



# Browns Valley Irrigation District

## Water Rate Study

March 2017



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## TABLE OF CONTENTS

SECTION 1:	Report Summary .....	1
SECTION 2:	Financial Plan .....	3
SECTION 3:	Cost of Service Calculation.....	11
SECTION 4:	Proposition 218 Requirements .....	12
SECTION 5:	Conclusion.....	13

## SECTION 1: Report Summary

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Browns Valley Irrigation District (“BVID”) encompasses 55,000 acres 50 miles north of Sacramento. The District provides water service to 1,347 customers and sells approximately 3,200 units (10 gallons per minute of flow), and approximately 16,600 acre feet of water per season via 200 miles of open ditch and 70 miles of pipeline.

BVID has not operated with a balanced budget in over a decade and water rates cover about 60% of operating expenses, with the remainder subsidized by non-rate sources of revenue. While revenue from Conserved Water Transfers and power production will continue to generate a portion of District revenue, the future of all subsidizing revenues are increasingly uncertain for the following reasons:

- The ability to transfer water due to hydrology and limited capacity at the Delta (and the District’s EIR for the Conserved Water Transfer is only valid until 2025, beyond that there is no guarantee);
- The variability of market values per acre foot for the Conserved Water Transfer;
- Low wholesale power prices and the impact of mainstream solar integration and emerging battery technologies that may further reduce the demand for hydropower;
- Costs associated with YCWA’s power production and the impact to the District’s Power Enhancement Agreement;
- Uncertainty surrounding the FERC PMF Study and any subsequent spillway retrofits;
- Aging infrastructure and the increasing cost of materials to repair and replace;
- Increasing cost of maintenance for equipment and vehicles;
- Increasing cost of electricity to run the shop, office and District pumps;
- The increasing costs of professional services including legal counsel and water rights professionals who defend the District’s interests in an increasingly confrontational environment;
- The increasing regulations to comply with environmental standards including permits and mitigation, especially along the Yuba River.

The inability to transfer water through the delta may result in tremendous short term water rate increases by eliminating an estimated \$840,000 per year in revenue—more than is generated by the District’s water rates (estimated to be \$794,541).

Therefore, the District is proposing gradual increases to water service charges. The District provides water service during the irrigation season (approximately 6 months from mid-spring to mid-autumn). District noticed water rates are shown in **Figure 1**; costs except the Unit and Acre Foot charge are applied once per season to each account.

Current and proposed maximum seasonal water service charges:

Figure 1 – Proposition 218 Noticed Water Rates

<u>Annual Rates</u>	<u>Current</u>	<u>Projected Annual Rates (5 Years)</u>				
	2016	2017	2018	2019	2020	2021
<b><u>IN DISTRICT CUSTOMERS</u></b>						
Annual Administrative Charge	\$168.50	\$250.00	\$300.00	\$350.00	\$400.00	\$450.00
Per Unit (10 GPM*)	\$91.90	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00
Per Acre Foot	\$16.20	\$18.00	\$18.50	\$19.00	\$19.00	\$19.00
Redhill East Infrastructure Charge ( <i>Redhill Customers Only</i> )	\$117.50	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00
<b><u>OUT OF DISTRICT CUSTOMERS</u></b>						
Annual Administrative Charge	\$168.50	\$250.00	\$300.00	\$350.00	\$400.00	\$450.00
Per Unit (10 GPM*)	\$198.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00
Per Acre Foot	\$22.20	\$23.00	\$23.50	\$24.00	\$24.50	\$25.00

\*GPM = Gallons per Minute

To approve the increased water rates, the District is required to follow the Proposition 218 process including: notifying all parcel owners of the date and time of a public hearing considering proposed rates and holding a public hearing. A detailed list of rate requirements under Proposition 218 is listed on **pg. 12** of this report.

## SECTION 2: Financial Plan

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**Table 1** shows the District’s current rates. All charges except for the Water Charge are applied once per season per each account. The Water Charge is based on a flow rate of 10 gallons per minute (gpm). Demand sales are calculated per acre foot (af) of water purchased.

