



Revised Water Rates Study

June 2009

Final

**Helix Water District
Revised Water Rate Study
June 2009**

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Revised Helix Water Rate Study

Fiscal Year 2009-10

June 2009

Summary of Rate Proposal Principles

Helix Water District prepared a Water Rate Study in February 2009. This study was the basis of a water rate proposal which was released to customers for their review under Prop 218 requirements. The study included both revisions to the water rate billing structure and the charges to be billed under the new structure. The structure was designed to further encourage water conservation measures by our customers throughout the District. The basis of this Water Rate Study was determined during several public meetings held by the Board to respond to a growing water shortage condition in Southern California. Water shortages of 10-20% were being strongly considered with increases in wholesale water rates of 20-30% beginning January 1, 2010. The District implemented several cost control measures to mitigate some of the cost increases from our wholesaler and reduced sales resulting from lost water supplies. The measures include holding all operating and capital budgets to current funding levels and a hiring freeze for all non-critical positions reducing the planned budget for FY 2009-10 by \$800,000.

The District released the water rate proposal under Prop 218 in early March 2009 with a public hearing ending the protest period on May 27, 2009. Since the release of the water rate proposal, the San Diego County Water Authority (CWA) in response to Metropolitan Water District of Southern California (MWD) water allocations, has notified Helix that our water supply will be reduced 8% and the average CWA wholesale commodity water rate will increase 15.4% on September 1, 2009 with another likely increase of 19.6% on January 1, 2011. This information only describes a portion of the wholesale rate increases facing the District. **When all wholesale costs are accrued (commodity and fixed, CWA and MWD), the District will see a 25.4% increase in the wholesale cost of water when comparing one fiscal year to the next. Raw untreated wholesale water is purchased in FY 2008-09 at a melded cost of \$610 per ac-ft and for FY 2009-10, this cost rises to \$765 per ac-ft.**

In addition, the District received comments regarding the high cost increases to the large water users in the Domestic Class which, in the customers' opinions, exceeded the requirements of the current water crisis. Further, the District realized that the Irrigation Class which was designed for non-single family customers (Domestic Class) was priced at a rate that encouraged Domestic Class customers to switch to a second irrigation meter. Staff recommended to the Board that this loophole be closed to maintain the integrity of the new rate system. The District does not have enough water to allow thousands of Domestic Class customers to switch to irrigation meters and be billed on a water budget approach as designed.

The Board held two meetings: a special meeting of April 27, 2009 and a regular meeting on May 6, 2009 to refine the water rate proposal to reduce the cost impact to Domestic Class customers by dropping Tier 5, eliminating the pricing structure for Water Shortage Levels II, III, and IV,

closing the loophole for irrigation meter pricing for Domestic Class customers, setting rules for irrigation meter budgets, clarifying rules for agriculture business customers, creating the Board ad hoc committee on water rates, delaying the effective date by 30 days to August 1, 2009, and reducing Tier 4 Domestic Class pricing to \$4.52 per unit.

On May 22, 2009, the Board directed staff to cancel the May 27, 2009 rate hearing and prepare a new Water Rate Study for implementation on September 1, 2009. Staff prepared a new rate study whose principles are outlined below. These principles will be used to revise the water rate proposal for FY 2009-10.

Original Principles:

- The budget assumptions will remain the same: operating and capital budgets will be the same as FY 2008-09. No increases for inflation or new programs except for essential operating materials or costs (i.e. chemicals at the water treatment plant or legal). Water conservation budget will be increased \$250,000 and labor agreements will be honored.
- Maintenance programs will continue at current levels of effort.
- A hiring freeze will be implemented for non-critical positions.
- The rate system should reward previous water conservation efforts.
- The water rate structure should encourage more water conservation.

