

1/16/21



**Cabazon Water District**  
14618 Broadway Street • P.O. Box 297  
Cabazon, California 92230

**FINANCE & AUDIT COMMITTEE MEETING**

**AGENDA**

**Meeting Location:**  
Cabazon Water District Office  
14618 Broadway Street  
Cabazon, California 92230

**Teleconference:**  
Dial-in #: 978-990-5321  
Access Code: 117188

**Meeting Date:**  
Tuesday, January 19, 2021 – 5:00 PM

**CALL TO ORDER,**  
**PLEDGE OF ALLEGIANCE,**  
**ROLL CALL**  
**FINANCE & AUDIT COMMITTEE**

1. Discussion: Finance & Audit Committee Report
  - Balance Sheet
  - Profit and Loss Budget Comparison
2. Finance & Audit Committee District Payables Review and Approval/Signing

**PUBLIC COMMENT**

Any person may address the Board of Directors at this time on any matter within the subject matter jurisdiction of the Cabazon Water District; however, any matter that requires action will be referred to staff for investigation and reported at a subsequent Board of Directors meeting. The Board of Directors is prohibited by law from discussing or taking immediate action on items during this public comment period. To comment on specific agenda items, please advise the Board secretary prior to the meeting. **Each public comment will be limited to three (3) minutes. Individuals may not give their time away to another spokesperson. After two (2) minutes, the speaker will be notified that he/she has one (1) minute remaining. AB 1234 ORAL REPORTS (Gov. Code Sec. 53232.3(d))**

**ADJOURNMENT**

**ADA Compliance Issues**

In compliance with the Americans with Disabilities Act & Government Code Section 54954.2, if special assistance is needed to participate in a Board meeting, please contact the Clerk of the Board at (951) 849-4442. Notification of at least 48 hours prior to meeting time will assist staff in assuring that reasonable arrangements can be made to provide accessibility at the meeting.



**Cabazon Water District**  
14618 Broadway Street • P.O. Box 297  
Cabazon, California 92230

**REGULAR BOARD MEETING**

**AGENDA**

**Meeting Location:**

**Teleconference:**

Dial-in #: 978-990-5321

Access Code: 117188

Email: info@cabazonwater.org

**Meeting Date:**

Tuesday, January 19, 2021 – 6:00 PM

**CALL TO ORDER**

**PLEDGE OF ALLEGIANCE**

**REMEMBRANCE OF OUR SERVICE MEN AND WOMEN**

**ROLL CALL**

**CONSENT CALENDAR**

All matters in this category are considered to be consistent with the Board/District goals, District Policies and Regulations adopted and/or approved by the Board of Directors, and will be enacted in one motion. There will be no separate discussion of these items. If discussion is required, items may be removed from the consent calendar and will be considered separately.

**1. Approval of:**

- a. Finance and Audit Committee Meeting Minutes and Warrants approved by the committee on December 15, 2020
- b. Regular Board Meeting Minutes and Warrants of December 15, 2020

**2. Warrants – None**

**3. Awards of Contracts – None**

**UPDATES**

**1. Update: San Geronio Pass Regional Water Alliance Update  
(by Director Israel / Director Morris)**

**2. Update: Manager's Operations Report (by GM Louie)**

**NEW BUSINESS**

- 1. Discussion: Mr. Lance Eckhart, General Manager, San Gorgonio Pass Water Agency – Introduction, Brief Mission Statement by Mr. Eckhart, and Q&A (by GM Louie)
- 2. Discussion/Action: Tank #2 exterior roof recoating quote & Tank #4 exterior recoating quote by Simpson Sandblasting (by GM Louie)
- 3. Discussion/Action: Approval of Tank Diving Inspection for Tank 2, Tank 3, and Tank 4; quotes received from Dive/Corr, Inc. & LiquiVision Technology Diving Services (by GM Louie)
- 4. Discussion/Action: Board Training: AB54 & AB240 Ethics Training (by AGM Lemus)

**OLD BUSINESS**

- 1. Discussion: NBS Water Rate Study Review and Discussion (by Board)

**PUBLIC COMMENTS**

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**GENERAL MANAGER/BOARD COMMENTS**

1. Future Agenda Items

The Board Chair or the majority of the Board may direct staff to investigate and report back to an individual(s) and the Board on matters suggested or direct the General Manager/Board Secretary to place the matter on a future Board meeting.

- Suggested agenda items from the Public.
- Suggested agenda items from Management.
- Suggested agenda items from Board Members.

2. Management Comments

Staff members may speak on items of information not requiring comment or discussion to the Board and public. Topics which may be included on a future meeting agenda may be presented but cannot be discussed. (3 minutes)

3. Board Member Comments

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Board members may speak on items of information not requiring comment or discussion to the Board and public. (3 minutes)

**MISCELLANEOUS**

**1. Future Board Items/Next Board Meeting Date(s)**

- a. Finance & Audit Workshop – Tuesday – February 16, 2021, 5:00 pm
- b. Regular Board Meeting – Tuesday – February 16, 2021, 6:00 pm
- c. Personnel Committee – None
- d. San Gorgonio Pass Regional Water Alliance – Alliance Meeting – Wednesday – February 17, 2021

**ADJOURNMENT**

ADA Compliance Issues

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**Cabazon Water District**  
14618 Broadway Street • P.O. Box 297  
Cabazon, California 92230

**FINANCE & AUDIT COMMITTEE MEETING**

**MINUTES**

**Meeting Location:**  
Cabazon Water District Office  
14618 Broadway Street  
Cabazon, California 92230

**Teleconference:**  
Dial-in #: 978-990-5321  
Access Code: 117188

**Meeting Date:**  
Tuesday, December 15, 2020 – 5:00 PM

- CALL TO ORDER,**
- PLEDGE OF ALLEGIANCE,**
- ROLL CALL**
- FINANCE & AUDIT COMMITTEE**

**Director Wargo - Present**  
**Director Sanderson - Present**

**Calvin Louie (General Manager) - Present**  
**Elizabeth Lemus, Board Secretary - Present**  
**Cindy Byerrum, Financial Consultant - Absent**

**\*Note: This meeting was recorded by the District -**

- 1. Discussion: Finance & Audit Committee Report
  - Balance Sheet
  - Profit and Loss Budget Comparison

**Main Reports:**

- Balance Sheet – depicts what the District owns and what the District owes.
- Profit & Loss – shows monthly revenue and expenses.
- Profit & Loss Budget Performance – shows how the District is performing against the budget, and the condition of the District fiscal year to date.

**Balance Sheet:**

The District's combined Cash with Chase and LAIF balance was \$1,291,743 at month end.  
The District's total liabilities were approximately \$914,178 at month end.

**Profit and Loss: - Year to date is 42% of the year**

- 4. Commodity Sales: This is variable income from water consumption charges. YTD (Year to Date) is trending above budget at 62% due to higher consumption in the summer months.
- 32. Workers Compensation: The district makes worker's compensation installment payments in the first part of the fiscal year. By November, workers compensation will be paid in full through 5/1/21. YTD is at 75% due to timing of workers comp payments.
- 46. Engineering Services: This account includes the engineering costs for District activities. YTD trending above target at 62% due to an unexpected amount of new development and the tank recoating project.
- 51. Gas: This account includes the gas costs for the Broadway office. YTD is trending below target at 11% due to
- 69. Temporary Labor: This account includes costs for the NBS rate study. YTD can trend over/under budget due to timing of activity.
- 83. Safety: This account includes safety equipment purchases. YTD activity is a safety harness purchased in November for \$1.3k.
- 94. Miscellaneous: This account includes other non-operating expenses. YTD is over budget because of Covid testing for employees preformed in October.

As of November 30th, the fiscal year-to-date net income is \$117,788.

2. Finance & Audit Committee District Payables Review and Approval/Signing

**PUBLIC COMMENT**

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**ADJOURNMENT**

Motion to adjourn at 17:20 Hr. made by Director Sanderson and 2<sup>nd</sup> by Director Wargo.

Director Wargo - Aye  
Director Sanderson - Aye

Meeting adjourned at 17:20 Hr. on Tuesday, December 15, 2020

\_\_\_\_\_  
Robert Lynk, Board Chair  
Board of Directors  
Cabazon Water District

\_\_\_\_\_  
Elizabeth Lemus, Secretary  
Board of Directors  
Cabazon Water District

**ADA Compliance Issues**

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**Cabazon Water District**  
14618 Broadway Street • P.O. Box 297  
Cabazon, California 92230

**REGULAR BOARD MEETING  
MINUTES**

**Meeting Location:**

**Teleconference:**

Dial-in #: 978-990-5321

Access Code: 117188

Email: [info@cabazonwater.org](mailto:info@cabazonwater.org)

**Meeting Date:**

Tuesday, December 15, 2020 – 6:00 PM

**CALL TO ORDER**

**PLEDGE OF ALLEGIANCE**

**REMEMBRANCE OF OUR SERVICE MEN AND WOMEN**

**ROLL CALL**

- Director Martin Sanderson - Present
- Director Diana Morris - Present
- Director Sarah Wargo - Present
- Director Maxine Israel - Present
- Director Robert Lynk - Present

- Calvin Louie, General Manager - Present
- Elizabeth Lemus, Board Secretary - Present
- Cindy Byerrum, Financial Consultant - Present
- Steve Anderson, Best Best & Krieger Law Firm – Present (in closed session only)

**Note: This meeting was recorded by the District -**

**CONSENT CALENDAR**

All matters in this category are considered to be consistent with the Board/District goals, District Policies and Regulations adopted and/or approved by the Board of Directors, and will be enacted in one motion. There will be no separate discussion of these items. If discussion is required, items may be removed from the consent calendar and will be considered separately.

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**1. Approval of:**

- a. Finance and Audit Committee Meeting Minutes and Warrants approved by the committee on November 17, 2020
- b. Regular Board Meeting Minutes and Warrants of November 17, 2020

**Motion to approve following consent calendar item(s) (a.) Finance and Audit Committee Meeting Minutes/Warrants of November 17, 2020, and (b.) Regular Board Meeting Minutes/ Warrants of November 17, 2020, made by Director Sanderson and 2<sup>nd</sup> by Director Wargo.**

- Director Sanderson - Aye
- Director Morris - Aye
- Director Wargo - Aye
- Director Israel - Aye
- Director Lynk - Aye

- 2. Warrants – None
- 3. Awards of Contracts – None

**UPDATES**

- 1. Update: **San Gorgonio Pass Regional Water Alliance Update (by Director Israel / Director Morris)**

Nothing to report.

**\*Went directly to Closed Session next\***

- 2. Update: **Manager's Operations Report (by GM Louie)**
  - Edison PSPS (Power Shutoff) Events: nothing changed; still on lookout for these events in order to prepare.
  - Engie Solar Power: not feasible for the District at this time.
  - COVID-19: No new changes/nothing new to report.
  - Public Education Video – SCADA Alert Response: nothing new to report; having trouble getting vendor to upload video (nonresponsive).
  - Dolores Property for Theerachtrat: GM and Field Crew Lead to determine location/cost of each fire hydrant installation, and to confer with property owner in regards to paying their share for the installation. Working with legal in preparation of a cost share agreement.
  - Majestic Properties (Maxine and Date): new property owner has not applied for water services/contacted the District as of yet.
  - 50100 Main St. Property: Field crew to begin scrapping old materials in preparation for the move to the new District yard.
  - Chick-Fil-A project on Seminole (Old Hadley's building): Waiting on input from Engineers (both District's engineers and Chick-Fil-A's). Still in the planning stage at this time.
  - California Water Meter Tax – may be brought up again in 2021.
  - BB&K Joe Ortiz Moving On: The District's labor attorney has accepted another position, and will be replaced by Elizabeth Han.
  - Cabazon Post Office: District crew transported large boulders to post office property per their request to block cars from parking in their planter beds.



- San Gorgonio Pass Water Agency: Their board decided to NOT pursue reducing their 7-member board to five members.
- Cabazon Office Dinosaur: the Dinosaurs eyes were recently stolen.
- Teleconferencing Capabilities: Google Meets was brought up, but their platform is at a paid basis. Management to look into other options for teleconference/board meeting calls.

**CLOSED SESSION @ 18:16 hr.**

(1) CONFERENCE WITH LEGAL COUNSEL – Potential Litigation (1 case).

**OPEN SESSION @ 18:27 hr.**

Nothing to report; no action taken.

**NEW BUSINESS**

1. Discussion/Action: **Report of the Audited Financial Statements for Fiscal Year 2019-2020, as Presented by Fedak and Brown, LLP. (by Fedak & Brown – Byerrum)**

- Audit went well; positive results – no material weaknesses found. Chris Brown gave the audited financial statements overview and answered any questions that were brought up.
- No motion was made, but the Board thanked Fedak & Brown for the presentation and moved on with the meeting. There were no objections to the presentation made by either Board or Public. It was the consensus of the Board that the audit presentation was approved.

**OLD BUSINESS**

1. Discussion/Action: **NBS Water Rate Study Review and Discussion (by NBS)**

- Overview: The Board previously selected a 30% fixed (meter charge) / 70% variable (water usage charges) plan which was up for formal adoption during the November regular board meeting. Due to a failure of votes and a complaint from two Cabazon residents, it did not pass. This December meeting was to determine what direction the Board wanted to head with the water rates.
- Approximately nine Cabazon residents called in during this meeting and expressed their preference on the rate options. Four residents in particular expressed that they would specifically like the 30/70 rate structure, while other residents noted that any of the proposed structures would benefit them.
- The customer that complained previously explained that she would like the rates to be more equitable, and when asked which rate plan specifically she would prefer she answered either the 50/50 or 40/60 plans would be more reasonable.
- All customer concerns and questions were listened to and addressed where applicable. The board did its best in trying to make this as transparent and understandable to the public as possible. Everyone appeared satisfied with



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the discussion (no objections were raised, and everyone was able to express their opinions and ask questions/have questions answered).

- The board also discussed the pros and cons of each rate structure considered (30/70, 40/60, and 50/50). It was agreed by all that they would like to lower the water rates for customers as responsibly and practically as possible, while maintaining their responsibility of keeping the District in good financial health (which is their obligation to govern).

**Motion to approve a 50% fixed / 50% variable rate structure to be presented to the public and formally approved during the February 16, 2021 Board Meeting (as per Prop 218 notice requirements) made by Director Lynk and 2<sup>nd</sup> by Director Sanderson.**

**Substitute motion to approve a 40% fixed / 60% variable rate to be presented to the public and formally approved during the February 16, 2021 Board Meeting (as per Prop 218 notice requirements) made by Director Morris, 2<sup>nd</sup> by Director Israel.**

- Director Sanderson - Aye
- Director Morris - Aye
- Director Wargo - Aye
- Director Israel - Aye
- Director Lynk - Aye

**NEW BUSINESS**

**2. Discussion/Action: Reimbursement to Board Directors for taking COVID Test related to District business. (by Director Wargo)**

- While attending to District business, one of the Directors and her children (who were with her) were potentially exposed to COVID-19. This Director had to pay to have her and her children tested out of pocket. This discussion was whether the District should reimburse her for her out-of-pocket expenses, since she was potentially exposed while performing District duties.

**Motion to approve the COVID-19 reimbursement made by Director Morris and 2<sup>nd</sup> by Director Israel.**

- Director Sanderson - Aye
- Director Morris - Aye
- Director Wargo - Abstain
- Director Israel - Aye
- Director Lynk - Aye

**3. Discussion/Action: Transfer of funds from the District's General Account to the District's LAIF (Savings) Account. (by AGM Lemus)**

- It was requested that \$80,000 be moved from the Districts General Account to the District's LAIF (Savings) Account, so that it may incur interest in the District's benefit.

**Motion to approve the transfer of \$80,000 from the District's General Acct. to the District's LAIF Account made by Director Wargo and 2<sup>nd</sup> by Director Morris.**

Director Sanderson - Aye  
Director Morris - Aye  
Director Wargo - Aye  
Director Israel - Aye  
Director Lynk - Aye

**4. Discussion/Action: Non-business Hour Water Emergency Response Fee Review (by GM Louie)**

- This item was only discussed; no action taken. Essentially, the GM wanted to know in what circumstances the District could charge a customer an after-hours call-out fee if the customer did not request a call-out, but there was a potential liability to the District if there was a leak detected/running water.
- The Board asked the General Manager to confer with legal and then to report back to the board if further discussion/action was required.
- The GM requested that an Ad Hoc committee be formed to discuss this issue in the near future. Director Israel and Director Wargo volunteered to be part of this ad hoc committee.

\*No motion made at this time.

\*Note: The GM gave his Manager's Report at this time.

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**GENERAL MANAGER/BOARD COMMENTS**

**1. Future Agenda Items**

The Board Chair or the majority of the Board may direct staff to investigate and report back to an individual(s) and the Board on matters suggested or direct the General Manager/Board Secretary to place the matter on a future Board meeting.

- Suggested agenda items from the Public.
- Suggested agenda items from Management.
- Suggested agenda items from Board Members.

- Director Wargo mentioned she would like the District to look into paying for Google Meets, Zoom Services, or something similar for future Board Meetings (to have the capabilities to screen share, etc. during a meeting).

2. Management Comments

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3. Board Member Comments

Board members may speak on items of information not requiring comment or discussion to the Board and public. (3 minutes)

- Director Morris is to speak with GM Louie regarding an Easter Egg donation for the Spring Celebration next year.

MISCELLANEOUS

1. Future Board Items/Next Board Meeting Date(s)

- a. Finance & Audit Workshop – Tuesday – January 19, 2021, 5:00 pm
- b. Regular Board Meeting – Tuesday – January 19, 2021, 6:00 pm
- c. Personnel Committee – None
- d. San Gorgonio Pass Regional Water Alliance – Alliance Meeting – Wednesday – Dec. 16, 2020

ADJOURNMENT

Motion to adjourn at 20:24 hr. made by Director Morris and 2<sup>nd</sup> by Director Israel.

- Director Sanderson - Aye
- Director Morris - Aye
- Director Wargo - Aye
- Director Israel - Aye
- Director Lynk - Aye

Meeting adjourned at 20:24 hr. on Tuesday, December 15, 2020

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Robert Lynk, Board Chair  
Board of Directors  
Cabazon Water District

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Elizabeth Lemus, Secretary  
Board of Directors  
Cabazon Water District

ADA Compliance Issues

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Faint, illegible text, possibly bleed-through from the reverse side of the page. The text is too light to transcribe accurately.

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**Cabazon Water District**  
**Balance Sheet**  
December 31, 2020

			Dec 31, 20
1	<b>ASSETS</b>		
2	Current Assets		
3	Checking/Savings		
4	General Bank Account-Chase	\$	279,373
5	Payroll Bank Account-Chase		37,526
6	Trust Account-Chase (Cust Deposits)		6,262
7	Local Petty Cash		100
8	Total Checking/Savings		323,262
9	Accounts Receivable		220,887
10	LAIF		843,648
11	Bank of NY Trustee Accounts		56,872
12	Prepaid Expenses		15,752
13	Inventory		94,015
14	Total Current Assets		1,562,928
15	Fixed Assets		
16	Total Fixed Assets		13,130,969
17	Accumulated Depreciation		(5,993,048)
18	Net Fixed Assets		7,137,921
19	<b>TOTAL ASSETS</b>	<b>\$</b>	<b>8,700,849</b>
20	<b>LIABILITIES &amp; EQUITY</b>		
21	Liabilities		
22	Current Liabilities		
23	Accounts Payable	\$	14,183
24	Other Current Liabilities		
25	Misc. Short Term Liability		10,000
26	Customer Deposits - Co 1		7,250
27	Customer Deposits - Co 2		4,386
28	Total Customer Deposits		11,636
29	Accrued Vacation Pay		9,437
30	DWR-HS Payable - Current		40,763
31	Current Portion Zion's Bank Loan		82,872
32	Accrued Payroll		11,311
33	Accrued Payroll Taxes		838
34	Accrued Interest		3,647
35	Accrued Expenses		3,000
36	Total Current Liabilities		188,130
37	Long Term Liabilities		
38	DWR-H Loan Payable (2026)		238,187
39	Zion's Bank Long Term (2023)		172,026
40	RCEDA Loan Payable		300,000
41	Total Long Term Liabilities		710,213
42	Total Liabilities		898,343
43	Total Equity		7,802,505
44	<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b>\$</b>	<b>8,700,849</b>

\*No assurance provided on these financial statements. These financial statements do not include a statement of cash flows. Substantially all disclosures required by accounting principles generally accepted in the United States not included.

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**Cabazon Water District**  
**Profit & Loss**  
 July - December 31, 2020

	Dec-20	Current YTD	FY 20/21 Budget	YTD (50%)
<b>1 REVENUES</b>				
<b>2 OPERATING INCOME</b>				
3 Base Rate - Water Bills	\$ 77,450	\$ 459,165	\$ 939,800	49%
4 Commodity Sales	33,784	239,565	329,700	73%
5 DHPO Contract	13,504	96,703	168,000	58%
6 Fire Sales - Water Bills	461	2,765	5,900	47%
7 Fire Flow Income	-	1,710	-	0%
8 Penalty Fees - Water Bills	-	2,345	31,000	8%
9 New Account Fees - Water Bills	160	1,215	1,600	76%
10 Returned Check Fees	60	120	500	24%
11 Basic Facilities Fee	-	40,152	-	0%
12 Stand By Fees - Tax Revenue	-	-	113,600	0%
<b>13 TOTAL OPERATING INCOME</b>	<b>125,419</b>	<b>843,740</b>	<b>1,590,100</b>	<b>53%</b>
<b>14 NON-OPERATING INCOME</b>				
15 Property Taxes	3,733	4,520	60,900	7%
16 Cell Tower Lease Income	2,129	12,774	25,600	50%
17 Miscellaneous Non-Operating Income	-	-	7,300	0%
18 Interest Income	-	1,526	19,600	8%
<b>19 TOTAL NON-OPERATING INCOME</b>	<b>5,861</b>	<b>18,820</b>	<b>113,400</b>	<b>17%</b>
<b>20 TOTAL REVENUES</b>	<b>131,280</b>	<b>862,559</b>	<b>1,703,500</b>	<b>51%</b>
<b>21 EXPENSES</b>				
<b>22 PAYROLL &amp; BENEFITS</b>				
23 Directors Fees	600	5,200	15,000	35%
24 Management & Customer Service				
25 Customer Accounts	5,776	28,223	54,800	52%
26 Business Admin Manager	5,896	38,238	77,700	49%
27 Office Assistant	915	4,678	7,800	60%
28 General Manager	6,862	44,896	89,200	50%
29 Total Management & Customer Service	19,449	117,213	229,500	51%
30 Field Workers	11,355	64,465	123,000	52%
31 Employee Benefits Expense				
32 Workers Compensation	103	4,739	6,200	76%
33 Employee Health Care	4,465	46,127	94,800	49%
34 Pension	1,914	30,822	77,400	40%
35 Total Employee Benefits Expense	6,481	81,688	178,400	46%
36 Payroll Taxes	2,396	14,854	33,200	45%
<b>37 TOTAL PAYROLL &amp; BENEFITS</b>	<b>40,281</b>	<b>283,420</b>	<b>579,100</b>	<b>49%</b>

\*No assurance provided on these financial statements. These financial statements do not include a statement of cash flows. Substantially all disclosures required by accounting principles generally accepted in the United States not included.



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**Cabazon Water District**  
**Profit & Loss**  
 July - December 31, 2020

	Dec-20	Current YTD	FY 20/21 Budget	YTD (50%)
<b>38 OPERATIONAL EXPENSES</b>				
<b>39 Facilities, Wells, T&amp;D</b>				
40 Lab Fees	725	2,531	8,900	28%
41 Meters	1,030	1,080	4,800	23%
42 Utilities - Wells	8,528	47,369	96,600	49%
43 Line R&M Materials	394	4,928	72,500	7%
44 Well Maintenance	-	3,544	37,800	9%
45 Security	1,444	9,375	24,800	38%
46 Engineering Services	650	35,812	56,300	64%
47 Facilities, Wells, T&D - Other	501	2,366	12,200	19%
<b>48 Total Facilities, Wells, T&amp;D</b>	<b>13,273</b>	<b>107,006</b>	<b>313,900</b>	<b>34%</b>
<b>49 Utilities - Office</b>				
50 Electricity	142	7,725	15,800	49%
51 Gas	88	210	1,100	19%
52 Telephone	856	5,086	10,200	50%
53 Trash Pickup & Office Cleaning	374	2,644	4,600	57%
<b>54 Total Utilities - Office</b>	<b>1,460</b>	<b>15,665</b>	<b>31,700</b>	<b>49%</b>
<b>55 Office Expenses</b>				
56 Water Billing System	177	1,064	2,100	51%
57 Supplies & Equipment	69	1,404	10,100	14%
58 Copier Lease & Printing Supplies	546	2,098	5,000	42%
59 Dues & Subscriptions	112	112	1,300	9%
60 Postage	872	4,396	8,100	54%
61 Printing & Publications	-	292	6,300	5%
62 Computer Services	2,857	20,603	36,800	56%
63 Office Storage	-	2,500	6,200	40%
64 Air Conditioning Servicing	418	2,508	5,100	49%
65 CA Water Systems Alliance	-	208	2,500	8%
66 Office Expenses - Other	-	136	2,100	6%
<b>67 Total Office Expenses</b>	<b>5,051</b>	<b>35,320</b>	<b>85,600</b>	<b>41%</b>
<b>68 Support Services</b>				
69 Temporary Labor	-	10,563	12,600	84%
70 Financial Audit	1,681	9,322	23,000	41%
71 Accounting	3,000	18,000	35,000	51%
72 Legal Services	5,720	23,205	71,000	33%
73 Bank/Payroll Service	523	2,640	5,200	51%
74 Website Support	-	150	900	17%
75 General Liability Insurance	2,075	12,449	26,100	48%
<b>76 Total Support Services</b>	<b>12,998</b>	<b>76,327</b>	<b>173,800</b>	<b>44%</b>

\*No assurance provided on these financial statements. These financial statements do not include a statement of cash flows. Substantially all disclosures required by accounting principles generally accepted in the United States not included.

**Cabazon Water District**  
**Profit & Loss**  
 July - December 31, 2020

		Dec-20	Current YTD	FY 20/21 Budget	YTD (50%)
77	Training/Travel	212	496	4,500	11%
78	Other Fees/SWRCB	2,500	4,216	8,900	47%
79	<b>Service Tools &amp; Equipment</b>				
80	Shop Supplies and Small Tools	240	3,920	9,300	42%
81	Vehicle Fuel	1,790	5,578	16,300	34%
82	Employee Uniforms	-	-	1,800	0%
83	Safety	-	1,290	500	258%
84	Tractor Expenses	-	-	3,700	0%
85	Equipment Rental	-	1,450	2,000	73%
86	Service Trucks - R&M	247	3,791	14,500	26%
87	Water Ops Phone & Internet	294	1,467	4,800	31%
88	<b>Total Service Tools &amp; Equipment</b>	<b>2,570</b>	<b>17,497</b>	<b>52,900</b>	<b>33%</b>
89	<b>NON-OPERATING EXPENSES</b>				
90	Grant & Loan Processing Fee	-	1,325	1,400	95%
91	DWR Interest Expense	-	4,121	7,900	52%
92	DHPO Interest Expense	-	3,167	5,800	55%
93	Bad Debt Expense	-	-	1,200	0%
94	Miscellaneous	588	2,262	1,100	206%
95	<b>TOTAL NON-OPERATING EXPENSES</b>	<b>588</b>	<b>10,876</b>	<b>17,400</b>	<b>63%</b>
96	<b>TOTAL EXPENSES</b>	<b>78,933</b>	<b>550,823</b>	<b>1,267,800</b>	<b>43%</b>
97	<b>TOTAL INCOME BEFORE CAPITAL &amp; GSA</b>	<b>52,347</b>	<b>311,736</b>	<b>435,700</b>	<b>72%</b>
98	DHPO Capacity Credit	(1,750)	(10,500)	(21,000)	50%
99	<b>CAPITAL PROJECTS</b>				
100	Main Street Improvements (Icehouse Imp.)	-	(4,834)	(20,000)	24%
101	Meter Replacements & Other Capital	-	(20,399)	(35,000)	58%
102	Well & Tank Repairs	(109,825)	(150,393)	(465,000)	32%
103	<b>TOTAL CAPITAL PROJECTS</b>	<b>(109,825)</b>	<b>(175,626)</b>	<b>(520,000)</b>	<b>34%</b>
104	<b>DEBT - PRINCIPAL</b>				
105	Debt Service Principal - DWR	-	(20,224)	(40,800)	50%
106	Debt Service Principal - DHPO (Zion)	-	(41,436)	(82,900)	50%
107	<b>TOTAL DEBT - PRINCIPAL</b>	<b>-</b>	<b>(61,660)</b>	<b>(123,700)</b>	<b>50%</b>
108	<b>SGMA / GSA</b>	<b>-</b>	<b>(5,390)</b>	<b>(35,000)</b>	<b>15%</b>
109	<b>NET INCOME / (LOSS)</b>	<b>\$ (59,228)</b>	<b>\$ 58,561</b>	<b>\$ (264,000)</b>	

\*No assurance provided on these financial statements. These financial statements do not include a statement of cash flows. Substantially all disclosures required by accounting principles generally accepted in the United States not included.



Manager's Report – Regular Board Meeting – 01/19/2021 rev. 01/13/2021

**Manager's Report**

**UPDATES**

Please note that in **reducing the cost**, most of the distributed documents to Board members, authorized personnel, affiliates, and the public will be printed on both sides of the paper and in grayscale when possible. Only photos requiring details and emphasis in a word(s) or phrase be written in **boldface**, *italics*, underline, or highlighted.

Most of the outline will now be wider with photographs and related drawings will be inserted, instead of a reserving a wide margin in the entire document.

1. Update: **Manager's Operations Report  
(by GM Louie)**

a. **Edison – Public Safety Power Shut-off**

- **12/16/2020 to 01/13/2021 (the date of publishing this Manager's Report) – County of Riverside, Emergency Management Department (EMD)** in coordination with **Southern California Edison (SCE)** has not issued any *Flash Reports* for a **Public Safety Power Shutdown (PSPS)** predicting the potential to *de-energize* selected Cabazon circuits.
- **SCE – Critical Power Outage Reminder** – SCE also notifies their customers when they have a *planned Critical Power Outage* to *temporarily turn off your power* so their field crew or contractors are able to safely perform repairs to the grid.

The water district receives these SCE *notifications* in three (3) methods. U.S. Mail, email, and text. Emails and text messages will generally have link that will take you to the appropriate SCE website page.

Included in this **Manager's Report** are recent SCE *notifications* of a *planned* temporarily power shut off.

It provides the **Outage number**, estimating the time the power outage will occur, and the estimated time the power will be restored.

On **Outage #1133491**, has indicated it will begin on 01/11/2021 at 8:00 am to 01/11/2021 and ending at 4:00 pm.

A follow-up *notification* was issued on the day of the *planned Critical Power Outage*. The *notification* was titled **Critical Power Outage Rescheduled**. Instead of ending the power outage at 4:00 pm, it extended it to 8:00 pm. This was issued on 01/11/2021, at 3:52 pm, eight (8.0) minutes prior to the initial prediction of the electricity being restored.

Later on the same date at 6:53 PM, SCE issued a **Critical Power Outage Restored** *notification* the electric power will be restored at 7:59 pm.

- On 01/06/2021 to 01/07/07/2021) Management drafted a Watch Procedures for SCE *Alerts & Events*, including is a separate list of *definitions* and *acronyms* to assist the District's water operators and field crew to understand the EMD *Flash Reports* and SCE PSPS spreadsheets.

For an example, *Alert* is a notification from SCE of a potential PSPS *event*. An *event* is when a SCE CIRCUIT is actually being de-energized. Words and phrases have different meanings in the various industries and businesses. Providing clarity avoids any misunderstanding amongst the individuals involved with a particular project.

Another examples is in law enforcement and the military. These organizations uses codes or when spelling a commonly misunderstood name or word. Over the two-way radio or the phone, the person would phonetically spell the names or word to ensure precise communication. Adam, Boy, Charlie are the familiar LAPD phonetic codes, or Alpha, Lima, Romeo in which are used by the military, aviation, nautical, and other public safety agencies.

**b. Corona Virus** – The District will continue to execute the following actions in regards to COVID-19.

- 01/11/2021 – EOC (Emergency Operations Center) in coordination with Riverside County Public Health and the District's Management has the following updated COVID-19 information.
- Management continues to take the following preventive and protective measures:

We encourage Board and this Community's Water Team members to reassure any concerned residents and water customers that may have concerns regarding the safety of tap water. The transmission of COVID-19 through tap water is 99.9% untrue. The measured dose of sodium hypochlorite (chlorine) kills most bacteria and viruses.

- ✓ The lobby continues to be **closed** to the public until further direction from the State and County Health officials.
- ✓ Management will continue to protect the health of District employees.
- ✓ Face masks are **required**.
- ✓ A barrier is at the transaction window.



- ✓ Customer Accounts Department will handle checks, money orders, and cash wearing nitrile gloves provided by the District.
- ✓ The current confirmed **COVID-19** cases in the Community of Cabazon is **233, Deaths – 1, and Recovered – 157** as of **01/11/2021** on the **Riverside County Public Health** website: <https://www.rivcoph.org/coronavirus>
- ✓ This Community's water district will continue to work with water customers that are experiencing hardships in paying their water bills. **There is an item on this agenda on resuming penalties & interests.**
- ✓ Management has updated what other local water districts and companies actions in response to COVID-19 as of 01/11/2021.
  - **City of Banning** - City Hall is now open for over-the-counter payments; however, face coverings and social distancing are required to enter the building.
  - **Coachella Valley Water District** – Offices are closed to the public.
  - **Mission Springs Water District** – Offices are closed to the public.
  - **South Mesa Water Company** – Hours or services may vary to the public.
  - **Beaumont Cherry Valley Water District** – Offices are closed to the public.
  - **High Valley Water District** – Hours or services may vary to the public.

**c. Public Educational Video – SCADA Alert Response**

- Update on the General Manager's Public Educational Video (PEV). Seeking out potential *webmaster* is still on the plate to be addressed. Due to other projects that are more of a priority and not to leave the District without a *webmaster*, Manage has earmark this goal to be accomplished on or before the draft of the next fiscal year budget which the GM is looking by April 2021. This will provide two (2) additional months for the Board to discuss and formulate a united financial strategy to approve the FY budget of 2021/2022.

**d. Kim Theerachtrat** – Property Owner of the undeveloped lot on the north side of Dolores Ave., between Broadway St. and Cabazon St.

- On Thursday (01/14/2021), the GM with the Field Crew walked Dolores Ave., between Broadway St. and Cabazon Street. to determine the cost and location of the fire hydrants.
- Once this is determined, the District will provide a total cost to the property owner.

**e. Majestic Properties** new property owners (was in escrow). This are the four (4) units located at the corner of Maxine Ave., Date Ave., and Lemon St. The new property owners has not applied for water services and the escrow status is unknown.

**f. Pecan St./Main St. (Hadley Ice-house) property** (50100 Main St., Cabazon)

- Per the Field Crew, they will be extracting a majority of the scrap to recycling, if they are eligible to generate recyclable funds for the District and begin dumping trash in a construction bin. This phase of the project should be completed on or before the first two (2) week of January 2021.

- g. Elizabeth Miffleton – Hattie Ave. – APN 528-092-025 -** The GM and Lead met with Ms. Miffleton. She is a realtor and developer. She is desirous in developing a residential manufactured home. Her comments was \$60k the estimated cost of running the transmission water pipeline to her undeveloped parcel is overwhelming to her construction budget. The \$60k is divided into half for engineering plan checking, parts & material, and labor. This is based on the estimate dated 06/16/2020 presented to Miffleton.
- Miffleton could have her engineer and construction crew design and install the distribution pipeline as long as it meets water district standards. To ensure the design, material, and installation does meet the current standards, she would have to adhere to the following District rules, regulations, and procedures which is enforced to all water customers.
    - Plan check deposit.
    - Construction site inspector deposit.
    - Sign a potential agreement with the District for a fair reimbursement should other parcels that may benefit from connecting a water service onto the portion of the water distribution pipeline Miffleton paid for.
    - At the Board's discretion, the may direct the GM to work with the property owner/developer to sign a fair payment agreement should the entire amount may not be available. I will confirm this with the District's legal should the Board decide to permit the property owner to make installments.
- h. Chick-fil-A & Esperanza project**
- The District's engineering and legal opinion is the developer is not obligated to fund constructions to improve the water infrastructure if it is not related to compliance to water district standards that affects their project. An example is enlarging a water distribution pipeline to effectively serve the propose project would be at the developer's expense.
  - However, District engineering and legal suggested that the District request that drawings and constructions to include the residential water system to be extended/connected with the new 12" pipeline. The excess cost for drawing and installation will be credited back to Chick-fil-A.
- i. Dinosaur – The eyes that were purchased and installed by Field Crew Lead Wolny was** stolen over the weekend of 12/04 thru 12/07. The enhanced perimeter security LED lights have been installed.
- j. Director Wargo suggested that Google Meet** is a free conference call site with the capability of sharing, viewing files, graphs, and videos. Director Wargo stated it was free if the attendees were under one hundred (100). The District's AGM briefly researched Google Meet during the search of a free virtual meeting site. She said it begins charging if the meeting is more than one (1) hour. The current platform that the District uses for teleconference has recently been found to have similar features to Google Meets/Microsoft



Teams/Zoom, but at no charge (unlike the other platforms). Please contact the District if you would like to be trained.

- k. **Production Well 4** – This has been the 2<sup>nd</sup> phase of the water production redundancy and back-up.

Between W2 (Robertson) and W5 (DHPO Seminole Drive), they represent this community's water system not only as the two Primary water production wells, but they are able to back each other up in the event of a disaster. In the event W2 or W5 fail or are offline due the some other occurrences, then W4 would be the backup.

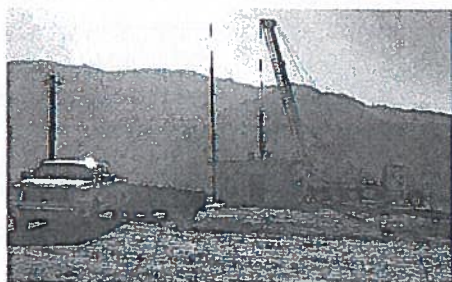
This why I have kept W4 in compliance with DWR water quality standards. It maintains the certification of the State in the event I may have to use W4 to replace one or both primary wells. As of the month of December, it has been brought to my attention of two (2) potential failures.

- **Morgan reported when he shuts off power to W4 electric pump motor, the pump shaft no longer stops rotating.** When this site of was first acquired, the pump shaft would stop immediately when the pump motor's electric power was terminated.
  - I have discussed this concern with Legend (the contractor that has been with the District for over ten (10) years and currently is performing the rehab. at W1). Keith, President of Legend Wells & Pump provided me a quote of \$9,098 to mobilize the crane, crew and support vehicles to W4.
  - Out of the total estimated amount, \$816 will be for the teardown and inspection to determine the cause of the current condition.
  - Out of the total estimated amount, \$1,050 will be for the video log at W4. A written and digital copy of the report will be provided.
  - Keith's opinion, based on his training & experience feels there may be an internal part broken in the electric pump motor.
  - His (Keith) other thought from the description he received from the District's water operators is that one or more bowl assemblies may be separated. A bowl is one of the parts of the impellers that creates a vortex to lift the ground water up to the reservoirs. The community's four (4) production wells only source is ground water. Groundwater is water that exists underground in saturated zones beneath the land surface. The upper surface of the saturated zone is called the water table.
- l. **Wolny recently reported that W5 (Seminole) waste water valve was discharging water while it was running.** I have left a voice message for Trosper of CLA-VAL as of 01/13/2021.

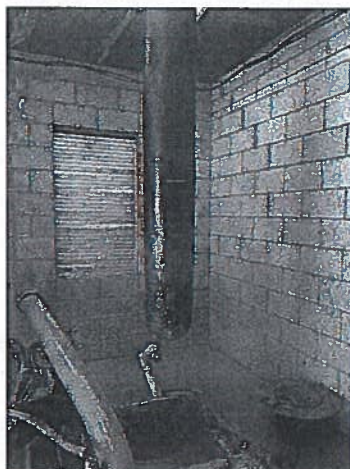


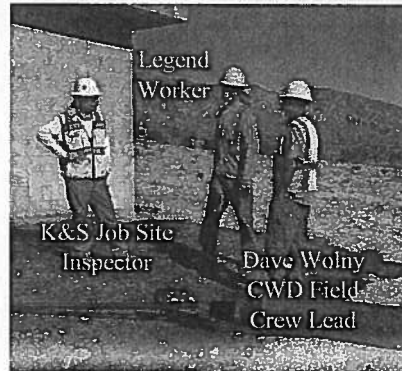
### m. Progress report on Production Well 1

- The components in the well shaft at W1 has been pulled and scrubbing has been completed.



Bailing during the brushing and swabbing process the debris that have been pulled into the well fall to the bottom, it is then necessary to pull all of that out of the well. A bailer is a specialized tool that allows the removal of the debris. Brushing removes debris that clogs the perforation in the casing and swabbing the well pulls in slit and other debris that lie in the water stratus. These procedures result in a greater flow of water allowing for less drawdown in the well.

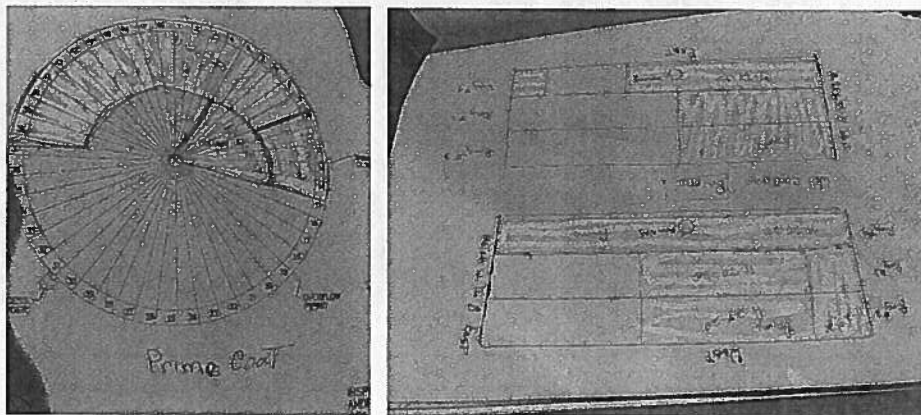




- Completion date is earmarked in February 2021. This project is running ahead of schedule.

n. Progress report on Tank 1

- This vendor is also ahead of schedule.



Pictures above is K&S Job Site Inspector's drawings of the progress made of the interior and roof of Reservoir 1 (T1)

- Projected completion of the reservoir project is 01/15/2021. The only procedure that is being held up is the disinfection of the interior of the reservoir's floor, walls, and roof.
- Management and the District's engineering has made recommendations and the GM shares the same opinion and concurs that any possibility of a *backflow* incident during the disinfection process would certainly jeopardize the community's water distribution system.
- Simpson is agreeable to wait until W1 rehab. is completed and capable of producing water. W1 pumps and disinfects its ground water source and directly fills T1. Any potential contamination will be isolated by closed the 12" butterfly valve which has also been repaired by the water district field crew.





- o. The District's field crew has installed an alternative water source for the two (2) contractors working at the well & tank site. We increased the pressure at the Apache Trails PRV vault and is able to push potable water



**NEW BUSINESS**

- 1. Discussion: Water Agency –

**Mr. Lance Eckhart, General Manager, San Gorgonio Pass**

**Introduction, Brief Mission Statement by Mr. Eckhart, and Q&A (by GM Louie)**



Mr. Lance Eckhart is the General Manager for the San Gorgonio Pass Water Agency. He comes from the Mojave Water Agency as the Director of Basin Management and Resource Planning for the past 18 years. Lance and I had a brief phone conversation while he was out in Bakersfield investigating other options in the reuse of

agriculture water. I invited him tonight to speak to Cabazon's Board of Directors.

- 2. **Discussion/Action:** Tank #2 exterior roof recoating quote & Tank #4 exterior recoating quote by Simpson Sandblasting (by GM Louie)

Simpson quote are as follows:

**Reservoir 2**

Exterior roof complete removal, epoxy 3 – 5 mils DFT, Sherloxane 4 – 6 mils DFT  
Shell spot repair, pressure wash, spot prime 3 – 5, full coat epoxy 3 – 5, full coat sherloxane 4 – 6 mils DFT, caulk exterior chime, wet blast

**Price \$109,482**

**Reservoir 4**

Complete removal of shell, full coat epoxy, full coat of Sherloxane 4 – 6 mils DFT,  
Roof, spot repair, pressure wash, spot prime 3 – 5 mils DFT and full coat epoxy 3 – 5 mils DFT, full coat Sherloxane 4 – 6,, wet blast  
Replace logo

**Price \$115,811**

**Total \$225,293**

- 3. **Discussion/Action:** Approval of Tank Diving Inspection for Tank 2, Tank 3, and Tank 4; quotes received from Dive/Corr, Inc. & LiquiVision Technology Diving Services (by GM Louie)

**AWWA M42-13 Manual of Water Supply Practices: Steel Water-Storage Tanks** recommends that tanks be inspected, inside and out, at least once every three to five years.

**Dive/Corr, Inc.**, commonly known as Diver Dan, whom I have used before for this District. Their bid is \$5,800

**LiquiVision Technology Diving Services:** Their bid is \$9,450

- 4. **Discussion/Action:** Board Training: AB54 & AB240 Ethics Training (by AGM Lemus)

**OLD BUSINESS**

- 1. **Discussion:** NBS Water Rate Study Review and Discussion (by Board)

# SCE PSPS Watch Procedures

## 1. Purpose

In the event of a Southern California Edison (SCE) Public Safety Power Shut-off (PSPS) *alert* or *event*, the Cabazon Water District (CWD) certified water operator or designated District employee assigned as the Standby (On-call) Primary will coordinate their efforts with the General Manager (GM) during the period of the SCE PSPS alert or event.

1.1 Please refer to the **Definition and Acronyms** list for clarifications.

1.2 Riverside County Emergency Management Department (EMD) receives the regular PSPS notices and updates from SCE. EMD will either interprets or republish SCE's PSPS *alerts* or *events* in the EMD's **Flash Reports**. Each series of these **Flash Reports** are assigned a report number in ascending order beginning with #001.

1.3 An *alert* is a notification from SCE of a potential PSPS *event*.

1.4 An *event* is SCE CIRCUITS actually being de-energized.

## 2. Summary

SCE will issue PSPS updates on a regularly basis when **triggered**. **Triggering** a PSPS *alert* or *event* is generally caused by adverse weather conditions or hazards, such as extreme winds or fires.

SCE in their PSPS notifications will denote it is an *alerts* or *events*.

### 2.1 Format of the EMD Flash Reports

Below is the basic format of an EMD Flash Report. It is either interpreting or republishing SCE's PSPS *alerts* or *events* updates.



***START OF EMD Flash Report format example.***

REPORT NO. #001

DATE AND TIME: December 16, 2020 at 1600 hours

PREPARED BY: S. Rea (EMD22)

EVENTS/INCIDENT NAME:

DECEMBER 2020 PSPS beginning 12/18/2020

ACTIVATION STATUS:

The Riverside County Emergency Operations Center (EOC) is at Duty Officer status for this PSPS event.

CUSTOMERS IMPACTED:

Riverside County: 0 customers

INCIDENT INFORMATION:

Due to projected weather conditions, Southern California Edison (SCE) may need to activate a Public Safety Power Shutoff (PSPS) to electrical circuits in High Fire Risk Areas (HFRA) serving portions of Riverside County. SCE is notifying customers on the affected circuits about the potential PSPS. SCE has opened its EOC and activated an Incident Management Team (IMT) to monitor conditions in real time. SCE relies on forecast data provided by in-house meteorologists, fire scientists, and other technical staff. Note that weather forecasts on radio and television may provide different information. Due to the volume of potential circuits, please refer to the listing below for status and periods of concern for specific circuits in Riverside County. The event is expected to start December 18, 2020 09:00am through December 19, 2020 3:00pm. The event has two (2) circuits in scope with a potential to impact 6,952 customers in Riverside County. Erratic or sudden onset of hazardous conditions that jeopardize public safety may impact SCE's ability to provide advanced notice to customers. A shutoff could occur sooner than anticipated, additional circuits could be impacted, or conditions could

change, resulting in shutoffs no longer being considered for one or more circuits.

#### CIRCUITS OF INITIAL IMPACT

Circuit: BLACKHILLS- City of Jurupa Valley; Unincorporated Communities of Rubidoux; Camino Real

Circuit: RUSTIC- Cleveland National Forest; Atante

*NOTE, this list is not part of Flash Report: SCE has issued the following names for these CIRCUITS.*

- a. *Fingal*
- b. *Owl*
- c. *Poppet Flats*
- d. *Purchase*
- e. *Store*
- f. *Stubby*

#### IMMINENT DE-ENERGIZATION

No Circuits pending imminent De-Energization

#### DE-ENERGIZING CIRCUITS

No Circuits De-Energized

#### PARTIAL DE-ENERGIZED CIRCUITS

No Circuits partially De-Energized

#### Definition & Explanation

CIRCUITS listed are partially of this CIRCUIT temporarily shut-off or have electrical power terminated.

#### IMMINENT RE-ENERGIZATION

No Circuits pending imminent Re-Energization



**PARTIAL RE-ENERGIZED CIRCUITS**  
No Circuits partially Re-Energized

**RE-ENERGIZED**  
No Circuits Re-Energized

Definition & Explanation

CIRCUITS listed have had their electrical power restored.

**ALL CLEAR**  
No Circuits identified

**Web and Maps**

- A map has been created for Riverside County business and residents to show information related to PSPS activities within Riverside County, it can be found here.
- PDFs of High Fire Risk Area (HFRA) circuit maps and GIS layers may be found, by county, at [www.sce.com/maps](http://www.sce.com/maps)
- Information about SCE's Public Safety Power Shutoff (PSPS) program is at [www.sce.com/PSPS](http://www.sce.com/PSPS)
- Access SCE's non-PSPS outage information page at [www.sce.com/outages](http://www.sce.com/outages)
- Access information on weather conditions at [www.sce.com/fireweather](http://www.sce.com/fireweather)

***END OF EMD Flash Report format example.***

3. Procedures

The assigned CWD FCL, WT I, WT II, or designee when assigned to a detail as the Standby On-call Primary will coordinate with Management or Supervision when a SCE PSPS *alert* or *event* is in progress.

There may be occasions where Management is unable to remotely monitor the SCADA system due to power outage and/or physical respond to CBZ because of contributing factors that is currently preventing Management from responding to CBZ.

3.1 The Standby Primary or designee and Management will be notify by EMD or SCE PSPS notification of a potential PSPS *alert* or *event* by an email. It is **pertinent** that the Standby Primary or designee and Management is **constantly aware** of Flash Reports, telephonic calls, and text messages during periods of a PSPS incident.

The Primary or designee and Management will communicate by way of email or text to coordinate tasks and line of communication. Any discussions and agreements made over a telephone or cellphone call shall be **immediately followed-up by an email** to ensure all the parties involved have full understanding of the verbal agreement and each parties responsibilities.

- a. Should Management is unable to physically respond, then the Primary or designee will assume that responsibility.
- b. Should the Management is unable to physically respond, monitor the SCADA, and PSPS updates, then the Primary or designee will assume those responsibilities.
- c. The Management will identified the preferred method of communicating. Due to cellphone signal strength vary from location to location, audio communications may not be available. Email or texting, text message is preferred if the matter is **urgent**. Weak cellphone signals seem to mostly affect audio and not data transmissions in most cases.
- d. Parties involved shall identify the cellphone number and method in which audio and text messages is to be called or sent.
- e. Copies of all emails pertaining to a SCE PSPS, EMD, or District personnel involved in a PSPS incident shall copy the following CWD personnel, GM, AGM, FCL, WT, and FCW. The CAL will only be included if a WO is required or some issues is water service account related.

3.2 Management and the Primary or designee will receive the initial SCE PSPS or EMD notices of a PSPS *alert* or *event*. Both the Management and the Primary or designee will initially confirm receiving the first PSPS notifications. If the Primary or designee receives the initial SCE PSPS or EMD notices of a PSPS *alert* or *event* first and not have



received an email, text messages, or call from the other party involved, then the Party receiving the PSPS should immediately notify the other party in the previous agreed method of communication. This action should be executed by the Party receiving the initial PSPS notification within thirty (30) minutes if an acknowledgement has not been received from the other party involved.

Once communication has been established, the responsibility will be established between Management and the Primary or designee as directed in 3.1.

