



# Hidden Valley Lake Community Services District

## Board Workshop

DATE: May 8, 2019  
TIME: 5:30 P.M.  
PLACE: Hidden Valley Lake CSD  
Administration Office, Boardroom  
19400 Hartmann Road  
Hidden Valley Lake, CA

- 1) CALL TO ORDER
- 2) PLEDGE OF ALLEGIANCE
- 3) ROLL CALL
- 4) APPROVAL OF AGENDA
- 5) CLOSED SESSION: The Board will meet in closed session to discuss the following:  
  
CONFERENCE WITH LEGAL COUNSEL: Significant exposure to litigation pursuant to paragraph (2) of subdivision (d) of Section 54956.9: (one case)
- 6) RECONVENE OPEN SESSION: Report from closed session (if applicable)
- 7) DISCUSS: Review and discuss 2019-20 Budget
- 8) DISCUSS: Review and discuss NBS Rate Study
- 9) PUBLIC COMMENT
- 10) BOARD COMMENT
- 11) ADJOURNMENT

Public records are available upon request. Board Packets are posted on our website at [www.hvlcsd.org/meetings](http://www.hvlcsd.org/meetings).

In compliance to the Americans with Disabilities Act, if you need special accommodations to participate in or attend the meeting please contact the District Office at 987-9201 at least 48 hours prior to the scheduled meeting.

Public shall be given the opportunity to comment on each agenda item before the Governing Board acts on that item, G.C. 54953.3. All other comments will be taken under Public Comment.

**HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT  
2017-2018 PRELIMINARY BUDGET:  
SEWER ENTERPRISE FUND**

**2019-2020 BUDGET WORKSHEET**

	2017-2018 BUDGET	2017-2018 ACTUAL	2018-2019 BUDGET	2018-2019 To Date	2019-2020 Proposed
<b>REVENUE</b>				<b>4/16/2019</b>	<b>Budget</b>
120-1051 A/R Retiree Health		10,186	10,736	11,512	11,420
120-4020 PERMIT & INSPECTION FEES	500	800	700	300	500
120-4036 DEVELOPER SEWER FEES	-	-	-	21,606	15,200
120-4040 LIEN RECORDING FEES				-	-
120-4045 AVAILABILITY FEES	7,000	8,148	5,000	4,392	5,000
120-4050 SALES OF RECLAIMED WATER	90,000	129,428	125,000	72,653	118,000
130-4060 CC TRANSACTION FEE					18,000
120-4111 COMMERCIAL SEWER USE	26,828	31,693	22,000	23,154	36,959
120-4112 GOVERNMENT SEWER USE	590	758	700	548	855
120-4116 SEWER USE CHARGES	1,153,051	1,026,300	1,137,649	852,587	1,167,934
120-4210 LATE FEE 10%		50	25,000	14,928	20,000
120 4300 MISC INCOME	1,000	19,357	1,500	632	1,500
120-4310 OTHER INCOME	-	-	-	121	200
120-4320 FEMA/CalOES Grants	295,485	304,406	295,000	401,454	135,000
120-4550 INTEREST INCOME	500	1,012	600	1,195	1,500
120-4580 TRANSFER IN		159,629		660,724	38,914
120-1010 CASH					
<b>TOTAL REVENUE</b>	<b>1,574,954</b>	<b>1,691,767</b>	<b>1,623,885</b>	<b>2,065,805</b>	<b>1,570,982</b>
<b>EXPENSES</b>					
120-5-10-5010 ADMIN SALARY & WAGES			244,904	203,020	297,780
120-5-30-5010 FIELD SALARY & WAGES			212,658	155,560	216,106
120-5-40-5010 DIRECTORS SALARY & WAGES			3,000	1,405	3,000
120-5010 SALARY & WAGES	484,739	404,170			-
120-5-10-5020 ADMIN EMPLOYEE BENEFITS (HEALTH)			82,142	59,954	97,243
120-5-30-5020 FIELD EMPLOYEE BENEFITS (HEALTH)			44,600	52,195	64,614
120-5-40-5020 DIRECTOR BENEFITS (TAXES)			100	35	90
120-5020 EMPLOYEE BENEFITS (Health/TXS)	122,404	109,826			-
120-5-10-5021 ADMIN RETIREMENT BENEFITS (Pers)			47,170	41,636	57,996
120-5-30-5021 FIELD RETIREMENT BENEFITS (Pers)			41,830	36,839	46,724
120-5021 RETIREMENT BENEFITS (CalPers)	86,996	84,414			-
120-5-30-5022 FIELD CLOTHING ALLOWANCE	1,800	1,228	1,800	1,278	1,800
120-5-00-5024 WORKERS' COMP INSURANCE	9,500	11,103	8,100	8,084	11,500
120-5-00-5025 RETIREE HEALTH BENEFITS	10,500	10,186	21,472	9,960	22,840
120-5-00-5026 COBRA			-	-	-
120-5-40-5030 DIRECTOR HEALTH BENEFITS	38,556	37,929	40,116	33,112	41,339
120-5-00-5040 ELECTION EXPENSE	-	-	4,500	-	-
120-5-00-5060 GASOLINE, OIL & FUEL	8,000	9,155	8,000	8,065	12,000
120-5-00-5061 VEHICLE MAINT	7,500	10,992	12,500	20,868	15,000
120-5-00-5062 TAXES & LICENSE	500	855	800	564	800
120-5-10-5063 ADMIN CERTIFICATIONS			-	212	500
120-5-30-5063 FIELD CERTIFICATIONS	1,500	1,080	1,500	420	1,500
120-5-00-5074 INSURANCE	18,000	23,794	22,000	26,373	26,000
120-5-00-5075 BANK FEES	13,400	15,639	13,400	14,470	21,000
120-5-00-5080 MEMBERSHIP & SUBSCRIPTIONS	5,000	7,448	6,400	5,697	7,500
120-5-10-5090 ADMIN OFFICE SUPPLIES	6,000	4,079	4,000	3,585	4,000
120-5-30-5090 FIELD OFFICE SUPPLIES			2,000	284	1,000
120-5-00-5092 POSTAGE & SHIPPING	5,000	7,206	5,000	5,040	7,000
120-5-00-5110 CONTRACTUAL SERVICES	-	-	-	-	-
120-5-00-5121 LEGAL SERVICES	10,000<5,000	3,634	5,000	1,962	5,000
120-5-00-5122 ENGINEERING SERVICES	27,000	29,161	27,000	30,712	27,000
120-5-00-5123 OTHER PROFESSIONAL SERVICE INTERN/FELLOWSHIP	90,000	49,251	50,000	30,181	10,000
			46,000	20,909	-
120-5-00-5126 AUDIT SERVICES	7,500	6,050	7,500	6,200	7,500
120-5-00-5130 PRINTING & PUBLICATION	5,000	4,087	5,000	2,416	5,000
120-5-00-5135 NEWSLETTER	500	-	500	-	500
120-5-00-5145 EQUIPMENT RENTAL	5000>10,000	22,242	14,000	20,942	5,000
120-5-00-5148 OPERATING SUPPLIES	18,000	35,285	22,000	42,161	40,000
120-5-00-5150 REPAIR & REPLACE	100,000<75,000	87,582	145,000	99,103	137,972
120-5-00-5155 MAINT BLDG & GROUNDS	10,000	7,285	5,500	3,923	5,500
120-5-00-5156 CUSTODIAL SERVICES	15,150	16,377	15,150	10,375	16,500
120-5-00-5157 SECURITY	5,000	2,766	5,000	720	5,000
120-5-00-5160 SLUDGE DISPOSAL	26,000	27,665	28,500	29,192	45,000
120-5-10-5170 ADMIN TRAVEL MILEAGE			1,200	1,448	1,200
120-5-30-5170 FIELD TRAVEL MILEAGE			500	147	500
120-5-40-5170 DIRECTORS TRAVEL MILEAGE			200	41	200
120-5170 TRAVEL & MILEAGE	1,900	1,660			-
120-5-10-5175 ADMIN EDUCATION/SEMINARS			4,000	1,512	4,000
120-5-30-5175 FIELD EDUCATION/SEMINARS			4,000	820	4,000
120-5-40-5175 DIRECTORS EDUCATION/SEMINARS			-	-	1,500
120-5175 EDUCATION/SEMINARS	8,000	5,789			-
120-5-40-5176 DIRECTOR TRAINING	1,500	300	1,500	1,050	3,600
120-5-10-5179 ADM MISC EXPENSE	350	190	350	172	350
120-5-00-5191 TELEPHONE	8,500	10,809	9,500	8,029	9,500
120-5-00-5192 ELECTRICITY	37,888>72,888	82,630	45,000	36,674	45,000
120-5-00-5193 OTHER UTILITIES	2,600	2,244	2,600	1,929	2,600
120-5-00-5194 IT SERVICES	24,500	35,785	35,000	28,907	45,000
120-5-00-5195 ENV/MONITORING	32,000	32,250	32,000	26,984	32,000
120-5-00-5196 RISK MANAGEMENT	-	18,647	-	-	-
120-5-00-5198 ANNUAL OPERATING FEES	2,000	1,722	2,000	1,830	2,000
120-5-00-5310 EQUIPMENT - FIELD	1,500	112	1,500	-	1,500
120-5-005311 EQUIPMENT - OFFICE	1,300	148	1,300	-	1,300
120-5-005312 TOOLS - FIELD	1,000	1,142	1,000	1,338	1,500
120-5-00-5315 SAFETY EQUIPMENT	2,500	5,664	3,500	2,492	3,500
120-5-00-5545 RECORDING FEES	250	228	250	49	250
120-5-00-5580 TRANSFER OUT	-	56,742	-	401,454	-
120-5-00-5590 NON-OPERATING OTHER	-	8,499	-	-	-
120-5-00-5591 EXPENSES APPLICABLE TO PY	-	-	-	-	-
120-5-00-5600 CONTINGENCY	10000<0	-	5,000	-	5,000
120-5-60-6006 PLKVF83			-	284,477	
120-5-60-6007 STORMS 2019			-	278,084	
120-OPEB OBLIGATION			12,500	-	12,500
140-5192 ELECTRICITY - FLOOD CONTROL	4,000	937	2,000	2,002	1,000
319-4115 SOLAR DEBT RESERVE (2% SEWER REV)			25,000		31,420
313-WASTEWATER CAPITOL RESERVE ACCOUNT (3%)			20,000		47,129
314-WASTERWATER CIP (3%)			20,000		47,129
<b>TOTAL EXPENDITURES</b>	<b>1,115,445</b>	<b>1,295,986</b>	<b>1,434,042</b>	<b>2,066,889</b>	<b>1,570,982</b>
	459,509	395,781	189,843	(1,084)	(0)

**HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT  
2019-2020 PRELIMINARY BUDGET:  
WATER ENTERPRISE FUND**

**2018-2019 BUDGET WORKSHEET**

	2017-2018 BUDGET	2017-2018 ACTUAL	2018-2019 BUDGET	2018-2019 To Date 4/17/2019	2019-2020 Proposed Budget
<b>REVENUE</b>					
130-1051 A/R RETIREE HEALTH		10,186	10,736	11,499	11,420
130-4035 RECONNECT FEES	13,000	13,770	13,000	9,860	12,000
130-4038 COMM WATER CONNECTIONS		-	-	-	-
130-4039 WATER METER INSTALLATION	1,000	510	1,000	680	1,000
130-4040 RECORDING FEE INCOME	100	1,506	500	355	500
130-4045 AVAILABILITY FEES	25,000	34,239	25,000	17,739	25,000
130-4060 CC TRANSACTION FEE					18,000
130-4110 COMMERCIAL WATER USE	84,081	90,991	85,000	65,825	104,000
130-4112 GOVERNMENT WATER USE	6,101	5,441	6,000	3,726	6,000
130-4115 WATER USE CHARGES	1,516,739	1,600,430	1,750,000	1,283,666	1,940,435
130-4210 LATE FEE 10%	28,000	29,877	25,000	25,087	25,000
130-4215 RETURNED CHECK FEE	1,200	1,000	1,000	600	1,000
130-4300 MISC INCOME	1,500	21,490	2,000	7,972	2,000
130-4310 OTHER INCOME	-	-	-	121	100
130-4550 INTEREST INCOME	500	1,486	700	2,161	2,000
130-4580 TRANSFER IN				74,272	
130-1010 CASH					?
<b>TOTAL REVENUE</b>	<b>1,677,222</b>	<b>1,800,740</b>	<b>1,919,936</b>	<b>1,503,564</b>	<b>2,148,455</b>

