tiered rates, Tier 3 rates in the summer are approximately five times that of Tier 1 rates in the winter.⁴⁴² Because seasonal rates should be discontinued as discussed above, the pricing of rate tiers must be modified in order to maintain intended conservation signals and rate neutrality. To determine the pricing for each tier, the revenue collected in each tier in SCE’s current rate design is compared to the new percentages with new breakpoints outlined in Table 14-6. Using these data points, the Tier pricing can be calculated to ensure anticipated revenues will be

⁴³⁸ Information about the Commission’s Environment and Social Justice (“ESJ”) Action Plan is available at <https://www.cpuc.ca.gov/esjactionplan/>.

⁴³⁹ See “Nine Goals of the ESJ Action Plan” at <https://www.cpuc.ca.gov/esjactionplan/>.

⁴⁴⁰ SCE-07, p. 2:22.

⁴⁴¹ Schedule W-1-R, Summer Tier 1 is \$27.06 and Winter Tier 1 is \$14.93 $\$27.06/\$14.93=1.81$.

⁴⁴² Schedule W-1-R, Summer Tier is \$74.74 and Winter Tier 1 is \$14.93, $\$74.74/\$14.93=5.01$.

capable of meeting the revenue requirement. The results of this calculation yield the price multiplier needed for each tier and is shown in Table 13-7.

Table 13-7: Pricing Multipliers to Achieve Rate Neutrality

	Tier 1	Tier 2	Tier 3
Cal Advocates Tier Pricing	1.0x	2.5x	7.5x
SCE Tier Pricing	1.0x	2.0x	3.0x

Cal Advocates recommended tiered rated design is more equitable and provides needed relief to both full-time and low-income residential customers.

F. Update Fire Protection Tariffs

SCE proposes to increase the fixed charge for fire protection commensurate with the increase to the revenue requirement authorized in this proceeding. SCE's current tariff rates were adopted in the All-Party Settlement in the previous GRC.⁴⁴³ For reference, Table 13-8 provides the current number of customers and the authorized fire protection tariff rates.

Table 13-8: SCE's Authorized Fixed Charge Ratios

Meter Size	No. of Customers	Monthly Service Charge
5/8 INCH	14	\$8.77
3/4 INCH	2	\$12.30
1 INCH	10	\$15.82
1 1/2 INCH	6	\$21.13
2 INCH	25	\$28.17
3 INCH	3	\$58.89
4 INCH	37	\$70.55
6 INCH	3	\$117.16
8 INCH	1	\$197.89
Total	101	

⁴⁴³ SCE-07, p. 21:03.

In general, SCE has not modified its rate designs in multiple past GRCs, including its design of fire protection tariffs. Compared to other investor-owned utilities (“IOUs”) in the Los Angeles County area, SCE’s fire protection service charges generally lag behind. Table 13-9 provides a summary of the charges for the other IOUs in Los Angeles County area for comparison.

Table 13-9: Other IOUs Los Angeles County Fire Protection Fixed Charges

Meter Size	Liberty Utilities	Suburban Water Company	San Gabriel Valley Water Company	Average
5/8 INCH	n/a	\$14.84	\$9.95	\$12.40
3/4 INCH	n/a	\$17.81	\$11.94	\$14.88
1 INCH	n/a	\$23.75	\$15.92	\$19.84
1 1/2 INCH	n/a	\$35.63	\$23.88	\$29.75
2 INCH	\$24.21	\$47.50	\$31.84	\$34.52
3 INCH	\$32.14	\$211.65	\$47.76	\$97.18
4 INCH	\$47.79	\$282.20	\$63.68	\$131.22
6 INCH	\$70.60	\$423.30	\$95.52	\$196.47
8 INCH	\$104.45	\$564.40	\$127.36	\$265.40
10 INCH	\$153.67	\$705.50	\$159.20	\$339.46
12 INCH	\$222.36	\$846.60	\$191.04	\$420.00

The following Table 13-10 compares the average of the Fire Protections Rates of the other IOUs operating in Los Angeles County to SCE’s current tariff rates.