Redefined Principles:

- Use the existing rate structure but include water budgets for Irrigation Class.
- Water conservation reductions will be applied to all classes equally.
- The District will calculate a base commodity rate of water for all users and this will be the basis for water cost pricing.
- The structures for the user classes will be as follows:
 - **Domestic Class** will have three tiers consistent with existing tiered system.
 - **Multi-Family Class** will have a single rate consistent with the existing system
 - **Irrigation Class** will be based on water budgets with three tiers. **Tiers 2 and 3 will be a charge for exceeding the water budget and the revenue will be applied to water conservation programs.**
 - **Commercial/Government Class** will be a single rate for all water use consistent with existing system.
- The base commodity rate for the Domestic Class Tier 2, Multi-Family Class, Commercial/Government Class, and Irrigation Class Tier 1 will all be the same rate. This approach is similar to the District's existing rate structure.
- Irrigation Class prices will not apply to Domestic Class customers. A Domestic Class customer may apply for a second meter at Domestic Class rates. Existing Domestic Class customers with an irrigation meter will be billed at the Irrigation Class rate until September 1, 2011 after which time they will be billed at a Domestic Class rate.
- Pricing for Water Shortage Levels II, III, and IV will be considered in a future rate study.
- The revenue collected in each Class will recover the cost of service for that Class.
- The total capital funding remains within the limits of the PayGo funding programmed by the Board. One additional capital project totaling \$1.7 Million will be delayed to FY 2010-11.
- Shortfall in revenue will be funded from Rate Stabilization Fund for FY 2009-10. Recovery of these funds will occur in FY 2010-11.

- The rate increase will be effective September 1, 2009 on all water billed after September 1, 2009.
- The commodity rate increase percentage across all three tiers in the Domestic Class will be the same percentage. This increase is 24% for the rate study.
- Base meter charge calculations will be fully explained and the customizing required because of the District's conversion from 5/8 inch meters to 3/4 inch meters and will be presented to the Board along with the history of the transition.
- Once the water rate proposal is approved by the Board, staff will hold several informative presentations throughout the community to fully explain all the features in the rate proposal so that customers will be more informed. These presentations will occur during the Prop 218 notice period.
- Lastly, staff will return in 90 days with a plan to review alternative water conserving rate structures, develop a rate study schedule, and prepare a public outreach plan for the coming year.

Potential Schedule

Draft Rate Study to Board	June 3, 2009
Final Rate Study to Board	June 17, 2009
Prop 218 Notice Mailed	June 26, 2009
Prop 218 Hearing Date	August 19, 2009
Effective Date	September 1, 2009

The financial health of the District requires a rate increase. Resolving the issues around the current rate case is essential to guarantee the financial stability of the District's operation. The details of the FY 2009-10 Water Rate Study follow.

