



Highland Water District
Water Rate Study - Recommended Water Rates
 July 8, 2015

A six-year rate outlook was developed along with the updated Water System Plan. The revenue and expenses were projected and the capital improvements from the updated Water System Plan were included. The result showed that there was not enough revenue or reserves to fund the plan. The capital projects were adjusted by rescheduling and delaying projects to better fit with the savings from retired debt that is expected in the next few years. The largest project, the Woods Lake Road water main replacement has been scheduled for 2021 when savings from retired debt is approximately equal to the new debt required to complete the project with little impact to rates. Other capital improvements are planned to be funded by rates so there will be capacity in the future to complete other necessary improvements without further impacting rates.

HWD purchases water from the City of Everett. HWD tracks and compares the amount of water purchased and then sold to customers. HWD has been on a meter replacement program and will continue to do so to make sure all customers are paying their fair share and to protect the District's revenue. HWD will also continue its efforts to quickly identify leaks to minimize the amount of water that cannot be sold. The City of Everett anticipates annual increases in the water rates charged to HWD, 9.3% in 2015 and 5.0% each in 2016-21. These increases will continue to be passed along to customers.

Other operations and maintenance items include inspecting and cleaning the water lines and tanks, servicing the pressure reducing valves, emergency generator, and security and complying with federal and state regulations. No changes are anticipated in staffing levels.

The recommended rate increases are shown in the table below. The base rates are recommended to increase \$3.50 per month in September 2015, \$2.00 in January 2016 and \$2.00 in January 2017. The current base rate of \$60.00 would increase to \$63.50, \$65.50 and \$67.50 by 2017, and remain the same through 2021. The model indicates that an increase for operations will be necessary in 2022 so HWD should review the outlook each year with the budget to determine whether adjustments are needed.

	Existing	2015	2016	2017	2018	2019	2020	2021
Base Rate Increase								
HWD		\$3.50	\$2.00	\$2.00	\$0.00	\$0.00	\$0.00	\$0.00
M&O \$/Capital \$		M&O \$1.75/C\$1.75	C\$2.00	M&O \$1/C\$1				
Estimated Monthly Base Rate								
HWD	\$60.00	\$63.50	\$65.50	\$67.50	\$67.50	\$67.50	\$67.50	\$67.50
Estimated Water Rate to keep up with Everett Water								
HWD		\$1.57	\$1.72	\$1.80	\$1.89	\$1.99	\$2.09	\$2.19

The average residence uses 750 cubic feet of water per month. The impact on an average customer is estimated to be \$3.50 per month in September 2015, \$3.10 in 2016, etc. as shown. This includes both the base rate and increased cost of purchased water.

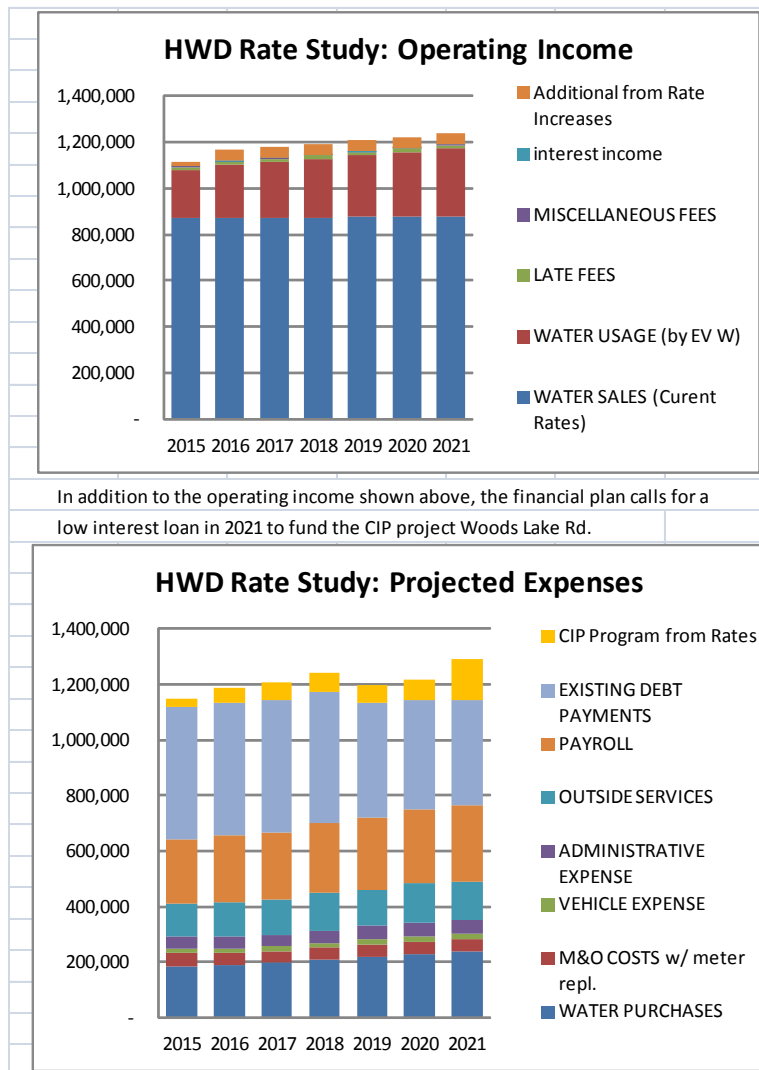
	Existing	2015	2016	2017	2018	2019	2020	2021
Average Residence Uses 750 cf per month				7.5				
This Scenario	\$71.78	\$75.28	\$78.37	\$81.01	\$81.69	\$82.40	\$83.14	\$83.93
Est. Increase		\$3.50	\$3.10	\$2.64	\$0.68	\$0.71	\$0.74	\$0.78