Table 13-10: Comparison of Fire Protection Rates

Meter Size	SCE	Average of IOUs in L.A. County	SCE Discount to Peers
5/8 INCH	\$8.77	\$12.40	29%
3/4 INCH	\$12.30	\$14.88	17%
1 INCH	\$15.82	\$19.84	20%
1 1/2 INCH	\$21.13	\$29.75	29%
2 INCH	\$28.17	\$34.52	18%
3 INCH	\$58.89	\$97.18	39%
4 INCH	\$70.55	\$131.22	46%
6 INCH	\$117.16	\$196.47	40%
8 INCH	\$197.89	\$265.40	25%
		Average	30%

On average, SCE's fire protection rates are 30% below the other LA County IOUs. To update and bring SCE's rates line with these other IOUs, the Commission should authorize an increase to the current tariff rates by 30%, then again by the percent increase/decrease authorized in the revenue requirement in this proceeding. Additionally, the tariffs should also be updated to reflect the industry standard meter charge ratios discussed previously.

G. Employee Discount Tariff

SCE is currently authorized a tariff that provides a 25% discount on residential rates to eligible SCE employees.⁴⁴⁴ Because a rate design is revenue neutral, SCE's proposed 25% discount for employees results in higher charges to all other residential customers. Cal Advocates does not oppose a 25% discount for SCE employees, but such a discount should not be funded through higher rates to all other ratepayers. Accordingly, the Commission should remove the 2022 estimated cost to SCE ratepayers of the

⁴⁴⁴ Schedule W-10.

employee discount, an amount of approximately <<<BEGIN CONFIDENTIAL>>>
<<<END CONFIDENTIAL>>>

H. Rate Comparisons of the Combined Recommendations

The combined recommendations set forth in this chapter provide rate relief to nearly all SCE customers. In Tables 13-12 and 13-13 below, individual consumption usage from March 2019 to February 2020 is used to provide a sample of what a typical bill would be for each meter size. The average consumption for each meter size is juxtaposed to SCE's current tariffs, SCE's proposed tariffs in its supplemental testimony, and the tariffs calculated to incorporate the recommendations set forth in this chapter.⁴⁴⁵ Table 13-12 provides the estimated average bills for residential customers and Table 13-13 for commercial customers.

Table 13-12: Average Residential Bill Comparison by Meter Size

Meter Size	# of Customers	SCE Current Rates	SCE Proposed Rates ⁴⁴⁶	Cal Advocates Proposed	% Change
5/8 x 3/4 INCH	1294	\$84.08	\$427.16	\$62.81	-25.29%
3/4 INCH	16	\$92.91	\$475.09	\$82.26	-11.46%
1 INCH	118	\$162.27	\$833.77	\$151.72	-6.50%
1 1/2 INCH	21	\$620.14	\$3,044.40	\$615.42	-0.76%
2 INCH	26	\$512.04	\$2,630.60	\$612.08	19.54%
3 INCH	1	\$306.85	\$1,612.26	\$695.99	126.81%
4 INCH	4	\$366.82	\$1,922.70	\$1,156.38	215.25%

⁴⁴⁵ SCE-08, p. 18

⁴⁴⁶ Proposed rates derived from year 5 of phased in \$22.0 million revenue requirement as provided in SCE-08, p. 21, Table V-10.

Table 13-13: Average Commercial Bill Comparison by Meter Size

Meter Size	# of Customers	SCE Current Rates	SCE Proposed Rates ⁴⁴⁷	Cal Advocates Proposed	% Change
5/8 x 3/4 INCH	192	\$222.85	\$1,090.92	\$148.44	-33.39%
3/4 INCH	2	\$104.95	\$532.67	\$94.23	-10.21%
1 INCH	60	\$526.01	\$2,564.17	\$370.45	-29.57%
1 1/2 INCH	31	\$996.80	\$4,836.06	\$739.40	-25.82%
2 INCH	52	\$1,673.82	\$8,105.31	\$1,243.68	-25.70%
3 INCH	2	\$650.24	\$3,260.47	\$894.55	37.57%
4 INCH	1	\$886.67	\$4,421.19	\$1,456.41	64.26%
6 INCH	1	\$576.88	\$3,042.66	\$2,296.70	298.13%
8 INCH	1	\$1,055.92	\$5,530.75	\$3,721.26	252.42%

As shown above in both tables, smaller meter sizes receive considerable rate relief. This demonstrates the outsized financial burden smaller meter sizes previously assumed under SCE's rate design that was out of compliance with Standard Practice U-7-W. Correcting this fixed charge imbalance, means the average 5/8-inch meter customer realizes a roughly 20-30% bill decrease.

CARE and full-time customers see even further rate relief after the recommended modifications are incorporated into the rate design. Table 13-14 shows the percentage change for these two subclassifications of residential customers.

