

November 5, 2014

Funding



Meeting Topics

- **Colorado River Drought Update (*handout*)**
- **Phase II Draft Recommendations (*handout*)**
- **Phase I Funding Recommendations (*handout*)**
- **Intake Pumping Station No. 3**
- **Current Rate Status**
- **Development of Funding Recommendations**

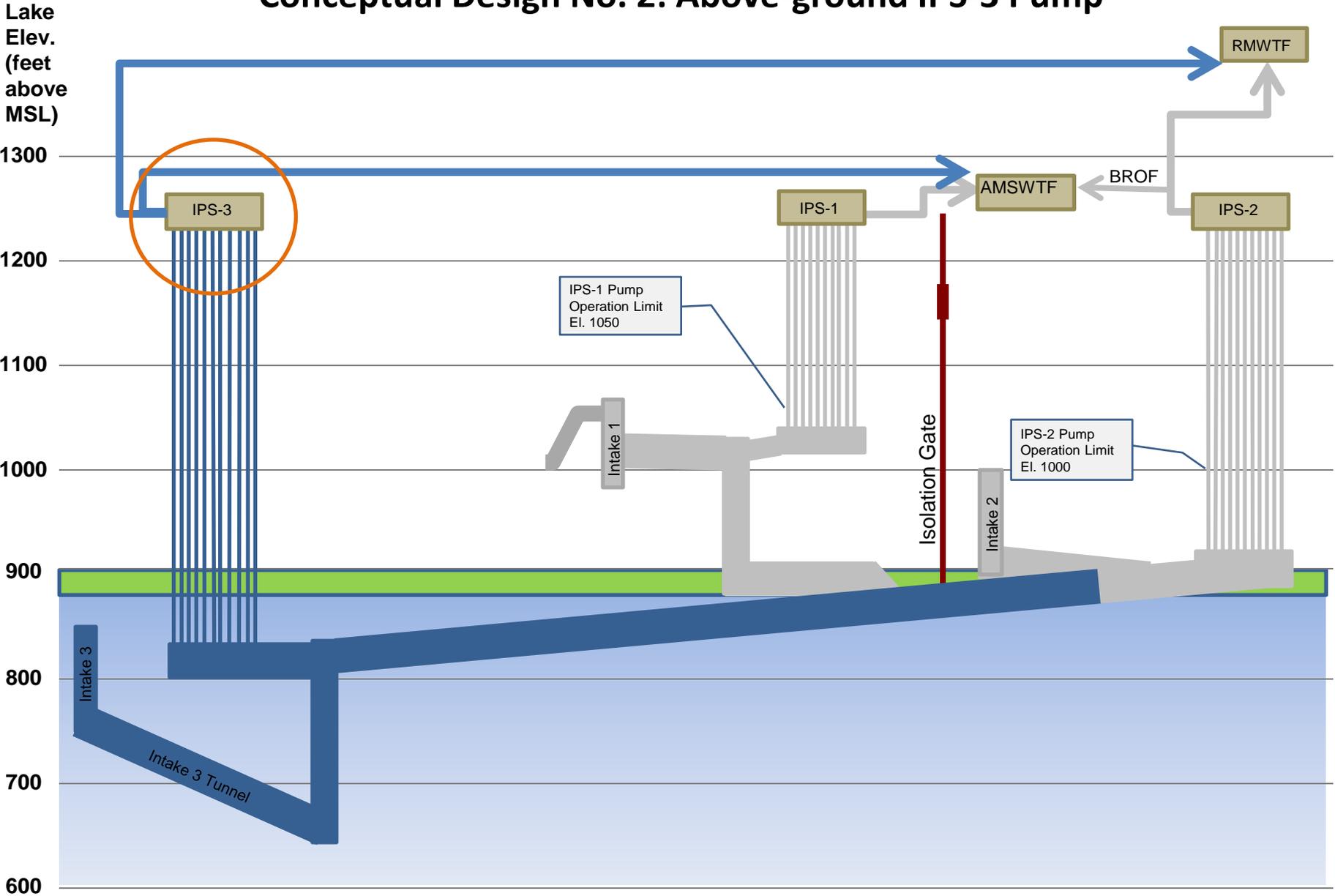
Phase I Funding Recommendations

Underlying Considerations for Phase I Recommendations:

- **Transparency and community involvement**
- **Appropriate mix of volumetric vs. fixed charges**
- **Phased vs. fixed implementation**
- **Segregation of funds for capital and debt reduction**
- **How is this different from Phase I?**

Intake Pumping Station No. 3

Conceptual Design No. 2: Above-ground IPS-3 Pump



Intake Pumping Station No. 3

Preliminary estimate = \$650 million (Class 5 pre-design estimate)

- **Includes an estimated \$30 million in design and engineering services (one-time capital cost)**
- **Includes \$620 million in construction costs**
- **Includes 30 percent construction contingency (utilized only as necessary)**

Intake Pumping Station No. 3

Financing Strategy and Assumptions

- **Connection Charge revenues above \$16.1 million a year and Fund Balance above \$280 million used to fund \$30 million in year one (consistent with Phase 1 recommendations)**
- **Schedule bond issuances to optimize the use of resources and minimize interest costs (June 2016 and June 2019)**
- **In the interest of prudent and conservative planning, debt service estimates account for a 2 percent increase in interest rates from current historic lows**

SNWA Rate Status

Las Vegas Valley Water District
2014 MUNICIPAL WATER RATES SURVEY
AVERAGE MONTHLY BILL (\$) FOR 11,600 GALLONS

Utility	\$10 - \$20	\$20 - \$30	\$30 - \$40	\$40 - \$50	\$50 - \$60	\$60 - \$70	\$70 - \$80	\$80 - \$90	\$90 - \$100	Over \$100
Santa Barbara, CA (OC)										145.54
Santa Fe, NM										144.23
Colorado Springs, CO (OC)										129.85
Santa Cruz, CA (OC)										119.17
Seattle, WA (OC)										118.27
Santa Barbara, CA										111.95
Seattle, WA										103.71
San Francisco, CA										102.94
Santa Cruz, CA									93.54	
Flagstaff, AZ (OC)									93.06	
Reno, NV (Unmetered)									91.37	
Portland, OR									90.76	
Colorado Springs, CO								86.55		
San Diego, CA								86.46		
Flagstaff, AZ								84.59		
Marin, CA (MMWD)								82.74		
Los Angeles, CA							74.76			
Santa Rosa, CA							71.55			
Oakland, CA (EBMUD)						68.26				
San Jose, CA (Company)						66.70				
Phoenix, AZ (OC)						63.42				
San Jose, CA (City)						63.22				
Tucson, AZ						62.38				
62 City Average						60.80				
Houston, TX						60.08				
Pasadena, CA (OC)					58.79					
Tacoma, WA (OC)					53.59					
Cheyenne, WY					53.11					
Reno, NV (Metered)					50.48					
Riverside, CA (OC)				49.47						
Kingman, AZ (OC)				48.82						
Long Beach, CA				48.82						
San Antonio, TX (OC)				48.76						
Pasadena, CA				48.08						
Denver, CO (OC)				46.61						
Las Vegas, NV (SNWA Phase I Fully Imp)				45.63						
Victorville, CA				44.97						
Tacoma, WA				44.66						
Dallas, TX				44.32						
Boulder, CO (OC)				43.11						
North Las Vegas, NV				42.67						
Scottsdale, AZ				42.67						
Phoenix, AZ				42.52						
Henderson, NV				42.41						
Denver, CO				42.10						
San Antonio, TX				42.08						
Billings, MT (OC)				41.58						
Billings, MT				40.98						
Boulder, CO			38.41							
Kingman, AZ			37.33							
Salt Lake City, UT (OC)			37.21							
Anaheim, CA (OC)			36.16							
Boise, ID			35.40							
El Paso, TX			34.18							
San Bernardino, CA			33.76							
Riverside, CA			32.98							
Anaheim, CA			32.97							
Albuquerque, NM			32.82							
St. George, UT			30.15							
Salt Lake City, UT		29.09								
Redding, CA		29.02								
Cedar City, UT		27.77								
Boulder City, NV		24.97								

Based on LVVWD Average Monthly Single-Family Consumption of 11,600 gallons and a 5/8 or 3/4 Inch Service Charge for Comparison.

OC - Outside City
MMWD - Marin Municipal Water District
EBMUD - East Bay Municipal Utilities District

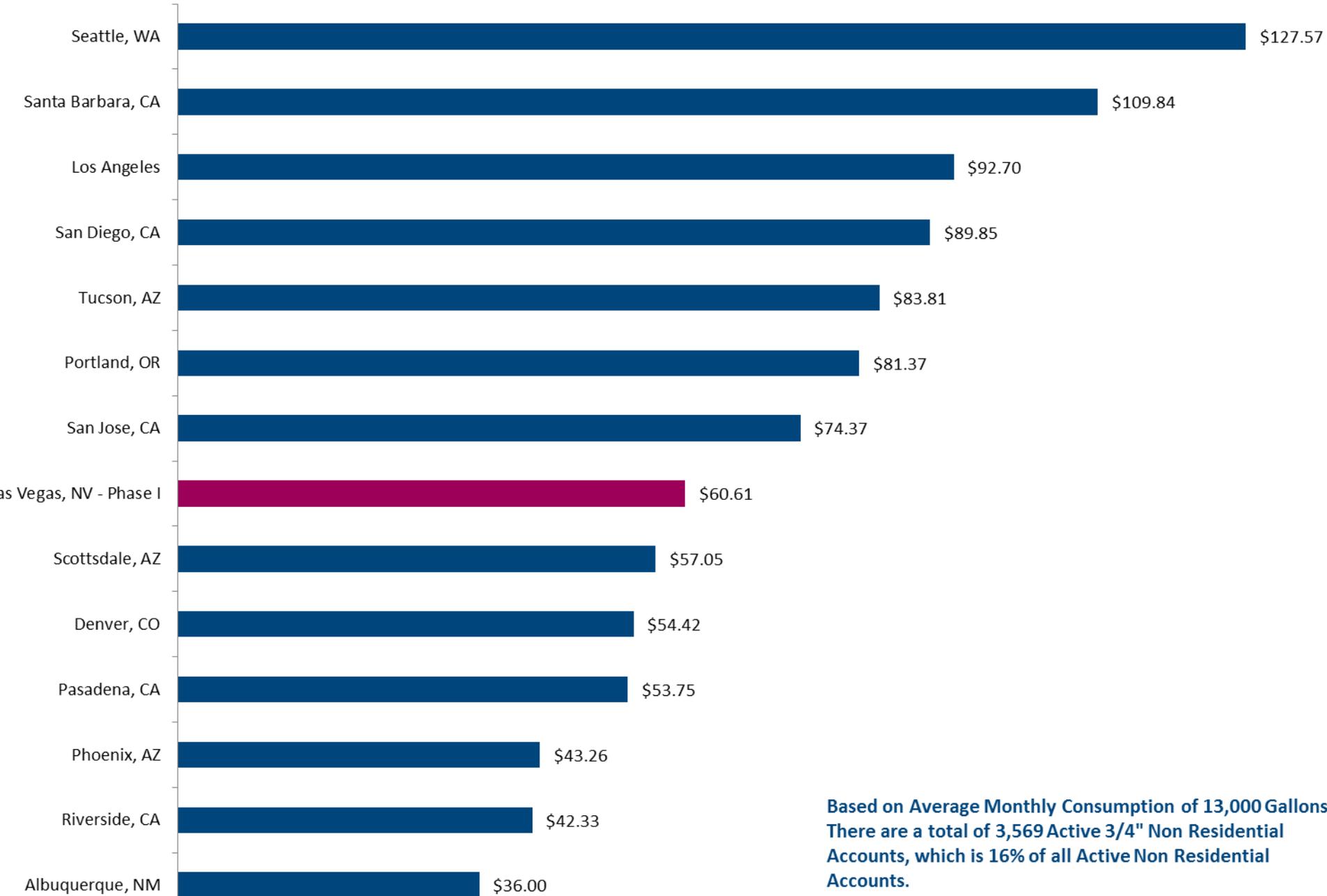
Las Vegas Valley Water District
2014 MUNICIPAL WATER RATES SURVEY
AVERAGE MONTHLY BILL (\$) FOR 10,000 GALLONS

Utility	\$10 - \$20	\$20 - \$30	\$30 - \$40	\$40 - \$50	\$50 - \$60	\$60 - \$70	\$70 - \$80	\$80 - \$90	\$90 - \$100	Over \$100
Santa Barbara, CA (OC)										113.37
Sants Fe, NM										110.33
Colorado Springs, CO (OC)										109.22
Seattle, WA (OC)									96.33	
Santa Cruz, CA (OC)									94.23	
Reno, NV (Unmetered)									91.37	
San Francisco, CA								89.33		
Santa Barbara, CA								87.20		
Seattle, WA								84.46		
Portland, OR								83.08		
San Diego, CA							74.05			
Santa Cruz, CA								73.97		
Colorado Springs, CO								72.78		
Flagstaff, AZ (OC)								72.43		
Marin, CA (MMWD)						66.82				
Flagstaff, AZ						65.83				
Los Angeles, CA						63.40				
Santa Rosa, CA						60.52				
San Jose, CA (Company)					59.44					
Oakland, CA (EBMUD)					59.36					
San Jose, CA (City)					56.00					
Pasadena, CA (OC)					51.53					
62 City Average					51.24					
Houston, TX				48.94						
Tacoma, WA (OC)				48.59						
Pheonix, AZ (OC)				48.16						
Cheyenne, WY				45.92						
Tucson, AZ				45.17						
Reno, NV (Metered)				45.14						
Riverside, CA (OC)				43.73						
Kingman, AZ (OC)				42.74						
Pasadena, CA				42.14						
Victorville, CA				41.90						
San Antonio, TX (OC)				41.02						
Long Beach, CA				40.81						
Tacoma, WA				40.48						
Las Vegas, NV (SNWA Phase I Fully Imp)			39.26							
Henderson, NV			38.60							
North Las Vegas, NV			38.37							
Boulder, CO (OC)			38.30							
Scottsdale, AZ			37.01							
Denver, CO (OC)			36.78							
Billings, MT (OC)			36.07							
Billings, MT			35.47							
San Antonio, TX			35.30							
Dallas, TX			34.47							
Boulder, CO			33.60							
Denver, CO			33.38							
Kingman, AZ			32.85							
Pheonix, AZ			32.35							
Anaheim, CA (OC)			32.12							
Salt Lake City, UT (OC)			31.51							
Boise, ID			31.43							
San Bernardino, CA			30.95							
Albuquerque, NM		29.93								
Anaheim, CA		29.20								
Riverside, CA		29.15								
St. George, UT		28.62								
Cedar City, UT		26.20								
El Paso, TX		26.18								
Redding, CA		25.91								
Salt Lake City, UT		25.13								
Boulder City, NV		22.53								

Based on LVVWD Average Monthly Single-Family Consumption of 10,000 gallons and a 5/8 or 3/4 Inch Service Charge for Comparison.

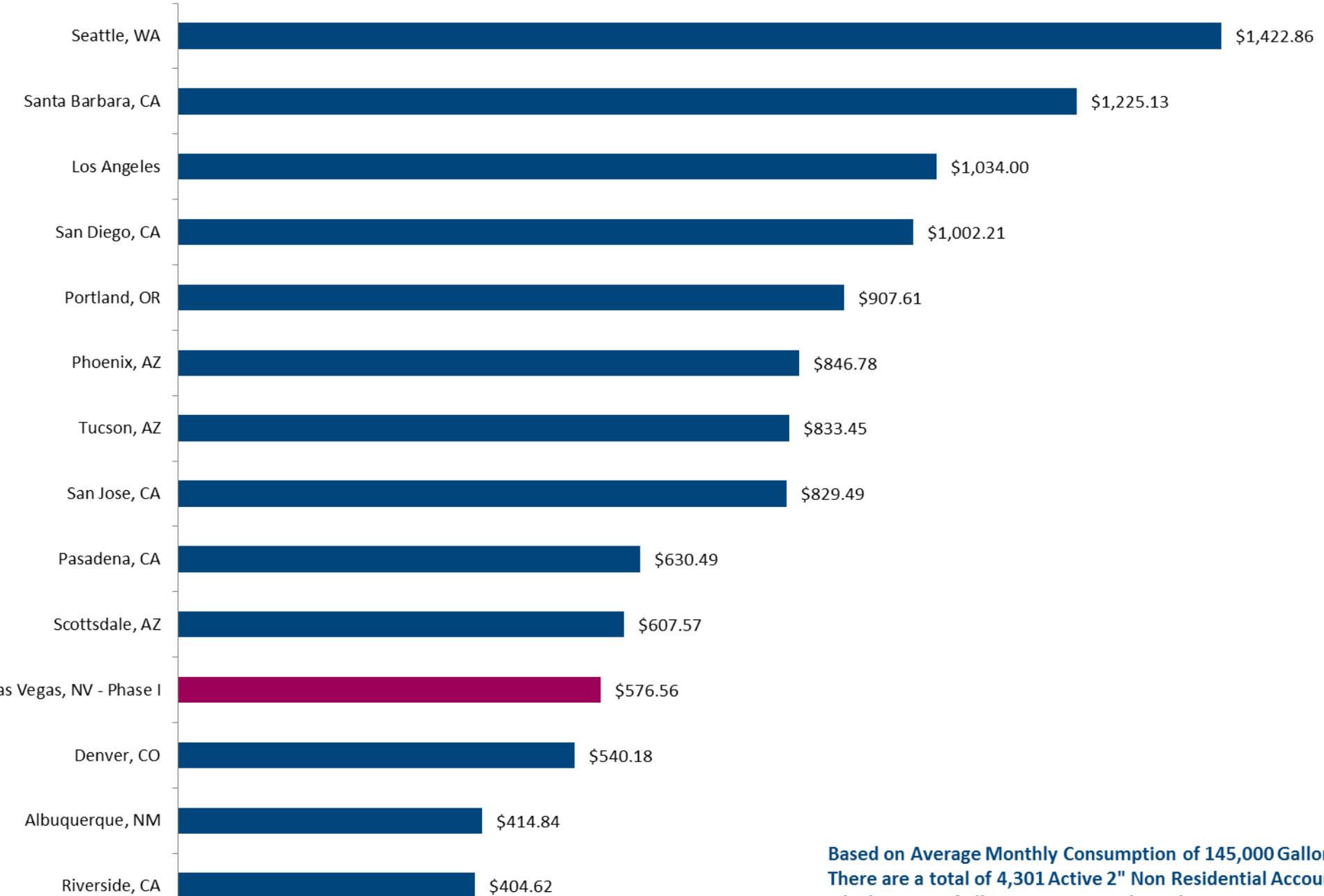
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Estimated Monthly Bill for Commercial Customer in Major Western US Cities 3/4" Service