FIVE-YEAR PROJECTION -- May 2009

	Actual 2007-08	Adj. Budget 2008-09	Budget 2009-10	Estimated 2010-11	Estimated 2011-12	Estimated 2012-13	Estimated 2013-14
Revenues							
Water Billings *	49,625,337	55,377,000	62,036,000	70,101,000	75,709,000	80,252,000	84,265,000
Revenue loss per rate adj.**			(900,000)				
Water Treatment Charge	799,766	875,500	877,700	913,000	949,000	988,000	1,027,000
Other Collections	16,646,519	2,144,200	6,685,000	1,200,000	1,200,000	1,200,000	1,200,000
Lake Jennings Recreation	313,192	506,200	636,100	661,000	688,000	715,000	744,000
Total Revenue	67,384,814	58,902,900	69,334,800	72,875,000	78,546,000	83,155,000	87,236,000
Operating Expenses							
Debt Service	2,542,000	2,548,600	2,557,300	2,517,000	2,595,000	1,990,000	1,986,000
Water Purchases **	21,527,979	23,654,000	26,496,000	29,340,500	34,531,700	38,749,700	42,483,900
Electricity		2,674,200	2,603,600	2,459,000	2,513,000	2,568,000	2,626,000
PERS		1,951,000	2,163,900	2,219,000	2,321,000	2,413,000	2,510,000
Prefunding Net OPEB		600,000	600,000	600,000	700,000	800,000	1,400,000
Operations & Administration	25,114,630	23,642,100	24,618,500	25,849,400	27,141,900	28,499,000	29,924,000
Lake Jennings Recreation	286,466	411,200	503,300	523,000	544,000	566,000	589,000
Total Operating Expense	49,471,075	55,481,100	59,542,600	63,507,900	70,346,600	75,585,700	81,518,900
Capital Expenses							
PAYGO	6,690,000	7,058,000	7,058,000	7,446,000	7,856,000	8,288,000	8,744,000
Additional	7,586,504	2,879,000	2,519,000	689,000	20,000	143,000	-
Total Capital Expense	14,276,504	9,937,000	9,577,000	8,135,000	7,876,000	8,431,000	8,744,000
Total Expense	63,747,579	65,418,100	69,119,600	71,642,900	78,222,600	84,016,700	90,262,900
Net Revenue after Expense	3,637,235	(6,515,200)	215,200	1,232,100	323,400	(861,700)	(3,026,900)
Changes in Funds							
Capital Reserve	(2,242,000)	2,242,000	(852,000)	689,000	20,000	143,000	-
OPEB Reserve	(550,000)						
Rate Stabilization Reserve			1,460,000	(1,460,000)			
Other	(69,978)						
Net Cash Increase/(Decrease)	775,257	(4,273,200)	823,200	461,100	343,400	(718,700)	(3,026,900)
Revenue Increase	6.0%	8.5%	12.0%	13.0%	8.0%	6.0%	5.0%
Estimated SDCWA Allocation Reduction			8.0%	8.0%	7.0%	6.0%	5.0%
Estimated Water Rate Increase			21.0%	13.0%	7.5%	5.5%	4.5%
Available from Previous Year	13,770,119	14,545,376	10,272,176	11,095,376	11,556,476	11,899,876	11,181,176
Available at End of Year	14,545,376	10,272,176	11,095,376	11,556,476	11,899,876	11,181,176	8,154,276
Debt Service Coverage (minimum 1.2)	8.0	2.3	5.4	4.1	4.2	4.8	3.9
Reserves Fund Balances							
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2012-13
CIP Reserve	2,242,000	-	852,000	163,000	143,000	-	-
Funded OPEB	1,650,000	2,250,000	2,850,000	3,450,000	4,150,000	4,950,000	6,350,000
Friedgen Scholarship	20,300	20,300	20,300	20,300	20,300	20,300	20,300
Arbitrage Fund	100,000	20,000	40,000	60,000	80,000	100,000	20,000
Lake Jennings Rec.	58,065	65,565	73,065	80,565	88,065	95,565	103,065
Rate Stabilization Fund	3,800,362	3,800,362	2,340,362	3,800,362	3,800,362	3,800,362	3,800,362

* Includes \$2,500,000 reduction in revenues offset by reducing capital expense by \$1,700,000 and operating expense by \$240,000 with the additional offset of \$560,000 coming from the rate stabilization fund.

** \$900,000 Reduction in revenue by delaying the rate increase from August 1, 2009 to September 1, 2009.

Helix Water District Rate Calculations FY 2009-10

The calculation of Helix's rates is based on a rate formula which allocates fixed and variable charges.

Key operating expenses are measured and those which do not change based on the volume of water sold are termed "fixed". Some fixed costs are tied to customers' accounts and are not related to meter size (reading, billing, postage) and others are based on meter size or potential demand (maintenance of pumps, tanks, and distribution systems) and increase with meter size. Other items such as power, chemicals, and water purchases do vary with sales and are termed "variable". Variable costs are generally allocated to the commodity charge.