3.3 CWD personnel overseeing the PSPS shall physically respond when necessary, monitor each and every notification issued by either SCE or EMD. If Management is not the party responsible for monitoring SCE PSPS or EMD notices of a PSPS *alert or event*, then the CWD personnel who is assigned that responsibility is to notify Management by the agreed method of communication as directed in 3.1 (a thru d).

3.4 In the event of a De-energized CIRCUIT that affects water production or the distribution system, the responsible CWD personnel assigned to oversee the PSPS *alert or event*, shall take the following actions.

- a. If the De-energized CIRCUIT is a Partial De-energized, (specifically it is the *Fingal CIRCUIT*), most likely the CWD HQ will have no electric power. This power outage will result in inability to remotely view or control the various apparatuses in water production and distribution system through the SCADA computer program.
- b. Should this occur, the assigned **CWD personnel shall physically respond to CBZ to verify that W2 and W5 is not affected and will produce water** to replenish the reservoirs and supply potable water to the community.
- c. The arrival time for these physical response to CBZ will be on or before 2145 hr. each evening the PSPS De-energized events is adversely affecting CWD's water production and distribution system. These efforts will be coordinated with Management and follow-up with an email copying those as listed in 3.1 (e).



d. It should be noted, otherwise changed by authorized CWD personnel, the general set TOU are as follows:

W1 – 2355 hr. till 0755 hr. (power available) (T1 water level *call* for pumping and termination of pumping.)

Begins pumping when the reservoir water level reaches **27.0 feet.**

Terminates pumping when the reservoir water level reaches **29.0 feet.**

W2 – 2355 hr. till 0755 hr. (power available) (T2 water level *call* for pumping and termination of pumping.)

Begins pumping when the reservoir water level reaches **27.0 feet.**

Terminates pumping when the reservoir water level reaches **29.0 feet.**

W3 – Offline with sanitary capped installed.

W4 – 2200 hr. till 0755 hr. (recommended power availability)

Backup production well to be manually operated.

W5 – 2200 hr. till 0755 hr. (power available) (T2 water level *call* for pumping and termination of pumping.)

Begins pumping when the reservoir water level reaches **27.0 feet.**

Terminates pumping when the reservoir water level reaches **29.0 feet.**

3.5 W2 safety procedures when manually re-energizing the WPF. These procedures shall be implemented in the event a power outage occurs due to a PSPS *event*, planned, or unplanned.

a. The SCADA will alert by way of email or text message to Management, District issued cellphones, and District iPad power outage and low batteries. (As of **01/01/2021**, Byrd SCADA engineer is planning to program these features which was lost.)

- b. Battery backups for the burglary and flowing alarms will last from four (4.0) to ten (10.0) hours. When the alarm monitoring station calls or sends a *Robocall* to the CWD personnel listed on the alarm notification list is one indication of an unplanned power outage. If this occurs, Management or the Primary/designee shall immediately confirm remote access to SCADA.
- c. If remote access to SCADA fails, Management will be notified immediately by a telephone/cellphone call or text message in the predetermined method of communication as stipulated in 3.1 should a CWD non-managerial staff be on the watch.
- d. Electric power interruptions, whether it is a PSPS event, surge, planned, or unplanned power outage, each production well facility must have a State certified water operator or a designee under the direct supervision or by cellphone to manually inspect all electric connections to ensure they are in order and that the **water pump shaft is not spinning**.
- e. The State certified water operator or a designee under the State certified water operator directions, shall open up the control panel to ensure all electric sub-breakers are in the OFF position. If not, they are to be **manually switched to the OFF position**.
- f. When this condition is verified, and there are no visual evidence of damage, the MAIN breaker will be reset with the sub-breakers switched back ON in the reverse order it was switched OFF.
- g. The electric pump motor may now be manually or remotely activated.
- h. Whether W2 or W5 are pumping solely or simultaneously, the productions well(s) are replenishing two (2) one million gallon (1MG) reservoirs (tanks), identified as T2 and T4.
  - These two tanks HWL are 31.0 feet.
  - T2 signals W2 and/or W5 to START filling both reservoirs (T2 & T4) at 27.0 feet.
  - T2 signals W2 and/or W5 to STOP filling both reservoirs (T2 & T4) at 29.0 feet.
  - Each foot of T2 and T4 equates to approximately 32,258 gallons which means the production wells must produce 64,516

gallons of disinfected potable water to replenish one (1) foot in the two (2) water tanks (T2 & T4).

- When calculating the period of time this would take to replenish T2 and T4, the following considerations must be included in a practical estimation of pumping time.
  - W2 pumps on the average of 1000 to 1150 gpm.
  - W5 pumps on the average of 820 to 850 gpm.
  - Shall the production wells (T2 & T4) be manually or remotely set to pump solely or simultaneously?
  - The decision to run which production well solely or simultaneously will be made by the CWD State certified water operator in concert with Management based on the next day's DEMAND.
  - Historical data for W2 and W5
- W2 pumping solo – approximately two and a half hours (2.5 hr.) to three hours (3.0 hr.) to fill one foot (1.0 ft.) in each reservoir which equates to two foot (2.0 ft.) with both T2 and T4 are interconnected.

Please note that W2 is programmed to pump from 2355 hr. to 0755 hr., Monday thru Wednesday, and 2200 hr. to 0755 hr., Thursday thru Sunday.

- W5 pumping solo - approximately three and a half hours (3.5 hr.) to four hours (4.0 hr.) to fill one foot (1.0 ft.) in each reservoir which equates to two foot (2.0 ft.) with both T2 and T4 are interconnected.

Please note that W5 is programmed to pump from 2200 hr. to 0755 hr., Monday thru Sunday because of the low gpm (-280 to -300 gpm less than W2)

- Factors to be included, but not limited to the presence DEMAND of residential, commercial, and industry water use during non-business hours. Please remember, W2,



W4 (when activated), and W5 produces water not only to fill the reservoirs, but is also distributes the water into the water distribution system. This should be factor to be included in the water operator's estimation.

In additional to the regular DEMAND, other factor should include, but not limited to special operations and Matich is producing aggregate and asphalt pavement material. Robertson Read Cement plant has their own production wells. Matich leases a space in the Robertson plant. Robertson may not sell water from their private production wells per California water right laws.

W1 is the only production well in CWD current water system that feeds directly to the reservoir (T1).

**3.6 When in doubt, always ask another CWD employee.**

**3.7 SCE PSPS notifications are issued in an excel formats. (See attached spreadsheet.)**

- a. The SCE PSPS notification in an excel format is not always attached to an EMD Flash Report.
- b. The SCE PSPS notification in an excel format requires the reader to manually sort for the unincorporated communities (CBZ is an unincorporated community) and the Incorporate city/cities CBZ may share a CIRCUIT in the spreadsheet's drop down menu.
- c. The EMD Flash Report format breaks down the area of concerns. De-energized CIRCUITS are separate under the correct category and highlighted in RED. It is in Managements opinion that the Flash Report is reader friendly. However, each CWD personnel may select either report as long as the CWD goal is met.

## SCE PSPS Watch Procedures rev. 01012021

### Definition and Acronyms

1. Activated – To energize the electric pump motor at a production well.
2. *alert* is a notification from SCE of a potential PSPS *event*.
3. ALL CLEAR – No CIRCUITS affected at this time.
4. Assistant General Manager (AGM)
5. Backup – Second to be called by Dispatch, return calls to the RP, and the second to respond to CBZ when requested by the Primary, GM, AGM, or CAL.
6. Cabazon (CBZ)
7. Cabazon Water District (CWD)
8. *call* – a specific reservoir requesting a specific production well(s) to produce disinfected ground water to fill to a preset water level and terminate at a preset water level by transmitting a radio signal and receiving by the designated production well(s). The radio signal is then interpreted by the SCADA computer program which will then initiate the process of energizing or de-energizing the electric well pump motor.
9. CIRCUITS – SCE owns and operates numerous CIRCUITS throughout California. CWD has the following CIRCUITS that affect not only the community's resident and businesses, but the water production and distribution system.
10. Customer Accounts Lead I (CAL I)
11. Deactivate - To de-energize the electric pump motor at a production well.
12. DE-ENERGIZING CIRCUITS - CIRCUITS listed are temporarily shut-off or electrical power terminated.
13. DEMAND - An accurate estimation of **water demand** helps to determine the quantities of water and moments when the water will be used therefore generating various **demand patterns**. The **demand** arises mainly for residential, institutional, industrial and public uses.
14. Designee – A District employee assigned to a specific detail or task by Management or Supervision.
15. Detail – A job assignment that is a continual within a predetermined period of time or days.
16. Dispatch – Contract answering service
17. EMD's Flash Reports are assigned a report number in ascending order beginning with #001.
18. *event* is SCE CIRCUITS actually being de-energized.
19. Field Crew Worker I (FCW I)
20. Field Crew Lead I (FCL I)
21. Flash Reports - Flash Reports are assigned by EMD. Each Flash Report is numbered in ascending order beginning with #001.
22. Gallons Per Minute (gpm)
23. General Manager (GM)



24. Cabazon Water District Administration Facility/Headquarter (HQ) – 14618 Broadway St., Cabazon CA 92230
25. High Fire Risk Areas (HFRA)
26. IMMINENT DE-ENERGIZATION - CIRCUITS listed is projected to be temporarily shut-off or have electrical power terminated.
27. IMMINENT RE-ENERGIZATION - CIRCUITS listed is or are within a pre-determined time frame to have electrical power restored.
28. Local Network Operation (LNO)
29. Management – GM or AGM
30. PARTIAL DE-ENERGIZED CIRCUITS - CIRCUITS listed are partially temporarily shut-off or have electrical power terminated. Special attention to Fingal Circuit. When this circuit is partially de-energized, it affects the SCADA server at the CWD HQ, but does not affect W2 or W5. This requires a physical response beginning the day of the PARTIAL DE-ENERGIZED CIRCUIT to visually
31. PARTIAL RE-ENERGIZED CIRCUITS - CIRCUITS listed is or are within a pre-determined time frame to have electrical power restored that were partially de-energized.
32. Parties – Groups or individuals involved with a task or detail.
33. Periods of Concern (PoC)
34. Primary – First to be called by Dispatch, return calls to the RP, and the first to respond to CBZ.
35. Production Well #1 (W1) – 50020 Seminole Dr.
36. Production Well #2 (W2) – 13984 Apache Trails
37. Production Well #3 (W3)
38. Production Well #4 (W4)
39. Production Well #5 (W5)
40. Public Safety Power Shut-off (PSPS)
41. RE-ENERGIZED - CIRCUITS listed has had their electrical power restored.
42. Reservoir 1 (T1) – 50020 Seminole Dr.
43. Reservoir 2 (T2) – 13040 Millard Pass Rd.
44. Reservoir 3 (T3) – 15320 Elm St.
45. Reservoir 4 (T4) – 13433 Millard Pass Rd.
46. Riverside County Emergency Management Department (EMD)
47. *Robocall* - A robocall is a phone call that uses a computerized auto dialer to deliver a pre-recorded message, as if from a robot.
48. Southern California Edison (SCE)
49. Standby – On-call
50. Supervision – FCL or CAL
51. SCADA – System Control and Data Acquisition
52. Task – A job assignment to be performed.
53. Triggered is a PSPS *alert* or *event* is generally caused by adverse weather conditions or hazards, such as extreme winds or fires.
54. Time of Use (TOU)

55. Watch – A pre-designated period of time or days to monitor and/or take corrective actions to achieve a specific goal in water production or field operation.
56. Water Technician I (WT I) – State certified water operator in Distribution Grade 1
57. Water Technician II (WT II) – State certified water operator in Distribution Grade 2
58. Water Technician III (WT III) – State certified water operator in Distribution Grade 3
59. Well Production Facility (WPF) – well production site with an enclosed by chain link fence or block wall containing a water pumping and disinfection apparatuses in the outdoor or inside a cement block building.
60. Work Order (WO)

Faint, illegible text, possibly bleed-through from the reverse side of the page.



**Calvin Louie**

---

**From:** Calvin Louie  
**Sent:** Tuesday, January 12, 2021 3:42 PM  
**To:** 'Ellen Koumparis'; David Wolny (dwolny@cabazonwater.org); Clay Morgan  
**Cc:** Elizabeth Lemus  
**Subject:** RE: Current MOU & SCE PSPS Alerts and Events  
**Attachments:** Nightly Well Watch 01072021 mem.doc; SCE PSPS Watch Procedures rev 010320.docx; SCE PSPS definitions acroynms rev. 01032021.docx

Good Afternoon All,

On Wednesday, 01/06/2021, a Staff meeting was conducted in which the entire District staff (Lemus, Koumparis, Wolny, Morgan) attended.

A draft of the Watch Procedures regarding the **SCE PSPS Alerts and Events** was presented. To follow up on this topic, on 01/07/2021, a memorandum titled **Nightly Well Watch** was emailed to everyone involved. As advised, there are procedural directives and policies that are issued that are considered as a living document as with the two previous directives titled **SCE PSPS Watch Procedures** and **SCE PSPS Definitions & Acronyms**.

The other question raised was to clarify how **MOU Article 8** (Compensatory), **Article 9** (Overtime), and **Article 10** (Standby & Call Out) applies to compensation when required to perform District during non-business hours or Holidays.

Ms. Elizabeth Han, who is replacing the District's previous labor attorney had the following comments.

1. Ms. Han stated she, *"concur with your (the GM) opinion that Article 10 of the current MOU only applies to the regular Standby and Call-Out for non-business hour water emergencies and not the SCE PSPS alert or event."*
2. She also wrote, *"the SCE alerts and events come from the County of Riverside Emergency Management Department and are regarding the Southern California Edison public safety power shut-off, this would not be characterized as a District emergency (although ignoring these alerts could have the potential to become a District emergency as it could impede the District's water production and distribution system if the proper response measures are not taken. Therefore, I agree that Article 10 of the MOU only applies in the situations you have referenced and not to the SCE PSPS alerts or events and that such employee on standby would be compensated in accordance with Article 8 or Article 9."*
3. Ms. Han continues in regarding to meet & confer, *"an obligation to meet and confer regarding including this definition because the duty to meet and confer is only triggered any time management intends to make a workplace change and that change is likely to affect the represented employees in some manner. That being said, the District is still required to notify the union of this modification and meet and confer over any potential impact including this definition may have on the employees in question."*

I will be drafting an email to Ms. Delgadillo of SEIU regarding this matter. In the meantime, should any District employee in the bargaining unit be assigned to monitor a SCE PSPS Alert or Event Watch, that employee or employee(s) will be compensated in accordance of Article 8 or Article 9. It will be that employee's choice.

Thank you very much,

Calvin Louie  
General Manager

[clouie@cabazonwater.org](mailto:clouie@cabazonwater.org)

Bus: (951) 849-4442  
FAX: (951) 849-2519

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1:1 meeting length (maximum)	24 hours	24 hours	24 hours
Group meeting length - 3+ participants (maximum)	1 hour (24 hours through March 31, 2021**)	24 hours	24 hours
Meeting participants (maximum)	100	150	250
Number of meetings	Unlimited	Unlimited	Unlimited
Join from a browser	✓	✓	✓
Invite external participants	✓	✓	✓
Native mobile apps	✓	✓	✓
Live closed captions	✓	✓	✓
Share your screen and present	✓	✓	✓
Adjustable layouts	✓	✓	✓
US or international dial-in phone numbers		✓	✓
Meeting recording saved to Google Drive		✓	✓
Hand raise		✓	✓
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Advanced Protection Program Enrollment	✓	✓	✓
Alert center		✓	✓
Vault: retain, archive and search data in Drive			✓
Context-aware access			✓
Security dashboards			✓
Security health			✓
Investigation tool			✓
Data Loss Prevention (DLP) for Drive			✓
Endpoint management			✓
Data regions			✓
Access Transparency			✓

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Shared drives		✓	✓
Drive File Stream		✓	✓

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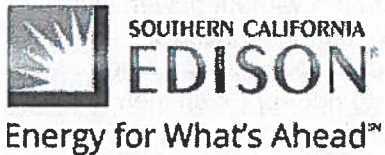
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**Calvin Louie**

**From:** SCE@sce.com  
**Sent:** Sunday, January 10, 2021 12:07 PM  
**To:** Calvin Louie  
**Subject:** Important: Critical Power Outage Reminder for CABAZON WATER DISTRICT | Outage # 1133491 on 1/11/2021



Outage Center

## Critical Power Outage Reminder

Dear SCE Customer,

Reminding you that we will perform critical work on the electrical system in the area. In order to keep our crews safe, it is necessary to **temporarily turn off your power** so we can make repairs to the grid. We understand that having your power out temporarily during this unprecedented COVID-19 situation is an inconvenience, and are working to isolate outages to the smallest area possible and complete the work as safely and as quickly as we can. We appreciate your patience.

### Outage Information

Outage # 1133491	
Estimated to Start	Estimated to End
1/11/2021 at 8:00 a.m.	1/11/2021 at 4:00 p.m.
<p>Service will be affected at the following address(es):</p> <p>14935 1/2 ALMOND ST PED CABAZON, CA 92230 Service Account:3-XXX-XX25-85 Meter:222014-013815</p> <p>15320 ELM ST RSVR CABAZON, CA 92230 Service Account:3-XXX-XX33-25 Meter:256000-116418</p>	



**Outage Reason: Cable Upgrade**

## Things You Should Know

We will be performing critical work on the electrical system in your area that will cause the power to be out temporarily. We must go forward with work necessary to protect public safety including reducing wildfire risk, even during this unprecedented COVID-19 situation. While non-critical work is being postponed, delaying this critical work could inadvertently create larger and more dangerous risks. We will do our best to minimize the length of time you are without power. Due to the nature of the work, our crew members are sometimes unable to maintain physical distancing while making repairs and work together as a pod to minimize exposure with other workers. If you see our crew members in your neighborhood, please do not approach them and stay at least 6 feet away for safety. If crew members need to get in touch with you, they will call you or knock on your door. Please be assured that the safety of our workforce, our customers and the public remain our top priority.

Learn more on how to prepare for an outage.

**Tips to Prepare**

Stay updated on the status of your outage.

**View The Outage Center**

If you plan to operate an emergency generator during the outage, please call us at 1-888-759-6056. Knowing this will help us protect our employees from possible electrical backfeed.

## Stay Informed

To keep informed on the status of this outage, please visit [sce.com/outage](https://www.sce.com/outage) and reference the outage number(s) above. You can also contact us through email at [scepoc@sce.com](mailto:scepoc@sce.com) or call us at 1-855-683-9067.

Sincerely,  
Southern California Edison

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Calvin Louie

**From:** SCE@sce.com  
**Sent:** Monday, January 11, 2021 3:52 PM  
**To:** Calvin Louie  
**Subject:** Important: Critical Power Outage Rescheduled for CABAZON WATER DISTRICT | Outage # 1133491 on 1/11/2021



Outage Center

## Critical Power Outage Rescheduled

Dear SCE Customer,

We're sorry, we had to reschedule the critical outage in your area. We apologize for any inconvenience and we appreciate your patience..

### Outage Information

Outage # 1133491	
Estimated to Start	Estimated to End
1/11/2021 at 7:59 a.m.	1/11/2021 at 8:00 p.m.
<p>Service will be affected at the following address(es):</p> <p>15320 ELM ST RSVR CABAZON, CA 92230 Service Account:3-XXX-XX33-25 Meter:256000-116418</p> <p>14935 1/2 ALMOND ST PED CABAZON, CA 92230 Service Account:3-XXX-XX25-85 Meter:222014-013815</p>	
<b>Outage Reason:</b> Cable Upgrade	

### Things You Should Know



We will be performing critical work on the electrical system in your area that will cause the power to be out temporarily. We must go forward with work necessary to protect public safety including reducing wildfire risk, even during this unprecedented COVID-19 situation. While non-critical work is being postponed, delaying this critical work could inadvertently create larger and more dangerous risks. We will do our best to minimize the length of time you are without power. Due to the nature of the work, our crew members are sometimes unable to maintain physical distancing while making repairs and work together as a pod to minimize exposure with other workers. If you see our crew members in your neighborhood, please do not approach them and stay at least 6 feet away for safety. If crew members need to get in touch with you, they will call you or knock on your door. Please be assured that the safety of our workforce, our customers and the public remain our top priority.

Learn more on how to prepare for an outage.

[Tips to Prepare](#)

Stay updated on the status of your outage.

[View The Outage Center](#)

If you plan to operate an emergency generator during the outage, please call us at 1-888-759-6056. Knowing this will help us protect our employees from possible electrical backfeed.

## Stay Informed

To keep informed on the status of this outage, please visit [sce.com/outage](https://www.sce.com/outage) and reference the outage number(s) above. You can also contact us through email at [scepoc@sce.com](mailto:scepoc@sce.com) or call us at 1-855-683-9067.

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**Calvin Louie**

**From:** SCE@sce.com  
**Sent:** Monday, January 11, 2021 6:53 PM  
**To:** Calvin Louie  
**Subject:** Important: Critical Power Outage Restored for CABAZON WATER DISTRICT | Outage # 1133491 on 1/11/2021



Outage Center

## Critical Power Outage Restored

Dear SCE Customer,

We would like to inform you that power has been restored in your area.

### Outage Information

Outage # 1133491	
Estimated to Start	Outage Status
1/11/2021 at 7:59 a.m.	Service was restored
<p><b>Service at the following address(es) should be restored:</b></p> <p>15320 ELM ST RSVR CABAZON, CA 92230 Service Account:3-XXX-XX33-25 Meter:256000-116418</p> <p>14935 1/2 ALMOND ST PED CABAZON, CA 92230 Service Account:3-XXX-XX25-85 Meter:222014-013815</p>	
<b>Outage Reason:</b> Cable Upgrade	

### Things You Should Know



Critical outages include work where it has been determined that a failure of equipment could be near-term, which could cause significant damage or endanger public safety. We are prioritizing critical work necessary to protect our communities from the threat of wildfires and to make urgent repairs, even as we postpone less pressing upgrades. Our teams are working to minimize the outage duration and impact to the fewest possible customers.

### Stay Informed

If your service has not been restored, or if you have any problems with your power, please email [scepoc@sce.com](mailto:scepoc@sce.com) or call us at 1-855-683-9067.

Sincerely,  
Southern California Edison

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## New Business

### 1. Discussion Item:

Mr. Lance Eckhart, General Manager,  
San Gorgonio Pass Water Agency:  
Introduction, Brief Mission Statement by Mr.  
Eckhart, and Q&A  
(by GM Louie)





# New Business

## 2. Discussion/Action Item:

Tank #2 exterior roof recoating quote and Tank #4 exterior recoating quote by Simpson Sandblasting (by GM Louie)

**Elizabeth Lemus**

**From:** Travis Romeyn <tromeyn@kriegerandstewart.com>  
**Sent:** Wednesday, December 30, 2020 11:47 AM  
**To:** Calvin Louie  
**Cc:** Charles Krieger; Lorna Ewing; Elizabeth Lemus  
**Subject:** FW: Reservoir 2 & 4

Calvin,

Per our discussion during this morning's progress meeting, below is the cost proposal from Simpson for the additional coating on Reservoirs #2 & #4. Note that they show the logo replacement on Reservoir #4 as an adder, so if it is not needed then the cost for Reservoir #4 is the \$115,811.

Thank you,



**Travis R. Romeyn, P.E.**  
Krieger & Stewart, Incorporated  
Shipping/Mailing: 3890 Orange Street #1509 | Riverside, CA 92501  
Office: 3602 University Avenue | Riverside, CA 92501 | [www.kriegerandstewart.com](http://www.kriegerandstewart.com)  
O: 951.684.6900 | F: 951.684.6986  
C: 951.675.3109 | [tromeyn@kriegerandstewart.com](mailto:tromeyn@kriegerandstewart.com)

See our new address information below:



**KRIEGER & STEWART**  
Engineering Consultants

Our office hasn't moved, but where you **MAIL** and **SHIP** to us **has**.

Please make note of our new mail/ship to address (for US Mail, UPS, FedEx, etc.):

Krieger & Stewart, Incorporated  
3890 Orange Street #1509  
Riverside, CA 92502

However, our Office location remains the same:

3602 University Avenue  
Riverside, CA 92501

951.684-6900 ph  
951.684-6986 fax  
[www.kriegerandstewart.com](http://www.kriegerandstewart.com)

**From:** Kattia Rios [mailto:Kattia@simpsonsandblasting.com]  
**Sent:** Wednesday, December 30, 2020 11:41 AM  
**To:** Travis Romeyn

21 | 162

**Cc:** Larry Simpson; Ryan Simpson  
**Subject:** Reservoir 2 & 4

Good Morning Travis,

Per our conversation of this morning, below please find the revised price for the exterior redo on Reservoirs 2 & 4 for Cabazon Water District,

**Reservoir 2**

Exterior roof complete removal, epoxy 3 – 5 mils DFT, Sherloxane 4 – 6 mils DFT  
Shell spot repair, pressure wash, spot prime 3 – 5, full coat epoxy 3 – 5, full coat sherloxane 4 – 6 mils DFT,  
caulk exterior chime, wet blast

Price \$109,482

**Reservoir 4**

Complete removal of shell, full coat epoxy, full coat of Sherloxane 4 – 6 mils DFT,  
Roof, spot repair, pressure wash, spot prime 3 – 5 mils DFT and full coat epoxy 3 – 5 mils DFT, full coat  
Sherloxane 4 – 6,, wet blast  
Replace logo

Price \$115,811

Logo \$ 1,500

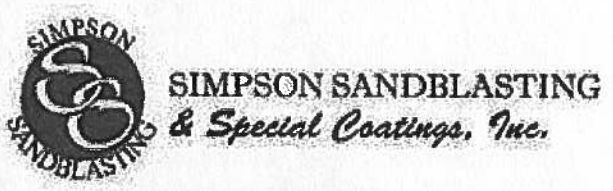
Total \$117,311

Should you have any questions, please feel free to give us a call.

Thank you

*Kattia E. Rios*

*Project Coordinator/Assistant Project Manager*



QP-1/QP-2 Certified Contractor  
Mbe/Sbe Business

14665 Rancho Vista Drive  
Antana, CA 92335  
Phone (909) 829-0000  
Fax (909) 829-0023  
Cell (951) 541-1416

## New Business

### 3. Discussion/Action Item:

Approval of Tank Diving Inspection for Tank 2,  
Tank 3, and Tank 4: quotes received from

(a) Dive/Corr Inc.

and

(b) Liquivision Technology Diving Services  
(by GM Louie)



# DIVE / CORR, INC

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INDUSTRIAL INSPECTION AND PHOTOGRAPHY SERVICES

P O BOX 30427  
LONG BEACH, CA 90853  
OFFICE - 562-439-8287  
FAX - 562-438-7151

DATE: 12/20/20

CABAZON WATER  
PO BOX 297  
CABAZON, CA 92230

QUOTE #: 20188

---

QUOTE FOR THE UNDERWATER INSPECTION OF THREE (3) POTABLE WATER STORAGE RESERVOIRS

TANK 1 - 1.0 MG - FULL INSPECTION  
TANK 2 - 1.0 MG - FULL INSPECTION  
TANK 3 - .50 MG - FULL INSPECTION

**PROPOSED SCOPE OF WORK TO BE AS FOLLOWS:**

1. External inspection
2. Internal inspection of all surfaces
3. Pit depth measurements in areas of active corrosion
4. Damage from corrosion or other sources
5. Condition of all appurtenances
6. Site security
7. Measurement of sediment accumulation
8. General conditions with regard to health and safety
9. Physical evaluation of the cathodic system (if present)
10. Check for evidence of earthquake damage
11. Deficiencies in relation to current safety codes

**CABAZON WATER TO PROVIDE:**

1. All keys necessary to access the site and the roof hatches;
2. All exterior ladders to reach the roof;
3. Reasonable water levels at the time of inspection to allow a thorough roof evaluation;

# DIVE / CORR, INC

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PAGE 2 OF 3

## DIVE / CORR, INC TO PROVIDE

- 1) One dive team\*
- 2) A decontamination procedure and materials;
- 3) All diving equipment - diving to be performed with dry suits only;
- 4) Digital still cameras and underwater strobes;
- 5) Back up digital cameras and strobes on site;
- 6) All materials and supplies;
- 7) All jobsite travel;
- 8) Office report time
- 9) *Experience in over 4,500+ water tank inspections*

## THE DIVER

\* The primary diver conducting the inspection has over thirty five (35+) years of diving experience and has conducted more than 4500 tank inspections to date.

The actual inspector in the water has held the following certifications:

- 1) AWS - CWI - QC1 (Am. Welding Soc - Certified Welding Inspector)
- 2) Nationally certified by exam through ASNT Level III (Level III is the top level)  
Level III - Ultrasonic Technician  
Level III - Magnetic Particle Technician
- 3) Over 4000 hours of "in field" coating inspection
- 4) Diving instructor rating
- 5) Confined space training
- 6) B.S. Degree - University of Massachusetts

## Other Certifications

Class "A" California State Contractors License #770523  
CPR/First Aid (renewed yearly)

## Member in the following Associations

AWWA - American Water Works Association  
NACE - National Association of Corrosion Engineers  
OCWWA Orange County Water Works Association  
ICWWA Inland County Water Works Association  
SCWUA Southern California Water Utilities Association

# DIVE / CORR, INC

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PAGE 3 OF 3

Dan Gross has been active in the underwater water tank inspection industry since 1982 and has been injury free from inception of the company to date.

**TANKS DO NOT HAVE TO BE TAKEN OUT OF SERVICE**

**REPORT TO BE DELIVERED AS FOLLOWS:**

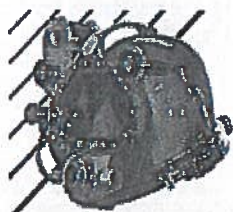
- Part #1** - A digital still portfolio illustrating present conditions.
- Part #2** - A written report shall accompany those photographs describing the pictures with a summary and recommendations.
- Part #3** - A color narrated DVD showing the highlights of the inspection.
- Part #4** - Selected photographs showing the highlights of the inspection to be printed.

TOTAL \$5800.00

SINCERELY

DAN GROSS  
CHIEF INSPECTOR

26/11/2



# LiquiVision DIVING TECHNOLOGY SERVICES

Office/Mailing Address  
711 Market Street  
Klamath Falls, OR 97601

Phone: (800) 229-6959 Fax: (541) 883-1381  
liquivision@divingservices.com  
www.divingservices.com

Western Operations  
835 Market Street  
Klamath Falls, OR 97601

Calvin Louie  
Cabazon CWD  
P.O. Box 297  
Cabazon, CA 92230

12/28/2020  
Wk: 951-849-4442  
Em: clouie@cabazonwater.org  
CA142220R3T\_

We are pleased to provide you the following firm quotation and outline of the conditions of our services.

Tank	Type	Dia. or LxW (Feet)	Hgt. (Feet)	Maximum Calculated Capacity (Gallons)	Surface Area (S.F.)	Price for Diver Inspection Only	Price for Diver Cleaning & Inspection	Price for Additional Sediment Per Hour
Mobilization Charge - Flat charge to mobilize and demobilize to your location.							\$495	\$550
1. Tank 1	OG Welded	81	26	1,001,717	5,150		\$3,060	
2. Tank 3	OG Welded	65	21	521,012	3,317		\$3,060	
3. Tank 4	OG Welded	74	31	996,843	4,299		\$3,060	
Price reflects Prevailing wages and is contingent on all work being completed on the same trip. Filter bags are billed additionally at \$200 per bag. Dechlor is billed additionally at \$15 per hour. LVT estimates 2 days of work, if more time is needed multiple trips might be required and additional fees may apply.								
Subtotal							\$9,675	
Multitank Discount (after the first two tanks).							(\$225)	
Total							\$9,450	

### Scope of Work:

Removal of accumulated sediment from the floor of the tank. The effluent will be disposed of at the districts direction. A final and comprehensive inspection will be performed documenting the condition of the entire structure and recorded on DVD. Written documentation with digital pictures, descriptions of the images and any recommendations will be provided to the district on a USB flash drive.

Our bids are based on a variety of factors that pertain to the length of time it takes to accomplish our work. The main consideration is the amount of sediment that has to be removed, **4" of normal sediment** is included in this bid.

**Initials** Please initial the line items below to verify that you have reviewed them.

- \_\_\_\_\_ Entry hatch on top of the tank is at least 18" diameter.
- \_\_\_\_\_ The water level is kept within ten (10) feet of the top of the tank.
- \_\_\_\_\_ Tank dimensions are correct.
- \_\_\_\_\_ Scope of work is correct.
- \_\_\_\_\_ Customer has disclosed prevailing wage requirements to Liquivision Technology, Inc.

This job requires rates to be paid at prevailing wage: Yes \_\_\_\_\_ No \_\_\_\_\_

1. Placement and disposal of effluent removed from the tank is done at the direction of the Customer.
2. Quotes for cleaning assume that the sediment is normal material (such as silt, flocculated material, insects, manganese, rust, etc.) found in potable water tanks that is easily removed by our vacuum system. If the sediment is difficult to remove such as large amounts of concrete chips, gravel, sand, rocks, detached coating debris, etc., then our hourly rate shall apply for each hour (over the first hour) for removing this material.



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711 Market Street  
Klamath Falls, OR 97601  
Phone: (541) 883-6473  
Fax: (541) 883-1361

# LiquiVision Technology

3. Unless specified in quote detail we clean all submerged horizontal and angled berms or sloped surfaces 35 degrees or less. Surfaces exceeding this angle such as the walls can be cleaned but must be listed separately in the quote detail or estimated by the divers upon inspection. We do not clean surfaces that are out of the water.
4. If any information provided to us is incorrect or if any problems exist that inhibit our ability to complete the job on a timely schedule, then we will notify you of the problem and reserve the right to add on to the quote based on our estimate of the additional time it will take to complete the work. Charges for time delays are \$200 per hour. This paragraph only applies to any problems that are your responsibility (i.e. rescheduling with less than 2 business days notice, set up and start of work before cancelation, etc.) Charge for going remote (if required and not addressed in advance) is \$550 per hour.
5. For coating repair in steel tanks we use a two part underwater epoxy. Each rust nodule or area of coating defect is wire brushed to bare metal and epoxy is applied over the area. The epoxy chemically bonds to the steel, displaces water, and remains intact with a greater bond than the original coating. All of our repair, sealing and coating materials meet or exceed NSF 60 & 61 standards. Repairs are done at the districts direction for the rate of \$550 per hour and \$40 per tube of Manus or epoxy.
6. If dechlorination is required it will be charged at \$15.00 per hour. If filtration is required then the filter bags will be charged at \$200.00 per bag. Unless specified LVT does not remove the bags they become the districts responsibility to dispose of.
7. If payment is not made within sixty days of the date of the invoice, an interest charge of 3% shall begin to accrue each month on the unpaid balance. This interest will continue to accrue each month until the balance is paid in full. To avoid any interest charges, payment must be received or postmarked within the sixty days following the date of the invoice. Statements will be sent each month to reflect the new balance.

Our cleaning procedure is accomplished utilizing our proprietary vacuum cleaner, the "LiquiVac™" (Patented). The LiquiVac™ pumps an average of 200 gallons per minute. It has a rotating soft bristle brush that scrubs the floor clean and removes all sediment without creating turbidity in your tank. This is the only way to ensure that all biofilm is removed from the interior surfaces without getting any of it mixed into the water column. This system also enables us to clean walls.

In a conscious effort to preserve our nations natural resources LVT will provide our reports to the district on USB flash drives. If you require a printed and bound copy of the reports please notify our office staff. There will be an additional fee of \$125 per copy.

In over 20 years of providing diving services we continue to treat every customer as if they were our only customer. We are dedicated to accomplishing every job with the utmost professionalism, safety and efficiency.

Please sign this quote and FAX both pages back to us with an approximate time frame of when you would like the work done. If you have any questions please give us a call. We look forward to working with you.

Quote is valid for 90 days. Upon signature the work shall be accomplished at a mutually acceptable date within one year.

Sincerely,

*Cassy Maxwell*

Cassy Maxwell  
General Manager

I find the above and preceding page of contingencies and procedures acceptable.	
Accepted by:	Date:
Signature:	Title:

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# LiquiVision Technology

711 Market Street  
 Klamath Falls, OR 97601  
 Phone: (541) 883-6473  
 Fax: (541) 883-1361

**Billing/Change Order/Estimate Form**

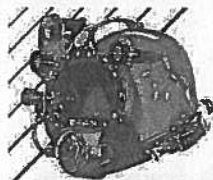
Calvin Louie  
 Cabazon CWD  
 P.O. Box 297  
 Cabazon, CA 92230

12/28/2020  
 Wk: 951-849-4442  
 Em: clouie@cabazonwater.org  
 CA142220R3T\_

Team Leader: \_\_\_\_\_  
 Diver #2: \_\_\_\_\_

Diver #1: \_\_\_\_\_  
 Diver #3: \_\_\_\_\_

Tank	Type	Dia. or LxW (Feet)	Hgt. (Feet)	Maximum Calculated Capacity (Gallons)	Surface Area (S.F.)	Price for Diver Inspection Only	Price for Diver Cleaning & Inspection	Date Work Done
Mobilization Charge - Flat charge to mobilize and demobilize to your location.							\$495	
1. Tank 1	OG Welded	81	26	1,001,717	5,150		\$3,060	
2. Tank 3	OG Welded	65	21	521,012	3,317		\$3,060	
3. Tank 4	OG Welded	74	31	996,843	4,299		\$3,060	
Price reflects Prevailing wages and is contingent on all work being completed on the same trip. Filter bags are billed additionally at \$200 per bag. Dechlor is billed additionally at \$15 per hour. LVT estimates 2 days of work, if more time is needed multiple trips might be required and additional fees may apply.								
Subtotal							\$9,675	
Multitank Discount (after the first two tanks).							(\$225)	
Total							\$9,450	
Itemize work:					Time or Quantity:		Extended:	
Sales Tax if any:								
Total								
Authorization Signature: _____								
<b>Estimation of cost for recommendations that LVT can perform.</b>								
Recommendations:				Estimated Labor			Total Estimate	
Total								



# LIQUIVISION TECHNOLOGY DIVING SERVICES

711 Market Street  
Klamath Falls, OR 97601  
Toll Free: (800) 229-6959  
Phone: (541) 883-6473  
Fax: (541) 883-1361  
liquivision@divingservices.com

## POTABLE WATER STORAGE TANK INSPECTION, CLEANING, and REPAIR

### STANDARDS AND QUALIFICATIONS SUMMARY

#### STANDARD:

#### REASON FOR STANDARD:

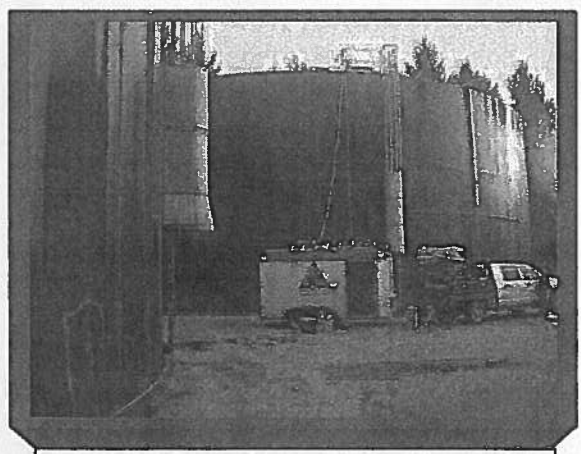
Use of Divers:

This allows the water tank to be left in service, full of water and in full operation during inspection, cleaning, or repairs procedures. This saves considerable time, money, and resources. The old method of cleaning tanks required emptying them and sending a crew inside the confined space to accomplish the task. This was costly, time consuming, and inconvenient.

*Our method of using divers will save up to 70% in cost and time.*

Compliance with  
Regulatory Agency  
Standards:

A must in today's world of DEQ, EPA, State Health Departments, or OSHA, fines and regulatory compliance red tape. More importantly, municipalities are faced with the threat of lawsuits over a myriad of issues. An important area of concern is the maintenance of drinking water systems and the dangers and costs associated with this maintenance. We comply with all of the regulations and standards that we have identified, as follows:



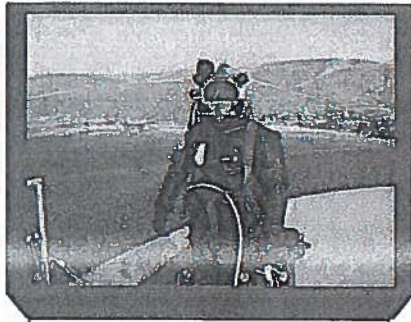
LVT Diver Support Trailer houses control panels with two T.V. screens, two DVR recorders and live voice communications between the diver and dive controller.

- OSHA CFR1910.401(A)(2)(LV)(B) - Commercial Diving Standards
- OSHA CFR 1910(g)(t) - Commercial Diving Operations
- OSHA CFR 1910.00 - Safety and Health Requirements
- OSHA CFR1910.146 - Permit Required Confined Spaces
- CALOSHA TITLE 8, SEC. 6050-6063 - California Commercial Diving Standards
- CALOSHA TITLE 8, SEC. 5156-5159 - California Confined Space Regulations
- NIOSH 87-113 - Confined Air Space Regulations
- NACE - National Association of Corrosion Engineers
- ANSI/AWWA D101-53(R86) - Inspecting and Repairing Steel Water Storage Tanks
- ANSI/AWWA D102 - Painting and Inspecting Steel Water Storage Tanks
- ANSI/AWWA C652-92 Disinfection of Water Storage Facilities
- ANSI/AWWA D104-91 (C) - Inspection of Impressed Current Cathodic Protection Systems
- ANSI/AWWA D130-97(M25) - Maintenance of Flexible Membrane Covers and Linings
- ASTM D3359-92a - Testing of Coating Adhesion to Metallic Substrates
- NSF 60/61 - Approved For Use in, or in contact with, Potable Water

All Dive Maintenance Technicians are required to know, understand and abide by these regulations, as well as meet any other regulatory requirements, at all times.



**Variable Volume Dry Suit:**



Diver in Dry Suit and Hard Hat

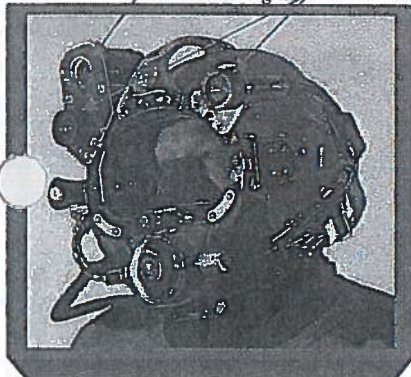
This is an ANSI/AWWA standard. A Dry Suit keeps the Diver's body from having any contact with the water column. From a regulatory agency standpoint and from a common sense approach it is apparent that if the diver's body comes in contact with the water then contamination of the water is a potential.

LVT utilizes commercial grade dry suits constructed of heavy vulcanized rubber material that is resistant to tearing or puncture to ensure integrity and isolation of the diver from the water column. This material is also much more suitable for disinfection with a high chlorine solution. By virtue of the fact that this material is smooth and non-porous it is less conducive to harboring bacteria or other micro-organisms that may survive chemical disinfection.

A variable volume dry suit enables the diver to adjust the amount of air inside the suit to accomplish positive buoyancy. This enables him to ascend or descend and achieve vertical mobility.

**Diving Hard Hat:**

Camera Lights



DSI Superlite 27 Dry Hard Hat, mates to Dry Suit

The commercial diving hard hat keeps the Diver's head and neck from having any contact with the water column. It prevents the diver from contaminating the water column with saliva or mucus.

In addition to contamination issues a hard hat allows the diver to have live full-time voice communication with surface personnel. This is possible due to the fact that he does not have to hold a regulator mouthpiece between his teeth. Therefore, the microphone and speakers mounted inside the hard hat are as functional as they would be out of the water.

Another advantage of the hard hat is that it allows for mounting live full-time video camera and lights on the outside of it. This allows the diver to constantly video all of his work without the need to use his hands to hold the camera or lights.

A hard hat diver has his air supply pumped to him via an air hose from the surface.

A hard hat diver has his air supply pumped to him via an air hose from the surface. This enables him to have virtually unlimited air and time underwater. The air hose is part of several cables that form the "umbilical". In addition to the air hose the diver is connected to the surface with a video cable, two electrical cables for his lights, a communication cable for the radio, and a second air hose for emergency or other uses. The umbilical is practically indestructible with approximate pull strength of 6,000 pounds.

The commercial diver hard hat, in itself is not an ANSI/AWWA standard, however, a surface or external supplied air system is a requirement. OSHA regulations require that commercial divers have their air supply compressor monitored or tested for maximum carbon monoxide levels every 6 months or in the case of air supply cylinders have each batch of cylinders tested when filled. LVT exceeds this requirement by constantly monitoring all air supplied to the diver whether by the compressor or by the backup high pressure cylinders.



**Full-Time Voice Communication:**



District personnel watching LVT inspection.

This is an OSHA or CALOSHA requirement. The system allows for constant communication between the diver, and all surface personnel. The dive controller in the support trailer and the dive tender at the tank entrance point can communicate at all times. In addition, municipal employees can communicate with the diver at any time. It is apparent that full time communication with the diver is an important safety factor. But for purposes of a more efficient inspection, cleaning, and repair program this enables the diver to immediately discuss any observations he makes inside the tank. Full time voice communication also allows for, and is the only way to have accurate voice input live on video when recording.

**Live Full-Time High Resolution Color Video:**

Allows for constant viewing of diver's work and observations made. This has apparent safety considerations as well. It is impossible for the diver to do a haphazard job or cause high turbidity in the water column while he is under constant visual scrutiny. If a contractor cleans a tank without live video and then goes back and video tapes the interior subsequent to the work, it is impossible to tell whether you have observed a complete cleaning of the whole tank or not. That is why LVT uses full time live video in conjunction with live voice communication and recorded simultaneously with visual record.

Additionally, municipal employees can view every observation that the diver makes at the time the observation is made. Any questions can be answered or directions given to the diver by radio communication.

**Dedicated Equipment And Disinfection:**

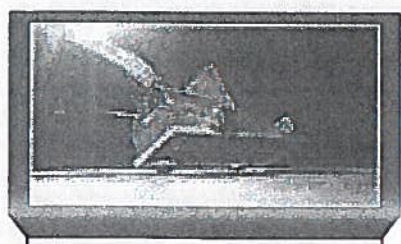


Diver being disinfected with 200 ppm chlorine solution.

This is an ANSI/AWWA standard. All of the equipment utilized by LVT's divers is disinfected with a 200 ppm chlorine solution prior to entering a drinking water tank. In addition all of the diver's equipment is dedicated only to use in drinking water tanks. When the equipment is not in use it is stored in a clean area and kept away from contamination.

**\*PLEASE NOTE THAT LVT HOLDS A SERVICE PATENT ON THIS TYPE OF SYSTEM, ANY OTHER CLAIMS BY ANY COMPETITORS STATING THEY HAVE A SIMILAR DEVICE IS PATENT INFRINGEMENT\***

**Cleaning with the LiquiVac™:**



LiquiVac's™ rotating brush

LVT's unique patented cleaning device is the only of its kind in the industry. Floor Cleaning is performed using our patented LiquiVac® underwater vacuum system. This system was designed and built for the specific purpose of cleaning drinking water tanks. The LiquiVac® has a rotating, soft bristle brush that is completely enclosed in the aluminum housing. The brush scrubs the floor clean while the vacuum neatly removes the sediment. By not creating turbidity, the LiquiVac® helps to maintain the water quality. The LiquiVac® also removes the biofilm growth underneath the sediment that other cleaning methods leave behind.

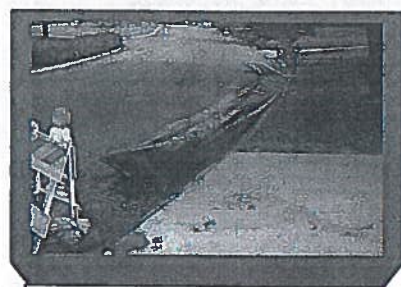


Diver cleaning with the LiquiVac™

In the past, it was virtually impossible to allow a tank to remain in-service while the walls were cleaned because of the amount of turbidity created while brushing them. Now, the LiquiVac's® unique design allows it to be used on the walls as well. With other options, such as column cleaning and pipeline cleaning, you can choose to avoid the strain of draining the tank and still achieve a thorough cleaning.

If you have intakes or outfalls that need inspected or dredged, then LiquiVision Technology has the equipment and expertise to perform the work. Our dive boat, dive platform, and 4" floating dredge can be mobilized to your site in order perform these services. When inspecting these areas we use the same high resolution video recording and reports that you will find in our tank inspections.

**Filter Bags:**



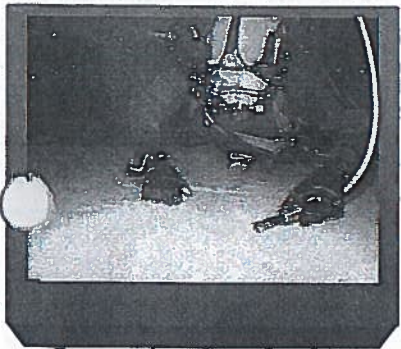
LVT filter bags are 75' long and 3' wide.

LVT has the ability and expertise to also clean reclaimed water tanks, raw water tanks, waste water structures, collector wells, intakes/outfalls, and grit chambers.

Filter bags are an effective solution for capturing the sediment and other debris that is removed from your tank. The effluent is pumped into a bag. The bag allows the water to seep through its pores while the sediment and other material stay trapped in the bag. After all of the water has run off then the bag with the sediment and other debris can be hauled to a disposal site.

LVT can also dechlorinate discharged water with our dechlorination diffuser.

**Repairs:**



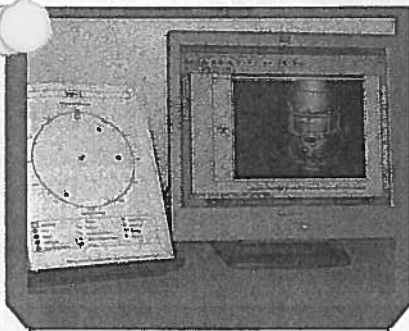
Inspection Standards:

LiquiVision Technology utilizes NSF approved materials for all coating rehabilitations and repairs. For coating repair in steel tanks we use a two part underwater epoxy. Each rust nodule or area of coating defect is wire brushed to bare metal and epoxy is applied over the area. The epoxy chemically bonds to the steel, displaces water, and remains intact with a greater bond than the original coating. LiquiVision Technology also performs retrofitting of new and existing appurtenances, renovation projects, and component modifications.

*With periodic inspection, cleaning, and touchup work, a steel tank can remain in service for many decades without major renovation.*

All inspections follow a standardized check-list including the following:





Inspection Reports are generated and provided to the customers via USB thumb drives or paper bound.

- Exterior Tank Overall Appearance and Condition
- Exterior Ladder
- Side Vents & Screens
- Entry Hatch
- Roof Vents & Screens
- Interior Ladder
- Interior Walls & Coating
- Floor and Coating
- Floor to Wall Seams
- Floor Seams and integrity of any previous repairs
- Chlorine Injection System
- Manual Level Indicator
- Fill/Discharge
- Overflow
- Scour
- Man Entries
- Water Tap
- Cathodic Protection
- Support Columns
- Ceiling
- Measurement of Sediment and Debris

*The maximum interval for periodic inspections of the tank interior should normally be 3 years. It is usually advisable to wash out the tank at the time of inspection.*

#### Standards, Procedures

**and Safe Practices Manual:** This manual is required by OSHA and CALOSHA and must be present and available to all divers at each location. LVT has compiled and publishes a Standards, Procedures and Safe Practices manual that is followed by all employees. A copy of the manual is kept in all dive support vehicles and is available for inspection at any time. All LVT personnel are required to be knowledgeable of this manual and are required to follow it at all times.

This manual describes in much greater detail all of the above standards and includes many more that are not addressed in this summary. It includes copies of all regulatory agency standards and regulations.