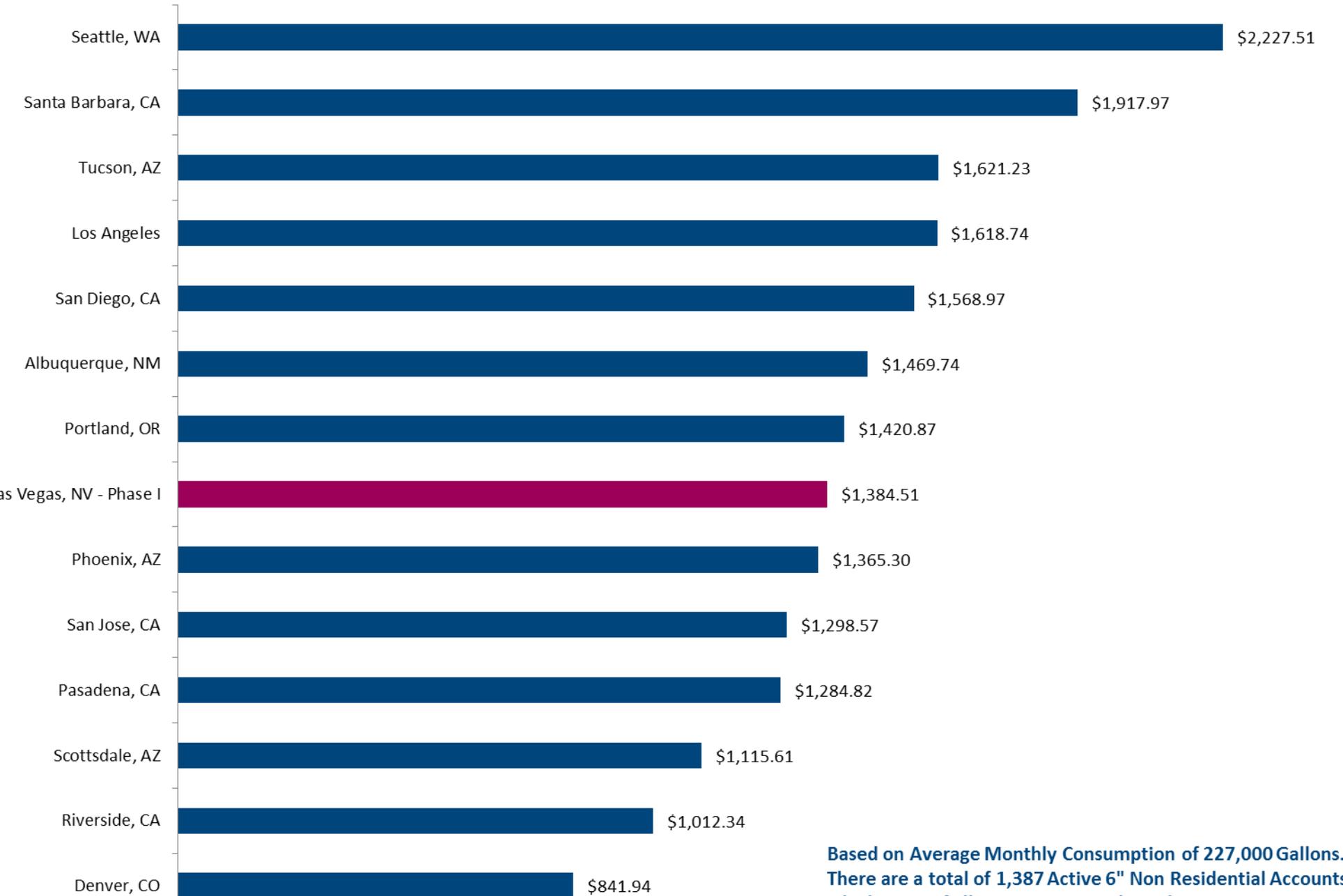
Based on Average Monthly Consumption of 13,000 Gallons.
There are a total of 3,569 Active 3/4" Non Residential
Accounts, which is 16% of all Active Non Residential
Accounts.

Estimated Monthly Bill for Commercial Customer in Major Western US Cities 2" Service



Based on Average Monthly Consumption of 145,000 Gallons.
There are a total of 4,301 Active 2" Non Residential Accounts
which is 20% of all Active Non Residential Accounts.

Estimated Monthly Bill for Commercial Customer in Major Western US Cities 6" Service



Based on Average Monthly Consumption of 227,000 Gallons.
There are a total of 1,387 Active 6" Non Residential Accounts
which is 6% of all Active Non Residential Accounts.

Rate Modeling Assumptions

- **Traditional Tax-Exempt Financing, plus 200 basis points**
- **Revenue and Expenditure Assumptions Unchanged from Phase I**
- **Construction Proceeds of \$490 M in 2016, and \$130 M in 2019**
- **Rates Commencing in 2016**
- **100% Commodity Charge Alternative Excluded**
- **Modeled Scenarios Include All Fixed Charge and 50/50 blend of Fixed and Volumetric**

Southern Nevada Water Authority											
A. Rate Adjustment Options for 3rd Pumping Station Debt Service Cost - Not Phased Rates											
Debt Finance \$620 million construction cost - Two Bond Issues in FY 2016 and 2019 - Current Market Rates plus 200bps											
Fiscal Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Beginning Fund Balance <i>(Before New Debt and Revenues)</i>	\$339,492	\$356,108	\$340,760	\$318,763	\$306,125	\$295,227	\$285,879	\$280,159	\$275,243	\$272,334	\$271,465
Total Expenses	(\$35,210)	(\$34,190)	(\$35,048)	(\$35,256)	(\$36,738)	(\$38,296)	(\$39,379)	(\$40,561)	(\$41,777)	(\$43,031)	(\$44,322)
Existing Debt Service	(\$164,684)	(\$216,733)	(\$238,512)	(\$238,406)	(\$238,322)	(\$238,229)	(\$236,502)	(\$237,627)	(\$237,627)	(\$237,627)	(\$237,627)
Total Expenses and Debt Service	(\$199,895)	(\$250,923)	(\$273,560)	(\$273,662)	(\$275,060)	(\$276,525)	(\$275,881)	(\$278,187)	(\$279,404)	(\$280,657)	(\$281,948)
Expected Revenues (Including approved Rate increases)											
Infrastructure Surcharge	\$86,653	\$93,209	\$100,789	\$105,140	\$105,721	\$106,411	\$107,267	\$108,215	\$109,315	\$110,461	\$111,528
Regional Connection Charge	\$16,087	\$16,087	\$16,087	\$16,087	\$16,087	\$16,087	\$16,087	\$16,087	\$16,087	\$16,087	\$16,087
Regional Commodity Charge	\$48,551	\$55,174	\$61,903	\$65,479	\$66,581	\$67,645	\$68,698	\$69,687	\$70,610	\$71,454	\$72,260
Reliability Surcharge	\$4,974	\$5,077	\$5,191	\$5,309	\$5,397	\$5,481	\$5,565	\$5,644	\$5,718	\$5,785	\$5,850
Sales Tax	\$50,393	\$52,660	\$54,767	\$56,684	\$58,384	\$59,844	\$61,041	\$62,262	\$63,507	\$64,777	\$66,072
Other Revenues	\$2,300	\$2,300	\$2,300	\$2,300	\$2,300	\$2,300	\$2,300	\$2,300	\$2,300	\$2,300	\$2,300
Boulder City share of common cost	\$597	\$615	\$633	\$652	\$672	\$692	\$713	\$734	\$756	\$779	\$802
Interest Income	\$6,956	\$10,453	\$9,893	\$9,373	\$9,020	\$8,717	\$8,491	\$8,343	\$8,201	\$8,145	\$8,214
Total Expected Revenues	\$216,511	\$235,575	\$251,563	\$261,024	\$264,161	\$267,177	\$270,161	\$273,272	\$276,494	\$279,788	\$283,114
Ending Fund Balance <i>(Before New Debt and Revenues)</i>	\$356,108	\$340,760	\$318,763	\$306,125	\$295,227	\$285,879	\$280,159	\$275,243	\$272,334	\$271,465	\$272,631
Scenario 1 - 50% Commodity Charge and 50% Infrastructure Surcharge (Drought Protection Surcharge)											
Beginning Fund Balance - Scenario 1	\$339,492	\$356,108	\$359,177	\$340,597	\$331,790	\$325,204	\$311,715	\$302,396	\$294,430	\$289,045	\$286,264
Total Expenses and Debt Service	(\$199,895)	(\$250,923)	(\$273,560)	(\$273,662)	(\$275,060)	(\$276,525)	(\$275,881)	(\$278,187)	(\$279,404)	(\$280,657)	(\$281,948)
Total Expected Revenues	\$216,511	\$235,575	\$251,563	\$261,024	\$264,161	\$267,177	\$270,161	\$273,272	\$276,494	\$279,788	\$283,114
Expected Net Revenues	\$16,616	(\$15,348)	(\$21,997)	(\$12,638)	(\$10,899)	(\$9,348)	(\$5,720)	(\$4,915)	(\$2,910)	(\$869)	\$1,166
Additional Debt Service due to 3rd Pumping Station (1)			(\$33,663)	(\$33,663)	(\$33,659)	(\$42,614)	(\$42,614)	(\$42,617)	(\$42,616)	(\$42,619)	(\$42,615)
Infrastructure Charge Revenue (2)(3) (Drought Protection Surcharge)		\$9,123	\$18,408	\$18,571	\$18,733	\$18,927	\$19,166	\$19,432	\$19,740	\$20,060	\$20,359
Commodity Charge Revenue (2) (Drought Protection Surcharge)		\$9,193	\$18,465	\$18,715	\$19,030	\$19,334	\$19,635	\$19,918	\$20,182	\$20,423	\$20,653
Implicit Reliability Surcharge Revenue		\$102	\$205	\$207	\$209	\$211	\$214	\$217	\$220	\$224	\$227
Total New Revenues		\$18,417	\$37,079	\$37,493	\$37,972	\$38,472	\$39,015	\$39,566	\$40,141	\$40,707	\$41,239
Ending Fund Balance - Scenario 1	\$356,108	\$359,177	\$340,597	\$331,790	\$325,204	\$311,715	\$302,396	\$294,430	\$289,045	\$286,264	\$286,054
Rate Increases											
Additional Commodity Charge Level (per 1,000 Gallons)		\$0.14	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14
Infrastructure Charge per month per meter (1)(2)											
<i>Residential - 5/8" & 3/4" meter sizes</i>		\$2.27	\$2.27	\$2.27	\$2.27	\$2.27	\$2.27	\$2.27	\$2.27	\$2.27	\$2.27
<i>Residential - 1" meter size</i>		\$4.30	\$4.30	\$4.30	\$4.30	\$4.30	\$4.30	\$4.30	\$4.30	\$4.30	\$4.30
<i>Residential - 1.5" meter size</i>		\$8.60	\$8.60	\$8.60	\$8.60	\$8.60	\$8.60	\$8.60	\$8.60	\$8.60	\$8.60
<i>Residential - 2" meter size</i>		\$13.76	\$13.76	\$13.76	\$13.76	\$13.76	\$13.76	\$13.76	\$13.76	\$13.76	\$13.76
<i>Residential - 3" meter size</i>		\$27.52	\$27.52	\$27.52	\$27.52	\$27.52	\$27.52	\$27.52	\$27.52	\$27.52	\$27.52
<i>Residential - 4" meter size</i>		\$42.99	\$42.99	\$42.99	\$42.99	\$42.99	\$42.99	\$42.99	\$42.99	\$42.99	\$42.99
<i>Residential - 6" meter size</i>		\$85.98	\$85.98	\$85.98	\$85.98	\$85.98	\$85.98	\$85.98	\$85.98	\$85.98	\$85.98
<i>Residential - 8" meter size and larger</i>		\$137.58	\$137.58	\$137.58	\$137.58	\$137.58	\$137.58	\$137.58	\$137.58	\$137.58	\$137.58
<i>Non-Residential - 5/8" & 3/4" meter sizes</i>		\$2.27	\$2.27	\$2.27	\$2.27	\$2.27	\$2.27	\$2.27	\$2.27	\$2.27	\$2.27
<i>Non-Residential - 1" meter size</i>		\$4.30	\$4.30	\$4.30	\$4.30	\$4.30	\$4.30	\$4.30	\$4.30	\$4.30	\$4.30
<i>Non-Residential - 1.5" meter size</i>		\$8.60	\$8.60	\$8.60	\$8.60	\$8.60	\$8.60	\$8.60	\$8.60	\$8.60	\$8.60
<i>Non-Residential - 2" meter size</i>		\$13.76	\$13.76	\$13.76	\$13.76	\$13.76	\$13.76	\$13.76	\$13.76	\$13.76	\$13.76
<i>Non-Residential - 3" meter size</i>		\$27.52	\$27.52	\$27.52	\$27.52	\$27.52	\$27.52	\$27.52	\$27.52	\$27.52	\$27.52
<i>Non-Residential - 4" meter size</i>		\$42.99	\$42.99	\$42.99	\$42.99	\$42.99	\$42.99	\$42.99	\$42.99	\$42.99	\$42.99
<i>Non-Residential - 6" meter size</i>		\$85.98	\$85.98	\$85.98	\$85.98	\$85.98	\$85.98	\$85.98	\$85.98	\$85.98	\$85.98
<i>Non-Residential - 8" meter size</i>		\$137.58	\$137.58	\$137.58	\$137.58	\$137.58	\$137.58	\$137.58	\$137.58	\$137.58	\$137.58
<i>Non-Residential - 10" and larger meter sizes</i>		\$197.77	\$197.77	\$197.77	\$197.77	\$197.77	\$197.77	\$197.77	\$197.77	\$197.77	\$197.77

Scenario 2 - 100% Infrastructure Charge (Drought Protection Surcharge)											
Beginning Fund Balance - Scenario 2	\$339,492	\$356,108	\$358,965	\$340,040	\$330,797	\$323,622	\$309,429	\$299,341	\$290,585	\$284,450	\$280,992
Total Expenses and Debt Service	(\$199,895)	(\$250,923)	(\$273,560)	(\$273,662)	(\$275,060)	(\$276,525)	(\$275,881)	(\$278,187)	(\$279,404)	(\$280,657)	(\$281,948)
Total Expected Revenues	\$216,511	\$235,575	\$251,563	\$261,024	\$264,161	\$267,177	\$270,161	\$273,272	\$276,494	\$279,788	\$283,114
Expected Net Revenues	\$16,616	(\$15,348)	(\$21,997)	(\$12,638)	(\$10,899)	(\$9,348)	(\$5,720)	(\$4,915)	(\$2,910)	(\$869)	\$1,166
Additional Debt Service due to 3rd Pumping Station (1)			(\$33,663)	(\$33,663)	(\$33,659)	(\$42,614)	(\$42,614)	(\$42,617)	(\$42,616)	(\$42,619)	(\$42,615)
Infrastructure Charge Revenue (2)(3) (Drought Protection Surcharge)		\$18,205	\$36,734	\$37,058	\$37,383	\$37,768	\$38,246	\$38,776	\$39,390	\$40,031	\$40,627
Total New Revenues		\$18,205	\$36,734	\$37,058	\$37,383	\$37,768	\$38,246	\$38,776	\$39,390	\$40,031	\$40,627
Ending Fund Balance - Scenario 2	\$356,108	\$358,965	\$340,040	\$330,797	\$323,622	\$309,429	\$299,341	\$290,585	\$284,450	\$280,992	\$280,169
Rate Increases											
Infrastructure Charge per month per meter (1)(2)											
Residential - 5/8" & 3/4" meter sizes		\$4.53	\$4.53	\$4.53	\$4.53	\$4.53	\$4.53	\$4.53	\$4.53	\$4.53	\$4.53
Residential - 1" meter size		\$8.58	\$8.58	\$8.58	\$8.58	\$8.58	\$8.58	\$8.58	\$8.58	\$8.58	\$8.58
Residential - 1.5" meter size		\$17.16	\$17.16	\$17.16	\$17.16	\$17.16	\$17.16	\$17.16	\$17.16	\$17.16	\$17.16
Residential - 2" meter size		\$27.45	\$27.45	\$27.45	\$27.45	\$27.45	\$27.45	\$27.45	\$27.45	\$27.45	\$27.45
Residential - 3" meter size		\$54.91	\$54.91	\$54.91	\$54.91	\$54.91	\$54.91	\$54.91	\$54.91	\$54.91	\$54.91
Residential - 4" meter size		\$85.80	\$85.80	\$85.80	\$85.80	\$85.80	\$85.80	\$85.80	\$85.80	\$85.80	\$85.80
Residential - 6" meter size		\$171.59	\$171.59	\$171.59	\$171.59	\$171.59	\$171.59	\$171.59	\$171.59	\$171.59	\$171.59
Residential - 8" meter size and larger		\$274.55	\$274.55	\$274.55	\$274.55	\$274.55	\$274.55	\$274.55	\$274.55	\$274.55	\$274.55
Non-Residential - 5/8" & 3/4" meter sizes		\$4.53	\$4.53	\$4.53	\$4.53	\$4.53	\$4.53	\$4.53	\$4.53	\$4.53	\$4.53
Non-Residential - 1" meter size		\$8.58	\$8.58	\$8.58	\$8.58	\$8.58	\$8.58	\$8.58	\$8.58	\$8.58	\$8.58
Non-Residential - 1.5" meter size		\$17.16	\$17.16	\$17.16	\$17.16	\$17.16	\$17.16	\$17.16	\$17.16	\$17.16	\$17.16
Non-Residential - 2" meter size		\$27.45	\$27.45	\$27.45	\$27.45	\$27.45	\$27.45	\$27.45	\$27.45	\$27.45	\$27.45
Non-Residential - 3" meter size		\$54.91	\$54.91	\$54.91	\$54.91	\$54.91	\$54.91	\$54.91	\$54.91	\$54.91	\$54.91
Non-Residential - 4" meter size		\$85.80	\$85.80	\$85.80	\$85.80	\$85.80	\$85.80	\$85.80	\$85.80	\$85.80	\$85.80
Non-Residential - 6" meter size		\$171.59	\$171.59	\$171.59	\$171.59	\$171.59	\$171.59	\$171.59	\$171.59	\$171.59	\$171.59
Non-Residential - 8" meter size		\$274.55	\$274.55	\$274.55	\$274.55	\$274.55	\$274.55	\$274.55	\$274.55	\$274.55	\$274.55
Non-Residential - 10" and larger meter sizes		\$394.66	\$394.66	\$394.66	\$394.66	\$394.66	\$394.66	\$394.66	\$394.66	\$394.66	\$394.66
Base Case refers to revenue and expense projections as reviewed and confirmed by IRPAC during the 2013 rate review.											
(1) Debt service net of capitalized interest											
(2) Assuming January rate increases											
(3) No change to fire meters											