<b>EXPENSES</b>					
130-5-10-5010 ADMIN SALARY & WAGES			244,904	202,883	297,780
130-5-30-5010 FIELD SALARY & WAGES			212,658	188,621	216,106
130-5-40-5010 DIRECTORS SALARY & WAGES			3,000	1,502	3,000
130-5010 SALARY & WAGES	380,957	437,045			
130-5-10-5020 ADMIN EMPLOYEE BENEFITS (HEALTH)			88,289	59,951	96,921
130-5-30-5020 FIELD EMPLOYEE BENEFITS (HEALTH)			44,600	52,394	64,614
130-5-40-5020 DIRECTOR BENEFITS (TAXES)			100	38	90
130-5020 EMPLOYEE BENEFITS (Health/TXS)	109,194	110,060			-
130-5-10-5021 ADMIN RETIREMENT BENEFITS (Pers)			47,170	41,626	55,555
130-5-30-5021 FIELD RETIREMENT BENEFITS (Pers)			41,830	40,472	46,724
130-5021 RETIREMENT BENEFITS (CalPers)	86,996	87,431			-
130-5-30-5022 FIELD CLOTHING ALLOWANCE	1,800	1,228	1,800	1,278	1,800
130-5-00-5024 WORKERS' COMP INSURANCE	9,500	11,104	8,100	8,085	10,500
130-5-00-5025 RETIREE HEALTH BENEFITS	10,400	10,045	21,472	11,499	22,840
130-5-40-5030 DIRECTOR HEALTH BENEFITS	38,556	37,929	40,116	33,112	36,163
130-5-00-5040 ELECTION EXPENSE	-	-	4,500	-	-
130-5-00-5060 GASOLINE, OIL & FUEL	6,000	7,769	6,500	8,048	9,000
130-5-00-5061 VEHICLE MAINT	7,500	12,824	12,500	7,670	10,000
130-5-00-5062 TAXES & LICENSE	1,200	854	1,200	564	1,200
130-5-10-5063 ADMIN CERTIFICATIONS	-	-	-	33	-
130-5-30-5063 FIELD CERTIFICATIONS	600	225	600	380	600
130-5-00-5074 INSURANCE	25,000	23,794	25,000	26,373	27,000
130-5-00-5075 BANK FEES	13,400	15,639	13,500	14,670	21,000
130-5-00-5080 MEMBERSHIP & SUBSCRIPTIONS	21,000	27,125	24,000	19,104	24,000
130-5-10-5090 ADMIN OFFICE SUPPLIES			3,000	3,585	4,000
130-5-30-5090 FIELD OFFICE SUPPLIES			2,000	200	1,000
130-5090 OFFICE SUPPLIES	5,000	3,978			-
130-5-00-5092 POSTAGE & SHIPPING	6,000	7,207	6,000	5,040	6,000
130-5-00-5110 CONTRACTUAL SERVICES	-	-	-	-	-
130-5-00-5121 LEGAL SERVICES	10,000	3,634	10,000	1,962	10,000
130-5-00-5122 ENGINEERING SERVICES	60,000	1,241	60,000	17,417	60,000
130-5-00-5123 OTHER PROFESSIONAL SERVICE	35,000	48,017	35,000	17,583	20,000
130-5-00-5124 WATER RIGHTS	70,000	8,509	70,000	38,835	70,000
130-5-00-5126 AUDIT SERVICES	7,500	6,050	7,500	6,200	7,500
130-5-00-5130 PRINTING & PUBLICATION	7,750	4,174	7,500	2,416	7,500
130-5-00-5135 NEWSLETTER	500	-	500	-	500
130-5-00-5140 RENT & LEASES	-	-	-	-	-
130-5-00-5145 EQUIPMENT RENTAL	17,500	7,038	50,533	37,945	35,000
130-5-00-5148 OPERATING SUPPLIES	1,400	444	1,500	11,425	5,000
130-5-00-5150 REPAIR & REPLACE	185,000	130,089	185,000	83,329	185,000
130-5-00-5155 MAINT BLDG & GROUNDS	8,509	15,753	12,000	5,615	12,000
130-5-00-5156 CUSTODIAL SERVICES	3,750	4,027	3,750	3,725	4,200
130-5-00-5157 SECURITY	5,000	396	5,000	396	5,000
130-5-10-5170 ADMIN TRAVEL MILEAGE			2,000	1,448	2,000
130-5-30-5170 FIELD TRAVEL MILEAGE			1,800	175	2,000
130-5-40-5170 DIRECTORS TRAVEL MILEAGE			200	41	200
130-5170 TRAVEL & MEETINGS	4,000	1,605			-
130-5-10-5175 ADMIN EDUCATION/SEMINARS			4,000	1,727	4,000
130-5-30-5175 FIELD EDUCATION/SEMINARS			4,000	7,071	4,000
130-5-40-5175 DIRECTORS EDUCATION/SEMINARS			-	-	1,500
130-5175 EDUCATION/SEMINARS	8,000	4,353			-
130-5-40-5176 DIRECTOR TRAINING	1,500	545	1,500	1,050	8,400
130-5-10-5179 ADM MISC EXPENSE	350	190	350	172	350
130-5-00-5191 TELEPHONE	9,100	10,809	10,000	8,029	9,500
130-5-00-5192 ELECTRICITY	107,711	140,256	115,000	107,651	120,000
130-5-00-5193 OTHER UTILITIES	2,200	2,244	2,200	1,929	2,200
130-5-00-5194 IT SERVICES	24,500	39,508	35,000	30,890	40,000
130-5-00-5195 ENV/MONITORING	15,000	16,052	15,000	19,516	20,000
130-5-00-5196 RISK MANAGEMENT	-	18,647	-	-	-
130-5-00-5198 ANNUAL OPERATING FEES	30,000	25,489	30,000	26,834	30,000
130-5-00-5310 EQUIPMENT - FIELD	2,000	113	2,000	808	1,000
130-5-00-5311 EQUIPMENT - OFFICE	1,000	-	1,000	808	1,000
130-5-00-5312 TOOLS - FIELD	2,000	389	2,000	-	1,000
130-5-00-5315 SAFETY EQUIPMENT	2,500	3,818	2,500	2,062	2,500
130-5-00-5505 WATER CONSERVATION	9,000	7,221	9,000	4,103	9,000
130-5-00-5545 RECORDING FEES	250	228	250	49	100
130-5-00-5580 TRANSFER OUT		8,726	-	-	-
130-5-00-5600 CONTINGENCY	45,000	-	40,000	-	20,000
130-OPEB OBLIGATION	-	-	12,500	-	12,500
218-5522 INTEREST LONG TERM DEBT	66,600	65,160	63,144	63,144	59,567
218-5595 CIEDB LOAN ANNUAL FEE	5,741	5,741	5,443	5,443	5,135
218-5599 PRINCIPAL PMT	99,330	99,330	102,787	102,787	106,363
320-4115 Water Capital Fund (8%)	106,000	111,238	115,000	76,564	171,876
325-4115 Water Operating Reserve (5%)	-	-	72,000	47,845	136,671
<b>TOTAL EXPENDITURES</b>	<b>1,676,795</b>	<b>1,585,289</b>	<b>1,489,234</b>	<b>1,071,114</b>	<b>2,148,455</b>
	427	215,451	430,702	432,449	(0)

Category	Item/Project	19/20	20/21	21/22	22/23	23/24	
		Cost Year 1	Cost Year 2	Cost Year 3	Cost Year 4	Costs Year 5	
Split	Dump Truck		\$ 150,000.00				
Split	SCADA replacement		\$ 60,000.00	\$ 60,000.00	\$ 60,000.00	\$ 60,000.00	
Split	IT Upgrades	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	
Split	Backhoe		\$ 120,000.00				
Split	Vacc Truck		\$ 335,000.00				
Stormwater	Tideflex						
Wastewater	CS Line replacement (I&I)	\$ 150,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	
Wastewater	Manhole rehab						
Wastewater	Pump replacement/Overhaul						
Wastewater	Sample stations						
Wastewater	WWTP VFDs						
Wastewater	Aquatic Harvesting	\$ 34,000.00	\$ 34,000.00	\$ 34,000.00	\$ 34,000.00	\$ 34,000.00	
Wastewater	Admin Vehicle (60%)	\$ 18,000.00					
Water	Admin Vehicle (40%)	\$ 12,000.00					
Water	Water Main	\$ 150,000.00					
Water	Well Field VFDs						
Water	Unit 9 Tank	\$ 220,000.00	\$ 215,000.00				
Water	Well						
Water	Tanks				\$ 612,375.00	\$ 612,375.00	
Water	Correlators		\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	
Water	DS Line replacement				\$ 338,625.00	\$ 338,625.00	
Water	Generators		\$ 250,000.00	\$ 293,000.00			
Water	Hydrants						
Water	AMI	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	
<b>Totals</b>		<b>\$ 594,000.00</b>	<b>\$ 1,294,000.00</b>	<b>\$ 517,000.00</b>	<b>\$ 1,180,000.00</b>	<b>\$ 1,180,000.00</b>	<b>\$ 4,765,000.00</b>



# COMPLIANCE ALERT



» 04/22/2019 | 2019-02

## CMS Issues Final Benefit and Payment Parameters Regulations for 2020: Group Health Plan Impact

### CMS Issues Final Benefit and Payment Parameters Regulations for 2020

On April 18, 2019, the Centers for Medicare and Medicaid Services (CMS) released its [final 2020 Notice of Benefit and Payment Parameters rule](#) (BPP rule) along with additional supporting documents. CMS made very few changes from its proposed rule, which was released in January. As has been the case with past BPP rules, the 2020 final rules address wide ranging issues under the Affordable Care Act (ACA) relevant to Exchange operations, the individual and small-group insurance market, SHOPs, Exchange navigators, and the risk adjustment program. Only a few BPP rule changes directly impact larger group health plans and employer plan sponsors. Significant issues for group health plans are addressed below.

### Cost-Sharing Limits and the Premium Adjustment Percentage

The final BPP rule confirms ACA cost-sharing limits for essential health benefits under non-grandfathered plans for 2020. The maximum annual out-of-pocket limit on cost-sharing for 2020 is \$8,150 for self-only coverage and \$16,300 for other than self-only coverage (the individual limit is embedded for those with family coverage). This is a 3.16 percent increase over 2019 (when the limits were \$7,900 for self-only coverage and \$15,800 for other than self-only coverage). Notably, these increases are based on the “premium adjustment percentage,” which is also used to adjust employer Pay or Play penalty amounts.

For 2020, the premium adjustment percentage will increase by 1.29 percent. This is a larger increase than last year (1.125 percent) in part because a change to the methodology in calculating the premium adjustment percentage. This change is important because a higher premium adjustment percentage means a higher annual limit on out-of-pocket costs, a higher required contribution from subsidy-eligible consumers, and an unaffordability percentage under employer plans (meaning individuals with an offer of employer-sponsored coverage would be less likely to be eligible for premium tax credits).

The increase to the premium adjustment percentage and this change in methodology will also result in higher employer mandate penalties relative to 2019. Although the BPP does not address the indexed Pay or Play penalty amounts, based on the 2020 premium adjustment percentage noted above the Pay or Play penalty amounts for 2020 are expected to be *approximately* \$2,590 for a failure to offer coverage,<sup>1</sup> and \$3,890 for insufficient offers of coverage. IRS should formally announce 2020 penalty numbers shortly, along with adjustments to the percentage of household income used for ACA affordability and affordability safe harbors thresholds (9.86% for 2019).

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<sup>1</sup>For employers who fail to offer coverage to substantially all of their full-time employees, this number is multiplied by the total number of full-time employees less 30 to determine the total penalty amount.

## Prescription Drugs and Drug Coverage

The final BPP rule had several sections regarding prescription drugs and drug coverage, most of which were not adopted in the final rule. Those proposed changes and their status in the final rule are addressed below:

- **Mid-year formulary changes:** CMS declined to adopt proposed changes which would have allowed insurers in the individual, small group, and large group markets to make certain mid-year formulary changes to (1) add a generic equivalent of a drug that becomes available on the market; and (2) remove the equivalent brand-name drug from the formulary or move the equivalent brand-name drug to a different cost-sharing tier.
- Certain brand-name drugs not considered "essential health benefits" (EHBs) for purposes of annual/lifetime dollar limits: CMS did not finalize a proposal under which plans that cover both a brand-name prescription drug and its generic equivalent could consider the brand-name drug not to be EHB if the generic drug is available and medically appropriate for an enrollee.
- Manufacturer drug coupons excluded from cost sharing limits: CMS finalized and adopted the proposed rule to allow issuers to exclude drug manufacturer coupons from the cost sharing limits where a medically appropriate generic drug is available. Drug manufacturers often provide coupons to patients to help reduce their out-of-pocket costs. However counting manufacturer coupons and copay assistance towards a plan's deductible or out-of-pocket limit shifts plan costs quickly to the plan without the participant having paid much of anything actually out of their own pocket. This can skew utilization towards expensive brand drugs and when amounts paid by manufacturers count towards cost sharing limits overall plan costs tend to increase. In response, some insurers and pharmacy benefit managers (PBMs) adopted accumulator adjustment programs. This means the insurer or PBM will not apply a manufacturer's copay assistance or other coupon to an enrollee's deductible or out-of-pocket maximum and the enrollee cannot "count" any of the coupon's value towards their out-of-pocket costs. Beginning with the 2020 plan year, insurers and PBMs can, but do not have to, count any form of direct support from a drug manufacturer towards the deductible or annual maximum limit on out-of-pocket costs if a brand-name drug has a generic equivalent.