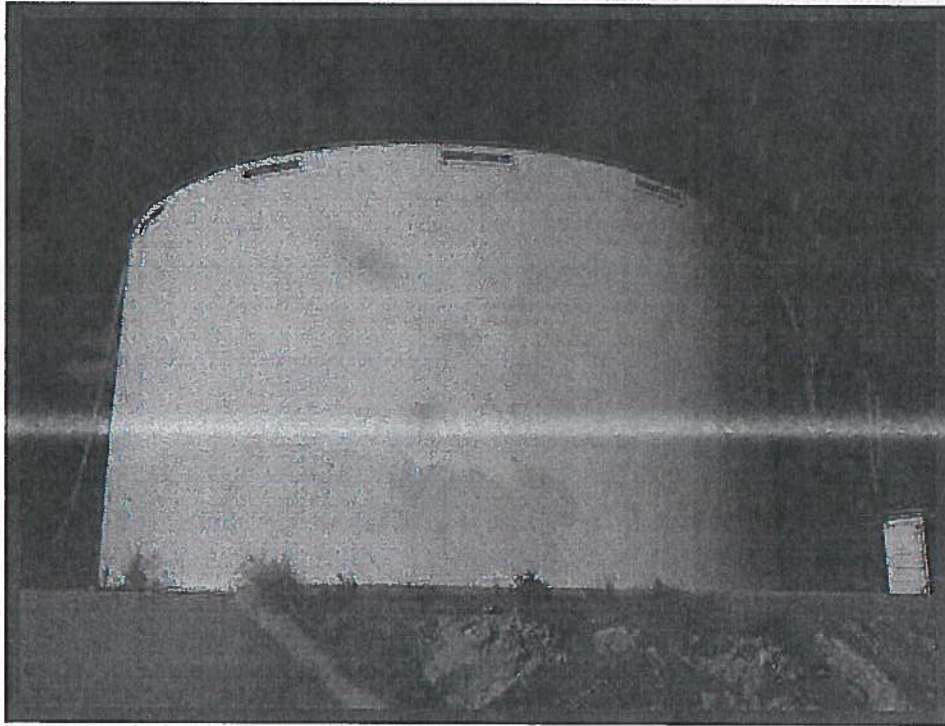
#### Summary:

In over 35 years of providing commercial diving services, LiquiVision Technology continues to satisfy every customer as if they were our only customer. We are dedicated to accomplishing every job with utmost professionalism, safety, and efficiency. Satisfaction is guaranteed! We have proven that our patented technology and methods are the superior system for cleaning, and many of our customers use us as a "sole source" annually.

#### Qualifications:

LiquiVision Technology holds the following certifications:

- OR General Contractors License # 127877
- WA General Contractors License # 967KQ
- CA General Contractors License # 812752
- ID General Contractors License # 012188-D-4
- Underwater Bridge Inspector

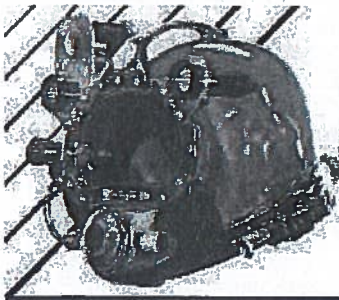


***Tank Name***  
**Your Water District**

**Report of Findings  
From the  
Cleaning and Inspection  
Conducted on**

**Date**

by



**LIQUIVISION**  
**TECHNOLOGY**  
**DIVING SERVICES**



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Underwater Inspection  
of  
Reservoir Dam

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**LiquiVision**  
D I V I N G

**TECHNOLOGY**  
S E R V I C E S

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Toll Free: (800) 229-6959  
Phone: (541) 883-6473  
Fax: (541) 883-1361

**Underwater Inspection  
of  
Reservoir Name**

Following is the report of findings during the underwater work conducted on your reservoir.

It will focus on issues of concern or areas that need attention. In order to see a complete and detailed inspection, please view each video.

Color images of all plumbing fixtures, components and areas of concern were taken via underwater digital camera. The images should give you a clear view of the conditions described. The video may give you another view and a clearer understanding of any area that you may wish to look at more closely.

**METHODOLOGY:**

*Disinfection of All Equipment With 200ppm+ Chlorine Solution Immediately Prior to Entering System:* This process prevents contamination of the water supply. All LVT equipment was properly disinfected prior to entering the potable water system.

*Full-Time Voice Communication between surface and Diver:* The system allowed for constant communication between the diver, and all surface personnel. In addition, customers were able to communicate with the diver at any time. For purposes of a more efficient inspection, cleaning, and repair program, that enabled the diver to immediately discuss any observations he made inside the reservoir.

*Full-Time Live High Resolution Color Video:* Allowed for constant viewing of the diver's work and observations. This also enabled the district personnel to view what the diver in the reservoir was witnessing.

**TERMINOLOGY:**

**Reservoir Name**

When describing the features or areas of interest inside the reservoir, an image number is placed next to the description that corresponds with the inspection findings. The diagram is shown in a view looking from the top down. The entry hatch is referred to as the 12:00 o'clock position.

Following the diagram are pictures of the pertinent areas of the reservoir and the locations where the pictures were taken. Each picture is described and numbered.

The standards used to evaluate the condition of the reservoir include: Standard Method of Evaluating Degree of Rusting on Painted Steel Surfaces – SSPC-Vis 2-82 & ASTM D 610-85  
NACE Standard RP0196-96 & RP0388-2001 or Condition of Concrete In-service – ACI 201.1R-92.

*[Faint, illegible text and diagrams are visible in this section, likely bleed-through from the reverse side of the page.]*

**OVERVIEW OF RESERVOIR INSPECTED:**

*[Faint, illegible text is visible in this section.]*

# Reservoir Name

<b>Customer Name:</b>	<b>Reservoir Name:</b>
Manager: _____	Construction: <u>OG Steel</u>
Job Number: _____	Capacity (gal.): <u>400,000</u>
Date of Inspection: _____	Diameter or L x W: <u>52'</u>
Report Writer: _____	Height: <u>24'</u>
Diver: _____	Floor Square FT: <u>2,123</u>
Tender: _____	Date Built: <u>1990</u>

**N/A** –not applicable **Excellent (Ex.)** –like new condition, no repairs needed. **Good** – Cosmetic only problems, repairs if wanted. **Fair**- Minor problems, repairs needed, not immediate. **Poor** –Major problems, structural or like, immediate repairs needed.

### 1. Rust Grades

Grades	% of Surface Rusted	Description
10	0% - 0.01%	No rusting or less than 0.01% of surface rusted
9	0.01% - 0.03%	Minute rusting, less than 0.03% of surface rusted
8	0.03% - 0.1%	Few isolated rust spots, less than 0.1% of surface rusted
7	0.1% - 0.3%	Less than 0.3% of surface rusted
6	0.3% - 1%	Extensive rust spots, but less than 1% of surface rusted
5	1% - 3%	Rusting to the extent of 3% of surface rusted
4	3% - 10%	Rusting to the extent of 10% of surface rusted
3	10% - 16%	Approximately one sixth of the surface rusted (16%)
2	16% - 33%	Approximately one third of the surface rusted (33%)
1	33% - 50%	Approximately one half of the surface rusted (50%)
0	50% - 100%	Approximately 100% of the surface rusted

### 2. Weld Deformities

Unable to Evaluate	Good Condition	Porosity	Incomplete Fusion	Incomplete Penetration	Undercut	Underfill	Overlap	Cracks	Convexity / Concavity	Spatter
UE	GC	PS	IF	IP	UC	UF	OL	CK	CC	SP

### 3. Concrete Deformities

Unable to Evaluate	Good Condition	Cracks	Blistering	Chalking	De-Lamination	Pitting	Popouts	Scaling	Spalling	Warping
UE	GC	CK	BL	CH	DL	PT	PO	SC	SP	WA

### RECOMMENDATIONS:

Recommendation	Estimated Time - Hrs.
----------------	-----------------------

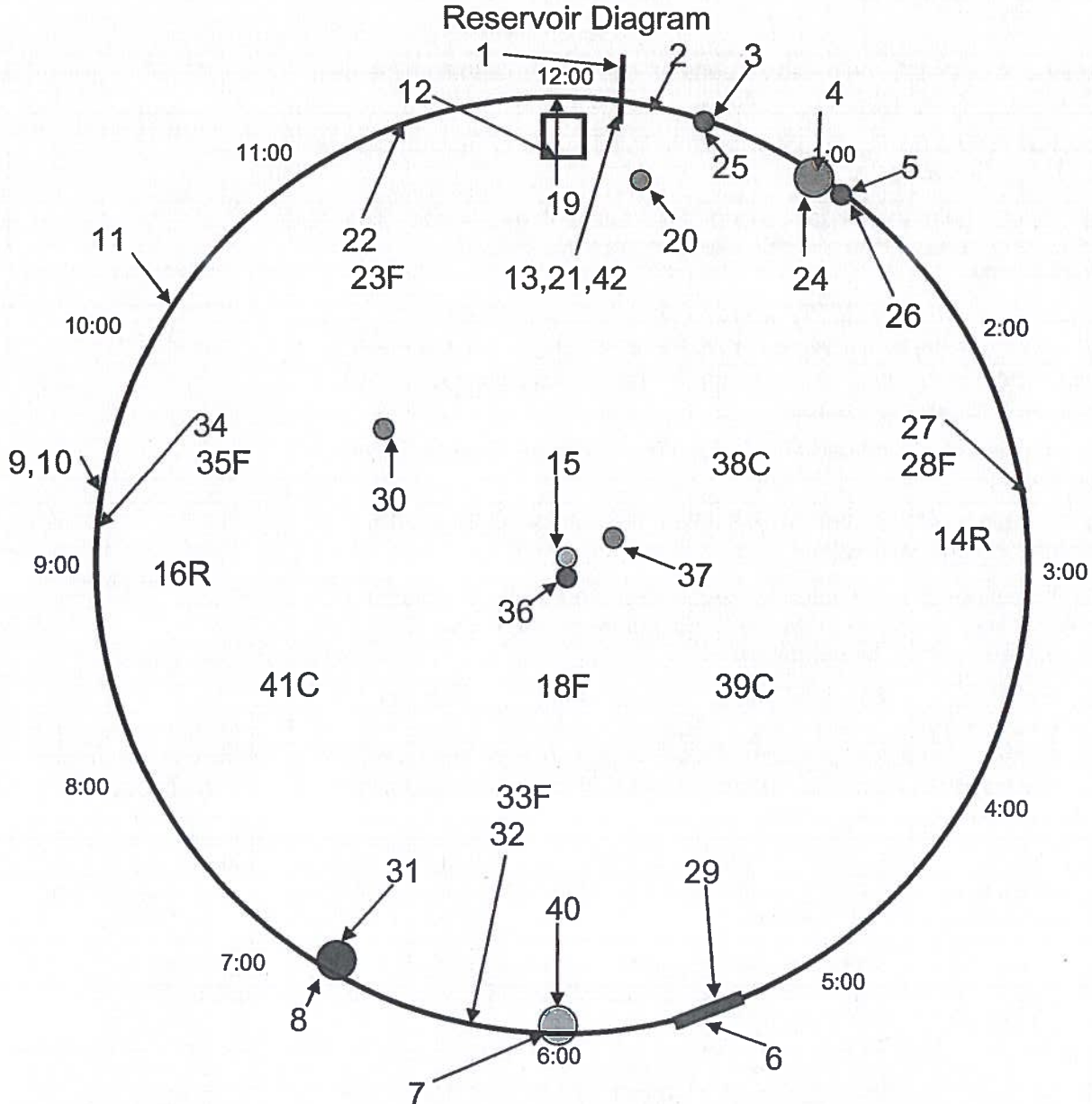


<b>Reservoir Name</b>
-----------------------

**RECOMMENDATIONS:**

Repair and/or install fine mesh screens on exterior vents to limit the risk of bugs and other matter from entering the reservoir.	
Install weather stripping on entry hatch to limit the risk of bugs and other matter from entering the reservoir.	
Make spot repairs to exterior coating of the reservoir as needed. These repairs should be performed only after prepping the surface appropriately.	
<p>Repair liquid level indicator by replacing the cable that attaches the float and tag. Consider replacing the indicator on the outside with a more legible one. If the liquid level indicator is not needed then you may want to consider removing it instead.</p> <p>Replace liquid level indicator float with a more durable stainless steel type float.</p> <p>Repair liquid level indicator by reattaching the cables that guide the float to the floor of the reservoir.</p>	
Repair coating failure on interior fixtures, floor and walls. Repairs below the water line can be accomplished utilizing divers, the proper tools and specially formulated, two-part epoxy.	
Modify the location of the inlet and/or outlet or install a mechanical mixing system to properly mix the water in the reservoir. Improperly mixed water can cause stale water with taste and odor problems as well as low disinfectant residuals. In the case of chloraminated distribution systems, nitrification may occur.	Please contact our sales office for more information.
Clean the floor in order to remove the accumulated sediment, to give a better idea of the severity of coating problems noted on the floor and allow for easier and better repairs.	Please contact our sales office for an estimate.
Clean the walls in order to remove the accumulated sediment, to give a better idea of the severity of coating problems noted on the walls and allow for easier and better repairs.	Please contact our sales office for an estimate.
Remove the existing exterior coating and apply a new coating. The existing exterior coating was in such disrepair that it would not be cost effective to attempt to patch all of the problem areas.	Liquivision Technology does not perform this service.
Remove the existing interior coating and apply a new NSF approved epoxy type coating. The existing interior coating was in such disrepair that it would not be cost effective to attempt to patch all of the problem areas.	Liquivision Technology does not perform this service.
Perform a regular cleaning, inspection and repair cycle every 2-3 years in order to ensure superior water quality and proper maintenance of coating condition and appurtenances is performed.	Please contact our sales office for an estimate.
Other	
<b>Total Estimated Hours</b>	

Reservoir Name



Drawing Not To Scale

	Entry Hatch		Overflow		Support Column
	Drain/Scour		Man Entry		Water Tap
	Common Inlet/Outlet		Liquid Level Indicator		Air Vent
	Reference Cells		Cathodic Protection Anode		

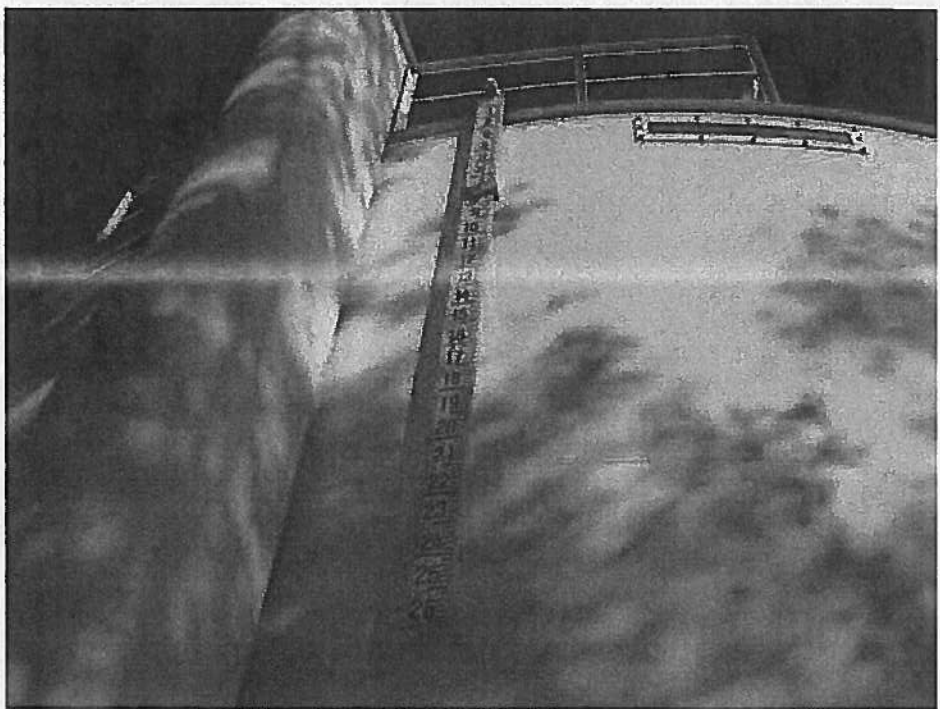
# Reservoir Name

**Image #1**

*Manual Level Indicator*  
12:10

**Condition:**  
Rust Grade<sup>1</sup> 9.

**Description:**  
Manual Level Indicator appeared to be in good condition with minor surface corrosion observed, working properly.

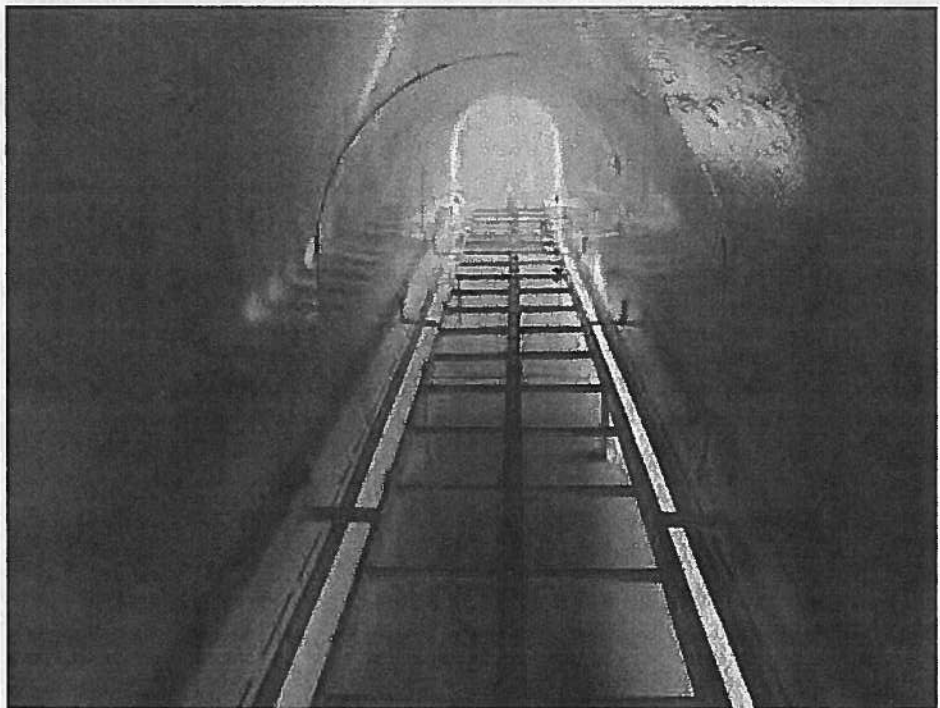


**Image #2**

*Ladder* 12:20

**Condition:**  
Rust Grade<sup>1</sup> 9.

**Description:**  
Exterior Ladder appeared to be in good condition with minor surface corrosion and minor chalking observed. Safety climb appeared to be in good condition.





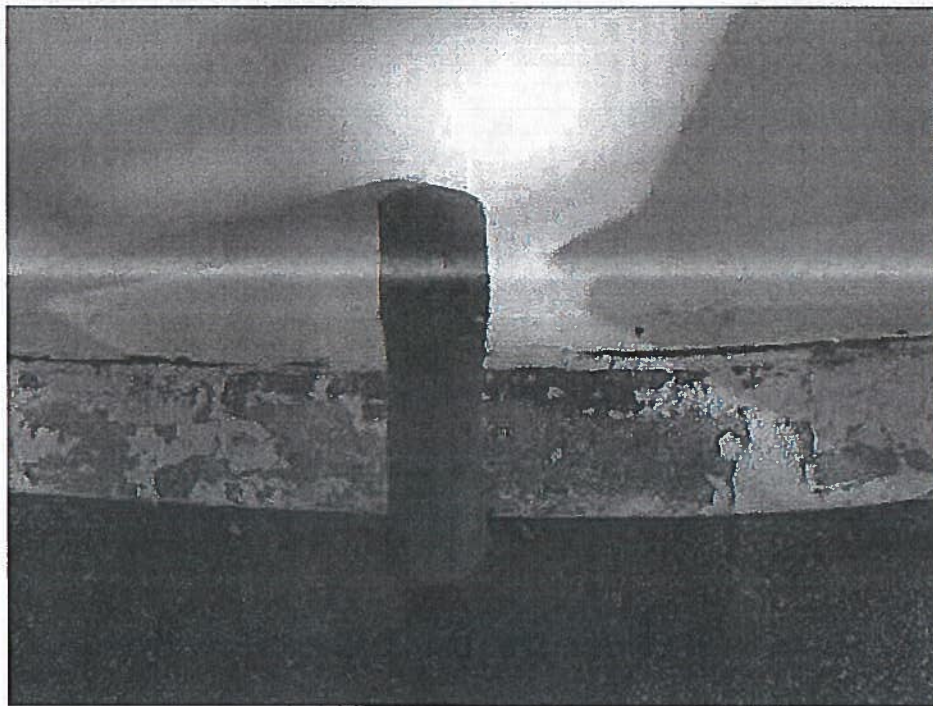
## Reservoir Name

**Image #3**

*Water Tap One 12:45*

**Condition:**  
Rust Grade<sup>1</sup> 9.

**Description:**  
Water Tap One appeared to be in good condition with minor surface corrosion and well insulated.

**Image #4**

*Inlet / Outlet 1:00*

**Condition:**  
Rust Grade<sup>1</sup> 8.

**Description:**  
Inlet / Outlet appeared to be in good condition with minor surface corrosion/delamination and minor chalking observed.



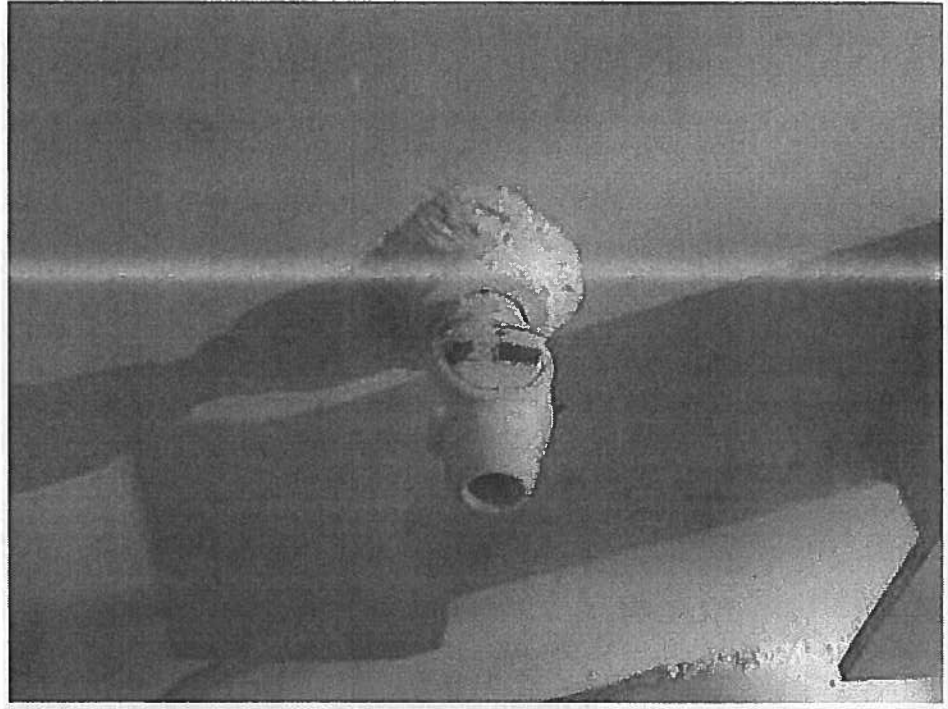


**Reservoir Name**

**Image #5**  
*Water Tap Two 1:00*

**Condition:**  
Rust Grade<sup>1</sup> 9.

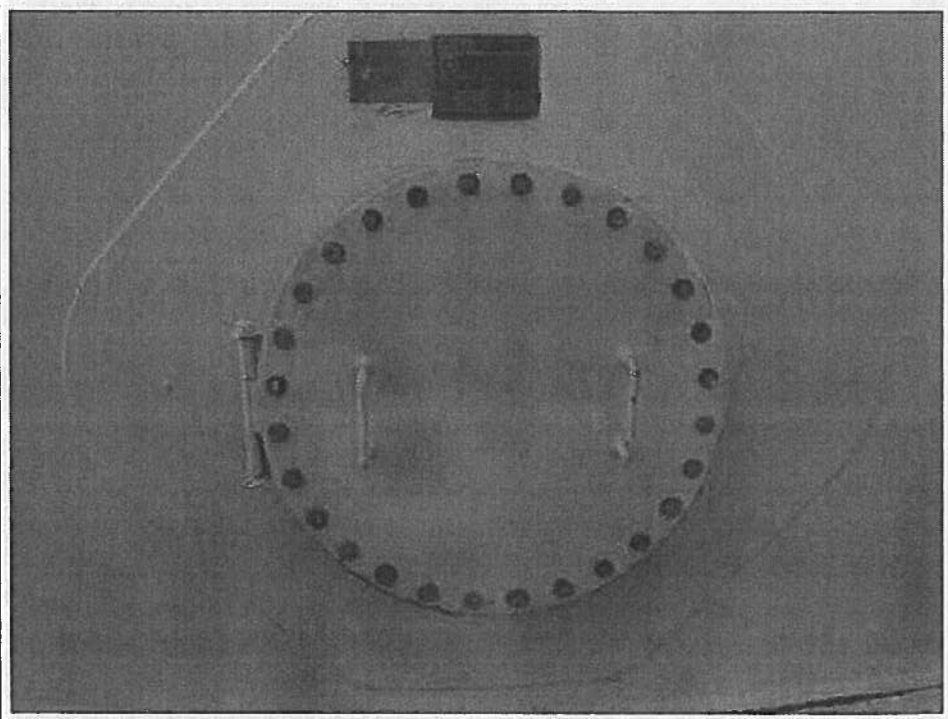
**Description:**  
Water Tap Two appeared to be in good condition with minor surface corrosion /delamination and minor chalking observed.



**Image #6**  
*Man Way 5:30*

**Condition:**  
Rust Grade<sup>1</sup> 9.

**Description:**  
Man Way appeared to be in good condition with minor surface corrosion and chalking around bolts observed.



## Reservoir Name

Image #7

Overflow 6:00

**Condition:**  
Rust Grade<sup>1</sup> 9.

**Description:**  
Overflow appeared to be in good condition with minor surface corrosion and chalking observed.

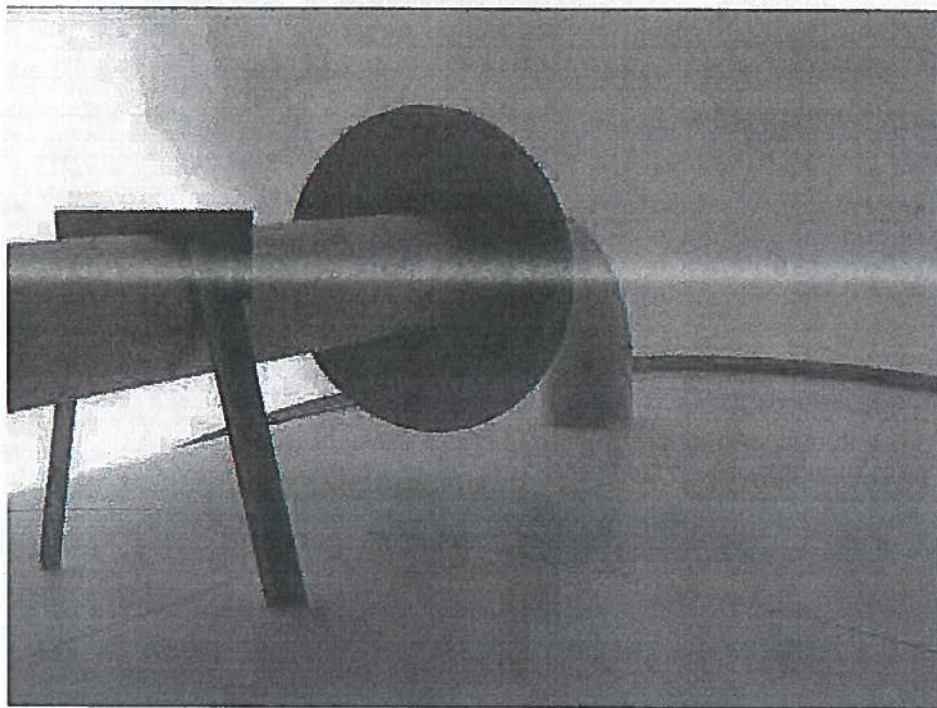
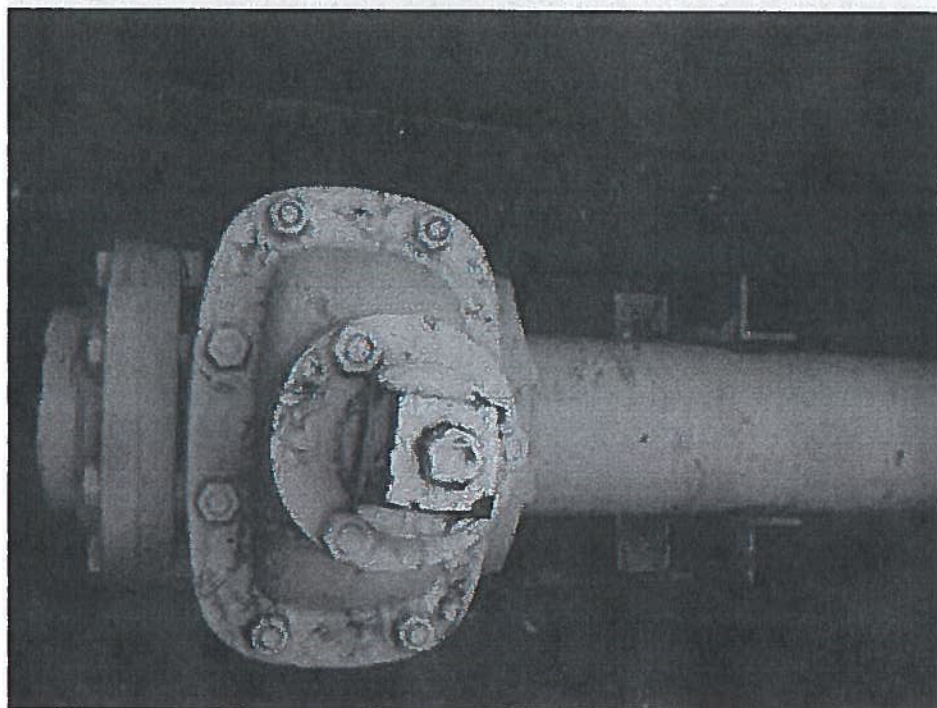


Image #8

Drain 7:00

**Condition:**  
Rust Grade<sup>1</sup> 9.

**Description:**  
Drain appeared to be in good condition with minor surface corrosion and chalking observed.





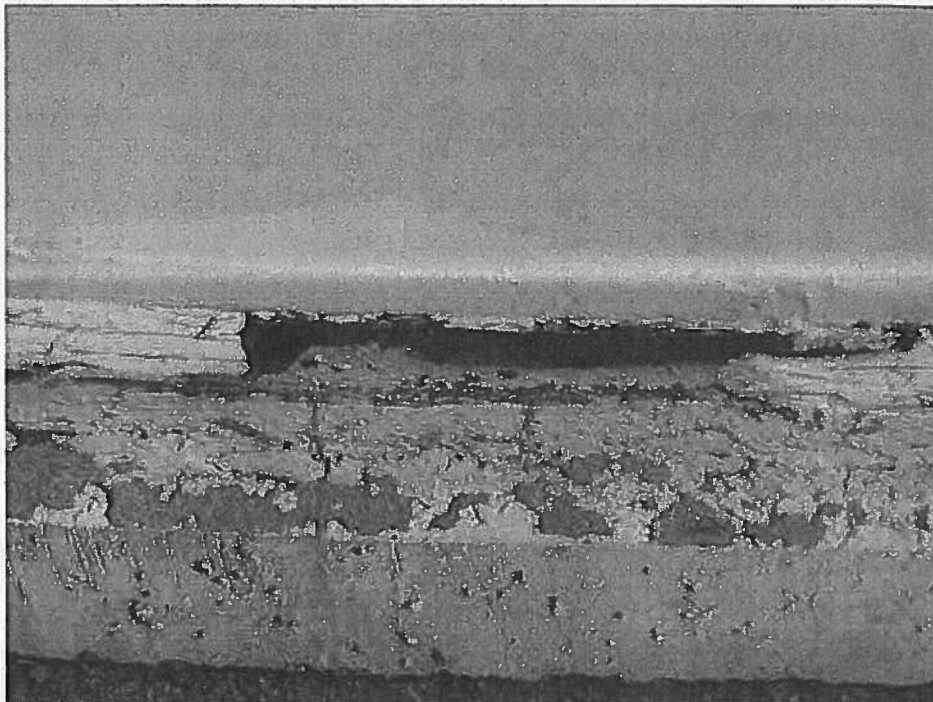
## Reservoir Name

**Image #9**

*Bottom Wall 9:00*

**Condition:**  
Rust Grade<sup>1</sup> 8.

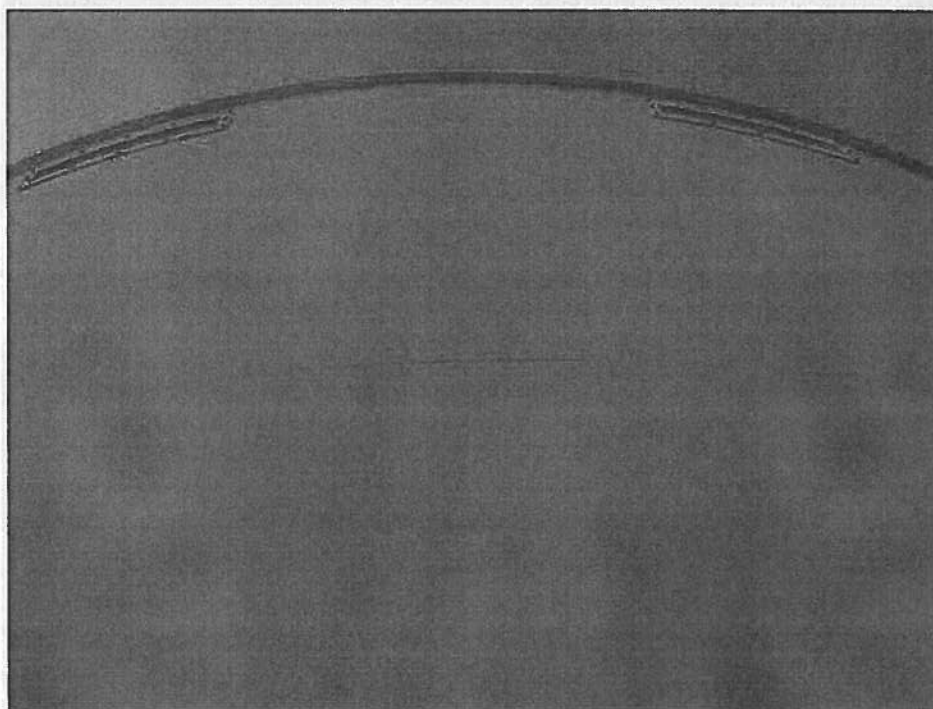
**Description:**  
Bottom Wall appeared to be in Fair condition with minor surface corrosion and chalking observed. Sealant appeared to be deteriorating.

**Image #10**

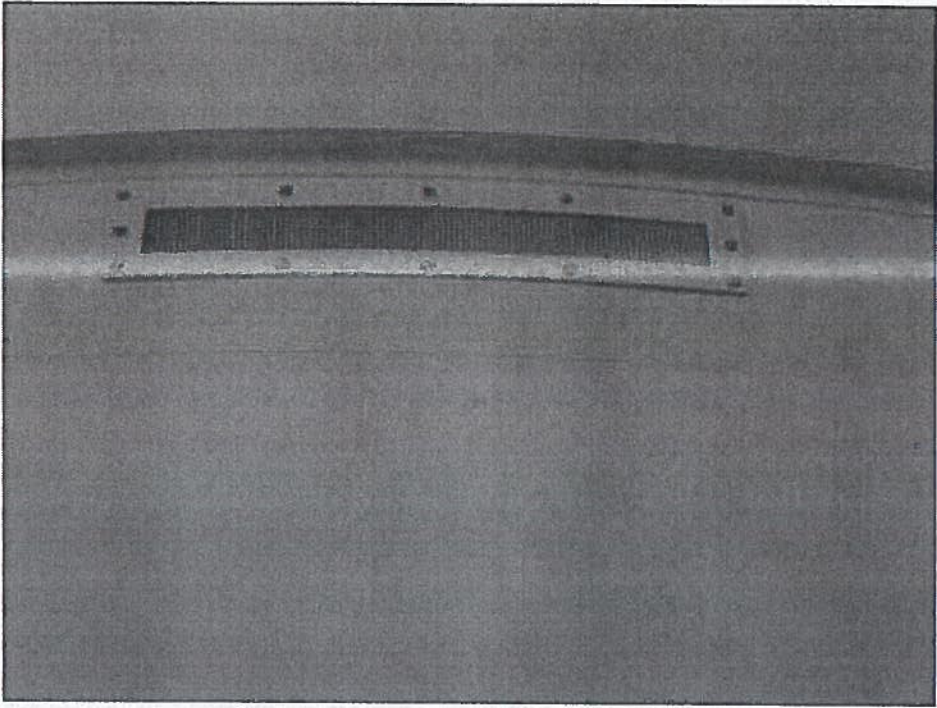
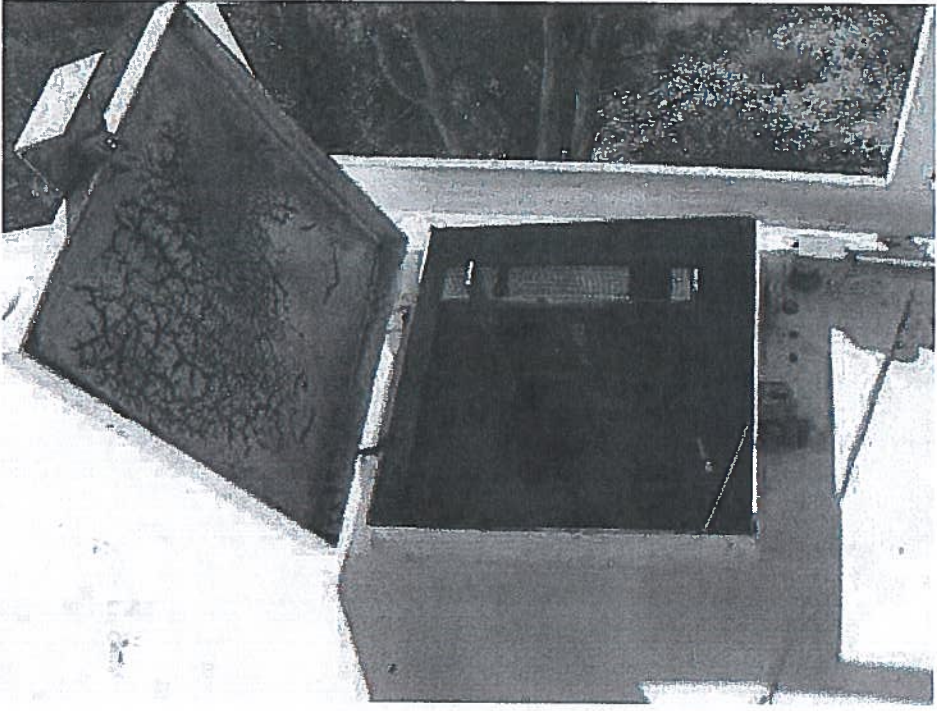
*Top Wall 9:00*

**Condition:**  
Rust Grade<sup>1</sup> 8.

**Description:**  
Top Wall appeared to be in good condition with minor surface corrosion and chalking observed.

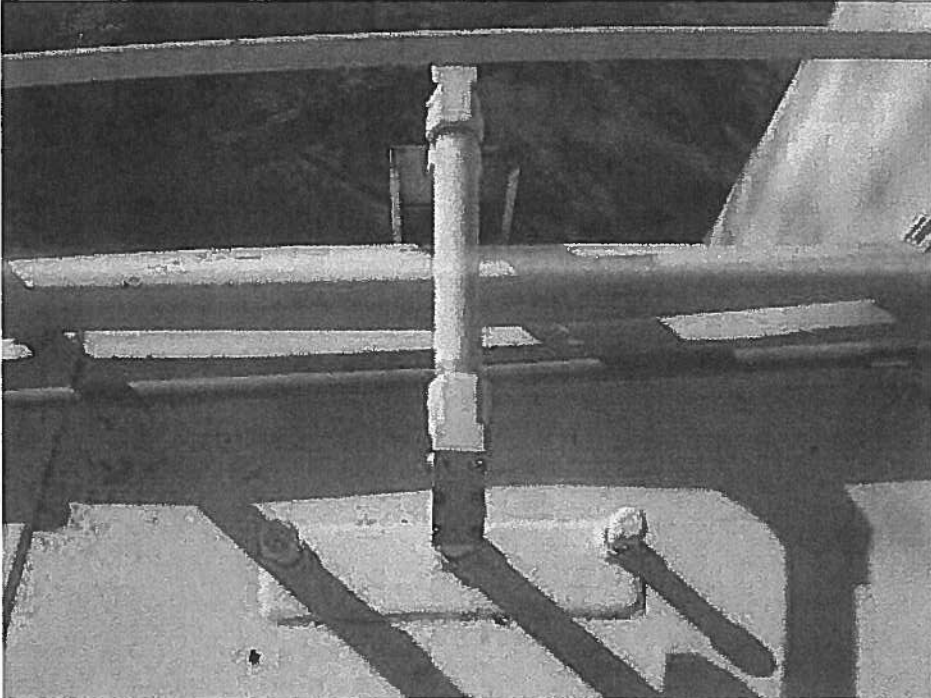
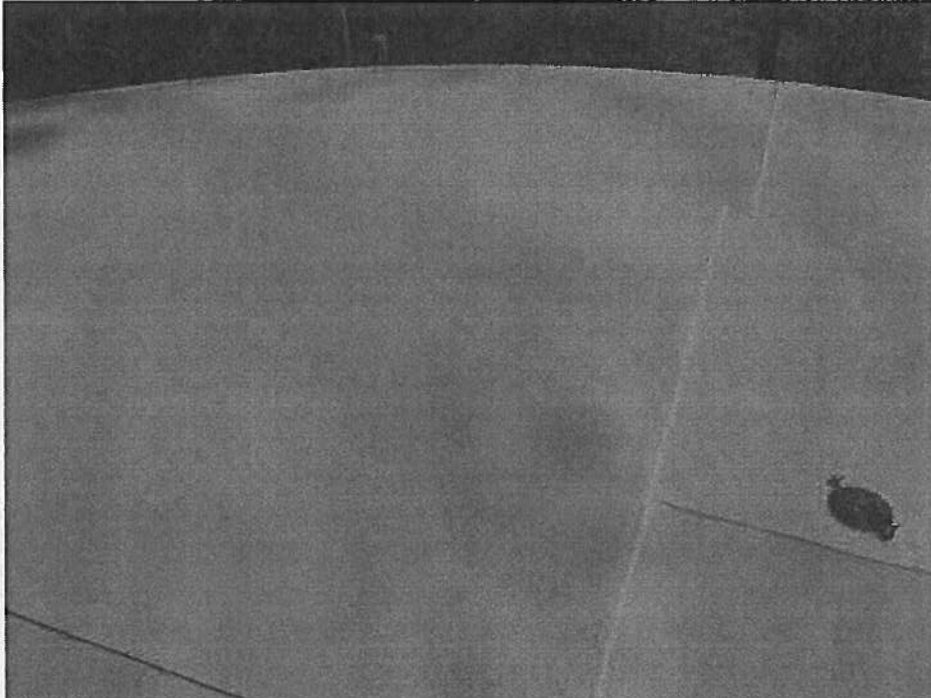


# Reservoir Name

<p><b>Image #11</b></p> <p><i>Side Vent 9:00</i></p> <p><b>Condition:</b> Rust Grade<sup>1</sup> <u>9.</u></p> <p><b>Description:</b> Side Vents appeared to be in good condition with minor surface corrosion and chalking observed.</p>	
<p><b>Image #12</b></p> <p><i>Hatch 12:00</i></p> <p><b>Condition:</b> Rust Grade<sup>1</sup> <u>6.</u></p> <p>24 x 24</p> <p><b>Description:</b> Hatch appeared to be in good condition with minor surface corrosion and chalking observed.</p>	



**Reservoir Name**

<p><b>Image #13</b></p> <p><i>Manual Level Indicator 12:10</i></p> <p><b>Condition:</b> Rust Grade<sup>1</sup> <u>9.</u></p> <p><b>Description:</b> Manual Level Indicator appeared to be in good condition with minor surface corrosion and chalking around bolts observed.</p>	
<p><b>Image #14</b></p> <p><i>Roof 3:00</i></p> <p><b>Condition:</b> Rust Grade<sup>1</sup> <u>8.</u></p> <p><b>Description:</b> Roof appeared to be in good condition with minor surface corrosion/delamination and minor chalking observed.</p>	

**Reservoir Name**

Image #15

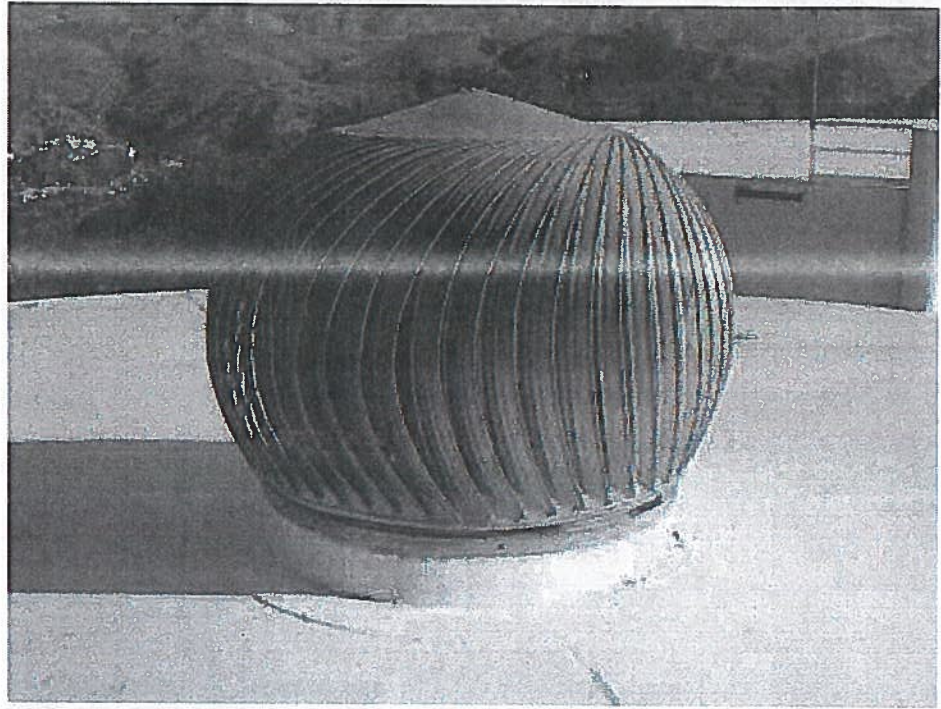
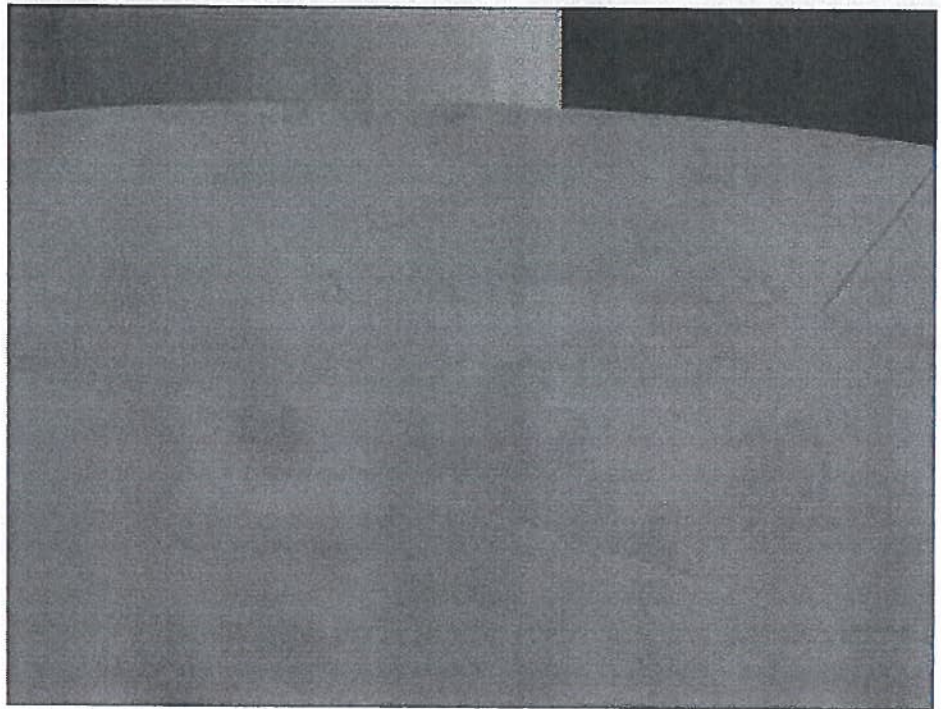
*Center Vent***Condition:**  
Rust Grade<sup>1</sup> 9.**Description:**  
Center Vent appeared to be in good condition with minor surface corrosion and chalking observed. Fine mesh screen appeared to be in good condition.

Image #16

*Roof 9:00***Condition:**  
Rust Grade<sup>1</sup> 8.**Description:**  
Roof appeared to be in good condition with minor surface corrosion/delamination and minor chalking observed.