Model Summary

Intake Pumping Station No. 3 Single Family Residential Summary Monthly Rate Adjustment

One-time increase

50%/50% - \$3.67

100% Fixed - \$4.53

Southern Nevada Water Authority											
A. Rate Adjustment Options for 3rd Pumping Station Debt Service Cost - Phased-in Rates											
Debt Finance \$620 million construction cost - Two Bond Issues in FY 2016 and 2019 - Current Market Rates plus 200bps											
Fiscal Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Beginning Fund Balance <i>(Before New Debt and Revenues)</i>	\$339,492	\$356,108	\$340,760	\$318,763	\$306,125	\$295,227	\$285,879	\$280,159	\$275,243	\$272,334	\$271,465
Total Expenses	(\$35,210)	(\$34,190)	(\$35,048)	(\$35,256)	(\$36,738)	(\$38,296)	(\$39,379)	(\$40,561)	(\$41,777)	(\$43,031)	(\$44,322)
Existing Debt Service	(\$164,684)	(\$216,733)	(\$238,512)	(\$238,406)	(\$238,322)	(\$238,229)	(\$236,502)	(\$237,627)	(\$237,627)	(\$237,627)	(\$237,627)
Total Expenses and Debt Service	(\$199,895)	(\$250,923)	(\$273,560)	(\$273,662)	(\$275,060)	(\$276,525)	(\$275,881)	(\$278,187)	(\$279,404)	(\$280,657)	(\$281,948)
Expected Revenues (Including approved Rate increases)											
Infrastructure Surcharge	\$86,653	\$93,209	\$100,789	\$105,140	\$105,721	\$106,411	\$107,267	\$108,215	\$109,315	\$110,461	\$111,528
Regional Connection Charge	\$16,087	\$16,087	\$16,087	\$16,087	\$16,087	\$16,087	\$16,087	\$16,087	\$16,087	\$16,087	\$16,087
Regional Commodity Charge	\$48,551	\$55,174	\$61,903	\$65,479	\$66,581	\$67,645	\$68,698	\$69,687	\$70,610	\$71,454	\$72,260
Reliability Surcharge	\$4,974	\$5,077	\$5,191	\$5,309	\$5,397	\$5,481	\$5,565	\$5,644	\$5,718	\$5,785	\$5,850
Sales Tax	\$50,393	\$52,660	\$54,767	\$56,684	\$58,384	\$59,844	\$61,041	\$62,262	\$63,507	\$64,777	\$66,072
Other Revenues	\$2,300	\$2,300	\$2,300	\$2,300	\$2,300	\$2,300	\$2,300	\$2,300	\$2,300	\$2,300	\$2,300
Boulder City share of common cost	\$597	\$615	\$633	\$652	\$672	\$692	\$713	\$734	\$756	\$779	\$802
Interest Income	\$6,956	\$10,453	\$9,893	\$9,373	\$9,020	\$8,717	\$8,491	\$8,343	\$8,201	\$8,145	\$8,214
Total Expected Revenues	\$216,511	\$235,575	\$251,563	\$261,024	\$264,161	\$267,177	\$270,161	\$273,272	\$276,494	\$279,788	\$283,114
Ending Fund Balance <i>(Before New Debt and Revenues)</i>	\$356,108	\$340,760	\$318,763	\$306,125	\$295,227	\$285,879	\$280,159	\$275,243	\$272,334	\$271,465	\$272,631
Scenario 1 - 50% Commodity Charge and 50% Infrastructure Surcharge (Drought Protection Surcharge)											
Beginning Fund Balance - Scenario 1	\$339,492	\$356,108	\$350,319	\$326,670	\$322,897	\$317,639	\$305,510	\$297,588	\$291,057	\$287,142	\$285,871
Total Expenses and Debt Service	(\$199,895)	(\$250,923)	(\$273,560)	(\$273,662)	(\$275,060)	(\$276,525)	(\$275,881)	(\$278,187)	(\$279,404)	(\$280,657)	(\$281,948)
Total Expected Revenues	\$216,511	\$235,575	\$251,563	\$261,024	\$264,161	\$267,177	\$270,161	\$273,272	\$276,494	\$279,788	\$283,114
Expected Net Revenues	\$16,616	(\$15,348)	(\$21,997)	(\$12,638)	(\$10,899)	(\$9,348)	(\$5,720)	(\$4,915)	(\$2,910)	(\$869)	\$1,166
Additional Debt Service due to 3rd Pumping Station (1)			(\$25,944)	(\$25,944)	(\$34,829)	(\$43,784)	(\$43,784)	(\$43,785)	(\$43,787)	(\$43,787)	(\$43,784)
Infrastructure Charge Revenue (2)(3) (Drought Protection Surcharge)		\$4,862	\$12,245	\$17,261	\$19,887	\$20,092	\$20,346	\$20,628	\$20,955	\$21,296	\$21,613
Commodity Charge Revenue (2) (Drought Protection Surcharge)		\$4,642	\$11,912	\$17,354	\$20,361	\$20,687	\$21,009	\$21,311	\$21,593	\$21,851	\$22,098
Implicit Reliability Surcharge Revenue		\$54	\$137	\$193	\$222	\$224	\$227	\$230	\$234	\$238	\$241
Total New Revenues		\$9,559	\$24,293	\$34,808	\$40,470	\$41,003	\$41,582	\$42,169	\$42,782	\$43,385	\$43,952
Ending Fund Balance - Scenario 1	\$356,108	\$350,319	\$326,670	\$322,897	\$317,639	\$305,510	\$297,588	\$291,057	\$287,142	\$285,871	\$287,205
Rate Increases											
Additional Commodity Charge Level (per 1,000 Gallons)		\$0.07	\$0.11	\$0.15	\$0.15	\$0.15	\$0.15	\$0.15	\$0.15	\$0.15	\$0.15
Infrastructure Charge per month per meter (1)(2)											
<i>Residential - 5/8" & 3/4" meter sizes</i>		\$1.21	\$1.81	\$2.41	\$2.41	\$2.41	\$2.41	\$2.41	\$2.41	\$2.41	\$2.41
<i>Residential - 1" meter size</i>		\$2.29	\$3.43	\$4.56	\$4.56	\$4.56	\$4.56	\$4.56	\$4.56	\$4.56	\$4.56
<i>Residential - 1.5" meter size</i>		\$4.58	\$6.86	\$9.13	\$9.13	\$9.13	\$9.13	\$9.13	\$9.13	\$9.13	\$9.13
<i>Residential - 2" meter size</i>		\$7.33	\$10.97	\$14.61	\$14.61	\$14.61	\$14.61	\$14.61	\$14.61	\$14.61	\$14.61
<i>Residential - 3" meter size</i>		\$14.67	\$21.94	\$29.21	\$29.21	\$29.21	\$29.21	\$29.21	\$29.21	\$29.21	\$29.21
<i>Residential - 4" meter size</i>		\$22.92	\$34.28	\$45.64	\$45.64	\$45.64	\$45.64	\$45.64	\$45.64	\$45.64	\$45.64
<i>Residential - 6" meter size</i>		\$45.83	\$68.56	\$91.29	\$91.29	\$91.29	\$91.29	\$91.29	\$91.29	\$91.29	\$91.29
<i>Residential - 8" meter size and larger</i>		\$73.33	\$109.70	\$146.06	\$146.06	\$146.06	\$146.06	\$146.06	\$146.06	\$146.06	\$146.06
<i>Non-Residential - 5/8" & 3/4" meter sizes</i>		\$1.21	\$1.81	\$2.41	\$2.41	\$2.41	\$2.41	\$2.41	\$2.41	\$2.41	\$2.41
<i>Non-Residential - 1" meter size</i>		\$2.29	\$3.43	\$4.56	\$4.56	\$4.56	\$4.56	\$4.56	\$4.56	\$4.56	\$4.56
<i>Non-Residential - 1.5" meter size</i>		\$4.58	\$6.86	\$9.13	\$9.13	\$9.13	\$9.13	\$9.13	\$9.13	\$9.13	\$9.13
<i>Non-Residential - 2" meter size</i>		\$7.33	\$10.97	\$14.61	\$14.61	\$14.61	\$14.61	\$14.61	\$14.61	\$14.61	\$14.61
<i>Non-Residential - 3" meter size</i>		\$14.67	\$21.94	\$29.21	\$29.21	\$29.21	\$29.21	\$29.21	\$29.21	\$29.21	\$29.21
<i>Non-Residential - 4" meter size</i>		\$22.92	\$34.28	\$45.64	\$45.64	\$45.64	\$45.64	\$45.64	\$45.64	\$45.64	\$45.64
<i>Non-Residential - 6" meter size</i>		\$45.83	\$68.56	\$91.29	\$91.29	\$91.29	\$91.29	\$91.29	\$91.29	\$91.29	\$91.29
<i>Non-Residential - 8" meter size</i>		\$73.33	\$109.70	\$146.06	\$146.06	\$146.06	\$146.06	\$146.06	\$146.06	\$146.06	\$146.06
<i>Non-Residential - 10" and larger meter sizes</i>		\$105.42	\$157.69	\$209.96	\$209.96	\$209.96	\$209.96	\$209.96	\$209.96	\$209.96	\$209.96

Scenario 2 - 100% Infrastructure Charge (Drought Protection Surcharge)											
Beginning Fund Balance - Scenario 2	\$339,492	\$356,108	\$350,445	\$326,912	\$322,771	\$316,736	\$303,708	\$294,814	\$287,287	\$282,415	\$280,265
Total Expenses and Debt Service	(\$199,895)	(\$250,923)	(\$273,560)	(\$273,662)	(\$275,060)	(\$276,525)	(\$275,881)	(\$278,187)	(\$279,404)	(\$280,657)	(\$281,948)
Total Expected Revenues	\$216,511	\$235,575	\$251,563	\$261,024	\$264,161	\$267,177	\$270,161	\$273,272	\$276,494	\$279,788	\$283,114
Expected Net Revenues	\$16,616	(\$15,348)	(\$21,997)	(\$12,638)	(\$10,899)	(\$9,348)	(\$5,720)	(\$4,915)	(\$2,910)	(\$869)	\$1,166
Additional Debt Service due to 3rd Pumping Station (1)			(\$25,944)	(\$25,944)	(\$34,829)	(\$43,784)	(\$43,784)	(\$43,785)	(\$43,787)	(\$43,787)	(\$43,784)
Infrastructure Charge Revenue (2)(3) (Drought Protection Surcharge)		\$9,685	\$24,408	\$34,441	\$39,693	\$40,103	\$40,610	\$41,173	\$41,825	\$42,505	\$43,138
Total New Revenues		\$9,685	\$24,408	\$34,441	\$39,693	\$40,103	\$40,610	\$41,173	\$41,825	\$42,505	\$43,138
Ending Fund Balance - Scenario 2	\$356,108	\$350,445	\$326,912	\$322,771	\$316,736	\$303,708	\$294,814	\$287,287	\$282,415	\$280,265	\$280,785
Rate Increases											
Infrastructure Charge per month per meter (1)(2)											
Residential - 5/8" & 3/4" meter sizes		\$2.41	\$3.61	\$4.81	\$4.81	\$4.81	\$4.81	\$4.81	\$4.81	\$4.81	\$4.81
Residential - 1" meter size		\$4.56	\$6.84	\$9.11	\$9.11	\$9.11	\$9.11	\$9.11	\$9.11	\$9.11	\$9.11
Residential - 1.5" meter size		\$9.13	\$13.67	\$18.22	\$18.22	\$18.22	\$18.22	\$18.22	\$18.22	\$18.22	\$18.22
Residential - 2" meter size		\$14.61	\$21.88	\$29.15	\$29.15	\$29.15	\$29.15	\$29.15	\$29.15	\$29.15	\$29.15
Residential - 3" meter size		\$29.21	\$43.76	\$58.30	\$58.30	\$58.30	\$58.30	\$58.30	\$58.30	\$58.30	\$58.30
Residential - 4" meter size		\$45.64	\$68.37	\$91.10	\$91.10	\$91.10	\$91.10	\$91.10	\$91.10	\$91.10	\$91.10
Residential - 6" meter size		\$91.29	\$136.74	\$182.20	\$182.20	\$182.20	\$182.20	\$182.20	\$182.20	\$182.20	\$182.20
Residential - 8" meter size and larger		\$146.06	\$218.79	\$291.52	\$291.52	\$291.52	\$291.52	\$291.52	\$291.52	\$291.52	\$291.52
Non-Residential - 5/8" & 3/4" meter sizes		\$2.41	\$3.61	\$4.81	\$4.81	\$4.81	\$4.81	\$4.81	\$4.81	\$4.81	\$4.81
Non-Residential - 1" meter size		\$4.56	\$6.84	\$9.11	\$9.11	\$9.11	\$9.11	\$9.11	\$9.11	\$9.11	\$9.11
Non-Residential - 1.5" meter size		\$9.13	\$13.67	\$18.22	\$18.22	\$18.22	\$18.22	\$18.22	\$18.22	\$18.22	\$18.22
Non-Residential - 2" meter size		\$14.61	\$21.88	\$29.15	\$29.15	\$29.15	\$29.15	\$29.15	\$29.15	\$29.15	\$29.15
Non-Residential - 3" meter size		\$29.21	\$43.76	\$58.30	\$58.30	\$58.30	\$58.30	\$58.30	\$58.30	\$58.30	\$58.30
Non-Residential - 4" meter size		\$45.64	\$68.37	\$91.10	\$91.10	\$91.10	\$91.10	\$91.10	\$91.10	\$91.10	\$91.10
Non-Residential - 6" meter size		\$91.29	\$136.74	\$182.20	\$182.20	\$182.20	\$182.20	\$182.20	\$182.20	\$182.20	\$182.20
Non-Residential - 8" meter size		\$146.06	\$218.79	\$291.52	\$291.52	\$291.52	\$291.52	\$291.52	\$291.52	\$291.52	\$291.52
Non-Residential - 10" and larger meter sizes		\$209.96	\$314.51	\$419.05	\$419.05	\$419.05	\$419.05	\$419.05	\$419.05	\$419.05	\$419.05
Base Case refers to revenue and expense projections as reviewed and confirmed by IRPAC during the 2013 rate review.											
(1) Debt service net of capitalized interest											
(2) Assuming January rate increases											
(3) No change to fire meters											

Model Summary

Intake Pumping Station No. 3 Single Family Residential Summary Monthly Rate Adjustment

One-time increase

50%/50% - \$3.67

100% Fixed - \$4.53

Phased-in

50%/50% - \$3.91

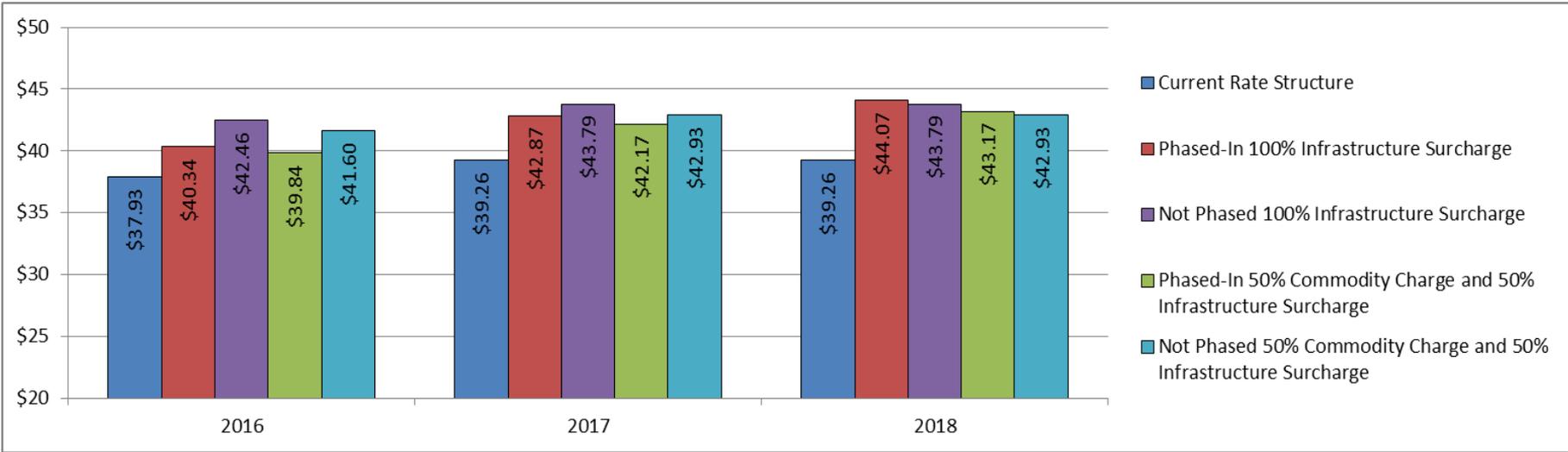
100% Fixed - \$4.81

Southern Nevada Water Authority

Example Bill Comparison

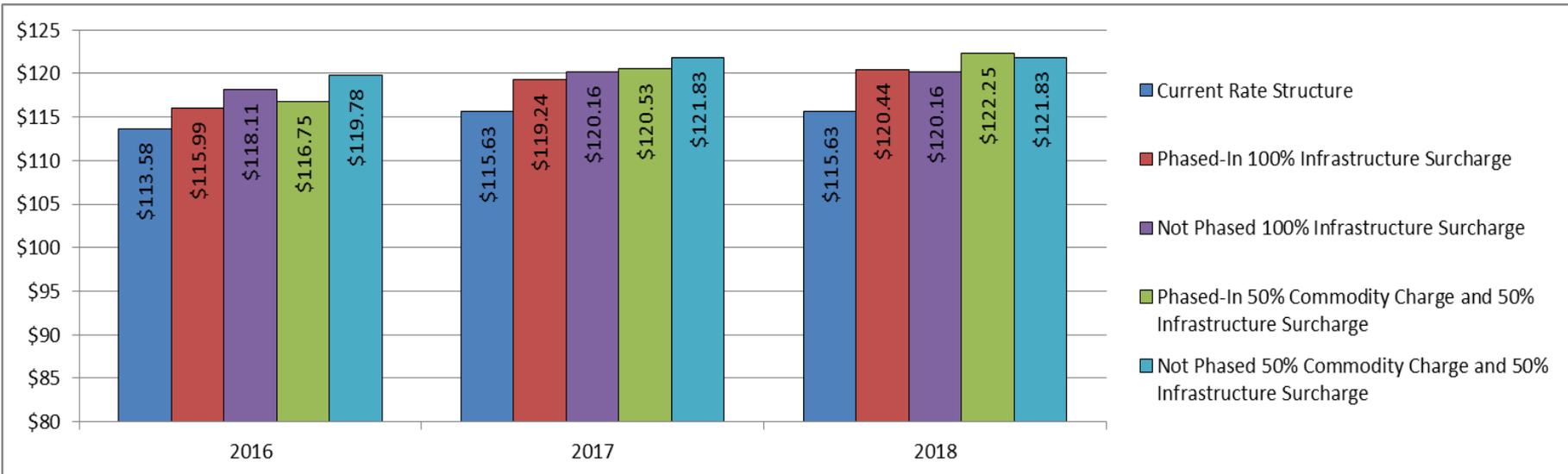
SINGLE FAMILY RESIDENTIAL

Median of the middle 80% - 5/8"