**Table 1**

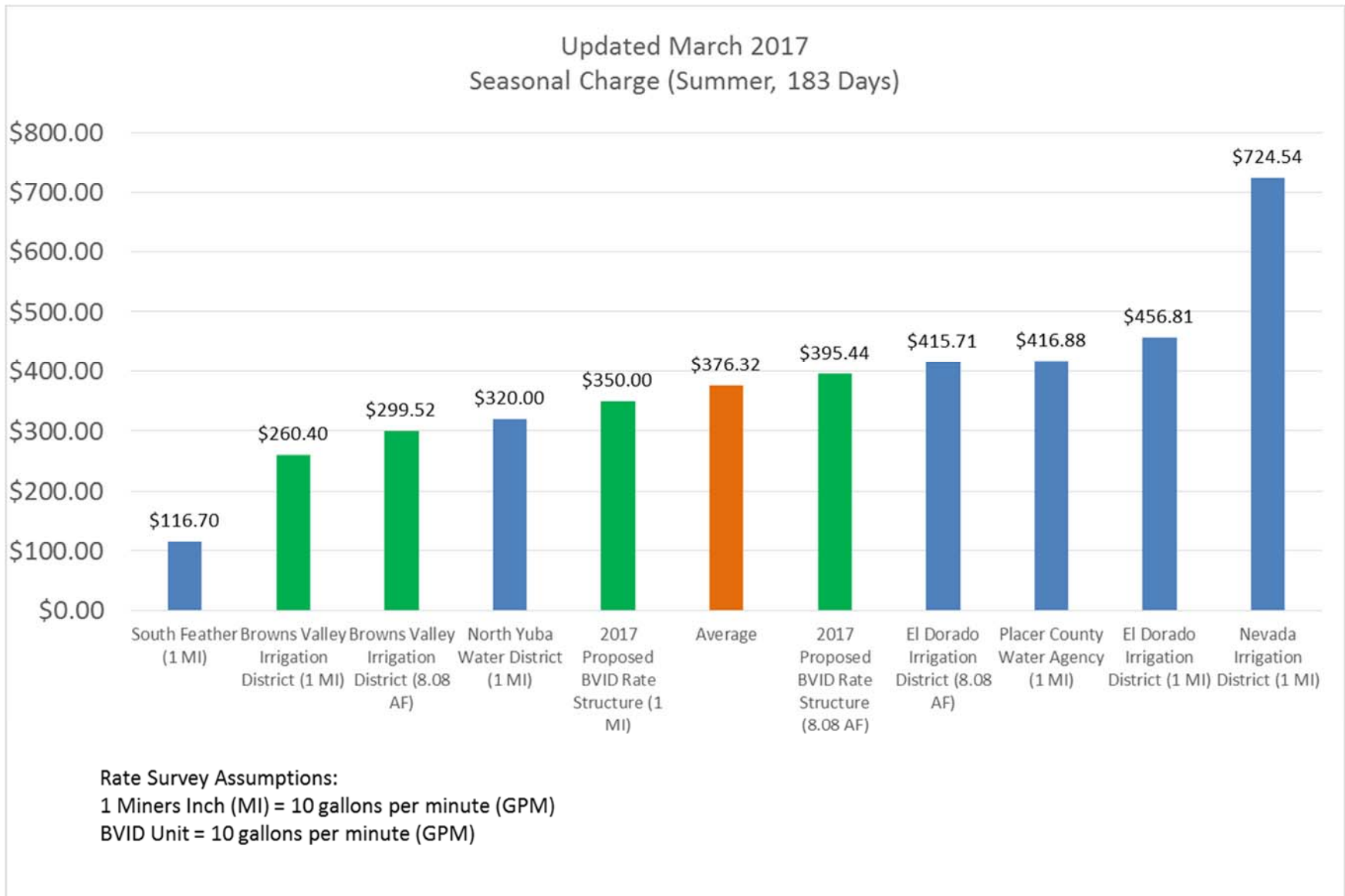
**Browns Valley ID**

**Current Rates (2016)**

<b>Irrigation Rates (In District)</b>	<b>Rate</b>	<b>Unit</b>
Administrative Charge	\$ 168.50	per account
Water Charge	\$ 91.90	per each unit
<b>Irrigation Rates (Redhill East)</b>		
Administrative Charge	\$ 168.50	per account
Redhill East Assessment	\$ 117.50	per account
Water Charge	\$ 91.90	per each unit
<b>Irrigation Rates (Out of District)</b>		
Administrative Charge	\$ 168.50	per account
Infrastructure Charge (Out of District Customers Only)	\$ 118.00	per account
Water Charge	\$ 198.00	per each unit
<b>2016 Demand Sales Rates (Per Acre Foot)</b>		
<b>Demand Sales Rates (In District)</b>		
Administrative Charge	\$ 168.50	per account
Water Charge	\$ 16.20	per acre foot
<b>Demand Sales Rates (Out of District)</b>		
Administrative Charge	\$ 168.50	per account
Infrastructure Charge (Out of District Customers Only)	\$ 118.00	per account
Water Charge	\$ 22.20	per acre foot

**Figure 2** shows a regional water rate survey. BVID rates are currently on the low side compared to the regional average of \$376.32 per season.