For additional questions about the issues addressed in this Alert, please contact your dedicated Alliant team members with questions.

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AGENCY	DAY RATE	WEEKEND RATE	BASE RATE	HOLIDAY	DIFFERENCE
HIDDEN VALLEY LAKE CSD	\$ 20.00	\$ 25.00	\$ 150.00		
LOWER LAKE (Under Review) \$150.00	\$ 20.00	\$ 25.00			
MT KONOCTI	\$ 25.00	\$ 25.00	\$ 175.00		17%
CITY OF LAKEPORT	\$ 35.00	\$ 65.00	\$ 305.00	\$ 100.00	103%
CLEARLAKE OAKS	\$ 35.00	\$ 70.00	\$ 315.00		110%
NAPA			\$ 350.00		133%
LAKE COUNTY SPECIAL DISTRICTS	\$ 50.00	\$ 75.00	\$ 400.00	\$ 75.00	167%
KELSEYVILLE	\$ 50.00	\$ 75.00	\$ 400.00		267%
NORTH LAKEPORT	\$ 50.00	\$ 75.00	\$ 400.00		367%
NICE	\$ 60.00	\$ 60.00	\$ 420.00		180%
CITY OF CALISTOGA \$33.22 avg	\$ 232.54	\$ 265.76	\$ 498.30	\$ 132.88	232%
TOWN OF WINDSOR (WATER) \$34.85 avg	\$ 348.50	\$ 278.80	\$ 627.30	\$ 139.40	318%
TOWN OF WINDSOR (WASTEWATER) \$35.55 avg	\$ 355.50	\$ 284.40	\$ 639.90	\$ 142.20	327%
			\$ 4,530.50	\$ 489.48	
		Average	\$ 411.86	\$ 97.90	
		Median	\$ 400.00	\$ 132.88	
		Proposed Rate	\$ 400.00		\$ 250.00
CURRENT RATE		PROPOSED RATE			
\$150.00 (WEEKLY)		\$400.00 (WEEKLY)			
\$600.00 (MONTHLY)		\$1600.00 (MONTHLY)			
\$7,200.00 (ANNUALLY)		\$20,800.00 (ANNUALLY)			
TOTAL ANNUAL FINANCIAL IMPACT		\$ 13,600.00			
NOTE: Employer paid taxes max out at \$7000.00 per calendar year					
ETT: Employer Training Tax					
UI: Unemployment Insurance					
CalPERS paid @ 80 hours only					



**HIDDEN VALLEY LAKE**  
COMMUNITY SERVICES DISTRICT

## **WATER, SEWER & RECYCLED WATER RATE STUDY REPORT**

*Administrative Draft Report*

**April 2019**

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## SECTION 1. BACKGROUND, PURPOSE AND OVERVIEW OF THE STUDY

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### BACKGROUND

In 2014, the Hidden Valley Lake Community Services District (“District”) retained NBS to complete a water and sewer rate study which resulted in a March 2015 rate study report, and new rates were implemented soon afterwards. However, within a month, the San Juan Capistrano court decision was issued; this decision had significant implications for how tiered rates are designed. Essentially, the decision required water agencies to “*demonstrate that the tiers correspond to the actual cost of providing service at a given level of usage.*” In addition, severe drought and mandated conservation throughout California prompted the District to replace its four-tiered rates with a new uniform (single tier) rate and new drought surcharges.

***“Significant declines in water use have impacted the District’s revenues and reserves.”***

Since then, the District has been evaluating changes in consumption patterns, water supply limitations, future CIP funding requirements, and the desire to continue to improve the fairness and equity of rates. In light of these considerations, an updated rate study was needed. This revised rate study presents significant changes related to funding assumptions for planned water and sewer capital projects along with significant increases in recorded commercial water consumption due to meter reading issues.

### PURPOSE

This re-evaluation of the District’s water, sewer and recycled water rates is intended to ensure these rates meet basic Proposition 218 (Prop 218) requirements, industry standards, reflect the District’s current priorities, and promote transparent communications between the District and its ratepayers.

### OVERVIEW OF THE STUDY

In developing the proposed new water and sewer rates, NBS and District Staff worked cooperatively to develop new financial plan and rate alternatives, with the intent that the District Board will provide direction on these alternatives. The proposed rates summarized in this report represent a conservative or worst-case scenario based on current uncertainty of grant and/or State Revolving Fund (SRF) loan funding. Using revenue bonds instead of grant or SRF funding results in significant rate increases over the next five years of almost 100% for water and 50% for sewer. If grant and/or SRF funding become available during this time, the recommended rate increases could be reduced. Also, because there is insufficient time to implement new rates this July, this study has assumed that currently adopted water and sewer rates for FY 2019/20 will be implemented as planned on July 1, 2019. However, the “proposed” new water rates will be implemented mid-fiscal year (January 1, 2020) and every January 1 thereafter. Proposed new sewer rate increases will continue to be implemented July 1 each year.

**Key Issues Addressed** – In addition to ensuring that water and sewer rates collect sufficient revenue to meet the annual operating costs and capital improvement plans, other key issues addressed included:

- The need to use new revenue bonds instead of grant and low-interest State revolving fund loans to fund approximately \$19 million of water capital improvement projects and approximately \$1.65 million of sewer capital improvement projects
- Lower water sales over the last few years due to the drought and conservation concerns
- Consumption records also indicate that commercial water use significantly increased while residential use has significantly decreased
- Water supply limitations and the potential need to build a new well

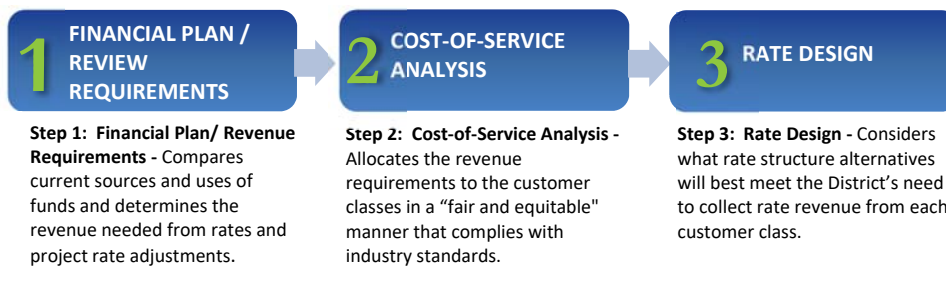
- Changes in annual operating costs, including adjustments resulting from the District’s salary survey
- The need to build adequate CIP and replacement reserves

**Recommendations** – As a part of the water and sewer financial plans, NBS evaluated projected revenues and expenditures to determine net revenue requirements. In light of the water utility’s decreased water sales and planned capital improvements, it will be critical to issue new revenue bonds to fund capital projects and rebuild reserves. Likewise, the sewer utility will also need to issue additional debt in order to cover projected deficits, fund capital projects and rebuilt reserves. NBS recommends the District Board review the rate increases described below and determine the District’s priorities for capital improvements vs. the tradeoff of the higher rates needed to fund these improvements.

**RATE STUDY METHODOLOGY**

**Components of the Rate Study Methodology** – A comprehensive utility rate study typically has three major components: (1) the utility’s overall revenue requirements and financial plan, (2) the cost-of-service for each customer class, and (3) rate structure design, as shown in **Figure 1**. These components reflect industry standards, primarily from the American Water Works Association (AWWA)<sup>1</sup>, and address the general requirements for equity and fairness. In terms of the chronology of the study, these three steps represent the order they were performed in this study.

**Figure 1: Primary Components of a Rate Study**



The following sections in this report present an overview of the methodologies, assumptions, and data used along with the financial plans and rates developed.

**Rate Design Criteria** – 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. For example, the foundation for evaluating rate structures is generally credited to James C. Bonbright in the *Principles of Public Utility Rates*<sup>2</sup>, which outlines pricing policies, theories, and economic concepts along with various rate designs. The other common industry standard is AWWA Manual M1. The following is a simplified list of the attributes of a sound rate 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 (e.g., cost based).

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

<sup>2</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.

- There should be continuity in the rate making philosophy over time.
- Other utility policies should be considered (e.g., encouraging conservation & economic development).
- Rates should consider the customer's ability to pay.
- Rates should provide month-to-month and year-to-year revenue stability.

The following section covers basic rate design criteria that NBS and District staff considered as a part of their review of the rate structure alternatives.

**Rate Structure Issues** – The relationship between fixed costs and variable costs is one of the most fundamental rate structures considerations. Fixed costs typically do not vary with the amount of water consumed. Debt service and District personnel are examples of fixed costs. In contrast, variable costs such as the cost of chemicals and electricity, tend to change with the quantity of water sold. The vast majority of rate structures contain a fixed or minimum charge in combination with a volumetric charge.

The District's rate design objectives are not necessarily the same as those in other communities. For example, some communities, particularly those with very expensive purchased water costs, place a very high priority on conservation-oriented rates. Other communities who have many low-income customers may want to implement low-income subsidies.

The District's 2015 rate study considered various combinations of fixed vs. variable charges and determined that collecting 60 percent of rate revenue from fixed charges and 40 percent from variable charges was preferred. Additionally, the previous four-tiered volumetric rates were replaced with a single-tier (uniform) volumetric rate. This water rate design still appears to be a good fit in light of the District's projected water sales and the need to emphasize revenue sufficiency going forward.

**Key Financial Assumptions**

Following are the key assumptions used in the water, sewer and recycled water rate analyses:

- **Funding of Capital Projects** – After extensive review of the planned capital improvement projects (CIP) and funding requirements by the District and its engineering consultant, the District has decided that the water utility lacks any guarantees that SRF loans and Prop 1 Grants will be available to fund CIP costs over the next several years, and therefore needs to assume the use of additional debt (revenue bonds). The sewer utility will also need new revenue bonds, although a much smaller amount.
- **Reserve Targets** – The water and sewer utility reserves are currently below target levels. Going forward, the target reserves for operations and maintenance (O&M) and capital rehabilitation and replacement (R&R) follow general utility industry standards. This includes approximately 90-days of O&M expenses for both the water and sewer O&M Reserves, and approximately 3% of net assets as the target reserve level for the R&R Reserves.
- **Inflation and Growth Projections:**
  - ✓ Customer growth is assumed to be 0.25% annually. While some additional growth may occur<sup>3</sup>, NBS did not rely on any additional growth during the next five years.
  - ✓ General cost inflation is about 3% annually.
  - ✓ Operating expenses, which include among other things labor costs, health benefits, and retirement benefits, are inflated at a rate of approximately 3% to 4% annually.
  - ✓ No inflation is added to other costs.

The next two sections discuss the water, sewer and recycled water rate studies.

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<sup>3</sup> The District has roughly 700 undeveloped lots, but these are not expected to develop within the timeframe of this study.

## SECTION 2. WATER RATE STUDY

---

### A. KEY WATER RATE STUDY ISSUES

The revised water rate analysis was undertaken with a few specific objectives, including:

- Restructuring the District’s approach to funding capital improvements, which total about \$19 million over the next five years.
- Analyzing and adjusting for recorded consumption changes over past several years.
- Generating additional revenue to meet projected funding requirements and rebuild reserve funds.
- In light of recent conservation, continuing to collect approximately 60% of water rate revenue from fixed charges and 40% from volumetric rates continues to be a reasonable approach to rate design.
- Update fixed charges and volumetric rates to reflect changes in consumption patterns.

NBS developed several water rate alternatives over the course of this study based on industry standards and cost-of-service principles. The fixed and volumetric charges were calculated based on the net revenue requirements, number of customer accounts, water consumption, and other District-provided information. The following are the basic components included in this analysis:

- **Developing Unit Costs:** The water revenue requirements were “functionalized” into three categories: (1) fixed capacity costs; (2) variable costs (or volume-based), and; (3) customer service costs, such as meter reading, billing, mailing, and responding to customer questions. Unit costs for each of these categories were then allocated to functional areas, including water consumption, peaking factors, number of accounts by meter size, and customer class.
- **Determining Revenue Requirements by Customer Class:** The total revenue collected from customer classes (i.e., groups of customers with similar consumption patterns) was determined using the unit costs and the total units belonging to each class. For example, volume-related costs are allocated based on the water consumption for each class, while customer costs are allocated based on number of meters. Once the revenue requirement for each customer class is determined, collecting these revenue requirements from each customer class is addressed in the rate design task.
- **Rate Design and Fixed vs. Variable Costs:** The revenue required from each customer class are collected from fixed charges and volumetric rates. The cost of service analysis indicated that an allocation of 60% of the costs to fixed and 40% to variable rates is a reasonable basis for rate design. State agencies, such as the California Water Efficiency Partnership, would like water utilities to collect at least 70% of rate revenue from volumetric rates. However, many utilities prefer to collect less than 70% from volumetric rates because of the revenue instability that can and has resulted when water use drops unexpectedly.