SINGLE FAMILY RESIDENTIAL

Median of the top 10% - 5/8"

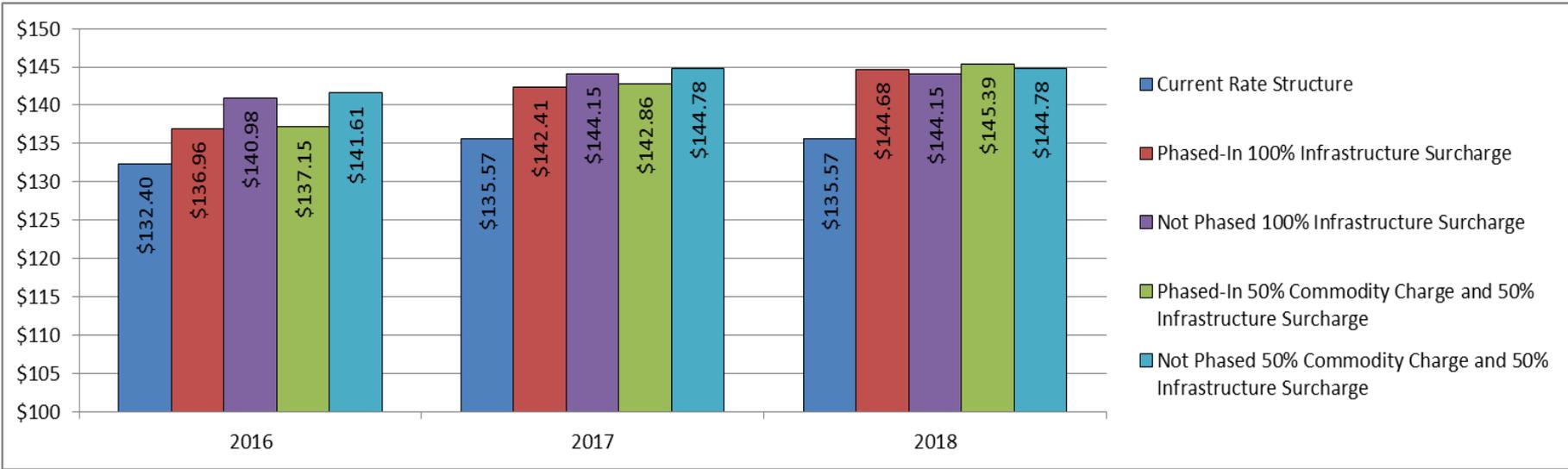


Southern Nevada Water Authority

Example Bill Comparison

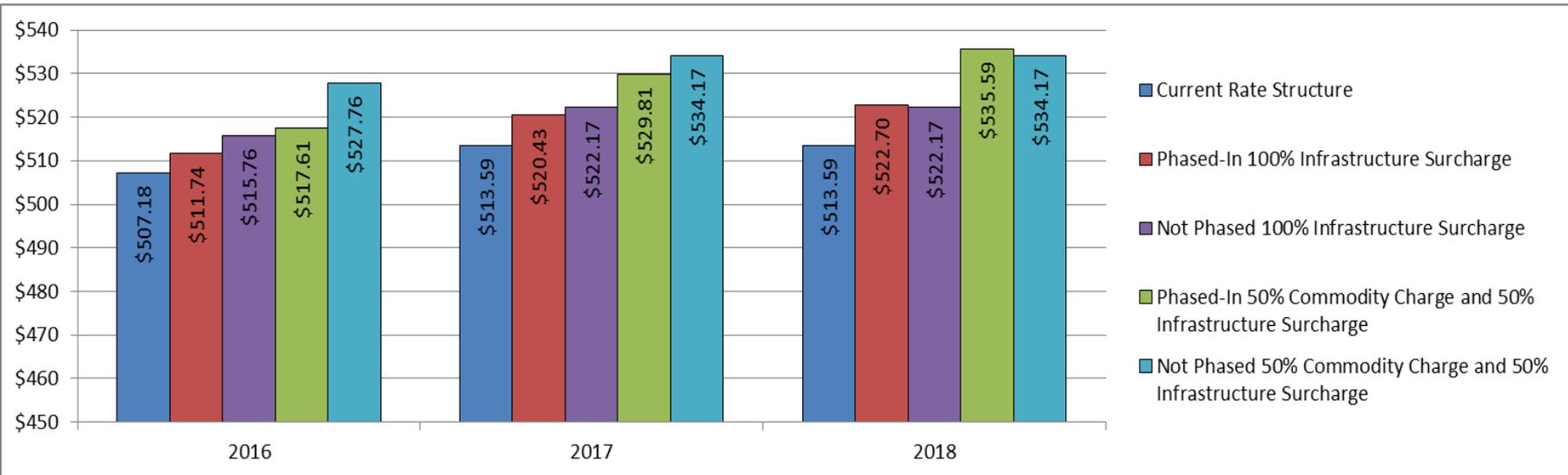
SINGLE FAMILY RESIDENTIAL

Median of the middle 80% - 1"



SINGLE FAMILY RESIDENTIAL

Median of the top 10% - 1"

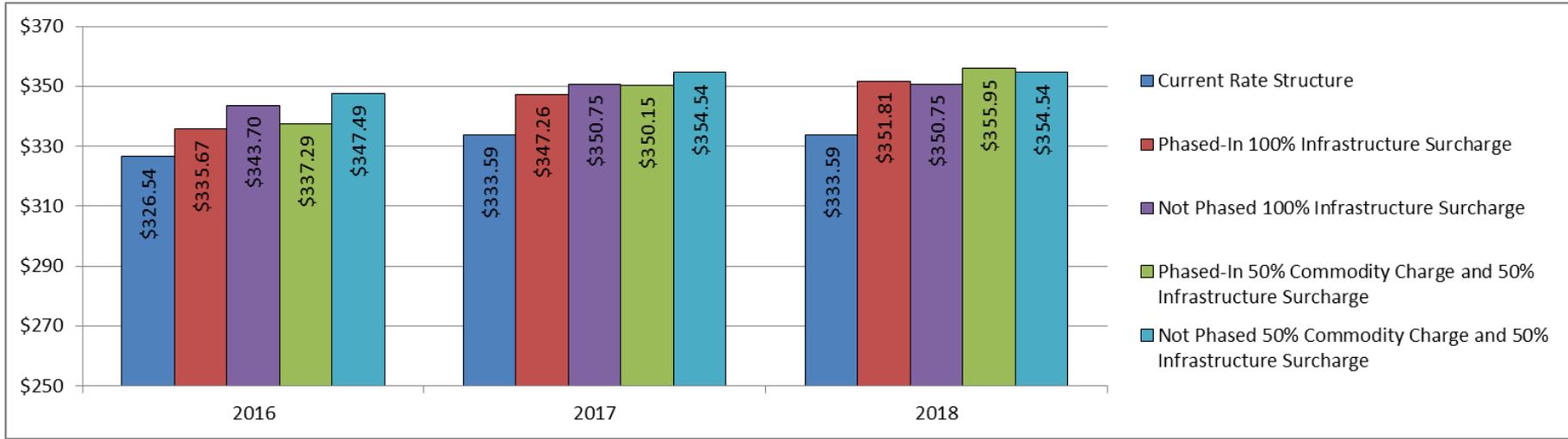


Southern Nevada Water Authority

Example Bill Comparison

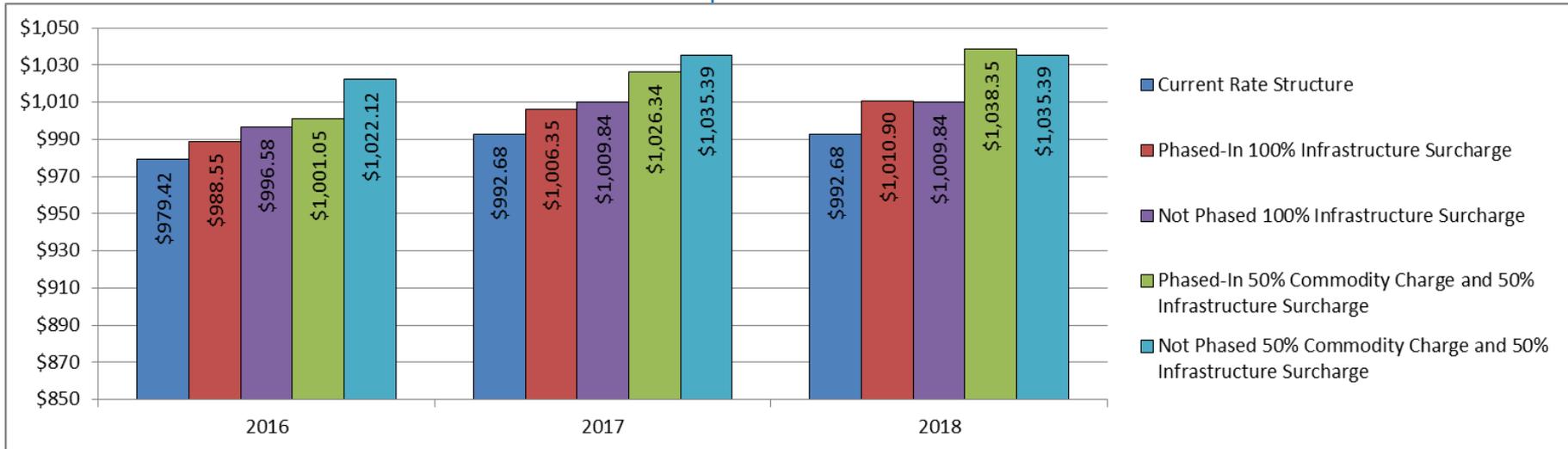
SINGLE FAMILY RESIDENTIAL

Median of the middle 80% - 1.5"



SINGLE FAMILY RESIDENTIAL

Median of the top 10% - 1.5"