Total Revenue	Variable Commodity Rate	Fixed Base Charge
\$62,036,000	\$45,906,640	\$16,129,360
100%	74.0%	26.0%

Commodity Rate Calculation

\$45,906,640	Variable Commodity Rate
15,726,918	Estimated FY 2009-10 Usage in HCF Units (net conservation)
\$2.92	FY 2009-10 Commodity Base Rate per HCF

Base Charge Calculation

\$16,129,360	Fixed Base Charge
\$2,481,440	Customer Base Charge (4% of total revenue)
\$13,647,920	Demand Base Charge (22% of total revenue)

	5/8"	3/4"	1"	1 1/2"	2"
Meters as of 1/8/09	16,743	34,975	1,410	977	1,360
Capacity Factor	1.15	1.15	2.50	5.00	8.00
Hydraulic Capacity	19,254	40,221	3,525	4,885	10,880
Customer Base	7.45	7.45	7.45	7.45	7.45
Demand Base*	32.65	32.65	70.98	141.97	227.15
Total Base Charge	\$40.10	\$40.10	\$78.44	\$149.42	\$234.60

	3"	4"	6"	8"	Total
Meters as of 1/8/09	16	3	19	1	55,504
Capacity Factor	15.00	25.00	50.00	80.00	
Hydraulic Capacity	240	75	950	80	80,111
Customer Base	7.45	7.45	7.45	7.45	
Demand Base*	425.91	709.85	1,419.69	2,271.51	
Total Base Charge	\$433.36	\$717.30	\$1,427.15	\$2,278.96	-

*see page 9 for an explanation of the Demand Base Charge calculation

Helix Water District - Rate Summary FY 2009-10

Commodity Charges

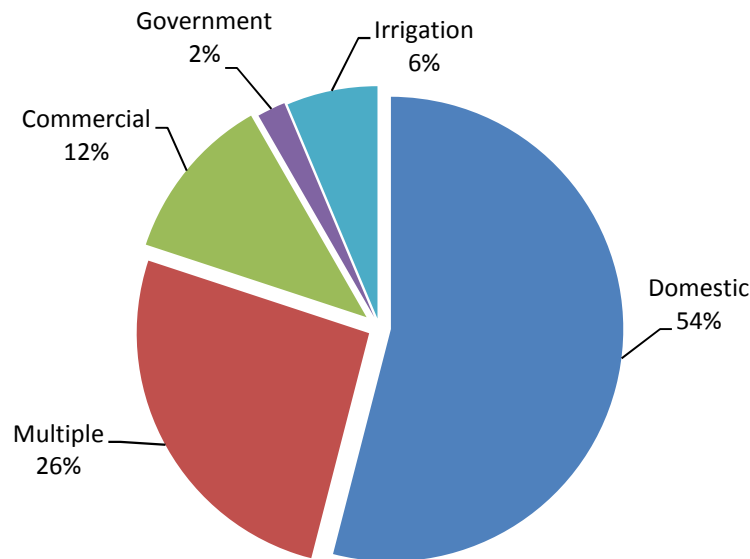
Domestic			Current 2008-09	Proposed 2009-10	% Increase
Tier	Units	Rate	Rate	Rate	Increase
1	.72 X Base 0 to 10	\$1.70	\$2.10	24%	
2	Base 11 to 30	\$2.35	\$2.92	24%	
3	1.33 X Base 31+	\$3.12	\$3.88	24%	
Commercial & Multi-Family			Current 2008-09	Proposed 2009-10	% Increase
	Units	Rate	Rate	Rate	Increase
	Base all	\$2.35	\$2.92	24%	
Government			Current 2008-09	Proposed 2009-10	% Increase
	Units	Rate	Rate	Rate	Increase
	Base all	\$2.35	\$2.92	24%	
Irrigation			Current 2008-09	Proposed 2009-10	% Increase
	Budget Units	Rate	Rate	Rate	Increase
1	Base up to 100%	\$2.35	\$2.92	24%	
2	1.5 X Base 101% - 120%	n/a	\$4.38	n/a	
3	2.0 X Base 121% +	n/a	\$5.84	n/a	

Base Charges

	Current 2008-09	Proposed 2009-10	% Increase
5/8"	\$34.80	\$40.10	15%
3/4"	\$34.80	\$40.10	15%
1"	\$71.06	\$78.44	10%
1 1/2"	\$135.61	\$149.42	10%
2"	\$213.07	\$234.60	10%
3" *	\$419.63	\$433.36	3%
4"	\$652.01	\$717.30	10%
6"	\$1,297.52	\$1,427.15	10%
8" *	\$1,297.52	\$2,278.96	76%

*The different rate increases are caused by updating the base rate calculation to use the current AWWA capacity factors.

