

County Water District of Billing Heights

Raftelis and Board Rate Alternatives Review and Assessment

August 16, 2023
Presented by Andrew Rheem





Agenda



Rates Alternative Review



Bill Impacts



Assessment and Comparison

Rate Design & Bill Impacts





Current Base and Volume Rates and Rate Structure

Base Rate

Meter Size	Monthly Charge \$ per bill (1)
¾-inch	\$22.04
1-inch	23.60
1 ½-inch	25.69
2-inch	31.47
3-inch	74.03
4-inch	89.65
6-inch	144.72
8-inch	168.23



Fixed Block Volumetric Rates

Threshold (gallons)	Volume Rate \$ per kgal
0 – 3,300	\$0.00
3,301 – 20,000	4.48
20,001 – 50,000	5.38
> 50,000	6.48



Monthly Water Bill



(1) With \$1.30 service line repair fee

Rate Recommendations / Rate Alternatives

- Eliminate the minimum water allowance in base rate
 - Charge at least as much per 1,000 gallons as City charges the District
 - Separate Residential, Non-Residential, and Irrigation-Only classes
 - Improve customer class cost of service recovery
 - Update ancillary rates, fees, and charges to full cost recovery
1. Raftelis' Alternative
 2. Doug's Alternative
 3. Frank's Alternative
 4. Peyton's Alternative
 5. Current Without Minimum Volume Alternative

Current and Proposed Fixed Charges

Meter Size	Accounts by Meter Size	Current Monthly Charge (1)	Raftelis Monthly Charge (1)	Doug's Monthly Charge (1)	Frank's Monthly Charge (1)	Peyton's Monthly Charge (1)	Current No Min. Monthly Charge (1)
¾-inch	88%	\$22.04	\$21.00	\$21.67	\$21.00	\$22.04	\$22.04
1-inch	8%	23.60	29.40	23.30	29.40	23.60	23.60
1 ½-inch	2%	25.69	52.50	25.49	52.50	25.69	25.69
2-inch	1%	31.47	79.80	31.53	79.80	31.47	31.47
3-inch	<1%	74.03	153.30	76.00	153.30	74.03	74.03
4-inch	<1%	89.65	153.30	92.33	153.30	89.65	89.65
6-inch	<1%	144.72	466.20	149.87	466.20	144.72	144.72
8-inch	<1%	168.23	741.30	174.44	741.30	168.23	168.23

₆ (1) Includes service line fee of \$1.30 per month for all meter sizes.

Current and Raftelis' Alt. Volume Rates

Tier	Threshold (gallons)	Current Volume Rate (\$/1,000 gal)
1	0 – 3,300	\$0.00
2	3,301 – 20,000	4.48
3	20,001 – 50,000	5.38
4	> 50,000	6.48

Tier	Threshold (gallons)	Raftelis' Rate (\$/1,000 gal) (1) (2)
1	0 – 4,000	\$3.38
2	4,001 – 15,000	5.07
3	15,001 – 40,000	7.61
4	> 40,000	10.13
N/A	Non-Res All Use	4.24
N/A	Irr-Only All Use	7.00
N/A	Retailers/Bulk	

(1) Water threshold to increase by meter size under proposed rates.

(2) Multi-family, lodging, assisted living, and group homes included in Residential and Non-Residential as currently classified.

Current and Doug's Alt. Volume Rates

Tier	Threshold (gallons)	Current Volume Rate (\$/1,000 gal)
1	0 – 3,300	\$0.00
2	3,301 – 20,000	4.48
3	20,001 – 50,000	5.38
4	> 50,000	6.48

Tier	Threshold (gallons)	Doug's Rate (\$/1,000 gal) (1)
1	0 – 3,000	\$3.09
2	3,001 – 10,000	6.25
3	10,001 – 50,000	7.95
4	> 50,000	8.73
N/A	Non-Res All Use	4.39
N/A	Irr-Only All Use	7.00
N/A	Multi-Family	4.90
N/A	Retailers/Bulk	6.30

(1) Water threshold to increase by meter size under proposed rates.

Current and Frank's Alt. Volume Rates

Tier	Threshold (gallons)	Current Volume Rate (\$/1,000 gal)
1	0 – 3,300	\$0.00
2	3,301 – 20,000	4.48
3	20,001 – 50,000	5.38
4	> 50,000	6.48

Tier	Threshold (gallons)	Frank's Rate (\$/1,000 gal) (1) (2)
1	0 – 4,000	\$3.21
2	4,001 – 20,000	4.82
3	20,001 – 50,000	7.04
4	> 50,000	9.37
N/A	Non-Res All Use	5.09
N/A	Irr-Only All Use	7.00
N/A	Retailers/Bulk	5.09

(1) Water threshold to increase by meter size under proposed rates.

(2) Multi-family, lodging, assisted living, and group homes included in Residential and Non-Residential as currently classified.

Current and Peyton's Alt. Volume Rates

Tier	Threshold (gallons)	Current Volume Rate (\$/1,000 gal)
1	0 – 3,300	\$0.00
2	3,301 – 20,000	4.48
3	20,001 – 50,000	5.38
4	> 50,000	6.48

Tier	Threshold (gallons)	Peyton's Rate (\$/1,000 gal) (1) (2)
1	0 – 3,300	\$4.48
2	3,301 – 20,000	4.48
3	20,001 – 50,000	5.38
4	> 50,000	6.48
N/A	Non-Res All Use	5.30
N/A	Irr-Only All Use	7.00
N/A	Retailers/Bulk	5.30

(1) Water threshold to increase by meter size under proposed rates.

(2) Multi-family, lodging, assisted living, and group homes included in Residential and Non-Residential as currently classified.

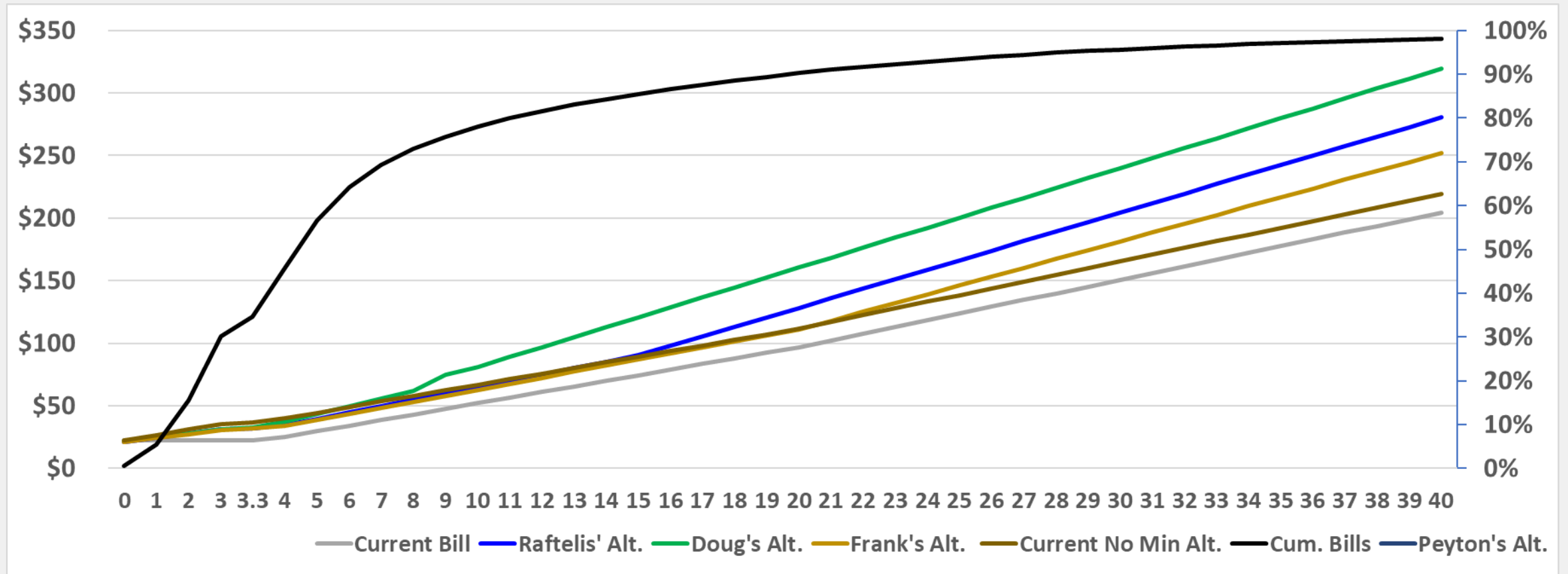
Current and No Min. Alt. Volume Rates

Tier	Threshold (gallons)	Current Volume Rate (\$/1,000 gal)	Current No Min. Volume Rate (\$/1,000 gal)
1	0 – 3,300	\$0.00	\$4.48
2	3,301 – 20,000	4.48	4.48
3	20,001 – 50,000	5.38	5.38
4	> 50,000	6.48	6.48

