

# PROPOSED WATER SHORTAGE RATES

WATER SHORTAGE TASK FORCE

DECEMBER 16, 2014



# AGENDA

- Objective
- Approved Water Rates
- Water Shortage Rates
  - Proposed Rate Structure
  - Assumptions
  - Proposed Rates for Each Shortage Stage
- Customer Impacts – Stage 3
- Next Steps

# OBJECTIVE

- Validate the approach for determining water shortage rates
- Approve the water shortage rate methodology and rates

# MODEL BASIS

- City has an approved four-year program of base rates
- Current financial plan and rate model was updated with new data and budget
  - Approved rates will remain unchanged
- No change in assumptions from prior rate study
- Water shortage rates would only apply to the volume rates, no change in service charges

# APPROVED BASE WATER RATES

Bi-Monthly Rates	Current	Effective		
	Rates	July 1, 2015	July 1, 2016	July 1, 2017
<b>Bi-Monthly Service Charge</b>				
<b>Meter Size</b>				
3/4"	\$27.30	\$29.28	\$31.41	\$33.69
1"	\$41.36	\$44.36	\$47.58	\$51.03
1 1/2"	\$76.50	\$82.05	\$88.00	\$94.38
2"	\$118.68	\$127.29	\$136.52	\$146.42
3"	\$252.23	\$270.52	\$290.14	\$311.18
4"	\$449.05	\$481.61	\$516.53	\$553.98
6"	\$920.00	\$986.70	\$1,058.24	\$1,134.97
8"	\$1,693.21	\$1,815.97	\$1,947.63	\$2,088.84
10"	\$2,677.29	\$2,871.40	\$3,079.58	\$3,302.85
12"	\$3,520.79	\$3,776.05	\$4,049.82	\$4,343.44

# APPROVED BASE WATER RATES

Bi-Monthly Rates		Current	Effective		
		Rates	July 1, 2015	July 1, 2016	July 1, 2017
<b>Volume Rates (\$/hcf)</b>					
<b>SFR</b>					
Tier 1	0 to 14	\$2.23	\$2.40	\$2.58	\$2.77
Tier 2	15 to 30	\$3.12	\$3.35	\$3.60	\$3.87
Tier 3	> 30	\$5.27	\$5.66	\$6.08	\$6.53
<b>MFR</b>					
Tier 1	0 to 10	\$2.23	\$2.40	\$2.58	\$2.77
Tier 2	11 to 16	\$3.12	\$3.35	\$3.60	\$3.87
Tier 3	> 16	\$5.27	\$5.66	\$6.08	\$6.53
Non-Residential		\$2.88	\$3.09	\$3.32	\$3.57
Institutional/Interruptible Rate		\$2.22	\$2.39	\$2.57	\$2.76
Reclaimed Water		\$0.76	\$0.82	\$0.88	\$0.95
Untreated Water		\$2.32	\$2.49	\$2.68	\$2.88
Outside City Rates		\$0.60/hcf	\$0.60/hcf	\$0.60/hcf	\$0.60/hcf

# WATER SHORTAGE STAGES

- Stage 1 - 10% cutback - Voluntary
- Stage 2 - 10% cutback - Mandatory
- **Stage 3 - 20% cutback - Mandatory**
- Stage 4 - 30% cutback - Mandatory
- Stage 5 - 40% cutback - Mandatory
- Stage 6 - 50% cutback - Mandatory

# WATER SHORTAGE RATE STRUCTURE

- Residential Customers - Revising Bi-Monthly Tiers for Stages 2-6
  - Existing Tier 1 will be split into two tiers – the lowest tier rates will remain unchanged in all drought stages to provide for lifeline usage
  - Existing Tiers 2 and 3 will become new Tiers 3 and 4
- Low to average volume users that conserve would not experience higher bills

# WATER SHORTAGE RATE STRUCTURE

- Non-Residential Customers
  - Irrigation meters will be expected to conserve at the same levels as Tiers 3 and 4 since they represent outdoor discretionary use
  - Commercial customers, due to the nature of the business, are expected to conserve at half the targeted demand reduction – i.e. 10% reduction during a 20% reduction stage

# RATE ASSUMPTIONS

- Rates are set up to recover lost revenue due to lower sales and drought-related extraordinary expenses
- Savings in variable electrical and chemicals costs resulting from lower water sales are allocated to each customer class in proportion to their water usage
  - Estimate savings will be 50% of the total demand reduction – i.e. 20% demand reduction will result in a 10% variable costs savings

# DROUGHT-RELATED EXPENSES

- Expenses include costs for Incentive Program, Water Waste Enforcement, Customer Outreach, and Customer Response and Surveys
  - Range from \$1,134,000 in Stage 3 to \$309,000 in Stage 6
- Drought-related expenses are allocated to each customer class in proportion to their water usage
  - Residential Tier 1 rate does not include any of these expenses

# EXCESS WATER USE CHARGE

- In the event that the City incurs penalty charges from Fox Canyon GMA and/or increases in water supply costs from United Water Conservation District and/or Casitas Municipal Water District, the City will pass on the additional charges to all customers, except Residential Tiers 1 and 2.