Customer Usage By Class



SAMPLE BILLS

June 2009

<u>DOMESTIC:</u>	Base =	2.35	2.92	% Change	% of Domestic Use
Three Blocks:					
0-10		1.70	2.10	24%	29%
11-30		2.35	2.92	24%	41%
31+		3.12	3.88	24%	30%

	<u>Current Charges</u>	<u>Proposed Charges</u>	<u>Bimonthly Increase</u>	<u>% Change</u>
<u>DOMESTIC</u>				
3/4" meter				
10 units usage	51.80	61.10	9.30	18%
33 units usage (average)	108.16	131.14	22.98	21%
55 units usage	176.80	216.50	39.70	22%
100 units usage	317.20	391.10	73.90	23%
<u>MULTIPLE:</u>				
3/4" meter				
35 units usage	117.05	142.30	25.25	22%
1" meter				
135 units usage	388.31	472.64	84.33	22%
1-1/2" meter				
300 units usage	840.61	1,025.42	184.81	22%
2" meter				
640 units usage	1,717.07	2,103.40	386.33	22%
<u>GOVERNMENT:</u>				
3/4" meter				
75 units usage	211.05	259.10	48.05	23%
300 units usage	739.80	916.10	176.30	24%
<u>COMMERCIAL:</u>				
2" meter				
300 units usage	918.07	1,110.60	192.53	21%
800 units usage	2,093.07	2,570.60	477.53	23%

Helix Water District - Sample Bill Calculations FY 2009-10

Current FY 2008-09					Domestic 3/4" Meter Proposed FY 2009-10						
Use HCF	Comm. Rate	Bi-Mon. Comm.	Base Charge	Total Bill	Use HCF	Comm. Rate	Bi-Mon. Comm.	Base Charge	Total Bill	Dollar Change	% Change
5	\$1.70	\$8.50	\$34.80	\$43.30	5	\$2.10	\$10.50	\$40.10	\$50.60	\$7.30	17%
10		\$17.00	\$34.80	\$51.80	10		\$21.00	\$40.10	\$61.10	\$9.30	18%
15	\$2.35	\$28.75	\$34.80	\$63.55	15	\$2.92	\$35.60	\$40.10	\$75.70	\$12.15	19%
20		\$40.50	\$34.80	\$75.30	20		\$50.20	\$40.10	\$90.30	\$15.00	20%
22		\$45.20	\$34.80	\$80.00	22		\$56.04	\$40.10	\$96.14	\$16.14	20%
25		\$52.25	\$34.80	\$87.05	25		\$64.80	\$40.10	\$104.90	\$17.85	21%
30		\$64.00	\$34.80	\$98.80	30		\$79.40	\$40.10	\$119.50	\$20.70	21%
33	\$3.12	\$73.36	\$34.80	\$108.16	33	\$3.88	\$91.04	\$40.10	\$131.14	\$22.98	21%
40		\$95.20	\$34.80	\$130.00	40		\$118.20	\$40.10	\$158.30	\$28.30	22%
80		\$220.00	\$34.80	\$254.80	80		\$273.40	\$40.10	\$313.50	\$58.70	23%
100		\$282.40	\$34.80	\$317.20	100		\$351.00	\$40.10	\$391.10	\$73.90	23%
120		\$344.80	\$34.80	\$379.60	120		\$428.60	\$40.10	\$468.70	\$89.10	23%
140		\$407.20	\$34.80	\$442.00	140		\$506.20	\$40.10	\$546.30	\$104.30	24%
160		\$469.60	\$34.80	\$504.40	160		\$583.80	\$40.10	\$623.90	\$119.50	24%
180		\$532.00	\$34.80	\$566.80	180		\$661.40	\$40.10	\$701.50	\$134.70	24%
200		\$594.40	\$34.80	\$629.20	200		\$739.00	\$40.10	\$779.10	\$149.90	24%
250		\$750.40	\$34.80	\$785.20	250		\$933.00	\$40.10	\$973.10	\$187.90	24%
300		\$906.40	\$37.80	\$944.20	300		\$1,127.00	\$40.10	\$1,167.10	\$222.90	24%