⁴⁴⁷ Proposed rates derived from year 5 of phased in \$22.0 million revenue requirement as provided in SCE-08 p.22 Table V-11

Table 13-14: Full-Time and CARE Customer Bill Comparison

Residential Subclass	SCE Current Rates	SCE Proposed Rates	Cal Advocates Proposed Rates	% Change
Residential*	\$94.09	\$481.53	\$65.91	-29.96%
Full-Time Residential**	\$125.54	\$633.92	\$73.50	-41.45%
CARE Residential	\$80.81	\$374.17	\$65.63	-18.79%

*5/8th fixed meter charge, volumetric is average of all meter sizes

**Customers with usage in all 12 months of the sampled period

This enhanced rate relief for full-time residential and CARE customers is mostly attributed to the modification to the tier breakpoints.

Table 13-15: Full-Time and CARE Customer Average Usage by Season (gallons)

Residential Subclass	Summer Average Usage	Winter Average Usage
Residential	2,319	1,812
Full-Time Residential	3,085	2,499
CARE Residential	2,013	1,828

As shown the table above, the average CARE and full-time customer records tier two usage because SCE's current tier one breakpoint is set at 2,000 gallons. Thus, these customers are more likely to be billed for usage in the more expensive tier two. The update to tier one breakpoint at 3,000 gallons better ensures that the average full-time and CARE customers do not record usage in the higher and more expensive tier. Thus, they will realize even more rate relief than the average residential user.

IV. CONCLUSION

Cal Advocates proposed modifications to SCE's rate design provide for more just and equitable rates for the full-time and low-income residents of Catalina. The updates to

- 1 the employee discount and fire protection tariffs also reduce the overall burden carried by
- 2 residential and non-residential customers in subsidizing these discounted tariffs.
- 3

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LIST OF ATTACHMENTS FOR CHAPTER 13

#	Attachment	Description
1	Attachment 13-1	SCE Response to Public Advocates DR JR6-01 (PubAdv-SCE-004-JR), Q.01
2	Attachment 13-2 (CONFIDENTIAL)	SCE Response to Public Advocates DR JR6-01 (PubAdv-SCE-004-JR), Q.05

2

ATTACHMENT 13-1

**SCE Response to Public Advocates DR JR6-01
(PubAdv-SCE-004-JR), Q.01**

Southern California Edison
A.20-10-018 – SCE 2022 Catalina Water General Rate Case

DATA REQUEST SET P u b A d v - S C E - 0 1 0 - J R

To: Public Advocates Office
Prepared by: Cooper Cameron
Job Title: Senior Advisor, Regulatory Affairs & Compliance
Received Date: 12/8/2020

Response Date: 12/15/2020

Question 01:

In the GRC application testimony SCE-01 page 23, SCE Catalina Water states “80% of annual visitors are Californians with over 70 percent residing in Southern California.” Since areas of Southern California are serviced by electric utilities other than Edison, has SCE Catalina Water conducted a study or survey to determine approximately how many/what percentage of the Southern California visitors to Catalina Island are SCE electric customers? If so, please provide an overview of the survey methodology and results, including the percentage of SCE electric customer visitors compared to a.) total annual Southern California visitors to the island, and b.) total of all annual visitors.

Response to Question 01:

No, SCE has not conducted a study or survey to determine the quantity or percentage of visitors to Catalina Island who are SCE electric customers.

ATTACHMENT 13-2

**SCE Response to Public Advocates DR
JR6-01 (PubAdv-SCE-004-JR), Q.05**

CONFIDENTIAL

CHAPTER 14 ESCALATION YEAR REVENUE REQUIREMENT

(Witness: Mehboob Aslam)

I. INTRODUCTION

SCE proposes a Post-Test Year Ratemaking (PTYR) mechanism to adjust revenues, as necessary, to cover its costs in escalation years 2023 and 2024. Under its proposed PTYR mechanism, SCE would file an annual advice letter which will serve as a notice of the revenue requirement change for the following year. The advice letter would include updated Non-labor O&M escalation and labor escalation rates.⁴⁴⁸ More specifically, for its Non-labor O&M escalation factors, SCE uses indexes of O&M combined materials and services costs by the functional O&M categories of distribution and administration and general provided by the IHS Markit Power Planner.⁴⁴⁹ For its labor escalation factors, SCE uses three sources: 1) Average Hourly Earnings (AHE) based on recorded SCE payroll data, 2) Collective Bargaining Agreements specifying straight time wage increases for represented employees, and 3) IHS Markit Power Planner forecast of labor escalation rated for U.S. electric utilities.⁴⁵⁰ For the escalation years' rate base, SCE requests to use the capital budget estimates as requested for the escalation years.⁴⁵¹