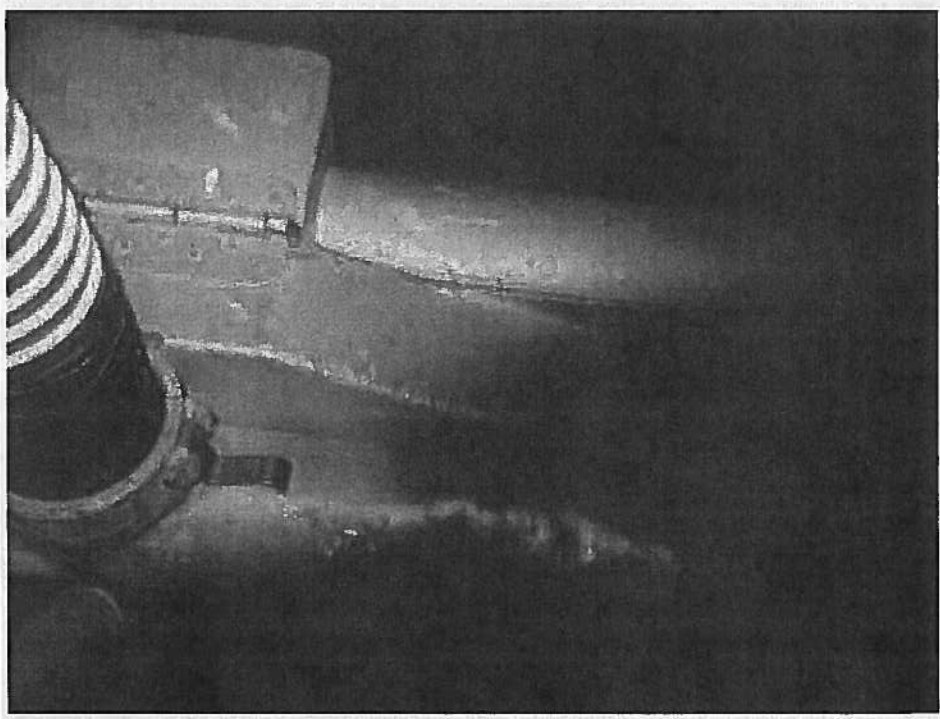


**Reservoir Name**

Image #17  
*Diver*  
  
**Description:**  
Scott Rang



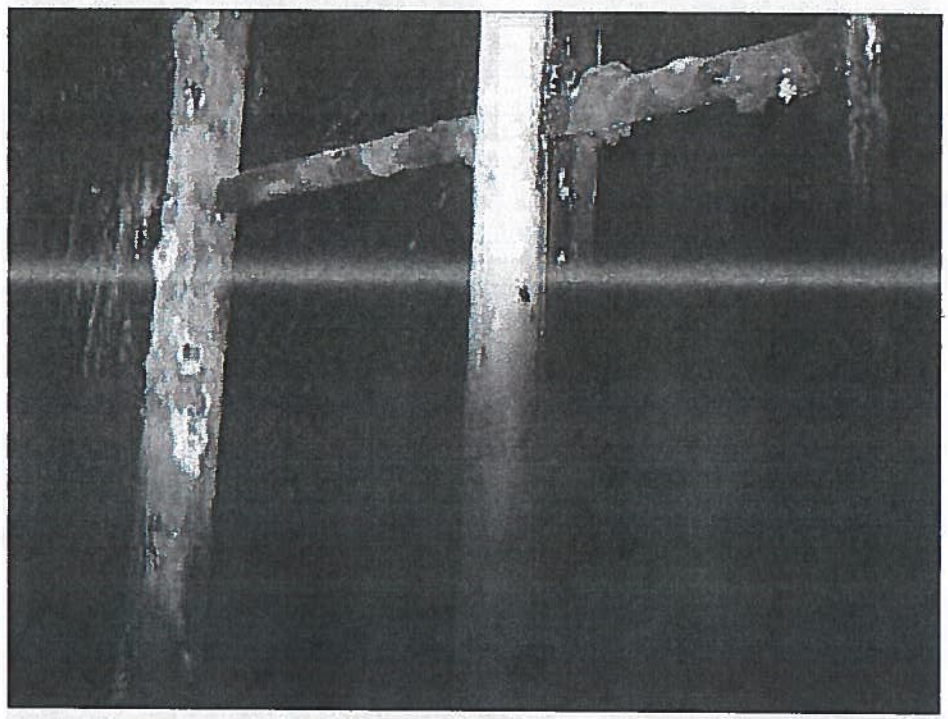
Image #18  
*Sediment*  
  
**Description:**  
Sediment appeared to be a light skiff about a 1/16 of an inch.



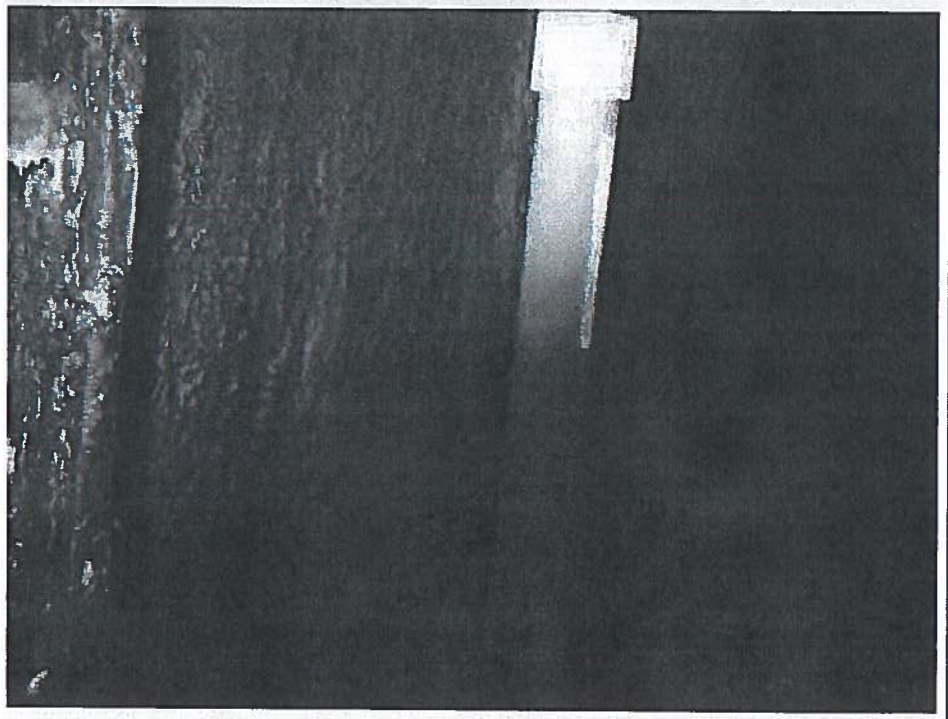


**Reservoir Name**

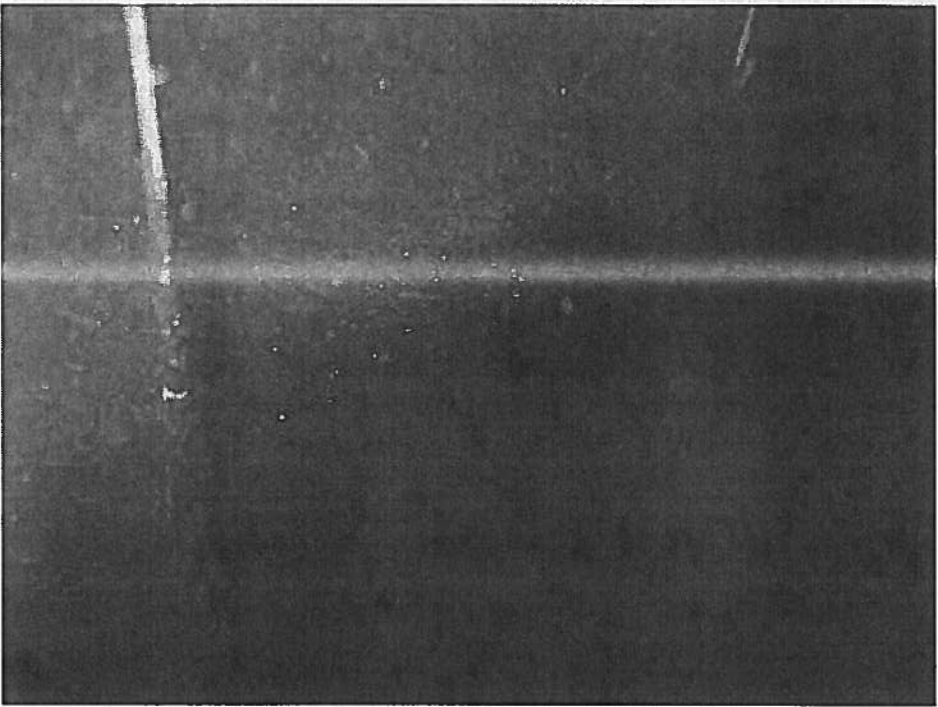
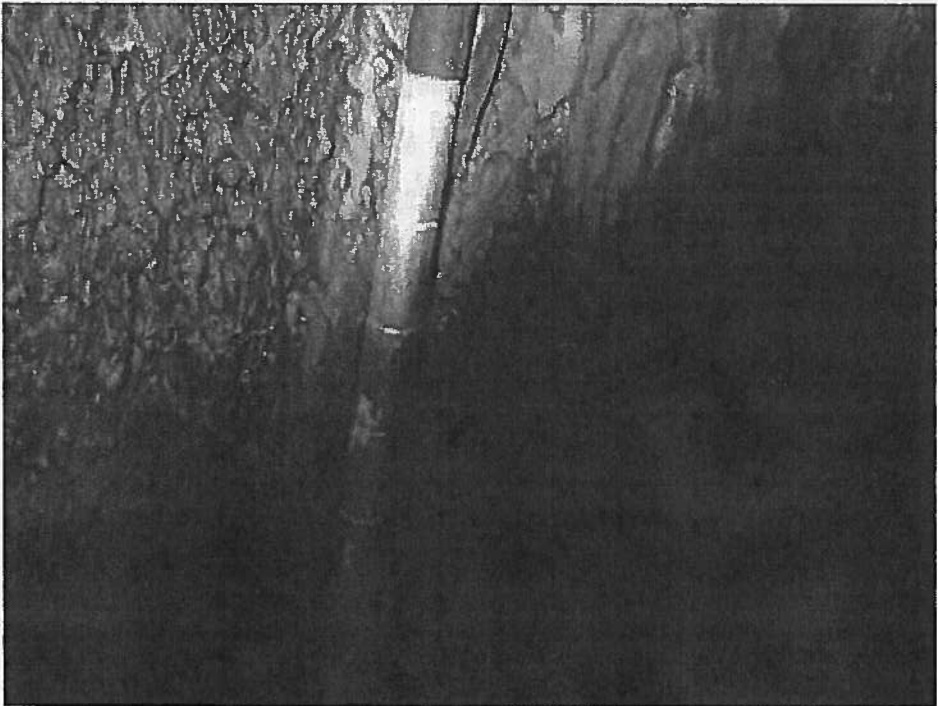
**Image #19**  
*Ladder 12:00*  
**Condition:**  
Rust Grade 5.  
**Description:**  
Ladder appeared to be in fair condition with minor to moderate surface corrosion observed.



**Image #20**  
*Reference Cell*  
**Condition:**  
Good  
**Description:**  
Reference cell appeared to be properly suspended with a minor crack in it.



## Reservoir Name

<p><b>Image #21</b></p> <p><i>Manual level Indicator 12:10</i></p> <p><b>Condition:</b> Rust Grade<sup>1</sup> <u>9.</u></p> <p><b>Description:</b> Manual Level Indicator guide wires appeared to be in good condition and properly secured to the floor.</p>	
<p><b>Image #22</b></p> <p><i>Interior Wall 12:00</i></p> <p><b>Condition:</b> Rust Grade<sup>1</sup> <u>6.</u></p> <p><b>Description:</b> Interior Walls appeared to be in fair condition with minor to moderate surface corrosion in the coal tar coating.</p>	

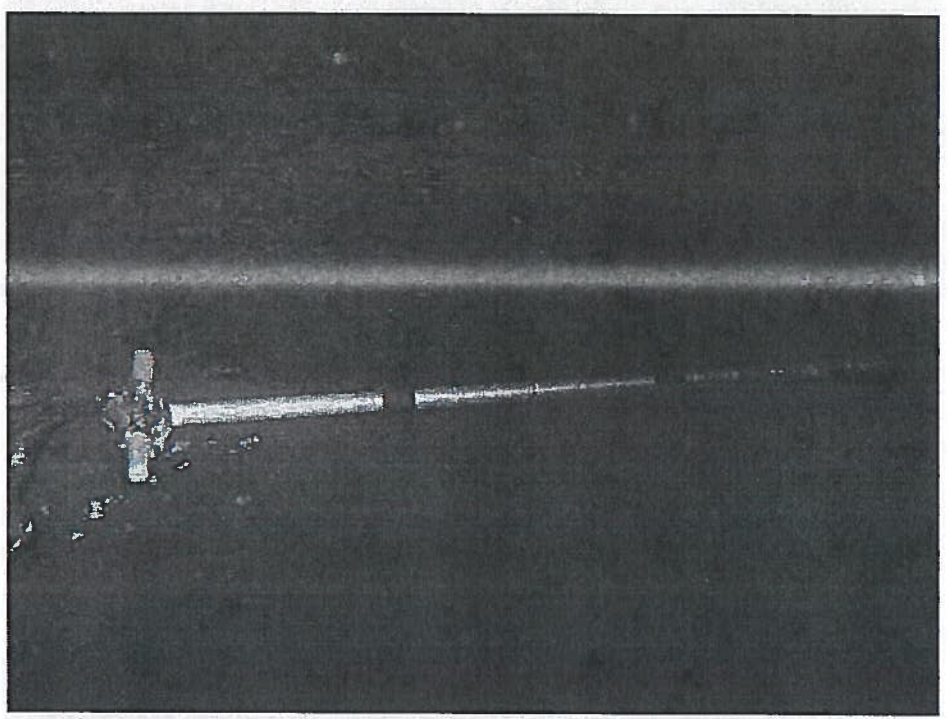


**Reservoir Name**

**Image #23**  
*Interior Floor 12:00*

**Condition:**  
Rust Grade<sup>1</sup> 7.

**Description:**  
Interior Floor appeared to be in good condition with minor surface corrosion in the coal tar coating.



**Image #24**  
*Interior Inlet / Outlet 1:00*

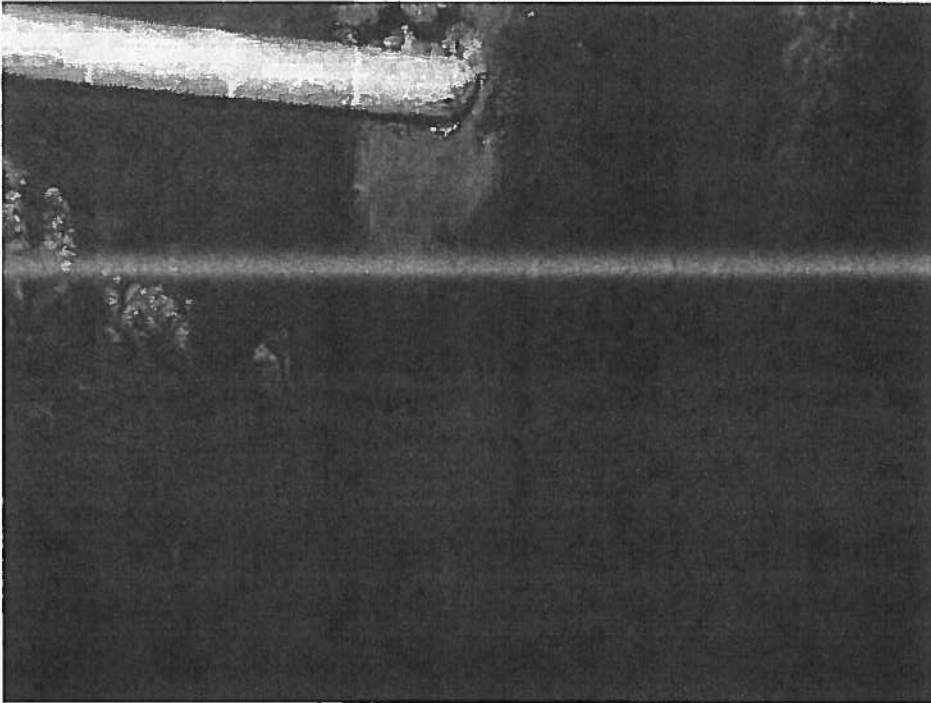
**Condition:**  
Rust Grade<sup>1</sup> 6.

**Description:**  
12'' Interior Inlet / Outlet appeared to be in good condition, minor surface corrosion was observed.





**Reservoir Name**

<p><b>Image #25</b></p> <p><i>Interior Water Tap One</i> 12:45</p> <p><b>Condition:</b> Rust Grade<sup>1</sup> <u>5.</u></p> <p><b>Description:</b> Water Tap One (1") appeared to be in fair condition with minor surface corrosion.</p>	
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<p><b>Image #26</b></p> <p><i>Water Tap Two 1:00</i></p> <p><b>Condition:</b> Rust Grade<sup>1</sup> <u>7.</u></p> <p><b>Description:</b> Water Tap Two (1") appeared to be in good condition with minor surface corrosion.</p>	
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**Reservoir Name**

Image #27

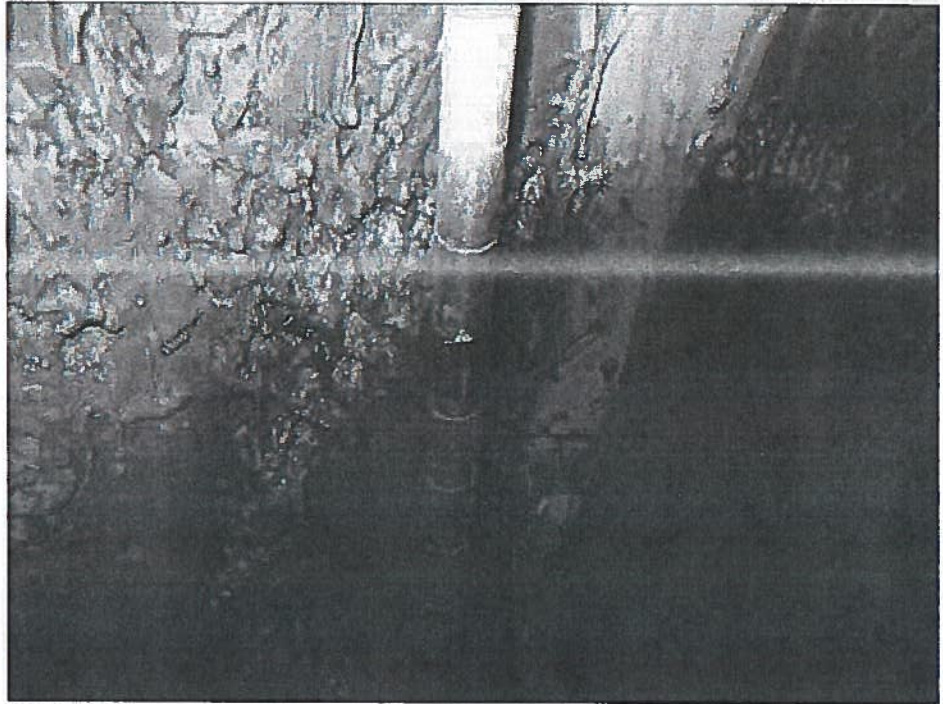
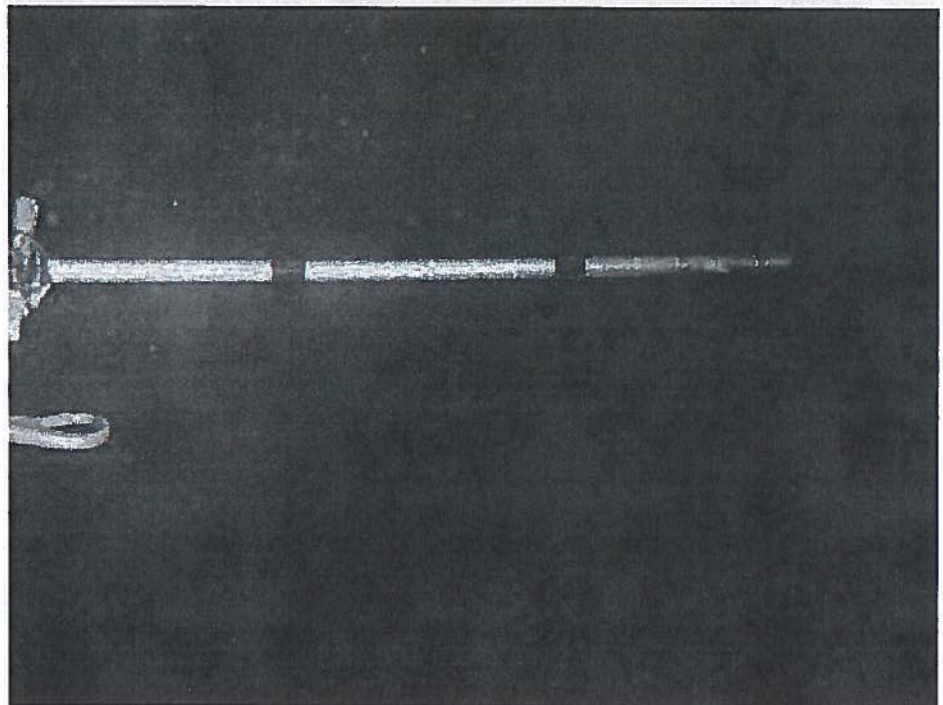
*Interior Wall 3:00***Condition:**  
Rust Grade<sup>1</sup> 6.**Description:**  
Interior Walls appeared to be in fair condition with minor to moderate surface corrosion in the coal tar coating.

Image #28

*Interior Floor 3:00***Condition:**  
Rust Grade<sup>1</sup> 7.**Description:**  
Interior floor appeared to be in good condition with minor surface corrosion in the coal tar coating.

## Reservoir Name

Image #29

*Interior Man Entry 5:30*

**Condition:**  
Rust Grade 1\_7.

**Description:**  
Interior Man Entries appeared to be in good condition with minor staining and surface corrosion observed.

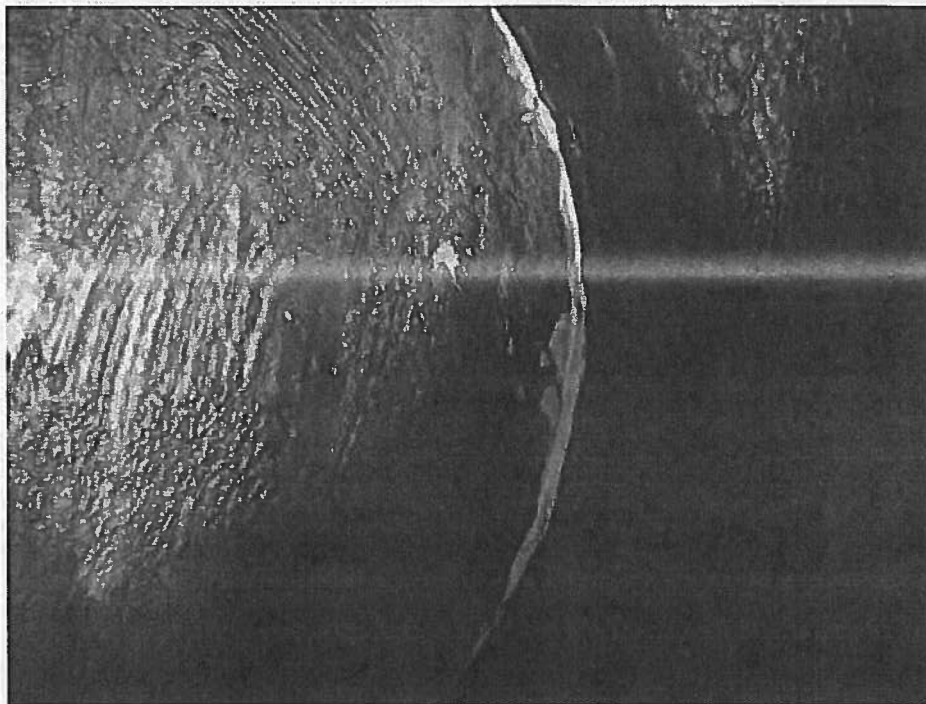
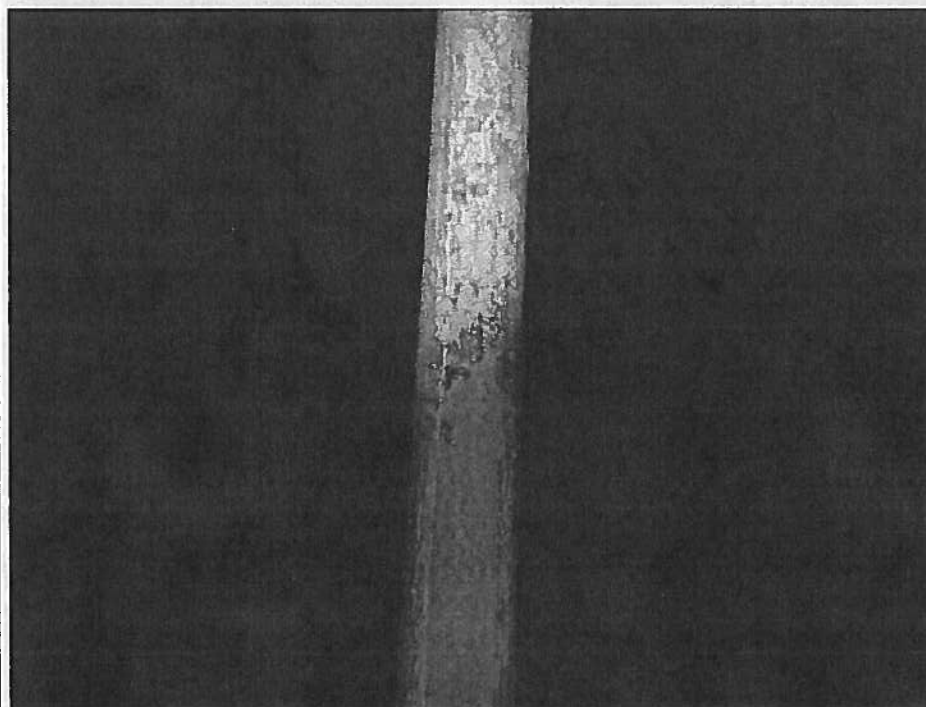


Image #30

*Anode*

**Condition:**  
Good

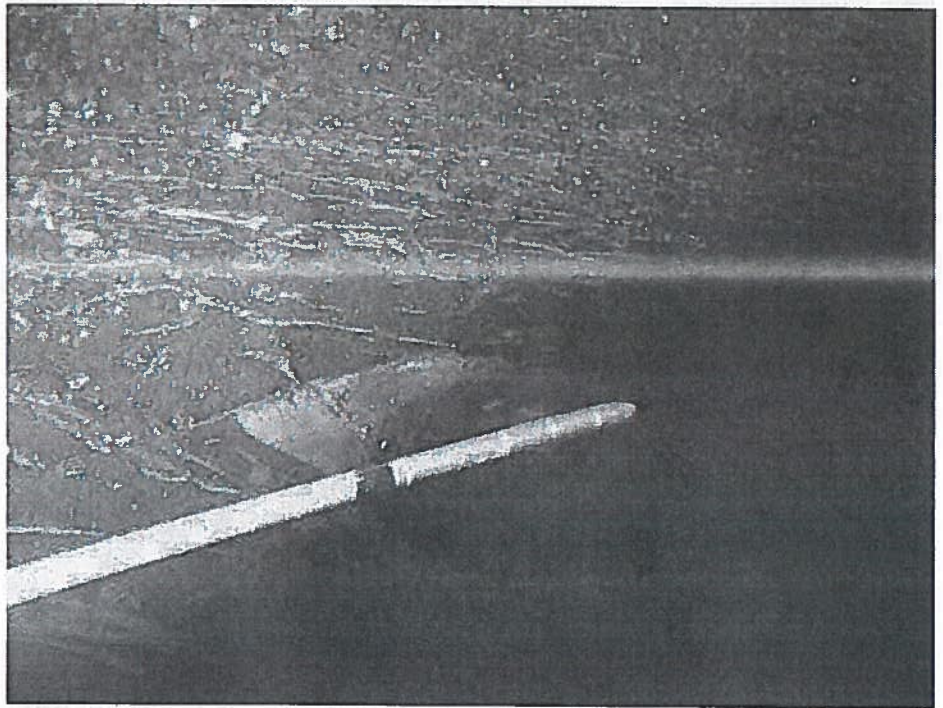
**Description:**  
Anode appeared to be properly suspended and about 85% remaining.



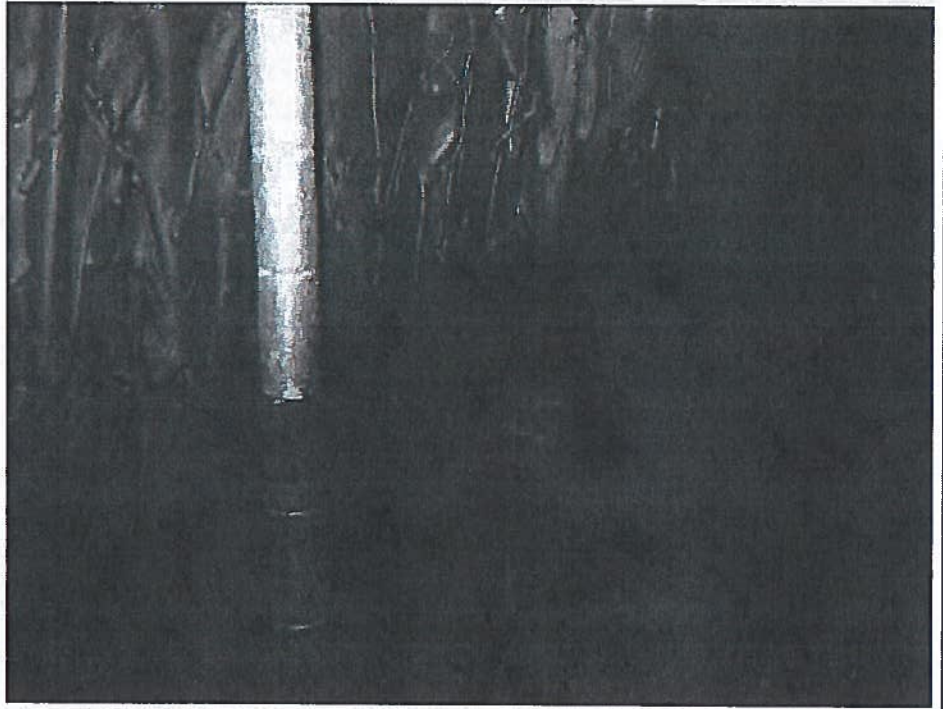


**Reservoir Name**

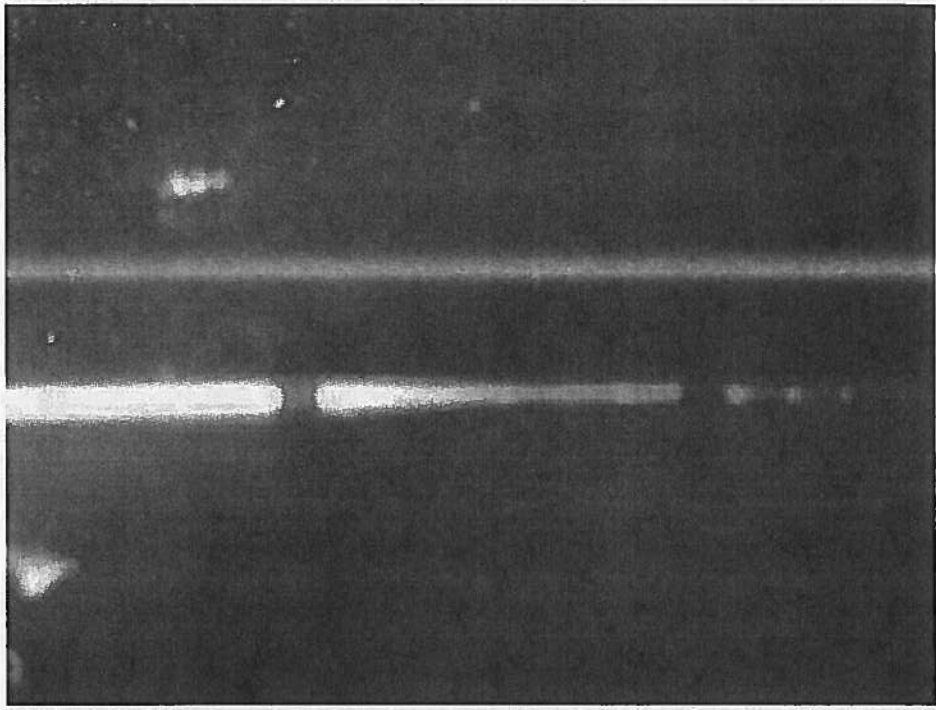
**Image #31**  
*Drain 7:00*  
**Condition:**  
Rust Grade<sup>1</sup> 7.  
**Description:**  
6'' Drain appeared to be in good condition with minor corrosion in the coal tar coating

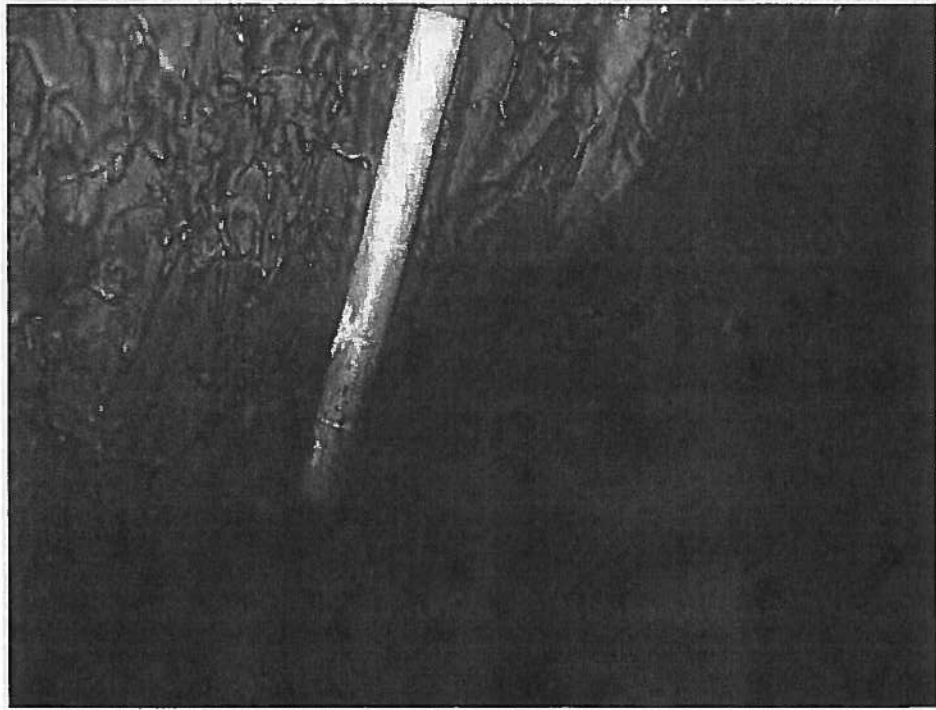


**Image #32**  
*Interior Wall 6:00*  
**Condition:**  
Rust Grade<sup>1</sup> 6.  
**Description:**  
Interior Walls appeared to be in fair condition with minor to moderate surface corrosion in the coal tar coating.



# Reservoir Name

<p><b>Image #33</b></p> <p><i>Interior Floor 6:00</i></p> <p><b>Condition:</b> Rust Grade<sup>1</sup> <u>7.</u></p> <p><b>Description:</b> Interior Floor appeared to be in good condition with minor surface corrosion in the coal tar coating.</p>	
--	--

<p><b>Image #34</b></p> <p><i>Interior Wall 6:00</i></p> <p><b>Condition:</b> Rust Grade<sup>1</sup> <u>6.</u></p> <p><b>Description:</b> Interior Walls appeared to be in fair condition with minor to moderate surface corrosion in the coal tar coating.</p>	
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**Reservoir Name**

Image #35

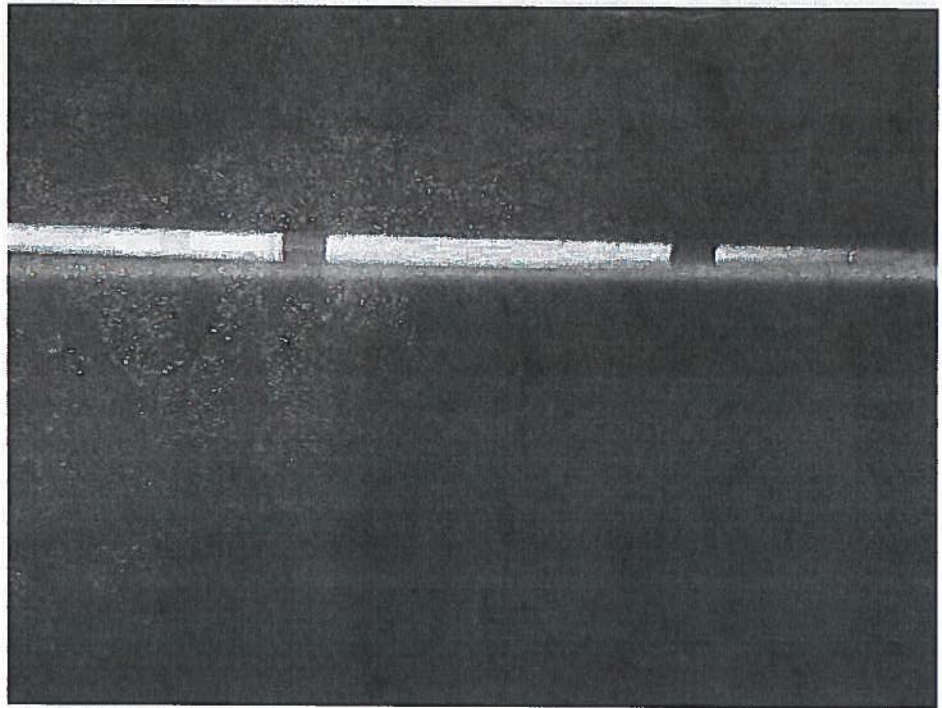
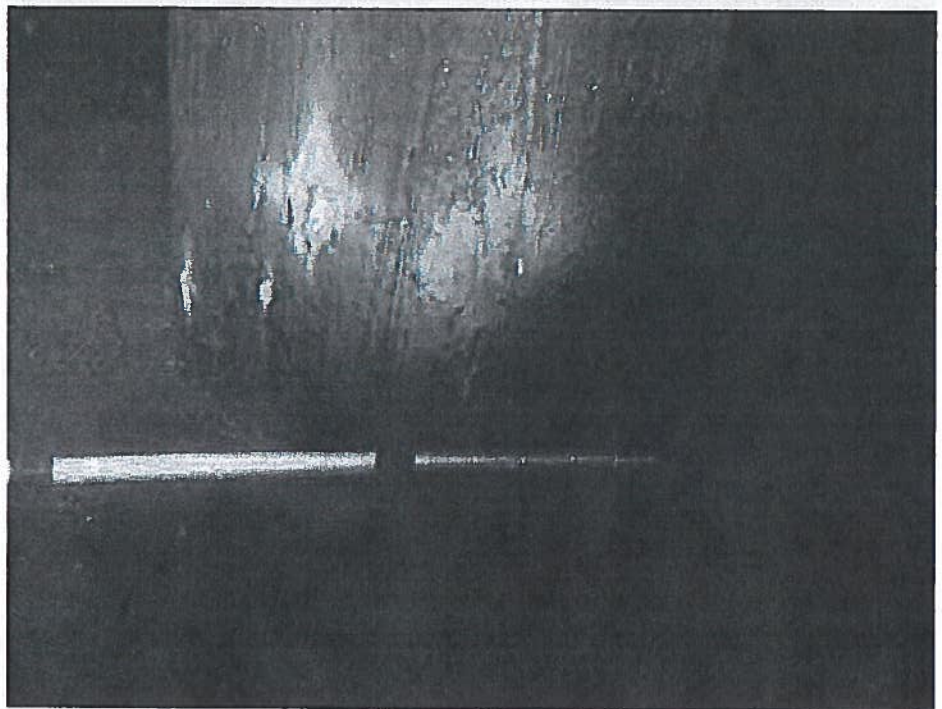
*Interior Floor 6:00***Condition:**  
Rust Grade<sup>1</sup> 7.**Description:**  
Interior Floor appeared to be in good condition with minor surface corrosion in the coal tar coating.

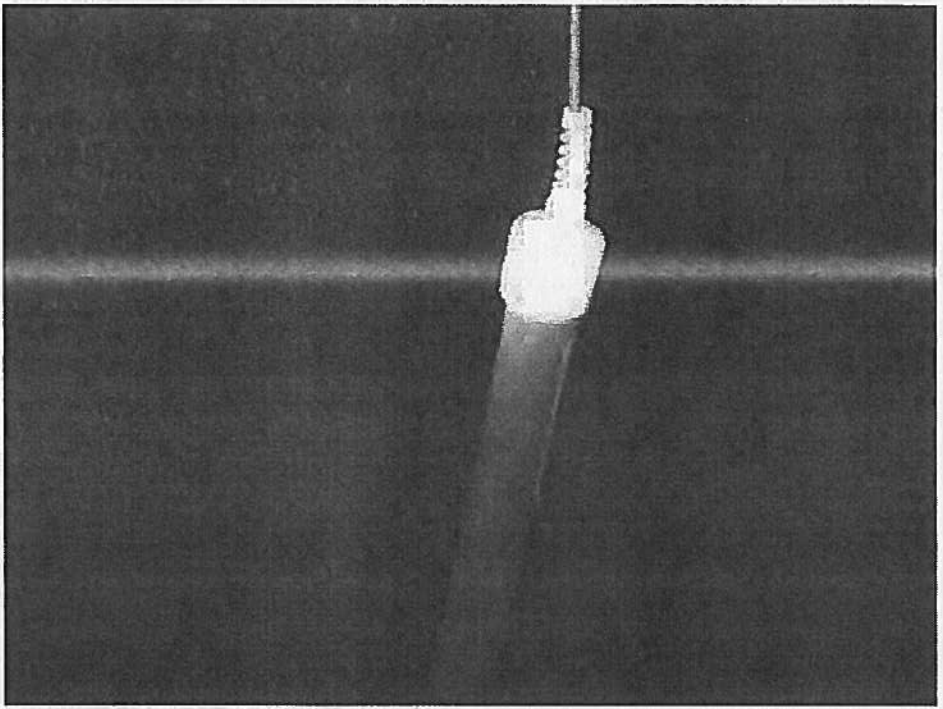
Image #36

*Interior Column***Condition:**  
Rust Grade<sup>1</sup> 6.**Description:**  
10'' Support Column appeared to be in good condition with minor to moderate surface corrosion in the coal tar coating.

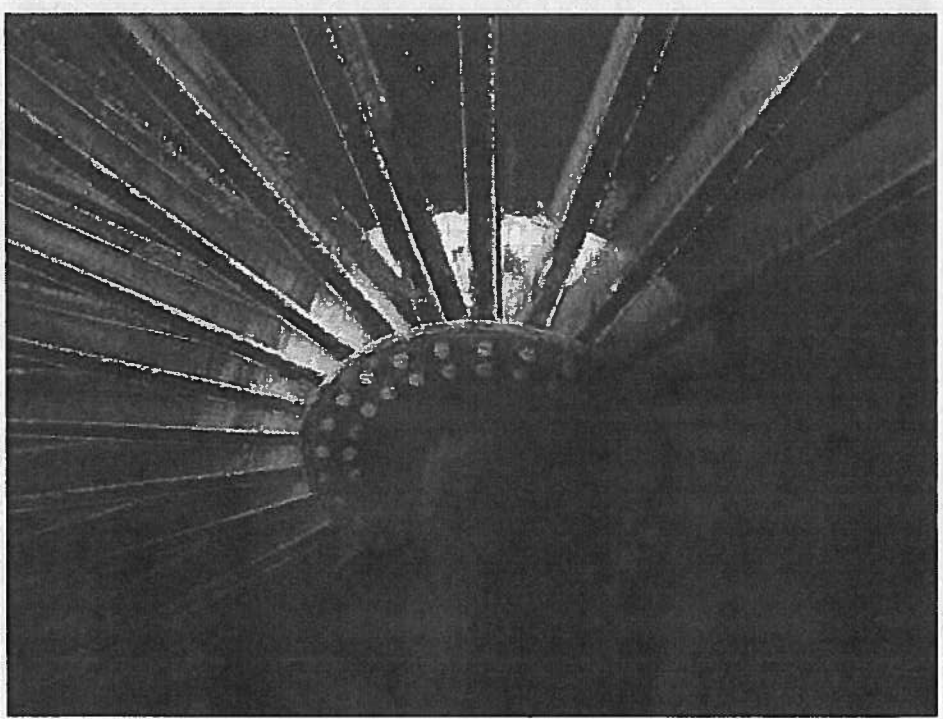


**Reservoir Name**

**Image #37**  
*Center Reference Cell*  
**Condition:**  
Good  
**Description:**  
Reference Cell  
appeared to be  
properly suspended  
and in working order.

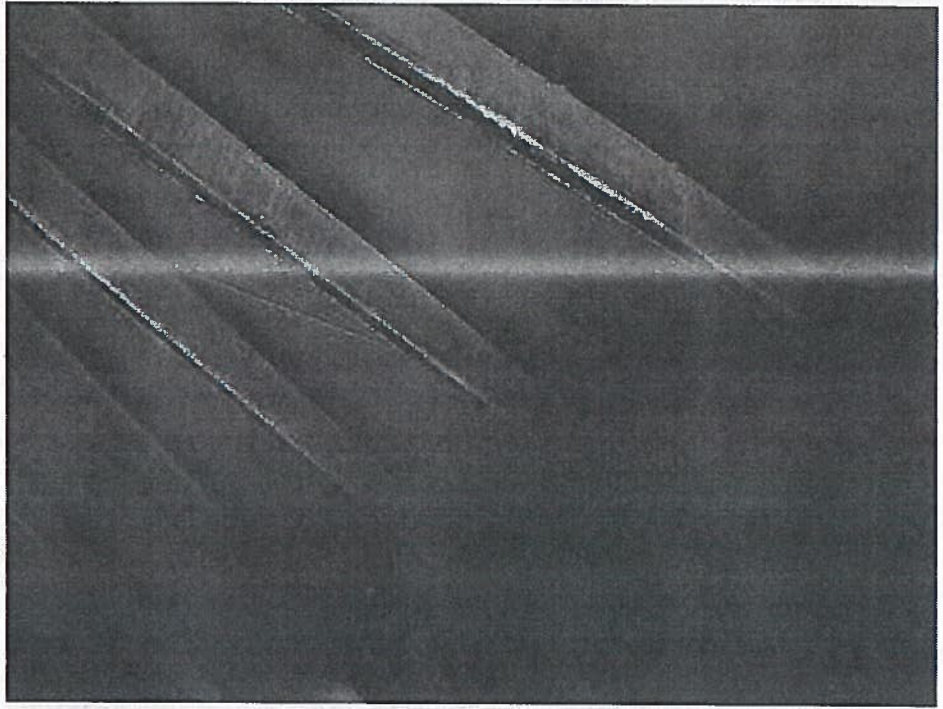


**Image #38**  
*Center Ceiling*  
**Condition:**  
Rust Grade 7.  
**Description:**  
Center Ceiling  
appeared to be in good  
condition with minor  
surface corrosion  
observed. No evidence  
of scaling from ceiling  
was observed on floor  
during the cleaning  
process.

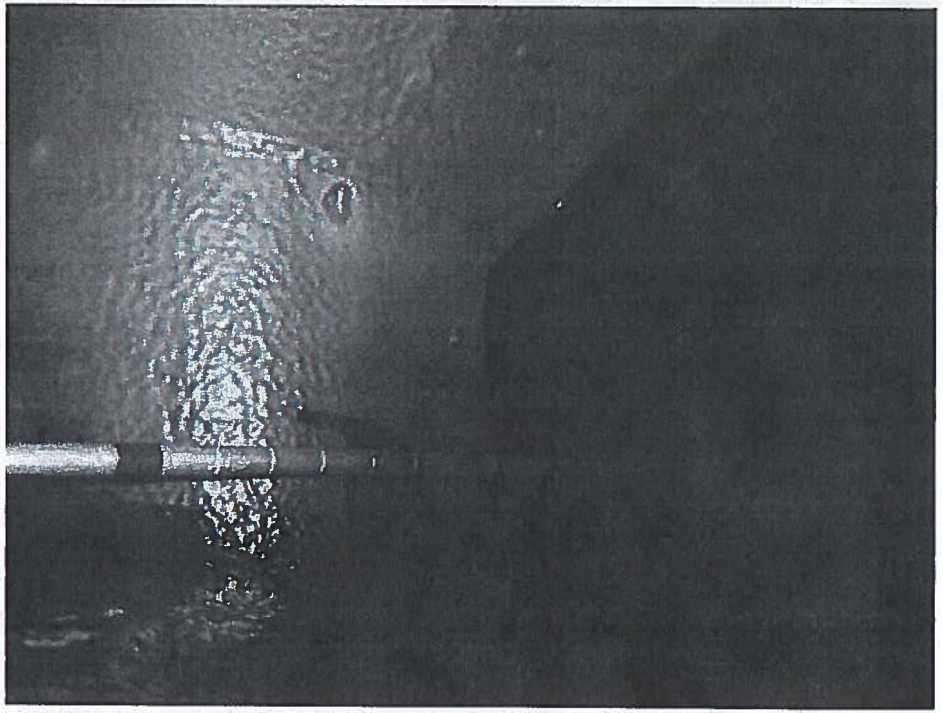


**Reservoir Name**

**Image #39**  
*Ceiling 3:00*  
**Condition:**  
Rust Grade<sup>1</sup> 7.  
**Description:**  
Ceiling appeared to be in good condition with minor surface corrosion observed. No evidence of scaling from ceiling was observed on floor during the cleaning process.

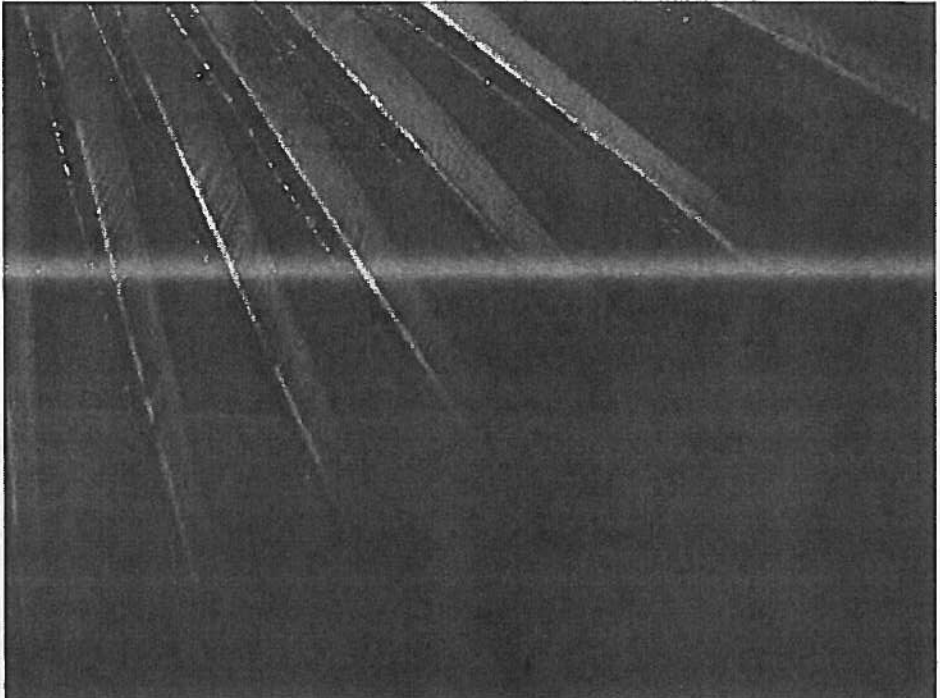


**Image #40**  
*Interior Overflow 6:00*  
**Condition:**  
Rust Grade<sup>1</sup> 8.  
**Description:**  
10" Interior Overflow appeared to be in good condition with minor surface corrosion observed on top edge.

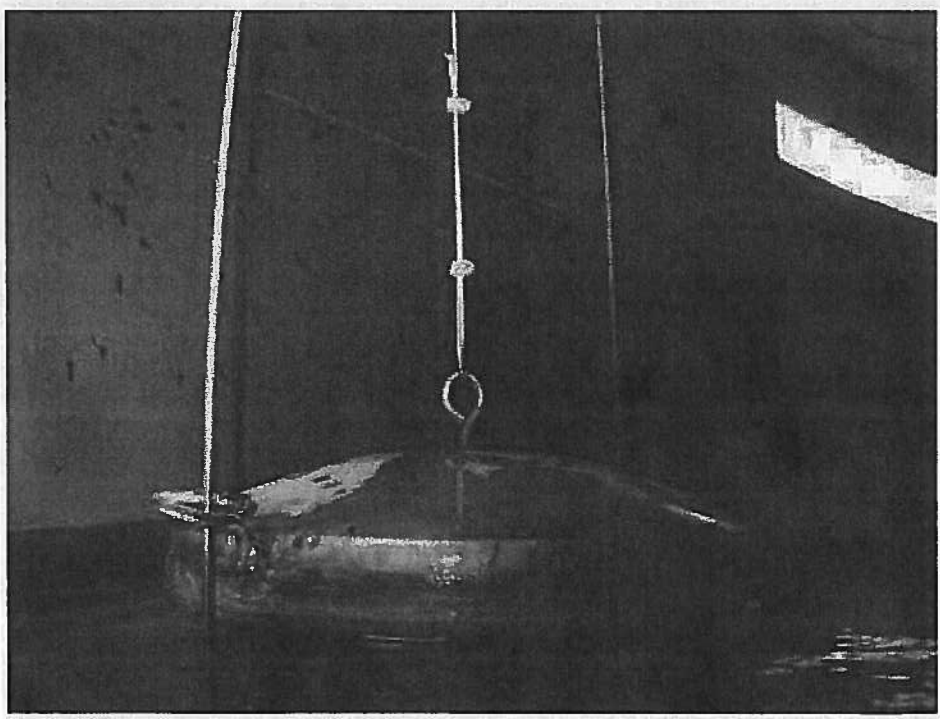


**Reservoir Name**

**Image #41**  
*Ceiling 9:00*  
**Condition:**  
Rust Grade<sup>1</sup> 7.  
**Description:**  
Ceiling appeared to be in good condition with minor surface corrosion observed. No evidence of scaling from ceiling was observed on floor during the cleaning process.



**Image #42**  
*Manual level Indicator 12:10*  
**Condition:**  
Rust Grade<sup>1</sup> 9.  
**Description:**  
Manual Level Indicator float appeared to be in good condition and properly suspended.