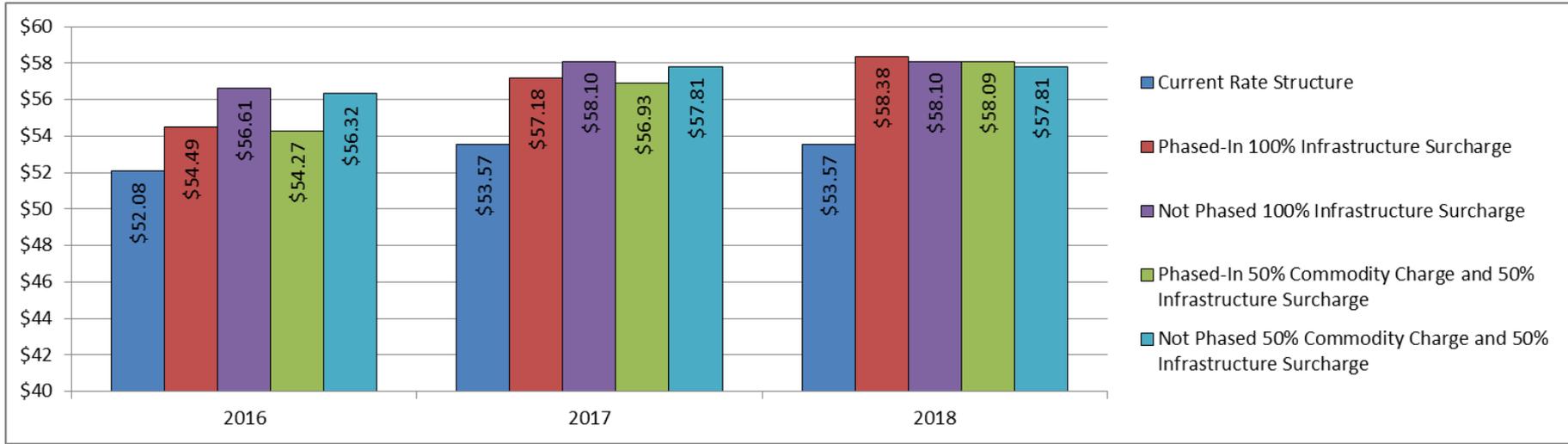


Southern Nevada Water Authority

Example Bill Comparison

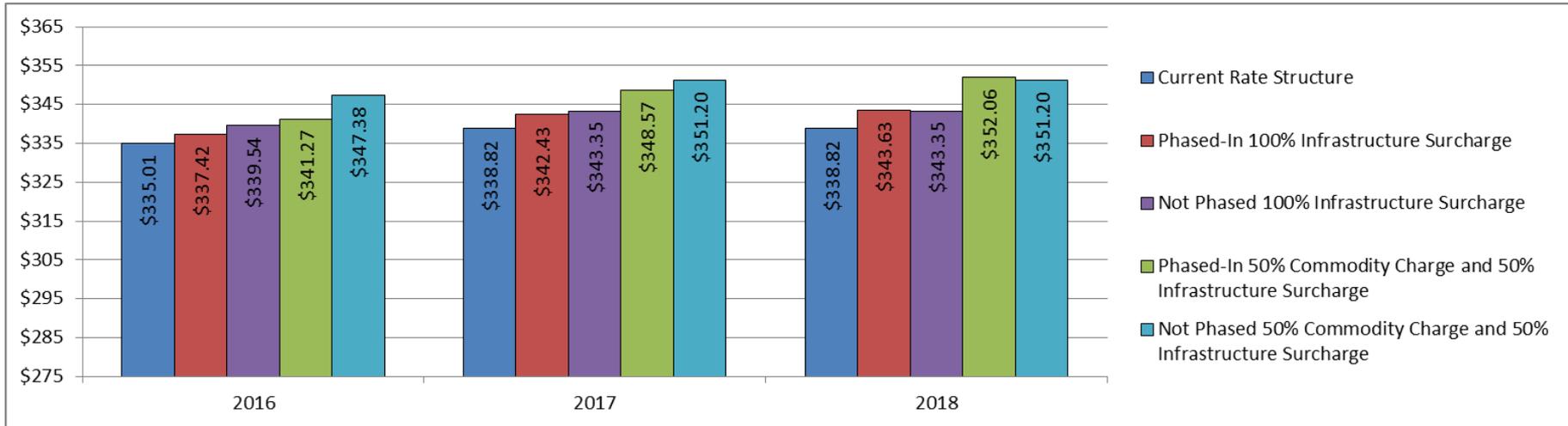
MULTI FAMILY RESIDENTIAL

Median of the middle 80%



MULTI FAMILY RESIDENTIAL

Median of the top 10%

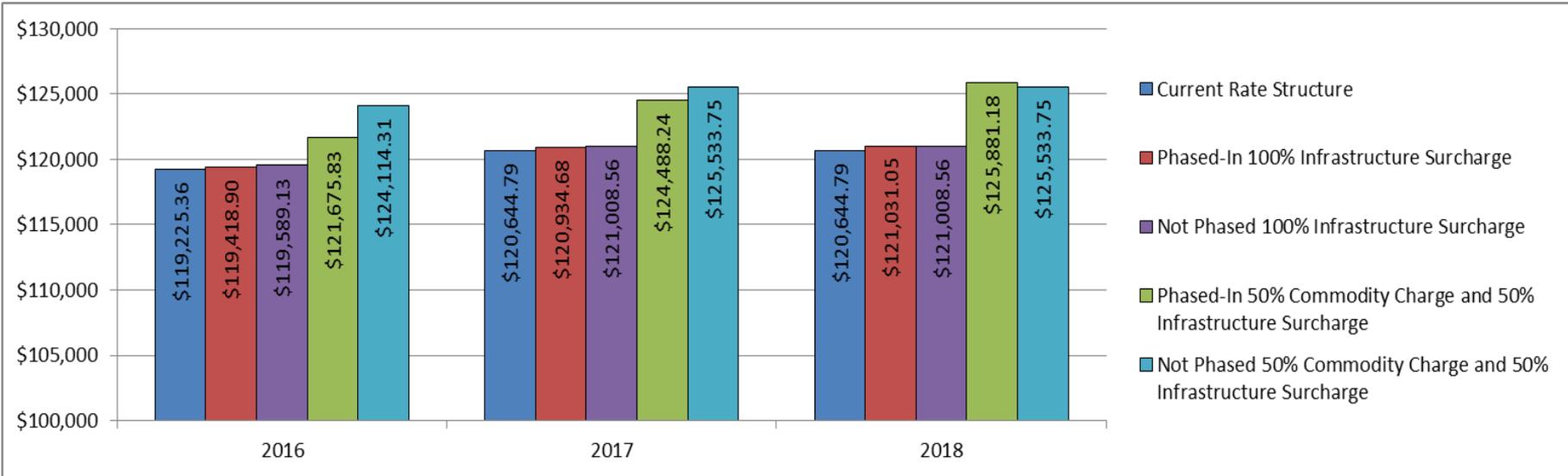


Southern Nevada Water Authority

Example Bill Comparison

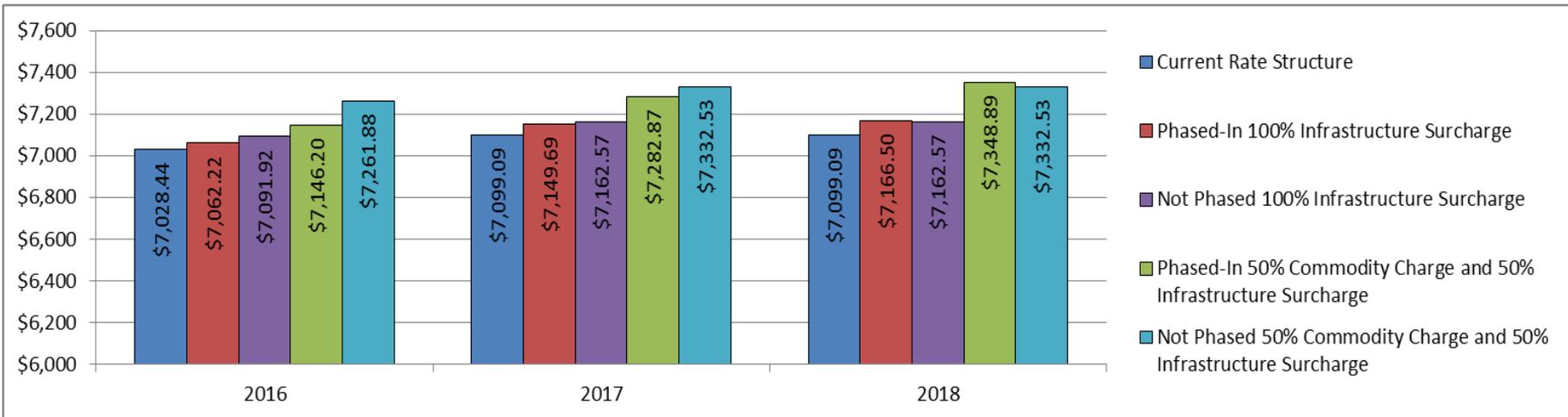
GOLF COURSE

Southern Highlands



COMMERCIAL PARK

Sahara Pavillion North

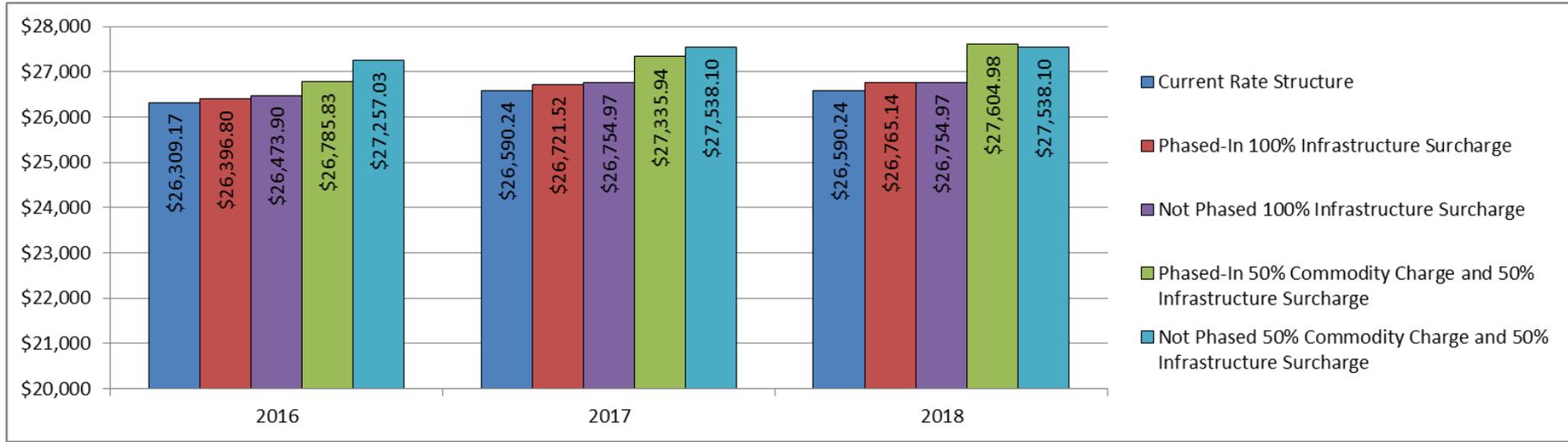


Southern Nevada Water Authority

Example Bill Comparison

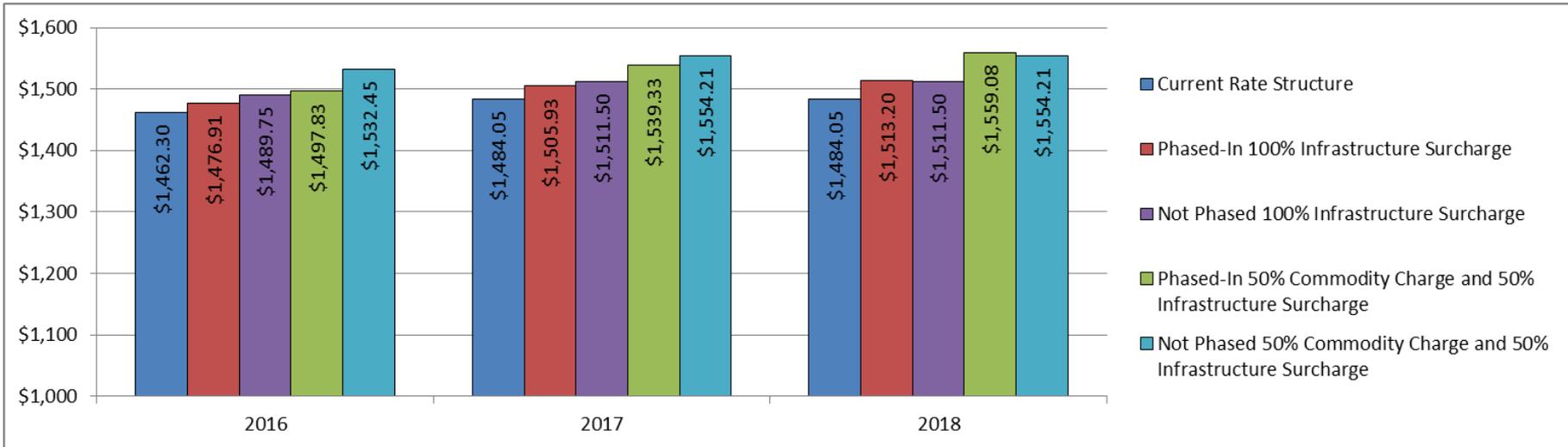
MALL

Fashion Show



CAR WASH

Terrible Herbst Buffalo/Sahara

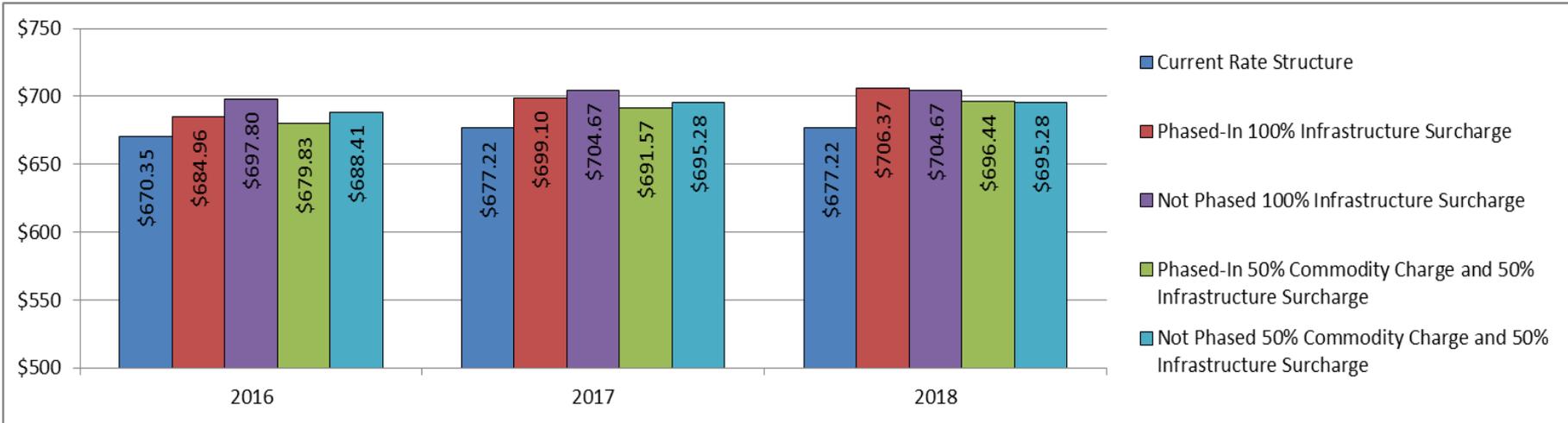


Southern Nevada Water Authority

Example Bill Comparison

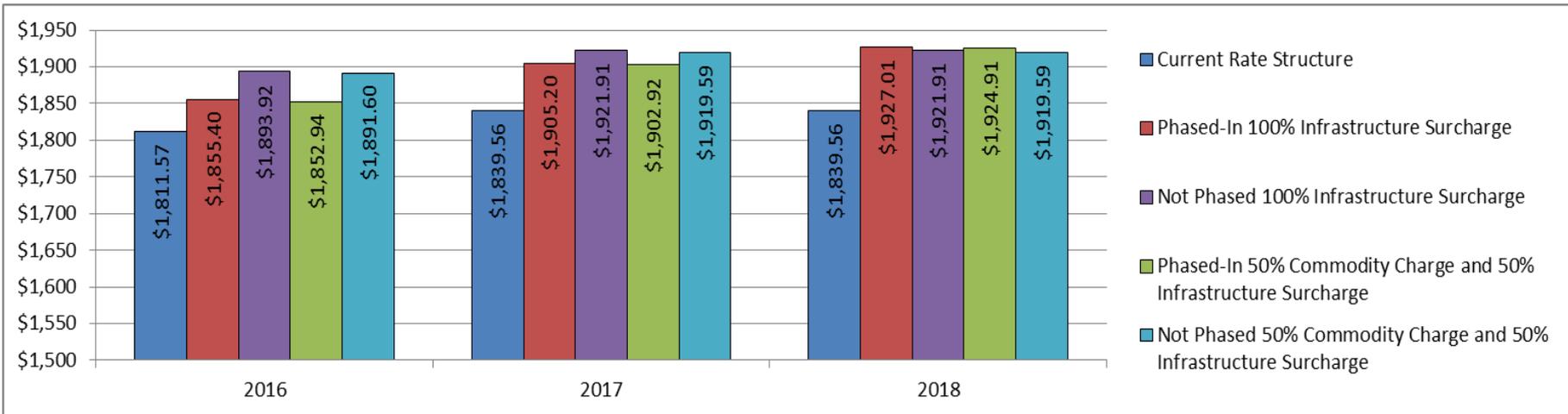
RELIGIOUS

Lakes Lutheran Church



NON-PROFIT

Shade Tree

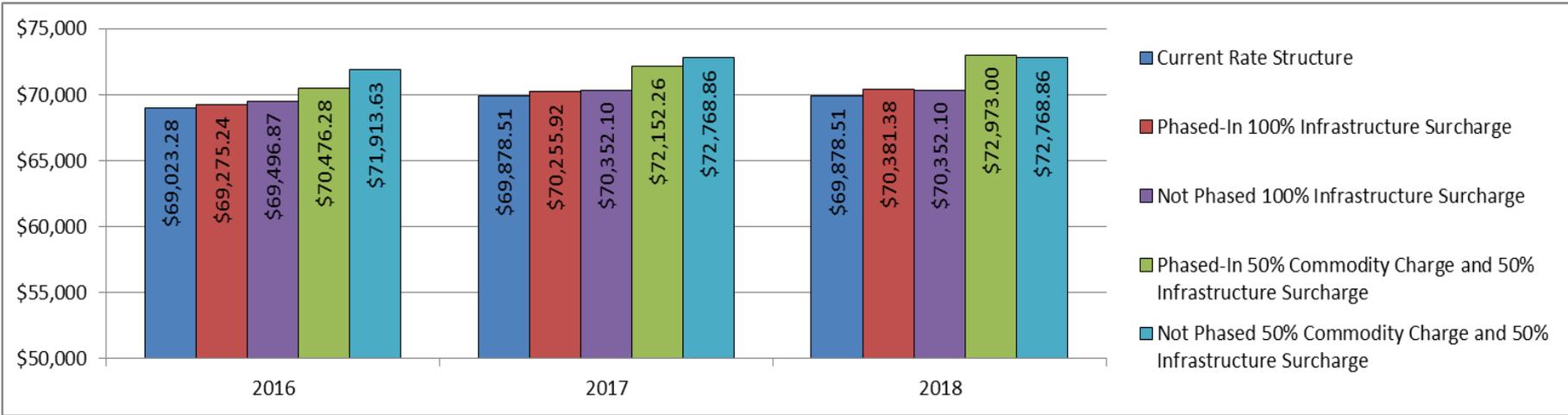


Southern Nevada Water Authority

Example Bill Comparison

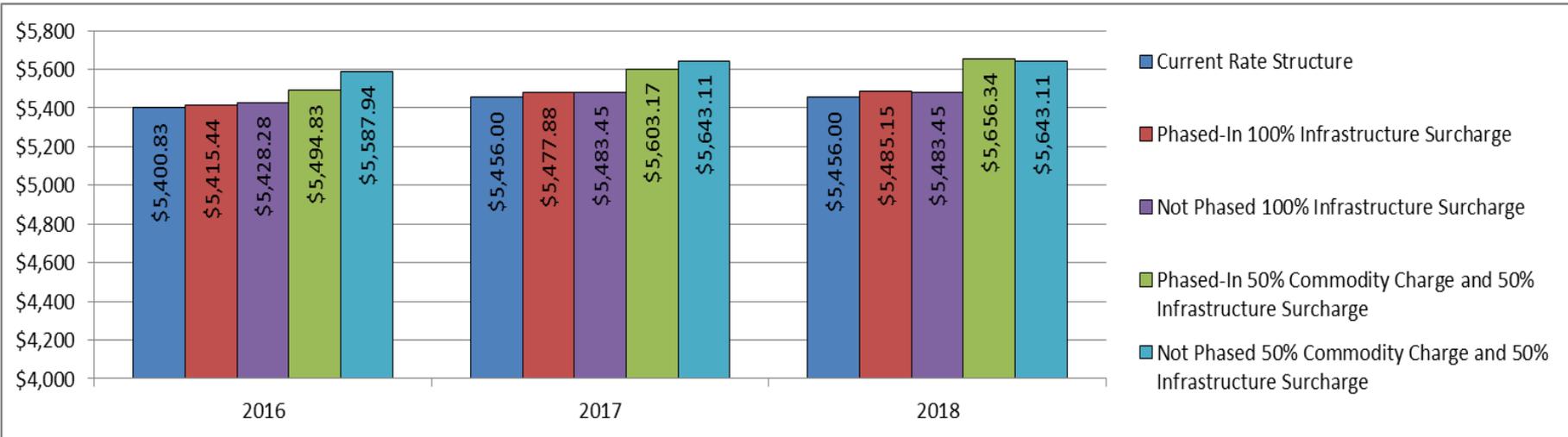
COMMERCIAL LAUNDRY

Brady Linen



HOA/COMMON AREA

Summerlin HOA 10200 Blk Trail Hollow Dr.

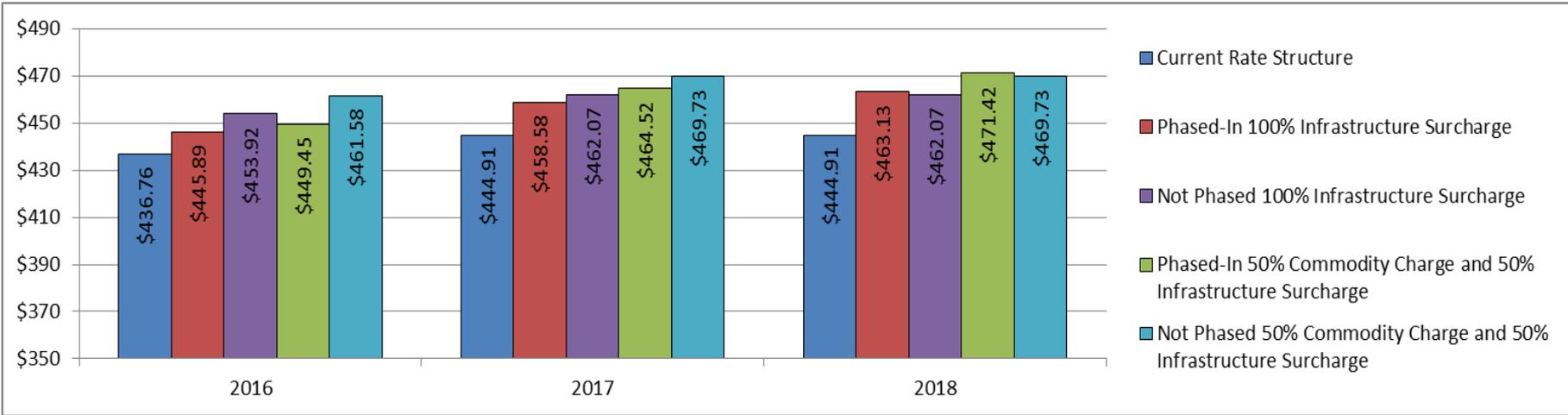


Southern Nevada Water Authority

Example Bill Comparison

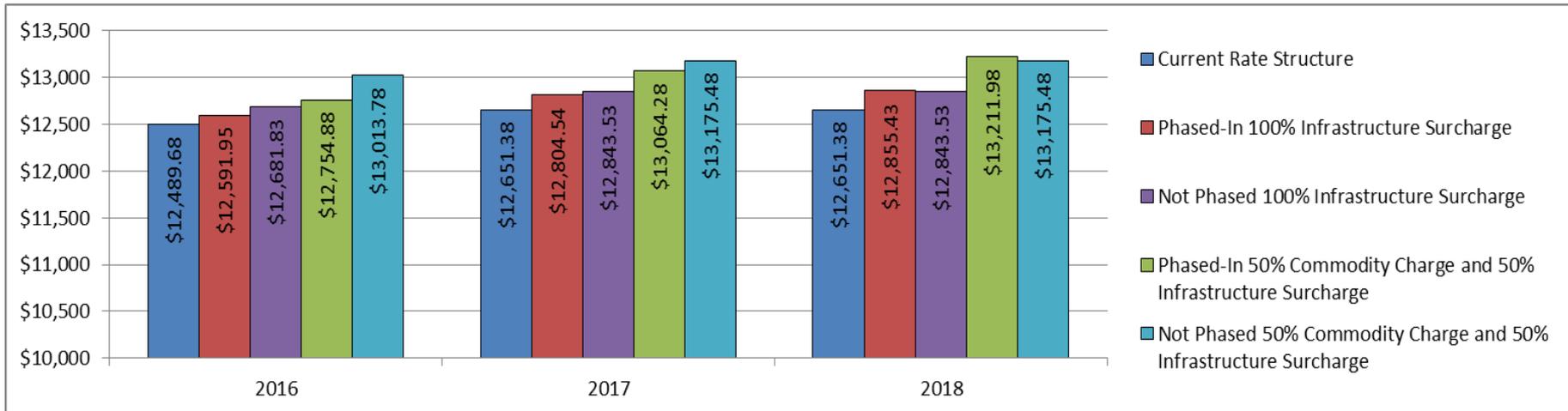
DAYCARE

KinderCare



HOSPITAL (NEW)