Figure 2 – Regional Water Rate Survey



**Table 2** shows the District’s reserve fund balances as of January 1, 2016. The District has been diligent in saving money from past Conserved Water Transfers. Capital reserves are expected to be deployed over the next 5 years to replace and repair aging infrastructure and equipment, and are recommended to be maintained in case of emergency.

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**Table 2**  
**Browns Valley ID**  
**Reserve Fund Balances**

	<b>January 1, 2016</b>
<b>Reserve Fund Balances</b>	
<b>Operating Reserves</b>	
Emergency Reserve Fund	\$100,000
Rate Stabilization Fund	950,000
Post-Retirement Medical Reserve	304,000
Drought Program	50,500
Limited Term Position	217,719
<u>Operational Reserve Fund</u>	<u>2,327,073</u>
<b>Total Operating Reserves</b>	<b>\$3,949,292</b>
<b>Capital Reserves</b>	
Equipment Depreciation Reserve	\$100,000
Emergency Capital Replacement	200,000
Major Pipeline Reserve	251,000
Future Hydro Construction Reserve	410,480
Accord Well Mitigation Reserve	50,000
Peoria Pipeline	300,000
<u>Pumpline Canal Capacity Improvement</u>	<u>220,000</u>
<b>Total Capital Reserves</b>	<b>\$1,531,480</b>
<b>Total Funds</b>	<b>\$5,480,772</b>

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BWA recommends the District maintain at least 90 days of Operating and Maintenance expenses in reserves (est. to be \$500,000 to \$600,000). Any additional funds are recommended to be saved for rate smoothing purposes as a large portion of District revenue is uncertain. **Appendix A** shows a detailed cash flow and reserves projection.

**Table 3** shows the District’s projected operating expenses. BWA projects the annual cost of operating the District will increase from \$2.2 million in 2017 to \$2.4 million in 2021. Rates are far below the cost of service. Water operating revenues (est. to be \$1.3 million in 2016) do not fully cover operating expenses (est. to be \$2.1 million in 2016).