*“The best way to promote financial stability is to collect fixed costs through fixed charges.”*

### B. WATER UTILITY REVENUE REQUIREMENTS

Rate increases for municipal utilities are governed by the need to meet operating and capital costs, and maintain adequate reserves and meet required debt coverage. These are important in order to handle minor emergencies, fund working capital, maintain a good credit rating, and generally follow sound financial management practices. The current financial state of the District’s water utility is as follows:

**Capital Improvement Costs:** The \$19 million in planned capital projects for FY 2019/20 through FY 2024/25 shown in **Figure 2** are a major driver of the water utility's projected annual costs. These costs are in current year dollars; future inflation of 3% is assumed for actual funding of these revenue requirements.

**Figure 2. Summary of Water Capital Project Costs**

Project Description	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
Tanks (Tank 9 - HVLCS Priority #1)	\$ 220,000	\$ 979,800	\$ 979,800	\$ 979,800	\$ 979,800	\$ 979,800
Generators (HVLCS Priority #4)	\$ -	\$ 434,400	\$ 434,400	\$ 434,400	\$ 434,400	\$ 434,400
AMI (HVLCS Priority #3)	\$ 100,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
Admin Vehicle	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
MMN Water Main	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -
DS Line Replacement	\$ -	\$ 541,800	\$ 541,800	\$ 541,800	\$ 541,800	\$ 541,800
Backhoe	\$ -	\$ 60,000	\$ -	\$ -	\$ -	\$ -
Dump Truck <sup>1</sup>	\$ -	\$ 75,000	\$ -	\$ -	\$ -	\$ -
Hydrants	\$ -	\$ 748,400	\$ 748,400	\$ 748,400	\$ 748,400	\$ 748,400
IT Upgrades <sup>1</sup>	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
SCADA Replacement <sup>1</sup>	\$ -	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000
Vacc Truck	\$ 134,000	\$ -	\$ -	\$ -	\$ -	\$ -
Well	\$ -	\$ 728,400	\$ 728,400	\$ 728,400	\$ 728,400	\$ 728,400
<b>Total: Planned CIP Costs</b>	<b>\$ 609,000</b>	<b>\$ 3,902,800</b>	<b>\$ 3,767,800</b>	<b>\$ 3,767,800</b>	<b>\$ 3,767,800</b>	<b>\$ 3,767,800</b>

1. Full CIP costs split between water and sewer funds. This is the amount allocated to water fund.

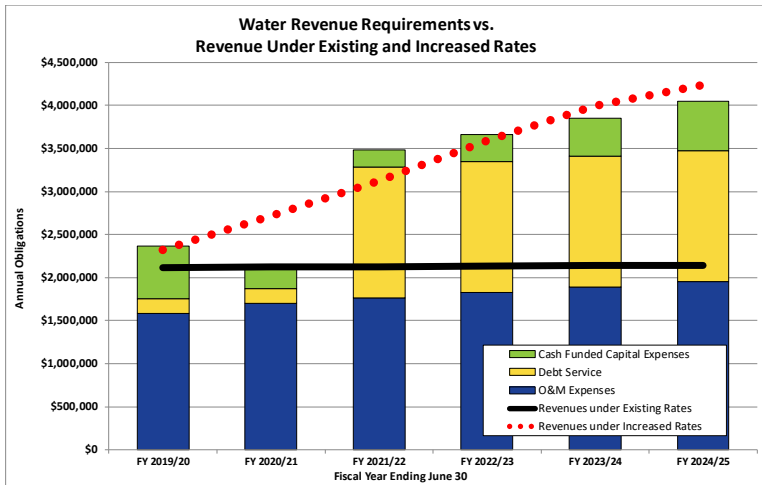
**Meeting Net Revenue Requirements:** For Fiscal Years 2019/20 through 2024/25, the projected net revenue requirement that must be recovered from rates increases by more than 74%, from \$2.28 million to \$3.98 million, as shown in **Figures 3 and 4**. Without additional rate increases, the water utility would run annual deficits that grow to about \$1.9 million by the end of FY 2024/25. (Note: since FY 2018/19 numbers are not yet available and estimates would need to be revised within a few months, only FY 2019/20 through FY 2024/25 are shown. Also, the five years of proposed January 1 rate increases encompass FY 2019/20 through FY 2023/24, and assume the currently adopted July 1, 2019 increase is implemented. The FY 2024/25 numbers are shown for information only.)

**Figure 3. Summary of Water Revenue Requirements**

Summary of Sources and Uses of Funds and Net Revenue Requirements <sup>1</sup>	Adopted		Projected			
	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
<b>Sources of Water Funds</b>						
Rate Revenue Under Existing Rates	\$ 2,050,434	\$ 2,055,560	\$ 2,060,699	\$ 2,065,851	\$ 2,071,015	\$ 2,076,193
Other Operating Revenue	68,600	66,704	66,808	66,913	67,018	67,123
Interest Earnings	-	-	-	-	-	-
<b>Total Sources of Potable Funds</b>	<b>\$ 2,119,034</b>	<b>\$ 2,122,264</b>	<b>\$ 2,127,507</b>	<b>\$ 2,132,764</b>	<b>\$ 2,138,033</b>	<b>\$ 2,143,316</b>
<b>Uses of Water Funds</b>						
Salaries & Benefits	\$ 796,528	\$ 870,325	\$ 904,591	\$ 943,049	\$ 983,658	\$ 1,026,573
Water Rights	70,000	72,100	74,191	76,342	78,480	80,521
Repair & Replacement	185,000	190,550	196,076	201,762	207,411	212,804
Electricity	120,000	122,400	124,848	127,345	129,892	132,490
All Other Expenses	413,450	448,491	462,281	476,523	490,799	504,646
Potable System Debt Service <sup>1</sup>	171,065	170,746	1,521,287	1,520,946	1,520,592	1,520,226
Rate-Funded Capital Expenses	597,462	219,884	-	140,938	440,692	567,913
<b>Total Use of Potable Water Funds</b>	<b>\$ 2,353,505</b>	<b>\$ 2,094,496</b>	<b>\$ 3,283,274</b>	<b>\$ 3,486,906</b>	<b>\$ 3,851,525</b>	<b>\$ 4,045,173</b>
<b>Surplus/(Deficiency) before Rate Increase</b>	<b>\$ (234,471)</b>	<b>\$ 27,768</b>	<b>\$ (1,155,766)</b>	<b>\$ (1,354,142)</b>	<b>\$ (1,713,492)</b>	<b>\$ (1,901,857)</b>
Additional Revenue from Rate Increases	205,043	596,112	996,348	1,458,542	1,859,879	2,097,941
<b>Surplus/(Deficiency) after Rate Increase</b>	<b>\$ (29,427)</b>	<b>\$ 623,881</b>	<b>\$ (159,419)</b>	<b>\$ 104,400</b>	<b>\$ 146,388</b>	<b>\$ 196,084</b>
<b>Projected Annual Potable Rate Revenue Increase</b>	<b>20.00%</b>	<b>15.00%</b>	<b>15.00%</b>	<b>15.00%</b>	<b>8.00%</b>	<b>4.00%</b>
Net Revenue Requirement - Potable System	\$ 2,284,905	\$ 2,027,792	\$ 3,216,465	\$ 3,419,993	\$ 3,784,507	\$ 3,978,050
<b>Overall Debt Coverage Ratio</b>	<b>8.92</b>	<b>10.82</b>	<b>1.45</b>	<b>1.74</b>	<b>1.98</b>	<b>2.11</b>

1. Assumes \$19 million (net proceeds) in new revenue bonds is issued in FY20/21 and debt service begins in FY21/22.

**Figure 4. Water Revenue Requirements through FY 2022/23**



The District was previously planning on using SRF funding as well as Prop 1 Grant funding to pay for capital improvement projects. Since those funds are not guaranteed to be available, a new \$19 million revenue bond is assumed to cover these costs. The bonds would be issued in FY 19/20 and debt service would start in FY 20/21. To meet the considerable increase in debt service payments and other annual costs, five years of annual rate increases of 20%, 15%, 15%, 15% and 8% are needed starting January 1, 2020.

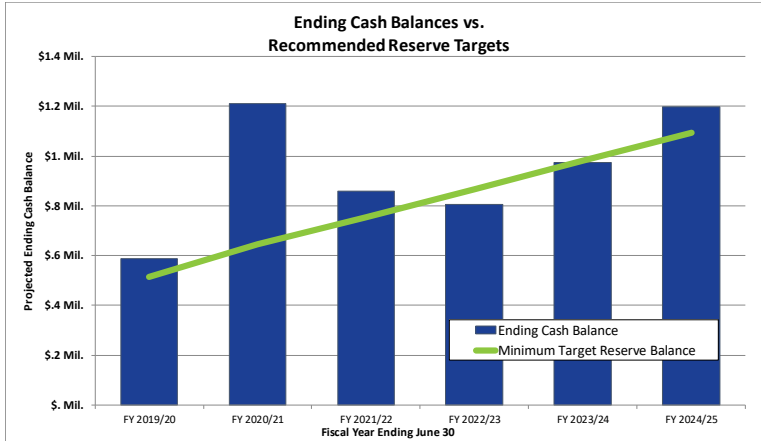
Figure 5 summarizes the projected reserve fund balances and reserve targets for the next five years. Figure 6 indicates that, assuming the proposed rate increases are adopted, the District’s reserves will increase over the next five years, and will keep up with the reserve fund target, which is growing to account for the additional capital improvements the District will be building.

**Figure 5. Summary of Water Reserve Funds**

Beginning Reserve Fund Balances and Recommended Reserve Targets	Adopted	Projected				
	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
<b>Operating Reserve</b>						
Ending Balance	\$ 396,000	\$ 426,000	\$ 269,514	\$ 393,449	\$ 473,000	\$ 489,000
<i>Recommended Minimum Target</i>	<i>396,000</i>	<i>426,000</i>	<i>440,000</i>	<i>456,000</i>	<i>473,000</i>	<i>489,000</i>
<b>Water Capital Fund</b>						
Ending Balance	\$ 191,417	\$ 785,298	\$ 588,039	\$ 411,800	\$ 502,019	\$ 709,328
<i>Recommended Minimum Target</i>	<i>118,600</i>	<i>219,000</i>	<i>315,300</i>	<i>411,800</i>	<i>508,700</i>	<i>605,800</i>
<b>Debt Reserve<sup>1</sup></b>						
Ending Balance	\$ 171,065	\$ 1,523,219	\$ 1,535,518	\$ 1,535,177	\$ 1,534,823	\$ 1,534,457
<i>Recommended Minimum Target</i>	<i>171,065</i>	<i>1,535,848</i>	<i>1,535,518</i>	<i>1,535,177</i>	<i>1,534,823</i>	<i>1,534,457</i>
<b>Total Ending Balance</b>	<b>\$ 758,482</b>	<b>\$ 2,734,516</b>	<b>\$ 2,393,071</b>	<b>\$ 2,340,427</b>	<b>\$ 2,509,842</b>	<b>\$ 2,732,785</b>
<b>Total Recommended Minimum Target</b>	<b>685,665</b>	<b>2,180,848</b>	<b>2,290,818</b>	<b>2,402,977</b>	<b>2,516,523</b>	<b>2,629,257</b>

1. Assume reserves for a new \$19 million revenue bond will be funded by the revenue bond in FY 20/21.

**Figure 6. Water Reserve Funds through FY 2022/23**



**Building and Maintaining Reserve Funds:** The Water Utility should maintain sufficient reserves. NBS recommends the District adopt and maintain the following reserve fund target balances:

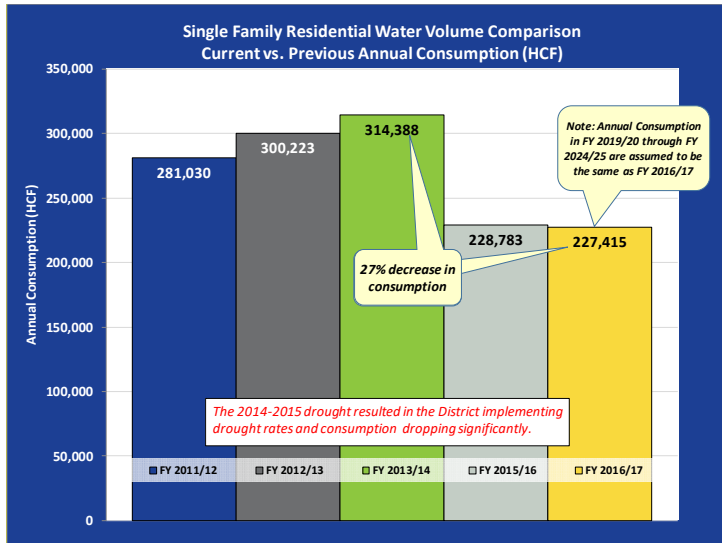
- ✓ **Operating Reserve** should normally be equal to 25% of the Utility’s budgeted annual operating expenses, which is equal to a three-month (or 90-day) cash cushion for normal operations. An Operating Reserve is intended to promote financial viability in the event of any short-term fluctuation in revenues and/or expenditures. Fluctuations might be caused by weather patterns, the natural inflow and outflow of cash during billing cycles, natural variability in demand-based revenue streams (e.g., volumetric charges), local natural disasters and – particularly in periods of economic distress – changes or trends in age of receivables.
- ✓ **Capital Rehabilitation and Replacement (R&R) Reserve** are typically about 3% of net depreciable capital assets, which equates to a 33-year replacement cycle for capital assets.
- ✓ **Debt Reserve** is the reserve requirement for the CEIDB loan of approximately \$170,000. We assume the new \$19 million revenue bond would require one-year of debt service as a reserve.
- ✓ **OPEB<sup>4</sup> Reserve** – The District’s is establishing this reserve fund to begin addressing its current liability for post-retirement benefits, with the intent of increasing annual contributions in the future.