II. SUMMARY OF RECOMMENDATIONS

Cal Advocates recommends that the SCE should follow the escalation rate increase procedures that the Commission adopted for Class-A water utilities in 2004 in its Rate Case Plan decision ("RCP"), D.04-06-018.⁴⁵² SCE's proposed procedures and especially the requested labor and non-labor escalation rates closely reflect its electric

⁴⁴⁸ SCE-06, p. 16.

⁴⁴⁹ SCE-06, p. 14.

⁴⁵⁰ SCE-06, p. 12.

⁴⁵¹ SCE-06, p. 2.0

⁴⁵² See D.04-06-018, *Interim Order Adopting Rate Case Plan* (June 9, 2004), revised by D.07-05-062.

1 operations and deviate from the use of Commission’s adopted escalation factors based on
2 the general Consumer Price Index.

3 The Commission’s RCP requires that the water utilities should use the most recent
4 “Estimates of Non-labor and Wage Escalation Rates” and “Summary of Compensation
5 Per Hour” as published by Cal Advocates, Energy Cost of Service Branch (“ECSB”).
6 And for the items not covered by the ECSB, the water utilities should use the most
7 recently available, recorded, 12-month-ending change in the U.S. Cities CPI-U as
8 published by ECSB.⁴⁵³

9 Cal Advocates recommends that the rate base for escalation years is also
10 determined by employing the current system of two test years and one attrition year as
11 ordered by the RCP. The attrition allowance methodology provides for rate base
12 additions in year 3 by adding the difference between Test Year 1 and Test Year 2 rate
13 base to Test Year 2 rate base.⁴⁵⁴

14 In addition, Cal Advocates recommends that pursuant to the RCP guidelines, SCE
15 should also include with its advice letter all data and calculations necessary to show the
16 Weather Normalized Pro-Forma Rate of Return on Recorded Operations, and the
17 escalation year increase should be decreased to the extent the pro-forma rate of return
18 exceeds the authorized rate of return.⁴⁵⁵

19 **III. ANALYSIS**

20 SCE’s proposal for escalation years revenue requirement is based on its electric
21 operations and does not conform to the standards set by the Commission through its RCP
22 for the water utilities. It is important that the Commission should maintain its objective of
23 procedural standardization and consistencies across the water utilities. SCE’s proposal
24 clearly defeats the Commission’s RCP objectives and adds no additional benefits for the
25 ratepayers. In addition, SCE’s proposed use of labor escalation rates does not reflect the

⁴⁵³ D.04-06-018, pp. 13-14.

⁴⁵⁴ D.04-06-018, p. 16.

⁴⁵⁵ D.04-06-018, p. 15.

1 reality of its water operations on the Catalina Island. SCE's uses a common crew of its
2 field operators who provide services related to its gas and water operations and not to its
3 electric operations. Therefore, using the labor escalation factors that are based on the
4 electric utility-specific forecast is not only inappropriate, but also deviates from the
5 Commission's standard set for the water utilities. The Commission, therefore, should
6 order SCE to follow the established standards in place pursuant to the RCP for the
7 escalation revenue requirement.

8 **IV. CONCLUSION**

9 SCE's proposed procedures and use of electric utility-specific escalation rates for
10 the escalation year revenue requirement for its Catalina water operations deviates from
11 the uniform standards set but the Commission's RCP for the water utilities. SCE's
12 proposal does not present reasonable benefits that its water ratepayers would receive by
13 deviating from the Commission standards. Therefore, the Commission should order SCE
14 to strictly follow the escalation revenue requirement procedures as described within its
15 RCP to maintain the objectives of standardization and consistencies across the water
16 utilities.