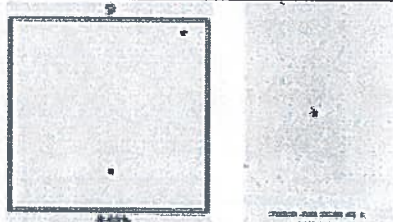
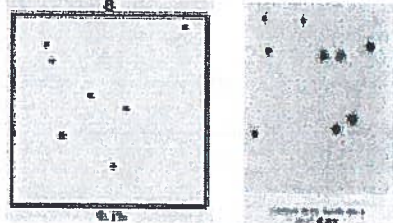
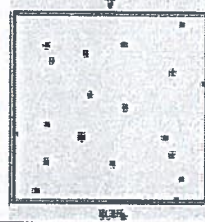
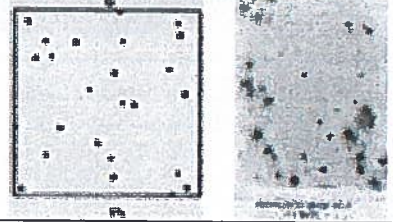
**Reservoir Name**

**REFERENCES:**

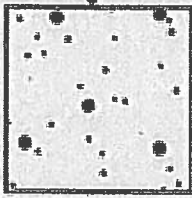
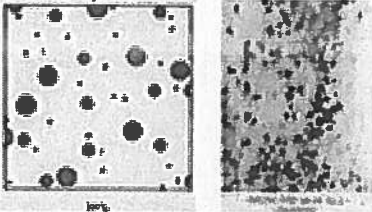
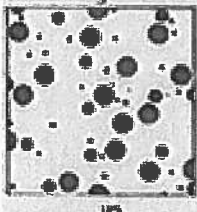
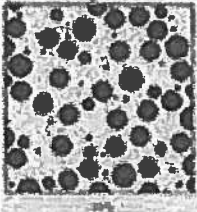
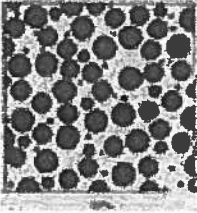
**Standard Method of Evaluating Degree of Rusting on Painted Steel Surfaces  
– SSPC-Vis 2-82 & ASTM D 610-85 (1989)**

The graphical representations show examples of area percentages, which may be helpful in rust grading. The use of photographic reference standards requires the following precautions:

1. Some finishes are stained by rust. This staining must not be confused with the actual rusting involved.
2. Accumulated dirt or other material may make accurate determination of the degree of rusting difficult.
3. Certain types of deposited dirt that contain iron or iron compounds may cause surface discoloration that should not be mistaken for corrosion.
4. It must be realized that failure may vary over a given area and discretion must therefore be used in applying these reference standards.
5. In evaluating surfaces, consideration shall be given to the color of the finish coating, since failures will be more apparent on a finish that shows color contrast with rust, such as white, than on a similar color, such as iron oxide finish.
6. The photographic reference standards are not required for use of the rust-grade scale since the scale is based upon the percent of the area rusted and any method of assessing area rusted may be used to determine the rust grade.

Rust Grades <sup>A</sup>	Description	Graphical Representation
10	No rusting or less than 0.01% of surface rusted	Unnecessary
9	Minute rusting, less than 0.03% of surface rusted	
8	Few isolated rust spots, less than 0.1% of surface rusted	
7	Less than 0.3% of surface rusted	
6	Extensive rust spots, but less than 1% of surface rusted	

**Reservoir Name**

5	Rusting to the extent of 3% of surface rusted	
4	Rusting to the extent of 10% of surface rusted	
3	Approximately on sixth of the surface rusted (16%)	
2	Approximately one third of the surface rusted (33%)	
1	Approximately one half of the surface rusted (50%)	
0	Approximately 100% of the surface rusted	Unnecessary





## New Business

### 4. Discussion/Action Item:

Board Training: AB54 & AB240 Ethics  
Training  
(by AGM Lemus)



# Jan-June 2021 Registration Form

There is **NO FEE** to attend these workshops. Please register in advance, as space may be limited. Priority will be given to smaller water systems. Please complete one form for each person who will attend. You can also register online at [www.rcac.org](http://www.rcac.org) under *Trainings and Events*.

Name: \_\_\_\_\_

Email: \_\_\_\_\_ (All notifications regarding workshop changes are made via email)

Company or Water System: \_\_\_\_\_

Preferred phone:  Work  Home or  Mobile: ( \_\_\_\_\_ ) Preferred mailing address:  Organization or  Home:

Mailing address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Type of Water System:  Community  Non-community  Non-community/Non-transient  N/A

Water System ID#: \_\_\_\_\_ Number of connections: \_\_\_\_\_ Serves less than 10,000 population:  Yes  No

Operator Certification #(s):  Distribution \_\_\_\_\_  Treatment \_\_\_\_\_  Wastewater \_\_\_\_\_

**SPECIAL NEEDS:** If you have special needs addressed by the Americans with Disabilities Act, please notify RCAC at (916) 447-9832 ext. 1003 or [mayres@rcac.org](mailto:mayres@rcac.org) at least three weeks prior to each workshop you are attending, so that we may make accommodations for you.

**COVID-19 Response:** We are monitoring the situation and will adhere to state and county COVID-19 guidelines/restrictions. All classroom workshops are subject to change in an effort to ensure public and trainer safety, and to comply with guidelines/restrictions.

*Please register me for the following workshop(s):*

### Online Workshops (one-part)

- 01/06/2021  10 a.m. or  2 p.m. Pathogens in Drinking Water
- 01/13/2021  10 a.m. or  2 p.m. Water Quality Sampling
- 01/20/2021  10 a.m. Budgeting for Small Water Systems
- 01/20/2021  2 p.m. Customer Communications & Transparency
- 01/20/2021  10 a.m. or  2 p.m. Surface Water Treatment Rule
- 01/20/2021  6 p.m. 1/20/21 **AB54 & AB240**
- 02/09/2021  10 a.m. Using MHI Data for Water System Management
- 02/09/2021  2 p.m. Capacity Building Through Partnerships
- 02/10/2021  10 a.m. or  2 p.m. Pumps, Motors & Energy Efficiency
- 02/16/2021  10 a.m. or  2 p.m. Completing the Electronic Annual Report
- 02/17/2021  10 a.m. or  2 p.m. Understanding Bacteriological Quality Standards
- 02/18/2021  10 a.m. or  2 p.m. Water Distribution Math Techniques
- 03/02/2021  10 a.m. or  2 p.m. Recruitment & Retention
- 03/16/2021  10 a.m. or  2 p.m. Operations Plans
- 03/17/2021  10 a.m. **AB54 & AB240**
- 03/30/2021  10 a.m. or  2 p.m. Compliance Monitoring & Reporting
- 04/13/2021  10 a.m. or  2 p.m. Rate Setting for Small Water Systems
- 04/14/2021  10 a.m. or  2 p.m. Cross Connection Controls
- 05/04/2021  6 p.m. **AB54 & AB240**
- 05/06/2021  10 a.m. or  2 p.m. Go Small and Go Home
- 05/25/2021  10 a.m. or  2 p.m. Operating During Public Safety Power Shut-off
- 05/26/2021  10 a.m. or  2 p.m. Consumer Confidence Reporting Compliance
- 06/02/2021  10 a.m. Beat the Cyanobacterial Blues
- 06/02/2021  2 p.m. Water System Basic Operations
- 06/03/2021  10 a.m. or  2 p.m. Hydrant Installation
- 06/15/2021  10 a.m. or  2 p.m. Groundwater Wells with Iron
- 06/16/2021  10 a.m. Arsenic Rule Compliance
- 06/16/2021  2 p.m. Dealing with Nitrates Contamination

### Online Workshops (two-part)

- 01/05/2021  10 a.m. & 2 p.m. Asset Series: Capital Improvement Plans & Google... Once More into the Bleach
- 01/12/2021  10 a.m. & 2 p.m. Budgeting Analysis & Rate Setting
- 01/26/2021  10 a.m. & 2 p.m. Distribution System Operation & Maintenance
- 01/27/2021  10 a.m. & 2 p.m. Operations Maintenance Series: Maintaining Water... Resiliency & Vulnerability Planning
- 02/02/2021  10 a.m. & 2 p.m. Drought Contingency Planning and Water Loss
- 02/03/2021  10 a.m. & 2 p.m. Asset Management & Capital Improvement Planning
- 02/23/2021  10 a.m. & 2 p.m. Pumps & Motors Troubleshooting
- 02/24/2021  10 a.m. & 2 p.m. The Building Blocks of Successful Construction ...
- 03/03/2021  10 a.m. & 2 p.m. No Bad Bugs: Protecting Your System from ...
- 03/09/2021  10 a.m. & 2 p.m. Financial Policies & Procedures
- 03/10/2021  10 a.m. & 2 p.m. Groundwater Treatment Techniques
- 03/17/2021  10 a.m. & 2 p.m. Developing and Keeping Utility Personnel
- 03/31/2021  10 a.m. & 2 p.m. Navigating Public Meetings Virtually
- 04/01/2021  10 a.m. & 2 p.m. How to Prepare for Sanitary Surveys
- 04/15/2021  10 a.m. & 2 p.m. Basic Electrical Concepts
- 04/27/2021  10 a.m. & 2 p.m. Water Operators & the Capital Improvement Plan
- 04/28/2021  10 a.m. & 2 p.m. Budgeting Analysis & Rate Setting
- 05/11/2021  10 a.m. & 2 p.m. Revised Total Coliform Rule & Level 1 Assessment
- 05/12/2021  10 a.m. & 2 p.m. Source Water Protection
- 05/13/2021  10 a.m. & 2 p.m. Financial Management & Accounting with QuickBooks
- 05/27/2021  10 a.m. & 2 p.m. Building Your Google Earth GIS Model & Map
- 06/08/2021  10 a.m. & 2 p.m.
- 06/09/2021  10 a.m. & 2 p.m.

### Classroom Workshops

- 04/06/2021 Disinfection Byproducts Rule ..... (Atascadero)
- 04/07/2021 Distribution System Essentials ..... (Atascadero)
- 04/20/2021 Distribution System Repair and Installation Procedures... (Sacramento Area)
- 04/21/2021 Asset Management & Capital Improvement Planning ... (Sacramento Area)
- 05/04/2021 Capital Improvement Project Planning ..... (Fortuna)
- 05/05/2021 Utility Bookkeeping 101 ..... (Fortuna)
- 05/12/2021 Emergency and Disaster Response Planning ..... (El Centro)
- 05/13/2021 Protecting Your System: Financial Safeguards ..... (El Centro)
- 05/20/2021 CalTAP Fair ..... (Napa)

**Registration questions or problems? Contact the Training Department:**

Email: [registration@rcac.org](mailto:registration@rcac.org)

Phone: (916) 447-9832 ext. 1429 • Fax: (916) 372-5636

Mail: RCAC • 3120 Freeboard Drive, Suite 201 • West Sacramento, CA 95691



# Old Business

## 1. Discussion/Action Item:

### NBS Water Rate Study Review and Discussion (by Board)



67/162



**NOTICE OF PUBLIC HEARING AND WORKSHOP ON PROPOSED  
ADJUSTMENTS AND INCREASES TO  
CABAZON WATER DISTRICT WATER SERVICE CHARGES**

The Cabazon Water District invites the public to attend a public hearing to be held on **Tuesday, February 16, 2021, at 6:00 p.m.**, to consider the adoption of a 5-year schedule of water rates. The public hearing will be held at the District offices located at **14618 Broadway Street, Cabazon, CA 92230**. The purpose of the public hearing is to consider all oral testimony and written protests to, and the adoption of, the proposed rates. If adopted, the new water rates will go into effect for services provided on and after March 1, 2021, and will be adjusted each January 1 thereafter beginning January 1, 2022, and through and including, January 1, 2025.

**REASONS FOR THE RATE ADJUSTMENTS AND INCREASES**

The District is committed to providing the highest quality water at the lowest possible rates for our customers. To meet this commitment, over the last five years the District has worked to manage operations and maintenance costs and maintain lower water rate increases. Despite these efforts, there are costs that continue to increase that cannot be avoided. The District engaged NBS consultants (NBS) to perform an independent water rate study and evaluate the infrastructure, programs, and operations and maintenance costs of the District’s water services and the rates necessary to recover the costs of those services for the next five years. A cost of service and rate study demonstrates what it costs the District to provide water service and the appropriate rates to fairly and appropriately allocate the costs of providing water to our customers. The cost of providing water includes not only the water the District pumps, but the infrastructure that treats and delivers the water to ensure that there is safe and reliable water to meet the demands of all of our water customers twenty-four hours a day, seven days a week.

Based on NBS’s evaluation, it has been determined that rate adjustments and increases are necessary for the District’s water service charges to enable the District to:

- recover current and long-term projected costs of operating and maintaining the water system;
- fund capital infrastructure improvements needed to repair and update the District’s aging water system;
- maintain the operational and financial stability of the water utility;
- comply with State mandated drinking and groundwater water regulatory requirements; and
- avoid operational deficits and depletion of reserves.

**PROPOSED RATES AND HOW THE RATES ARE CALCULATED**

The proposed rates are calculated to recover the costs of providing water services and to proportionately allocate those costs on a parcel basis among the District’s customers. The proposed water rate structure has two customer classes—Single Family Residential (SFR), Non-Single Family Residential (Non-SFR). The District also provides water to one customer pursuant to a contract. The proposed rate structure has three components—a Service Charge, a Volume Charge, and a Fire Service Charge. The proposed rates are described in more detail below.

The proposed Service Charge is a fixed monthly charge calculated to recover a portion of the District’s fixed costs, such as meter reading, billings and collections. The proposed rates for the Service Charge are established on the basis of the size of the meter (in inches) serving a property to recover the incremental costs of sizing facilities to sufficiently deliver water to properties served by larger meters. The Volume Charge is a variable charge imposed per unit of delivered water, with one unit equal to one hundred cubic feet (HCF), or 748 gallons, and is calculated to recover a portion of the District’s fixed costs

and its variable costs of providing water service. The Fire Service Charge is imposed on Single Family Residential, Non-Single Family Residential, or Commercial customers who are required as a condition of extending or initiating water service to install a private fire suppression system on their property, or where the customer or property owner has requested the delivery of water to the property for the purpose of fire service protection. The Fire Service Charge recovers that District's fixed costs of operating and maintaining infrastructure for private fire service.

For Single Family Residential customers the current rate structure for the Volume Charge has three tiers which impose higher rates as the level of consumption increases. Under the proposed rates, for Single Family Residential customers the Volume Charge will consist of three tiers. The tiers are designed to recover the incremental costs to the District of serving more water to those who place higher demands and greater burdens on the District's water system and resources. These costs include, for example, sizing, operating and maintaining water pipes, reservoirs, pump stations and other related facilities to meet this additional demand. Due to the varying consumption needs among Non-Single Family Residential customers and the contract customer, and the relatively small number of these customers, the Volume Charge is a uniform rate per HCF of water delivered during a billing period.

The amount of the Service Charge and the Fire Service Charge imposed is the same each month. The amount of the Volume Charge imposed varies each month depending on the number of units of water each customer uses during the billing period. The current rates and the proposed maximum rates and effective dates for the Service Charges, Fire Service Charges, and Volume Charges are set forth in the tables below.

<b>CURRENT AND PROPOSED RATES FOR MONTHLY FIXED SERVICE CHARGE (\$/METER SIZE)</b>						
<b>Meter Size</b>	<b>Current Rates as of 12/1/2020</b>	<b>Proposed Rates and Effective Dates</b>				
		<b>3/1/2021</b>	<b>1/1/2022</b>	<b>1/1/2023</b>	<b>1/1/2024</b>	<b>1/1/2025</b>
5/8 inch	\$68.10	\$33.34	\$34.35	\$35.38	\$36.44	\$37.53
3/4 inch	\$98.24	\$47.27	\$48.69	\$50.15	\$51.66	\$53.21
1 inch	\$158.51	\$75.13	\$77.38	\$79.71	\$82.10	\$84.56
1.5 inch	\$309.21	\$144.77	\$149.12	\$153.59	\$158.20	\$162.94
2 inch	\$490.04	\$228.35	\$235.20	\$242.25	\$249.52	\$257.01
3 inch	\$972.27	\$451.20	\$464.74	\$478.68	\$493.04	\$507.84
4 inch	\$1514.77	\$701.92	\$722.98	\$744.67	\$767.01	\$790.02
Contract (10 inch)	\$2233.06	\$2300.05	\$2369.05	\$6,212.13	\$6,398.49	\$6,590.45
Construction Meters (3 inch)	\$286.73	\$473.21	\$487.41	\$502.03	\$517.09	\$532.61

<b>CURRENT AND PROPOSED RATES FOR MONTHLY FIXED FIRE SERVICE CHARGE (\$/METER SIZE)</b>						
<b>Meter Size</b>	<b>Current Rates</b>	<b>Proposed Rates and Effective Dates</b>				
		<b>3/1/2021</b>	<b>1/1/2022</b>	<b>1/1/2023</b>	<b>1/1/2024</b>	<b>1/1/2025</b>
4 inch	\$61.54	\$34.05	\$35.08	\$36.13	\$37.21	\$38.33
6 inch	\$130.62	\$70.78	\$72.91	\$75.09	\$77.35	\$79.67
8 inch	\$212.11	\$119.76	\$123.35	\$127.05	\$130.86	\$134.79

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CURRENT AND PROPOSED RATES FOR MONTHLY COMMODITY CHARGE (\$/HCF)						
Customer Class	Current Rates	Proposed Rates and Effective Dates				
		3/1/2021	1/1/2022	1/1/2023	1/1/2024	1/1/2025
<i>Non-SFR</i>	\$2.96	\$6.12	\$6.31	\$5.06	\$5.21	\$5.37
<i>Contract Customer</i>	\$3.83	\$3.94	\$4.06	N/A	N/A	N/A
<i>SFR</i>						
<b>Current Tiers</b>						
Tier 1: 0-7 HCF	\$1.53	\$1.98	\$2.03	\$2.10	\$2.16	\$2.22
Tier 2: 8-14 HCF	\$3.35	\$7.00	\$7.21	\$7.43	\$7.65	\$7.88
Tier 3: 14+ HCF	\$5.12	\$12.84	\$13.22	\$13.62	\$14.03	\$14.45

### PUBLIC HEARING AND PROTESTS

Any record owner of a parcel upon which the water service charges are proposed to be imposed and any tenant directly liable for the payment of water service charges (i.e., a customer of record who is not a property owner) may submit a written protest to the proposed rate adjustments and increases to the District's water service charges; however, only one protest will be counted per identified parcel. Any written protest must: (1) state that the identified property owner or tenant is opposed to the proposed water rate adjustments and increases; (2) provide the location of the identified parcel (by street address, assessor's parcel number, or customer account number); and (3) include the name and signature of the property owner or tenant submitting the protest. Written protests may be submitted to the Clerk of the Board by mail or in person at 14618 Broadway Street, PO Box 297, Cabazon, CA 92230, or at the public hearing (date, time, and location noted above). All written protests must be received prior to the close of the public comment portion of the public hearing. Any protest submitted via e-mail or other electronic means will not be accepted as a valid written protest. Please indicate on the outside of any envelope mailed to the District Attn: Rate Hearing.

The Board of Directors will accept and consider all written protests and will hear and consider all oral comments to the proposed rate adjustments and increases at the public hearing. Oral comments at the public hearing will not qualify as formal protests unless accompanied by a written protest. Upon the conclusion of the public hearing, the Board of Directors will consider adoption of the proposed rate increases as described in this notice. If written protests against the proposed rates are not presented by a majority of the property owners or tenants of the identified parcels subject to the proposed rate increases, the Board of Directors will be authorized to adopt the rate increases.



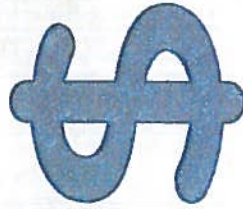
**Board of Director's Meeting  
September 15, 2020**

**Cabazon Water District  
Water Rate Study**





# Overview of the Rate Study



# Components of a Rate Study

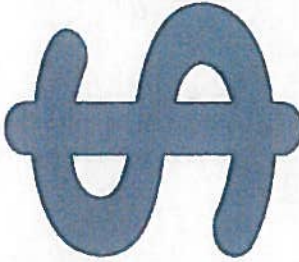
**1** FINANCIAL PLAN



**2** COST-OF-SERVICE ANALYSIS



**3** RATE DESIGN

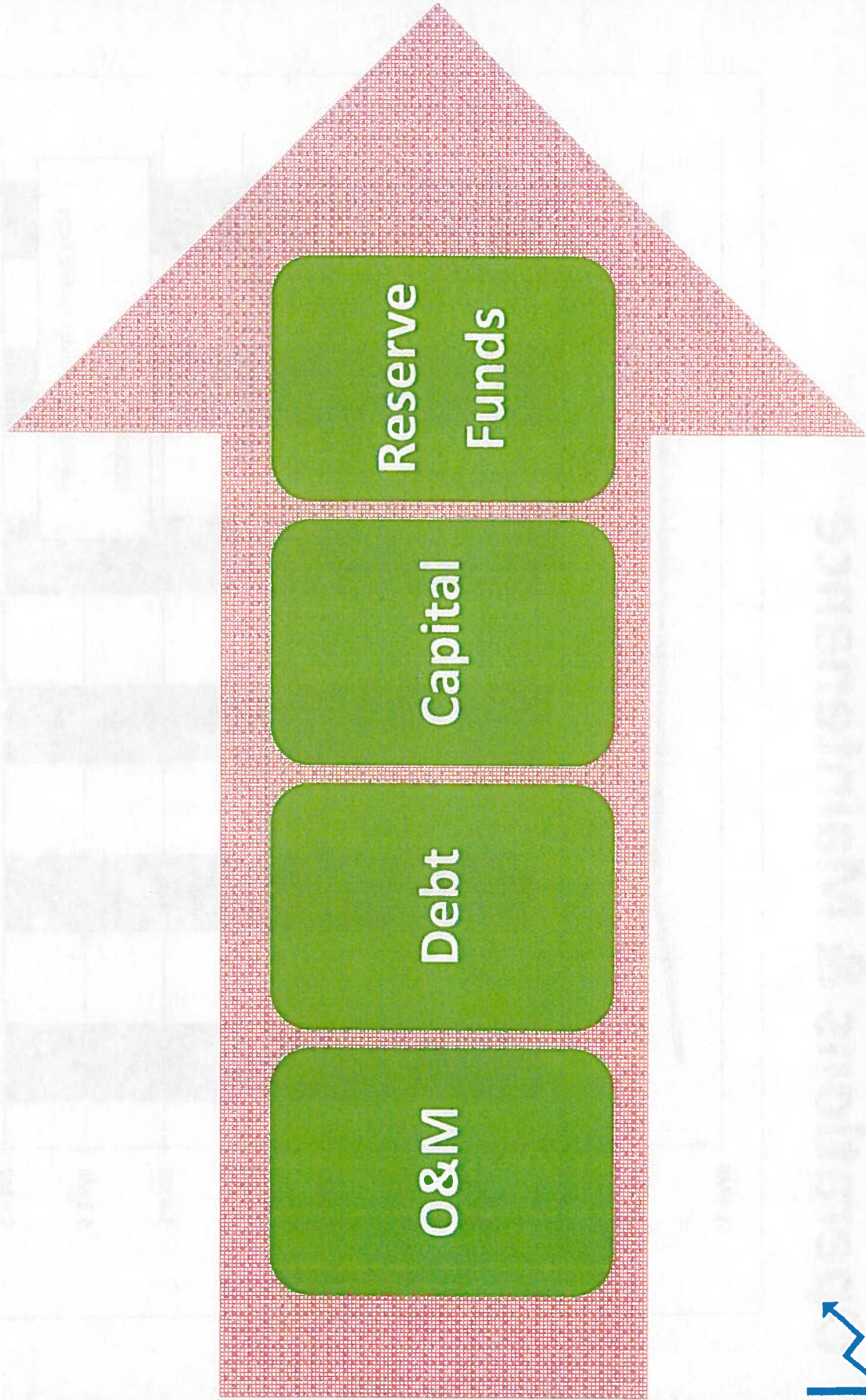




# Financial Plan



# Financial Plan Funding Priorities



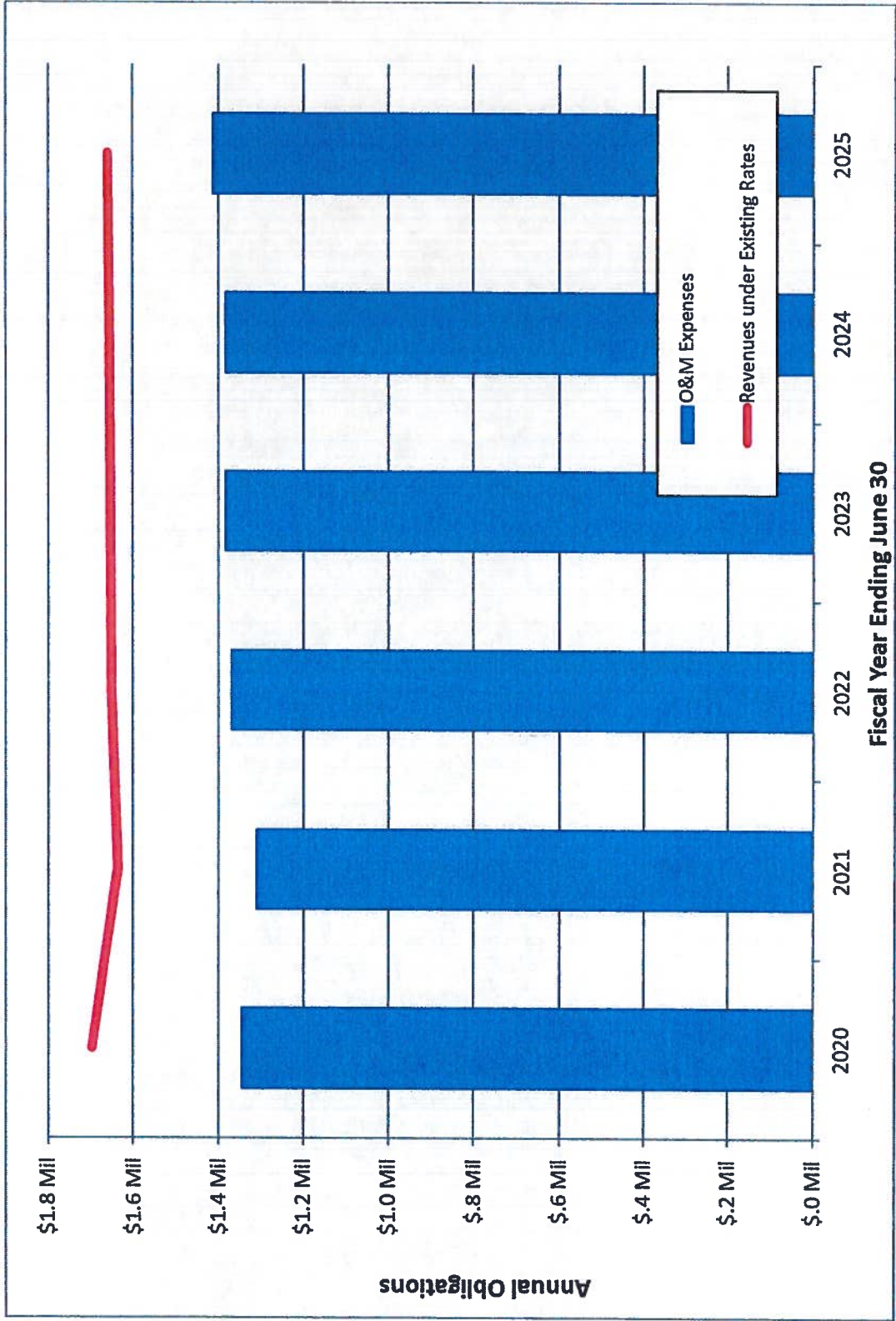
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# Operations & Maintenance

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Fiscal Year Ending June 30





# Debt Service

Debt	Time Frame	Annual Amount
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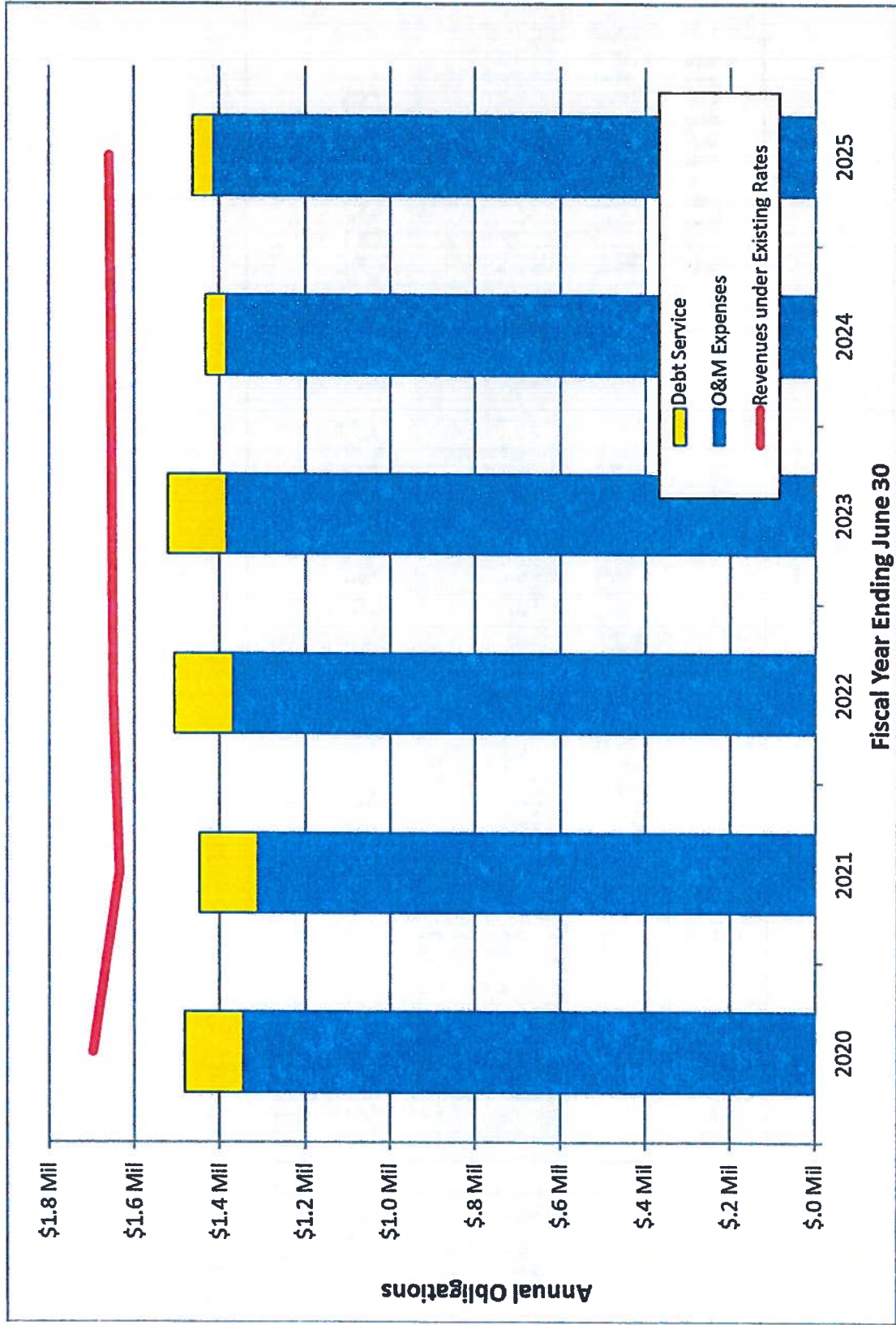
DWR Loan	Through FY 2026/27 <sup>1</sup>	\$48,691
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Zion First National	Through FY 2022/23	\$88,703
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1. Final payment for DWR Loan is \$15,754 in 2026/27.



# Debt Service



Fiscal Year Ending June 30

7/16/2



# Capital Improvement Program

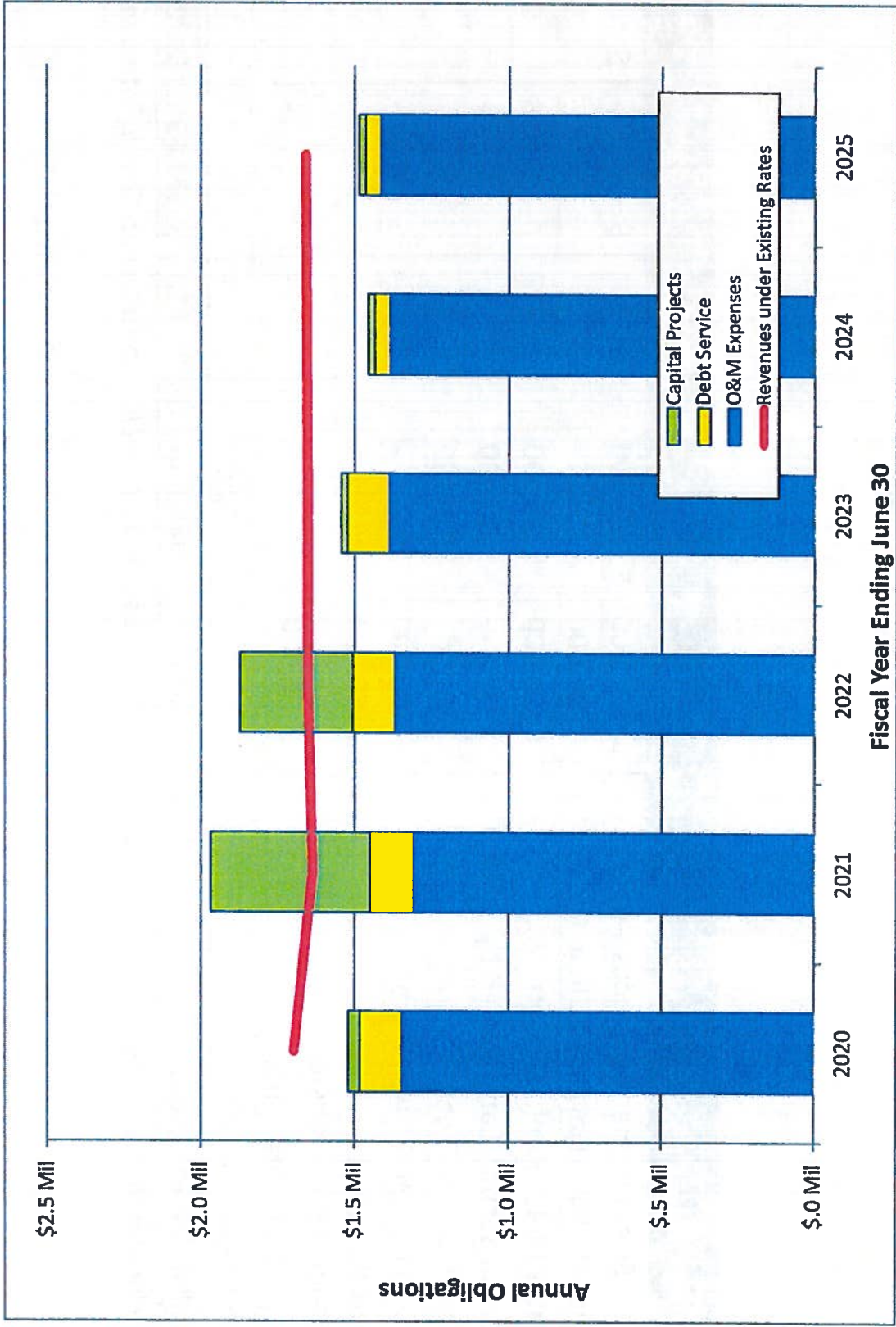
Project Description	2021	2022	2023	2024	2025
Main Street Property (Icehouse-Impts)	\$ 20,000	\$ 51,500	\$ -	\$ -	\$ -
Relocate Fire Hydrant at Circle K	15,000	-	-	-	-
Water Meter Replacements	20,000	20,600	21,218	21,855	22,510
Detach Section Land Locked by Tribe	-	30,900	-	-	-
Service Utility Truck	-	108,150	-	-	-
Production We11 #1 Rehab	240,000	-	-	-	-
Tank #1 Rehab	150,000	-	-	-	-
Connection & Transfer Box to W1 & W5 for portable generator	75,000	-	-	-	-
Bonita Vault Rehab	-	154,500	-	-	-
<b>Total: CIP Program Costs<sup>1</sup></b>	<b>\$ 520,000</b>	<b>\$ 365,650</b>	<b>\$ 21,218</b>	<b>\$ 21,855</b>	<b>\$ 22,510</b>

1. Includes inflation of 3% per year applied to original cost estimates (per ENR Construction Cost Inflation Index).





# Capital Improvement Program



7/1/22



# Reserve Funds

---

## Reserve Fund Target

Operating Reserve 180 days of O&M Expenses

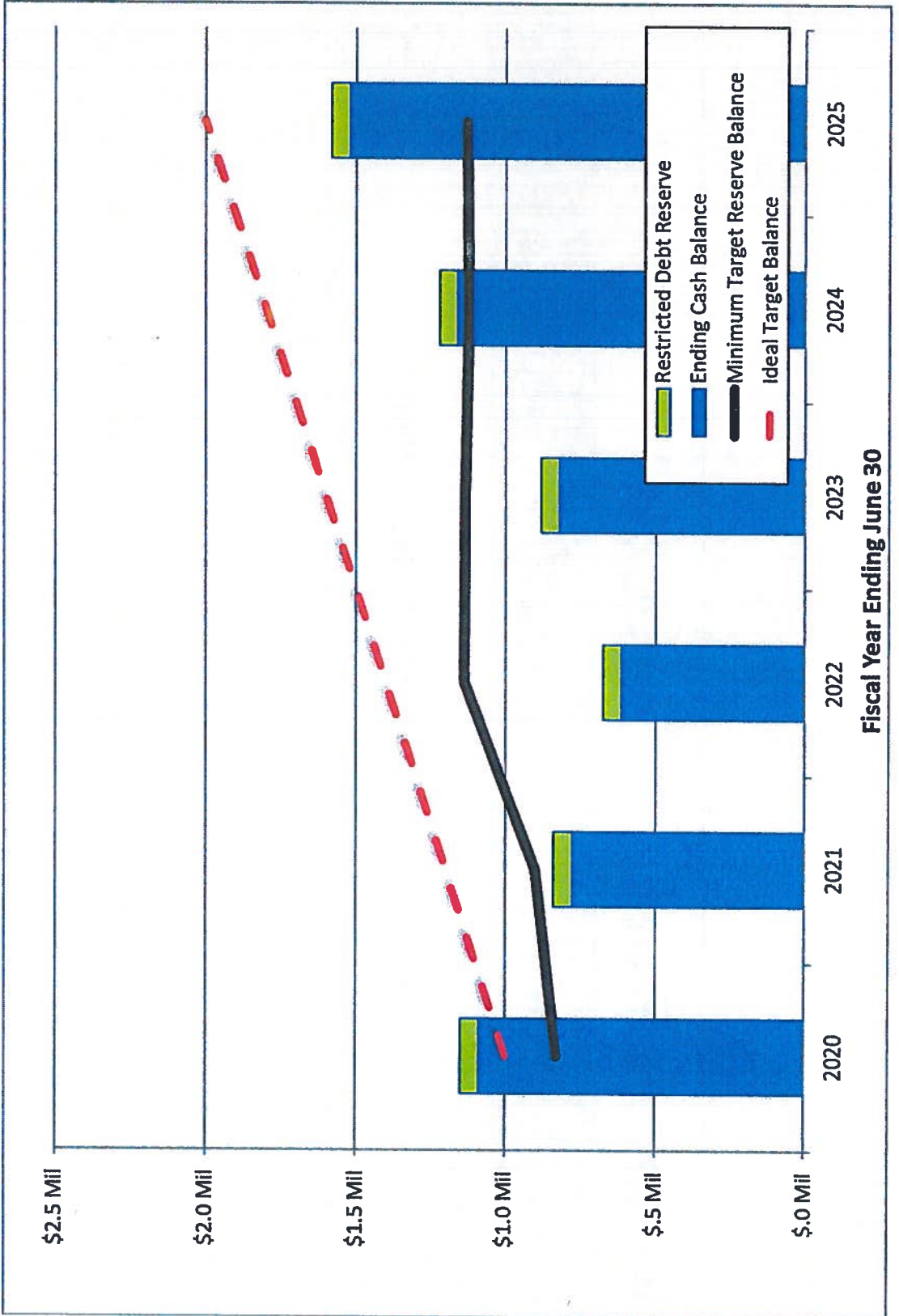
Capital Rehab & Replacement 6% of net assets

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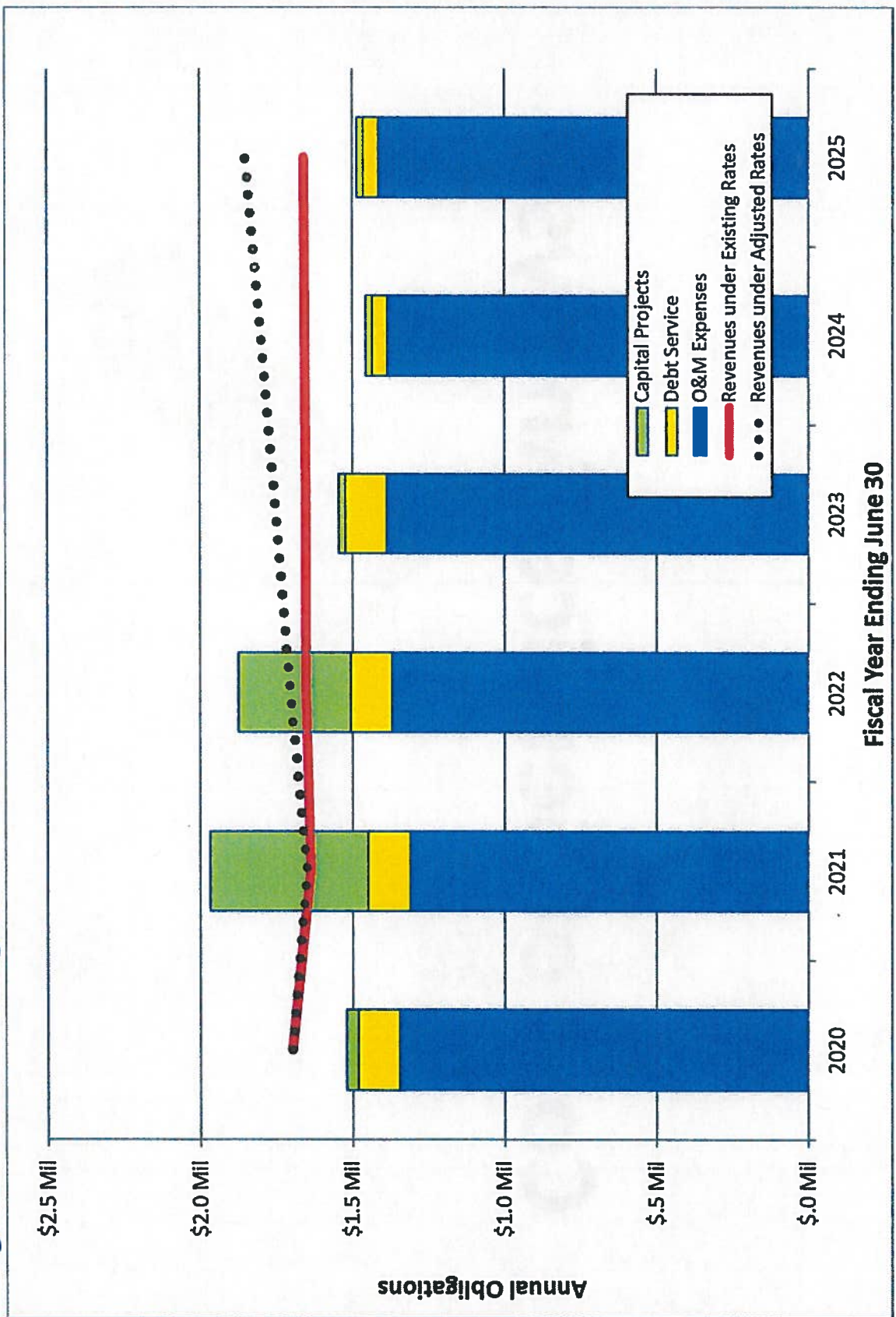


# Projected Cash Balance vs. Reserve Target Under Adjusted Rates





# Projected Adjustments to Rate Revenue



# Cost of Service Analysis





# Functionalization and Classification

## Revenue Requirements

Fixed

Capacity  
Costs

Customer  
Costs

Fire  
Protection  
Costs

Commodity  
Costs

Variable





# Functionalization and Classification, cont.

Category	Percentage
----------	------------

Capacity Costs	73.2%
----------------	-------

Customer Costs	5.0%
----------------	------

Fire Protection	0.4%
-----------------	------

Commodity Costs	21.4%
-----------------	-------

Fixed	78.6%
-------	-------

Variable	21.4%
----------	-------



## **Customer Classes**

- 1. Single Family Residential (SFR)**
- 2. Commercial/Non-SFR**
- 3. Contract**
- 4. Construction**



# Rate Design



# Rate Design Components

Rate Design Components	Basis for Cabazon Water District
# of Customer Classes	Four: SFR, Comm/Non-SFR, Construction & Contract
Allocation of Fixed vs. Variable Charges	3 Alternative Fixed/Variable Rate %'s
Fixed Rate Structure	Meter Hydraulic Capacity
Variable Rate Structure	Flat/Uniform and Tiered



Rate Design Component



# Rate Design Alternatives

Functional Category	Rate Alternative A	Rate Alternative B		Rate Alternative C
	Adjusted Net Revenue Requirements (2020-21) 50% Fixed / 50% Variable	Adjusted Net Revenue Requirements (2020-21) 40% Fixed / 60% Variable	Adjusted Net Revenue Requirements (2020-21) 30% Fixed / 70% Variable	Adjusted Net Revenue Requirements (2020-21) 30% Fixed / 70% Variable
Commodity - Related Costs	\$ 259,786	\$ 259,786	\$ 259,786	\$ 259,786
Capacity - Related Costs (volumetric share)	\$ 346,751	\$ 468,058	\$ 589,365	\$ 589,365
Capacity - Related Costs (fixed share)	\$ 541,057	\$ 419,750	\$ 298,443	\$ 298,443
Customer - Related Costs	\$ 60,386	\$ 60,386	\$ 60,386	\$ 60,386
Fire Protection - Related Costs	\$ 5,093	\$ 5,093	\$ 5,093	\$ 5,093
<b>Total</b>	<b>\$ 1,213,074</b>	<b>\$ 1,213,074</b>	<b>\$ 1,213,074</b>	<b>\$ 1,213,074</b>
<b>Revenue from Contract Rates</b>	<b>\$ 203,176</b>	<b>\$ 203,176</b>	<b>\$ 203,176</b>	<b>\$ 203,176</b>
<b>Net Revenue Requirement</b>	<b>\$ 1,416,250</b>	<b>\$ 1,416,250</b>	<b>\$ 1,416,250</b>	<b>\$ 1,416,250</b>





# Variable Rate

Customer Class	Variable Rate
Single Family Residential	Tiered Tier 1: 7 hcf Tier 2: 14 hcf Tier 3: 15+ hcf
Commercial / Non-SFR / Construction	Uniform
Contract	Uniform



Subagency Usage - (2014-2019 Year Analysis)

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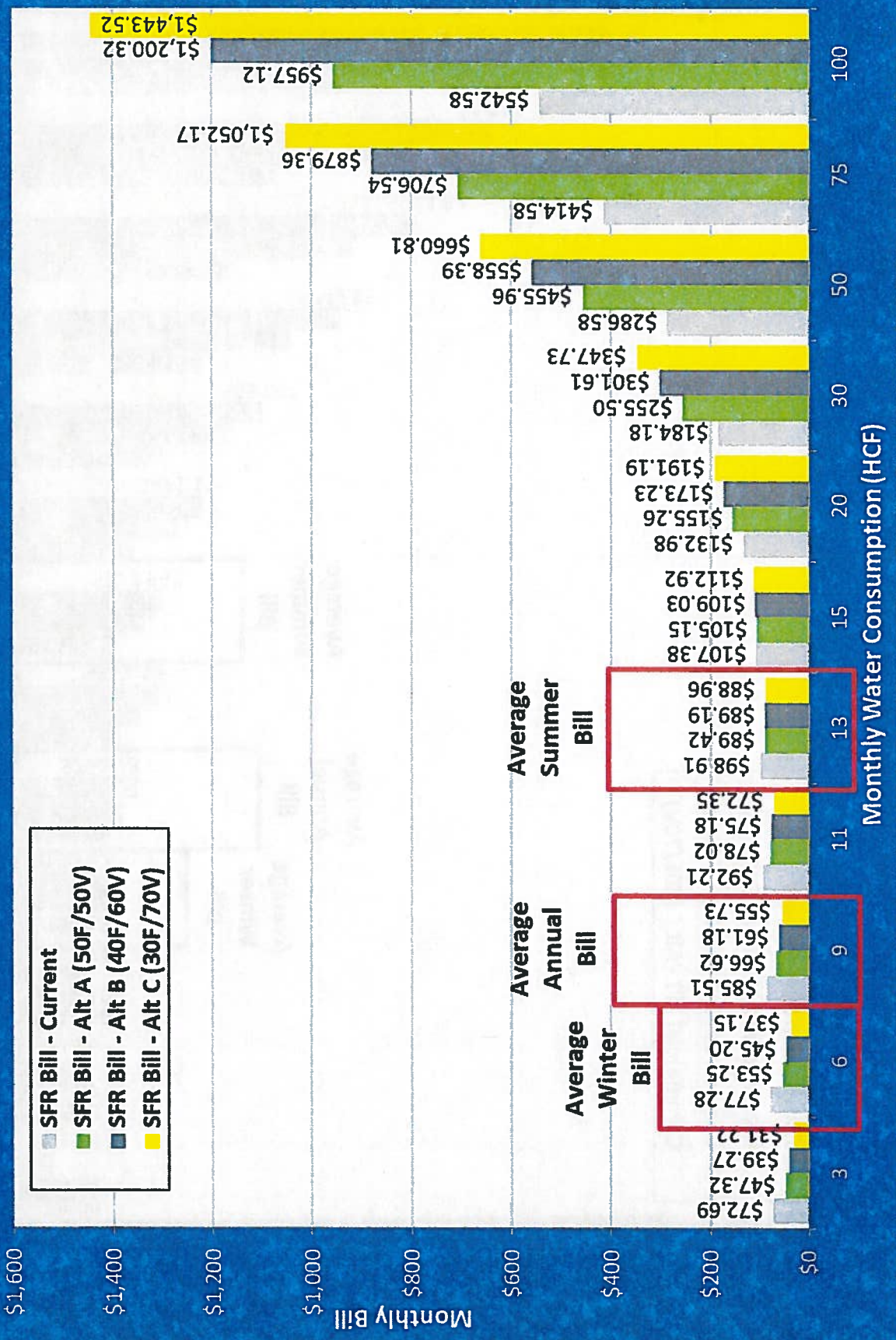








# Residential Water Bill Comparison Current vs. Proposed Rates (5/8" meter)



■ SFR Bill - Current  
 ■ SFR Bill - Alt A (50F/50V)  
 ■ SFR Bill - Alt B (40F/60V)  
 ■ SFR Bill - Alt C (30F/70V)

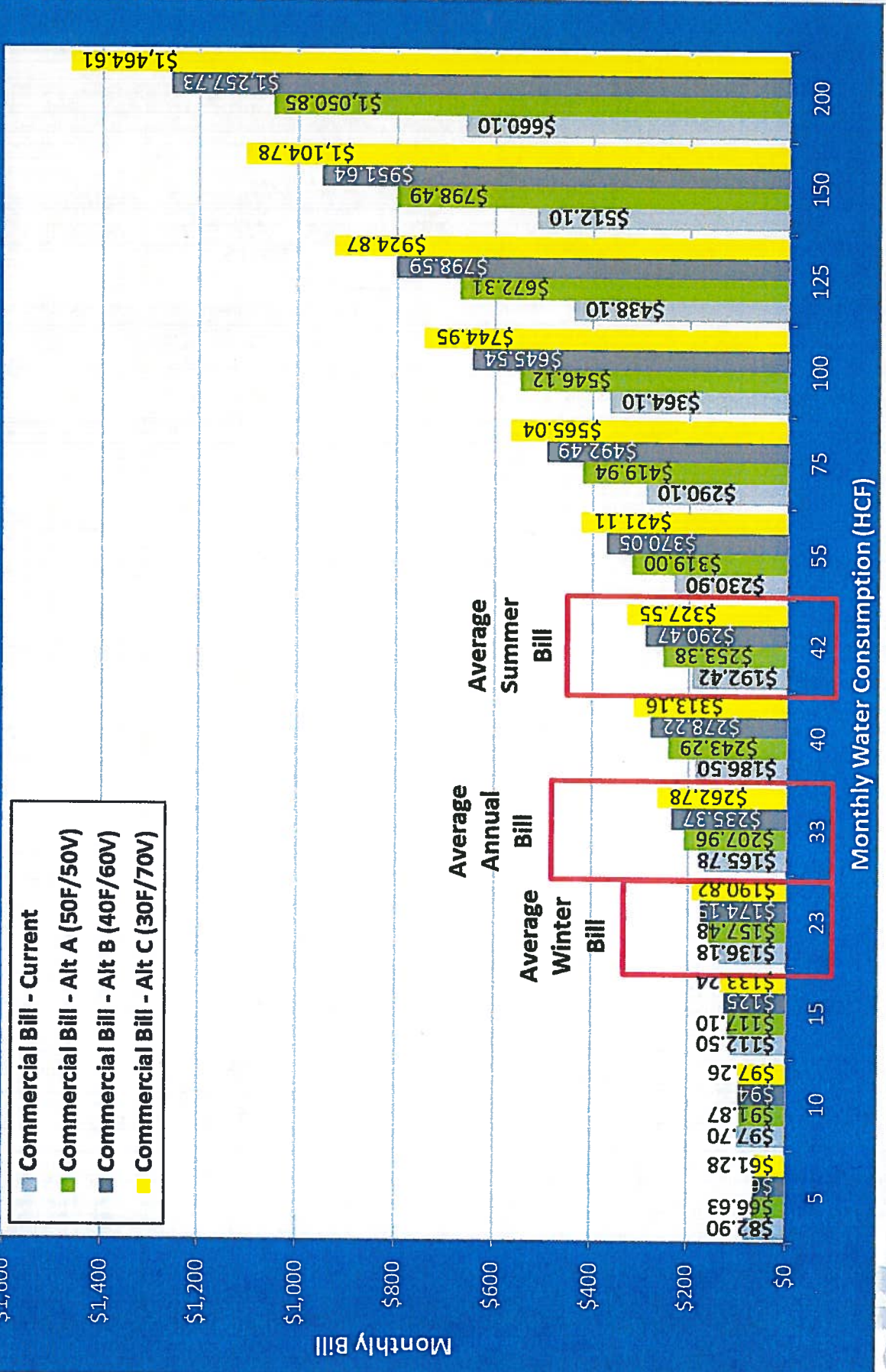
Average Winter Bill  
 Average Annual Bill  
 Average Summer Bill

Monthly Water Consumption (HCF)

\$1,600  
 \$1,400  
 \$1,200  
 \$1,000  
 \$800  
 \$600  
 \$400  
 \$200  
 \$0



# Commercial Water Bill Comparison Current vs. Proposed Rates (5/8-inch meter)





# Single Family Residential Bill Comparisons

Rate Alternative	Water Consumption					
	3	6	9	11	13	15
Current	\$72.69	\$77.28	\$85.51	\$92.21	\$98.91	\$107.38
Alt A - 50% Fixed / 50% Variable	\$47.32	\$53.25	\$66.62	\$78.02	\$89.42	\$105.15
Alt B - 40% Fixed / 60% Variable	\$39.27	\$45.20	\$61.18	\$75.18	\$89.19	\$109.03
Alt C - 30% Fixed / 70% Variable	\$31.22	\$37.15	\$55.73	\$72.35	\$88.96	\$112.92

Rate Alternative	Water Consumption				
	20	30	50	75	100
Current	\$132.98	\$184.18	\$286.58	\$414.58	\$542.58
Alt A - 50% Fixed / 50% Variable	\$155.26	\$255.50	\$455.96	\$706.54	\$957.12
Alt B - 40% Fixed / 60% Variable	\$173.23	\$301.61	\$558.39	\$879.36	\$1,200.32
Alt C - 30% Fixed / 70% Variable	\$191.19	\$347.73	\$660.81	\$1,052.17	\$1,443.52





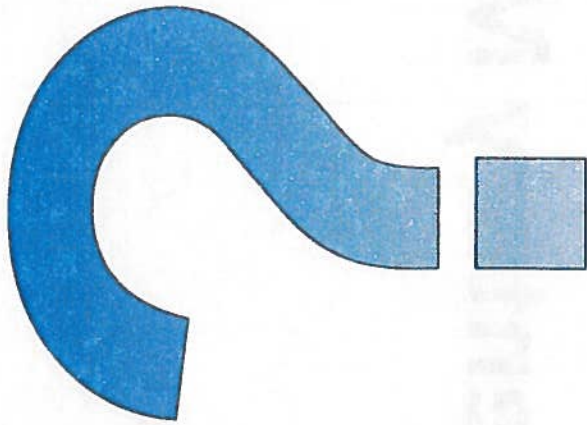
# Non-Residential Bill Comparisons

Rate Alternative	Water Consumption							
	5	10	15	23	33	40	42	
Current	\$82.90	\$97.70	\$112.50	\$136.18	\$165.78	\$186.50	\$192.42	
Alt A - 50% Fixed / 50% Variable	\$66.63	\$91.87	\$117.10	\$157.48	\$207.96	\$243.29	\$253.38	
Alt B - 40% Fixed / 60% Variable	\$63.95	\$94.56	\$125.17	\$174.15	\$235.37	\$278.22	\$290.47	
Alt C - 30% Fixed / 70% Variable	\$61.28	\$97.26	\$133.24	\$190.82	\$262.78	\$313.16	\$327.55	

Rate Alternative	Water Consumption					
	55	75	100	125	150	200
Current	\$230.90	\$290.10	\$364.10	\$438.10	\$512.10	\$660.10
Alt A - 50% Fixed / 50% Variable	\$319.00	\$419.94	\$546.12	\$672.31	\$798.49	\$1,050.85
Alt B - 40% Fixed / 60% Variable	\$370.05	\$492.49	\$645.54	\$798.59	\$951.64	\$1,257.73
Alt C - 30% Fixed / 70% Variable	\$421.11	\$565.04	\$744.95	\$924.87	\$1,104.78	\$1,464.61



# Questions



# Supplementary Material



# Inflation Factors

Cost Type	Inflation Factor
Customer Growth	0%
General Cost Inflation	2%
Salary Inflation	3%
Benefits Inflation	6%
Electricity	3.5%
Fuel	3%
Chemicals	3%
Cell Tower Lease	2%
Capital Cost Inflation	3%



# Hydraulic Capacity

Meter Size	Capacity Standard Meters	Capacity Fire Meters
5/8 Inch	20 gpm	20 gpm
3/4 Inch	30 gpm	30 gpm
1 Inch	50 gpm	50 gpm
1.5 Inch	100 gpm	100 gpm
2 Inch	160 gpm	160 gpm
3 Inch	320 gpm	350 gpm
4 Inch	500 gpm	700 gpm
6 Inch	1,000 gpm	1,600 gpm
8 Inch	2,800 gpm	2,800 gpm
10 Inch	4,200 gpm	4,400 gpm



# Water Consumption by Customer Class

Customer Class	Volume (hcf) <sup>1</sup>	Percent of Total Volume
Single Family Residential	93,915	53.4%
Other Non-SFR/Commercial	35,660	20.3%
Contract	44,507	25.3%
Construction	1,934	1.1%
<b>Total</b>	<b>176,016</b>	<b>100%</b>

1. Consumption is from 2019. CWD bills monthly.

Source files: Cabazon\_USAGEREPORT\_CO1CO2\_Manipulated.xlsx



# SFR Tiered Water Consumption

Consumption by Tier			
Tier	Monthly Breakpoint <sup>1</sup>	Expected Consumption <sup>2</sup>	Percentage of Total SFR Consumption
Tier 1	7 hcf	53,666	57%
Tier 2	14 hcf	21,430	23%
Tier 3	--	18,819	20%
<b>Total</b>		<b>93,915</b>	<b>100%</b>

1. Tier 1 break point set to average winter consumption, an estimate of average indoor consumption in Cabazon.

Tier 2 break point set to 14 hcf which is average summer consumption.