The cash reserves (fund balance) are expected to drop below the target minimum for 2015 & 2016 before building up for emergencies by 2021. The target minimum is to have a cash flow reserve of two months of operating expenses, or \$110,000. The beginning 2015 balance of \$121,000 is planned to be partially used, with \$88,000 anticipated at the end of the year. The recommended rates will result in building the balance to \$257,000 in 2021 which will provide a capital/emergency reserve of \$130,000.

Fund Balance Projections	2015	2016	2017	2018	2019	2020	2021
Maintenance Fund - Beginning	121,278	88,395	93,340	123,008	128,730	194,441	256,554
Increase/(Use) by Year	(32,884)	4,945	29,669	5,722	65,711	62,113	935
Ending Maintenance Fund	88,395	93,340	123,008	128,730	194,441	256,554	257,489
Target Minimum Balance	<i>Cash Flow Reserve Target = 2 month operating expenses (excludes debt, CIP)</i>						
Cash Flow Reserve	106,640	109,074	111,168	116,652	119,921	125,063	127,548
Meets Minimum Reserve?	warning	warning	ok	ok	ok	ok	ok

HWD operating income and projected expenses are shown in the charts below. The recommended rates fund the program shown.

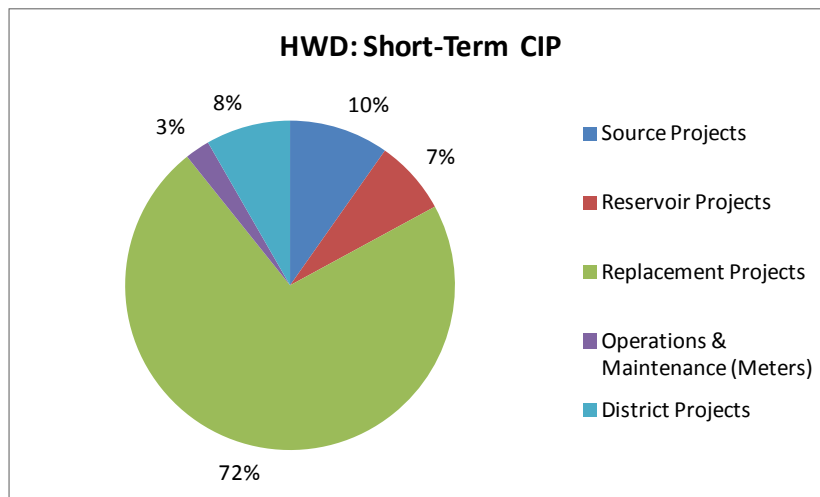




The **Capital Improvement Plan (CIP)** is shown below with the anticipated funding sources. The project costs were estimated in 2014 dollars and have been escalated to the scheduled year of construction at 3.0% per year. This is necessary to help make sure that the projects can be afforded. It also demonstrates the time value of money where delaying a project for some years will end up costing more. Seven years are included (typically only six) to show the large Woods Lake Rd. project.

HWD	Year:	1	2	3	4	5	6	7
Project Name	Cost. Estimate (\$2014)	2015	2016	2017	2018	2019	2020	2021
Booster Pump Sta #2 Pump Modifications	50,000		51,500					
Telemetry & Security SCADA System	150,000							40,000
Reservoir Coating	150,000			58,000	65,909	60,000		
Woods Lake Rd-Old Owen Rd to Flo Acres R	1,480,000						30,000	1,737,197
Meter Replacement Project - Annual	50,000	5,000	5,150	5,305	5,464	5,628	5,796	5,970
New Truck	30,000						34,778	
Rate Study	20,000	20,000						
New Water System Plan	70,000							
GIS/Mapping	50,000	5,000	5,150	5,305	5,464	5,628	5,796	5,970
Total Annual CIP	2,050,000	30,000	61,800	68,609	76,836	71,255	76,371	1,789,138
Annual Construction Cost Escalation	3.0%	1.000	1.030	1.061	1.093	1.126	1.159	1.194
Funding Sources		2015	2016	2017	2018	2019	2020	2021
CIP Funded by Grants			5,150					
CIP Funded by DWSRF Loans								1,737,197
Already Funded by Rates/Reserves		25,000	5,150	5,305	5,464	5,628	5,796	5,970
New CIP Funding from Rates		5,000	51,500	63,305	71,373	65,628	70,575	45,970
Total CIP Funding Sources		30,000	61,800	68,609	76,836	71,255	76,371	1,789,138

The pie chart shows a picture of what the CIP dollars are buying. The replacement project is the largest category due to the Woods Lake Rd. project. It is important for HWD to continue planning and funding main replacement. Many of the District water lines were installed at a similar time. The best way to avoid critical impact on the rates is to continue funding main replacement.