Alternatives Compared

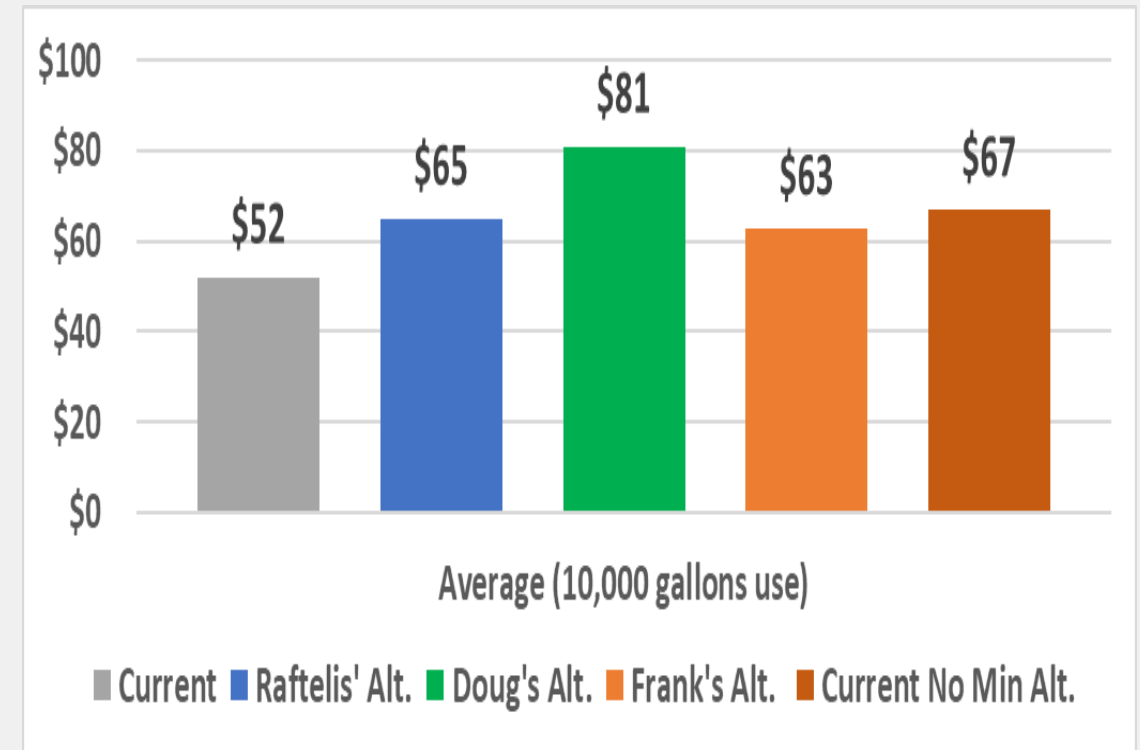
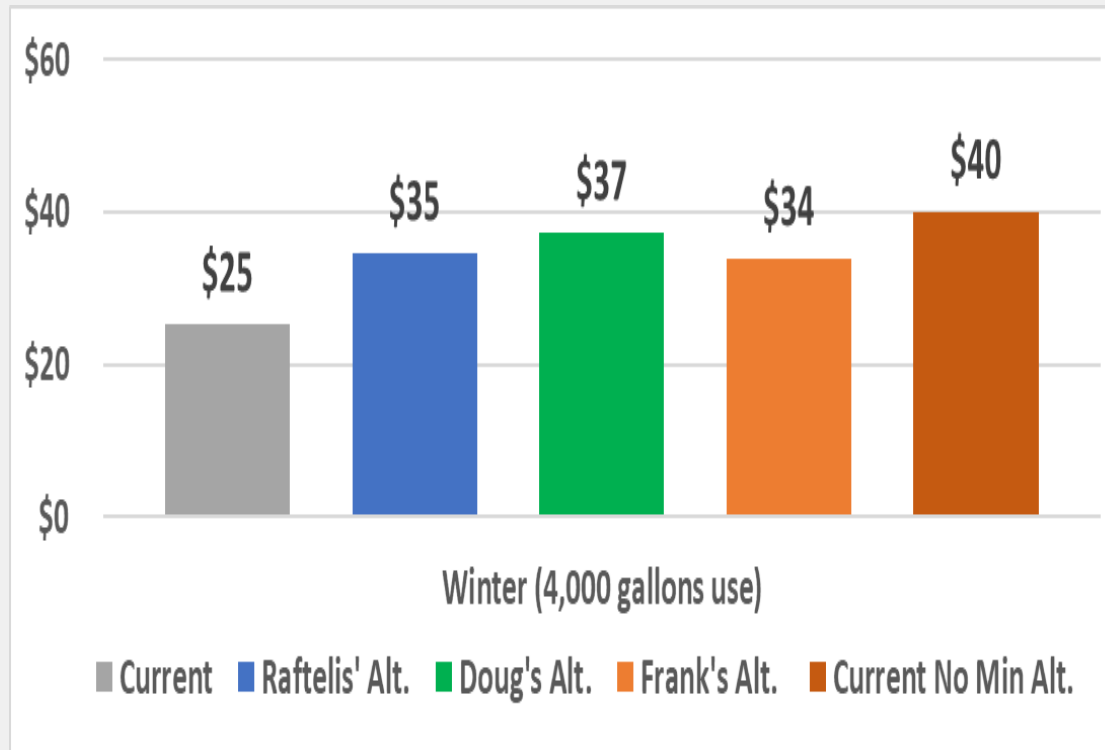
Description	Current	Raftelis' Alt.	Doug's Alt.	Frank's Alt.	Peyton's Alt.	Current No Min Alt.
Projected Revenue	\$4.90M	\$5.70M	\$6.01M	\$5.68M	\$5.70M	\$5.77M
Rate Revenue Increase		16.3%	22.6%	15.9%	16.3%	17.8%
Eliminates Min. Allowance	No	Yes	Yes	Yes	Yes	Yes
Volume Rate >= City Rate	No	Yes	Yes	Yes	Yes	Yes
Separates Res. / Non-Res. & Irr-only Classes	No	Yes	Yes	Yes	Yes	No
Separate Multi-Family Class	No	No	Yes	No	No	No
4-Tier Inclining Block SFR Rates	Yes	Yes	Yes	Yes	Yes	Yes
Uniform Rates for Other Classes	No	Yes	Yes	Yes	Yes	No

Monthly Bill by Alternative Residential ¾-inch Customer



- See handout for detailed monthly bills and impacts at each 1,000 gallon increment