2. Consumption data is based on the CWD 2019 customer data.

Source files: *Cabazon\_FINAN ACCTS SUMMARY\_CO1CO2.xlsx and Cabazon\_USAGEREPORT\_CO1CO2\_Manipulated.xlsx*

# Peaking by Customer Class

Customer Class	Average Monthly Use (hcf)	Peak Monthly Use (hcf) <sup>1</sup>	Peak Monthly Factor	Max Month Capacity Factor
Single Family Residential	7,826	11,521	1.47	51.9%
Other Non-SFR/Commercial	2,972	5,034	1.69	22.7%
Construction	161	719	4.46	3.2%
Contract	3,709	4,921	1.33	22.2%
<b>Total</b>	<b>14,668</b>	<b>22,195</b>		<b>100%</b>

1. Based on peak monthly data (peak day data not available).



# Number of Customers by Class

Customer Class	Number of Meters <sup>1</sup>	Percent of Total
Single Family Residential	854	93.0%
Other Non-SFR/Commercial	52	5.7%
Fire Service Meters	5	0.5%
Construction	6	0.7%
Contract	1	0.1%
<b>Total</b>	<b>918</b>	<b>100.0%</b>

1. Meter Count is from December 2019. CWD bills monthly.

Source files: Cabazon\_USAGEREPORT\_CO1CO2\_Manipulated.xlsx





# CABAZON WATER DISTRICT

Final Report

Water Rate Study  
Update

December 2020

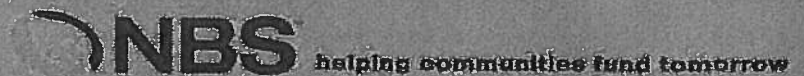
**OFFICE LOCATIONS:**

**Temecula – Corporate Headquarters**  
32605 Temecula Parkway, Suite 100  
Temecula, CA 92592

**San Francisco – Regional Office**  
Market Street, Suite 1223  
San Francisco, CA 94102

**Various Satellite Offices**  
Livermore, Davis  
Huntington Beach,  
Joshua Tree, Riverside  
Sacramento, San Jose

Prepared by:



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# Section 1. PURPOSE AND OVERVIEW OF THE STUDY

## A. Purpose

Cabazon Water District (District, CWD) retained NBS to conduct an update of the 2017 water rate study for a number of reasons, including meeting revenue requirements and updating the water rate structure. The rates resulting from this study were developed in a manner that is consistent with industry standard cost of service principles. In addition to documenting the rate study methodology, this report is provided with the intent of assisting the District to maintain transparent communications with its residents and businesses.

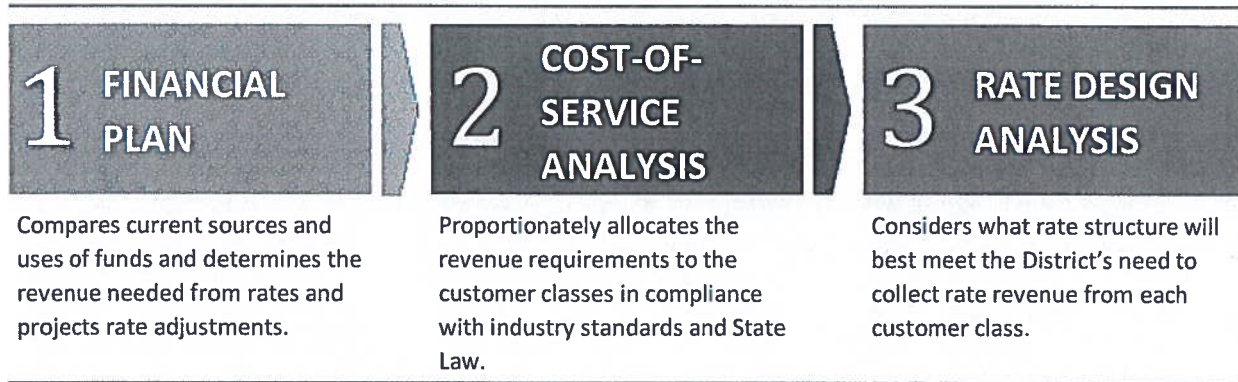
In developing new water rates, NBS worked cooperatively with District staff and the District’s Board of Directors (Board) in selecting appropriate rate alternatives. Based on input from District staff and the Board, the proposed water rates are summarized in this report.

## B. Overview of the Study

Comprehensive rate studies such as this one typically include the following three components, as outlined in Figure 1:

1. Preparation of a **Financial Plan**, which identifies the net revenue requirements for the utility.
2. **Cost of Service Analysis**, which determines the cost of providing water service to each customer class.
3. **Rate Design Analysis**, which evaluates different rate design alternatives.

Figure 1. Primary Components of a Rate Study



These steps are intended to follow industry standards and reflect the fundamental principles of cost-of-service rate making embodied in the American Water Works Association (AWWA) Principles of Water Rates, Fees, and Charges<sup>1</sup>, also referred to as the M1 Manual. They also address requirements under Proposition 218 that rates not exceed the cost of providing the service, and that they be proportionate to the cost of providing service for all customers. In terms of the chronology of the study, these three steps represent the

<sup>1</sup> Principles of Water Rates, Fees, and Charges, Manual of Water Supply Practices, M1, AWWA, seventh edition, 2017.

order they were performed. Detailed tables and figures documenting the development of the proposed rates are provided in the Appendix.

## FINANCIAL PLAN

As a part of this rate study, NBS projected revenues and expenditures on a cash flow basis for the next five years. The amount of rate revenue required that will allow capital projects to be funded and reserves to be maintained at the approved levels, is known as the *net revenue requirement*. Although current rate revenue covers all the net revenue requirements, rate adjustments -- or more accurately, adjustments in the total revenue collected from water rates -- are recommended in order to fund planned capital improvement projects and keep reserve funds at healthy levels. This report presents an overview of the methodologies, assumptions, and data used, along with the financial plans and proposed rates developed in this study<sup>2</sup>.

## RATE DESIGN ANALYSIS

Rate Design is typically the stage in the study where NBS, staff and the Board must work closely together, to develop rate alternatives that will meet the District's objectives. It is important for the District to send proper price signals to its customers about the actual cost of their water usage. This objective is typically addressed through both the magnitude of the rates, and the rate structure design. In other words, both the amount of revenue collected and the way in which the revenue is collected from customers are important to consider.

Several criteria are typically considered in setting rates and developing sound rate structures. The fundamentals of this process have been documented in several rate-setting manuals, such as the AWWA Manual M1. The foundation for evaluating rate structures is generally credited to James C. Bonbright in the *Principles of Public Utility Rates*<sup>3</sup> which outlines pricing policies, theories, and economic concepts along with various rate designs. The following is a simplified list of the attributes of a sound structure:

- Rates should be easy to understand from the customer's perspective.
- Rates should be easy to administer from the utility's perspective.
- Rates should promote the efficient allocation of the resource.
- Rates should be equitable and non-discriminating (that is, cost based).
- There should be continuity in the ratemaking philosophy over time.
- Rates should address other utility policies (for example, encouraging conservation & economic development).
- Rates should provide month-to-month and year-to-year revenue stability.

The following are the basic rate design criteria that were considered in this study:

**Rate Structure Basics** –The vast majority of water rate structures contain a fixed or minimum charge in combination with a volumetric charge. The revenue requirements for each customer class are collected from both fixed monthly meter charges and variable commodity charges. Based on direction from the Board of Directors, the rates proposed in this report are designed to collect 40 percent of rate revenue from the fixed meter charges and 60 percent from the variable commodity charges.

<sup>2</sup> The complete financial plan is set forth in the Appendix.

<sup>3</sup> James C. Bonbright; Albert L. Danielsen and David R. Kamerschen, *Principles of Public Utility Rates*, (Arlington, VA: Public Utilities Report, Inc., Second Edition, 1988), p. 383-384.

**Fixed Charges** – Fixed charges can be called base charges, minimum monthly charges, customer charges, fixed meter charges, etc. Fixed charges for water utilities typically increase by meter size based on meter equivalent capacity factors.

**Volumetric (Consumption-Based) Charges** – In contrast to fixed charges, variable costs such as purchased water, the cost of electricity used in pumping water, and the cost of chemicals for treatment tend to change with the quantity of water produced. For a water utility, variable charges are generally based on metered consumption and charged on a dollar-per-unit cost (for example, per 100 cubic feet, or hcf).

**Uniform (Single-Tier) Water Rates** – There are significant variations in the basic philosophy of variable charge rate structure alternatives. Under a uniform (single tier) rate structure, the cost per unit does not change with consumption, and provides a simple and straightforward approach from the perspective of customers regarding their understanding of the rates, and for the utility's administration and billing of the rates.

**Multi-Tiered Water Rates** – In contrast to a uniform tier, an inclining block rate structure attempts to send a price signal to customers that their consumption costs are greater as more water is consumed. Tiered water rates are intended to represent the higher costs for customers that contribute more to peak summertime usage and place greater demands on the system. The types of higher costs reflected, for example, in the *highest* tier of the rate structure may include:

- Conservation program costs: intended to encourage customers to eliminate inefficient and wasteful water use, and otherwise reduce consumption during peak periods.
- Replacement Water costs: when consumption exceeds the amount of the District's allocated water rights, the agency incurs additional costs for replacement water in order to meet that increased demand. That replacement water comes at a higher cost.
- Energy costs: during summer months, the District may pay more in electric charges to pump, treat and deliver water, and have a higher percentage of its energy bill in higher electricity "tiers".
- Higher maintenance costs: peak periods tend to have higher numbers of service calls, capacity costs, and system maintenance issues when the water system is running at peak demand.



## Section 2. WATER RATE STUDY

### A. Key Water Rate Study Issues

The District’s water rate analysis was undertaken with a few specific objectives, including:

- Avoiding operational deficits and further depletion of reserves.
- Generating additional revenue needed to meet projected funding requirements.
- Adjusting the rate structure to collect a greater share of revenue from variable charges and less revenue from fixed charges.
- Continuing to encourage water conservation with a tiered rate structure.

NBS developed various water rate alternatives as requested by District staff over the course of this study. All rate structure alternatives relied on industry standards and cost-of-service principles. The rate alternative that will be implemented, is ultimately the decision of the Board. The fixed and volume-based charges were calculated based on the net revenue requirements, number of customer accounts, water consumption, and other District-provided information.

### B. Financial Plan

It is important for municipal utilities to maintain reasonable reserves in order to handle emergencies, fund working capital, maintain a good credit rating, and generally follow healthy financial management practices. Rate adjustments are governed by the need to meet operating and capital costs, maintain adequate debt coverage, and build reasonable reserve funds. The current state of the District, with regard to these objectives, is as follows:

- **Meeting Net Revenue Requirements:** For FY 2020/21 through FY 2024/25, the projected net revenue requirement (that is, total annual expenses plus debt service and rate-funded capital costs, less non-rate revenues) for the District is approximately \$1.37 million, annually on average. If no rate adjustments are implemented, the District is projected to see a \$280,000 deficit in fiscal year 2020/21. With 3% increases to the net revenue requirement, the deficit drops to \$265,000 for fiscal year 2020/21.
- **Building and Maintaining Reserve Funds:** Reserve funds provide a basis for a utility to cope with fiscal emergencies such as revenue shortfalls, asset failure, and natural disasters, among other events. Reserve policies provide guidelines for sound financial management, with an overall long-range perspective to maintain financial solvency and mitigate financial risks associated with revenue instability, volatile capital costs, and emergencies. The District plans to accumulate approximately \$1,500,000 in reserves by the end of FY 2024/25. These reserve funds for the Utility are considered unrestricted reserves and consist of the following:
  - **The Operating Reserve** should equal approximately 180 days of operating expenses, which is about \$707,000 at the end of FY 2024/25. An Operating Reserve is intended to promote financial viability in the event of any short-term fluctuation in revenues and/or expenditures. Fluctuations in revenue can be caused by weather patterns, the natural inflow and outflow of cash during billing cycles, natural variability in demand-based revenue streams (such as volumetric charges), and – particularly in periods of economic distress – changes or trends in age of receivables.

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- **The Capital Rehabilitation and Replacement Reserve** should equal at least 6 percent of net capital assets, totaling approximately \$422,000 in FY 2024/25, which is set aside to address long-term capital system replacement and rehabilitation needs.
- **Funding Capital Improvement Projects:** The District must also be able to fund necessary capital improvements in order to maintain current service levels. District staff has identified roughly \$935,000 (current year dollars) in expected capital expenditures for FY 2020/21 through 2024/25. With the recommended rate adjustments, these expenditures can be funded.
- **Inflation and Growth Projections** – Assumptions regarding cost inflation were made in order to project future revenues and expenses for the study period. The following inflation factors were used in the analysis:
  - No Customer growth is expected over the 5-year rate period.
  - Electricity cost inflation is 3.5% annually.
  - General cost inflation is 2% annually.
  - Salary cost inflation is 3% annually.
  - Field Salary cost inflation is 2% annually.
  - Benefits cost inflation is 6% annually.
  - Fuel and Chemicals cost inflation is 3% annually.
  - Cell Tower Lease revenue inflation is 2% annually.
- **Maintaining Adequate Bond Coverage:** The District is required by its bond covenants to maintain a debt service coverage ratio of at least 1.2. Rate adjustments proposed in this study will allow the district to continue to exceed this ratio. The benefit of exceeding the minimum debt coverage ratio is that it strengthens District’s credit rating, which can help lower the interest rates for debt-funded capital projects in the future.
- **Impact of Annual Rate Adjustment Date:** In the current year, the District will only collect three months of the planned revenue increase for FY 2020/21 since rate increases will not be effective until March 1, 2021. However, in future years of the rate plan, the financial plan modeling assumes that rate adjustments occur starting on the January bill of each year. This means that only six months of the planned revenue to be collected from the rate adjustment listed for one fiscal year will be collected in that year. For example, there is a 3 percent adjustment in rate revenue planned for FY 2020/21; meaning, the rates are developed to recover \$1.42 million, which is a 3 percent adjustment over the expected \$1.38 million that would be collected without a rate adjustment. However, because of the timing for when the rates will go into effect, the Financial Plan results in \$1.39 million in rate revenue for FY 2020/21.

Rate adjustments of 3 percent annually in FY 2020/21 through FY 2024/25 will be needed in order to fully fund all operating expenses, planned capital projects, debt service obligations and build reserves to the recommended targets by the end of FY 2024/25<sup>4</sup>. Figure 2 summarizes the sources and uses of funds, net revenue requirements, and the recommended annual percent adjustments in total rate revenue recommended for the next 5 years for the District.

---

<sup>4</sup> Because of the mid-year adjustment to the rates, the full impact of each year’s adjustment does not affect revenue until the following year.

**Figure 2. Summary of Water Revenue Requirements**

Summary of Sources and Uses of Funds and Net Revenue Requirements	5-Year Prop 218 Rate Period				
	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
<b>Sources of Water Funds</b>					
Rate Revenue Under Prevailing Rates	\$ 1,375,000	\$ 1,375,000	\$ 1,375,000	\$ 1,375,000	\$ 1,375,000
Additional Revenue from Rate Increases <sup>1</sup>	13,750	62,494	105,619	150,037	195,788
Non-Rate Revenues	240,500	255,800	257,200	258,600	263,600
Interest Earnings	19,600	19,600	19,600	19,600	19,600
<b>Total Sources of Funds</b>	<b>\$ 1,648,850</b>	<b>\$ 1,712,894</b>	<b>\$ 1,757,419</b>	<b>\$ 1,803,237</b>	<b>\$ 1,853,988</b>
<b>Uses of Water Funds</b>					
Operating Expenses	\$ 1,310,100	\$ 1,368,100	\$ 1,384,600	\$ 1,384,000	\$ 1,413,700
Debt Service	137,394	137,394	137,394	48,739	48,691
Rate-Funded Capital Expenses	467,004	365,650	21,218	9,955	-
<b>Total Use of Funds</b>	<b>\$ 1,914,498</b>	<b>\$ 1,871,144</b>	<b>\$ 1,543,212</b>	<b>\$ 1,442,693</b>	<b>\$ 1,462,391</b>
<b>Surplus (Deficiency) after Rate Increase</b>	<b>\$ (265,648)</b>	<b>\$ (158,251)</b>	<b>\$ 214,206</b>	<b>\$ 360,544</b>	<b>\$ 391,597</b>
<b>Projected Annual Rate Increase</b>	<b>3.00%</b>	<b>3.00%</b>	<b>3.00%</b>	<b>3.00%</b>	<b>3.00%</b>
<b>Cumulative Rate Increases</b>	<b>3.00%</b>	<b>6.09%</b>	<b>9.27%</b>	<b>12.55%</b>	<b>15.93%</b>
<b>Surplus (Deficiency) before Rate Increase</b>	<b>\$ (279,398)</b>	<b>\$ (220,744)</b>	<b>\$ 108,588</b>	<b>\$ 210,507</b>	<b>\$ 195,809</b>
<b>Net Revenue Requirement <sup>2</sup></b>	<b>\$ 1,654,398</b>	<b>\$ 1,595,744</b>	<b>\$ 1,266,412</b>	<b>\$ 1,164,493</b>	<b>\$ 1,179,191</b>

1. Revenue from rate increases assume an implementation date of March 1, 2021 and then January 1st, 2022 through 2025.
2. Total Use of Funds less non-rate revenues and interest earnings. This is the annual amount needed from water rates.

Figure 3 summarizes the projected reserve fund balances and reserve targets. A summary of the District's proposed 5-year financial plan is included in Tables 1 and 2 of the Appendix. The appendix tables include revenue requirements, reserve funds, revenue sources, proposed rate adjustments, and the District's capital improvement program. As can be seen in Figure 3, given proposed rate adjustments, reserves meet the minimum target by FY 2023/24.

**Figure 3. Summary of Reserve Funds**

Beginning Reserve Fund Balances and Recommended Reserve Targets	5-Year Prop 218 Rate Period				
	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
<b>Operating Reserve</b>					
Ending Balance	\$ 334,352	\$ 176,101	\$ 390,307	\$ 692,000	\$ 706,850
Recommended Minimum Target	458,535	684,050	692,300	692,000	706,850
<b>Capital Rehabilitation &amp; Replacement Reserve</b>					
Ending Balance	\$ 443,800	\$ 443,800	\$ 443,800	\$ 490,751	\$ 844,988
Recommended Minimum Target	443,800	453,300	442,400	431,900	421,800
<b>Debt Reserve</b>					
Ending Balance	\$ 60,928	\$ 60,928	\$ 60,928	\$ 60,928	\$ 60,928
Recommended Minimum Target	-	-	-	-	-
<b>Total Ending Balance</b>	<b>\$ 839,080</b>	<b>\$ 680,829</b>	<b>\$ 895,035</b>	<b>\$ 1,243,679</b>	<b>\$ 1,612,766</b>
<b>Total Recommended Minimum Target</b>	<b>\$ 902,335</b>	<b>\$ 1,137,350</b>	<b>\$ 1,134,700</b>	<b>\$ 1,123,900</b>	<b>\$ 1,128,650</b>

**CONTRACT CUSTOMER CHARGES**

In January of 2012, the District entered into a contract agreement which set the initial rates and defined the methodology of future rate adjustments for the Desert Hills Premium Outlets (DHPO). As defined by the





terms of the contract, rates can only be adjusted by increasing the current rates (both the fixed meter charge and usage rate) by the percentage adjustment imposed on residential and commercial customers<sup>5</sup>. To account for this restriction, the revenue projected from the contract customer through FY 2021/22 is calculated and netted from the cost of service analysis. The contracted rates end December 31, 2022, in which this customer will switch to the commercial 10-inch meter rates. The calculation through FY 2021/22 is shown in Figure 4. The rates for the 10-inch meter past FY 2021/22 will be shown in later sections of this report.

**Figure 4. Contract Charges and Projected Revenue**

Contract	Current <sup>1</sup>	Proposed Rates	
	FY 2019/20	FY 2020/21	FY 2021/22
<i>Projected Increase in Rate Revenue per Financial Plan:</i>		3.00%	3.00%
Fixed Rate	\$2,233.06	\$2,300.05	\$2,369.05
Variable Rate	\$3.83	\$3.94	\$4.06
Estimated Consumption (hcf)	44,507	44,507	44,507
Estimated Fixed Revenue	\$ 26,797	\$ 27,601	\$ 28,429
Estimated Variable Revenue	170,462	175,576	180,843
<b>Estimated Rate Revenue from Contract Customer</b>	<b>\$ 197,259</b>	<b>\$ 203,176</b>	<b>\$ 209,272</b>
<b>Remaining Rate Revenue</b>	<b>\$1,177,741</b>	<b>\$1,213,074</b>	<b>\$ 1,249,466</b>

1. Current rates found in source file: 10\_Cabazon Water District Water Rate Study (4.13.17) Final.pdf, Page 50.

Contract rates end December 31, 2022 in which this customer then switches to 10 inch billing for commercial users.

### C. Cost of Service Analysis

Once the net revenue requirements are determined, the cost of service analysis proportionately distributes the revenue requirements to each customer class. The cost of service analysis consists of two major components: (1) the classification of expenses, and (2) the allocation of costs to customer classes. Costs were classified corresponding to the function they serve. All costs in the District’s budget are allocated to each component of the rate structure in proportion to the level of service required by customers. The levels of service are related to volumes of peak and non-peak demand, infrastructure capacity, and customer service. These are based on allocation factors, such as water consumption, peaking factors, and number of accounts by meter size. Ultimately, a cost-of-service analysis is intended to result in rates that are proportional to the cost of providing service to each customer.

#### CLASSIFICATION OF COSTS

Most costs are not typically allocated 100 percent to fixed or variable categories and, therefore, are allocated to multiple functions of water service. Costs were classified using the commodity-demand method which is found in the AWWA M1 Manual<sup>6</sup>. In accordance with this method, budgeted costs were “classified” into four categories: commodity, capacity, customer and fire protection. The classification process provides

<sup>5</sup> Per Section 5c(i) and (ii).

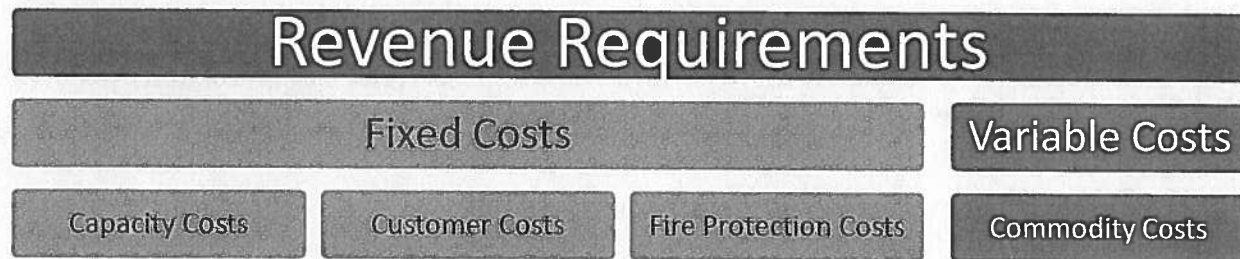
<sup>6</sup> Principles of Water Rates, Fees, and Charges, Manual of Water Supply Practices, M1, AWWA, seventh edition, 2017, p. 83.

the basis for allocating costs to various customer classes based on the cost causation (classification) components described below:

- **Commodity related costs** are those that change as the volume of water produced and delivered changes. These commonly include the costs of chemicals used in the treatment process, energy related to pumping for transmission and distribution, and source of supply.
- **Capacity related costs** are associated with sizing facilities to meet the maximum, or peak demand. This includes both operating costs and capital infrastructure costs incurred to accommodate peak system capacity events.
- **Customer related costs** are associated with having a customer on the water system, such as meter reading, postage and billing.
- **Fire Protection related costs** are associated with providing sufficient capacity in the system for fire meters and other operations and maintenance costs of providing water to properties for private fire service protection.

The District’s budgeted costs were reviewed and allocated to these cost causation components which are used as the basis for establishing new water rates and translate to fixed and variable charges. Tables 16 through 20 in the Appendix show how the District’s expenses were classified and allocated to these cost causation components. Additionally, each cost causation component is considered fixed or variable, as summarized in Figure 5.

Figure 5. Cost Classification Summary



Ideally, utilities should recover all of their fixed costs from fixed charges and all of their variable costs from volumetric charges. When this is the case, fluctuations in water sales revenues would be directly offset by reductions or increases in variable expenses. When rates are set in this manner, they provide greater revenue stability for the utility. However, other factors are often considered when designing water rates such as community values, water conservation goals, ease of understanding, and ease of administration.

Based on the District’s projected costs, the Cost of Service Analysis (COSA) resulted in a distribution that is approximately 79 percent fixed and 21 percent variable. The District’s current rate structure collects approximately 64 percent of revenue from fixed charges and 36 percent from variable charges. The Board of Directors has chosen to move forward with a rate structure that will collect approximately 40 percent of revenue from fixed charges and 60 percent from variable rates. However, a share of the District’s capacity costs will need to be collected from the variable rates in order to reach this rate structure. Thus, capacity related costs (which are normally considered fixed) will be collected from both fixed and variable rates.

Figure 6 summarizes the allocation of the net revenue requirements to each cost causation component. The projected revenue from the contract customer, as shown in Figure 4, is included Figure 6.

Figure 6. Allocation of Water Revenue Requirements

Functional Category	COSA Results		Proposed Rates	
	Unadjusted Net Revenue Requirements (2020-21) 79% Fixed / 21% Variable		Adjusted Net Revenue Requirements (2020-21) 40% Fixed / 60% Variable	
Commodity - Related Costs	\$ 259,786	21.4%	\$ 259,786	21.4%
Capacity - Related Costs (volumetric share)	\$ -	0.0%	\$ 468,058	38.6%
Capacity - Related Costs (fixed share)	\$ 887,808	73.2%	\$ 419,750	34.6%
Customer - Related Costs	\$ 60,386	5.0%	\$ 60,386	5.0%
Fire Protection - Related Costs	\$ 5,093	0.4%	\$ 5,093	0.4%
<b>Total</b>	<b>\$ 1,213,074</b>	<b>100%</b>	<b>\$ 1,213,074</b>	<b>100%</b>
<b>Revenue from Contract Rates</b>	<b>\$ 203,176</b>		<b>\$ 203,176</b>	
<b>Net Revenue Requirement</b>	<b>\$ 1,416,250</b>		<b>\$ 1,416,250</b>	

CUSTOMER CLASSES

Customer classes are determined by combining customers with similar demand characteristics, types of use and, in this case, the constraints of a contract into categories that reflect the cost differentials to serve each type of customer. This process is limited by the desire to not overcomplicate the District’s rate structure.

For Cabazon Water District, four customer classes were analyzed: single-family residential, non-single family residential<sup>7</sup>, private fire and the contract customer<sup>8</sup>. All non-SFR customers (excluding the contract customer) were placed in one customer class because these customers include a wide range of usage characteristics:

1. They are using more water on average per account.
2. They generally have higher peaking factors than single-family residential users.
3. Their water usage varies greatly among these customers based on the specific type of customer and meter size.
4. There are an insufficient number of customers of each specific type to determine general class characteristics.

The amount of consumption, the peaking factors and the number of meters by size are used in the cost-of-service analysis to allocate costs to customer classes and determine the appropriate rate structures for each. The District’s most recent consumption is summarized in Figure 7, peaking factors in Figure 8 and Figure 9, and number of customers by customer class is shown in Figure 10.

Commodity related costs are costs associated with the total annual consumption of water by customer class, as shown in Figure 7.

7 Non-SFR class consists of multi-family, government, commercial, construction, industrial and irrigation customers.

8 The development of rates for the contract customer is described in Section 2-B of this report.



**Figure 7. Water Consumption by Customer Class**

Customer Class	Volume (hcf) <sup>1</sup>	Percent of Total Volume
Single Family Residential	93,915	71.4%
Non-SFR	1,338	1.0%
Government Meters	2,201	1.7%
Commercial Meters	11,562	8.8%
Industrial Meters	-	0.0%
Irrigation Meters	20,531	15.6%
Fire Service Meters	28	0.0%
Construction	1,934	1.5%
<b>Total</b>	<b>131,509</b>	<b>100%</b>
Contract	44,507	

1. Consumption is from 2019. CWD bills monthly.

Peaking factors for each customer class are shown in Figure 8. A “peaking factor” is the relationship of each customer class’ average water use to peak (generally summer) water use.

**Figure 8. Peaking Factors by Customer Class**

Customer Class	Average Monthly Use (hcf)	Peak Monthly Use (hcf) <sup>1</sup>	Peak Monthly Factor	Max Month Capacity Factor
Single Family Residential	7,826	11,521	1.47	66.7%
Multi-Family Residential	112	158	1.42	0.9%
Government Meters	183	320	1.74	1.9%
Commercial Meters	964	1,209	1.25	7.0%
Industrial Meters	0	0	N/A	0.0%
Irrigation Meters	1,711	3,338	1.95	19.3%
Fire Service Meters	2	9	3.86	0.1%
Construction	161	719	4.46	4.2%
<b>Total</b>	<b>10,959</b>	<b>17,274</b>		<b>100%</b>
Contract	3,709	4,921	1.33	

1. Based on peak monthly data (peak day data not available).

Additional capacity factors within the single-family residential class are shown in Figure 9. The “additional capacity factor” represents the cumulative peak consumption in each tier. No additional capacity factor is assigned to Tier 1 water use, as this represents a base level of consumption by customers in the lowest tier, therefore no additional capacity costs would be incurred if all customers stayed within the Tier 1 threshold.

**Figure 9. Single-Family Residential Peak Capacity Allocation Factors**

Tier	Tier Breakpoint <sup>1</sup>	Expected Consumption <sup>2</sup> (hcf)	Percentage of Total SFR Consumption
Tier 1	7 hcf	53,666	57%
Tier 2	14 hcf	21,430	23%
Tier 3	--	18,819	20%
<b>Total</b>		<b>93,915</b>	<b>100%</b>

1. Tier 1 break point set to average winter consumption, an estimate of average indoor water consumption in Cabazon. The Tier 2 break point is set to 14 hcf which is average summer consumption.
2. Consumption data is based on the CWD 2019 customer data.

The number of customers for each customer class (also known as customer allocation factors) is shown in Figure 10.

**Figure 10. Number of Meters by Customer Class**

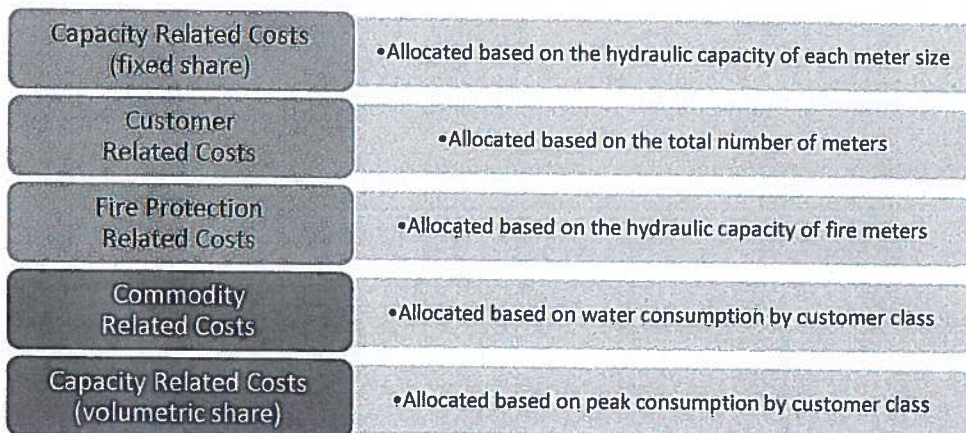
Customer Class	Number of Meters <sup>1</sup>	Percent of Total
Single Family Residential	854	93.0%
Private Fire	5	0.5%
All Other Meters	59	6.4%
<b>Total</b>	<b>918</b>	<b>100.0%</b>

1. Meter Count for December 2019. CWD bills monthly.

**COSTS ALLOCATED TO CUSTOMER CLASSES**

Costs are allocated to each customer class based on the customer characteristics of each class in order to reflect the cost differentials to serve each type of customer. **Figure 11** summarizes how the costs for each cost causation component from Figure 6 are allocated to each customer class.

**Figure 11. Cost Allocation Methodology**



The costs allocated to each causation component are assigned to each customer class using the cost allocation methodology described in Figure 11. This process is shown in the following sections, in Figure 12 through Figure 16.

**Capacity Related Costs**

The capacity related costs (fixed share) allocation is summarized in Figure 12. Capacity related costs are those costs associated with constructing and operating the water system to ensure there is enough capacity in the system to meet the demand of each meter connected. Larger meters have the potential to use more of the system’s capacity, compared to smaller meters. The potential capacity demanded is proportional to the maximum safe meter capacity each meter size as established by the AWWA<sup>9</sup>. The meter capacity factors used in this study are shown in the second column of Figure 12.

A “hydraulic capacity factor” (column *a* in Figure 12) is calculated by dividing the maximum capacity or flow of large meters by the capacity of the base meter size, which is typically the most common residential meter size (in this case a 5/8-inch meter). For example, Figure 12 shows the hydraulic capacity of a two-inch meter is 8 times that of a 5/8-inch meter and therefore, the capacity component of the fixed meter charge is 8 times that of the 5/8-inch meter.

The actual number of meters by size (column *b* in Figure 12) is multiplied by the corresponding capacity ratios to calculate the total number of equivalent meters (column *c* in Figure 12). The number of equivalent meters is used as a representation for the potential demand that each customer can place on the water system and the percentage of capacity related costs (fixed share) distributed to each meter size by the Percent of Total Hydraulic Capacity.

**Figure 12. Capacity Related Costs (fixed share) Allocation**

Meter Size	Meter Capacity (gpm) <sup>1</sup>	Hydraulic Capacity Factor	Number of Meters	Total Equivalent Meters	Percent of Total Hydraulic Capacity	Allocated Costs
		<i>a</i>	<i>b</i>	<i>c=a*b</i>		
<b>Standard Meters</b>						
5/8 inch	20	1.00	845	845	67%	\$282,473
3/4 inch	30	1.50	21	32	3%	\$10,530
1 inch	50	2.50	13	33	3%	\$10,864
1.5 inch	100	5.00	5	25	2%	\$8,357
2 inch	160	8.00	17	136	11%	\$45,463
3 inch	320	16.00	10	160	13%	\$53,486
4 inch	500	25.00	1	25	2%	\$8,357
<b>Total</b>			<b>912</b>	<b>1,255</b>	<b>100%</b>	<b>\$419,531</b>

1. Per the Principles of Water Rates, Fees, and Charges, Manual of Water Supply Practices, M1 AWWA, 7th edition, 2017, page 338.

<sup>9</sup> Principles of Water Rates, Fees, and Charges, Manual of Water Supply Practices, M1, AWWA, seventh edition, 2017, p. 338.



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### Customer Related Costs

The customer related cost allocation is summarized in Figure 13. Customer related costs are comprised of those costs relating to reading and maintaining meters, customer billing and collection, and other customer service related costs. The customer service costs do not differ among the various meter sizes; therefore, these costs are spread equally among all meters. Each customer class is allocated customer related costs based upon the percentage of total meters that are in that class.

Figure 13. Customer Related Cost Allocation

Customer Class	Number of Meters <sup>1</sup>	Percent of Total	Allocated Costs
<b>Standard Meters</b>			
5/8 inch	845	92.1%	\$55,645
3/4 inch	21	2.3%	\$1,383
1 inch	13	1.4%	\$856
1.5 inch	5	0.5%	\$329
2 inch	17	1.9%	\$1,119
3 inch	10	1.1%	\$659
4 inch	1	0.1%	\$66
<b>Fire Protection</b>			
6 inch	3	0.3%	\$198
8 inch	2	0.2%	\$132
<b>Total</b>	<b>917</b>	<b>100%</b>	<b>\$60,386</b>

1. Meter Count as of December 2019.

### Fire Protection Related Costs

The fire protection cost allocation is summarized in Figure 14. Only Fire Protection meters are allocated this cost component. A direct allocation is made in the functionalization and classification step in the cost of service analysis to represent their share of system capacity and other related operations and maintenance costs. This cost is spread over the fire meters using the same methodology as used in Figure 12.

Figure 14. Fire Protection Cost Allocation

Meter Size	Meter Capacity (gpm) <sup>1</sup>	Hydraulic Capacity Factor	Number of Meters	Total Equivalent Meters	Percent of Total Hydraulic Capacity	Allocated Costs
		<i>a</i>	<i>b</i>	<i>c=a*b</i>		
<b>Fire Protection</b>	<i>Fire Service Type I &amp; II</i>					
6 inch	1,600	80.00	3	240	46%	\$2,351
8 inch	2,800	140.00	2	280	54%	\$2,742
<b>Total</b>			<b>5</b>	<b>520</b>	<b>100%</b>	<b>\$5,093</b>

1. Per the Principles of Water Rates, Fees, and Charges, Manual of Water Supply Practices, M1 AWWA, 7th edition, 2017, page 338.

### Commodity Related Costs

The commodity related cost allocation is summarized in Figure 15. Commodity related costs are those costs related to the amount of water sold and commonly include the costs of chemicals used in the treatment process, energy related to pumping for transmission and distribution, and source of supply. Each customer class is allocated commodity related costs based upon the percentage of total consumption by that class.

**Figure 15. Commodity Related Costs Allocation**

Customer Class	Volume (hcf) <sup>1</sup>	Percent of Total Volume	Allocated Costs
Single Family Residential	93,915	71.4%	\$185,522
Other Non-SFR/Commercial	37,594	28.6%	\$74,264
<b>Total</b>	<b>131,509</b>	<b>100%</b>	<b>\$259,786</b>

1. Consumption is from 2019. CWD bills monthly.

### Capacity Related Costs (variable share)

The capacity related costs allocated to variable rates for each customer class are shown in Figure 16. Capacity related costs collected from the volumetric rate are allocated to each customer class based upon their percentage of peak monthly use.

**Figure 16. Capacity Related Costs (variable share)**

Customer Class	Average Monthly Use (hcf)	Peak Monthly Use (hcf) <sup>1</sup>	Percent of Total	Allocated Costs
Single Family Residential	7,826	11,521	67%	\$312,174
Other Non-SFR/Commercial	3,133	5,753	33%	\$155,884
<b>Total</b>	<b>10,959</b>	<b>17,274</b>	<b>100%</b>	<b>\$468,058</b>

1. Based on peak monthly data (peak day data not available).

## D. Rate Design Analysis

NBS discussed several water rate alternatives and methodologies with District Staff over the course of this study, such as the percentage of revenue collected from fixed vs. variable charges and differentiating rates by customer class. Based on input provided by District staff and the Board of Directors, the proposed rates were developed. The following sections describe this process.

The rates proposed in this study make the following modifications to the water rate structure:

1. Update monthly fixed meter charges to collect 40% of the revenue requirement and update volumetric charges to reflect collecting 60% of revenue.
2. Maintain the volumetric rates for Single Family Residential customers as follows:
  - a. Keep three tier rate structure
  - b. Keep current tier breakpoints
3. Keep all non-residential customers on a uniform volumetric rate, and impose a single charge for all water consumed.

## FIXED CHARGES

The fixed meter charge recognizes that the District incurs fixed costs regardless of whether customers use water. There are two components that comprise the fixed meter charge: the customer component and the capacity component, as described in the previous section. Using the costs allocated to each meter size from Figure 12 through Figure 14; Figure 17 calculates the monthly charge for each meter size.

Figure 17. Fixed Meter Charges FY 2020/21

Customer Class	Number of Meters <sup>1</sup>	Allocated Capacity Costs	Allocated Customer Costs	Allocated Fire Protection Costs	Total Costs	Monthly Charge
	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e = b+c+d</i>	<i>f=e/a/12</i>
<b>Standard Meters</b>						
5/8 inch	845	\$282,473	\$55,645	\$0	\$338,118	\$33.34
3/4 inch	21	\$10,530	\$1,383	\$0	\$11,913	\$47.27
1 inch	13	\$10,864	\$856	\$0	\$11,720	\$75.13
1.5 inch	5	\$8,357	\$329	\$0	\$8,686	\$144.77
2 inch	17	\$45,463	\$1,119	\$0	\$46,583	\$228.35
3 inch	10	\$53,486	\$659	\$0	\$54,145	\$451.20
4 inch	1	\$8,357	\$66	\$0	\$8,423	\$701.92
<b>Fire Protection</b>						
6 inch	3	\$0	\$198	\$2,351	\$2,548	\$70.78
8 inch	2	\$0	\$132	\$2,742	\$2,874	\$119.76
<b>Total</b>	<b>917</b>	<b>\$419,531</b>	<b>\$60,386</b>	<b>\$ 5,093</b>	<b>\$ 485,011</b>	

1. Meter Count as of December 2019.

## VARIABLE CHARGES

The District currently has a three-tiered volumetric rate for single family residential customers, and one uniform rate for non-SFR customers.

Tier breakpoints remain the same as current rates and were set in the last rate study in 2017. The goals when setting the tier breakpoints were twofold:

1. The breakpoint for the first tier was set to the 7 hcf<sup>10</sup>, which is the average winter consumption for a typical single-family residential customer. Given the limited irrigation that occurs in the winter, this approximates average indoor use.
2. The breakpoint for the second tier was set to 14 hcf, which is equal to average summer consumption for a single-family residential customer. Average summer consumption is when water consumption is highest for a two-month billing period.
3. The third tier includes anything above 14 hcf.

<sup>10</sup> 10 HCF is one hundred cubic feet of water.



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The commodity costs (from Figure 15) within the single-family residential class are further allocated to the expected consumption by tier, as shown in Figure 18.

**Figure 18. Single Family Residential Commodity Related Costs**

Tier	Tier Breakpoint <sup>1</sup>	Expected Consumption <sup>2</sup> (hcf)	Percentage of Total SFR Consumption	Allocated Costs
Tier 1	7 hcf	53,666	57%	\$106,013
Tier 2	14 hcf	21,430	23%	\$42,333
Tier 3	--	18,819	20%	\$37,176
<b>Total</b>		<b>93,915</b>	<b>100%</b>	<b>\$185,522</b>

1. Tier 1 break point set to average winter consumption, an estimate of average indoor water consumption in Cabazon. The Tier 2 break point is set to 14 hcf which is average summer consumption.
2. Consumption data is based on the CWD 2019 customer data.

The Capacity Related Costs (variable share) (from Figure 16) within the single-family residential class are further allocated to expected consumption by tier, as shown in Figure 19. The “additional capacity required” represents the cumulative peak consumption in each tier. No additional capacity factor is assigned to Tier 1 water use, as this represents a base level of consumption by customers in the lowest tier, therefore no additional supply costs would be incurred if all customers stayed within the Tier 1 threshold.

**Figure 19. Single Family Residential Capacity Related Costs (variable share)**

Tier	Description	Monthly Consumption (hcf) <sup>1</sup>	Additional Capacity Required (hcf) <sup>4</sup>	Percent of Total	Allocated Costs
Tier 1	Max Tier 1 Capacity <sup>2</sup>	5,978	0	0.0%	\$0
Tier 2	Peak up to Tier 2 <sup>3</sup>	7,891	1,913	34.5%	\$107,738
Tier 3	Peak up to Tier 3 <sup>3</sup>	11,521	3,630	65.5%	\$204,437
<b>Total</b>			<b>5,543</b>	<b>100.0%</b>	<b>\$312,174</b>

1. Consumption data is based on the CWD 2019 customer data.  
Source files: Cabazon\_FINAN ACCTS SUMMARY\_CO1CO2.xlsx and Cabazon\_USAGEREPORT\_CO1CO2\_Manipulated.xlsx
2. Capacity allocated to the first tier represents the tier break multiplied by the number of customers.
3. This is the cumulative peak consumption up to the tier break; it represents capacity required to provide service to a given tier.
4. This is the additional cumulative capacity to meet peak consumption at each tier.

Due to the varying consumption characteristics, non-SFR customers will maintain a uniform volumetric rate because it best represents their cost-of-service. Using the costs allocated to each customer class in Figure 15 – 16 and Figure 18 – 19, Figure 20 calculates the per unit volumetric charge for each customer class and tier.

Figure 20. Calculated Variable Charges for FY 2020/21

Customer Class	Expected Consumption (hcf)	Allocated Commodity Costs	Allocated Capacity Costs	Total Costs	Charge per Unit Sold (\$/hcf)
	<i>a</i>	<i>b</i>	<i>c</i>	<i>d = b+c</i>	<i>e = d/a</i>
<b>Single Family Residential</b>					
Tier 1	53,666	\$ 106,013	\$ -	\$ 106,013	\$1.98
Tier 2	21,430	\$ 42,333	\$ 107,738	\$ 150,071	\$7.00
Tier 3	18,819	\$ 37,176	\$ 204,437	\$ 241,612	\$12.84
<b>All Other Customers</b>	37,594	\$ 74,264	\$ 155,884	\$ 230,148	\$6.12
<b>Total</b>	<b>131,509</b>	<b>\$ 259,786</b>	<b>\$ 468,058</b>	<b>\$ 727,844</b>	

## CONSTRUCTION METER FEES

NBS also analyzed the District's construction rates and updated the meter deposit fee, admin fee and the recalibration fee on top of the monthly meter and water charges. Figure 21 shows the updated construction meter fees. The meter deposit fee is based on the actual cost of the meter. The admin fee was calculated from labor hours needed for application processing, account opening and delivery of the construction meter. Lastly, the meter recalibration fee was also calculated based on labor hours needed to travel and repair the construction meter. These fees are all inflated 3% annually after 2020/21.

Figure 21. Updated Fee Schedule for Construction Customers

Updated Construction Customer Fee Schedule	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	Explanation of Fee
<b>One-Time Fees</b>						
Construction Meter Deposit	\$1,965.14	\$2,024.09	\$2,084.82	\$2,147.36	\$2,211.78	[1]
Administrative Fee	\$152.50	\$157.08	\$161.79	\$166.64	\$171.64	[2]
Meter Recalibration Fee	\$244.00	\$251.32	\$258.86	\$266.63	\$274.62	[3]
<b>Monthly Fees shown in Current &amp; Proposed Rates</b>						

### Explanation of Fee:

- [1] Based on cost of replacing the meter in the current year, if it is not returned.
- [2] Based on labor time and cost for: processing application, opening account and installing meter. Assumes 3% inflation per year.
- [3] Based on labor time and cost for repairing a malfunctioning meter. Assumes 3% inflation per year.