Current 2008-09					Multi-Family / Commercial / Government 3/4" Meter Proposed 2009-10						
Use HCF	Comm. Rate	Bi-Mon. Comm.	Base Charge	Total Bill	Use HCF	Comm. Rate	Bi-Mon. Comm.	Base Charge	Total Bill	Dollar Change	% Change
10	\$2.35	\$23.50	\$34.80	\$58.30	10	\$2.92	\$29.20	\$40.10	\$69.30	\$11.00	19%
20		\$47.00	\$34.80	\$81.80	20		\$58.40	\$40.10	\$98.50	\$16.70	20%
40		\$94.00	\$34.80	\$128.80	40		\$116.80	\$40.10	\$156.90	\$28.10	22%
80		\$188.00	\$34.80	\$222.80	80		\$233.60	\$40.10	\$273.70	\$50.90	23%
100		\$235.00	\$34.80	\$269.80	100		\$292.00	\$40.10	\$332.10	\$62.30	23%
160		\$376.00	\$34.80	\$410.80	160		\$467.20	\$40.10	\$507.30	\$96.50	23%
200		\$470.00	\$34.80	\$504.80	200		\$584.00	\$40.10	\$624.10	\$119.30	24%
300		\$705.00	\$34.80	\$739.80	300		\$876.00	\$40.10	\$916.10	\$176.30	24%

Current 2008-09					Multi-Family / Commercial / Government 2" Meter Proposed 2009-10						
Use HCF	Comm. Rate	Bi-Mon. Comm.	Base Charge	Total Bill	Use HCF	Comm. Rate	Bi-Mon. Comm.	Base Charge	Total Bill	Dollar Change	% Change
80	\$2.35	\$188.00	\$213.07	\$401.07	80	\$2.92	\$233.60	\$234.60	\$468.20	\$67.13	17%
100		\$235.00	\$213.07	\$448.07	100		\$292.00	\$234.60	\$526.60	\$78.53	18%
160		\$376.00	\$213.07	\$589.07	160		\$467.20	\$234.60	\$701.80	\$112.73	19%
200		\$470.00	\$213.07	\$683.07	200		\$584.00	\$234.60	\$818.60	\$135.53	20%
300		\$705.00	\$213.07	\$918.07	300		\$876.00	\$234.60	\$1,110.60	\$192.53	21%
400		\$940.00	\$213.07	\$1,153.07	400		\$1,168.00	\$234.60	\$1,402.60	\$249.53	22%
500		\$1,175.00	\$213.07	\$1,388.07	500		\$1,460.00	\$234.60	\$1,694.60	\$306.53	22%

Irrigation											
Irrigation Customer with a 3/4" meter and water budget for one month of										148	units
Current 2008-09					Proposed 2009-10						
Use HCF	Var.	Comm. Rate	Base Charge	Total Bill	Use HCF	Var.	Comm. Rate	Base Charge	Total Bill	Dollar Change	% Change
100	68%	\$2.35	\$34.80	\$269.80	100	68%	\$2.92	\$40.10	\$331.88	\$62.08	23%
160	108%	\$2.35	\$34.80	\$410.80	160	108%	\$4.38	\$40.10	\$524.50	\$113.70	28%
200	135%	\$2.35	\$34.80	\$504.80	200	135%	\$5.84	\$40.10	\$732.40	\$227.60	45%

Demand Base Charge Calculation

Explanation of Transition to 3/4-inch Meter Standard

The Base Charge Calculation is comprised of two components: Customer Base Charge and Demand Base Charge. The Customer Base Charge is independent of meter size and is a flat rate per meter. The Demand Base Charge is typically prorated by a formula suggested by American Water Works Association (AWWA). This formula is a guideline and non-statutory. Agencies often customize the proration based on the best judgment by the agency.