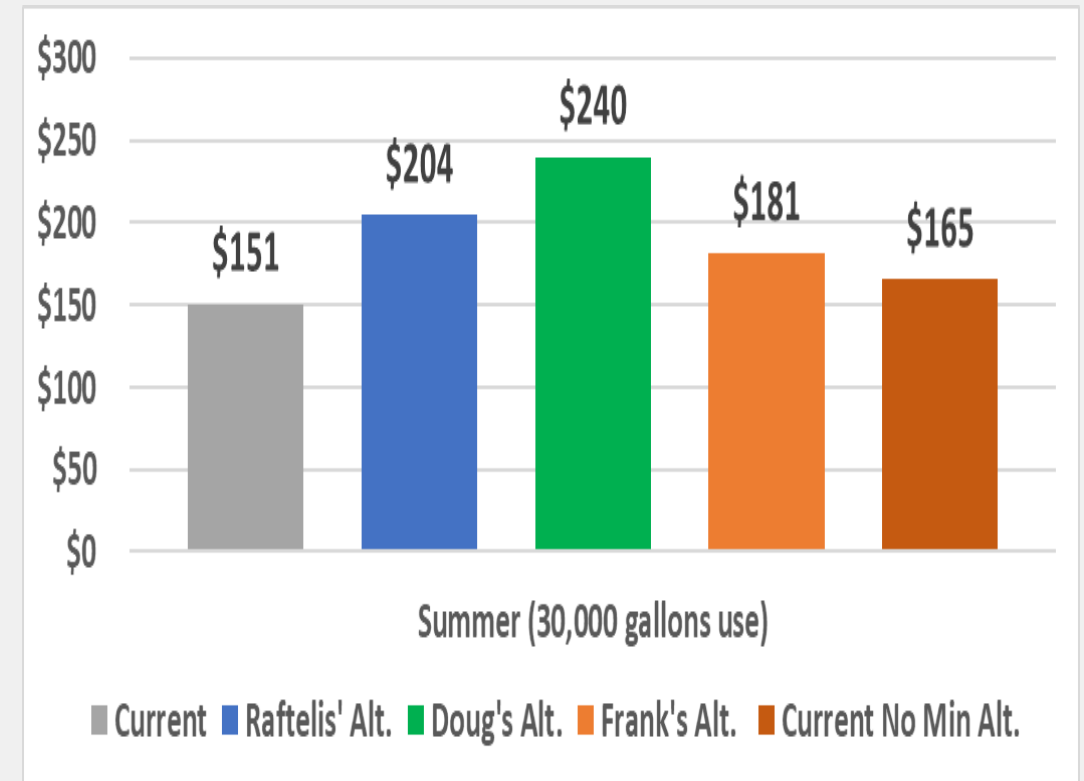
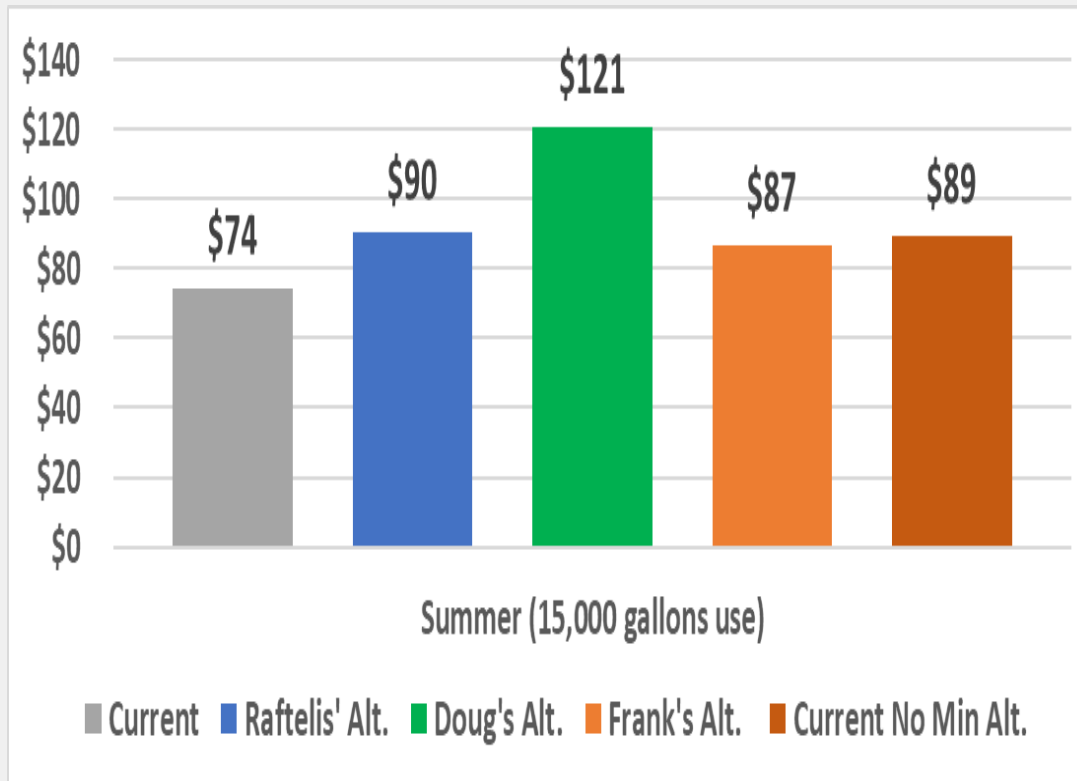
Monthly Bill by Alternative Residential ¾-inch Customer (1)



(1) Peyton's Alt and Current No Min Alt. are the same for Residential customers.

Monthly Bill by Alternative

Residential ¾-inch Customer (1)



(1) Peyton's Alt and Current No Min Alt. are the same for Residential customers.

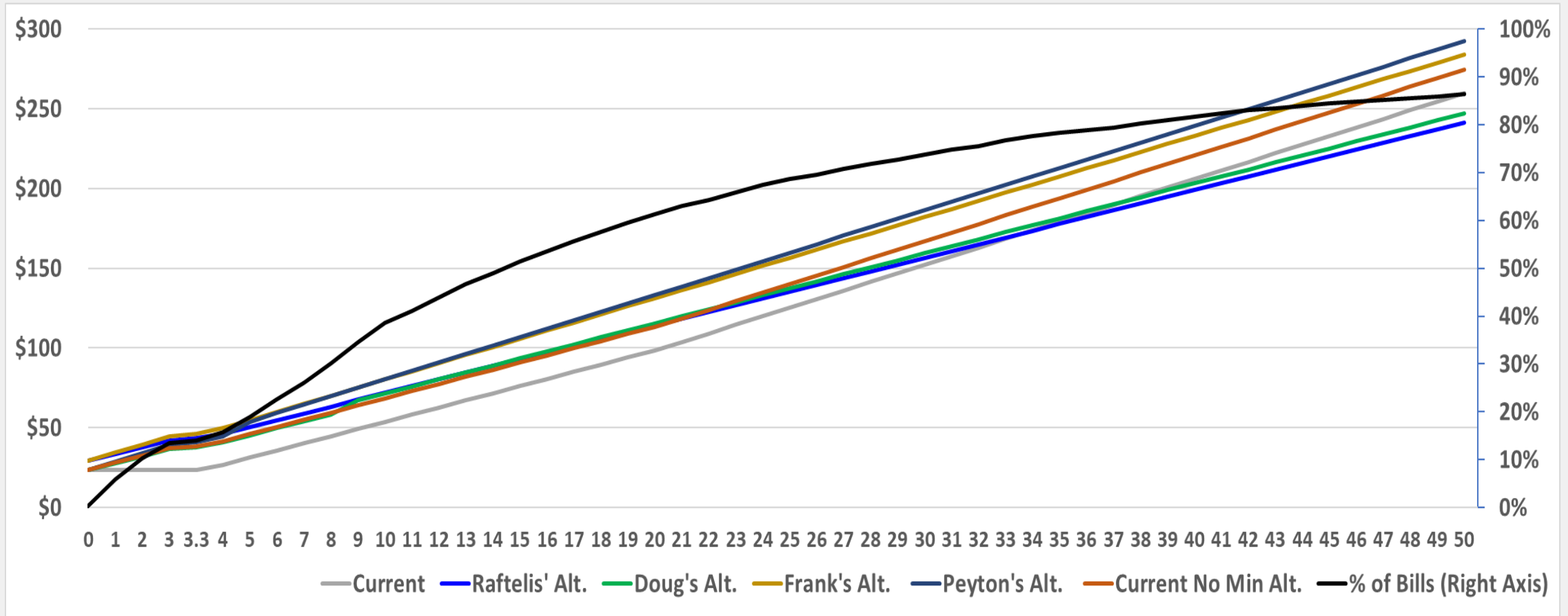
Customer Bill Impacts by Alternative

3/4-inch Residential

3/4-inch Residential Customer Profile	Use (Kgal)	Current	Raftelis' Alt.	Doug's Alt.	Frank's Alt.	Peyton's Alt.	Current No Min Alt.
Winter Bill	4	1	4	2	3	5	5
Average Bill	10	1	3	6	2	4	4
Summer Use	15	1	5	6	2	3	3
Summer Higher Use	30	1	5	6	4	2	2