## E. Current and Proposed Water Rates

The Cost of Service analysis is used to establish the rates for FY 2020/21. In the subsequent four years of the rate study, proposed charges are simply adjusted by the proposed adjustment in total rate revenue needed, to meet projected revenue requirements. Figure provides a comparison of the current and proposed rates for FY 2020/21 through FY 2024/25. More detailed tables on the developed of the proposed charges are documented in the Appendix. It is notable to mention that after the Contract rates are over in 2022, this customer will then switch to the 10-inch fixed meter charge and the uniform commodity rate. Since the

Contract customer uses a large amount of water, the proportion of the variable rate will decrease when this customer joins the other non-SFR customers in FY 2022/23.

**Figure 22. Current and Proposed Water Rates**

Water Rate Schedule	Current Rates	Proposed Rates					
		FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	
<b>Fixed Meter Charges</b>							
Monthly Fixed Service Charges:							
5/8 inch	\$68.10	\$33.34	\$34.35	\$35.38	\$36.44	\$37.53	
3/4 inch	\$98.24	\$47.27	\$48.69	\$50.15	\$51.66	\$53.21	
1 inch	\$158.51	\$75.13	\$77.38	\$79.71	\$82.10	\$84.56	
1.5 inch	\$309.21	\$144.77	\$149.12	\$153.59	\$158.20	\$162.94	
2 inch	\$490.04	\$228.35	\$235.20	\$242.25	\$249.52	\$257.01	
3 inch	\$972.27	\$451.20	\$464.74	\$478.68	\$493.04	\$507.84	
4 inch	\$1,514.77	\$701.92	\$722.98	\$744.67	\$767.01	\$790.02	
Contract (10 inch)	\$2,233.06	\$2,300.05	\$2,369.05	\$6,212.13	\$6,398.49	\$6,590.45	
Construction Meters (3 inch)	\$286.73	\$473.21	\$487.41	\$502.03	\$517.09	\$532.61	
Monthly Fire Service Charges:							
4 inch	\$61.54	\$34.05	\$35.08	\$36.13	\$37.21	\$38.33	
6 inch	\$130.62	\$70.78	\$72.91	\$75.09	\$77.35	\$79.67	
8 inch	\$212.11	\$119.76	\$123.35	\$127.05	\$130.86	\$134.79	
<b>Commodity Charges</b>							
Rate per hcf of Water Consumed:							
Uniform Rate (Non-SFR + Construction)	\$2.96	\$6.12	\$6.31	\$5.06	\$5.21	\$5.37	
Contract Rate	\$3.83	\$3.94	\$4.06	N/A	N/A	N/A	
Tiered Rate (SFR Customers):							
	<u>Proposed Break</u>						
Tier 1	0-7 hcf	\$1.53	\$1.98	\$2.03	\$2.10	\$2.16	\$2.22
Tier 2	8-14 hcf	\$3.35	\$7.00	\$7.21	\$7.43	\$7.65	\$7.88
Tier 3	14+ hcf	\$5.12	\$12.84	\$13.22	\$13.62	\$14.03	\$14.45

## F. Comparison of Current and Proposed Water Bills

Figure 3 and Figure 4 compare a range of monthly water bills for the current and proposed water rates as a result of the initial rate adjustment for single-family residential customers (with a 5/8-inch meter) and non-single family residential customers (the bill comparison for a commercial customer is also a 5/8-inch meter). These monthly bills are based on typical meter sizes at various consumption levels.



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Figure 23. Monthly Bill Comparison for Single Family Customers

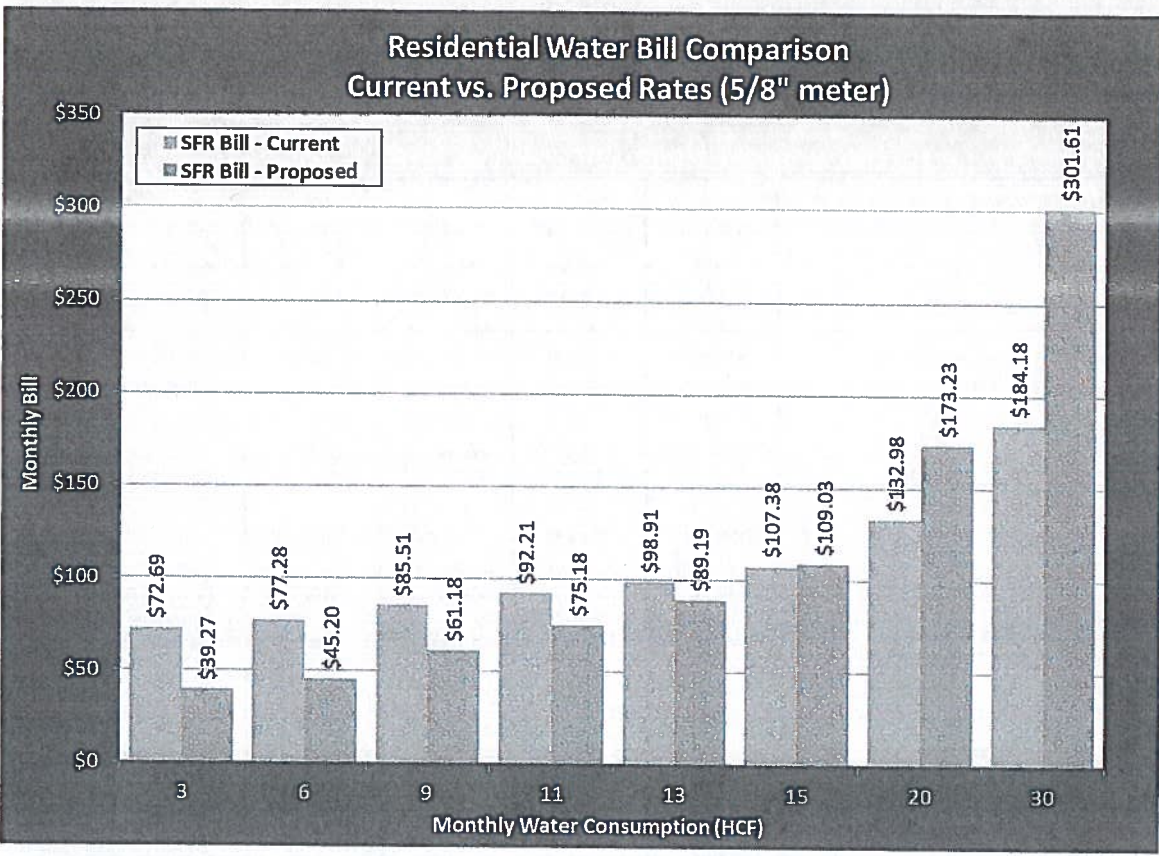
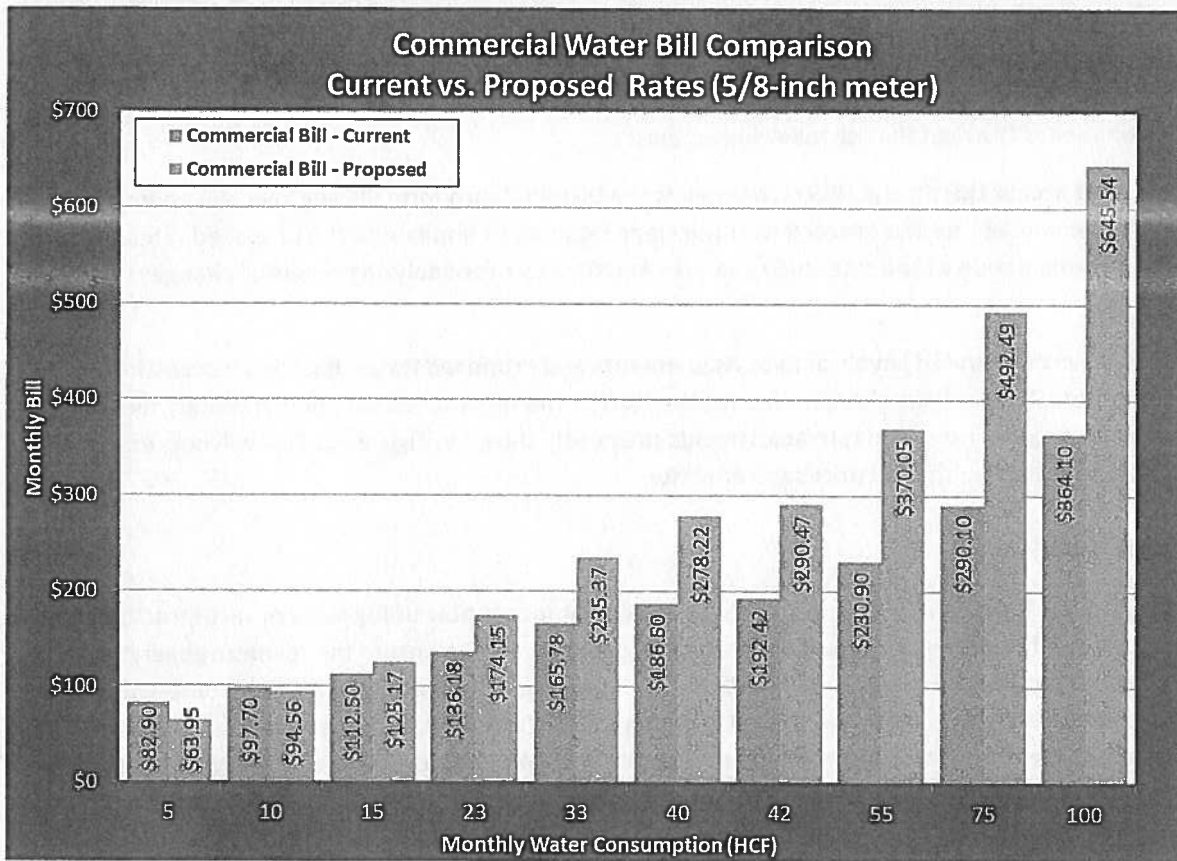


Figure 24. Monthly Water Bill Comparison for Commercial Customers



## Section 3. RECOMMENDATIONS AND NEXT STEPS

### A. Consultant Recommendations

NBS recommends District take the following actions:

**Approve and accept this Study:** NBS recommends the District Board formally approve and adopt this Study and its recommendations and proceed with the steps required to implement the proposed rates. This will provide documentation of the rate study analyses and the basis for analyzing potential changes to future rates.

**Implement Recommended Levels of Rate Adjustments and Proposed Rates:** Based on successfully meeting the Proposition 218 procedural requirements, the District should proceed with implementing the 5-year schedule of proposed rates and rate adjustments previously shown in Figure 22. This will help ensure the continued financial health of District’s water utility.

### B. Next Steps

**Annually Review Rates and Revenue –** Any time an agency adopts new utility rates or rate structures, those new rates should be closely monitored over the next several years to ensure the revenue generated is sufficient to meet the annual revenue requirements. Changing economic and water consumption patterns underscore the need for this review, as well as potential and unseen changing revenue requirements— particularly those related to environmental regulations that can significantly affect capital improvements and repair and replacement costs.

*Note: The attached Technical Appendix provides more detailed information on the analysis of the water revenue requirements, cost-of-service analysis and cost allocations, and the rate design analyses that have been summarized in this report.*

### C. NBS’ Principal Assumptions and Considerations

In preparing this report and the opinions and recommendations included herein, NBS has relied on a number of principal assumptions and considerations with regard to financial matters, conditions, and events that may occur in the future. This information and these assumptions, including District’s budgets, capital improvement costs, and information from District staff were provided by sources we believe to be reliable, although NBS has not independently verified this data.

While we believe NBS’ use of such information and assumptions is reasonable for the purpose of this report and its recommendations, some assumptions will invariably not materialize as stated herein and may vary significantly due to unanticipated events and circumstances. Therefore, the actual results can be expected to vary from those projected to the extent that actual future conditions differ from those assumed by us or provided to us by others.



## Appendix: Detailed Water Rate Study Tables and Figures

**CABAZON WATER DISTRICT  
WATER RATE STUDY  
Financial Plan and Reserve Projections**

**Financial Plan & Reserve Summary**

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**TABLE 1 : FINANCIAL PLAN AND SUMMARY OF REVENUE REQUIREMENTS**

RATE REVENUE REQUIREMENTS SUMMARY <sup>1</sup>	5-Year Rate Period				
	Budget FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
<b>Sources of Water Funds</b>					
Rate Revenue:					
Water Sales Revenue Under Current Rates	\$ 1,375,000	\$ 1,375,000	\$ 1,375,000	\$ 1,375,000	\$ 1,375,000
Revenue from Rate Increases <sup>2</sup>	13,750	62,494	105,619	150,037	195,788
Subtotal: Rate Revenue After Rate Increases	1,388,750	1,437,494	1,480,619	1,525,037	1,570,788
Non-Rate Revenue:					
Fee Revenue	\$ 146,700	\$ 161,500	\$ 162,400	\$ 163,300	\$ 166,600
Miscellaneous Revenue	93,800	94,300	94,800	95,300	97,000
Interest Income <sup>3</sup>	19,600	19,600	19,600	19,600	19,600
Subtotal: Non-Rate Revenue	260,100	275,400	276,800	278,200	283,200
<b>Total Sources of Funds</b>	<b>\$ 1,648,850</b>	<b>\$ 1,712,894</b>	<b>\$ 1,757,419</b>	<b>\$ 1,803,237</b>	<b>\$ 1,853,988</b>
<b>Uses of Water Funds</b>					
Operating Expenses <sup>4</sup>					
Payroll Expenses	\$ 579,100	\$ 622,700	\$ 638,300	\$ 654,500	\$ 670,900
Facilities, Wells, Transmission, Distribution	313,900	320,100	326,400	332,900	339,600
Utilities - Office	31,700	32,600	33,500	34,400	35,300
Office Expenses	85,600	86,700	79,400	81,300	82,400
Support Expenses	173,800	177,300	187,600	170,800	174,200
Training / Travel	4,500	4,600	4,700	4,800	4,900
Other Fees	8,900	9,000	9,100	9,200	9,300
Service Tools & Equipment	52,900	55,400	56,400	57,400	58,400
Non-Operating Expenses	59,700	59,700	49,200	38,700	38,700
Subtotal: Operating Expenses:	\$ 1,310,100	\$ 1,368,100	\$ 1,384,600	\$ 1,384,000	\$ 1,413,700
Other Expenditures:					
Existing Debt Service	\$ 137,394	\$ 137,394	\$ 137,394	\$ 48,739	\$ 48,691
New Debt Service	-	-	-	-	-
Rate-Funded Capital Expenses	467,004	365,650	21,218	9,955	-
Subtotal: Other Expenditures	\$ 604,398	\$ 503,044	\$ 158,612	\$ 58,693	\$ 48,691
<b>Total Uses of Water Funds</b>	<b>\$ 1,914,498</b>	<b>\$ 1,871,144</b>	<b>\$ 1,543,212</b>	<b>\$ 1,442,693</b>	<b>\$ 1,462,391</b>
<b>Annual Surplus/(Deficit)</b>	<b>\$ (265,648)</b>	<b>\$ (158,251)</b>	<b>\$ 214,206</b>	<b>\$ 360,544</b>	<b>\$ 391,597</b>
<b>Net Revenue Req't. (Total Uses less Non-Rate Revenue)</b>	<b>\$ 1,654,398</b>	<b>\$ 1,595,744</b>	<b>\$ 1,266,412</b>	<b>\$ 1,164,493</b>	<b>\$ 1,179,191</b>
<b>Projected Annual Rate Revenue Adjustment</b>	<b>3.00%</b>	<b>3.00%</b>	<b>3.00%</b>	<b>3.00%</b>	<b>3.00%</b>
<b>Cumulative Increase from Annual Revenue Increases</b>	<b>3.00%</b>	<b>6.09%</b>	<b>9.27%</b>	<b>12.55%</b>	<b>15.93%</b>
<b>Debt Coverage After Rate Increase</b>	<b>2.47</b>	<b>2.51</b>	<b>2.71</b>	<b>2.86</b>	<b>3.04</b>

1. Revenue and expenses for FY 2019/20 through FY 2020/21 are from source files: FY 20-21 Adopted Cabazon Budget.xlsx, Cab Budget FY20 tab.  
 FY 2018/19 revenue and expenses are the projected year end figures from file: 16\_Budgets\_V23 FY 19-20 Cabazon Budget to Board 6.18.19.APPROVED.PDF.

2. Rate increases assume an implementation date of July 1st each year.

3. Interest earnings for FY 2016/17 through FY 2019/20 from District budgets. For all other years, it is calculated based on historical LAIF returns.

4. The FY 2016/17 through FY 2019/20 operating expenses are from the budget. Inflationary factors are applied to these expenses to project costs in FY 2020/21 and beyond.

5. Under current covenants, Cabazon Water District must maintain a debt coverage ratio of 1.2. Source: Zions Bank\_Installation Sale Agreement.pdf, page 12. Conditional formatting has been applied to highlight years where a 1.20 debt coverage ratio is not met.

TABLE 2 : RESERVE FUND SUMMARY

5-Year Rate Period

SUMMARY OF CASH ACTIVITY	Budget					Projected		
	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25			
<b>UN-RESTRICTED RESERVES</b>								
Total Beginning Cash <sup>1, 2, 3</sup>	\$ 1,096,796							
<b>Operating Reserve</b>								
Beginning Reserve Balance <sup>1</sup>	\$ 600,000	\$ 334,352	\$ 176,101	\$ 390,307	\$ 692,000			
Plus: Net Cash Flow (After Rate Increases)	(265,648)	(158,251)	214,206	360,544	391,597			
Plus: Transfer of Debt Reserve Surplus	-	-	-	-	-			
Less: Transfer Out to Capital Replacement Reserve	-	-	-	(58,851)	(376,747)			
<b>Ending Operating Reserve Balance</b>	\$ 334,352	\$ 176,101	\$ 390,307	\$ 692,000	\$ 706,850			
<b>Target Ending Balance (transition to 180-days of O&amp;M) <sup>4</sup></b>	\$ 458,535	\$ 684,050	\$ 692,300	\$ 692,000	\$ 706,850			
<b>Capital Rehabilitation &amp; Replacement Reserve</b>								
Beginning Reserve Balance	\$ 496,796	\$ 443,800	\$ 443,800	\$ 443,800	\$ 490,751			
Plus: Transfer of Operating Reserve Surplus	-	-	-	58,851	376,747			
Less: Use of Reserves for Capital Projects	(52,996)	-	-	(11,900)	(22,510)			
<b>Ending Capital Rehab &amp; Replacement Reserve Balance</b>	\$ 443,800	\$ 443,800	\$ 443,800	\$ 490,751	\$ 844,988			
<b>Capital R&amp;R Reserve (6% of Net Assets)</b>								
Ending Balance	\$ 443,800	\$ 453,300	\$ 442,400	\$ 431,900	\$ 421,800			
<b>Minimum Target Ending Balance</b>	\$ 778,152	\$ 619,901	\$ 834,107	\$ 1,182,751	\$ 1,551,838			
<b>Ending Surplus/(Deficit) Compared to Reserve Targets</b>	\$ 902,335	\$ 1,137,350	\$ 1,134,700	\$ 1,123,900	\$ 1,128,650			
<b>Restricted Reserves:</b>	\$ (124,183)	\$ (517,449)	\$ (300,593)	\$ 58,851	\$ 423,188			
<b>Debt Reserve</b>								
Beginning Reserve Balance <sup>2</sup>	\$ 60,928	\$ 60,928	\$ 60,928	\$ 60,928	\$ 60,928			
Plus: Reserve Funding from New Debt Obligations	-	-	-	-	-			
Less: Transfer of Surplus to Operating Reserve	-	-	-	-	-			
<b>Ending Debt Reserve Balance</b>	\$ 60,928	\$ 60,928	\$ 60,928	\$ 60,928	\$ 60,928			
<b>Target Ending Balance</b>	\$ -	\$ -	\$ -	\$ -	\$ -			
<b>Connection Fee Reserve (provided for informational purposes only)</b>								
Beginning Reserve Balance <sup>3</sup>	\$ -	\$ -	\$ -	\$ -	\$ -			
Plus: Capacity Fee Revenue	-	-	-	-	-			
Less: Use of Reserves for Capital Projects	-	-	-	-	-			
<b>Ending Connection Fee Fund Balance</b>	\$ -	\$ -	\$ -	\$ -	\$ -			
<b>Annual Interest Earnings Rate <sup>5</sup></b>	0.20%	0.20%	0.20%	0.20%	0.20%			

1. Beginning cash for FY 2019/20 and FY2020/21 per District, source files: FY 2018-2019 Audited Financial Statements.pdf, page 11, & 6.30.20 updated cash balance.xlsx

2. No reserve requirement currently assumed, however, CAFR states these funds are held by the bond trustee.

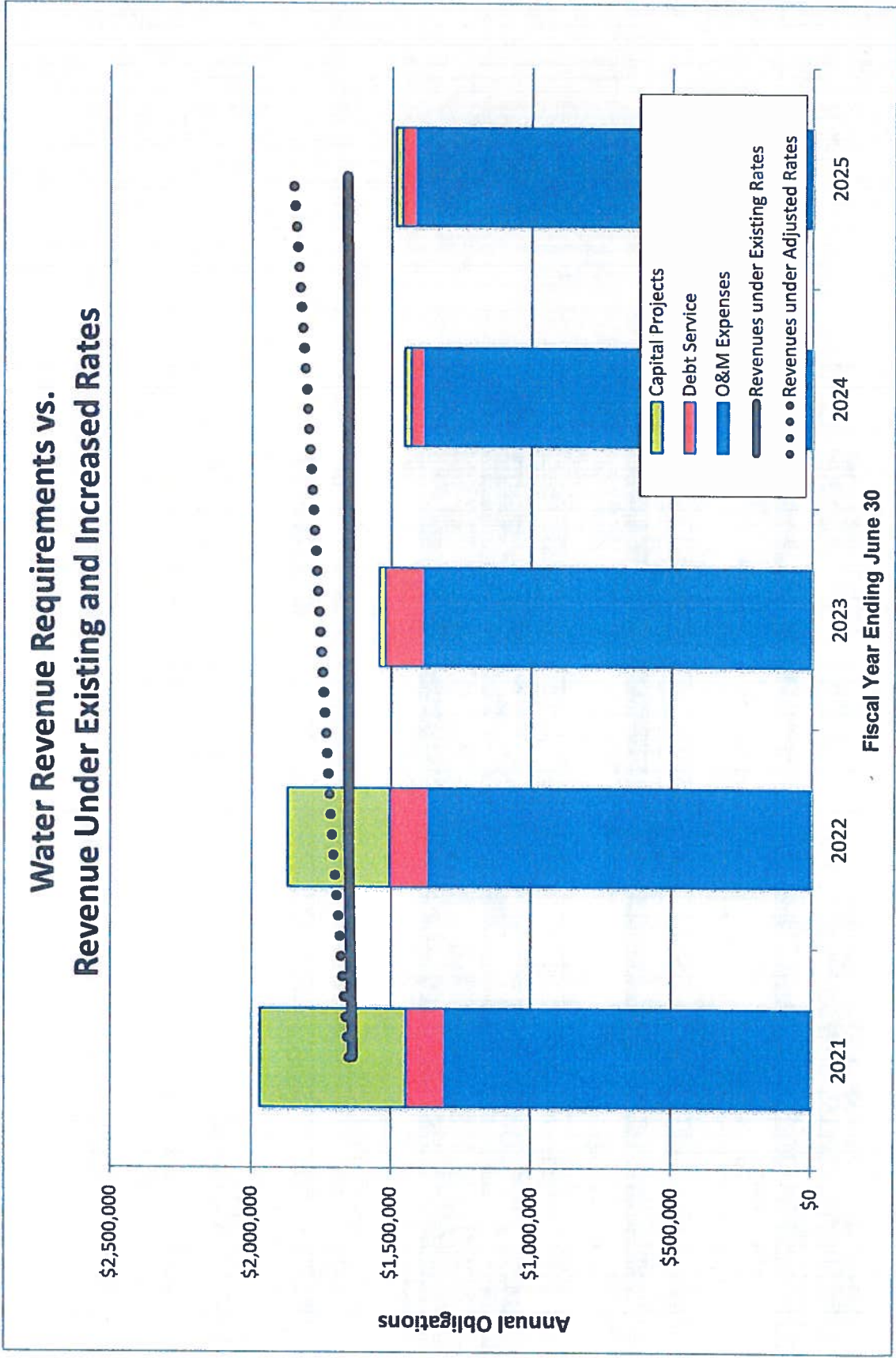
3. No restricted fund for connection fees currently.

4. Operating Reserve Target increasing from 90 days of O&M expenses to 180 days of O&M expenses by FY 2021/22 at the recommendation of staff.

5. Interest earning rates per District budget file: FY 20-21 Cabazon Budget for Rate Study V6.xlsx, Assumptions tab



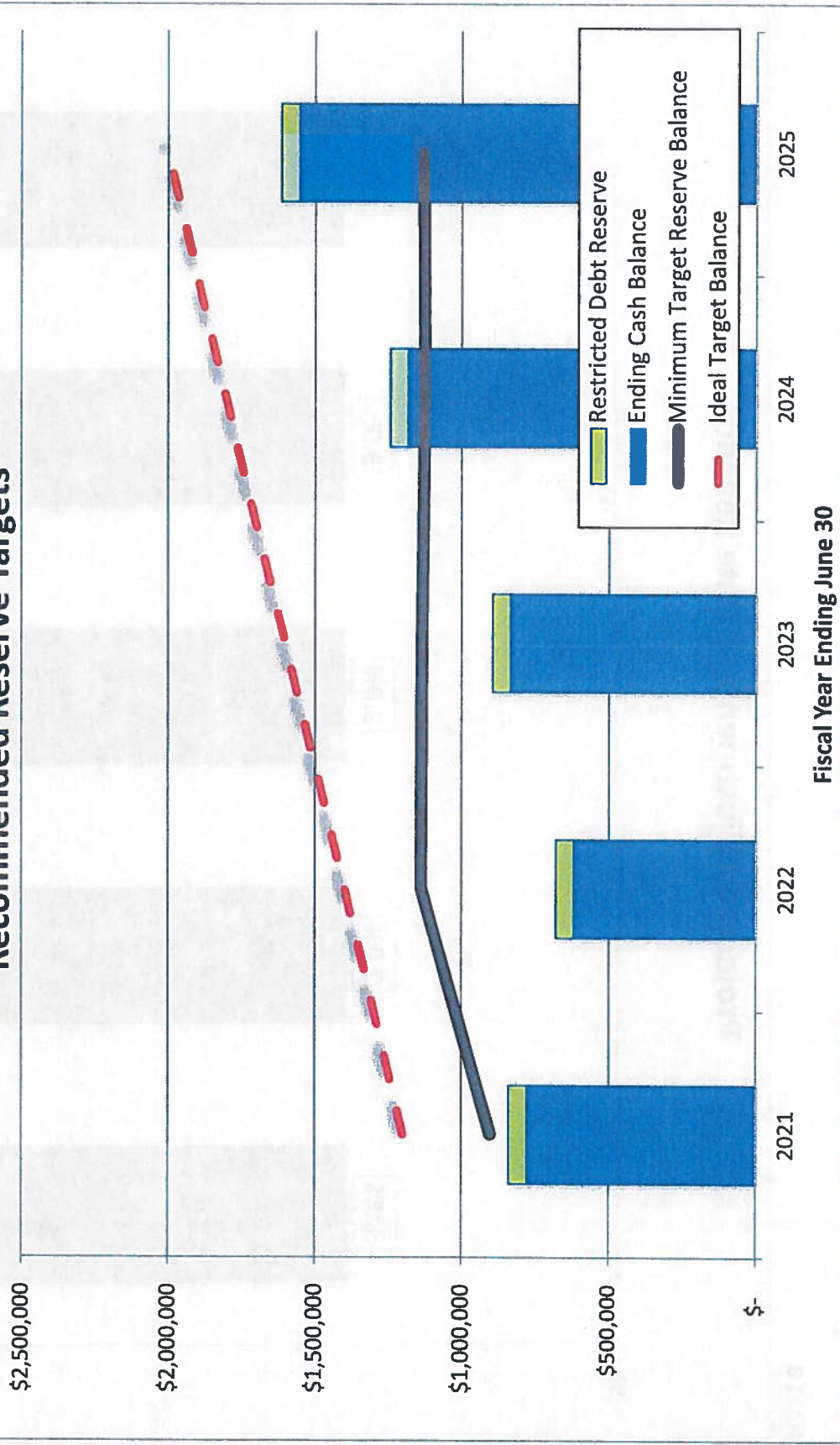
CHART 1



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CHART 2

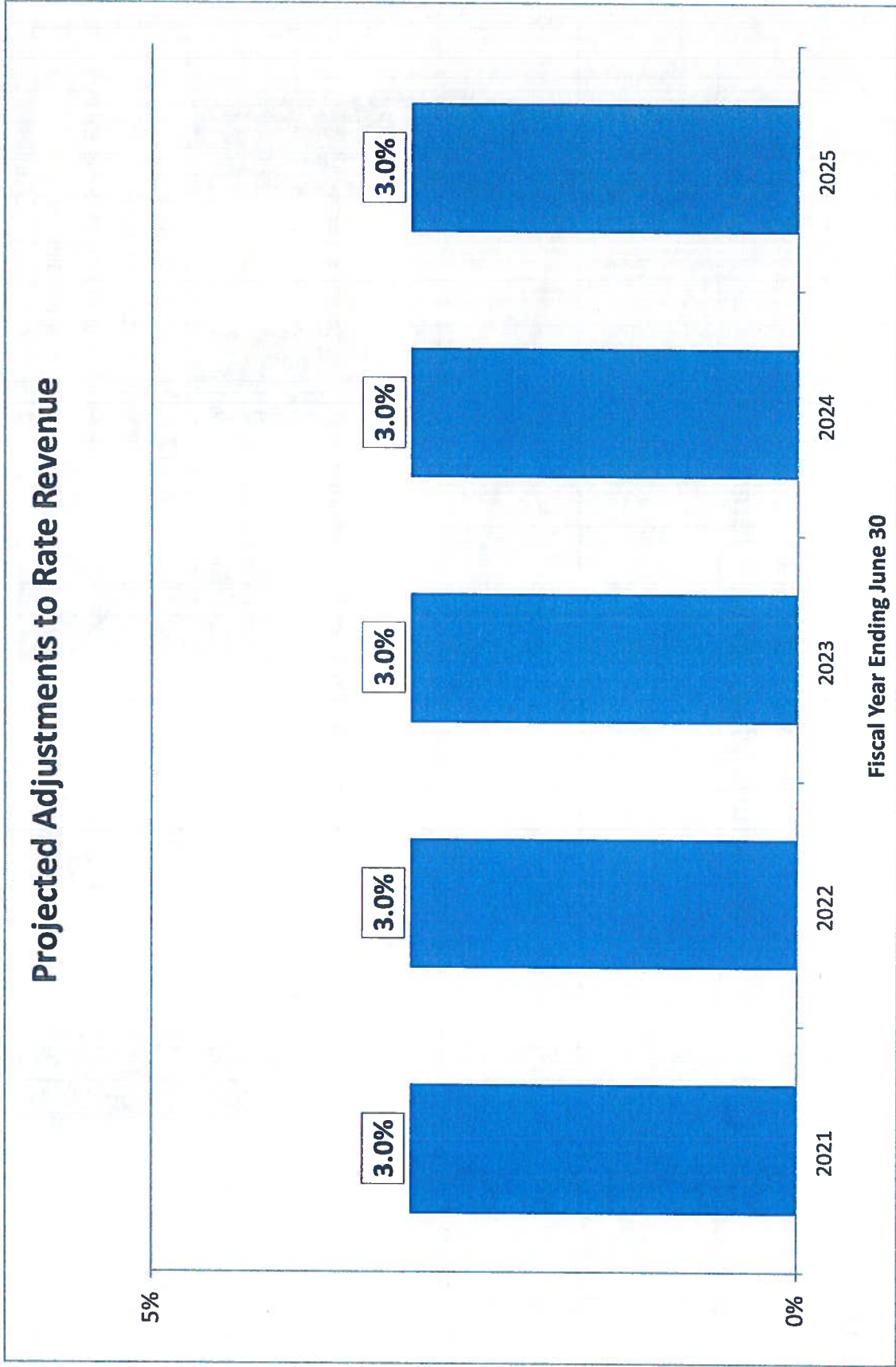
### Cash Balances vs. Recommended Reserve Targets



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CABAZON WATER DISTRICT  
WATER RATE STUDY  
Rate Adjustment Charts and Report Tables

CHART 3



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**EXHIBIT 1**

**CABAZON WATER DISTRICT  
WATER RATE STUDY  
Operating Revenue and Expenses**

**TABLE 3 : REVENUE FORECAST <sup>1</sup>**

DESCRIPTION	Inflation Basis	Prop 218 Rate Period					
		Budget	2021	2022	2023	2024	2025
<b>Water Rate Revenue</b>							
Base Rate Water Bills	1	\$ 895,100	\$ 895,100	\$ 895,100	\$ 895,100	\$ 895,100	\$ 895,100
Commodity Sales	1	314,000	314,000	314,000	314,000	314,000	314,000
DPHO Contract	1	160,000	160,000	160,000	160,000	160,000	160,000
Fire Sales - Water Bills	1	5,900	5,900	5,900	5,900	5,900	5,900
<b>Fee Revenue</b>							
Penalty Fees - Water Bills	1	\$ 31,000	\$ 45,800	\$ 46,700	\$ 47,600	\$ 48,600	\$ 49,600
New Account Fees - Water Bill	1	1,600	1,600	1,600	1,600	1,600	1,600
Returned Check Fees	1	500	500	500	500	500	500
Basic Facilities Fee (New Service)	1	-	-	-	-	-	-
Stand By Fees - Tax Revenue	5	113,600	113,600	113,600	113,600	113,600	113,600
<b>Miscellaneous Revenue</b>							
Ad Valorem - Tax Revenue	5	\$ 50,700	\$ 50,700	\$ 50,700	\$ 50,700	\$ 50,700	\$ 51,700
Teeter Settlement Income	1	10,200	10,200	10,200	10,200	10,200	10,400
Cell Tower Lease Income	12	25,600	26,100	26,600	27,100	27,600	28,100
Miscellaneous Non-Operating Income	1	7,300	7,300	7,300	7,300	7,300	7,300
<b>Interest Income</b>							
Interest Income LAIF	Cal'd	\$ 15,800	\$ 15,800	\$ 15,800	\$ 15,800	\$ 15,800	\$ 15,800
Interest Income Water Bills	Cal'd	3,100	3,100	3,100	3,100	3,100	3,100
Interest Income - DWR	Cal'd	700	700	700	700	700	700
<b>TOTAL: REVENUE</b>		<b>\$ 1,635,100</b>	<b>\$ 1,650,400</b>	<b>\$ 1,651,800</b>	<b>\$ 1,653,200</b>	<b>\$ 1,654,600</b>	<b>\$ 1,658,200</b>

**TABLE 4 : REVENUE SUMMARY**

RATE REVENUE:	Prop 218 Rate Period					
	Budget	2021	2022	2023	2024	2025
Water Rate Revenue	\$ 1,375,000	\$ 1,375,000	\$ 1,375,000	\$ 1,375,000	\$ 1,375,000	\$ 1,375,000
<b>OTHER REVENUE:</b>						
Fee Revenue	\$ 146,700	\$ 161,500	\$ 162,400	\$ 163,300	\$ 164,200	\$ 165,100
Miscellaneous Revenue	93,800	94,300	94,800	95,300	95,800	96,300
Interest Income	19,600	19,600	19,600	19,600	19,600	19,600
<b>TOTAL: REVENUE</b>	<b>\$ 1,635,100</b>	<b>\$ 1,650,400</b>	<b>\$ 1,651,800</b>	<b>\$ 1,653,200</b>	<b>\$ 1,654,600</b>	<b>\$ 1,658,200</b>

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CABAZON WATER DISTRICT  
 WATER RATE STUDY  
 Operating Revenue and Expenses

EXHIBIT 1

TABLE 5 : OPERATING EXPENSE FORECAST<sup>1</sup>

DESCRIPTION	Inflation Basis	Prop 218 Rate Period				
		Budget				
		2021	2022	2023	2024	2025
<b>Payroll Expenses</b>						
Directors Fees	6	\$ 15,000	\$ 15,300	\$ 15,600	\$ 15,900	\$ 16,200
<b>Management &amp; Customers Service</b>						
Customer Accounts	6	\$ 54,800	\$ 54,800	\$ 56,400	\$ 58,100	\$ 59,800
Assistant General Manager	6	77,700	77,700	80,000	82,400	84,900
Temp. Admin Assistant	3	7,800	8,000	8,200	8,400	8,600
General Manager	6	89,200	89,200	91,900	94,700	97,500
<b>Field Operations</b>						
Field Workers	7	\$ 123,000	\$ 160,200	\$ 163,400	\$ 166,700	\$ 170,000
<b>Employee Benefits Expense</b>						
Workers Comp.	8	\$ 6,200	\$ 6,300	\$ 6,400	\$ 6,500	\$ 6,600
Employee Health Care	8	94,800	100,500	102,500	104,600	106,700
Pension	8	77,400	77,400	79,700	82,100	84,600
<b>Payroll Expense - Taxes, etc.</b>						
FICA and Medicare	8	\$ 29,800	\$ 29,800	\$ 30,600	\$ 31,400	\$ 32,200
SUI and ETT	8	2,600	2,700	2,800	2,900	3,000
Medical Testing	8	800	800	800	800	800
<b>Facilities, Wells, Transmission, Distribution</b>						
Lab Fees	4	\$ 8,900	\$ 9,100	\$ 9,300	\$ 9,500	\$ 9,700
Meters	4	4,800	4,900	5,000	5,100	5,200
Utilities - Wells	4	96,600	98,500	100,500	102,500	104,600
<b>Line Mtn &amp; Repair Contractor</b>						
Line Maint & Repair Materials	4	\$ 72,500	\$ 74,000	\$ 75,500	\$ 77,000	\$ 78,500
<b>Well Maintenance</b>						
Chemicals	10	\$ 6,600	\$ 6,700	\$ 6,800	\$ 6,900	\$ 7,000
Well Maintenance - Other	4	31,200	31,800	32,400	33,000	33,700
<b>Security</b>						
Crime Prevention	4	\$ 20,900	\$ 21,300	\$ 21,700	\$ 22,100	\$ 22,500
Alarms Phones	4	1,100	1,100	1,100	1,100	1,100
Alarms - Other	4	2,800	2,900	3,000	3,100	3,200
<b>Miscellaneous Fac, Wells, Trans &amp; Distribution</b>						
Engineering Services	4	\$ 56,300	\$ 57,400	\$ 58,500	\$ 59,700	\$ 60,900
Other	4	12,200	12,400	12,600	12,900	13,200
<b>Sub-Total</b>		<b>\$ 893,000</b>	<b>\$ 942,800</b>	<b>\$ 964,700</b>	<b>\$ 987,400</b>	<b>\$ 1,010,500</b>

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CABAZON WATER DISTRICT  
 WATER RATE STUDY  
 Operating Revenue and Expenses

TABLE 6 Prop 218 Rate Period

DESCRIPTION	Inflation Basis	Budget				
		2021	2022	2023	2024	2025
<b>Utilities - Office</b>						
Electricity	3	\$ 15,800	\$ 16,400	\$ 17,000	\$ 17,600	\$ 18,200
Gas	9	1,100	1,100	1,100	1,100	1,100
Telephone	4	10,200	10,400	10,600	10,800	11,000
Trash Pickup / Office Cleaning	4	4,600	4,700	4,800	4,900	5,000
<b>Office Expenses</b>						
Fire Alarm System Servicing	4	\$ -	\$ -	\$ -	\$ -	\$ -
Water Billing System	4	2,100	2,100	2,100	2,100	2,100
Supplies & Equipment	4	10,100	10,300	10,500	10,700	10,900
Copier and Supplies	4	5,000	5,100	5,200	5,300	5,400
Dues & Subscriptions	4	1,300	900	900	1,300	900
Postage	4	8,100	8,300	8,500	8,700	8,900
Printing & publications	4	6,300	6,400	6,500	6,600	6,700
Computer Services	4	36,800	37,500	38,300	39,100	39,900
Office Storage	4	6,200	6,300	-	-	-
Air Conditioning Servicing	4	5,100	5,200	5,300	5,400	5,500
CA Water Systems Alliance (CWSA)	4	2,500	2,500	-	-	-
Office Expenses - Other	4	2,100	2,100	2,100	2,100	2,100
<b>Support Expenses</b>						
Temporary Labor	7	\$ 12,600	\$ 12,900	\$ 20,000	\$ -	\$ -
Financial Audit	7	23,000	23,500	24,000	24,500	25,000
Accounting	7	35,000	35,700	36,400	37,100	37,800
<b>Legal</b>						
Legal - General	4	\$ 50,400	\$ 51,400	\$ 52,400	\$ 53,400	\$ 54,500
Legal - Water	4	10,800	11,000	11,200	11,400	11,600
Legal - Personnel	4	8,700	8,900	9,100	9,300	9,500
Legal - Fees & Charges	4	1,100	1,100	1,100	1,100	1,100
<b>Miscellaneous Support</b>						
Bank Service Charges	4	\$ -	\$ -	\$ -	\$ -	\$ -
Payroll Service	4	5,200	5,300	5,400	5,500	5,600
Website Support	4	900	900	900	900	900
General Liability Insurance	4	26,100	26,600	27,100	27,600	28,200
<b>Training / Travel</b>						
Seminars / Training	4	\$ 3,500	\$ 3,600	\$ 3,700	\$ 3,800	\$ 3,900
Travel Meals	4	1,000	1,000	1,000	1,000	1,000
<b>Other Fees</b>						
County Lien Release Fees	4	\$ -	\$ -	\$ -	\$ -	\$ -
Riverside County Fees	4	5,900	6,000	6,100	6,200	6,300
State Water fees	4	2,100	2,100	2,100	2,100	2,100
Other Fees - Other	4	900	900	900	900	900
<b>Sub-Total</b>		<b>\$ 304,500</b>	<b>\$ 310,200</b>	<b>\$ 314,300</b>	<b>\$ 300,500</b>	<b>\$ 306,100</b>

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CABAZON WATER DISTRICT  
WATER RATE STUDY  
Operating Revenue and Expenses

Prop 218 Rate Period

DESCRIPTION	Inflation Basis	Budget				
		2021	2022	2023	2024	2025
<b>Service Tools &amp; Equipment</b>						
Shop Supplies & Small Tools	4	\$ 9,300	\$ 9,500	\$ 9,700	\$ 9,900	\$ 10,100
Vehicle Fuel	9	16,300	16,600	16,900	17,200	17,500
Employee Uniforms	4	1,800	1,800	1,800	1,800	1,800
Safety	4	500	2,000	2,000	2,000	2,000
Tractor Expenses	4	3,700	3,800	3,900	4,000	4,100
Equipment Rental	4	2,000	2,000	2,000	2,000	2,000
Service Trucks - Repair & Mtn	4	14,500	14,800	15,100	15,400	15,700
Water Ops Cell Phone / Internet	4	4,800	4,900	5,000	5,100	5,200
Communications	4	-	-	-	-	-
<b>Non-Operating Expenses</b>						
DWR Loan Processing Fee	13	\$ 1,400	\$ 1,400	\$ 1,400	\$ 1,400	\$ 1,400
Bad Debt Expense	13	1,200	1,200	1,200	1,200	1,200
Miscellaneous	13	1,100	1,100	1,100	1,100	1,100
DHPO Payback <sup>2</sup>	Call'd	21,000	21,000	10,500	-	-
GSA / SGMA	13	35,000	35,000	35,000	35,000	35,000
<b>Sub-Total</b>		<b>\$ 112,600</b>	<b>\$ 115,100</b>	<b>\$ 105,600</b>	<b>\$ 96,100</b>	<b>\$ 97,100</b>
<b>GRAND TOTAL: OPERATING EXPENSES</b>		<b>\$ 1,250,400</b>	<b>\$ 1,308,400</b>	<b>\$ 1,335,400</b>	<b>\$ 1,345,300</b>	<b>\$ 1,375,000</b>
<b>GRAND TOTAL: OPERATING &amp; NON-OPERATING EXP.</b>		<b>\$ 1,310,100</b>	<b>\$ 1,368,100</b>	<b>\$ 1,384,600</b>	<b>\$ 1,384,000</b>	<b>\$ 1,413,700</b>

TABLE 8 : ITEMS EXCLUDED FROM ABOVE (SHOWN IN EXHIBIT 3)

DESCRIPTION	Inflation Basis	2021	2022	2023	2024	2025
DWR Interest Expense	Call'd	\$ 7,900	\$ 7,900	\$ 6,700	\$ 5,500	\$ 4,200
DHPO Interest Expense	Call'd	5,800	5,800	3,800	1,600	-
DEPRECIATION	Call'd	-	-	-	-	-
<b>Total</b>		<b>\$ 1,323,800</b>	<b>\$ 1,381,800</b>	<b>\$ 1,395,100</b>	<b>\$ 1,391,100</b>	<b>\$ 1,417,900</b>

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**EXHIBIT 1**

**CABAZON WATER DISTRICT  
WATER RATE STUDY  
Operating Revenue and Expenses  
TABLE 9 : FORECASTING ASSUMPTIONS**

INFLATION FACTORS <sup>3</sup>		2021	2022	2023	2024	2025
	Inflation Basis					
Water Sales	1	0.00%	0.00%	0.00%	0.00%	0.00%
New Water Rates	2	5.00%	3.00%	3.00%	3.00%	3.00%
Electricity	3	3.50%	3.50%	3.50%	3.50%	3.50%
General Inflation	4	2.00%	2.00%	2.00%	2.00%	2.00%
Property Tax Revenues	5	0.00%	0.00%	0.00%	0.00%	2.00%
Salaries	6	3.00%	3.00%	3.00%	3.00%	3.00%
Field Salaries	7	2.00%	2.00%	2.00%	2.00%	2.00%
Benefits allocations	8	6.00%	6.00%	6.00%	6.00%	6.00%
Fuel	9	3.00%	3.00%	3.00%	3.00%	3.00%
Chemicals	10	3.00%	3.00%	3.00%	3.00%	3.00%
Interest Income	11	0.20%	0.20%	0.20%	0.20%	0.20%
Cell Tower Lease	12	2.00%	2.00%	2.00%	2.00%	2.00%
No Escalation	13	0.00%	0.00%	0.00%	0.00%	0.00%

1. Revenue and expenses for FY 2019/20 through FY 2020/21 are from source files: FY 20-21 Adopted Cabazon Budget.xlsx, Cab Budget FY20 tab.  
 FY 2018/19 revenue and expenses are the projected year end figures from file: 16\_Budgets\_V23 FY 19-20 Cabazon Budget to Board 6.18.19.APPROVED.PDF.  
 2. DHPO payback due to additional capacity provided when DHPO connected to the system. Last credit will be applied on December 31, 2022.  
 3. Inflation values provided by staff from source file: FY 20-21 Adopted Cabazon Budget.xlsx, Assumptions tab.

**EXHIBIT 2**

**CABAZON WATER DISTRICT  
WATER RATE STUDY  
Capital Improvement Plan Expenditures**

**TABLE 10 : CAPITAL FUNDING SUMMARY**

CAPITAL FUNDING FORECAST Funding Sources:	Budget		Projected			
	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	
Grants	\$ -	\$ -	\$ -	\$ -	\$ -	
Use of Capacity Fee Reserves	-	-	-	-	-	
SRF Loan Funding	-	-	-	-	-	
Use of New Revenue Bond Proceeds	-	-	-	11,900	22,510	
Use of Capital Rehabilitation and Replacement Reserve	52,996	-	-	-	-	
Rate Revenue	467,004	365,650	21,218	9,955	-	
<b>Total Sources of Capital Funds</b>	<b>\$ 520,000</b>	<b>\$ 365,650</b>	<b>\$ 21,218</b>	<b>\$ 21,855</b>	<b>\$ 22,510</b>	
<b>Uses of Capital Funds:</b>						
Total Project Costs	\$ 520,000	\$ 365,650	\$ 21,218	\$ 21,855	\$ 22,510	
<b>Capital Funding Surplus (Deficiency)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>Bank Loan</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>New Revenue Bond Proceeds</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	

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CABAZON WATER DISTRICT  
WATER RATE STUDY  
Capital Improvement Plan Expenditures

CAPITAL IMPROVEMENT PROGRAM

TABLE 11 : CAPITAL IMPROVEMENT PROGRAM COSTS (IN CURRENT-YEAR DOLLARS) <sup>1</sup>

Project Description	2021	2022	2023	2024	2025
Main Street Property (Icehouse-Impts)	\$ 20,000	\$ 50,000	\$ -	\$ -	\$ -
Relocate Fire Hydrant at Circle K	15,000	-	-	-	-
Water Meter Replacements	20,000	20,000	20,000	20,000	20,000
Detach Section Land Locked by Tribe	-	30,000	-	-	-
Service Utility Truck	-	105,000	-	-	-
Production We11 #1 Rehab	240,000	-	-	-	-
Tank #1 Rehab	150,000	-	-	-	-
Connection & Transfer Box to W1 & W5 for portable generator	75,000	-	-	-	-
Bonita Vault Rehab	-	150,000	-	-	-
Future CIP Costs (Estimated 2021-2026) Average	-	-	-	-	-
<b>Total: CIP Program Costs (Current-Year Dollars)</b>	<b>\$ 520,000</b>	<b>\$ 355,000</b>	<b>\$ 20,000</b>	<b>\$ 20,000</b>	<b>\$ 20,000</b>

TABLE 12 : CAPITAL IMPROVEMENT PROGRAM COSTS (IN FUTURE-YEAR DOLLARS) <sup>1</sup>

Project Description	2021	2022	2023	2024	2025
Main Street Property (Icehouse-Impts)	\$ 20,000	\$ 51,500	\$ -	\$ -	\$ -
Relocate Fire Hydrant at Circle K	15,000	-	-	-	-
Water Meter Replacements	20,000	20,600	21,218	21,855	22,510
Detach Section Land Locked by Tribe	-	30,900	-	-	-
Service Utility Truck	-	108,150	-	-	-
Production We11 #1 Rehab	240,000	-	-	-	-
Tank #1 Rehab	150,000	-	-	-	-
Connection & Transfer Box to W1 & W5 for portable generator	75,000	-	-	-	-
Bonita Vault Rehab	-	154,500	-	-	-
Future CIP Costs (Estimated 2021-2026) Average	-	-	-	-	-
<b>Total: CIP Program Costs (Future-Year Dollars)</b>	<b>\$ 520,000</b>	<b>\$ 365,650</b>	<b>\$ 21,218</b>	<b>\$ 21,855</b>	<b>\$ 22,510</b>

TABLE 13 : FORECASTING ASSUMPTIONS

Economic Variables	2021	2022	2023	2024	2025
Annual Construction Cost Inflation, Per Engineering News Record <sup>2</sup>	0.00%	3.00%	3.00%	3.00%	3.00%
Cumulative Construction Cost Multiplier from 2020	1.00	1.03	1.06	1.09	1.13

1. Estimated capital improvement project costs found in source files: FY 20-21 Adopted Cabazon Budget.xlsx, 5-Year CIP tab (for 2020/21-2025/26) and Cab Budget FY 20 tab (for 2019/20).