**Table 3**  
**Browns Valley ID**  
**Operating Expenses**

	2016		Projected				
	Budget	Escalation %	2017	2018	2019	2020	2021
<b>Operational Expenses</b>							
Operational Payroll	\$578,320	3.0%	\$595,670	\$613,540	\$631,946	\$650,904	\$670,431
Payroll Burden	240,000	3.0%	247,200	254,616	262,254	270,122	278,226
Maintenance - Equipment	10,000	3.0%	10,300	10,609	10,927	11,255	11,593
Maintenance - Pumps	3,000	3.0%	3,090	3,183	3,278	3,377	3,478
Maintenance - Trucks	10,000	3.0%	10,300	10,609	10,927	11,255	11,593
<b>Hydro Expense (Split for 2016)</b>		3.0%					
Hydro Expense - O&M	80,000	3.0%	82,400	84,872	87,418	90,041	92,742
Hydro Expense - Regulatory Requirements	0	3.0%	0	0	0	0	0
Fish Screen Expense		3.0%					
Distribution Maintenance	60,000	3.0%	61,800	63,654	65,564	67,531	69,556
Utilities - Electric Pumps	205,000	3.0%	211,150	217,485	224,009	230,729	237,651
Supplies - Fuel and Oil	60,000	3.0%	61,800	63,654	65,564	67,531	69,556
Supplies - Fuel and Oil (Diesel Pumps)	5,000	3.0%	5,150	5,305	5,464	5,628	5,796
Supplies - Small Tools	3,000	3.0%	3,090	3,183	3,278	3,377	3,478
Radio Expense	600	3.0%	618	637	656	675	696
<u>Water Purchase (YCWA Contract Water)</u>	<u>25,000</u>	<u>3.0%</u>	<u>25,750</u>	<u>26,523</u>	<u>27,318</u>	<u>28,138</u>	<u>28,982</u>
<b>Total Operational Expenses</b>	<b>\$1,279,920</b>		<b>\$1,318,318</b>	<b>\$1,357,867</b>	<b>\$1,398,603</b>	<b>\$1,440,561</b>	<b>\$1,483,778</b>
<b>Administrative Expenses</b>							
Administrative Payroll	\$325,800	3.0%	\$335,574	\$345,641	\$356,010	\$366,691	\$377,691
Payroll Burden	123,000	3.0%	126,690	130,491	134,405	138,438	142,591
PERS Unfunded Liability/Catchup	66,150	3.0%	68,135	70,179	72,284	74,452	76,686
Miscellaneous Employee Expense	16,000	3.0%	16,480	16,974	17,484	18,008	18,548
Insurance	62,000	3.0%	63,860	65,776	67,749	69,782	71,875
Maintenance - Shop and Office	3,000	3.0%	3,090	3,183	3,278	3,377	3,478
Utilities - Shop and Office	10,000	3.0%	10,300	10,609	10,927	11,255	11,593
<b>Office Expense (Split Below for 2016)</b>		3.0%					
Office Expense - General	19,200	3.0%	19,776	20,369	20,980	21,610	22,258
Office Expense - Communications	5,800	3.0%	5,974	6,153	6,338	6,528	6,724
Office Expense - IT	8,000	3.0%	8,240	8,487	8,742	9,004	9,274
<b>Fees - Legal and Accounting (Split for 2016)</b>		3.0%					
Professional Services - Legal	30,000	3.0%	30,900	31,827	32,782	33,765	34,778
Professional Services - Accounting	10,000	3.0%	10,300	10,609	10,927	11,255	11,593
<b>Fees - Consultants (Split for 2016)</b>		3.0%					
Professional Services - Water Rights	20,000	3.0%	20,600	21,218	21,855	22,510	23,185
Professional Services - Other	2,000	3.0%	2,060	2,122	2,185	2,251	2,319
<b>District Dues and Fees (Split for 2016)</b>		3.0%					
District Dues and Fees - Memberships*	35,060	3.0%	36,112	37,195	38,311	39,460	40,644
District Dues and Fees - Water Rights & Permits*	8,550	3.0%	8,807	9,071	9,343	9,623	9,912
District Dues and Fees - Dam / Hydro*	25,090	3.0%	25,843	26,618	27,417	28,239	29,086
District Dues and Fees - Other*	10,220	3.0%	10,527	10,842	11,168	11,503	11,848
Water Sales - Out of District Expenses	10,000	3.0%	10,300	10,609	10,927	11,255	11,593
Accord / GSA Expenses	2,500	3.0%	2,575	2,652	2,732	2,814	2,898
<u>Delta Legal</u>	<u>20,000</u>	<u>3.0%</u>	<u>20,600</u>	<u>21,218</u>	<u>21,855</u>	<u>22,510</u>	<u>23,185</u>
<b>Total Administrative Expenses</b>	<b>\$812,370</b>		<b>\$836,741</b>	<b>\$861,843</b>	<b>\$887,699</b>	<b>\$914,330</b>	<b>\$941,759</b>
<b>Total Operating Expenses</b>	<b>\$2,092,290</b>		<b>\$2,155,059</b>	<b>\$2,219,710</b>	<b>\$2,286,302</b>	<b>\$2,354,891</b>	<b>\$2,425,538</b>



**Table 4** shows the District’s capital improvement program.

**Table 4**  
**Browns Valley ID**  
**Capital Projects**

	<b>2015</b>	<b>2016</b>
	<b>Actual</b>	<b>Budget</b>
<b>Capital Projects</b>		
Agricultural Water Management Plan		\$39,200
Annexation		35,000
Boardroom Construction		157,000
Dry Creek Gauging Station		20,000
Peoria Pipeline	101	100,000
Pumpline Canal - Vegetation Removal		50,000
Pumpline Canal - Saddleback Ditchbank Repair		15,000
Pumpline Canal Highway 20 Crossing Study	7,583	22,417
Rate Study / Salary Survey		10,000
Reinsulate Shop		11,500
Saddleback Lift Pump Electrification	238,954	61,046
Shop Doors		8,500
Sicard Ditch	134,410	575,000
Small Pipeline Projects		7,500
Tennessee Ditch Hydro		3,800
Thousand Trails Flume Rehab		70,000
Virginia Ranch Dam Risk Analysis Study		30,000
Website	3,750	1,250
<u>Yuba River Pump Efficiency Rebuild</u>		<u>75,000</u>
<b>Total Capital Projects</b>	<b>\$384,798</b>	<b>\$1,292,213</b>
<b>Capital Purchases</b>		
10-Wheel Dumptruck	\$120,000	\$110,000
Accounting Software		5,000
Enclosed Storage Trailer	5,000	5,000
Bobcat Mower Attachment		6,700
Portable Restroom w/ Wash Station		4,600
Six Way Blade		6,000
<u>Spray Trailer</u>		<u>3,700</u>
<b>Total Capital Purchases</b>	<b>\$125,000</b>	<b>\$141,000</b>
<b>Total Capital</b>	<b>\$509,798</b>	<b>\$1,433,213</b>