APPENDIX A

QUALIFICATIONS OF WITNESSES

1 **STATEMENT OF QUALIFICATIONS**

2 **MEHBOOB ASLAM**

3 Q1. Please state your name, business address, and position with the California Public
4 Utilities Commission (Commission).
5

6 A1. My name is Mehboob Aslam. My business address is 320 W. 4th Street, Los
7 Angeles, California. My job title is Public Utilities Regulatory Analyst V (PURA-
8 V). I am currently employed in the Public Advocates Office ("Cal Advocates").
9

10 Q2. Please summarize your education background and professional experience.
11

12 A2. I have BSME undergraduate degree in Mechanical Engineering from one of the
13 prestigious engineering universities of Pakistan, University of Engineering &
14 Technology ("UET") Lahore, Pakistan. I also have an MBA, postgraduate degree
15 in business management with added emphasis on accounting and finance from
16 Western Kentucky University, USA.
17

18 I joined the Commission's Consumer Protection and Safety Division ("CPSD"),
19 Safety Branch as a Utilities Engineer in 2001. I conducted various gas and electric
20 utilities operation audits pursuant to the Commission's General Orders: GO 95,
21 GO 112E, and GO 128. In 2002, I transferred to Public Advocates Office in its
22 Water Branch. In this capacity, I have performed numerous complex economic,
23 financial, and policy research analyses. I have represented Public Advocates
24 Office in several general rate case proceedings concerning Class-A water utilities
25 including San Gabriel Valley Water Company, Golden State Water Company,
26 Valencia Water Company, Suburban Water Company, and San Jose Water
27 Company. I have also performed in the capacity of Lead Analyst on more than
28 one occasion while working on complex ratemaking issues such as Advance
29 Metering Infrastructure ("AMI") use for water utilities, General Office Cost
30 Allocations, Mega IT projects, and Major Water Treatment Plants and
31 Infrastructure costing more than \$10 million. I have also lead Cal Advocates'
32 efforts in the recent Commission's Order Instituting Ratemaking (OIR) to Affiliate
33 Transactions Rules for the water utility industry.
34

35 Q3. What is your responsibility in this proceeding?
36

37 A3. I worked in the capacity of Project Lead responsible for overall coordination and
38 oversight of Cal Advocates' discovery and report preparation. I am also
39 responsible for preparing the Executive Summary and Cal Advocates'
40 recommendations for the Attrition Year Escalation (Chapter-14).
41

1 Q.4. Does this conclude your prepared testimony?

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3 A.4. Yes, it does.

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STATEMENT OF QUALIFICATIONS
CHRIS RONCO

Q1. Please state your name, business address, and position with the California Public Utilities Commission (“Commission”).

A1. My name is Chris Ronco and my business address is 505 Van Ness Avenue, San Francisco, California 94114. I am a Public Utilities Regulatory Analyst in the Water Branch of the Public Advocates Office.

Q2. Please summarize your education background and professional experience.

A2. I received a Bachelor of Science Degree in Environmental Economics & Policy and a Bachelor of Arts Degree in Geography from the University of California, Berkeley in 2019. My previous professional experience includes working as a water conservation assistant and interning with a resource conservation district. I have been with the Public Advocates Office – Water Branch since October 2019.

Q3. What is your responsibility in this proceeding Southern California Edison Catalina Water GRC A.20-10-018?

A3. I am responsible for the preparation of Chapter 2 (O&M Expenses), Chapter 3 (A&G Expenses), Chapter 4 (General Office Allocations), Chapter 5 (Taxes) and the portion of Chapter 10 (Rate Design) covering the Catalina Water Rationing Memo Account in the Report on the Results of Operations for Southern California Edison Catalina Water’s general rate case test year 2022. I am also the lead witness for the Results of Operations Model.

Q4. Does this conclude your prepared direct testimony?

A4. Yes, it does.

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1 **STATEMENT OF QUALIFICATIONS**

2 **ISAAC A. GENDLER**

3 Q.1 Please state your name and address.

4
5 A.1 My name is Isaac Gendler, and my business address is 505 Van Ness Avenue,
6 San Francisco, California 94102.

7
8 Q.2 By whom are you employed and what is your job title?

9
10 A.2 I am employed by the California Public Utilities Commission Public Advocates
11 Office as a Utilities Engineer.

12
13 Q.3 Please describe your educational and professional experience.

14
15 A.3 I received a Bachelor of Science Degree in Mechanical Engineering from San José
16 State University in May 2019. I have been with the Public Advocates Office –
17 Water Branch since September 2020.

18
19 Q.4 What is your area of responsibility in this proceeding?

20
21 A.4 I am responsible for the preparation of Chapter 7 (Rate Base), Chapter 8 (Water
22 Quality), Chapter 9 (Customer Service).

23
24 Q.5 Does that complete your prepared testimony?

25
26 A.5 Yes, it does.