St. Rose – San Martin

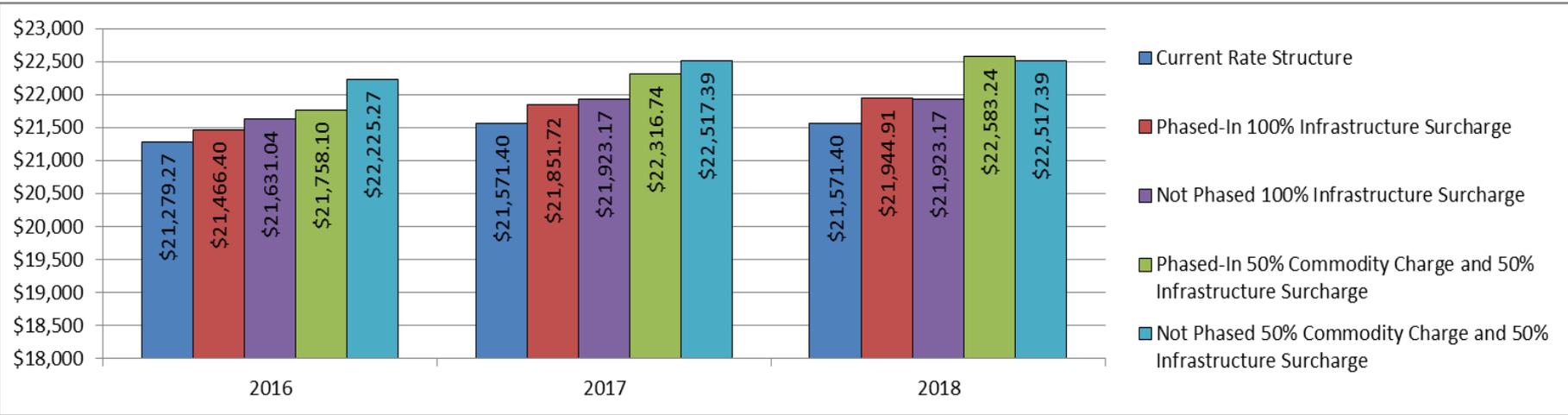


Southern Nevada Water Authority

Example Bill Comparison

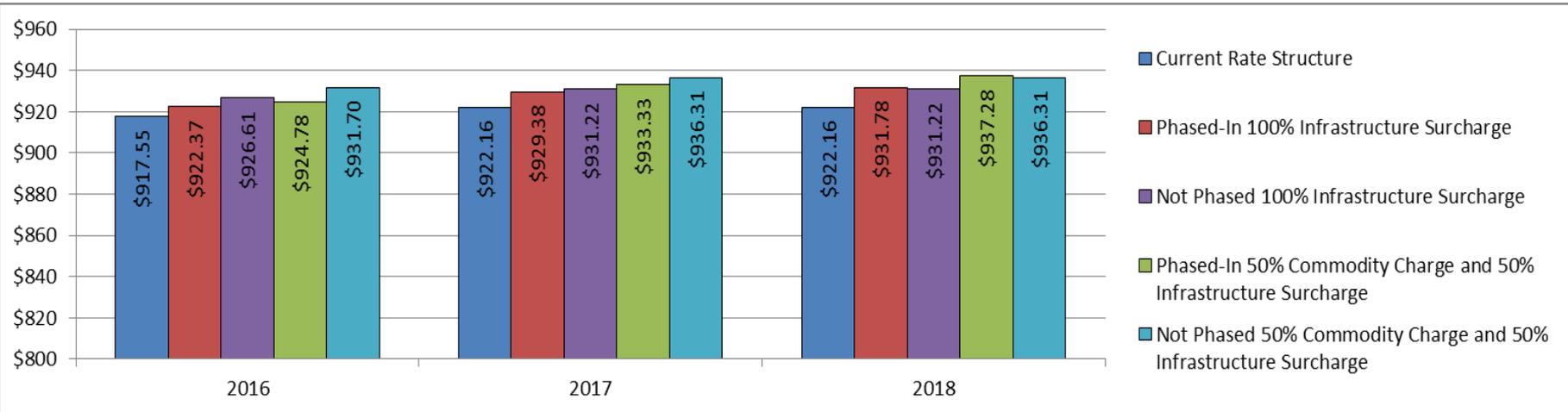
HOSPITAL (OLD)