Staff has estimated that the Total Base Charge collection for FY 2009-10 is \$16,129,360 or 26% of the District's total revenue collected. Seventy-four percent of the District's revenue is collected from commodity charges. The percentage split between fixed and commodity revenue is consistent with goals established by the California Urban Water Conservation Council for water conserving rate structures.

The Customer Base portion is independent of meter size, so this portion of the calculation is a flat charge by meter size. Staff estimates that the District collects 4% of total revenue on the Customer Base Charge.

The Demand Base portion is based on meter size and is often calculated using proration guidelines provided by AWWA relating demand to hydraulic capacity. Under ideal conditions, the Demand Base Charge can be spread across the user base using the proration guidelines. However, the District has a unique set of circumstances which require the District to customize its approach to calculating the Demand Base Charge.

Prior to 2000, the District calculated separate Demand Base Charges for the 5/8-inch and 3/4-inch meters. In 2000, the District made a policy decision to treat 5/8-inch and 3/4-inch meters as one size class. This began the attempt to meld both meter sizes into one Demand Charge. At that time, the District had 45,413 5/8-inch meters and 4,897 3/4-inch meters. Total between the two sizes equaled 50,310 meters. Nearly 90% of the meters were 5/8-inch meters. The District made a policy decision to only install 3/4-inch meters in the future. The District replaces about 3,500 5/8-inch meters each year with 3/4-inch meters. Because the District is using 3/4-inch meters as the minimum size, the demand capacity or total hydraulic capacity will increase causing 5/8-inch meter owners to experience a disproportionate increase in the Demand Base Charge. The plan is to increase the Demand Charge so that over 15-20 years the calculation would more closely match AWWA guidelines.

In January 2001, the District had a total of 50,310 5/8-inch and 3/4-inch meters. The calculated melded hydraulic capacity was 1.05. A 5/8-inch meter has a relative hydraulic capacity of 1.0 and a 3/4-inch meter has a relative hydraulic capacity of 1.5. If the District added all the new 3/4-inch meters installed since January 2001 to this baseline year, the adjusted melded hydraulic capacity would theoretically be 1.06. Our goal is to get to a final melded hydraulic capacity of 1.5 after all the 5/8-inch meters are changed out to 3/4-inch meters. To help migrate to this goal, staff recommends that the District use a melded rate of **1.15** this year and slowly migrate to 1.5.

Because of the overall water rate increase this year, staff recommends that the District move this factor slowly this year. The District is attempting to find the balance of migrating to the new $\frac{3}{4}$ -inch meter standard while minimizing the financial impact to our customers. Staff is now using the appropriate hydraulic capacity factors for all meter sizes 1-inch and above to distribute the Demand Base Charge. Staff recommends using this customized approach for the 5/8-inch and 3/4-inch meter conversion and slowly move to the new standard.

Helix Water District History of Rate Changes

- ❑ 1950s and 1960s Helix rates were declining block rates with a minimum.
- ❑ 1972 Wilsey-Ham Study (W/H) completed.
Declining blocks eliminated.
Flat Commodity Charge adopted.
Base Charges adopted to cover a portion of fixed expenses.
Commodity Charge represented 70% of revenue; base 30%.
- ❑ During the 70s the W/H Commodity/Base Charge concept continued. A slight departure occurred with the tendency to place more of the increases on the Commodity Charge than the Base Charge.
- ❑ 1981 - We started using five-year projections when setting rates.
- ❑ In February 1983, rate consultant Fred Bolte was hired to evaluate our present rate structure. Conclusion was the W/H study was a sound basis for rates, it was recommended that we continue using the W/H concept for rate calculations.
- ❑ July 1988 we moved for the first time from a flat Commodity Rate to a two-level inclining block rate:
0-20 units first block
21 + second block
- ❑ In July 1991, in response to the drought, we adopted 6 rate blocks with a range of \$0.94 for the first 10 units to \$2.70 for use over 156. This was the first time that Commercial and Multiple customers paid higher than postage stamp rate.
- ❑ In March 1992 (Miracle March), we relaxed the drought rates, dropped to four blocks with water use at 76+ charged \$1.90.
- ❑ July 1994, we reduced from 4 to 3 blocks with all water use at 31+ charged \$1.90.
- ❑ January 1995, Helix requested that our financial advisor, Bartle Wells, review the rate calculation methods for comment and suggestions. Their conclusion was that the process remains based on equitable and sound concepts. They recognize that allocations between classes of service and usage blocks within a class remain at Board discretion within the political realities of the community served.
- ❑ July 1996, rate schedules were modified to provide the same effective Commodity Charge to all classes of service. Top block was held constant.
- ❑ July 1997, rate schedules utilized a slightly modified Wilsey-Ham calculation. Base Charges were held constant, only Commodity Rates were increased. Top block was held constant.