**Summary of Changing Consumption Patterns:** NBS confirmed that customer billing data indicate that the District has experienced lower than expected water rate revenues. This was primarily related to the drop in residential water use shown in **Figure 7**, which indicates that residential consumption decreased by 27%. This reflects the drought and drought-related conservation mandates that impacted water supplies throughout most of California. An additional factor that affected consumption was the drought surcharges that the District implemented from 2015 until April 2017.

<sup>4</sup> OPEB refers to “Other Post-Employment Benefits”.

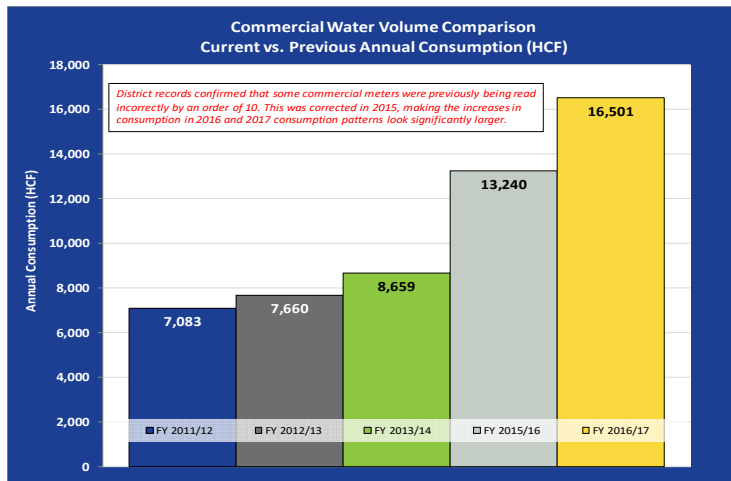


**Figure 7: Annual Water Consumption for Single Family Residential Customers from 2011-2017**



District staff also became aware of an issue of incorrect meter readings for some commercial customers. The lower than actual readings gives the impression that there were significant increases in commercial water use after 2013-14, as shown in **Figure 8**. However, District staff believe that the previous consumption was just under-recorded. Going forward, District staff are comfortable assuming that future residential and commercial consumption will be similar to that recorded for FY 2016/17.

**Figure 8: Annual Water Consumption for Commercial Customers from 2011-2017**



**C. CURRENT VS. PROPOSED WATER RATES**

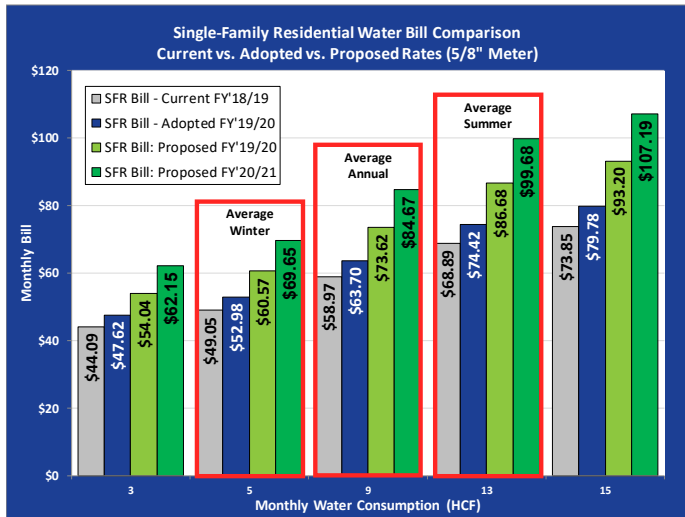
Currently, the District charges all customer classes with a standard 5/8” meter a monthly fixed charge of \$36.65, plus a uniform commodity rate of \$2.48/hcf for all water consumed. The proposed new rates follow this same rate design. **Figure 9** compares the current (FY 2018/19) and proposed rates for FY 2019/20 through 2022/23. Regarding the “Increase in Rate Revenue” shown in Figure 9, these are increases in total rate revenue that are not applied across-the-board to fixed and volumetric charges in the first year (i.e., the test year) due to cost-of-service calculations. However, after the test year, they are applied as a straight percentage to both fixed and volumetric charges.

**Figure 9. Current and Proposed Water Rates for FY 2018/19 through 2022/23**

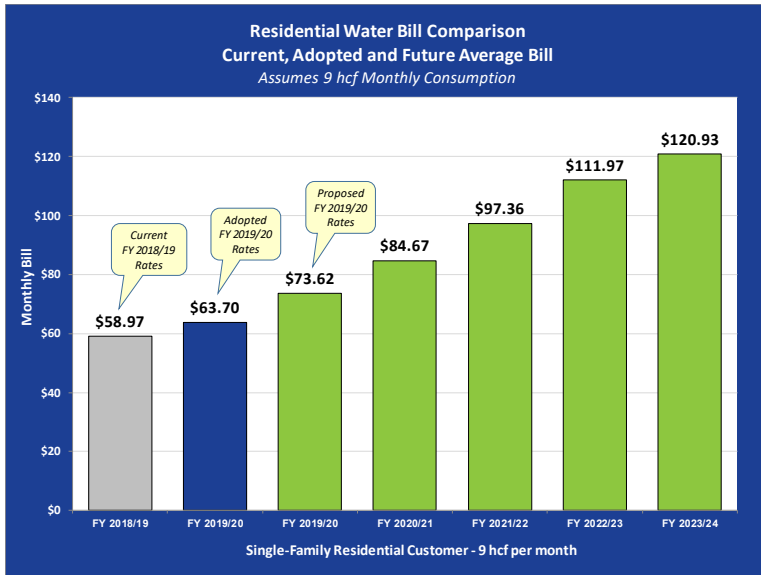
Water Rate Schedule	Current Rates ('18/19)	Adopted '19/20 Rates	Proposed Rates				
			FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24
<b>Increase in Rate Revenue:</b>			20.00%	15.00%	15.00%	15.00%	8.00%
<b>Fixed Service Charge</b>							
<i>Monthly Fixed Service Charge:</i>							
5/8 inch	\$36.65	\$39.58	\$44.25	\$50.89	\$58.52	\$67.30	\$72.68
3/4 inch	\$53.72	\$58.02	\$44.25	\$50.89	\$58.52	\$67.30	\$72.68
1 inch	\$87.88	\$94.91	\$107.20	\$123.28	\$141.78	\$163.04	\$176.09
1.5 inch	\$173.25	\$187.11	\$212.13	\$243.95	\$280.54	\$322.62	\$348.43
2 inch	\$275.71	\$297.75	\$338.04	\$388.74	\$447.06	\$514.11	\$555.24
<b>Water Commodity Charges</b>							
<i>Volumetric Rates</i>							
Single & Multi-Family	\$2.48	\$2.68	\$3.26	\$3.75	\$4.32	\$4.96	\$5.36
Commercial	\$2.48	\$2.68	\$3.99	\$4.59	\$5.27	\$6.07	\$6.55
Municipal	\$2.48	\$2.68	\$5.08	\$5.84	\$6.72	\$7.73	\$8.35

**Figure 10** compares monthly bills for residential customers under current and proposed rates at varying levels of water consumption, **Figure 11** shows projected water bills under average consumption, and **Figure 12** provides a comparison of water bills for other regional communities.

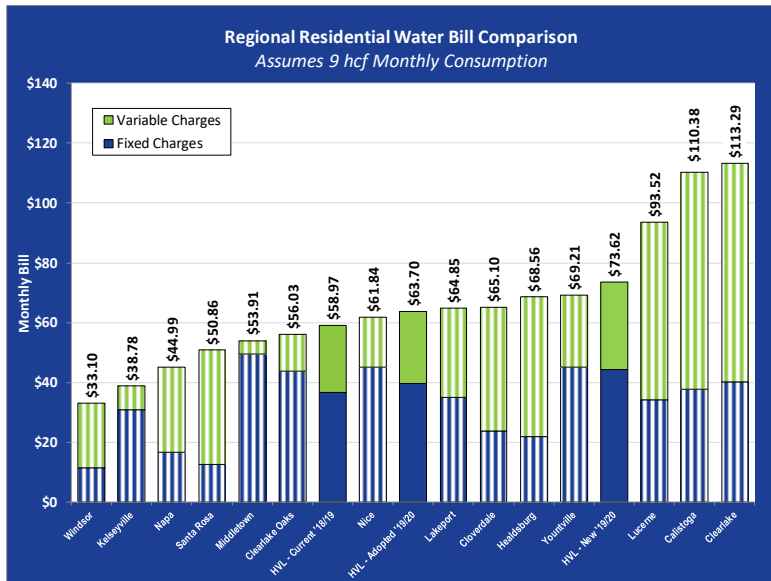
**Figure 10. Comparison of Monthly Water Bills for Single-Family Residential Customers**



**Figure 11. Projected Monthly Single-Family Water Bills – Average Water Use**



**Figure 12. Regional Comparison of Monthly Water Bills for Single-Family Residential**



**D. DROUGHT RATES**

The District has emergency drought plans with four drought emergency stages requiring progressively greater reductions in water use by 10% through 40%. Assuming consumption is reduced by these amounts, the District will lose revenue from volumetric rates, although there will be some cost savings as production costs are slightly lower. NBS estimated these cost savings along with revenue losses to calculate drought rates.

The objectives of these drought rates are to meet the revenue requirement under drought conditions, after accounting for both cost savings and revenue losses. **Figure 13** summarizes these drought rates, which reflect the differences in volumetric rates for single-family and multi-family residential (SFR and MFR), commercial and municipal customers.

**Figure 13. Proposed Drought Rates**

Water Rate Schedule	Current Rates ('18/'19)	Adopted '19/'20 Rates	Proposed Rates				
			FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24
<b>Fixed Service Charge</b>							
Monthly Fixed Service	<i>(Same as Non-Drought fixed Service Charges)</i>						
<b>Commodity Charges for All Water Consumed</b>							
<b>SFR and MFR:</b>							
Drought Stage 1	\$3.10	\$3.35	\$3.56	\$4.09	\$4.70	\$5.41	\$5.84
Drought Stage 2	\$3.47	\$3.75	\$4.05	\$4.66	\$5.36	\$6.16	\$6.65
Drought Stage 3	\$3.72	\$4.02	\$4.68	\$5.39	\$6.19	\$7.12	\$7.69
Drought Stage 4	\$4.14	\$4.47	\$5.53	\$6.36	\$7.31	\$8.41	\$9.08
<b>Commercial</b>							
Drought Stage 1	\$2.48	\$3.35	\$4.35	\$5.00	\$5.75	\$6.61	\$7.14
Drought Stage 2	\$2.48	\$3.75	\$4.95	\$5.69	\$6.55	\$7.53	\$8.13
Drought Stage 3	\$2.48	\$4.02	\$5.72	\$6.58	\$7.57	\$8.70	\$9.40
Drought Stage 4	\$2.48	\$4.47	\$6.75	\$7.77	\$8.93	\$10.27	\$11.10
<b>Municipal</b>							
Drought Stage 1	\$2.48	\$3.35	\$5.54	\$6.37	\$7.32	\$8.42	\$9.10
Drought Stage 2	\$2.48	\$3.75	\$6.31	\$7.25	\$8.34	\$9.59	\$10.36
Drought Stage 3	\$2.48	\$4.02	\$7.29	\$8.38	\$9.64	\$11.09	\$11.98
Drought Stage 4	\$2.48	\$4.47	\$8.61	\$9.90	\$11.38	\$13.09	\$14.13

## SECTION 3. SEWER AND RECYCLED WATER RATE STUDY

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### A. KEY SEWER AND RECYCLED WATER RATE STUDY ISSUES

Some of the specific objectives addressed in the sewer rate analysis included:

- Generating additional revenue needed to meet projected funding requirements.
- Updating the volumetric-based charge for residential customers that maintains the average winter water use basis. This is more equitable than a 100-percent flat rate because it reflects the differences in effluent generation and therefore better aligns with the cost of service.
- Updating the volumetric rate for commercial customers that relies on average winter water use for improving equity, as explained below there have been significant changes in consumption data and the cost-basis for commercial customers that NBS believes is better represented by winter water use.
- Updating recycled water rates for the one customer within the District, which is the Golf Course.

As with the water rates, the proposed sewer rates were developed based on industry standards and cost-of-service principles, and reflect input from District staff and the District Board. However, it is ultimately the District Board that decides whether to adopt and implement these recommended rates.