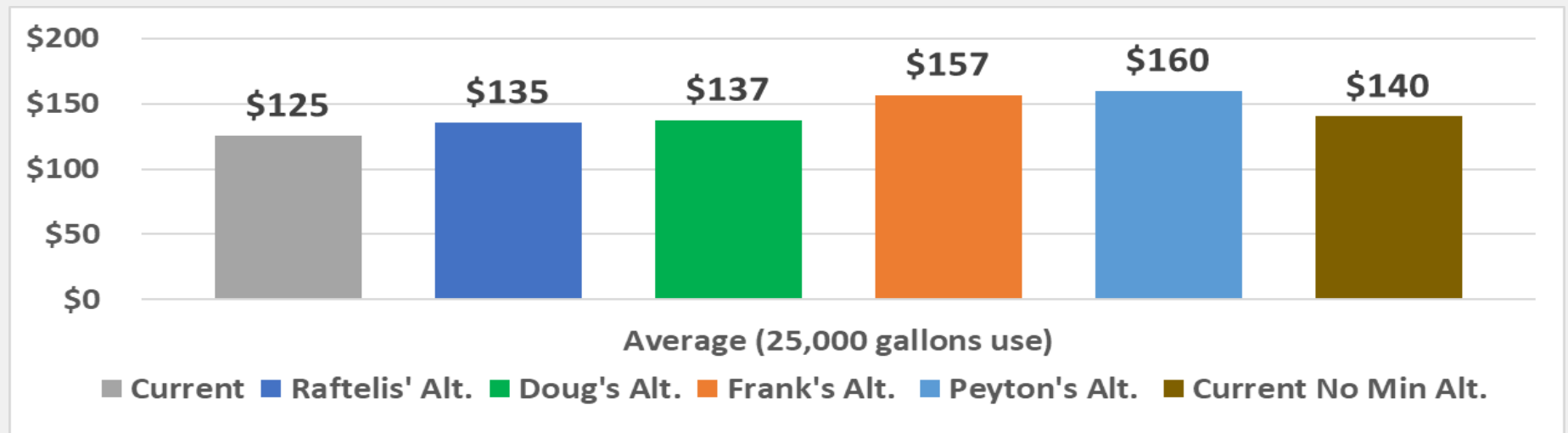
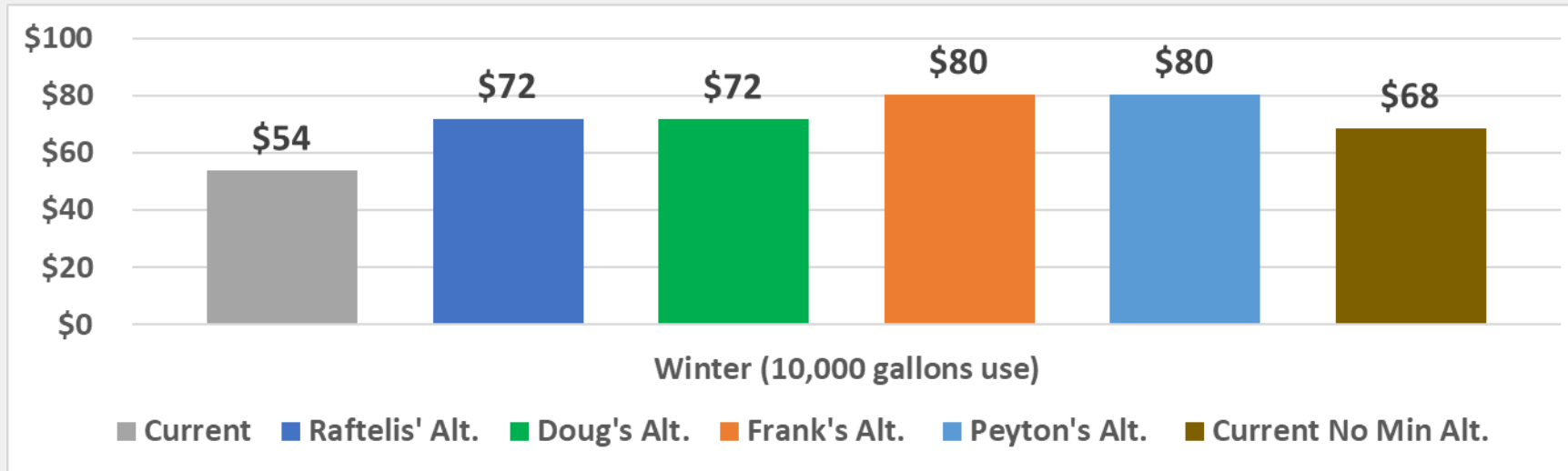
1 = Lowest Bill to 6 = Highest Bill

Monthly Bill by Alternative Commercial 1-inch Customer

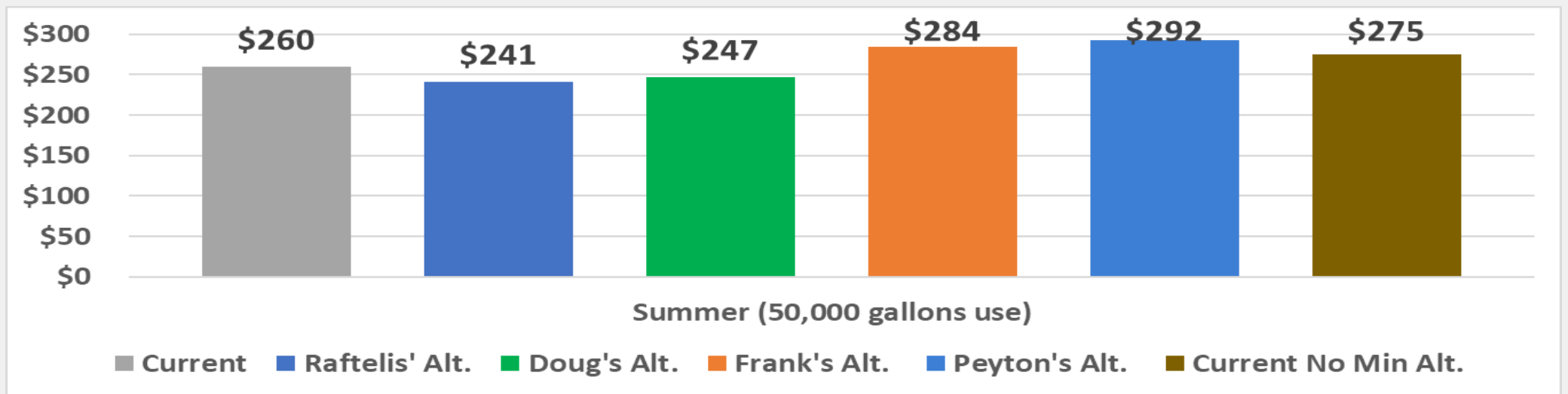
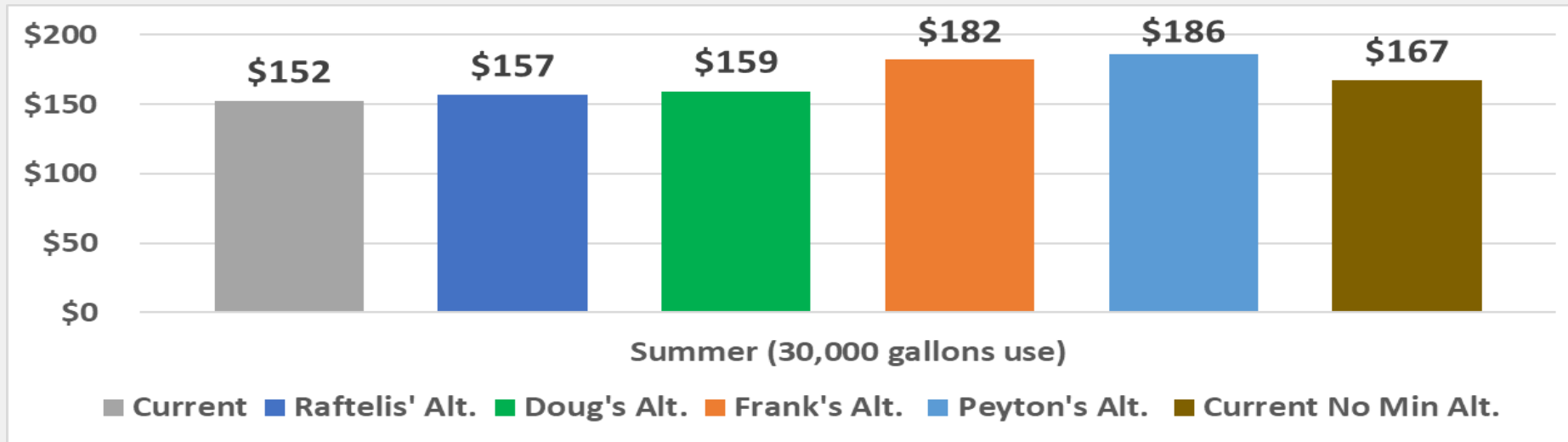