Connection charges should also be updated to make sure new customers are paying their fair share of the cost of the system and the planned improvements. The current HWD General Facilities Charge of \$8,600 could be updated to \$9,600 using the same methodology.



APPENDIX – SIX-YEAR OUTLOOK WITH EXISTING RATES

Highland Water District								
Six-Year Outlook								
Prepared by Katy Isaksen & Associates			RECOMMENDED 7/8/15					
Highland WD Six-Year Outlook	Base Year	Projected	Projected	Projected	Projected	Projected	Projected	Comments
	2015	2016	2017	2018	2019	2020	2021	
Assumptions:								
New Customer ERU's per year		2	2	2	2	2	2	
General Cost Escalator		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	
Purchased Water Cost Escalator		9.3%	5.0%	5.0%	5.0%	5.0%	5.0%	Everett rates '12-'16
Existing Residential Base - HWD	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	
Existing Residential Base - FC	\$82.00	\$82.00	\$82.00	\$82.00	\$82.00	\$82.00	\$82.00	
Estimated Usage Cost - Low Tier	\$1.57	\$1.72	\$1.80	\$1.89	\$1.99	\$2.09	\$2.19	avg sales 750cf/mo
PROJECTED INCOME								
WATER SALES (Curent Rates)	870,500	871,940	873,380	874,820	876,260	877,700	879,140	add new customers
* WATER USAGE (by EV W)	210,344	230,189	241,981	254,362	267,363	281,014	295,347	add new customers
LATE FEES	13,200	13,200	13,200	13,200	13,200	13,200	13,200	flat
MISCELLANEOUS FEES	2,300	2,300	2,300	2,300	2,300	2,300	2,300	flat
interest income	420	420	420	420	420	420	420	flat
Total Projected Income	1,096,764	1,118,049	1,131,281	1,145,102	1,159,543	1,174,634	1,190,407	
PROJECTED EXPENSE								
WATER PURCHASES	184,000	188,020	197,444	207,340	217,730	228,640	240,096	by purch wtr escal
** M&O COSTS w/ meter repl.	47,320	42,560	40,410	43,337	46,506	45,583	42,174	by gen escal
VEHICLE EXPENSE	16,500	16,995	17,505	18,030	18,571	19,128	19,702	by gen escal
*** ADMINISTRATIVE EXPENSE	45,340	42,580	43,858	45,173	46,529	47,924	49,362	by gen escal
OUTSIDE SERVICES	116,260	126,958	123,340	134,250	130,852	141,987	138,821	by gen escal
PAYROLL	230,418	237,331	244,450	251,784	259,337	267,118	275,131	by gen escal
EXISTING DEBT PAYMENTS	480,854	477,647	474,440	471,233	411,819	394,706	380,172	from Debt Sched
CIP Program w/out meter repl	25,000	56,650	63,305	71,373	65,628	70,575	1,783,168	CIP w new debt
Grant proceeds for CIP	-	-	-	-	-	-	-	
Loan proceeds for CIP	-	-	-	-	-	-	(1,737,197)	
New Debt for CIP	-	-	-	-	-	-	101,184	annual for 20 years
Total Expenses	1,145,692	1,188,740	1,204,752	1,242,520	1,196,972	1,215,661	1,292,612	
Surplus/(Deficit) by Year	(48,928)	(70,691)	(73,471)	(97,418)	(37,429)	(41,027)	(102,205)	After adjusting water rates for Everett
Impact on Monthly Rates- cumulative	5.6%	8.1%	8.4%	11.1%	4.3%	4.7%	11.6%	
Estimated Impact per Month	\$3.37	\$1.49	\$0.18	\$1.63	\$0.00	\$0.24	\$4.17	
Estimated Monthly Rate	\$63.37	\$64.86	\$65.05	\$66.68	\$66.68	\$66.92	\$71.09	
Notes								
* * Test of 2015 \$210,344 budget usage revenue: 2014 revenue \$194,614/\$1.45 2014 rate x 1.57 2015 rate = \$210,720.								
** ** M&O costs include meter replacement program at \$15k in 2015, then \$8k per yr, tank cleaning 5 yrs, prv's 5 yrs, security 3 yrs, leak det 3 yrs M&O Costs include an annual reserve, approximately \$13,500 to address unplanned for expenses.								
*** ** Admin includes \$5k for new server in '15, then 1k per yr. State Auditor is \$7k in '15 but \$14k every other year.								

Conclusion:

This outlook with existing rates indicates that base rates could reach \$71.00 by 2021, as shown in this appendix. However, the recommended scenario increases rates earlier (2015-2017) and ends up with a lower rate of \$67.50. The recommended rates save \$3.50 per month per customer by collecting it sooner.