The proposed rate structure for residential customers continues to include a fixed monthly charge per housing equivalent unit (HEU) plus a volumetric rate based on their average winter water consumption. This volumetric charge is used to set the volumetric charge each month for the subsequent 12 months and, in this respect, acts like a fixed charge except it varies based on each customer's winter consumption. The rate structure for commercial customers is similar, with a fixed monthly charge per HEU plus a volumetric rate based on *average monthly* water consumption (not average winter use).

The updated rates were set based on the net revenue requirements, number of customer accounts and housing equivalent units, water consumption, and the estimated volume and strength of the effluent. The following are the basic components of this analysis:

- **Customer classes:** Customer classes are typically determined by grouping customers with similar flow and strength characteristics in order to reflect the cost differences in serving each type of customer. The District's existing customer classes have been retained in the proposed rates developed:
  - **Residential** – Consists of single- and multi-family residential customers<sup>5</sup>; multi-family accounts are assessed fixed charges based on the number of housing equivalent units (HEUs), with a single-family account representing one HEU<sup>6</sup>.
  - **Commercial** – Includes all commercial and industrial users, who are assigned HEUs based on their effluent characteristics (e.g., there are 15 accounts and 35 HEUs in commercial).
  - **Recycled Water** – The District has only one recycled water meter, which is at the golf course. The recycled water rate represents the additional treatment costs of recycled water, which should not be paid by sewer customers.

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<sup>5</sup> The District's one municipal customer (the fire department) was included in residential because its consumption and strength characteristics are better represented in residential than in commercial.

<sup>6</sup> An HEU is the typical (average) winter water use of SFR. It's applied to all SFR, and doesn't vary with number of bedrooms. For example, 3-5 people in a home aren't assumed to generate more or less effluent (on average) if they are in a 2- vs. 5- bedroom home. Commercial HEUs are estimates of how they compare to SFR effluent.

- **Cost Allocation Factors:** For the purpose of allocating costs to customer classes, the sewer revenue requirements were “functionalized” into five categories:
  1. Flow (volume) related costs
  2. Strength costs related to biochemical oxygen demand (BOD)
  3. Strength costs related to total suspended solids (TSS)
  4. Customer service related costs, and
  5. Recycled water related costs.

These cost allocation factors represent varying levels of the cost of service. For example, effluent with higher levels of BOD and TSS is costlier to treat and, therefore, should be allocated a greater proportion of treatment costs. Details documenting these cost allocations are shown in Appendix B.

- **Determining Revenue Requirements by Customer Class:** Based on these cost allocation factors, revenue requirements were allocated to each customer class. For example, customer costs are allocated based on number of accounts and billable units, flow-related costs are allocated based on the estimated effluent generated by each class, and strength-related costs are allocated based on estimated strength of wastewater discharged by each customer class. Once the revenue requirement for each customer class is determined, collecting these revenue requirements from each customer class is reflected in the rate design.
- **Rate Design:** The revenue requirements collected from residential customers were based on the number of housing equivalent units and, for residential customers, the average winter water consumption. Average winter water use is the best means of estimating potential flow to the wastewater treatment plant because outdoor irrigation is typically at its lowest during the winter months. Revenue requirements recovered from commercial and industrial customers through fixed charges are based on the number of HEUs; their monthly water consumption is applied to monthly water use. This is because the amount of wastewater discharged by commercial users is generally assumed to be better correlated to their monthly vs. average winter water use.

## B. SEWER UTILITY REVENUE REQUIREMENTS

Rate increases are governed by the need to meet the operating and capital costs, debt service payments and reserves included in the revenue requirements. The District’s sewer utility is summarized as follows:

**Capital Improvement Costs:** As with the water utility, sewer capital projects are a major driver of the projected annual costs. The planned capital improvement costs for FY 2019/20 through FY 2024/25 shown in **Figure 14** total more than \$2.3 million, and are shown in current year dollars. Future inflation of 3% is assumed for actual funding requirements.

**Figure 14. Summary of Sewer Capital Project Costs**

Project Description	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
CS Line Replacement - I&I (HVLCS Priority #2)	\$ 160,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
RAINS 2019 (HVLCS Priority #5) <sup>1</sup>	\$ -	\$ 550,001	\$ 550,001	\$ -	\$ -	\$ -
Backhoe	\$ -	\$ 60,000	\$ -	\$ -	\$ -	\$ -
Chlorine Tank Auto Shut Off	\$ 32,000	\$ -	\$ -	\$ -	\$ -	\$ -
Aquatic Harvesting	\$ 35,000	\$ 34,000	\$ 34,000	\$ 34,000	\$ 34,000	\$ 34,000
Admin vehicle	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Construction Truck <sup>2</sup>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Vacc Truck	\$ 201,000	\$ -	\$ -	\$ -	\$ -	\$ -
Dump Truck <sup>2</sup>	\$ -	\$ 75,000	\$ -	\$ -	\$ -	\$ -
IT Upgrades <sup>2</sup>	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
Manhole Rehab	\$ -	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
Preliminary Design - Chlorine Disinfection Facility	\$ 45,000	\$ -	\$ -	\$ -	\$ -	\$ -
SCADA Replacement <sup>2</sup>	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000
Tideflex - Stormwater <sup>3</sup>	\$ -	\$ 131,600	\$ 131,600	\$ 131,600	\$ 131,600	\$ 131,600
<b>Total: CIP Program Costs* (Current-Year Dollars)</b>	<b>\$508,000</b>	<b>\$904,001</b>	<b>\$769,001</b>	<b>\$219,000</b>	<b>\$219,000</b>	<b>\$219,000</b>

\* Total does not include Tideflex project costs.

1. Per District staff (call of 4/11/19), \$300k was spent in '19/20 and the remaining \$1.1 million must be spent over the following 2 years.

2. Full CIP costs split between water and sewer funds. This is the amount allocated to sewer fund.

3. This project will not be funded unless Grant/SRF Funds are available and, therefore, is not included in the total costs.

**Meeting Net Revenue Requirements:** The District’s sewer utility is currently running a small structural deficit that is likely to increase to over \$870,000 per year with no rate increases. The proposed rate increases would stabilize this deficit over the next five years. Projected net revenue requirements (i.e., total annual expenses less non-rate revenue) increase by approximately 45% in Fiscal Years 2020/21 through 2024/25 from about \$1.5 million to \$2.2 million.

**Building and Maintaining Reserve Funds:** The District should maintain sufficient reserves for the Utility. NBS recommends that the District adopt and maintain the following reserve fund targets:

- ✓ **Operating Reserve** equal to 25% of the Utility’s budgeted annual operating expenses. This reserve target is equal to a three-month (or 90-day) cash cushion for normal operations. An Operating Reserve is intended to promote financial viability in the event of any short-term fluctuation in revenues and/or expenditures.
- ✓ **Capital Facilities Reserve** equal to a minimum of 3% of net depreciable capital assets (or approximately \$100,000 based on a total system asset value of approximately \$3.4 million). This reserve provides for capital repair and replacement needs.
- ✓ **Debt Reserve** equal to the reserve requirements for the existing and planned debt, which is approximately \$160,000 annually after the new revenue bonds are issued.

**Figures 15 and 16** summarize the sources and uses of funds, including net revenue requirements, and the recommended annual percent increases in total rate revenue for the next five years. This figure shows the small deficit in FY 2019/20 and, without rate increases, grows to over \$870,000 by FY 2024/25. With rate increases, the deficit turns into small net surpluses over the next five years.

**Figure 15. Summary of Sewer Revenue Requirements**

Summary of Sources and Uses of Funds and Net Revenue Requirements	Adopted		Projected			
	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
<b>Sources of Sewer Funds</b>						
Rate Revenue Under Current Rates - Sewer	\$ 1,201,016	\$ 1,204,019	\$ 1,207,029	\$ 1,210,046	\$ 1,213,071	\$ 1,216,104
Rate Revenue Under Current Rates - RW	110,000	110,000	110,000	110,000	110,000	110,000
Non-Rate Revenues	27,200	42,506	42,612	42,719	42,826	42,933
Interest Earnings	1,500	-	-	-	-	-
<b>Total Sources of Funds</b>	<b>\$ 1,339,716</b>	<b>\$ 1,356,525</b>	<b>\$ 1,359,641</b>	<b>\$ 1,362,765</b>	<b>\$ 1,365,897</b>	<b>\$ 1,369,037</b>
<b>Uses of Sewer Funds</b>						
Operating Expenses	\$ 1,502,741	\$ 1,486,100	\$ 1,533,579	\$ 1,582,639	\$ 1,632,819	\$ 1,683,602
Existing Debt Service	32,258	32,255	32,238	32,205	32,158	32,095
New Debt Service	-	-	121,065	124,931	128,913	128,913
Rate Funded Capital Expenses	-	38,298	190,308	146,486	256,441	396,933
<b>Total Use of Funds</b>	<b>\$ 1,534,998</b>	<b>\$ 1,556,653</b>	<b>\$ 1,877,190</b>	<b>\$ 1,886,262</b>	<b>\$ 2,050,331</b>	<b>\$ 2,241,542</b>
<b>Surplus (Deficiency) before Rate Increase</b>	<b>\$ (195,282)</b>	<b>\$ (200,129)</b>	<b>\$ (517,549)</b>	<b>\$ (523,497)</b>	<b>\$ (684,434)</b>	<b>\$ (872,505)</b>
Additional Revenue from Rate Increases (Sewer) <sup>1</sup>	174,027	323,310	455,381	598,589	753,853	922,171
Additional Revenue from Rate Increases (Recycled) <sup>2</sup>	-	11,000	20,680	31,134	42,425	54,619
<b>Surplus (Deficiency) after Rate Increase</b>	<b>\$ (21,255)</b>	<b>\$ 134,182</b>	<b>\$ (41,488)</b>	<b>\$ 106,226</b>	<b>\$ 111,845</b>	<b>\$ 104,285</b>
<b>Projected Annual Rate Revenue Adjustment - Sewer<sup>1</sup></b>	<b>7.00%</b>	<b>10.00%</b>	<b>8.00%</b>	<b>8.00%</b>	<b>8.00%</b>	<b>8.00%</b>
<b>Projected Annual Rate Revenue Increase - RW<sup>2</sup></b>	<b>0.00%</b>	<b>10.00%</b>	<b>8.00%</b>	<b>8.00%</b>	<b>8.00%</b>	<b>8.00%</b>
<b>Net Revenue Requirement<sup>3</sup></b>	<b>\$ 1,506,298</b>	<b>\$ 1,514,147</b>	<b>\$ 1,834,578</b>	<b>\$ 1,843,543</b>	<b>\$ 2,007,505</b>	<b>\$ 2,198,609</b>

- The FY 2019/20 rate increase is assumed to be implemented on July 1, 2019, and future increases are also implemented July 1 each year.
- The FY 2019/20 rate increase is assumed to not be implemented on July 1, 2019, but future potable increases are implemented on recycled water July 1 each year.
- Total Use of Funds less non-rate revenues and interest earnings. This is the annual amount needed from rates.

**Figure 16. Sewer Revenue Requirements through FY 2024/25**

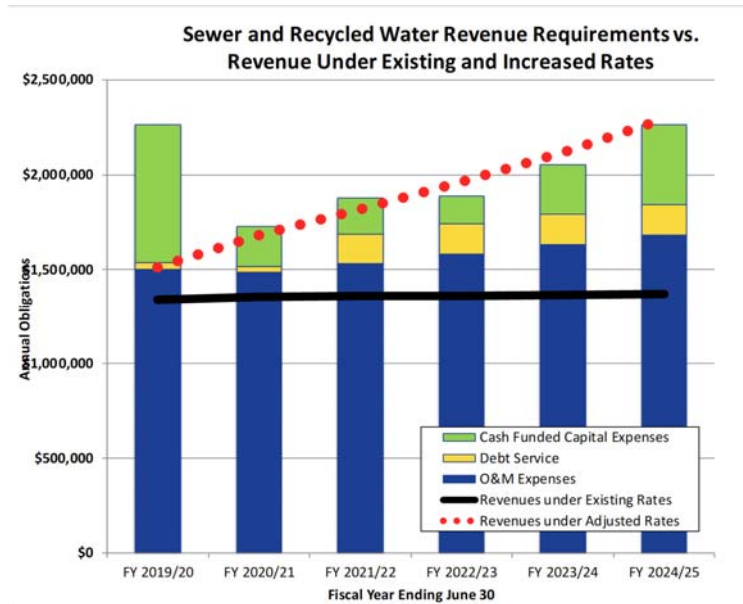


Figure 17 summarizes the projected reserve fund balances and reserve targets, for the next five years. Figure 18 indicates that, assuming the proposed rate increases are adopted, the District's initial small

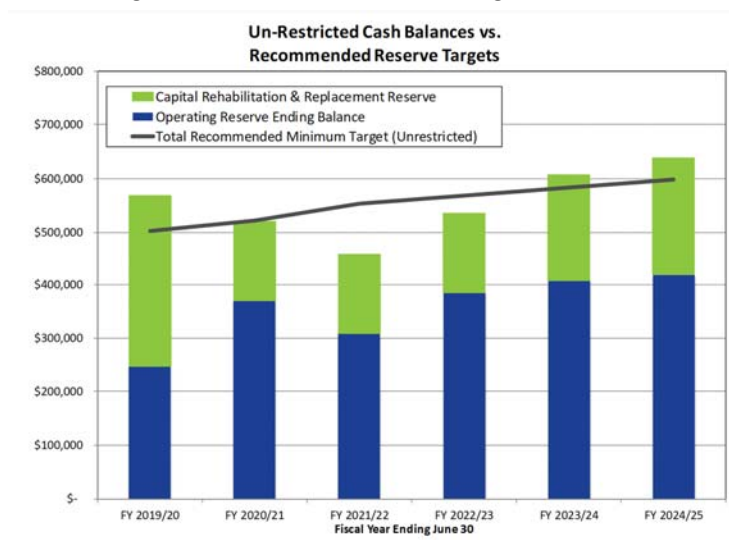


surplus of reserves will be drawn down over the next two years, but will then rebound to meet the target reserve fund the last two years.