- See handout for detailed monthly bills and impacts at each 1,000 gallon increment

Monthly Bill by Alternative Commercial 1-inch Customer



Monthly Bill by Alternative Commercial 1-inch Customer



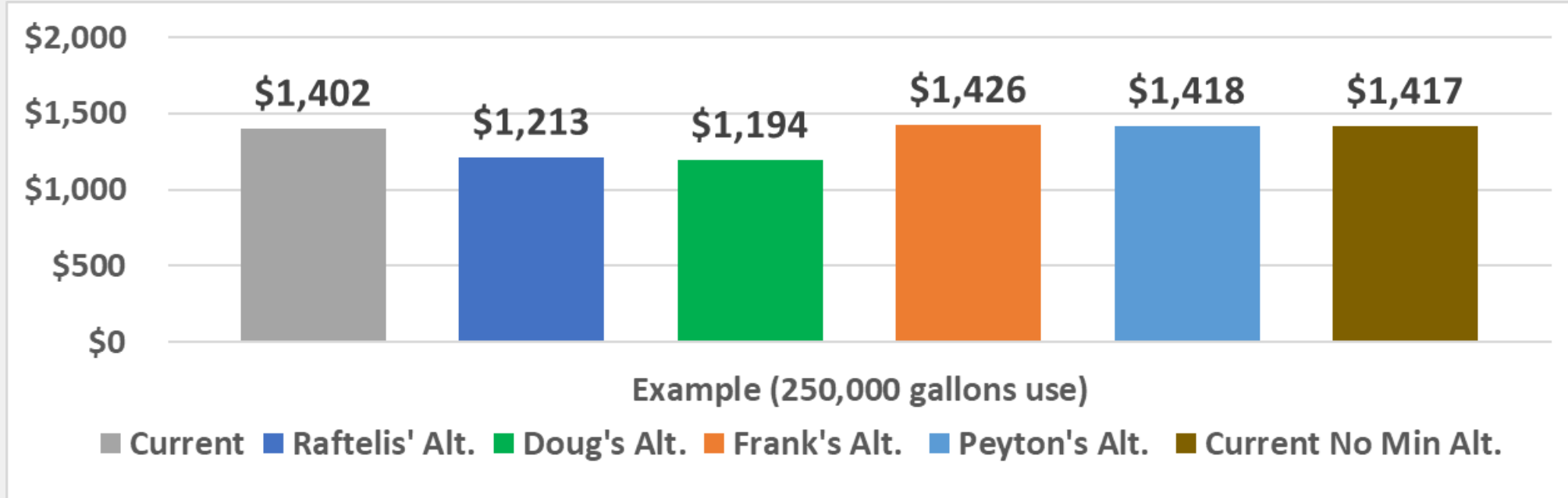
Customer Bill Impacts by Alternative

1-inch Commercial

Customer Profile	Use (Kgal)	Current	Raftelis' Alt.	Doug's Alt.	Frank's Alt.	Peyton's Alt.	Current No Min Alt.
Winter Bill	10	1	3	3	5	5	2
Average Bill	25	1	2	3	5	6	4
Summer Use	30	1	2	3	5	6	4
Summer Higher Use	50	1	1	2	5	6	4

1 = Lowest Bill to 6 = Highest Bill

Monthly Bill by Alternative Commercial 4-inch Customer



Alternatives Compared

Description	Current	Raftelis' Alt.	Doug's Alt.	Frank's Alt.	Peyton's Alt.	Current No Min Alt.
Projected Revenue	\$4.90M	\$5.70M	\$6.01M	\$5.68M	\$5.70M	\$5.77M
Rate Revenue Increase		16.3%	22.6%	15.9%	16.3%	17.8%
Eliminates Min. Allowance	No	Yes	Yes	Yes	Yes	Yes
Volume Rate >= City Rate	No	Yes	Yes	Yes	Yes	Yes
Separates Res. / Non-Res. & Irr-only Classes	No	Yes	Yes	Yes	Yes	No
Separate Multi-Family Class	No	No	Yes	No	No	No
4-Tier Inclining Block SFR Rates	Yes	Yes	Yes	Yes	Yes	Yes
Uniform Rates for Other Classes	No	Yes	Yes	Yes	Yes	No

Thank you!

Contacts:

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Description		Current			Raftelis' Alt.			Doug's Alt.			Frank's Alt.			Peyton's Alt.			Current No Min Alt.		
		Rate	Min	Max	Rate	Min	Max	Rate	Min	Max	Rate	Min	Max	Rate	Min	Max	Rate	Min	Max
Base Fee - 3/4-inch		\$20.74			\$19.70			\$20.37			\$19.70			\$20.74			\$20.74		
Line Charge		1.30			1.30			1.30			1.30			1.30			1.30		
Tier 1		0.00	0	3.3	3.38	0	4	3.09	0	3	3.21	0	4	4.48	0	3.3	4.48	0	3.3
Tier 2		4.48	3.3	20	5.07	4	15	6.25	3	10	4.82	4	20	4.48	3.3	20	4.48	3.3	20
Tier 3		5.38	20	50	7.61	15	40	7.95	10	50	7.04	20	50	5.38	20	50	5.38	20	50
Tier 4		6.48	50		10.13	40		8.73	50		9.37	50		6.48	50		6.48	50	
Mon					Raftelis' Alt.			Doug's Alt.			Frank's Alt.			Peyton's Alt.			Current No Min Alt.		
Water		Cum. Current			Change Change			Change Change			Change Change			Change Change			Change Change		
Line No	(KGAL)	Bills	Bills	Bill	New Bill	\$	%	New Bill	\$	%	New Bill	\$	%	New Bill	\$	%	New Bill	\$	%
1	0	0.5%	0.5%	\$22.04	\$21.00	(\$1.04)	-4.7%	\$21.67	(\$0.37)	-1.7%	\$21.00	(\$1.04)	-4.7%	\$22.04	\$0.00	0.0%	\$22.04	\$0.00	0.0%
2	1	4.8%	5.4%	22.04	24.38	2.34	10.6%	24.76	2.72	12.3%	24.21	2.17	9.8%	26.52	4.48	20.3%	26.52	4.48	20.3%
3	2	10.2%	15.6%	22.04	27.76	5.72	26.0%	27.85	5.81	26.4%	27.42	5.38	24.4%	31.00	8.96	40.7%	31.00	8.96	40.7%
4	3	14.6%	30.2%	22.04	31.14	9.10	41.3%	30.94	8.90	40.4%	30.63	8.59	39.0%	35.48	13.44	61.0%	35.48	13.44	61.0%
5	3-3	4.4%	34.6%	22.04	32.15	10.11	45.9%	32.82	10.78	48.9%	31.59	9.55	43.3%	36.82	14.78	67.1%	36.82	14.78	67.1%
6	4	11.1%	45.7%	25.18	34.52	9.34	37.1%	37.19	12.01	47.7%	33.84	8.66	34.4%	39.96	14.78	58.7%	39.96	14.78	58.7%
7	5	10.9%	56.7%	29.66	39.59	9.93	33.5%	43.44	13.78	46.5%	38.66	9.00	30.4%	44.44	14.78	49.9%	44.44	14.78	49.9%
8	6	7.5%	64.1%	34.14	44.66	10.52	30.8%	49.69	15.55	45.6%	43.48	9.34	27.4%	48.92	14.78	43.3%	48.92	14.78	43.3%
9	7	5.1%	69.2%	38.62	49.73	11.11	28.8%	55.94	17.32	44.9%	48.30	9.68	25.1%	53.40	14.78	38.3%	53.40	14.78	38.3%
10	8	3.7%	72.9%	43.10	54.80	11.70	27.2%	62.19	19.09	44.3%	53.12	10.02	23.3%	57.88	14.78	34.3%	57.88	14.78	34.3%
11	9	2.9%	75.8%	47.58	59.87	12.29	25.8%	74.69	27.11	57.0%	57.94	10.36	21.8%	62.36	14.78	31.1%	62.36	14.78	31.1%
12	10	2.3%	78.1%	52.06	64.94	12.88	24.8%	80.94	28.88	55.5%	62.76	10.70	20.6%	66.84	14.78	28.4%	66.84	14.78	28.4%
13	11	1.9%	80.0%	56.54	70.01	13.47	23.8%	88.89	32.35	57.2%	67.58	11.04	19.5%	71.32	14.78	26.1%	71.32	14.78	26.1%
14	12	1.6%	81.6%	61.02	75.08	14.06	23.0%	96.84	35.82	58.7%	72.40	11.38	18.7%	75.80	14.78	24.2%	75.80	14.78	24.2%
15	13	1.4%	83.0%	65.50	80.15	14.65	22.4%	104.79	39.29	60.0%	77.22	11.72	17.9%	80.28	14.78	22.6%	80.28	14.78	22.6%
16	14	1.3%	84.3%	69.98	85.22	15.24	21.8%	112.74	42.76	61.1%	82.04	12.06	17.2%	84.76	14.78	21.1%	84.76	14.78	21.1%
17	15	1.2%	85.5%	74.46	90.29	15.83	21.3%	120.69	46.23	62.1%	86.86	12.40	16.7%	89.24	14.78	19.9%	89.24	14.78	19.9%
18	16	1.1%	86.6%	78.94	97.90	18.96	24.0%	128.64	49.70	63.0%	91.68	12.74	16.1%	93.72	14.78	18.7%	93.72	14.78	18.7%
19	17	0.9%	87.6%	83.42	105.50	22.08	26.5%	136.59	53.17	63.7%	96.50	13.08	15.7%	98.20	14.78	17.7%	98.20	14.78	17.7%
20	18	0.9%	88.5%	87.90	113.11	25.21	28.7%	144.54	56.64	64.4%	101.32	13.42	15.3%	102.68	14.78	16.8%	102.68	14.78	16.8%
21	19	0.9%	89.4%	92.38	120.71	28.33	30.7%	152.49	60.11	65.1%	106.14	13.76	14.9%	107.16	14.78	16.0%	107.16	14.78	16.0%
22	20	0.9%	90.2%	96.86	128.32	31.46	32.5%	160.44	63.58	65.6%	110.96	14.10	14.6%	111.64	14.78	15.3%	111.64	14.78	15.3%
23	21	0.8%	91.0%	102.24	135.92	33.68	32.9%	168.39	66.15	64.7%	118.00	15.76	15.4%	117.02	14.78	14.5%	117.02	14.78	14.5%
24	22	0.7%	91.7%	107.62	143.53	35.91	33.4%	176.34	68.72	63.9%	125.04	17.42	16.2%	122.40	14.78	13.7%	122.40	14.78	13.7%
25	23	0.7%	92.4%	113.00	151.13	38.13	33.7%	184.29	71.29	63.1%	132.08	19.08	16.9%	127.78	14.78	13.1%	127.78	14.78	13.1%
26	24	0.6%	92.9%	118.38	158.74	40.36	34.1%	192.24	73.86	62.4%	139.12	20.74	17.5%	133.16	14.78	12.5%	133.16	14.78	12.5%
27	25	0.6%	93.5%	123.76	166.34	42.58	34.4%	200.19	76.43	61.8%	146.16	22.40	18.1%	138.54	14.78	11.9%	138.54	14.78	11.9%
28	26	0.5%	94.0%	129.14	173.95	44.81	34.7%	208.14	79.00	61.2%	153.20	24.06	18.6%	143.92	14.78	11.4%	143.92	14.78	11.4%
29	27	0.5%	94.5%	134.52	181.55	47.03	35.0%	216.09	81.57	60.6%	160.24	25.72	19.1%	149.30	14.78	11.0%	149.30	14.78	11.0%
30	28	0.5%	94.9%	139.90	189.16	49.26	35.2%	224.04	84.14	60.1%	167.28	27.38	19.6%	154.68	14.78	10.6%	154.68	14.78	10.6%
31	29	0.4%	95.3%	145.28	196.76	51.48	35.4%	231.99	86.71	59.7%	174.32	29.04	20.0%	160.06	14.78	10.2%	160.06	14.78	10.2%
32	30	0.3%	95.7%	150.66	204.37	53.71	35.7%	239.94	89.28	59.3%	181.36	30.70	20.4%	165.44	14.78	9.8%	165.44	14.78	9.8%
33	31	0.3%	96.0%	156.04	211.97	55.93	35.8%	247.89	91.85	58.9%	188.40	32.36	20.7%	170.82	14.78	9.5%	170.82	14.78	9.5%
34	32	0.3%	96.3%	161.42	219.58	58.16	36.0%	255.84	94.42	58.5%	195.44	34.02	21.1%	176.20	14.78	9.2%	176.20	14.78	9.2%
35	33	0.3%	96.6%	166.80	227.18	60.38	36.2%	263.79	96.99	58.2%	202.48	35.68	21.4%	181.58	14.78	8.9%	181.58	14.78	8.9%
36	34	0.2%	96.9%	172.18	234.79	62.61	36.4%	271.74	99.56	57.8%	209.52	37.34	21.7%	186.96	14.78	8.6%	186.96	14.78	8.6%
37	35	0.2%	97.1%	177.56	242.39	64.83	36.5%	279.69	102.13	57.5%	216.56	39.00	22.0%	192.34	14.78	8.3%	192.34	14.78	8.3%
38	36	0.2%	97.3%	182.94	250.00	67.06	36.7%	287.64	104.70	57.2%	223.60	40.66	22.2%	197.72	14.78	8.1%	197.72	14.78	8.1%
39	37	0.2%	97.5%	188.32	257.60	69.28	36.8%	295.59	107.27	57.0%	230.64	42.32	22.5%	203.10	14.78	7.9%	203.10	14.78	7.9%
40	38	0.2%	97.7%	193.70	265.21	71.51	36.9%	303.54	109.84	56.7%	237.68	43.98	22.7%	208.48	14.78	7.6%	208.48	14.78	7.6%
41	39	0.2%	97.9%	199.08	272.81	73.73	37.0%	311.49	112.41	56.5%	244.72	45.64	22.9%	213.86	14.78	7.4%	213.86	14.78	7.4%
42	40	0.2%	98.0%	204.46	280.42	75.96	37.2%	319.44	114.98	56.2%	251.76	47.30	23.1%	219.24	14.78	7.2%	219.24	14.78	7.2%
43	41	0.1%	98.2%	209.84	290.55	80.71	38.5%	327.39	117.55	56.0%	258.80	48.96	23.3%	224.62	14.78	7.0%	224.62	14.78	7.0%
44	42	0.1%	98.3%	215.22	300.68	85.46	39.7%	335.34	120.12	55.8%	265.84	50.62	23.5%	230.00	14.78	6.9%	230.00	14.78	6.9%
45	43	0.1%	98.4%	220.60	310.81	90.21	40.9%	343.29	122.69	55.6%	272.88	52.28	23.7%	235.38	14.78	6.7%	235.38	14.78	6.7%
46	44	0.1%	98.6%	225.98	320.94	94.96	42.0%	351.24	125.26	55.4%	279.92	53.94	23.9%	240.76	14.78	6.5%	240.76	14.78	6.5%
47	45	0.1%	98.7%	231.36	331.07	99.71	43.1%	359.19	127.83	55.3%	286.96	55.60	24.0%	246.14	14.78	6.4%	246.14	14.78	6.4%
48	46	0.1%	98.7%	236.74	341.20	104.46	44.1%	367.14	130.40	55.1%	294.00	57.26	24.2%	251.52	14.78	6.2%	251.52	14.78	6.2%
49	47	0.1%	98.8%	242.12	351.33	109.21	45.1%	375.09	132.97	54.9%	301.04	58.92	24.3%	256.90	14.78	6.1%	256.90	14.78	6.1%
50	48	0.1%	98.9%	247.50	361.46	113.96	46.0%	383.04	135.54	54.8%	308.08	60.58	24.5%	262.28	14.78	6.0%	262.28	14.78	6.0%
51	49	0.1%	99.0%	252.88	371.59	118.71	46.9%	390.99	138.11	54.6%	315.12	62.24	24.6%	267.66	14.78	5.8%	267.66	14.78	5.8%
52	50	0.1%	99.1%	258.26	381.72	123.46	47.8%	398.94	140.68	54.5%	322.16	63.90	24.7%	273.04	14.78	5.7%	273.04	14.78	5.7%