**Table 5** shows the District’s revenue used to fund capital improvements.

The District relies on Conserved Water Transfers to partially fund operations and fully fund capital needs. The District is not able to make Conserved Water Transfers during the year due to factors including demand and the ability to move the water south of the Delta. Historically this has happened once every 6 years. BWA estimates the District will collect an average of about \$840,000 per year from Conserved Water Transfers, assuming the historical trend continues.

**Table 5**  
**Browns Valley ID**  
**Capital Revenue**

	2016 Budget	Escalation %	Projected				
			2017	2018	2019	2020	2021
Conserved Water Transfer	\$0	1.0%	\$839,583	\$847,979	\$856,459	\$865,024	\$873,674
Accord Conjective Use - BVID	25,000	1.0%	20,200	20,402	20,606	20,812	21,020
Sale of District Assets	10,000	0.0%	10,000	10,000	10,000	10,000	10,000
Project Pipeline Income	38,000	2.0%	38,760	39,535	40,326	41,132	41,955
Spring Valley Project		N/A					
Grant Funds - Prop 50 AWMP	39,200	N/A					
<u>Grant funds - Prop 50 Dry Creek Recap</u>	<u>17,000</u>	<u>N/A</u>					
<b>Total Capital Revenue</b>	<b>\$129,200</b>		<b>\$908,543</b>	<b>\$917,916</b>	<b>\$927,391</b>	<b>\$936,968</b>	<b>\$946,649</b>

Should the District be unable to make Conserved Water Transfers during the year on a more frequent basis, the use of fund reserves along with sharp rate increases may be required to fund operations and capital needs. BWA recommends that the District phase in increases in the near term to ensure financial stability, prevent rates from drifting further below the cost of service, and to avoid the need for sharp increases.

**Table 6** shows the District’s projected water rate revenue calculation based on current and proposed rates.

**Table 6**  
**Browns Valley ID**  
**Water Rate Revenue Calculation**

	2016	2017	2018	2019	2020	2021	Unit
<b>Irrigation Rates (In District)</b>							
Administrative Charge	\$168.50	\$250.00	\$300.00	\$350.00	\$400.00	\$450.00	per account
Water Charge	\$91.90	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	per each unit
<b>Irrigation Rates (Redhill East)</b>							
Administrative Charge	\$168.50	\$250.00	\$300.00	\$350.00	\$400.00	\$450.00	per account
Redhill East Assessment	\$117.50	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00	per account
Water Charge	\$91.90	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	per each unit
<b>Irrigation Rates (Out of District)</b>							
Administrative Charge	\$168.50	\$250.00	\$300.00	\$350.00	\$400.00	\$450.00	per account
Water Charge	\$198.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	per each unit
<b>2016 Demand Sales Rates (Per Acre Foot)</b>							
<b>Demand Sales Rates (In District)</b>							
Administrative Charge	\$168.50	\$250.00	\$300.00	\$350.00	\$400.00	\$450.00	per account
Water Charge	\$16.20	\$18.00	\$18.50	\$19.00	\$19.00	\$19.00	per acre foot
<b>Demand Sales Rates (Out of District)</b>							
Administrative Charge	\$168.50	\$250.00	\$300.00	\$350.00	\$400.00	\$450.00	per account
Water Charge	\$22.20	\$23.00	\$23.50	\$24.00	\$24.50	\$25.00	per acre foot
<b>Units</b>							
	2016	2017	2018	2019	2020	2021	
<b>Growth %</b>		0.20%	0.20%	0.20%	0.20%	0.20%	
Total Customers (Admin Charge)	1,347	1,350	1,352	1,355	1,358	1,361	
Units Sold	3,196	3,202	3,209	3,215	3,222	3,228	
Acre Feet Sold	16,564	16,597	16,630	16,664	16,697	16,730	
Redhill East Sold	47	47	47	47	47	47	
<b>Projected Revenue</b>							
	2016	2017	2018	2019	2020	2021	
Total Customers (Admin Charge)	\$226,970	\$337,424	\$405,718	\$474,284	\$543,123	\$612,236	
Units Sold	\$293,712	\$320,239	\$320,880	\$321,521	\$322,164	\$322,809	
Acre Feet Sold	\$268,337	\$298,748	\$307,661	\$316,608	\$317,241	\$317,876	
Redhill East Sold	\$5,523	\$5,651	\$5,663	\$5,674	\$5,685	\$5,697	
<b>Revenue</b>	<b>\$794,541</b>	<b>\$962,062</b>	<b>\$1,039,921</b>	<b>\$1,118,088</b>	<b>\$1,188,214</b>	<b>\$1,258,617</b>	<b>\$6,361,444</b>

**Table 7** shows the District’s projected water operating revenue calculation based on current and proposed rates. The water rate increases are frontloaded to make up for a large drop in expected power sales revenues from the BVID/YCWA agreement.