**Figure 17. Summary of Sewer Reserve Funds**

Beginning Reserve Fund Balances and Recommended Reserve Targets	Adopted		Projected			
	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
<b>Operating Reserve</b>						
Ending Balance	\$ 247,337	\$ 370,760	\$ 308,915	\$ 385,924	\$ 408,000	\$ 421,000
<i>Recommended Minimum Target</i>	<i>376,000</i>	<i>372,000</i>	<i>383,000</i>	<i>396,000</i>	<i>408,000</i>	<i>421,000</i>
<b>Capital Rehabilitation &amp; Replacement Reserve</b>						
Ending Balance	\$ 320,756	\$ 150,000	\$ 150,000	\$ 150,000	\$ 199,702	\$ 217,487
<i>Recommended Minimum Target</i>	<i>126,000</i>	<i>150,000</i>	<i>170,000</i>	<i>173,000</i>	<i>175,000</i>	<i>178,000</i>
<b>Debt Reserve</b>						
Ending Balance	\$ 32,310	\$ 32,310	\$ 153,375	\$ 157,241	\$ 161,223	\$ 161,223
<i>Recommended Minimum Target</i>	<i>32,310</i>	<i>32,310</i>	<i>153,375</i>	<i>157,241</i>	<i>161,223</i>	<i>161,223</i>
<b>Total Ending Balance</b>	<b>\$ 600,402</b>	<b>\$ 553,070</b>	<b>\$ 612,291</b>	<b>\$ 693,165</b>	<b>\$ 768,925</b>	<b>\$ 799,710</b>
<b>Total Recommended Minimum Target</b>	<b>\$ 534,310</b>	<b>\$ 554,310</b>	<b>\$ 706,375</b>	<b>\$ 726,241</b>	<b>\$ 744,223</b>	<b>\$ 760,223</b>
<b>Total Recommended Minimum Target (Unrestricted)</b>	<b>\$ 502,000</b>	<b>\$ 522,000</b>	<b>\$ 553,000</b>	<b>\$ 569,000</b>	<b>\$ 583,000</b>	<b>\$ 599,000</b>

**Figure 18. Sewer Reserve Funds Through FY 2024/25**



A summary of the sewer utility’s proposed 5-year financial plan is included in Appendix B – Sewer Rate Study Summary Tables. These tables include revenue requirements, reserve funds, revenue source and proposed rate increases for the 5-year period.

**C. SEWER CUSTOMER CHARACTERISTICS**

The five factors used in allocating costs as a part of the sewer cost-of-service analysis are effluent (flow), BOD, TSS, customer costs, and recycled water costs. Water consumption data from January 2017 through December 2017 was used to estimate the flows to the District’s wastewater treatment plant, and District

staff believe this data is representative of future conditions. Residential bills reflect average winter consumption because it is correlated to the amount of residential effluent going to the treatment plant.

For residential customers, the average winter water consumption used to calculate their bills is assumed to include four billing periods; December 2016 - March 2017 were considered the “winter” months because consumption is lowest in these months. Based on water consumption records summarized in **Figure 19** residential customers account for approximately 95.6% of effluent at the plant (i.e., single-family = 93% and multi-family = 2.6%). Commercial customers account for the remaining 4.4% of the flow. Effluent strength factors for individual customer classes<sup>7</sup> are shown in **Figure 20** and described below.

**Figure 19. Summary of Estimated Flow to Treatment Plant**

Development of the FLOW Allocation Factor						
Customer Class	Number of HEUs <sup>1</sup>	Annual Volume (hcf)	Average Winter Monthly Consumption <sup>2</sup> (hcf)	Annual Winter Average Based Volume (hcf)	Adjusted Annual Volume (hcf)	Percentage of Adjusted Volume
Single Family Residential <sup>3</sup>	1,445	150,324	7,348	88,171	124,640	93.1%
Multi-Family Residential	54	3,615	201	2,417	3,416	2.6%
Commercial	35	10,224	347	4,158	5,878	4.4%
<b>Total<sup>4</sup></b>	<b>1,534</b>	<b>164,163</b>	<b>7,895</b>	<b>94,745</b>	<b>133,934</b>	<b>100.0%</b>
					133,934	Flow (hcf/yr.)
					1.41	Flow Adj. Factor

1. Consumption and Meters from source files: *NBS 2018 - #17\_Manipulated Sewer Billing Data.xlsx* (data combined and summarized in pivot tables).  
Note: The adjusted annual flow per HEU for commercial customers is approximately twice that of SFR. In this sense, these are not truly "HEUs".
2. Includes months of December 2016 through March 2017.
3. Includes the one Municipal account (fire department) which has the same consumption as residential.
4. Recycled Water excluded from flow allocation factor. One customer only in the District, volumetric rate only.

**Figure 20. Summary of Annual Flow and Strength Characteristics by Customer Class**

Development of the STRENGTH Allocation Factor									
Customer Class	Adjusted Annual Flow (hcf)	Biochemical Oxygen Demand (BOD)				Total Suspended Solids (TSS)			
		Average Strength Factor (mg/l) <sup>2</sup>	Calculated BOD (lbs./yr.)	Adjusted BOD (lbs./yr.)	Percent of Total	Average Strength Factor (mg/l) <sup>2</sup>	Calculated TSS (lbs./yr.)	Adjusted TSS (lbs./yr.)	Percent of Total
Single Family Residential	124,640	200	155,509	181,546	93.1%	180	139,958	150,410	93.1%
Multi Family Residential	3,416	200	4,262	4,976	2.6%	180	3,836	4,123	2.6%
Commercial <sup>1</sup>	5,878	200	7,334	8,562	4.4%	180	6,601	7,094	4.4%
<b>Total</b>	<b>133,934</b>		<b>167,105</b>	<b>195,084</b>	<b>100%</b>		<b>150,395</b>	<b>161,627</b>	<b>100%</b>
<i>Target, from WWTP Data</i>			<i>195,084 BOD (lbs./yr.)</i>			<i>161,627 TSS (lbs./yr.)</i>			
			<i>1.17 BOD Adj. Factor</i>			<i>1.07 TSS Adj. Factor</i>			

1. Commercial was previously billed on monthly water use, now if billed on average winter; as a result it is more typical of indoor/residential strengths.
2. Typical strength factors for BOD and TSS are derived from the State Water Resources Control Board Revenue Program Guidelines, Appendix G.

- **Residential** customers, including single-family, multi-family and municipal, have BOD and TSS strength factors of 200 mg/l, which is within the normal range for residential users.
- **Commercial** customers can have individual strength factors that are higher or lower than residential, depending on the particular type of commercial uses. In the District’s case, NBS and the District believe that commercial effluent is, on average, consistent with residential strengths. Therefore, strength factors assigned to commercial class customers are the same as residential customers.

<sup>7</sup> Strength factors for each customer class were derived from the State Water Resources Control Board Revenue Program Guidelines, Appendix G, page G-21 “Commercial User Strength Characteristics.”

**Figure 21** compares the total number of accounts and billing units (depending on how customers are billed) by customer class. **Figure 22** then summarizes the total rate revenue requirements by customer class resulting from the cost-of-service cost allocation components previously shown in Figures 19 and 20 (Flow and Strength Characteristics), and Figure 21 (Customer Costs).

**Figure 21. Number of Accounts and Billing Units by Customer Class**

Development of the CUSTOMER Allocation Factor					
Customer Class	Number of Accounts <sup>4</sup>	Percentage of Accounts	Number of HEUs <sup>4</sup>	Percentage of Assigned HEUs	Average HEUs per Account
Single Family Residential	1,445	97.1%	1,445	94.2%	1.00
Multi-Family Residential	27	1.8%	54	3.5%	2.00
Commercial & Industrial	15	1.0%	35	2.3%	2.30
Recycled Irrigation <sup>2</sup>	1	0.1%	0	0.0%	0.00
<b>Total<sup>2</sup></b>	<b>1,488</b>	<b>100.0%</b>	<b>1,534</b>	<b>100.0%</b>	<b>1.03</b>

1. Consumption and Meters from source files: NBS 2018 - #17\_Manipulated Sewer Billing Data.xlsx

2. Recycled Water excluded from customer allocation factor. One customer only in the District, volumetric rate only.

**Figure 22. Summary of Rate Revenue Requirements by Customer Class**

Allocation of FY 2020/21 Revenue Requirements by Customer Class							
Customer Class	Volume	Cost Classification Components				Cost-of-Service Net Revenue Req't.	% of COS Net Revenue Req't.
		Treatment		Customer Related	Recycled Water		
		BOD	TSS				
<b>Net Revenue Requirements<sup>1</sup></b>	<b>\$ 654,698</b>	<b>\$ 330,445</b>	<b>\$ 330,445</b>	<b>\$ 172,017</b>	<b>\$ 149,724</b>	<b>\$ 1,637,329</b>	<b>--</b>
	40.0%	20.2%	20.2%	10.5%	9.1%	100.0%	
Single-, Multi-Family & Municipal	\$ 625,964	\$315,942	\$315,942	\$170,167	\$ -	\$1,428,015	87.2%
Commercial	28,734	14,503	14,503	1,734	-	59,475	3.6%
Recycled Irrigation	-	-	-	116	149,724	149,839	9.2%
<b>Total</b>	<b>\$ 654,698</b>	<b>\$ 330,445</b>	<b>\$ 330,445</b>	<b>\$ 172,017</b>	<b>\$ 149,724</b>	<b>\$1,637,329</b>	<b>100%</b>

1. Revenue requirement for each customer class is determined by multiplying the revenue requirement from each cost classification by the allocation factors for each customer class.

#### D. CURRENT VS. PROPOSED SEWER RATES

Currently, all customers pay the same fixed monthly charge based on their number of household equivalent units (HEUs). Both residential and commercial customers also pay a volumetric monthly rate, but the uniform volumetric rate for residential customers is applied to average winter water use, while commercial customers pay a slightly higher volumetric rate that is applied to monthly water use.

**Changes in Residential vs. Commercial Sewer Rates** – The proposed rates retain the same customer classes, which combine single- and multi-family residential customers<sup>8</sup>, and combine commercial with industrial customers. However, as previously noted, water consumption for commercial customers is now significantly higher than previously thought due to meter misreads that have now been corrected. That new consumption data has increased the costs allocated to commercial customers and, as a result, NBS is recommending realigning commercial fixed and volumetric rates to account for these higher costs as follows: (1) since fixed charges for commercial costs are allocated on the basis of HEUs, they should be the same as residential customer, and (2) the volumetric rate for commercial was set to recover all remaining costs not collected through the fixed charges; this increased the commercial volumetric rate.

<sup>8</sup> And the one municipal customer (the fire department).

In other words, higher fixed costs are partially collected from commercial as they are assigned, on average, more HEUs per account, as well as through higher volumetric charges.

Figure 23 shows current and proposed sewer rates for FY 2018/19 through FY 2022/23. Regarding the “% Increase in Annual Rate Revenue” shown in Figure 23, these are the percent increases in total rate revenue that are not applied in an across-the-board manner to fixed and volumetric charges in the first year (i.e., the test year) due to cost-of-service calculations. However, after the test year, they are applied as a straight percentage to both fixed and volumetric charges. Figure 24 compares the average monthly sewer bills for residential customers under current and proposed rates. Figure 25 compares commercial bills under current vs. proposed rates. Figure 26 provides a comparison of monthly sewer bills for other communities in the region.