History, continued

- ❑ July 1998, Base Charges were held constant for a second year. All blocks received an increase.
- ❑ July 1999, both Base and Commodity Rates were based on the Wilsey-Ham calculation. Only the middle block rate received an increase.
- ❑ July 2000, Commodity Rates were held constant. Base Rates were increased according to the Wilsey-Ham calculation except 3/4" meters had the same Base Rate as 5/8" meters, resulting in a decrease for customers (~3,500) who had 3/4" meters.
- ❑ July 2001, Commodity Rates increased according to the Wilsey-Ham calculation.
- ❑ July 2002, Commodity Rates increased according to the Wilsey-Ham calculation.
- ❑ July 2003, Commodity Rates lowest block rate remained the same while only the middle and upper block rate received an increase.
- ❑ July 2004, Commodity Rate blocks received an increase.
- ❑ July 2005, Commodity Rate blocks received an increase.
- ❑ July 2006, Commodity Rate blocks received an increase. Starting in FY 2005-06, the payments necessary to fund GASB No.45 Other Post Employment Benefits (OPEB) Funding in order to achieve compliance when implemented are included in the five-year projection.
- ❑ July 2007, Commodity Rate blocks received an increase. Prop 218 rules were followed for the 2007-08 water rate change. Customers were mailed a notice of the public hearing to be held on June 20, 2007.
- ❑ Proposed for July 2008, Commodity Rate blocks will receive an increase. Customers will be mailed a notice of a public hearing to be held on June 11, 2008.
- ❑ For FY 2009-10 an initial rate study with comprehensive conservation rate structure changes was presented in February 2009 to deal with an expected loss of supply of 15%. In April of 2009 loss of supply was better than expected at 8% and the initial rate study was revised. The revised rate study used the same rate structure from previous years and was presented in June 2009 for an effective date of September 1, 2009. The Irrigation Class rate structure was modified to have 3 tiers based on assigned water budgets. The Tier 1 rate for the Irrigation Class represents all water used under budget and the higher Tier 2 & 3 Irrigation conservation rates are charged for water used over the budget.

History, continued

In July 2000, the District began converting to a higher capacity 3/4" meter as our standard minimum size. The reason for the conversion was to meet changing fire department standards and requirements for fire protection within our District. From this change, the Base Charge starting in 2000 for 5/8" and 3/4" meters will be the same until all 5/8" meters are replaced (est. 2015). To implement this change, the District calculates an average Base Charge for 5/8" and 3/4" meters. Below is a table of the progression of the conversion and resulting adjustment to the calculated base rate.

Effective Date	Calculated Base Charge	Adjustment	3/4" Meters
July 2001	\$23.35	\$0.30	5,323
July 2002	\$23.81	\$0.84	9,017
July 2003	\$24.57	\$1.08	12,370
July 2004	\$25.59	\$0.91	15,422
July 2005	\$26.38	\$1.42	19,626
July 2006	\$27.48	\$2.17	25,050
July 2007	\$29.82	\$2.18	28,387
July 2008	\$32.33	\$2.47	32,207
July 2009	\$40.10	Capacity factor of 1.15	34,975