Billings Heights Water District
 Water Financial Plan, Cost of Service, Rate, and System Development Fee Study
 Proposed Water Rates
 Commercial 1-inch Customer Bill Impacts

Description	Current			Rafaelis' Alt.			Doug's Alt.			Frank's Alt.			Peyton's Alt.			Current No Min Alt.		
	Rate	Min	Max	Rate	Min	Max	Rate	Min	Max	Rate	Min	Max	Rate	Min	Max	Rate	Min	Max
Base Fee - 3/4-inch Meter	\$22.30			\$28.10			\$22.00			\$28.10			\$22.30			\$22.30		
Line Charge	1.30			1.30			1.30			1.30			1.30			1.30		
Tier 1	0.00			4.24	0	4	4.39	0	3	5.09	0	4	5.30	0	3.3	4.48	0	3.3
Tier 2	4.48	3.3	20	4.24	4	15	4.39	3	10	5.09	4	20	5.30	3.3	20	4.48	3.3	20
Tier 3	5.38	21	50	4.24	15	40	4.39	10	50	5.09	20	50	5.30	20	50	5.38	20	50
Tier 4	6.48	50		4.24	40		4.39	50		5.09	50		5.30	50		6.48	50	

Water Bill - 1-inch Commercial Customer Bills Current vs. Alternatives Compared

		Rafaelis' Alt.										Doug's Alt.										Frank's Alt.										Peyton's Alt.										Current No Min Alt.									
Monthly Water		Cum.		Change -					Change -					Change -					Change -					Change -					Change -																						
Line No	Usage	Bills	Bills	Current	New Bill	\$	%	New Bill	\$	%	New Bill	\$	%	New Bill	\$	%	New Bill	\$	%	New Bill	\$	%	New Bill	\$	%	New Bill	\$	%																							
1	0	0.2%	0.2%	\$23.60	\$29.40	\$5.80	24.6%	\$23.30	(\$0.30)	-1.3%	\$29.40	\$5.80	24.6%	\$23.60	\$0.00	0.0%	\$23.60	\$0.00	0.0%	\$23.60	\$0.00	0.0%	\$23.60	\$0.00	0.0%	\$23.60	\$0.00	0.0%																							
2	1	5.7%	5.9%	23.60	33.64	10.04	42.5%	27.69	4.09	17.3%	34.49	10.89	46.1%	28.90	5.30	22.5%	28.08	4.48	19.0%	28.08	4.48	19.0%	28.08	4.48	19.0%	28.08	4.48	19.0%																							
3	2	4.4%	10.3%	23.60	37.88	14.28	60.5%	32.08	8.48	35.9%	39.58	15.98	67.7%	34.20	10.60	44.9%	32.56	8.96	38.0%	32.56	8.96	38.0%	32.56	8.96	38.0%	32.56	8.96	38.0%																							
4	3	3.1%	13.4%	23.60	42.12	18.52	78.5%	36.47	12.87	54.5%	44.67	21.07	89.3%	39.50	15.90	67.4%	37.04	13.44	56.9%	37.04	13.44	56.9%	37.04	13.44	56.9%	37.04	13.44	56.9%																							
5	3.3	0.5%	13.9%	23.60	43.39	19.79	83.9%	37.79	14.19	60.1%	46.20	22.60	95.8%	41.09	17.49	74.1%	38.38	14.78	62.6%	38.38	14.78	62.6%	38.38	14.78	62.6%	38.38	14.78	62.6%																							
6	4	1.7%	15.7%	26.74	46.36	19.62	73.4%	40.86	14.12	52.8%	49.76	23.02	86.1%	44.80	18.06	67.6%	41.52	14.78	55.3%	41.52	14.78	55.3%	41.52	14.78	55.3%	41.52	14.78	55.3%																							
7	5	3.2%	18.9%	31.22	50.60	19.38	62.1%	45.25	14.03	45.0%	54.85	23.63	75.7%	53.81	22.59	72.4%	46.00	14.78	47.4%	46.00	14.78	47.4%	46.00	14.78	47.4%	46.00	14.78	47.4%																							
8	6	3.7%	22.6%	35.70	54.84	19.14	53.6%	49.64	13.94	39.1%	59.94	24.24	67.9%	59.11	23.41	65.6%	50.48	14.78	41.4%	50.48	14.78	41.4%	50.48	14.78	41.4%	50.48	14.78	41.4%																							
9	7	3.5%	26.1%	40.18	59.08	18.90	47.1%	54.03	13.85	34.5%	65.03	24.85	61.9%	64.41	24.23	60.3%	54.96	14.78	36.8%	54.96	14.78	36.8%	54.96	14.78	36.8%	54.96	14.78	36.8%																							
10	8	4.1%	30.2%	44.66	63.32	18.66	41.8%	58.42	13.76	30.8%	70.12	25.46	57.0%	69.71	25.05	56.1%	59.44	14.78	33.1%	59.44	14.78	33.1%	59.44	14.78	33.1%	59.44	14.78	33.1%																							
11	9	4.4%	34.6%	49.14	67.56	18.42	37.5%	67.20	18.06	36.8%	75.21	26.07	53.1%	75.01	25.87	52.7%	63.92	14.78	30.1%	63.92	14.78	30.1%	63.92	14.78	30.1%	63.92	14.78	30.1%																							
12	10	4.0%	38.6%	53.62	71.80	18.18	33.9%	71.59	17.97	33.5%	80.30	26.68	49.8%	80.31	26.69	49.8%	68.40	14.78	27.6%	68.40	14.78	27.6%	68.40	14.78	27.6%	68.40	14.78	27.6%																							
13	11	2.5%	41.0%	58.10	76.04	17.94	30.9%	75.98	17.88	30.8%	85.39	27.29	47.0%	85.61	27.51	47.4%	72.88	14.78	25.4%	72.88	14.78	25.4%	72.88	14.78	25.4%	72.88	14.78	25.4%																							
14	12	2.9%	43.9%	62.58	80.28	17.70	28.3%	80.37	17.79	28.4%	90.48	27.90	44.6%	90.91	28.33	45.3%	77.36	14.78	23.6%	77.36	14.78	23.6%	77.36	14.78	23.6%	77.36	14.78	23.6%																							
15	13	2.8%	46.7%	67.06	84.52	17.46	26.0%	84.76	17.70	26.4%	95.57	28.51	42.5%	96.21	29.15	43.5%	81.84	14.78	22.0%	81.84	14.78	22.0%	81.84	14.78	22.0%	81.84	14.78	22.0%																							
16	14	2.4%	49.0%	71.54	88.76	17.22	24.1%	89.15	17.61	24.6%	100.66	29.12	40.7%	101.51	29.97	41.9%	86.32	14.78	20.7%	86.32	14.78	20.7%	86.32	14.78	20.7%	86.32	14.78	20.7%																							
17	15	2.4%	51.4%	76.02	93.00	16.98	22.3%	93.54	17.52	23.1%	105.75	29.73	39.1%	106.81	30.79	40.5%	90.80	14.78	19.4%	90.80	14.78	19.4%	90.80	14.78	19.4%	90.80	14.78	19.4%																							
18	16	2.0%	53.5%	80.50	97.24	16.74	20.8%	97.93	17.43	21.7%	110.84	30.34	37.7%	112.11	31.61	39.3%	95.28	14.78	18.4%	95.28	14.78	18.4%	95.28	14.78	18.4%	95.28	14.78	18.4%																							
19	17	2.2%	55.6%	84.98	101.48	16.50	19.4%	102.32	17.34	20.4%	115.93	30.95	36.4%	117.41	32.43	38.2%	99.76	14.78	17.4%	99.76	14.78	17.4%	99.76	14.78	17.4%	99.76	14.78	17.4%																							