Figure 23. Current vs. Proposed Sewer Rates

Sewer Rate Schedule	Current Rates ('18/19)	Adopted Rates ('19/20)	Proposed Sewer Rates				
			FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
% Increase in Annual Rate Revenue:							
			10.00%	8.00%	8.00%	8.00%	8.00%
<b>Fixed Service Charge per HEU</b>							
Residential & Municipal	\$49.02	\$51.96	\$61.92	\$66.88	\$72.23	\$78.00	\$84.24
Commercial	\$49.02	\$51.96	\$61.92	\$66.88	\$72.23	\$78.00	\$84.24
<b>Volumetric Charge (\$/hcf)</b>							
Residential & Municipal (Applied to Average Winter Water Use)	\$2.60	\$2.76	\$3.47	\$3.75	\$4.05	\$4.37	\$4.72
Commercial (Applied to Average Winter Water Use) <sup>2</sup>	\$2.83	\$3.00	\$3.31	\$3.57	\$3.86	\$4.17	\$4.50

1. Sewer customers are charged on the basis of their number of assigned Housing Equivalent Units (HEUs).
2. Proposed commercial volumetric charges, currently use average winter water use, but now use average monthly water use.

Sewer Rate Schedule	Current Rates ('18/19)
% Increase in Annual Rate Revenue:	
<b>Fixed Service Charge per HEU</b>	
Residential & Municipal	\$49.02
Commercial	\$49.02
<b>Volumetric Charge (\$/hcf)</b>	
Residential & Municipal (Applied to Average Winter Water Use)	\$2.60
Commercial (Applied to Average Winter Water Use) <sup>2</sup>	\$2.83

1. Sewer customers are charged on the basis of their r
2. Proposed commercial volumetric charges, currently

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Figure 24. Residential Sewer Bill Comparison – Current vs. Proposed Rates

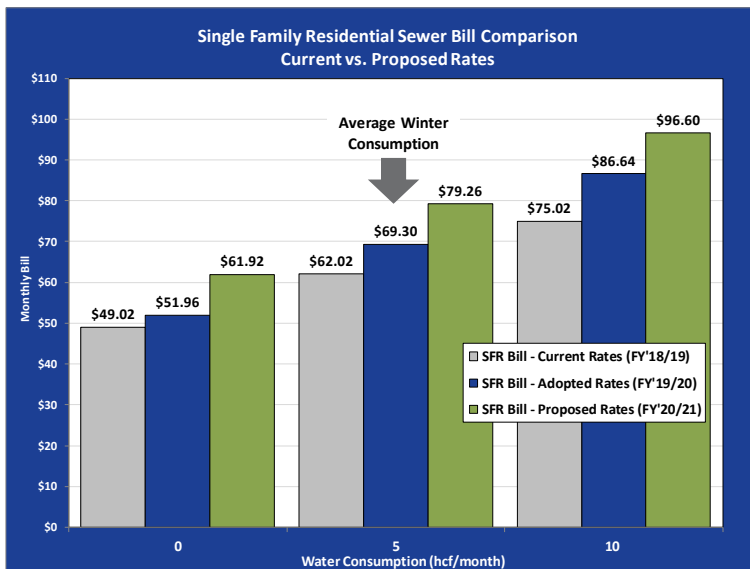
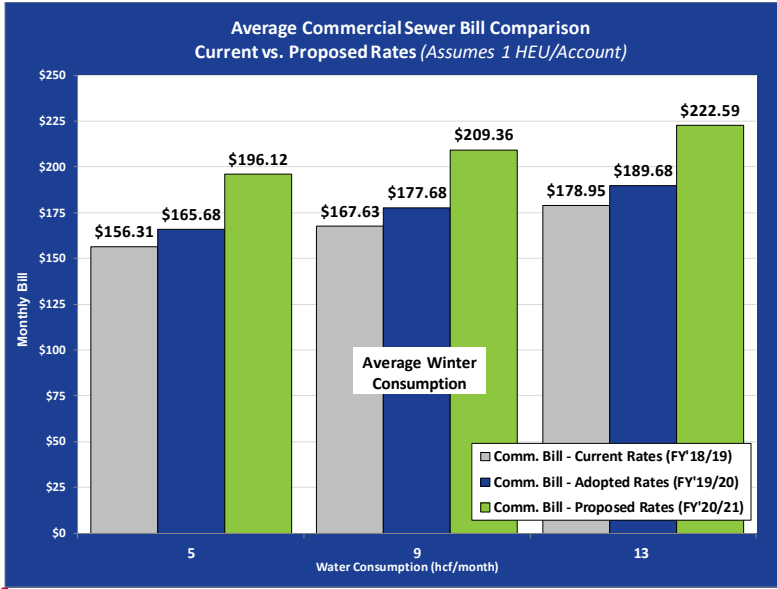
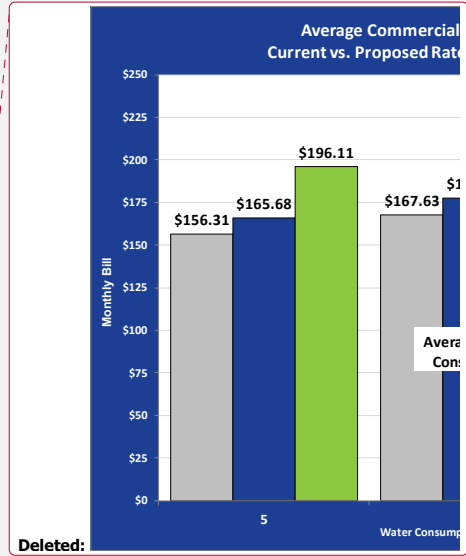


Figure 25. Commercial Sewer Bill Comparison – Current vs. Proposed Rates

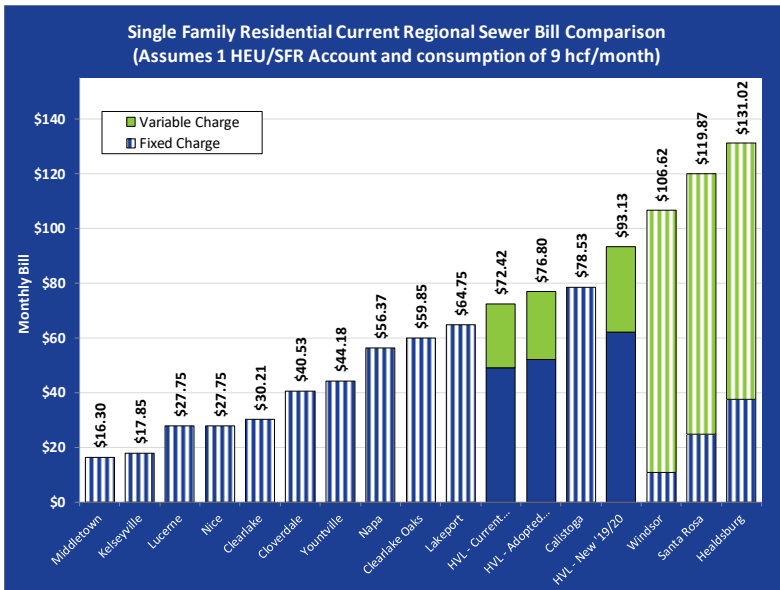


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Figure 26. Regional Sewer Bill Comparison – Single Family Residential



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**E. CURRENT VS. PROPOSED RECYCLED WATER RATES.**

The District has maintained one recycled water customer and has not evaluated the rate structure since its inception. The current rate is \$291.64 per acre foot. NBS considered the sewer utility’s annual expenses and how those expenses might be allocated to the recycled water customer. The District’s one recycled water customer, the golf course, is owned by the homeowner’s association, who are to a large extent the same properties receiving water and sewer service provided by the District.

**Basis for Setting Recycled Water Rate** – There is no established industry standard for setting recycled water rates, and many agencies arbitrarily set rates at some percent below potable volumetric rates. There is also no clear allocation of benefits accruing from a recycled water program: Are there benefits to using recycled water instead of discharging effluent from the treatment plant? Do the lower water quality standards for recycled water make it less valuable than potable water? Do the additional constituents in recycled water translate into higher costs for recycled water irrigation systems? The answers to these questions are generally “yes”.

Whether there is an issue of allocating recycled water costs to individuals within the homeowner’s association, such as golfers vs. non-golfers, is an issue that would be more appropriately addressed by the homeowner’s association rather than the District.<sup>9</sup>

**Proposed Recycled Water Rate** – In view of these factors, the current recycled water rate is, in NBS’ opinion, a reasonable and fair rate. However, we did calculate an updated rate using the annual recycled water consumption and a reasonable allocation of the sewer annual revenue requirements, which have increased for a number of reasons. A recommended volumetric rate is \$341.04 per acre foot. **Figure 27** Summarizes the calculation of the recycled water charge. Recycled water rates should be adjusted annual by the same adjustments as sewer rates, as shown in **Figure 28**.

**Figure 27. Calculation of Recycled Water Rate**

Customer Class	Total Annual RW Use <sup>1</sup>	Annual Rev. Req’t			Monthly Fixed Charge	Volumetric Charge
		Total	Fixed	Volumetric		
Recycled Irrigation (hcf)	191,386	\$149,839	\$0	\$149,839	\$0.00	\$0.78/hcf
Recycled Irrigation (Acre Ft)	439					\$341.04/AF

1. Actual 2017 consumption

**Figure 28. Proposed Recycled Water Rate**

Recycled Water Rate Schedule	Current Rates ('18/19)	Adopted Rates ('19/20)	Proposed Recycled Water Rates				
			FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
% Increase in Annual Rate Revenue:			10.00%	8.00%	8.00%	8.00%	8.00%
<b>Fixed Service Charge per HEU</b>							
Recycled Irrigation (hcf)	\$291.64	\$291.64	\$341.04	\$368.32	\$397.79	\$429.61	\$463.98

<sup>9</sup> For example, recycled water costs could be incorporated into green fees and/or other charges paid by golfers.

## SECTION 4. RECOMMENDATIONS AND NEXT STEPS

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### CONSULTANT RECOMMENDATIONS

A number of factors have impacted the District's water and sewer rates in the last several years. The drought and its mandated conservation efforts, the corresponding lower water sales, and the correction of some commercial water reading problems have been notable. However, the greatest impact is from issuing new revenue bonds to cover the cost of planned capital improvements, which had previously been assumed to be funded from grants and low-interest loans. In light of these factors, NBS has reevaluated water, sewer and recycled water rates and made adjustments that, in our opinion, best represent the overall rate objectives of the District in a fair, equitable, and defensible manner. However, the District Board will need to make some tough decisions about the tradeoff between higher rates and funding capital projects.

***“The District Board will need to make tough decisions about the tradeoff between higher rates and funding capital projects.”***

The following are NBS' recommendations for the District's consideration:

- **Approve and Accept This Study Report:** NBS recommends the District Board formally approve and adopt this report, its recommendations, and accompanying appendices as documentation of the rate study analyses and the basis for recommended rates. Whether the significantly higher proposed rates required to fund the planned capital improvements are acceptable to the Board and community is a decision only the District Board can make.
- **Complete a Review by a Qualified Attorney:** This rate study outlines proposed new rates. Because NBS are not attorneys, we do not provide legal opinions and, therefore, must defer to the review by legal counsel with respect to compliance with Proposition 218 and related State laws, as well as legal assistance developing acceptable language for new resolutions to implement these rates.
- **Implement Recommended Levels of Rate Increases and Proposed Rates:** Based on the analysis presented in this report, the District Board should implement the proposed rates recommended in this report (see Figures 9, 13, 23, and 28) for the next five years. These rate adjustments are structured based on industry standards and are necessary to ensure the following objectives are met:
  - Water rates that promote water conservation and reflect the cost of providing water service to each customer class.
  - Drought rates that offer revenue stability during the District's four drought stages.
  - Sewer rates that more appropriately reflect the cost of providing sewer service to each customer class; in particular, commercial fixed charges based on better consumption data to improve equity between customers in the sewer utility.
  - Maintaining the financial health of the District's water and sewer utilities.
  - Recycled water rates that can reasonably be considered fair and equitable to both the golf course and the District.
- **Adopt Reserve Fund Targets:** NBS recommends the District Board adopt the proposed reserve fund targets described in Sections 2 and 3 of this report for the water and sewer utilities. The District should periodically evaluate reserve fund levels and make it a long-term goal to achieve and maintain these levels for the Operating, Capital, and Debt Reserves.

## 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 factors, water consumption patterns, new regulatory mandates, and unplanned capital improvements all underscore the need for this annual review.

**Update Capital Funding Plans** – This analysis identifies the rates needed to meet projected O&M and capital costs, but the District will need to carefully consider the timing and amount of funding from new revenue bonds. This should be provided by an experienced financial advisor and underwriter.

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

## PRINCIPAL ASSUMPTIONS AND CONSIDERATIONS

In preparing this report and the recommendations included herein, NBS has relied on a number of principal assumptions and considerations with regard to financial matters, number of customer accounts, billing records, and other conditions and events that may occur in the future. This information and assumptions, including the District's budgets and customer account information provided by District staff, are sources we believe to be reliable, although NBS has not independently verified this data.

We are also assuming that future water consumption levels, which District staff believe are representative of future conditions, are accurate, and that funding from grants and low-interest loans is largely unavailable or will not be secured in time to construct urgently needed capital projects. We also assume that the District will consider reducing future rate increases if such funding becomes available.

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 or 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 A – WATER RATE ANALYSIS

## APPENDIX B – SEWER RATE ANALYSIS