Sunrise



STORAGE FACILITY

Storage One

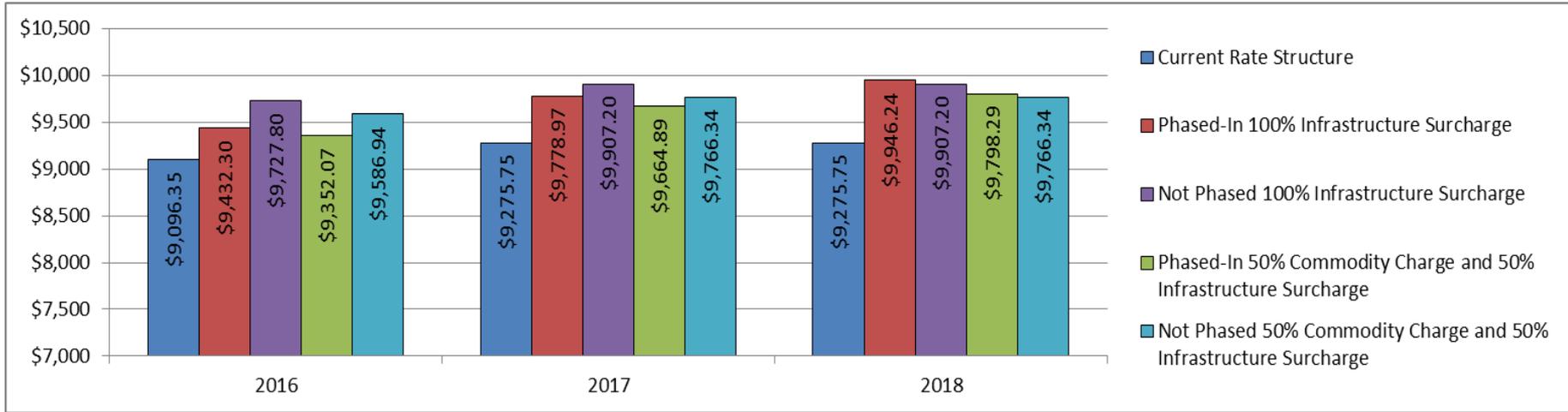


Southern Nevada Water Authority

Example Bill Comparison

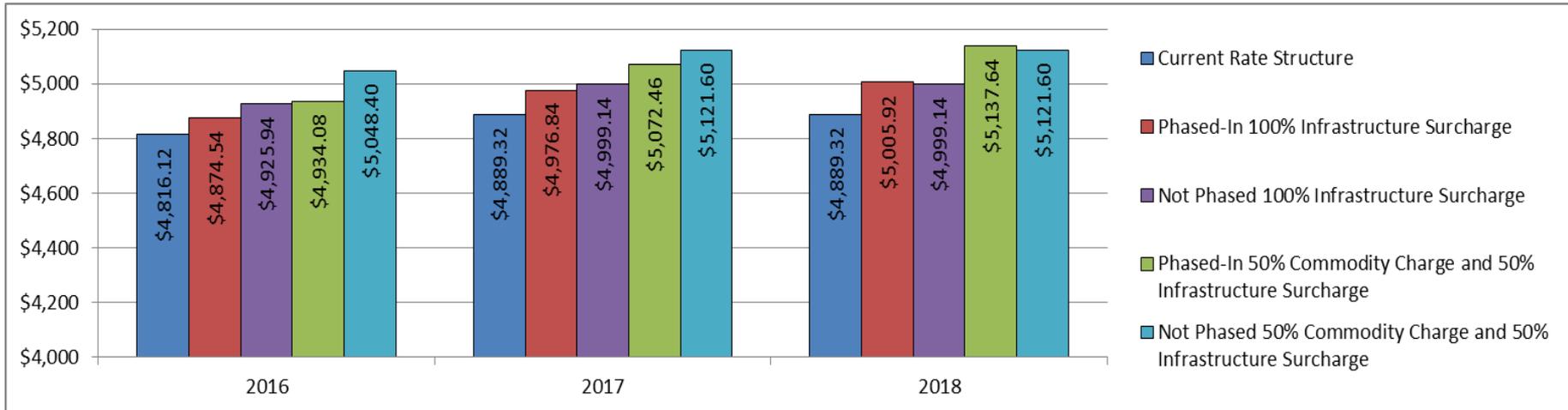
HIGH-RISE CONDOS

Queens Ridge



HIGH-RISE CONDOS

Ogden Lux

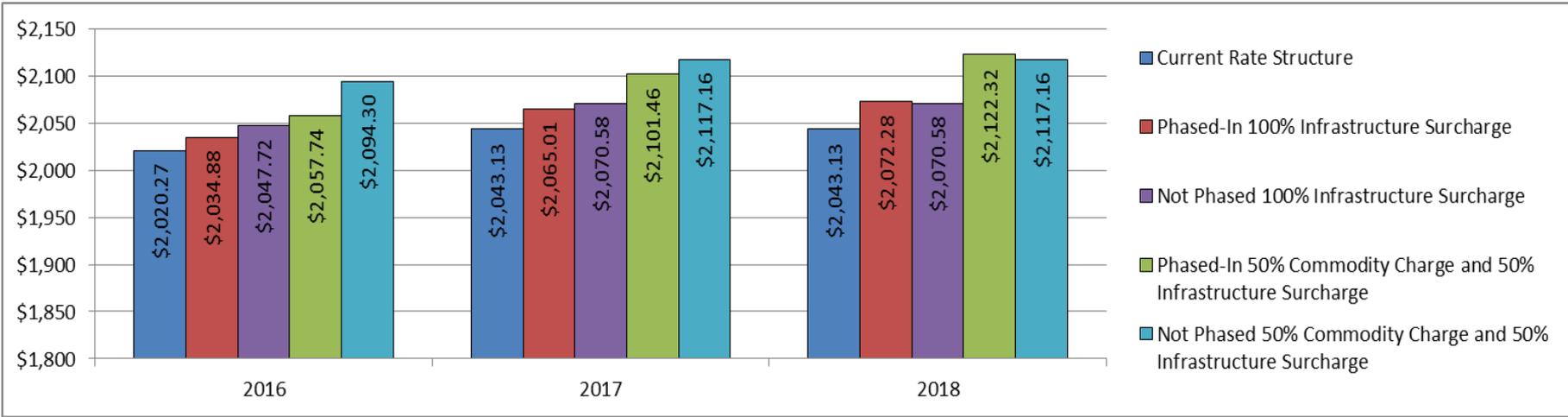


Southern Nevada Water Authority

Example Bill Comparison

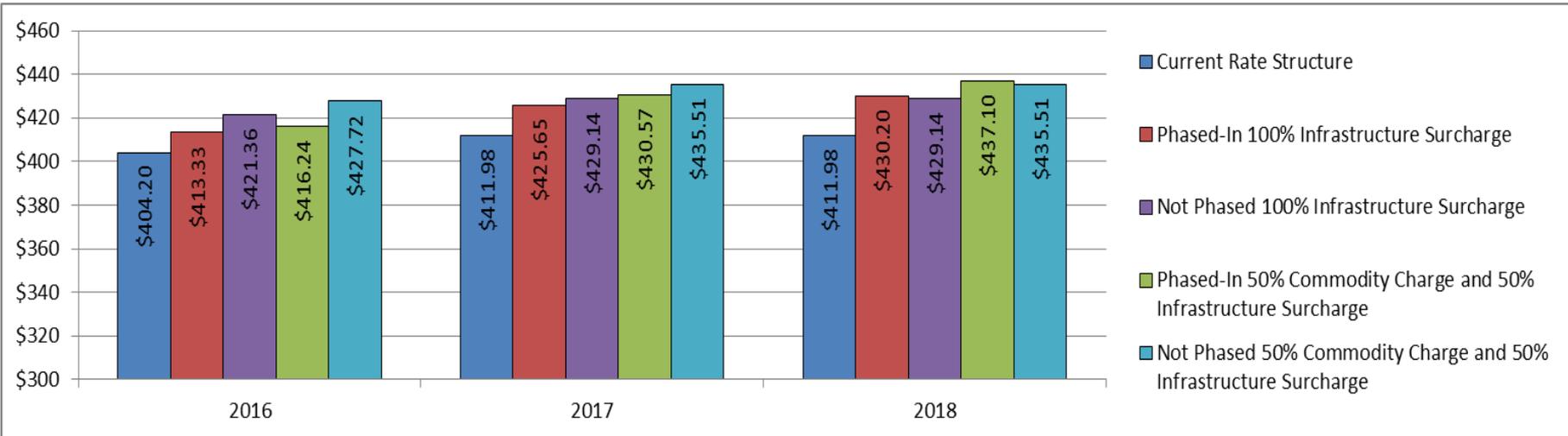
STAND-ALONE RESTAURANT - LARGE

Lawrys



STAND-ALONE RESTAURANT - SMALL

Raising Canes

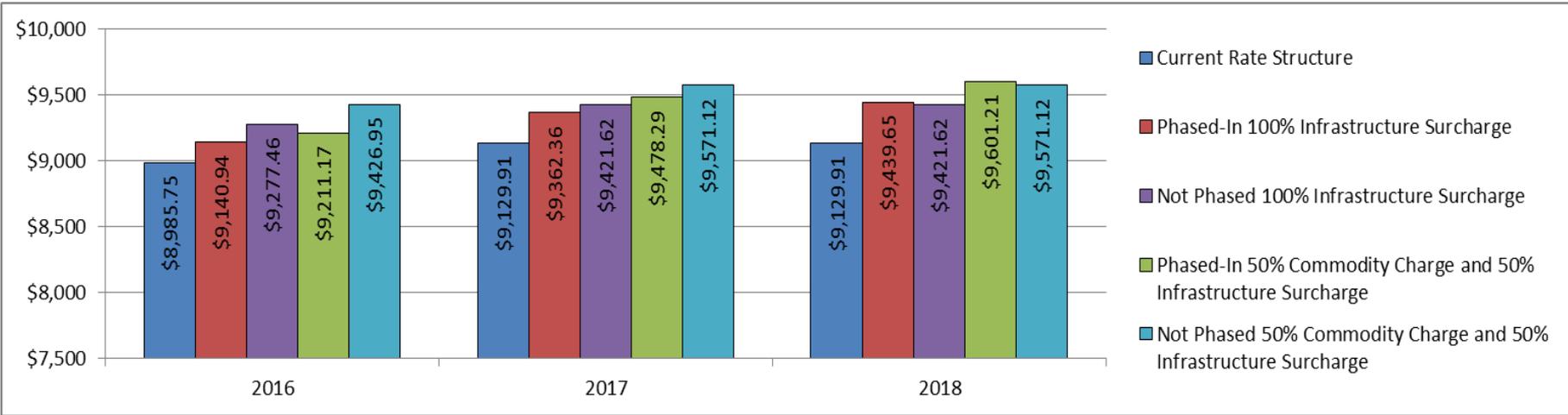


Southern Nevada Water Authority

Example Bill Comparison

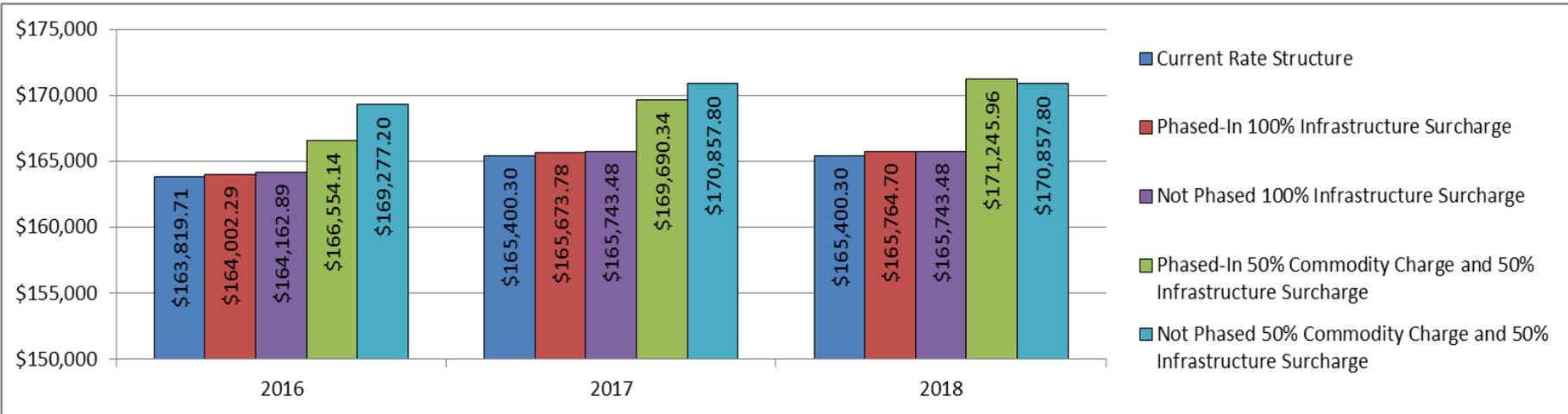
PUBLIC BUILDING

Clark Co. Regional Justice Center



CASINO - LARGE

Bellagio

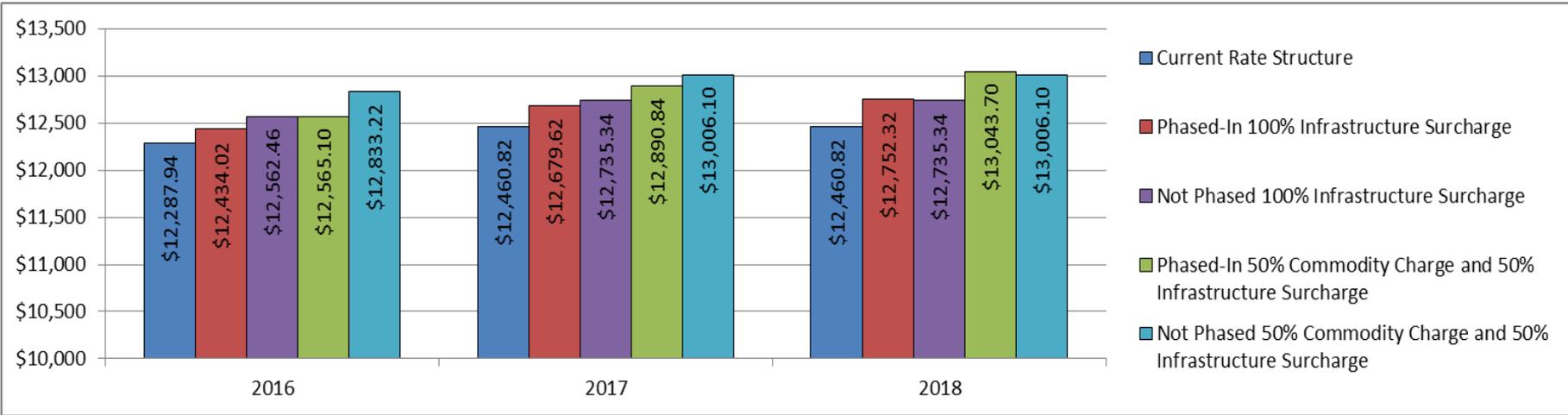


Southern Nevada Water Authority

Example Bill Comparison

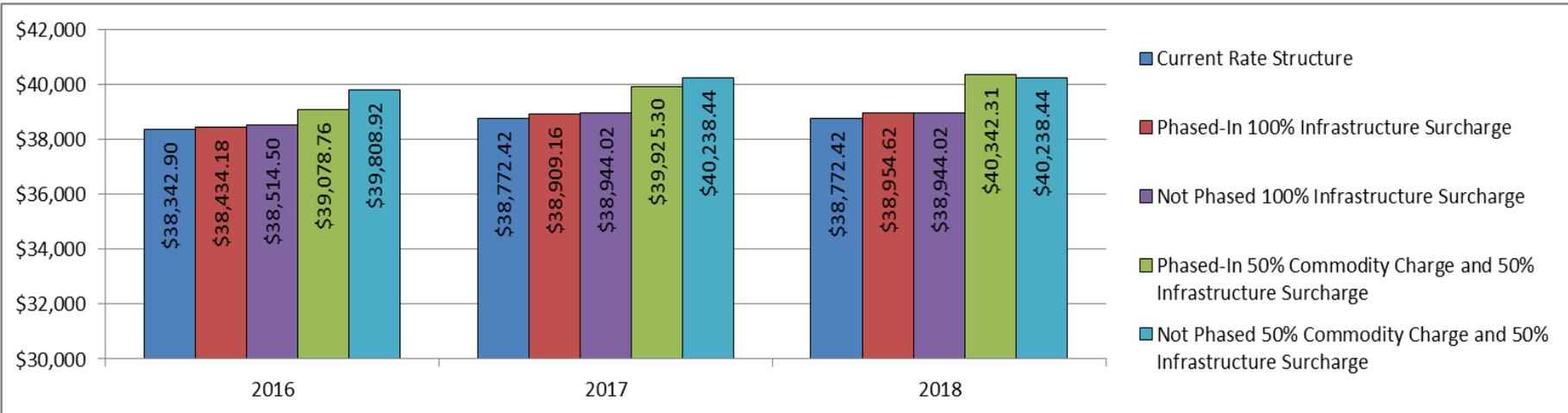
CASINO - DOWNTOWN

El Cortez



CASINO - LOCALS

Suncoast

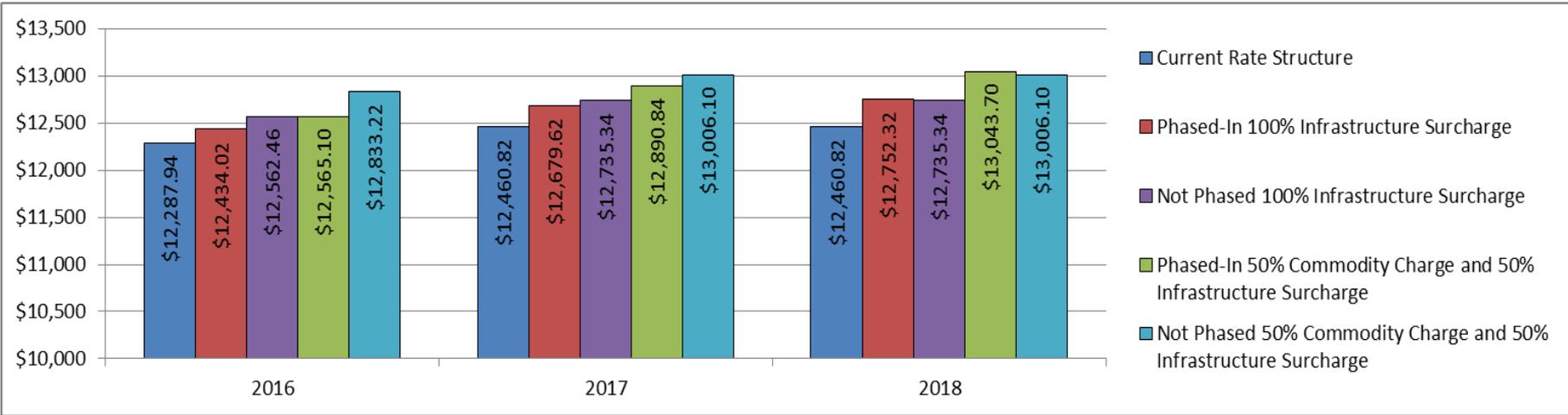


Southern Nevada Water Authority

Example Bill Comparison

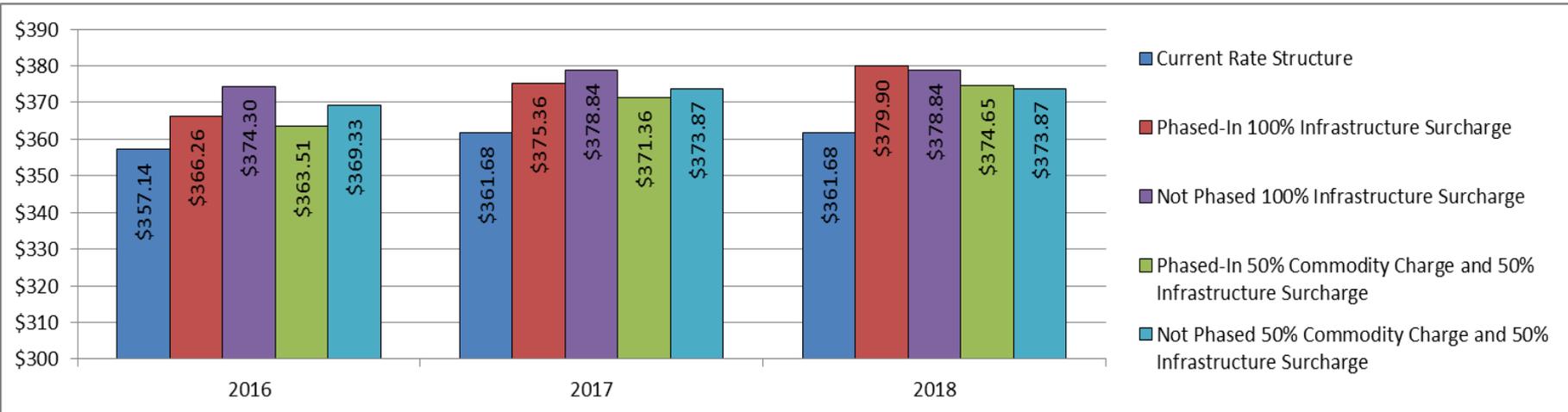
MUNICIPAL PARK

All-American Park



COMMERCIAL – STAND-ALONE

Cragin & Pike Insurance

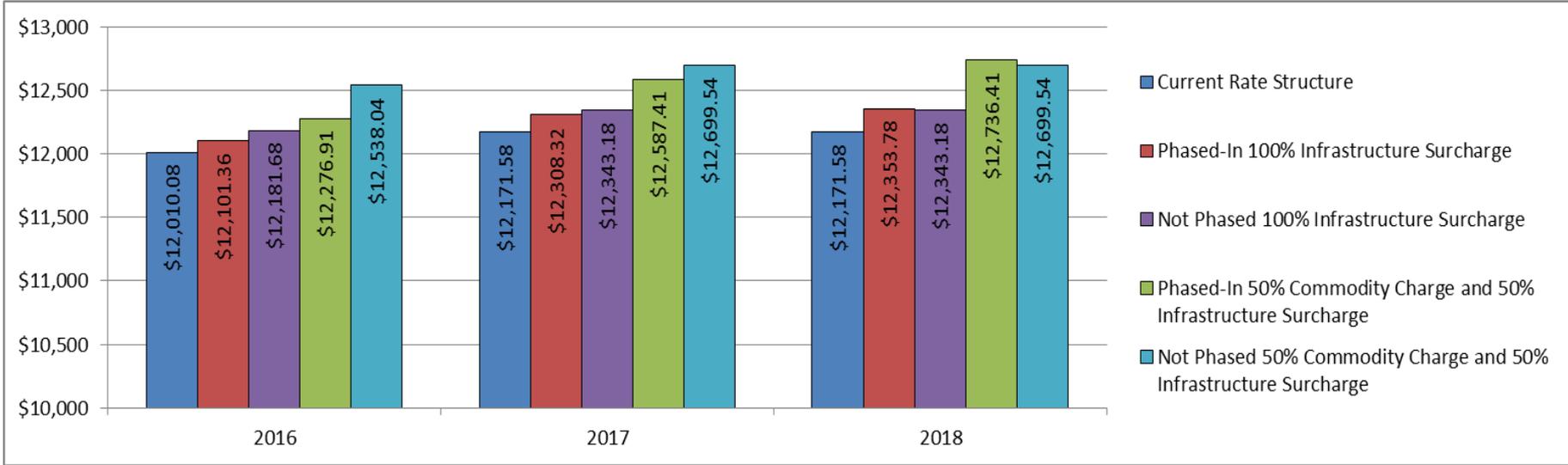


Southern Nevada Water Authority

Example Bill Comparison

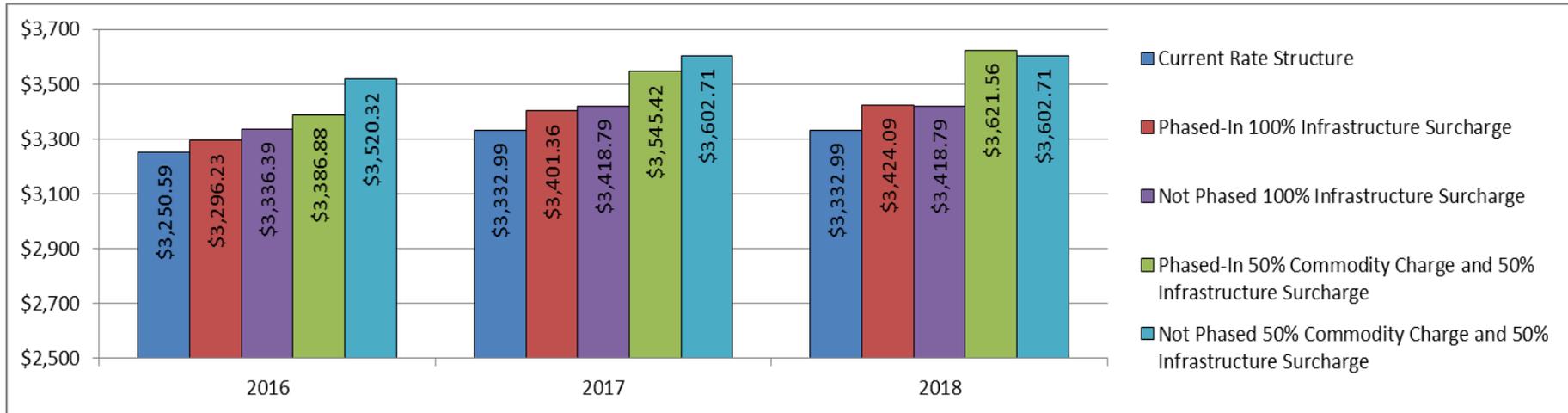
SCHOOL

Palo Verde High School



MOBILE HOME PARK – (300 SPACES)