2. Construction Inflation is based on the most current 10 year average of the Engineering News-Record Construction Cost Index. Source: [www.enr.com/economics](http://www.enr.com/economics)

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**EXHIBIT 3**

**CABAZON WATER DISTRICT**  
**WATER RATE STUDY**  
**Debt Service**

**TABLE 14**

<b>ASSESSMENT DISTRICT DEBT OBLIGATIONS</b>						
Annual Repayment Schedules:	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	
<b>DWR Loan No E58416<sup>1</sup></b>						
Principal Payment	\$ 40,763	\$ 41,959	\$ 43,208	\$ 44,534	\$ 45,825	
Interest Payment	7,928	6,732	5,483	4,204	2,866	
<b>Subtotal: Annual Debt Service</b>	<b>\$ 48,691</b>	<b>\$ 48,691</b>	<b>\$ 48,691</b>	<b>\$ 48,739</b>	<b>\$ 48,691</b>	
Coverage Requirement (\$-Amnt above annual payment) <sup>2</sup>	120%	120%	120%	120%	120%	
Reserve Requirement (total fund balance) <sup>3</sup>	\$ -	\$ -	\$ -	\$ -	\$ -	
<b>Zion First National Installment Sale Agreement<sup>4</sup></b>						
Principal Payment	\$ 82,872	\$ 84,949	\$ 87,077	\$ -	\$ -	
Interest Payment	5,831	3,755	1,626	-	-	
<b>Subtotal: Annual Debt Service</b>	<b>\$ 88,703</b>	<b>\$ 88,703</b>	<b>\$ 88,703</b>	<b>\$ -</b>	<b>\$ -</b>	
Coverage Requirement (\$-Amnt above annual payment) <sup>2</sup>	120%	120%	120%	0%	0%	
Reserve Requirement (total fund balance) <sup>3</sup>	\$ -	\$ -	\$ -	\$ -	\$ -	

1. Client provided Source File: *DWR Debt Schedule-REVISED.pdf*  
2. Coverage requirement set by Zion Bank Installment Agreement and includes all Parity obligations. Source File: *Zions Bank\_Installment Sale Agreement.pdf*  
3. No reserve requirements for existing debt confirmed by staff 12/15/16.  
4. Client provided Source File: *Zions Bank\_Installment Sale Agreement.pdf*

**TABLE 15 : EXISTING ANNUAL DEBT OBLIGATIONS TO BE SATISFIED BY WATER RATES**

<b>Existing Annual Debt Service</b>	\$ 137,394	\$ 137,394	\$ 137,394	\$ 48,739	\$ 48,691
<b>Existing Annual Coverage Requirement</b>	120%	120%	120%	120%	120%
<b>Existing Debt Reserve Target</b>	\$ -	\$ -	\$ -	\$ -	\$ -

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TABLE 16

Classification of Expenses Budget Categories	Total Revenue Requirements FY 2020/21		Commodity (COM)		Capacity (CAP)		Customer (CA)		Fire Protection (FP)		Basis of Classification			
			(COM)	(CAP)	(CA)	(FP)	(COM)	(CAP)	(CA)	(FP)	(COM)	(CAP)	(CA)	(FP)
<b>Payroll Expenses</b>	\$ 15,000	\$ 1,500	\$ 1,500	\$ 11,892	\$ 1,500					108	10.0%	79.3%	10.0%	0.7%
Directors Fees														
Management & Customers Service														
Customer Accounts	\$ 54,800	\$ -	\$ -	\$ -	\$ 54,407	\$ -	\$ -	\$ -	\$ -	393	0.0%	0.0%	99.3%	0.7%
Admin Assistant	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	0.0%	89.3%	10.0%	0.7%
Assistant General Manager	\$ 77,700	\$ -	\$ -	\$ 69,372	\$ 7,770	\$ -	\$ -	\$ -	\$ -	558	0.0%	89.3%	10.0%	0.7%
Temp. Admin Assistant	\$ 7,800	\$ -	\$ -	\$ 6,964	\$ 780	\$ -	\$ -	\$ -	\$ -	56	0.0%	89.3%	10.0%	0.7%
General Manager	\$ 89,200	\$ -	\$ -	\$ 79,640	\$ 8,920	\$ -	\$ -	\$ -	\$ -	640	0.0%	89.3%	10.0%	0.7%
<b>Water Operations</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	0.0%	0.0%	100.0%	0.0%
Meter Reader														
Field Operations														
Field Workers	\$ 123,000	\$ 36,900	\$ 36,900	\$ 85,217	\$ -	\$ -	\$ -	\$ -	\$ -	883	30.0%	69.3%	0.0%	0.7%
<b>Employee Benefits Expense</b>														
Workers Comp.	\$ 6,200	\$ 1,860	\$ 1,860	\$ 4,295	\$ -	\$ -	\$ -	\$ -	\$ -	45	30.0%	69.3%	0.0%	0.7%
Employee Health Care	\$ 94,800	\$ 28,440	\$ 28,440	\$ 65,679	\$ -	\$ -	\$ -	\$ -	\$ -	681	30.0%	69.3%	0.0%	0.7%
Pension	\$ 77,400	\$ 23,220	\$ 23,220	\$ 53,624	\$ -	\$ -	\$ -	\$ -	\$ -	556	30.0%	69.3%	0.0%	0.7%
<b>Payroll Expense - Taxes, etc.</b>														
FICA and Medicare	\$ 29,800	\$ 8,940	\$ 8,940	\$ 20,646	\$ -	\$ -	\$ -	\$ -	\$ -	214	30.0%	69.3%	0.0%	0.7%
SUI and ETT	\$ 2,600	\$ 780	\$ 780	\$ 1,801	\$ -	\$ -	\$ -	\$ -	\$ -	19	30.0%	69.3%	0.0%	0.7%
Medical Testing	\$ 800	\$ 240	\$ 240	\$ 554	\$ -	\$ -	\$ -	\$ -	\$ -	6	30.0%	69.3%	0.0%	0.7%
<b>Facilities, Wells, Transmission, Distribution</b>														
Lab Fees	\$ 8,900	\$ 2,670	\$ 2,670	\$ 6,166	\$ -	\$ -	\$ -	\$ -	\$ -	64	30.0%	69.3%	0.0%	0.7%
Site Landscaping & Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	30.0%	69.3%	0.0%	0.7%
Meters	\$ 4,800	\$ 1,440	\$ 1,440	\$ 3,326	\$ -	\$ -	\$ -	\$ -	\$ -	34	30.0%	69.3%	0.0%	0.7%
Generator Service Contractor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	100.0%	0.0%	0.0%	0.0%
Median Landscape & Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	30.0%	69.3%	0.0%	0.7%
Utilities - Wells	\$ 96,600	\$ 96,600	\$ 96,600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	100.0%	0.0%	0.0%	0.0%
SCADA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	30.0%	69.3%	0.0%	0.7%
<b>Line Mtn &amp; Repair Contractor</b>														
Line Mtn & Repair Construction	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	30.0%	69.3%	0.0%	0.7%
Line Mtn & Repair Rent	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	30.0%	69.3%	0.0%	0.7%
Line Mtn & Repair Construction Emergency	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	30.0%	69.3%	0.0%	0.7%
Line Mtn & Repair Rent Emergency	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	30.0%	69.3%	0.0%	0.7%
Line Maint & Repair Materials	\$ 72,500	\$ 21,750	\$ 21,750	\$ 50,229	\$ -	\$ -	\$ -	\$ -	\$ -	521	30.0%	69.3%	0.0%	0.7%
<b>Well Maintenance</b>														
Chemicals	\$ 6,600	\$ 6,600	\$ 6,600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	100.0%	0.0%	0.0%	0.0%
Well Maintenance - Other	\$ 31,200	\$ 9,360	\$ 9,360	\$ 21,616	\$ -	\$ -	\$ -	\$ -	\$ -	224	30.0%	69.3%	0.0%	0.7%
<b>Sub-Total</b>	\$ 799,700	\$ 240,300	\$ 240,300	\$ 481,023	\$ 73,377	\$ -	\$ -	\$ -	\$ -	5,001	30.0%	60.2%	9.2%	0.6%

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**Function & Classification**

**CABAZON WATER DISTRICT  
WATER RATE STUDY  
Cost of Service Analysis**

**TABLE 17**

Budget Categories	Total Revenue Requirements		Commodity		Capacity		Customer		Fire Protection		Basis of Classification		
	FY 2020/21	(COM)	(CAP)	(CA)	(FP)	(COM)	(CA)	(COM)	(CA)	(FP)	(COM)	(CA)	(FP)
<b>Security</b>													
Crime Prevention	\$ 20,900	\$ 6,270	\$ 14,480	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 150	30.0%	69.3%	0.0%	0.7%
Alarms Phones	\$ 1,100	\$ 330	\$ 762	\$ -	\$ -	\$ -	\$ -	\$ -	8	30.0%	69.3%	0.0%	0.7%
Alarms - Other	\$ 2,800	\$ 840	\$ 1,940	\$ -	\$ -	\$ -	\$ -	\$ -	20	30.0%	69.3%	0.0%	0.7%
Training / Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	30.0%	69.3%	0.0%	0.7%
Materials	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	30.0%	69.3%	0.0%	0.7%
Audio Alarm	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	30.0%	69.3%	0.0%	0.7%
Video Equip Lease	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	30.0%	69.3%	0.0%	0.7%
<b>Miscellaneous Fac, Wells, Trans &amp; Distribution</b>													
Engineering Services	\$ 56,300	\$ 16,890	\$ 39,006	\$ -	\$ 404	\$ 30.0%	\$ 0.0%	\$ 0.0%	\$ 0.0%	\$ 0.0%	\$ 0.0%	\$ 0.0%	\$ 0.0%
Chlorinators	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100.0%	\$ 0.0%	\$ 0.0%	\$ -	\$ 100.0%	\$ 0.0%	\$ 0.0%	\$ 0.0%
Other	\$ 12,200	\$ 12,200	\$ -	\$ -	\$ -	\$ 100.0%	\$ 0.0%	\$ 0.0%	\$ -	\$ 100.0%	\$ 0.0%	\$ 0.0%	\$ 0.0%
<b>Utilities - Office</b>													
Electricity	\$ 15,800	\$ 4,740	\$ 9,367	\$ 1,580	\$ 113	\$ 30.0%	\$ 59.3%	\$ 30.0%	\$ 113	\$ 30.0%	\$ 59.3%	\$ 10.0%	\$ 0.7%
Gas	\$ 1,100	\$ 330	\$ 652	\$ 110	\$ 8	\$ 30.0%	\$ 59.3%	\$ 30.0%	\$ 8	\$ 30.0%	\$ 59.3%	\$ 10.0%	\$ 0.7%
Telephone	\$ 10,200	\$ 3,060	\$ 6,047	\$ 1,020	\$ 73	\$ 30.0%	\$ 59.3%	\$ 30.0%	\$ 73	\$ 30.0%	\$ 59.3%	\$ 10.0%	\$ 0.7%
Trash Pickup / Office Cleaning	\$ 4,600	\$ 1,380	\$ 2,727	\$ 460	\$ 33	\$ 30.0%	\$ 59.3%	\$ 30.0%	\$ 33	\$ 30.0%	\$ 59.3%	\$ 10.0%	\$ 0.7%
<b>Office Expenses</b>													
Fire Alarm System Servicing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30.0%	\$ 59.3%	\$ 30.0%	\$ -	\$ 30.0%	\$ 59.3%	\$ 10.0%	\$ 0.7%
Water Billing System	\$ 2,100	\$ -	\$ -	\$ 2,100	\$ -	\$ 0.0%	\$ 0.0%	\$ 0.0%	\$ -	\$ 0.0%	\$ 0.0%	\$ 100.0%	\$ 0.0%
Supplies & Equipment	\$ 10,100	\$ 3,030	\$ 5,987	\$ 1,010	\$ 73	\$ 30.0%	\$ 59.3%	\$ 30.0%	\$ 73	\$ 30.0%	\$ 59.3%	\$ 10.0%	\$ 0.7%
Copier and Supplies	\$ 5,000	\$ 1,500	\$ 2,964	\$ 500	\$ 36	\$ 30.0%	\$ 59.3%	\$ 30.0%	\$ 36	\$ 30.0%	\$ 59.3%	\$ 10.0%	\$ 0.7%
Dues & Subscriptions	\$ 1,300	\$ 390	\$ 771	\$ 130	\$ 9	\$ 30.0%	\$ 59.3%	\$ 30.0%	\$ 9	\$ 30.0%	\$ 59.3%	\$ 10.0%	\$ 0.7%
Postage	\$ 8,100	\$ 2,430	\$ 4,802	\$ 810	\$ 58	\$ 30.0%	\$ 59.3%	\$ 30.0%	\$ 58	\$ 30.0%	\$ 59.3%	\$ 10.0%	\$ 0.7%
Printing & publications	\$ 6,300	\$ 1,890	\$ 3,735	\$ 630	\$ 45	\$ 30.0%	\$ 59.3%	\$ 30.0%	\$ 45	\$ 30.0%	\$ 59.3%	\$ 10.0%	\$ 0.7%
Leases & Rents	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30.0%	\$ 59.3%	\$ 30.0%	\$ -	\$ 30.0%	\$ 59.3%	\$ 10.0%	\$ 0.7%
Computer Services	\$ 36,800	\$ 11,040	\$ 21,816	\$ 3,680	\$ 264	\$ 30.0%	\$ 59.3%	\$ 30.0%	\$ 264	\$ 30.0%	\$ 59.3%	\$ 10.0%	\$ 0.7%
Office / Road	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30.0%	\$ 59.3%	\$ 30.0%	\$ -	\$ 30.0%	\$ 59.3%	\$ 10.0%	\$ 0.7%
Office Storage	\$ 6,200	\$ 1,860	\$ 3,675	\$ 620	\$ 45	\$ 30.0%	\$ 59.3%	\$ 30.0%	\$ 45	\$ 30.0%	\$ 59.3%	\$ 10.0%	\$ 0.7%
Air Conditioning Servicing	\$ 5,100	\$ 1,530	\$ 3,023	\$ 510	\$ 37	\$ 30.0%	\$ 59.3%	\$ 30.0%	\$ 37	\$ 30.0%	\$ 59.3%	\$ 10.0%	\$ 0.7%
CA Water Systems Alliance (CWSA)	\$ 2,500	\$ 750	\$ 1,482	\$ 250	\$ 18	\$ 30.0%	\$ 59.3%	\$ 30.0%	\$ 18	\$ 30.0%	\$ 59.3%	\$ 10.0%	\$ 0.7%
Office Expenses - Other	\$ 2,100	\$ 630	\$ 1,245	\$ 210	\$ 15	\$ 30.0%	\$ 59.3%	\$ 30.0%	\$ 15	\$ 30.0%	\$ 59.3%	\$ 10.0%	\$ 0.7%
<b>Support Expenses</b>													
Temporary Labor	\$ 12,600	\$ 3,780	\$ 7,470	\$ 1,260	\$ 90	\$ 30.0%	\$ 59.3%	\$ 30.0%	\$ 90	\$ 30.0%	\$ 59.3%	\$ 10.0%	\$ 0.7%
Financial Audit	\$ 23,000	\$ 6,900	\$ 13,635	\$ 2,300	\$ 165	\$ 30.0%	\$ 59.3%	\$ 30.0%	\$ 165	\$ 30.0%	\$ 59.3%	\$ 10.0%	\$ 0.7%
Accounting	\$ 35,000	\$ 10,500	\$ 20,749	\$ 3,500	\$ 251	\$ 30.0%	\$ 59.3%	\$ 30.0%	\$ 251	\$ 30.0%	\$ 59.3%	\$ 10.0%	\$ 0.7%
<b>Sub-Total</b>	<b>\$ 281,200</b>	<b>\$ 92,270</b>	<b>\$ 166,334</b>	<b>\$ 20,680</b>	<b>\$ 1,916</b>	<b>\$ 32.8%</b>	<b>\$ 7.4%</b>	<b>\$ 32.8%</b>	<b>\$ 1,916</b>	<b>\$ 32.8%</b>	<b>\$ 59.2%</b>	<b>\$ 7.4%</b>	<b>\$ 0.7%</b>

TABLE 18

Budget Categories	Total Revenue Requirements		Commodity (COM)	Capacity (CAP)	Customer (CA)	Fire Protection (FP)	Basis of Classification					
	FY 2020/21						(COM)	(CAP)	(CA)	(FP)		
<b>Legal</b>												
Legal - General	\$ 50,400	\$ 15,120	\$ 35,280	\$ -	\$ -	-	30.0%	70.0%	0.0%	0.0%	0.0%	0.0%
Legal - Water	\$ 10,800	\$ 10,800	\$ -	\$ -	\$ -	-	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Legal - Brown Act, Public Record	\$ -	\$ -	\$ -	\$ -	\$ -	-	30.0%	70.0%	0.0%	0.0%	0.0%	0.0%
Legal - Personnel	\$ 8,700	\$ 2,610	\$ 6,090	\$ -	\$ -	-	30.0%	70.0%	0.0%	0.0%	0.0%	0.0%
Legal - Grant / Loan Funding	\$ -	\$ -	\$ -	\$ -	\$ -	-	30.0%	70.0%	0.0%	0.0%	0.0%	0.0%
Legal - Fees & Charges	\$ 1,100	\$ 330	\$ 715	\$ 55	\$ -	-	30.0%	65.0%	5.0%	0.0%	0.0%	0.0%
<b>Miscellaneous Support</b>												
Bank Service Charges	\$ -	\$ -	\$ -	\$ -	\$ -	-	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
Payroll Service	\$ 5,200	\$ 1,560	\$ 3,603	\$ -	\$ -	37	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
Website Support	\$ 900	\$ 270	\$ 624	\$ -	\$ -	6	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
General Liability Insurance	\$ 26,100	\$ 7,830	\$ 18,083	\$ -	\$ -	187	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
Training / Travel	\$ -	\$ -	\$ -	\$ -	\$ -	-	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
Seminars / Training	\$ 3,500	\$ 1,050	\$ 2,425	\$ -	\$ -	25	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
Travel Meals	\$ 1,000	\$ 300	\$ 693	\$ -	\$ -	7	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
<b>Other Fees</b>												
County Lien Release Fees	\$ -	\$ -	\$ -	\$ -	\$ -	-	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
Riverside County Fees	\$ 5,900	\$ 1,770	\$ 4,088	\$ -	\$ -	42	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
State Water fees	\$ 2,100	\$ 2,100	\$ -	\$ -	\$ -	-	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other Fees - Other	\$ 900	\$ 270	\$ 624	\$ -	\$ -	6	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
<b>Service Tools &amp; Equipment</b>												
Shop Supplies & Small Tools	\$ 9,300	\$ 2,790	\$ 6,443	\$ -	\$ -	67	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
Vehicle Fuel	\$ 16,300	\$ 4,890	\$ 11,293	\$ -	\$ -	117	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
Employee Uniforms	\$ 1,800	\$ 540	\$ 1,247	\$ -	\$ -	13	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
Safety	\$ 500	\$ 150	\$ 346	\$ -	\$ -	4	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
Tractor Expenses	\$ 3,700	\$ 1,110	\$ 2,563	\$ -	\$ -	27	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
Backhoe Fuel	\$ -	\$ -	\$ -	\$ -	\$ -	-	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
Equipment Rental	\$ 2,000	\$ 600	\$ 1,385	\$ -	\$ -	14	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
Service Trucks - Repair & Mtn	\$ 14,500	\$ 4,350	\$ 10,046	\$ -	\$ -	104	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
Water Ops Cell Phone / Internet	\$ 4,800	\$ 1,440	\$ 3,326	\$ -	\$ -	34	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
Water Ops Computer Internet	\$ -	\$ -	\$ -	\$ -	\$ -	-	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
Communications	\$ -	\$ -	\$ -	\$ -	\$ -	-	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
<b>Service Tools &amp; Equipment - Other</b>												
<b>Non-Operating Expenses</b>												
Returned Checks	\$ -	\$ -	\$ -	\$ -	\$ -	-	0.0%	0.0%	99.3%	0.0%	0.7%	0.7%
DWR Loan Processing Fee	\$ 1,400	\$ 420	\$ 970	\$ -	\$ -	10	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
Bad Debt Expense	\$ 1,200	\$ -	\$ -	\$ 1,191	\$ -	9	0.0%	0.0%	99.3%	0.0%	0.7%	0.7%
Miscellaneous	\$ 1,100	\$ 330	\$ 762	\$ -	\$ -	8	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
Website Support	\$ -	\$ -	\$ -	\$ -	\$ -	-	30.0%	59.3%	10.0%	0.0%	0.7%	0.7%
Image Consultant	\$ -	\$ -	\$ -	\$ -	\$ -	-	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
DHPO Payback 2	\$ 21,000	\$ 6,300	\$ 14,549	\$ -	\$ -	151	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
GSA / SGMA	\$ 35,000	\$ 10,500	\$ 24,249	\$ -	\$ -	251	30.0%	69.3%	0.0%	0.0%	0.7%	0.7%
<b>Sub-Total</b>	\$ 229,200	\$ 77,430	\$ 149,403	\$ 1,246	\$ -	1,121	33.8%	65.2%	0.5%	0.5%	0.5%	0.5%
<b>Total Operating Expense</b>	\$ 1,310,100	\$ 410,000	\$ 796,759	\$ 95,303	\$ -	8,038	31.3%	60.8%	7.3%	0.6%	0.6%	0.6%

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TABLE 19

Classification of Expenses, continued																		
Budget Categories	Total Revenue Requirements			Commodity			Capacity			Customer			Fire Protection			Basis of Classification		
	FY 2020/21	(COM)	(CAP)	(CA)	(FP)	(COM)	(CAP)	(CA)	(FP)	(COM)	(CAP)	(CA)	(FP)	(COM)	(CAP)	(CA)	(FP)	
<b>Debt Service Payments</b>																		
DWR Loan No E58416	\$ 48,691	\$ -	\$ 48,691	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Zion First National Installment Sale Agreement	\$ 88,703	\$ -	\$ 88,703	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Future Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Debt Service Payments</b>	<b>\$ 137,394</b>	<b>\$ -</b>	<b>\$ 137,394</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Capital Expenditures</b>																		
Rate Funded Capital Expenses	\$ 467,004	\$ -	\$ 467,004	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL REVENUE REQUIREMENTS</b>	<b>\$ 1,914,498</b>	<b>\$ 410,000</b>	<b>\$ 1,401,157</b>	<b>\$ 95,903</b>	<b>\$ 8,038</b>	<b>\$ 21.4%</b>	<b>\$ 73.2%</b>	<b>\$ 5.0%</b>	<b>\$ 0.4%</b>	<b>\$ 0.0%</b>	<b>\$ 21.4%</b>	<b>\$ 73.2%</b>	<b>\$ 5.0%</b>	<b>\$ 0.0%</b>	<b>\$ 73.2%</b>	<b>\$ 5.0%</b>	<b>\$ 0.4%</b>	
<b>Less: Non-Rate Revenues</b>																		
Water Rate Revenue																		
Base Rate Water Bills																		
Commodity Sales																		
DPHO Contract																		
Fire Sales - Water Bills																		
Fee Revenue																		
Fire Flow Income	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Meter Install & Removal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Penalty Fees - Water Bills	\$ (31,000)	\$ (6,639)	\$ (22,688)	\$ (1,543)	\$ (130)	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	
Lien Reinstatement Fees	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
New Account Fees - Water Bill	\$ (1,600)	\$ (343)	\$ (1,171)	\$ (80)	\$ (7)	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	
Incident Fee - Water Bills	\$ (500)	\$ (107)	\$ (366)	\$ (25)	\$ (2)	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	
Returned Check Fees	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Basic Facilities Fee (New Service)	\$ (113,600)	\$ (24,328)	\$ (83,140)	\$ (5,655)	\$ (477)	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	
Stand By Fees - Tax Revenue																		
Miscellaneous Revenue																		
Ad Valorem - Tax Revenue	\$ (50,700)	\$ (10,858)	\$ (37,106)	\$ (2,524)	\$ (213)	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	
Teeter Settlement Income	\$ (10,200)	\$ (2,184)	\$ (7,465)	\$ (508)	\$ (43)	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	
Cell Tower Lease Income	\$ (25,600)	\$ (5,482)	\$ (18,736)	\$ (1,274)	\$ (107)	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	
Miscellaneous Non-Operating Income	\$ (7,300)	\$ (1,563)	\$ (5,343)	\$ (363)	\$ (31)	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	
Interest Income	\$ (19,600)	\$ (4,197)	\$ (14,345)	\$ (976)	\$ (82)	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	\$ 21.4%	\$ 73.2%	\$ 5.0%	\$ 0.4%	
<b>NET REVENUE REQUIREMENTS</b>	<b>\$ 1,654,398</b>	<b>\$ 354,298</b>	<b>\$ 1,210,799</b>	<b>\$ 82,355</b>	<b>\$ 6,946</b>	<b>\$ 21.4%</b>	<b>\$ 73.2%</b>	<b>\$ 5.0%</b>	<b>\$ 0.4%</b>	<b>\$ 21.4%</b>	<b>\$ 73.2%</b>	<b>\$ 5.0%</b>	<b>\$ 0.4%</b>	<b>\$ 21.4%</b>	<b>\$ 73.2%</b>	<b>\$ 5.0%</b>	<b>\$ 0.4%</b>	
<b>Allocation of Revenue Requirements</b>	<b>100.0%</b>	<b>21.4%</b>	<b>73.2%</b>	<b>5.0%</b>	<b>0.4%</b>	<b>21.4%</b>	<b>73.2%</b>	<b>5.0%</b>	<b>0.4%</b>	<b>21.4%</b>	<b>73.2%</b>	<b>5.0%</b>	<b>0.4%</b>	<b>21.4%</b>	<b>73.2%</b>	<b>5.0%</b>	<b>0.4%</b>	

TABLE 20

Classification of Expenses, continued									
Adjustments to Classification of Expenses									
Adjustment for Current Rate Level:									
Total	(COM)	(CAP)	(CA)	(FP)	(COM)	(CAP)	(CA)	(FP)	(FP)
FY 2020/21 Target Rate Rev. After Rate Increases	\$ 1,416,250								
Projected Rate Revenue at Current Rates	\$ 1,375,000								
FY 2020/21 Projected Rate Increase	3.0%								
<b>Adjusted Net Revenue Req'ts</b>	<b>\$ 1,416,250</b>	<b>\$ 303,297</b>	<b>\$ 1,036,506</b>	<b>\$ 70,500</b>	<b>\$ 5,946</b>	<b>\$ 21.4%</b>	<b>\$ 73.2%</b>	<b>\$ 5.0%</b>	<b>\$ 0.4%</b>
Percent of Revenue	100.0%	21.4%	73.2%	5.0%	0.4%	21.4%	73.2%	5.0%	0.4%

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**CABAZON WATER DISTRICT  
WATER RATE STUDY  
Water Cost of Service Analysis**

Allocation Factors

**TABLE 21**

Development of the COMMODITY Allocation Factor		
Customer Class	Volume (hcf) <sup>1</sup>	Percent of Total Volume
Single Family Residential	93,915	71.4%
Multi-Family Residential	1,338	1.0%
Government Meters	2,201	1.7%
Commercial Meters	11,562	8.8%
Industrial Meters	-	0.0%
Irrigation Meters	20,531	15.6%
Fire Service Meters	28	0.0%
Construction <sup>2</sup>	1,934	1.5%
<b>Total</b>	<b>131,509</b>	<b>100%</b>
Contract <sup>3</sup>	44,507	

1. Consumption is from 2019. CWD bills monthly.  
Source files: Cabazon\_USAGEREPORT\_COIC02\_Manipulated.xlsx
2. Construction customers have a monthly meter rental fee set in another exhibit.
3. Contract customer excluded as rate design is set by contract.

**Commodity Related Costs:** These costs are associated with the total consumption (flow) of water over a specified period of time (e.g. annual).

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Allocation Factors

**CABAZON WATER DISTRICT  
WATER RATE STUDY  
Water Cost of Service Analysis**

**TABLE 22**

Development of the CAPACITY (MAX MONTH) Allocation Factor					
Customer Class	Average Monthly Use (hcf)	Peak Monthly Use (hcf) <sup>1</sup>	Peak Monthly Factor	Max Month Capacity Factor	
Single Family Residential	7,826	11,521	1.47	66.7%	
Multi-Family Residential	112	158	1.42	0.9%	
Government Meters	183	320	1.74	1.9%	
Commercial Meters	964	1,209	1.25	7.0%	
Industrial Meters	0	0	N/A	0.0%	
Irrigation Meters	1,711	3,338	1.95	19.3%	
Fire Service Meters	2	9	3.86	0.1%	
Construction	161	719	4.46	4.2%	
<b>Total</b>	<b>10,959</b>	<b>17,274</b>		<b>100%</b>	
Contract	3,709	4,921	1.33		

1. Based on peak monthly data (peak day data not available).

**Capacity Related Costs:** Costs associated with the maximum demand required at one point in the maximum size of facilities required to meet this demand.

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Allocation Factors

**CABAZON WATER DISTRICT  
WATER RATE STUDY  
Water Cost of Service Analysis**

**TABLE 23**

Development of the CUSTOMER Allocation Factor		
Customer Class	Number of Meters <sup>1</sup>	Percent of Total
Single Family Residential	854	93.1%
Multi-Family Residential	4	0.4%
Government Meters	7	0.8%
Commercial Meters	29	3.2%
Industrial Meters	1	0.1%
Irrigation Meters	11	1.2%
Fire Service Meters	5	0.5%
Construction	6	0.7%
<b>Total</b>	<b>917</b>	<b>100.0%</b>
Contract	1	
<b>Total</b>	<b>918</b>	

1. Meter Count is from December 2019. CWD bills monthly.  
Source files: Cabazon\_USAGEREPORT\_CO1CO2\_Manipulated.xlsx

**Customer Related Costs** : Costs associated with having a customer on the water system. These costs vary with the addition or deletion of customers on the system. Examples: Meter-reading, Postage and billing.

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**CABAZON WATER DISTRICT  
WATER RATE STUDY  
Water Cost of Service Analysis/Rate Design**

**DEVELOPMENT OF ADDITIONAL CAPACITY FACTORS FOR  
SINGLE FAMILY RESIDENTIAL CUSTOMERS FY 2020/21**

**TABLE 24**

Consumption by Tier			
Tier	Monthly Breakpoint <sup>1</sup>	Expected Consumption <sup>2</sup>	Percentage of Total SFR Consumption
Tier 1	7 hcf	53,666	57%
Tier 2	14 hcf	21,430	23%
Tier 3	--	18,819	20%
<b>Total</b>		<b>93,915</b>	<b>100%</b>

1. Tier 1 breakpoint set to average winter consumption, an estimate of average indoor consumption in Cabazon.  
Tier 2 breakpoint set to 14 hcf which is average summer consumption.
2. Consumption data is based on the CWD 2019 customer data.  
Source files: *Cabazon\_FINAN ACCTS SUMMARY\_CO1CO2.xlsx* and *Cabazon\_USAGEREPORT\_CO1CO2\_Manipulated.xlsx*

**TABLE 25**

Development of the Single Family Residential PEAK CAPACITY (MAX MONTH) Allocation Factors				
Tier	Description	Monthly Consumption (hcf) <sup>1</sup>	Additional Capacity Required (hcf) <sup>4</sup>	Percent of Total
Tier 1	Max Tier 1 Capacity <sup>2</sup>	5,978	0	0.0%
Tier 2	Peak up to Tier 2 <sup>3</sup>	7,891	1,913	34.5%
Tier 3	Peak up to Tier 3 <sup>3</sup>	11,521	3,630	65.5%
<b>Total</b>			<b>5,543</b>	<b>100.0%</b>

1. Consumption data is based on the CWD 2019 customer data.  
Source files: *Cabazon\_FINAN ACCTS SUMMARY\_CO1CO2.xlsx* and *Cabazon\_USAGEREPORT\_CO1CO2\_Manipulated.xlsx*
2. Capacity allocated to the first tier represents the tier break multiplied by the number of customers.
3. This is the cumulative peak consumption up to the tier break; it represents capacity required to provide service to a given tier.
4. This is the additional cumulative capacity to meet peak consumption at each tier.

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**CABAZON WATER DISTRICT  
WATER RATE STUDY  
Water Cost of Service Analysis/Rate Design**

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**DEVELOPMENT OF CONTRACT RATES:**

**TABLE 26**

Contract	Current <sup>1</sup>		Proposed Rates	
	FY 2019/20	FY 2020/21	FY 2020/21	FY 2021/22
<i>Projected Increase in Rate Revenue per Financial Plan:</i>				
Fixed Rate	\$2,233.06	\$2,300.05	\$2,300.05	\$2,369.05
Variable Rate	\$3.83	\$3.94	\$3.94	\$4.06
Estimated Consumption (hcf)	44,507	44,507	44,507	44,507
Estimated Fixed Revenue	\$ 26,797	\$ 27,601	\$ 27,601	\$ 28,429
Estimated Variable Revenue	170,462	175,576	175,576	180,843
Estimated Rate Revenue from Contract Customer	\$ 197,259	\$ 203,176	\$ 203,176	\$ 209,272
Remaining Rate Revenue	\$1,177,741	\$1,213,074	\$1,213,074	\$1,249,466

1. Current rates found in source file: 10\_Cabazon Water District Water Rate Study (4.13.17) Final.pdf, Page 50.

Contract rates end December 31, 2022 in which this customer then switches to 10 inch billing for commercial users.  
See Proposed Fixed Charges and Current & Proposed Rates tabs.

**CABAZON WATER DISTRICT  
WATER RATE STUDY  
Construction Rate Analysis**

**TABLE 27: DEVELOPMENT OF METER ADMINISTRATIVE FEE**

Administrative Fee for New Customers	Labor Hours	Labor Cost per hour <sup>1</sup>	Charge to Customer
Application Processing	0.50	\$122.00	\$61.00
Opening Account	0.25	\$122.00	\$30.50
Construction Meter Delivery to Main Office	0.50	\$122.00	\$61.00
<b>Total Administrative Fee</b>			<b>\$152.50</b>

1. Per District's source file: *1\_NBS Fee Study Cabazon\_Final Report\_1\_14\_20\_APPROVED (2).pdf*, for 'Metered Account Set up Fee'.

**TABLE 28: DEVELOPMENT OF METER RECALIBRATION FEE**

Meter Recalibration Fee	Labor Hours	Labor Cost per hour <sup>1</sup>	Charge to Customer
Staff time for travel and meter repair	1.00	\$122.00	\$122.00
Staff time for meter repair	1.00	\$122.00	\$122.00
<b>Total Meter Recalibration Fee</b>			<b>\$244.00</b>

1. Per District's source file: *1\_NBS Fee Study Cabazon\_Final Report\_1\_14\_20\_APPROVED (2).pdf*, for 'Metered Account Set up Fee'.

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WATER RATE STUDY  
Construction Rate Analysis**

**TABLE 29: UPDATED FEE SCHEDULE FOR CONSTRUCTION CUSTOMERS**

Updated Construction Customer Fee Schedule	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	Explanation of Fee
<b>One-Time Fees</b>						
Construction Meter Deposit	\$1,965.14	\$2,024.09	\$2,084.82	\$2,147.36	\$2,211.78	[1]
Administrative Fee	\$152.50	\$157.08	\$161.79	\$166.64	\$171.64	[2]
Meter Recalibration Fee	\$244.00	\$251.32	\$258.86	\$266.63	\$274.62	[3]
<b>Monthly Fees shown in Current &amp; Proposed Rates</b>						

**Explanation of Fee:**

- [1] Based on cost of replacing the meter in the current year, if it is not returned.
- [2] Based on labor time and cost for: processing application, opening account and installing meter. Assumes 3% inflation per year.
- [3] Based on labor time and cost for repairing a malfunctioning meter. Assumes 3% inflation per year.

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**CABAZON WATER DISTRICT  
WATER RATE STUDY  
Water Cost of Service Analysis/Rate Design**

**TABLE 30**

Meter Size	Standard Meters <sup>1</sup>		Fire Service Meters <sup>2</sup>	
	Meter Capacity (gpm)	Equivalency to 5/8- inch	Meter Capacity (gpm)	Equivalency to 5/8- inch
	<i>Displacement Meters</i>			
5/8 inch	20	1.00	20	1.00
3/4 inch	30	1.50	30	1.50
1 inch	50	2.50	50	2.50
1.5 inch	100	5.00	100	5.00
2 inch	160	8.00	160	8.00
	<i>Compound Class I Meters</i>			
3 inch	320	16.00	350	17.50
4 inch	500	25.00	700	35.00
6 inch	1,000	50.00	1,600	80.00
	<i>Turbine Class II Meters</i>			
8 inch	2,800	140.00	2,800	140.00
10 inch	4,200	210.00	4,400	220.00

1. Meter flow rates are from AWWA M-1 Table B-1.

2. Fire Service meter flow rates are from AWWA M-6 Table 5-3.

**TABLE 31 : ALLOCATION OF WATER REVENUE REQUIREMENTS**

Functional Category	COSA Results		Proposed Rates	
	Unadjusted Net Revenue Requirements (2020-21) 79% Fixed / 21% Variable	Adjusted Net Revenue Requirements (2020-21) 40% Fixed / 60% Variable	Unadjusted Net Revenue Requirements (2020-21) 79% Fixed / 21% Variable	Adjusted Net Revenue Requirements (2020-21) 40% Fixed / 60% Variable
Commodity - Related Costs	\$ 259,786	\$ 259,786	21.4%	21.4%
Capacity - Related Costs (volumetric share)	\$ -	\$ 468,058	0.0%	38.6%
Capacity - Related Costs (fixed share)	\$ 887,808	\$ 419,750	73.2%	34.6%
Customer - Related Costs	\$ 60,386	\$ 60,386	5.0%	5.0%
Fire Protection - Related Costs	\$ 5,093	\$ 5,093	0.4%	0.4%
<b>Total</b>	<b>\$ 1,213,074</b>	<b>\$ 1,213,074</b>	<b>100%</b>	<b>100%</b>
<b>Revenue from Contract Rates</b>	<b>\$ 203,176</b>	<b>\$ 203,176</b>		
<b>Net Revenue Requirement</b>	<b>\$ 1,416,250</b>	<b>\$ 1,416,250</b>		

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TABLE 32 : ALLOCATION OF ADJUSTED NET REVENUE REQUIREMENTS - FY 2020/21

Customer Classes	Classification Components					Fire Protection-Related Costs	Cost of Service Net Rev. Req'ts	% of COS Net Revenue Req'ts
	Commodity-Related Costs	Capacity-Related Costs Volumetric Share	Capacity-Related Costs Fixed Share	Customer-Related Costs	Fire Protection-Related Costs			
Single Family Residential	\$ 185,522	\$ 312,174	\$ 279,955	\$ 56,238	\$ -	\$ 833,889	68.7%	
Multi-Family Residential	2,643	4,281	3,839	263	-	11,027	0.9%	
Government Meters	4,348	8,671	7,776	461	-	21,255	1.8%	
Commercial Meters	22,840	32,759	29,378	1,910	-	86,887	7.2%	
Industrial Meters	-	-	-	66	-	66	0.0%	
Irrigation Meters	40,557	90,447	81,112	724	-	212,840	17.5%	
Fire Service Meters	55	244	219	329	5,093	5,940	0.5%	
Contract	-	-	-	-	-	-	0.0%	
Construction	3,820	19,482	17,471	395	-	41,169	3.4%	
<b>Total Net Revenue Requirement</b>	<b>\$ 259,786</b>	<b>\$ 468,058</b>	<b>\$ 419,750</b>	<b>\$ 60,386</b>	<b>\$ 5,093</b>	<b>\$ 1,213,074</b>	<b>100.0%</b>	

TABLE 33 : COST-OF-SERVICE SUMMARY OF REVENUE REQUIREMENTS

Customer Class	Rate Revenue - 2019		Proposed Rates		% of 2019 vs. 2020/21
	Rate Revenue	% of Revenue	COS Rev. Req't	% of COS Rev. Req't.	
Single Family Residential	\$ 878,377	64.7%	\$ 833,889	68.7%	4.0%
Multi-Family Residential	\$ 7,888	0.6%	\$ 11,027	0.9%	0.3%
Government Meters	\$ 28,311	2.1%	\$ 21,255	1.8%	-0.3%
Commercial Meters	\$ 116,637	8.6%	\$ 86,887	7.2%	-1.4%
Industrial Meters	\$ 16,487	1.2%	\$ 66	0.0%	-1.2%
Irrigation Meters	\$ 99,164	7.3%	\$ 212,840	17.5%	10.2%
Fire Service Meters	\$ 12,098	0.9%	\$ 5,940	0.5%	-0.4%
Contract	\$ 181,525	13.4%	\$ -	0.0%	-13.4%
Construction	\$ 16,814	1.2%	\$ 41,169	3.4%	2.2%
<b>Total</b>	<b>\$ 1,357,301</b>	<b>100.0%</b>	<b>\$ 1,213,074</b>	<b>100%</b>	<b>0.0%</b>

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**Proposed Fixed Charges**

**CABAZON WATER DISTRICT  
WATER RATE STUDY  
Water Cost of Service Analysis/Rate Design**

**TABLE 34 : CALCULATION OF MONTHLY FIXED METER SERVICE CHARGES FOR FY 2020/21**

<b>Proposed Rates - Net Revenue Requirements (40% Fixed / 60% Variable)</b>										
<b>Number of Meters by Class and Size <sup>1</sup></b>	<b>5/8 inch</b>	<b>3/4 inch</b>	<b>1 inch</b>	<b>1 1/2 inch</b>	<b>2 inch</b>	<b>3 inch</b>	<b>4 inch</b>	<b>10 inch</b>	<b>Total</b>	<b>Total</b>
Single Family Residential	825	20	7	1	-	1	-	-	854	
Multi-Family Residential	3	-	1	-	-	-	-	-	4	
Government Meters	2	-	1	-	3	1	-	-	7	
Commercial Meters	13	1	3	3	7	2	-	-	29	
Industrial Meters	-	-	-	-	-	-	1	-	1	
Irrigation Meters	2	-	1	1	7	-	-	-	11	
Construction	-	-	-	-	-	6	-	-	6	
<b>Total Meters/Accounts</b>	<b>845</b>	<b>21</b>	<b>13</b>	<b>5</b>	<b>17</b>	<b>10</b>	<b>1</b>	<b>-</b>	<b>912</b>	
<b>Hydraulic Capacity Factor <sup>2</sup></b>	<b>1.00</b>	<b>1.50</b>	<b>2.50</b>	<b>5.00</b>	<b>8.00</b>	<b>16.00</b>	<b>25.00</b>	<b>210.00</b>		
<b>Total Equivalent Meters</b>	<b>845</b>	<b>32</b>	<b>33</b>	<b>25</b>	<b>136</b>	<b>160</b>	<b>25</b>	<b>-</b>	<b>1,255</b>	
<b>Monthly Fixed Service Charges</b>										
Customer Costs (\$/Acct/month) <sup>3</sup>	\$5.49	\$5.49	\$5.49	\$5.49	\$5.49	\$5.49	\$5.49	\$5.49	\$5.49	\$5.49
Capacity Costs (\$/Acct/month) <sup>4</sup>	\$27.86	\$41.79	\$69.64	\$139.29	\$222.86	\$445.72	\$696.43	\$5,850.04	\$5,850.04	\$5,850.04
<b>Total Monthly Meter Charge</b>	<b>\$33.34</b>	<b>\$47.27</b>	<b>\$75.13</b>	<b>\$144.77</b>	<b>\$228.35</b>	<b>\$451.20</b>	<b>\$701.92</b>	<b>\$5,855.53</b>		
<b>Annual Fixed Costs Allocated to Monthly Meter Charges</b>										
Customer Costs	\$ 60,057									
Capacity Costs	419,531									
<b>Total Fixed Meter Costs</b>	<b>\$ 479,588</b>									
<b>Annual Revenue from Monthly Meter Charges</b>										
Customer Charges	\$ 55,645	\$ 1,383	\$ 856	\$ 329	\$ 1,119	\$ 659	\$ 66	\$ -	\$ 60,057	\$ 60,057
Capacity Charges	282,473	10,530	10,864	8,357	45,463	53,486	8,357	-	419,531	\$ 419,531
<b>Total Revenue from Monthly Meter Charges</b>	<b>\$ 338,118</b>	<b>\$ 11,913</b>	<b>\$ 11,720</b>	<b>\$ 8,686</b>	<b>\$ 46,583</b>	<b>\$ 54,145</b>	<b>\$ 8,423</b>	<b>\$ -</b>	<b>\$ 479,588</b>	<b>\$ 479,588</b>

1. Number of meters by size and customer class for December 2019. CWD bills monthly.  
Source files: Cabazon\_FINAN ACCTS SUMMARY\_CO1CO2.xlsx and Cabazon\_USAGEREPORT\_CO1CO2\_Manipulated.xlsx

2. Source file: AWWA Manual M1, "Principles of Water Rates, Fees, and Charges", Table B-1.

3. Customer costs are allocated to each customer by dividing the total customer costs by the total number of customers.

4. Capacity costs are allocated by meter size and the hydraulic capacity of the meter.

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 WATER RATE STUDY  
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TABLE 35 - CALCULATION OF MONTHLY FIRE METER SERVICE CHARGES FOR FY 2020/21

<u>Proposed Rates - Net Revenue Requirements (40% Fixed / 60% Variable)</u>							
Number of Meters by Class and Size <sup>1</sup>	4 inch		6 inch		8 inch		Total
	3	3	3	3	2	2	
Fire Protection - Related Costs	-	-	-	-	-	-	5
<b>Total Meters/Accounts</b>	-	-	3	3	2	2	5
<i>Hydraulic Capacity Factor</i> <sup>2</sup>	35.00	80.00	140.00	280	520		
Total Equivalent Meters	-	240	280				
Monthly Fixed Service Charges							
Customer Costs (\$/Acct/month) <sup>3</sup>	\$5.49	\$5.49	\$5.49				
Capacity Costs (\$/Acct/month) <sup>4</sup>	\$28.57	\$65.30	\$114.27				
<b>Total Monthly Meter Charge</b>	<b>\$34.05</b>	<b>\$70.78</b>	<b>\$119.76</b>				
<b>Annual Fixed Costs Allocated to Monthly Meter Charges</b>							
Customer Costs	\$329						
Capacity & Fire Protection Costs	5,093						
<b>Total Fixed Meter Costs</b>	<b>\$5,422</b>						
<b>Annual Revenue from Monthly Meter Charges</b>							
Customer Charges	\$-	\$198	\$132				\$329
Capacity Charges	-	2,351	2,742				5,093
<b>Total Revenue from Monthly Meter Charges</b>	<b>\$-</b>	<b>\$2,548</b>	<b>\$2,874</b>				<b>\$5,422</b>

1. Number of meters by size and customer class for December 2019. CWD bills monthly.  
 Source files: Cabazon\_FINAN ACCTS SUMMARY\_CO1CO2.xlsx and Cabazon\_USAGEREPORT\_CO1CO2\_Manipulated.xlsx  
 2. Source file: AWWA Manual M6, "Water Meters - Selection, Installation, Testing and Maintenance", Table 5-3.  
 3. Customer costs are allocated to each customer by dividing the total customer costs by the total number of customers.  
 4. Capacity costs are allocated by meter size and the hydraulic capacity of the meter.

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Proposed Volume Charges

**CABAZON WATER DISTRICT  
WATER RATE STUDY  
Water Cost of Service Analysis/Rate Design**

**PROPOSED VOLUMETRIC CHARGES FOR FY 2020/21**

TABLE 36

<b>Proposed Rates - Net Revenue Requirements (40% Fixed / 60% Variable)</b>									
Customer Classes	Number of Meters <sup>1</sup>	Water Consumption (hcf/yr.) <sup>2</sup>	Commodity Assigned Costs	Capacity Assigned Costs	Target Rev. Req't from Vol. Charges	% of Total Rate Revenue	Uniform Commodity Rates (\$/hcf)	Proposed Rate Structure	
Single Family Residential	854	93,915	\$ 185,522	\$ 312,174	\$ 497,696	41.0%	\$5.30	Tiered	
Multi-Family Residential	4	1,338	2,643	4,281	6,924	0.6%		Uniform	
Government Meters	7	2,201	4,348	8,671	13,019	1.1%		Uniform	
Commercial Meters	29	11,562	22,840	32,759	55,599	4.6%		Uniform	
Industrial Meters	1	0	-	-	-	0.0%	\$6.12	Uniform	
Irrigation Meters	11	20,531	40,557	90,447	131,004	10.8%		Uniform	
Fire Service Meters	5	28	55	244	299	0.0%		Uniform	
Construction	6	1,934	3,820	19,482	23,303	1.9%		Uniform	
<b>Total</b>	<b>917</b>	<b>131,509</b>	<b>\$ 259,786</b>	<b>\$ 468,058</b>	<b>\$ 727,844</b>	<b>60%</b>			

1. Number of meters by size and customer class for December 2019. CWD bills monthly.

2. Consumption data is based on the CWD 2019 customer data which are monthly bills.

Source files: Cabazon\_FINAN ACCTS SUMMARY\_CO1CO2.xlsx and Cabazon\_USAGEREPORT\_CO1CO2\_Manipulated.xlsx

TABLE 37

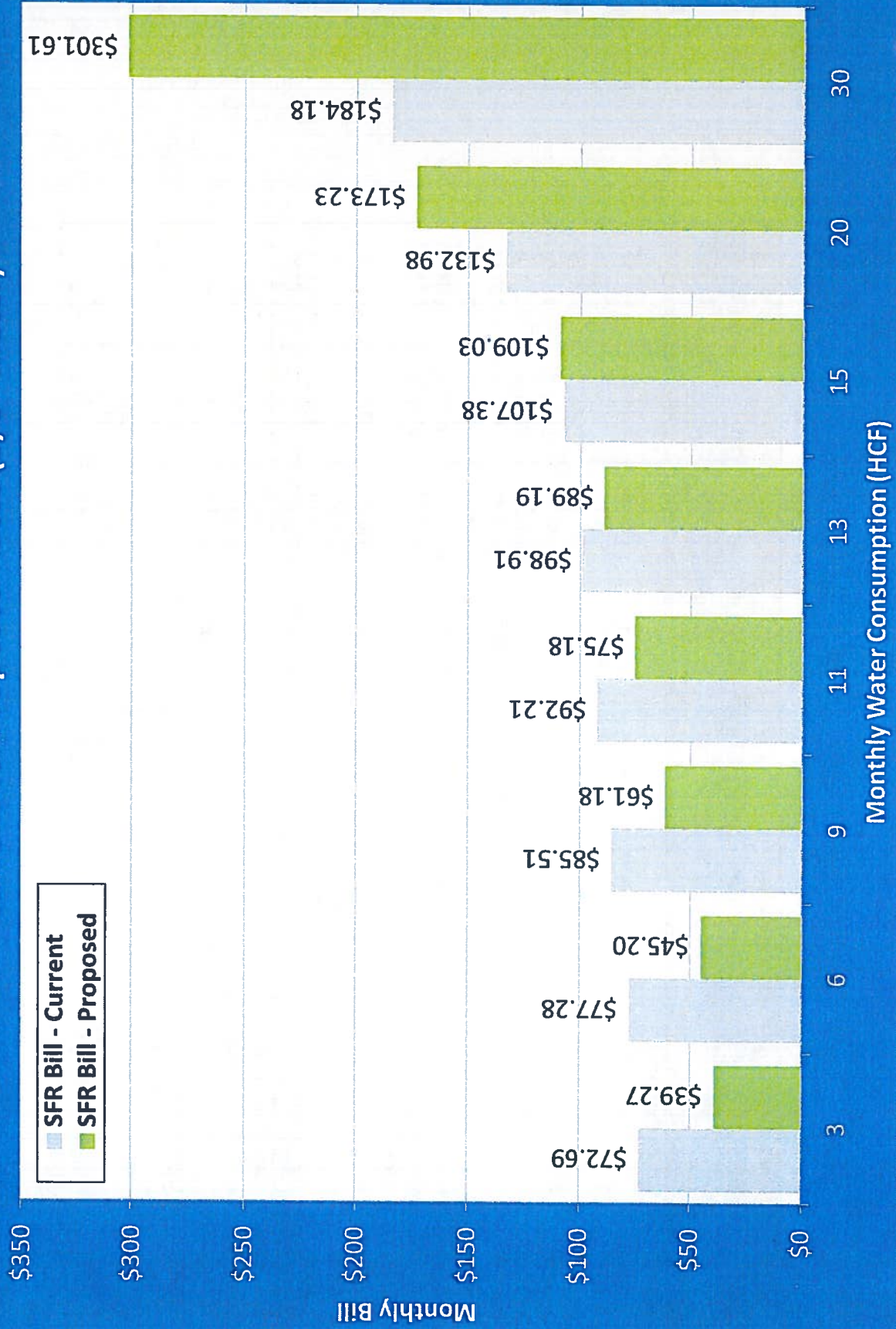
<b>Proposed Rates - Net Revenue Requirements (40% Fixed / 60% Variable)</b>							
Single-Family Residential Tiered Rates	Tier Break	Water Consumption (hcf/yr.) <sup>2</sup>	Commodity Assigned Costs	Capacity Assigned Costs	Total Target Rev. Req't from Vol. Charges	% of Total Volumetric Rate Revenue	Tiered Rates (\$/hcf)
Tier 1	7	53,666	\$ 106,013	\$ -	\$ 106,013	14.6%	\$1.98
Tier 2	14	21,430	42,333	107,738	150,071	20.6%	\$7.00
Tier 3	-	18,819	37,176	204,437	241,612	33.2%	\$12.84
<b>Total</b>		<b>93,915</b>	<b>\$ 185,522</b>	<b>\$ 312,174</b>	<b>\$ 497,696</b>	<b>68%</b>	<b>\$5.30</b>

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# Residential Water Bill Comparison Current vs. Proposed Rates (5/8" meter)



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# Commercial Water Bill Comparison Current vs. Proposed Rates (5/8-inch meter)