# EXCESS WATER USE CHARGE

- Excess water use charges will be assessed based on the actual water consumption in each customer class compared to the expected water consumption in each shortage stage
  - Example: In stage 3, commercial customers are expected to conserve 10% of their base water use. The penalty will be assessed to all usage above 90% of the base water use.

# 10% VOLUNTARY (STAGE 1)

- Use base rates
- Revenue losses will be covered through reserves

# 10% MANDATORY (STAGE 2)

Customer Class	New Tier	Estimated Usage (hcf)	Revised Rates	Drought Cost (\$/hcf)	Total Rate (\$/hcf)	Difference
<u>Inside City</u>						
SFR						
Tier 1	6	762,792	\$2.40	\$0.00	\$2.40	0.0%
Tier 2	14	770,151	\$2.70	\$0.00	\$2.70	12.5%
Tier 3	30	743,084	\$4.00	\$0.00	\$4.00	19.4%
Tier 4	> 30	381,528	\$6.70	\$0.00	\$6.70	18.4%
<b>TOTAL</b>		<b>2,657,554</b>		<b>\$0.00</b>		
MFR (per unit)						
Tier 1	6	697,869	\$2.40	\$0.00	\$2.40	0.0%
Tier 2	10	341,578	\$2.70	\$0.00	\$2.70	12.5%
Tier 3	16	291,175	\$4.00	\$0.00	\$4.00	19.4%
Tier 4	> 16	136,862	\$6.70	\$0.00	\$6.70	18.4%
<b>TOTAL</b>		<b>1,467,484</b>				
Non-Residential		851,786	\$3.44	\$0.00	\$3.44	11.3%
Non-Residential Irrigation		603,072	\$3.68	\$0.00	\$3.68	19.1%
Institutional/Interruptible		163,045	\$2.85	\$0.00	\$2.85	19.2%

# 20% MANDATORY (STAGE 3)

Customer Class	New Tier	Estimated Usage (hcf)	Revised Rates	Drought Cost (\$/hcf)	Total Rate (\$/hcf)	Difference
<u>Inside City</u>						
SFR						
Tier 1	6	762,792	\$2.40	\$0.00	\$2.40	0.0%
Tier 2	14	727,365	\$2.90	\$0.35	\$3.25	35.4%
Tier 3	30	575,005	\$5.20	\$0.35	\$5.55	65.7%
Tier 4	> 30	295,230	\$8.00	\$0.35	\$8.35	47.5%
<b>TOTAL</b>		<b>2,360,391</b>		<b>\$0.35</b>		
MFR (per unit)						
Tier 1	6	697,869	\$2.40	\$0.00	\$2.40	0.0%
Tier 2	10	322,601	\$2.90	\$0.35	\$3.25	35.4%
Tier 3	16	225,314	\$5.20	\$0.35	\$5.55	65.7%
Tier 4	> 16	105,905	\$8.00	\$0.35	\$8.35	47.5%
<b>TOTAL</b>		<b>1,351,690</b>				
Non-Residential		851,786	\$3.39	\$0.22	\$3.61	16.8%
Non-Residential Irrigation		466,663	\$4.71	\$0.22	\$4.93	59.5%
Institutional/Interruptible		126,166	\$3.63	\$0.22	\$3.85	61.1%

# 30% MANDATORY (STAGE 4)

Customer Class	New Tier	Estimated Usage (hcf)	Revised Rates	Drought Cost (\$/hcf)	Total Rate (\$/hcf)	Difference
<u>Inside City</u>						
SFR						
Tier 1	6	762,792	\$2.40	\$0.00	\$2.40	0.0%
Tier 2	14	641,793	\$3.20	\$0.29	\$3.49	45.4%
Tier 3	30	442,312	\$6.70	\$0.29	\$6.99	108.7%
Tier 4	> 30	204,390	\$12.00	\$0.29	\$12.29	117.1%
<b>TOTAL</b>		<b>2,051,286</b>		<b>\$0.29</b>		
MFR (per unit)						
Tier 1	6	697,869	\$2.40	\$0.00	\$2.40	0.0%
Tier 2	10	284,648	\$3.20	\$0.29	\$3.49	45.4%
Tier 3	16	173,319	\$6.70	\$0.29	\$6.99	108.7%
Tier 4	> 16	73,319	\$12.00	\$0.29	\$12.29	117.1%
<b>TOTAL</b>		<b>1,229,155</b>				
Non-Residential		804,465	\$3.55	\$0.16	\$3.71	20.1%
Non-Residential Irrigation		341,023	\$6.42	\$0.16	\$6.58	112.9%
Institutional/Interruptible		97,051	\$4.70	\$0.16	\$4.86	103.3%