Boulder Cascade

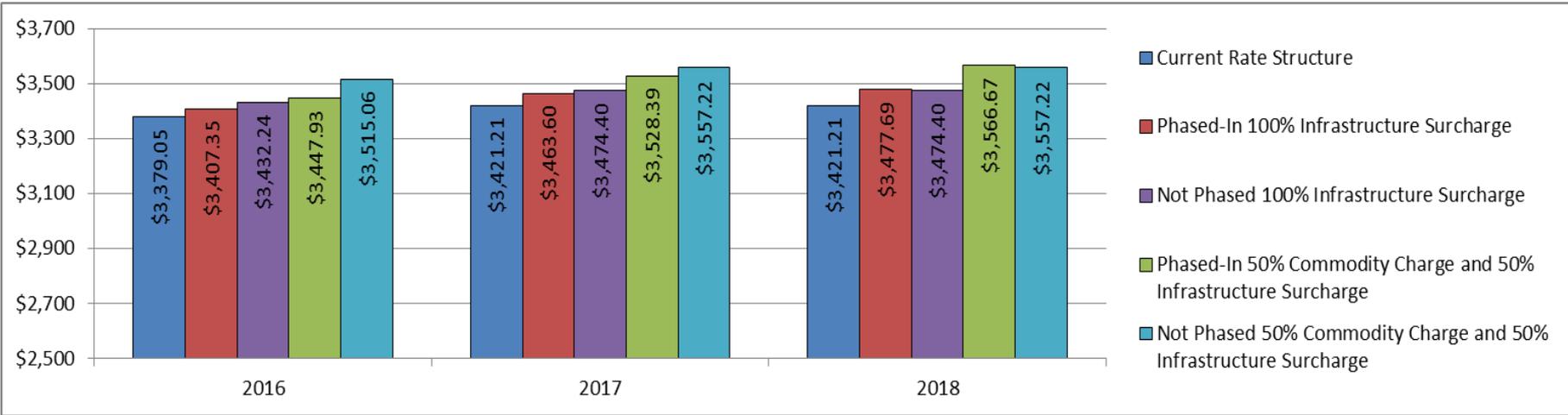


Southern Nevada Water Authority

Example Bill Comparison

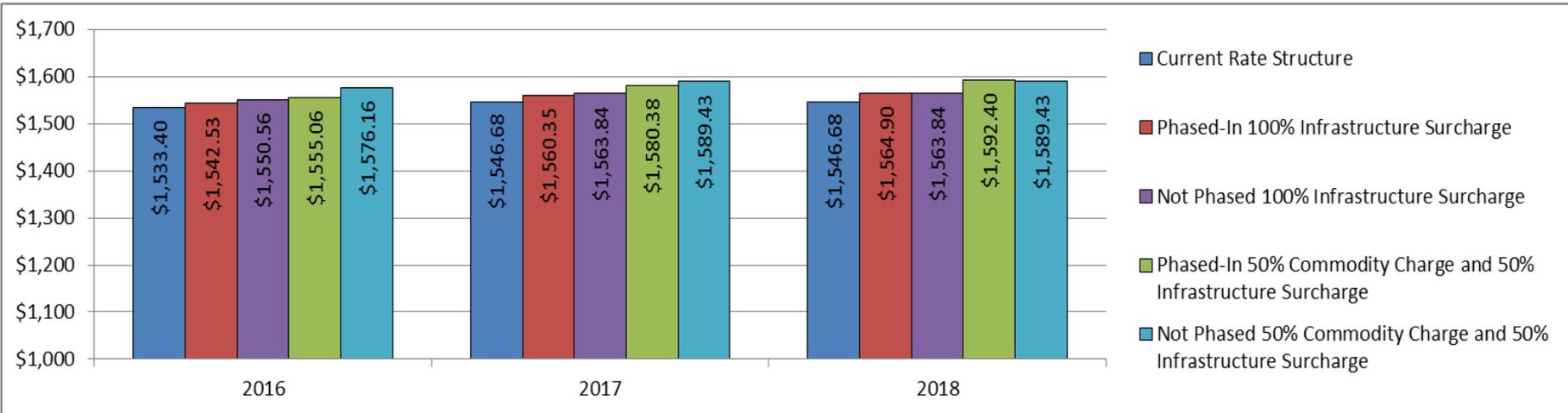
LARGE WAREHOUSE

Sunset Parkway Business Center



OFFICE PARK

Desert Canyon

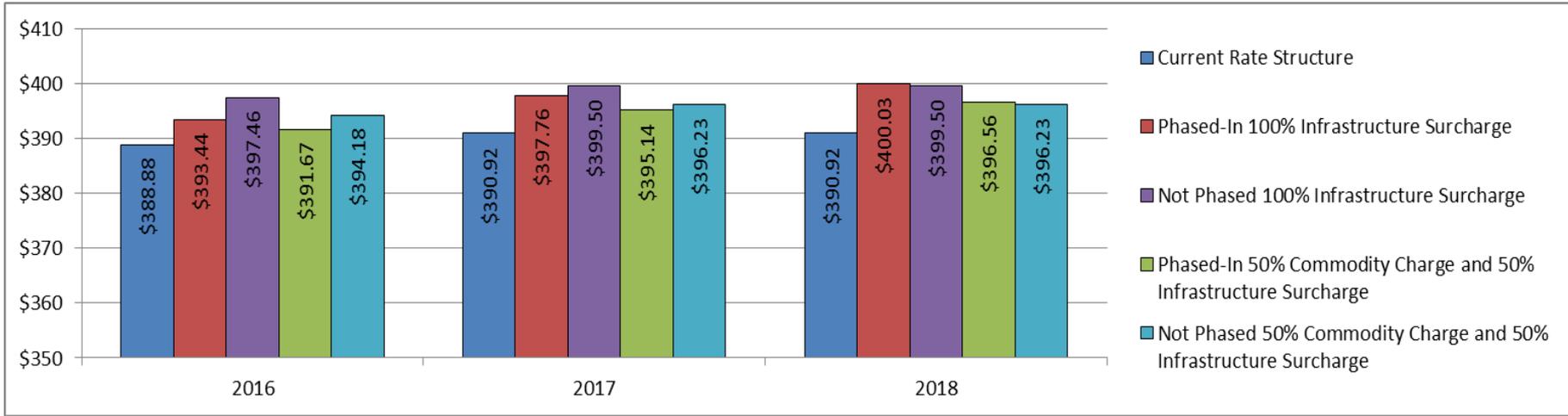


Southern Nevada Water Authority

Example Bill Comparison

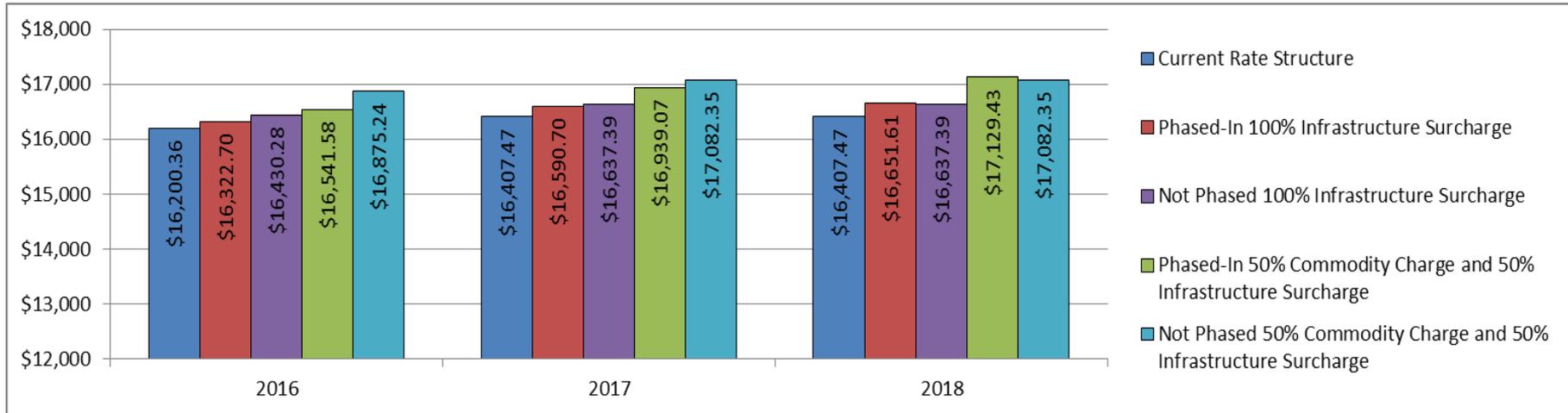
SMALL INDUSTRIAL

Baldwin Motor Sports



HIGH RISE OFFICE TOWER

Wells Fargo Tower



Las Vegas Valley Water District
2014 MUNICIPAL WATER RATES SURVEY
AVERAGE MONTHLY BILL (\$) FOR 10,000 GALLONS

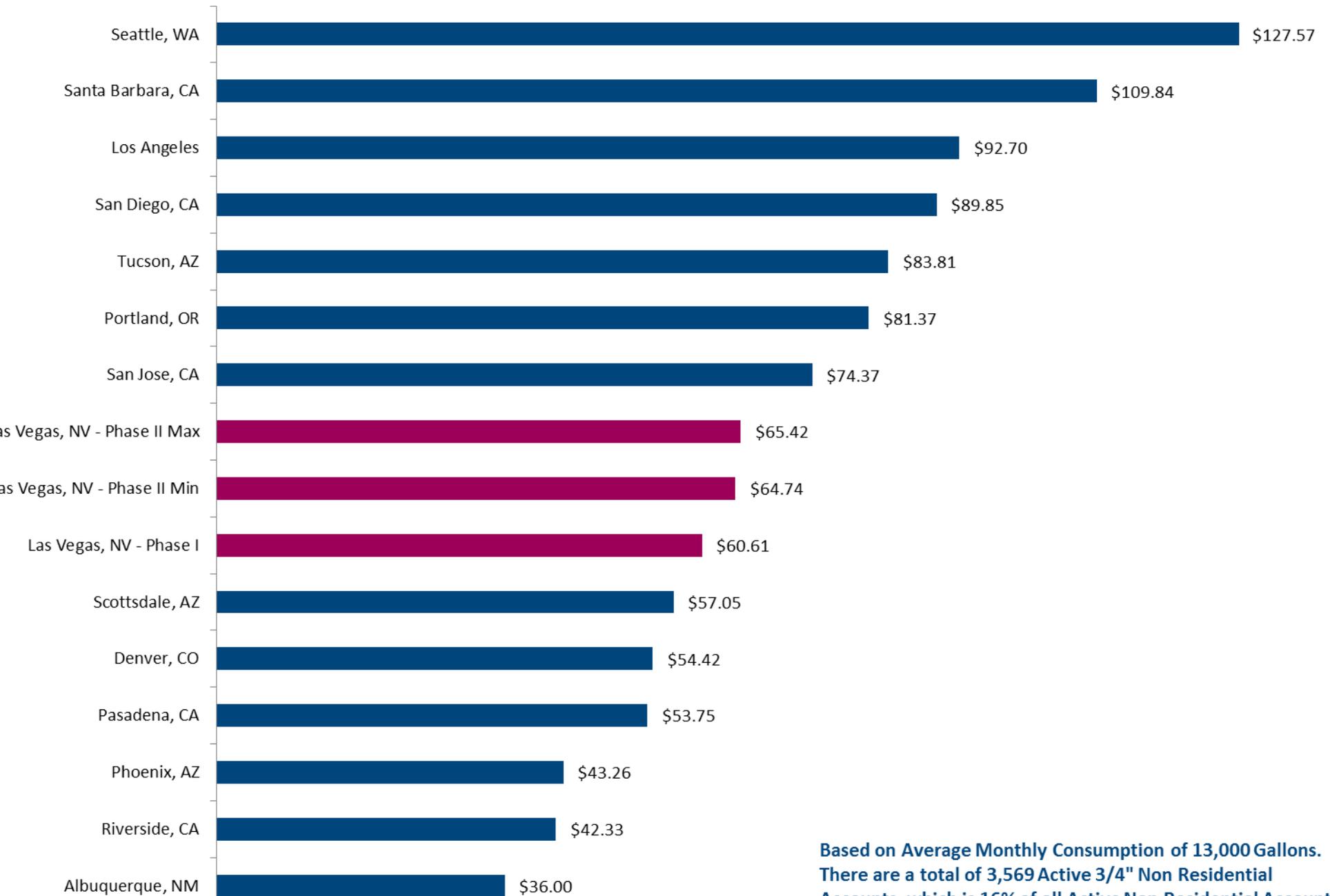
Utility	\$10 - \$20	\$20 - \$30	\$30 - \$40	\$40 - \$50	\$50 - \$60	\$60 - \$70	\$70 - \$80	\$80 - \$90	\$90 - \$100	Over \$100
Santa Barbara, CA (OC)										113.37
Sants Fe, NM										110.33
Colorado Springs, CO (OC)										109.22
Seattle, WA (OC)									96.33	
Santa Cruz, CA (OC)									94.23	
Reno, NV (Unmetered)									91.37	
San Francisco, CA								89.33		
Santa Barbara, CA								87.20		
Seattle, WA								84.46		
Portland, OR								83.08		
San Diego, CA							74.05			
Santa Cruz, CA							73.97			
Colorado Springs, CO							72.78			
Flagstaff, AZ (OC)							72.43			
Marin, CA (MMWD)						66.82				
Flagstaff, AZ						65.83				
Los Angeles, CA						63.40				
Santa Rosa, CA						60.52				
San Jose, CA (Company)					59.44					
Oakland, CA (EBMUD)					59.36					
San Jose, CA (City)					56.00					
Pasadena, CA (OC)					51.53					
62 City Average					51.24					
Houston, TX				48.94						
Tacoma, WA (OC)				48.59						
Pheonix, AZ (OC)				48.16						
Cheyenne, WY				45.92						
Tucson, AZ				45.17						
Reno, NV (Metered)				45.14						
Las Vegas, NV (SNWA Phase II Maximum)				44.07						
Riverside, CA (OC)				43.73						
Las Vegas, NV (SNWA Phase II Minimum)				42.93						
Kingman, AZ (OC)				42.74						
Pasadena, CA				42.14						
Victorville, CA				41.90						
San Antonio, TX (OC)				41.02						
Long Beach, CA				40.81						
Tacoma, WA				40.48						
Las Vegas, NV (SNWA Phase I Fully Imp)			39.26							
Henderson, NV			38.60							
North Las Vegas, NV			38.37							
Boulder, CO (OC)			38.30							
Scottsdale, AZ			37.01							
Denver, CO (OC)			36.78							
Billings, MT (OC)			36.07							
Billings, MT			35.47							
San Antonio, TX			35.30							
Dallas, TX			34.47							
Boulder, CO			33.60							
Denver, CO			33.38							
Kingman, AZ			32.85							
Pheonix, AZ			32.35							
Anaheim, CA (OC)			32.12							
Salt Lake City, UT (OC)			31.51							
Boise, ID			31.43							
San Bernardino, CA			30.95							
Albuquerque, NM		29.93								
Anaheim, CA		29.20								
Riverside, CA		29.15								
St. George, UT		28.62								
Cedar City, UT		26.20								
El Paso, TX		26.18								
Redding, CA		25.91								
Salt Lake City, UT		25.13								
Boulder City, NV		22.53								

Based on LVVWD Average Monthly Single-Family Consumption of 10,000 gallons and a 5/8 or 3/4 Inch Service Charge for Comparison.

OC - Outside City
MMWD - Marin Municipal Water District
EBMUD - East Bay Municipal Utilities District

Estimated Monthly Bill for Commercial Customer in Major Western US Cities

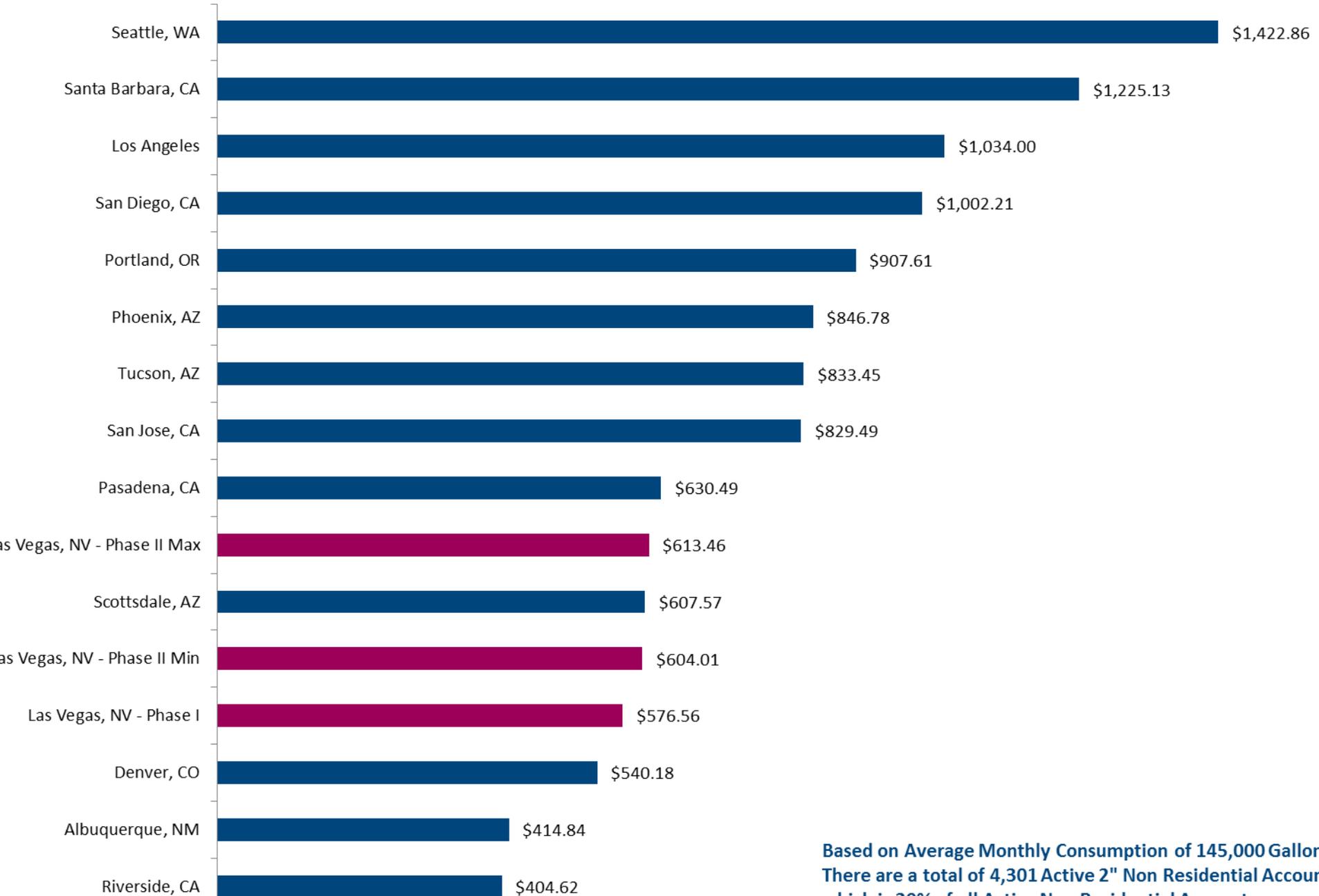
3/4" Service



Based on Average Monthly Consumption of 13,000 Gallons.
There are a total of 3,569 Active 3/4" Non Residential
Accounts, which is 16% of all Active Non Residential Account

Estimated Monthly Bill for Commercial Customer in Major Western US Cities

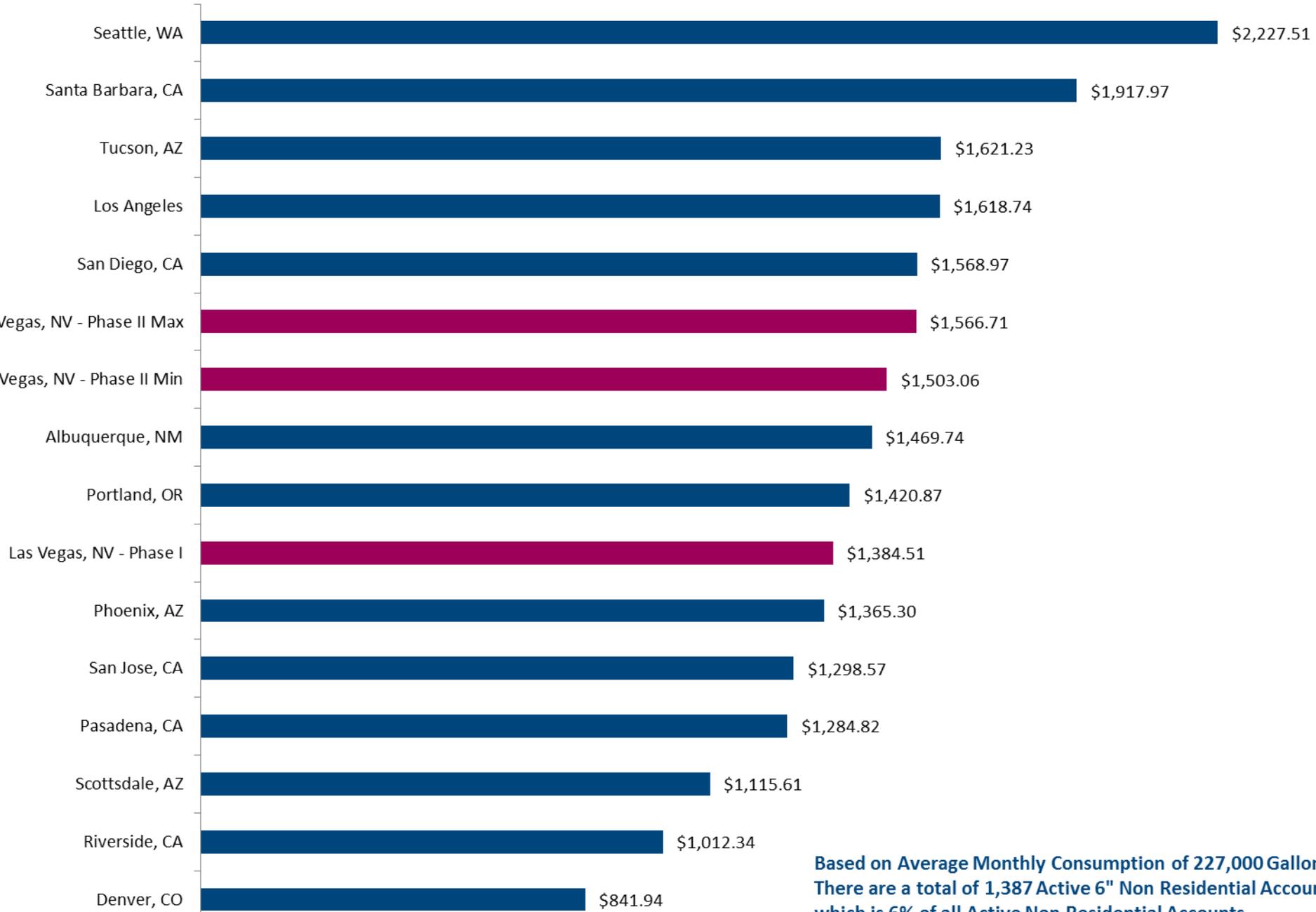
2" Service



Based on Average Monthly Consumption of 145,000 Gallons.
There are a total of 4,301 Active 2" Non Residential Accounts
which is 20% of all Active Non Residential Accounts.

Estimated Monthly Bill for Commercial Customer in Major Western US Cities

6" Service



Based on Average Monthly Consumption of 227,000 Gallons.
There are a total of 1,387 Active 6" Non Residential Accounts
which is 6% of all Active Non Residential Accounts.

Funding Recommendation

Question for IRPAC Deliberation:

What funding formula does IRPAC believe is most appropriate for funding this drought protection project?

- **Phased vs. Immediate Implementation**
- **Fixed vs. Volumetric Formula**

Upcoming Meetings

November 19 – 3 p.m. to 6 p.m.

December 3 – 4 p.m. to 6 p.m. (*if necessary*)

January TBD (*if necessary*)