20	18	1.9%	57.5%	89.46	105.72	16.26	18.2%	106.71	17.25	19.3%	121.02	31.56	35.3%	122.71	33.25	37.2%	104.24	14.78	16.5%	104.24	14.78	16.5%	104.24	14.78	16.5%	104.24	14.78	16.5%																							
21	19	1.9%	59.5%	93.94	109.96	16.02	17.1%	111.10	17.16	18.3%	126.11	32.17	34.3%	128.01	34.07	36.3%	108.72	14.78	15.7%	108.72	14.78	15.7%	108.72	14.78	15.7%	108.72	14.78	15.7%																							
22	20	1.9%	61.4%	98.42	114.20	15.78	16.0%	115.49	17.07	17.3%	131.20	32.78	33.3%	133.31	34.89	35.5%	113.20	14.78	15.0%	113.20	14.78	15.0%	113.20	14.78	15.0%	113.20	14.78	15.0%																							
23	21	1.6%	63.0%	103.80	118.44	14.64	14.1%	119.88	16.08	15.5%	136.29	32.49	31.3%	138.61	34.81	33.5%	118.58	14.78	14.2%	118.58	14.78	14.2%	118.58	14.78	14.2%	118.58	14.78	14.2%																							
24	22	1.3%	64.3%	109.18	122.68	13.50	12.4%	124.27	15.09	13.8%	141.38	32.20	29.5%	143.91	34.73	31.8%	123.96	14.78	13.5%	123.96	14.78	13.5%	123.96	14.78	13.5%	123.96	14.78	13.5%																							
25	23	1.6%	65.9%	114.56	126.92	12.36	10.8%	128.66	14.10	12.3%	146.47	31.91	27.9%	149.21	34.65	30.3%	129.34	14.78	12.9%	129.34	14.78	12.9%	129.34	14.78	12.9%	129.34	14.78	12.9%																							
26	24	1.4%	67.4%	119.94	131.16	11.22	9.4%	133.05	13.11	10.9%	151.56	31.62	26.4%	154.51	34.57	28.8%	134.72	14.78	12.3%	134.72	14.78	12.3%	134.72	14.78	12.3%	134.72	14.78	12.3%																							
27	25	1.2%	68.6%	125.32	135.40	10.08	8.0%	137.44	12.12	9.7%	156.65	31.33	25.0%	159.81	34.49	27.5%	140.10	14.78	11.8%	140.10	14.78	11.8%	140.10	14.78	11.8%	140.10	14.78	11.8%																							
28	26	1.0%	69.6%	130.70	139.64	8.94	6.8%	141.83	11.13	8.5%	161.74	31.04	23.8%	165.11	34.41	26.3%	145.48	14.78	11.3%	145.48	14.78	11.3%	145.48	14.78	11.3%	145.48	14.78	11.3%																							
29	27	1.2%	70.8%	136.08	143.88	7.80	5.7%	146.22	10.14	7.5%	166.83	30.75	22.6%	170.41	34.33	25.2%	150.86	14.78	10.9%	150.86	14.78	10.9%	150.86	14.78	10.9%	150.86	14.78	10.9%																							
30	28	1.1%	71.9%	141.46	148.12	6.66	4.7%	150.61	9.15	6.5%	171.92	30.46	21.5%	175.71	34.25	24.2%	156.24	14.78	10.5%	156.24	14.78	10.5%	156.24	14.78	10.5%	156.24	14.78	10.5%																							
31	29	0.9%	72.7%	146.84	152.36	5.52	3.8%	155.00	8.16	5.6%	177.01	30.17	20.5%	181.01	34.17	23.3%	161.62	14.78	10.1%	161.62	14.78	10.1%	161.62	14.78	10.1%	161.62	14.78	10.1%																							
32	30	1.1%	73.9%	152.22	156.60	4.38	2.9%	159.39	7.17	4.7%	182.10	29.88	19.6%	186.31	34.09	22.4%	167.00	14.78	9.7%	167.00	14.78	9.7%	167.00	14.78	9.7%	167.00	14.78	9.7%																							
33	31	0.9%	74.8%	157.60	160.84	3.24	2.1%	163.78	6.18	3.9%	187.19	29.59	18.8%	191.61	34.01	21.6%	172.38	14.78	9.4%	172.38	14.78	9.4%	172.38	14.78	9.4%	172.38	14.78	9.4%																							
34	32	0.8%	75.6%	162.98	165.08	2.10	1.3%	168.17	5.19	3.2%	192.28	29.30	18.0%	196.91	33.93	20.8%	177.76	14.78	9.1%	177.76	14.78	9.1%	177.76	14.78	9.1%	177.76	14.78	9.1%																							
35	33	1.1%	76.7%	168.36	169.32	0.96	0.6%	172.56	4.20	2.5%	197.37	29.01	17.2%	202.21	33.85	20.1%	183.14	14.78	8.8%	183.14	14.78	8.8%	183.14	14.78	8.8%	183.14	14.78	8.8%																							
36	34	0.8%	77.6%	173.74	173.56	(0.18)	-0.1%	176.95	3.21	1.8%	202.46	28.72	16.5%	207.51	33.77	19.4%	188.52	14.78	8.5%	188.52	14.78	8.5%	188.52	14.78	8.5%	188.52	14.78	8.5%																							
37	35	0.8%	78.3%	179.12	177.80	(1.32)	-0.7%	181.34	2.22	1.2%	207.55	28.43	15.9%	212.81	33.69	18.8%	193.90	14.78	8.3%	193.90	14.78	8.3%	193.90	14.78	8.3%	193.90	14.78	8.3%																							
38	36	0.6%	78.9%	184.50	182.04	(2.46)	-1.3%	185.73	1.23	0.7%	212.64	28.14	15.3%	218.11	33.61	18.2%	199.28	14.78	8.0%	199.28	14.78	8.0%	199.28	14.78	8.0%	199.28	14.78	8.0%																							
39	37	0.5%	79.4%	189.88	186.28	(3.60)	-1.9%	190.12	0.24	0.1%	217.73	27.85	14.7%	223.41	33.53	17.7%	204.66	14.78	7.8%	204.66	14.78	7.8%	204.66	14.78	7.8%	204.66	14.78	7.8%																							
40	38	0.8%	80.2%	195.26	190.52	(4.74)	-2.4%	194.51	(0.75)	-0.4%	222.82	27.56	14.1%	228.71	33.45	17.1%	210.04	14.78	7.6%	210.04	14.78	7.6%	210.04	14.78	7.6%	210.04	14.78	7.6%																							
41	39	0.8%	81.0%	200.64	194.76	(5.88)	-2.9%	198.90	(1.74)	-0.9%	227.91	27.27	13.6%	234.01	33.37	16.6%	215.42	14.78	7.4%	215.42	14.78	7.4%	215.42	14.78	7.4%	215.42	14.78	7.4%																							
42	40	0.7%	81.7%	206.02	199.00	(7.02)	-3.4%	203.29	(2.73)	-1.3%	233.00	26.98	13.1%	239.31	33.29	16.2%	220.80	14.78	7.2%	220.80	14.78	7.2%	220.80	14.78	7.2%	220.80	14.78	7.2%																							
43	41	0.7%	82.4%	211.40	203.24	(8.16)	-3.9%	207.68	(3.72)	-1.8%	238.09	26.69	12.6%	244.61	33.21	15.7%	226.18	14.78	7.0%	226.18	14.78	7.0%	226.18	14.78	7.0%	226.18	14.78	7.0%																							
44	42	0.7%	83.1%	216.78	207.48	(9.30)	-4.3%	212.07																																											