# 40% MANDATORY (STAGE 5)

Customer Class	New Tier	Estimated Usage (hcf)	Revised Rates	Drought Cost (\$/hcf)	Total Rate (\$/hcf)	Difference
<u>Inside City</u>						
SFR						
Tier 1	6	762,792	\$2.40	\$0.00	\$2.40	0.0%
Tier 2	14	556,220	\$3.70	\$0.39	\$4.09	70.4%
Tier 3	30	309,618	\$9.60	\$0.39	\$9.99	198.2%
Tier 4	> 30	90,840	\$26.00	\$0.39	\$26.39	366.3%
<b>TOTAL</b>		<b>1,719,470</b>		<b>\$0.39</b>		
MFR (per unit)						
Tier 1	6	697,869	\$2.40	\$0.00	\$2.40	0.0%
Tier 2	10	246,695	\$3.70	\$0.39	\$4.09	70.4%
Tier 3	16	121,323	\$9.60	\$0.39	\$9.99	198.2%
Tier 4	> 16	32,586	\$26.00	\$0.39	\$26.39	366.3%
<b>TOTAL</b>		<b>1,098,473</b>				
Non-Residential		757,143	\$3.73	\$0.19	\$3.92	26.9%
Non-Residential Irrigation		197,434	\$11.11	\$0.19	\$11.30	265.7%
Institutional/Interruptible		67,936	\$6.70	\$0.19	\$6.89	188.3%

# 50% MANDATORY (STAGE 6)

Customer Class	New Tier	Estimated Usage (hcf)	Revised Rates	Drought Cost (\$/hcf)	Total Rate (\$/hcf)	Difference
<u>Inside City</u>						
SFR						
Tier 1	6	762,792	\$2.40	\$0.00	\$2.40	0.0%
Tier 2	14	427,862	\$4.80	\$0.24	\$5.04	110.0%
Tier 3	30	176,925	\$16.75	\$0.24	\$16.99	407.2%
Tier 4	> 30	45,420	\$49.00	\$0.24	\$49.24	770.0%
<b>TOTAL</b>		<b>1,412,998</b>		<b>\$0.24</b>		
MFR (per unit)						
Tier 1	6	697,869	\$2.40	\$0.00	\$2.40	0.0%
Tier 2	10	189,765	\$4.80	\$0.24	\$5.04	110.0%
Tier 3	16	69,327	\$16.75	\$0.24	\$16.99	407.2%
Tier 4	> 16	16,293	\$49.00	\$0.24	\$49.24	770.0%
<b>TOTAL</b>		<b>973,255</b>				
Non-Residential		709,822	\$3.93	\$0.10	\$4.03	30.4%
Non-Residential Irrigation		107,691	\$20.41	\$0.10	\$20.51	563.8%
Institutional/Interruptible		38,820	\$11.76	\$0.10	\$11.86	396.2%

# SHORTAGE RATES SUMMARY – FY 2016

Customer Class	Bi-monthly Tier	Base Rates (\$/hcf)	Stage 2 Rate (\$/hcf)	Stage 3 Rate (\$/hcf)	Stage 4 Rate (\$/hcf)	Stage 5 Rate (\$/hcf)	Stage 6 Rate (\$/hcf)
<u>Inside City</u>							
SFR							
Tier 1	6	\$2.40	\$2.40	\$2.40	\$2.40	\$2.40	\$2.40
Tier 2	14	\$2.40	\$2.70	\$3.25	\$3.49	\$4.09	\$5.04
Tier 3	30	\$3.35	\$4.00	\$5.55	\$6.99	\$9.99	\$16.99
Tier 4	> 30	\$5.66	\$6.70	\$8.35	\$12.29	\$26.39	\$49.24
MFR (per unit)							
Tier 1	6	\$2.40	\$2.40	\$2.40	\$2.40	\$2.40	\$2.40
Tier 2	10	\$2.40	\$2.70	\$3.25	\$3.49	\$4.09	\$5.04
Tier 3	16	\$3.35	\$4.00	\$5.55	\$6.99	\$9.99	\$16.99
Tier 4	> 16	\$5.66	\$6.70	\$8.35	\$12.29	\$26.39	\$49.24
Non-Residential		\$3.09	\$3.44	\$3.61	\$3.71	\$3.92	\$4.03
Non-Residential Irrigation		\$3.09	\$3.68	\$4.93	\$6.58	\$11.30	\$20.51
Institutional/Interruptible		\$2.39	\$2.85	\$3.85	\$4.86	\$6.89	\$11.86

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# SHORTAGE RATES INCREASE BY STAGE