		Projected				
		2017	2018	2019	2020	2021
<b>Table 7</b>						
<b>Browns Valley ID</b>						
<b>Operating Revenue</b>						
	<b>2016 Estimate</b>					
<b>% Rate Increase</b>		<b>20.84%</b>	<b>7.88%</b>	<b>7.30%</b>	<b>6.06%</b>	<b>5.71%</b>
<i>Growth - %</i>	<b>% Escalation</b>	0.2%	0.2%	0.2%	0.2%	0.2%
<b>Total Rate Revenue Increase</b>		21.1%	8.1%	7.5%	6.3%	5.9%
<b>Operational Revenue</b>						
Water Sales - In District*	\$567,572	\$624,639	\$634,203	\$643,803	\$645,091	\$646,381
Power Sales - VRD Power Generation	100,000 <b>2.0%</b>	102,000	104,040	106,121	108,243	110,408
<u>Power Sales - BVID/YCWA Agreement</u>	<u>350,000</u> <b>2.0%</b>	<u>250,000</u>	<u>255,000</u>	<u>260,100</u>	<u>265,302</u>	<u>270,608</u>
Total Operational Revenue	\$1,017,572	\$976,639	\$993,243	\$1,010,024	\$1,018,636	\$1,027,397
<b>Administrative Revenue</b>						
Administrative Charge*	\$226,970	\$337,424	\$405,718	\$474,284	\$543,123	\$612,236
Standby Charge	3,800 <b>0.0%</b>	3,800	3,800	3,800	3,800	3,800
Refunds	10,000 <b>0.0%</b>	10,000	10,000	10,000	10,000	10,000
Tax Revenue	- <b>0.0%</b>	-	-	-	-	-
Rental Income	10,800 <b>2.0%</b>	11,016	11,236	11,461	11,690	11,924
Collins Lake Recreational Lease	60,000 <b>2.0%</b>	61,200	62,424	63,672	64,945	66,244
Interest Income	18,000	18,000	18,000	18,000	18,000	18,000
<u>Miscellaneous Income</u>	<u>-</u> <b>0.0%</b>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total Administrative Revenue	\$329,570	\$441,440	\$511,178	\$581,217	\$651,558	\$722,204
<b>Total Operating Revenue</b>	<b>\$1,347,141</b>	<b>\$1,418,078</b>	<b>\$1,504,421</b>	<b>\$1,591,242</b>	<b>\$1,670,194</b>	<b>\$1,749,601</b>
<i>*Water rate revenue</i>	<i>\$794,541</i>	<i>\$962,062</i>	<i>\$1,039,921</i>	<i>\$1,118,088</i>	<i>\$1,188,214</i>	<i>\$1,258,617</i>

## SECTION 3: Cost of Service Calculation

**Table 8** shows the cost of service calculation for the District’s proposed water rates. BWA calculated water rates based on recovering the full projected operating expenses from 2017 to 2021. Admin charges are designed to cover administrative expenses, while water purchase related charges cover the remaining operating expenses. The full cost of service rates are higher than the proposed water rates in each year for each type of charge (see **Figure 1**), resulting in a deficit of approximately \$1.2 million each year.

To ensure that no customer is paying more than the cost of service in each year and no customer is subsidizing another, the deficit is covered with revenue from non-rate sources. These sources include: conserved water transfers, other capital revenue, power sales, and miscellaneous administrative revenue. Total non-rate revenue is projected to range from \$1.3 million to \$1.4 million, leaving between \$170,000 and \$270,000 per year in net revenues for capital projects or reserve contributions.

**Table 8**  
**Browns Valley ID**  
**Cost of Service Calculation**

Year		2016 (Current)	2017	2018	2019	2020	2021
Projected Operating Expenses			\$ 2,155,059	\$ 2,219,710	\$ 2,286,302	\$ 2,354,891	\$ 2,425,538
			<b>Full Cost of Service Rates</b>				
<u>Rates</u>	<u>Units Sold</u>	2016 Charge	2017 Charge	2018 Charge	2019 Charge	2020 Charge	2021 Charge
Admin Charge (Accounts)	1,347	\$ 168.50	\$ 619.95	\$ 637.27	\$ 655.08	\$ 673.39	\$ 692.20
Unit (10 GPM)	3,196	\$ 91.90	\$ 249.72	\$ 256.73	\$ 263.94	\$ 271.34	\$ 278.95
Per Acre Foot	16,564	\$ 16.20	\$ 30.91	\$ 31.77	\$ 32.67	\$ 33.58	\$ 34.52
Redhill East (Accounts)	47	\$ 117.50	\$ 120.00	\$ 120.00	\$ 120.00	\$ 120.00	\$ 120.00
<u>Est. Revenue</u>	<u>Units Sold</u>						
Admin Charge	1,347	\$ 226,970	\$ 835,071	\$ 858,406	\$ 882,394	\$ 907,051	\$ 932,398
Unit (10 GPM)	3,196	\$ 293,712	\$ 798,114	\$ 820,513	\$ 843,537	\$ 867,205	\$ 891,535
Per Acre Foot	16,564	\$ 268,337	\$ 511,932	\$ 526,299	\$ 541,068	\$ 556,249	\$ 571,854
Redhill East	47	\$ 5,523	\$ 5,640	\$ 5,640	\$ 5,640	\$ 5,640	\$ 5,640
		\$ 794,541	\$ 2,150,757	\$ 2,210,858	\$ 2,272,639	\$ 2,336,146	\$ 2,401,427
Revenue with Growth (0.2%)			\$ 2,155,059	\$ 2,219,710	\$ 2,286,302	\$ 2,354,891	\$ 2,425,538
Proposed Rates Projected Revenue (Table 6)			\$ 962,062	\$ 1,039,921	\$ 1,118,088	\$ 1,188,214	\$ 1,258,617
\$ Below Operating Expenses			\$ (1,192,996)	\$ (1,179,789)	\$ (1,168,214)	\$ (1,166,676)	\$ (1,166,921)
Projected Non-Rate Revenue <sup>1</sup>			\$ 1,364,559	\$ 1,382,416	\$ 1,400,545	\$ 1,418,948	\$ 1,437,633
Amount Available for Reserves or Capital Projects			\$ 171,563	\$ 202,627	\$ 232,331	\$ 252,272	\$ 270,713

<sup>1</sup> Includes all District projected non-rate revenue: Conserved Water Transfers, other Capital Revenue, Power Sales, and Miscellaneous Administrative Revenue

## SECTION 4: Proposition 218 Requirements

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The water rates developed in this study were designed to comply with constitutional mandates as well as various provisions of the California Water Code and Government Code that support and add further guidance for implementing these constitutional requirements. In accordance with the constitutional provisions, the proposed rates are designed to a) recover the District's cost of providing service, b) meet the proportionality requirements of Proposition 218.

Proposition 218 was adopted by California voters in 1996 and added Articles 13C and 13D to the California Constitution. Article 13D, Section 6 governs property-related charges, which the California Supreme Court subsequently ruled includes ongoing utility System Charges such as water, sewer, and garbage rates. Article 13D, Section 6 establishes a) procedural requirements for imposing or increasing property-related charges, and b) substantive requirements for those charges. Article 13D also requires voter approval for new or increased property-related charges but exempts rates for water, sewer, and garbage service from this voting requirement if the appropriate procedure is followed.

The substantive requirements of Article 13D, Section 6 require BVID's water rates to meet the following conditions:

- 1) Revenues derived from the fee or charge shall not exceed the funds required to provide the property related service.
- 2) Revenues derived from the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed.
- 3) The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel.
- 4) No fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question.
- 5) No fee or charge may be imposed for general governmental services, such as police or fire services, where the service is available to the public at large in substantially the same manner as it is to property owners.

## SECTION 5: Conclusion

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The water rates proposed in this report are recommended for BVID to recover the cost of service and to protect customers from substantial short term increases should non-rate revenue sources be reduced or eliminated by factors out of District control. The proposed rates developed within this report are affirmed to be appropriate.