Customer Class	Bi-monthly Tier	Stage 2 Increase	Stage 3 Increase	Stage 4 Increase	Stage 5 Increase	Stage 6 Increase
<u>Inside City</u>						
SFR						
Tier 1	6	0%	0%	0%	0%	0%
Tier 2	14	13%	36%	46%	71%	110%
Tier 3	30	20%	66%	109%	199%	408%
Tier 4	> 30	19%	48%	118%	367%	770%
MFR (per unit)						
Tier 1	6	0%	0%	0%	0%	0%
Tier 2	10	13%	36%	46%	71%	110%
Tier 3	16	20%	66%	109%	199%	408%
Tier 4	> 16	19%	48%	118%	367%	770%
Non-Residential		12%	17%	21%	27%	31%
Non-Residential Irrigation		20%	60%	113%	266%	564%
Institutional/Interruptible		20%	62%	104%	189%	397%

# SFR CUSTOMER IMPACTS – FY 2016 STAGE 3 (20% MANDATORY)

SFR	Normal Bi-monthly Usage (hcf)	Current Bi-monthly Bill	Drought Bi-monthly Bill	Difference \$	Drought Bi-monthly Usage (hcf)	Drought Bi-monthly Bill	Difference \$
Very Low	5	\$41.28	\$41.28	\$0.00	4	\$38.88	(\$2.40)
Low	12	\$58.08	\$63.18	\$5.10	10	\$56.68	(\$1.40)
<b>Average</b>	<b>21</b>	<b>\$86.33</b>	<b>\$108.53</b>	<b>\$22.20</b>	<b>17</b>	<b>\$86.33</b>	<b>\$0.00</b>
High	35	\$144.78	\$200.23	\$55.45	28	\$147.38	\$2.60
Very High	50	\$229.68	\$325.48	\$95.80	40	\$241.98	\$12.30

Note: Assume 3/4" meter, includes drought-related expenses

# MFR CUSTOMER IMPACTS – FY 2016 STAGE 3 (20% MANDATORY)

MFR	Normal Bi-monthly Usage (hcf)	Current Bi-monthly Bill	Drought Bi-monthly Bill	Difference \$	Drought Bi-monthly Usage (hcf)	Drought Bi-monthly Bill	Difference \$
Very Low	3	\$36.48	\$36.48	\$0.00	3	\$36.48	\$0.00
Low	8	\$48.48	\$50.18	\$1.70	7	\$46.93	(\$1.55)
<b>Average</b>	<b>13</b>	<b>\$63.33</b>	<b>\$73.33</b>	<b>\$10.00</b>	<b>11</b>	<b>\$62.23</b>	<b>(\$1.10)</b>
High	22	\$107.34	\$140.08	\$32.74	18	\$106.68	(\$0.66)
Very High	35	\$180.92	\$248.63	\$67.71	28	\$190.18	\$9.26

Note: Assume 3/4" meter, includes drought-related expenses

# ROSEVILLE OPTION

- Retain current tier structure
- Increase tier rates proportionally to water usage reductions to ensure revenue recovery
- Recover drought-related expenses in upper tiers
- Users that conserve would not experience higher bills

# ROSEVILLE SHORTAGE RATES

Summary of Water Shortage Rate Charges			
Stage	Water Use Restriction	Water Shortage Surcharge (*1)	Excess Water Use Charge (*2)
<b>First Year of a Water Shortage</b>			
Stage 1	10%	None	None
Stage 2	20%	15%	None
Stage 3	30%	33%	25%
Stage 4	40%	45%	50%
Stage 5	50%	60%	100%
<b>Subsequent Year(s) of a Water Shortage</b>			
Stage 1	10%	15%	None
Stage 2	20%	20%	25%
Stage 3	30%	40%	50%
Stage 4	40%	50%	100%
Stage 5	50%	75%	200%

(\*1) The water shortage surcharge shall be added to all quantity rates.

(\*2) In addition to the applicable water shortage surcharge, an excess water use charge shall be added to Tier 3 and Tier 4 water quantity rates according to drought stage.

# SHORTAGE RATES VENTURA OPTION 2: ROSEVILLE MODEL

	Shortage Surcharge – Stage 2	Shortage Surcharge – Stage 3	Shortage Surcharge – Stage 4	Shortage Surcharge – Stage 5	Shortage Surcharge – Stage 6	Excess Water Use Charge*
Residential						
Tier 1	11%	23%	40%	62%	93%	0%
Tier 2	11%	23%	40%	62%	93%	50%
Tier 3	11%	23%	40%	62%	93%	100%
Non-Residential	11%	23%	40%	62%	93%	100%

\* Recovers drought-related expenses and/or penalties and supply costs increases

# NEXT STEPS

- Finalize Water Shortage Rates

# QUESTIONS AND DISCUSSION