Sincerely,



Douglas R. Dove  
Certified Independent Public Municipal Advisor (CIPMA)  
Registered Professional Engineer (PE) in California (PE# 45642)

**Appendix A**  
**Browns Valley ID**  
**Cash Flow Projection**

	Budget	Projected				
	2016	2017	2018	2019	2020	2021
<b>Beginning Fund Balance</b>						
O&M Reserves	\$3,949,292	\$3,204,143	\$2,467,163	\$1,751,874	\$1,056,814	\$372,117
<u>Capital Reserves</u>	<u>1,531,480</u>	<u>227,467</u>	<u>1,136,010</u>	<u>2,053,927</u>	<u>2,981,318</u>	<u>3,918,286</u>
Total Reserves	\$5,480,772	\$3,431,610	\$3,603,173	\$3,805,800	\$4,038,131	\$4,290,403
<b>REVENUES</b>						
<b>Operating Revenue</b>						
Operational Revenue	\$1,017,572	\$976,639	\$993,243	\$1,010,024	\$1,018,636	\$1,027,397
<u>Administrative Revenue</u>	<u>329,570</u>	<u>441,440</u>	<u>511,178</u>	<u>581,217</u>	<u>651,558</u>	<u>722,204</u>
Total Operating Revenue (Rates)	\$1,347,141	\$1,418,078	\$1,504,421	\$1,591,242	\$1,670,194	\$1,749,601
<b>Capital Revenue</b>						
Capital Revenue	\$129,200	\$908,543	\$917,916	\$927,391	\$936,968	\$946,649
<b>TOTAL REVENUES</b>	<b>\$1,476,341</b>	<b>\$2,326,622</b>	<b>\$2,422,338</b>	<b>\$2,518,633</b>	<b>\$2,607,162</b>	<b>\$2,696,250</b>
<b>EXPENSES</b>						
<b>Operating Expenses</b>						
Operational Expenses	\$1,279,920	\$1,318,318	\$1,357,867	\$1,398,603	\$1,440,561	\$1,483,778
<u>Administrative Expenses</u>	<u>812,370</u>	<u>836,741</u>	<u>861,843</u>	<u>887,699</u>	<u>914,330</u>	<u>941,759</u>
Total O&M Expenses	\$2,092,290	\$2,155,059	\$2,219,710	\$2,286,302	\$2,354,891	\$2,425,538
<b>Capital Expenses</b>	\$1,433,213	\$0	\$0	\$0	\$0	\$0
<b>TOTAL EXPENSES</b>	<b>\$3,525,503</b>	<b>\$2,155,059</b>	<b>\$2,219,710</b>	<b>\$2,286,302</b>	<b>\$2,354,891</b>	<b>\$2,425,538</b>
O&M Net Revenues	(\$745,149)	(\$736,980)	(\$715,289)	(\$695,060)	(\$684,696)	(\$675,937)
<u>Capital Net Revenues</u>	<u>(\$1,304,013)</u>	<u>\$908,543</u>	<u>\$917,916</u>	<u>\$927,391</u>	<u>\$936,968</u>	<u>\$946,649</u>
Total Net Revenues	(\$2,049,162)	\$171,563	\$202,627	\$232,331	\$252,272	\$270,713
<b>Ending Fund Balance</b>						
O&M Reserves	\$3,204,143	\$2,467,163	\$1,751,874	\$1,056,814	\$372,117	(\$303,819)
<u>Capital Reserves</u>	<u>227,467</u>	<u>1,136,010</u>	<u>2,053,927</u>	<u>2,981,318</u>	<u>3,918,286</u>	<u>4,864,935</u>
Total Reserves	\$3,431,610	\$3,603,173	\$3,805,800	\$4,038,131	\$4,290,403	\$4,561,115
Recommended O&M Fund Target (90 Days O&M)	\$523,073	\$538,765	\$554,928	\$571,575	\$588,723	\$606,384
Recommended Capital Reserve Fund Target <sup>1</sup>	\$1,531,480	\$1,577,424	\$1,624,747	\$1,673,490	\$1,723,694	\$1,775,405
Total Reserve Target	\$2,054,553	\$2,116,189	\$2,179,675	\$2,245,065	\$2,312,417	\$2,381,789
Total Targets Met	yes	yes	yes	yes	yes	yes
Excess Reserves for Rate Stabilization	\$1,377,058	\$1,486,984	\$1,626,126	\$1,793,066	\$1,977,986	\$2,179,326
# years operating expenses	0.66	0.69	0.73	0.78	0.84	0.90
1 - Includes Emergency Depreciation Reserve, Emergency Capital Replacement, Major Pipeline Reserve, Future Hydro Construction Reserve, Accord Well Mitigation Reserve, Peoria Pipeline, and Pumpline Canal Capacity Improvement						