



Electric, Water and Wastewater Utility

5 Year Projection

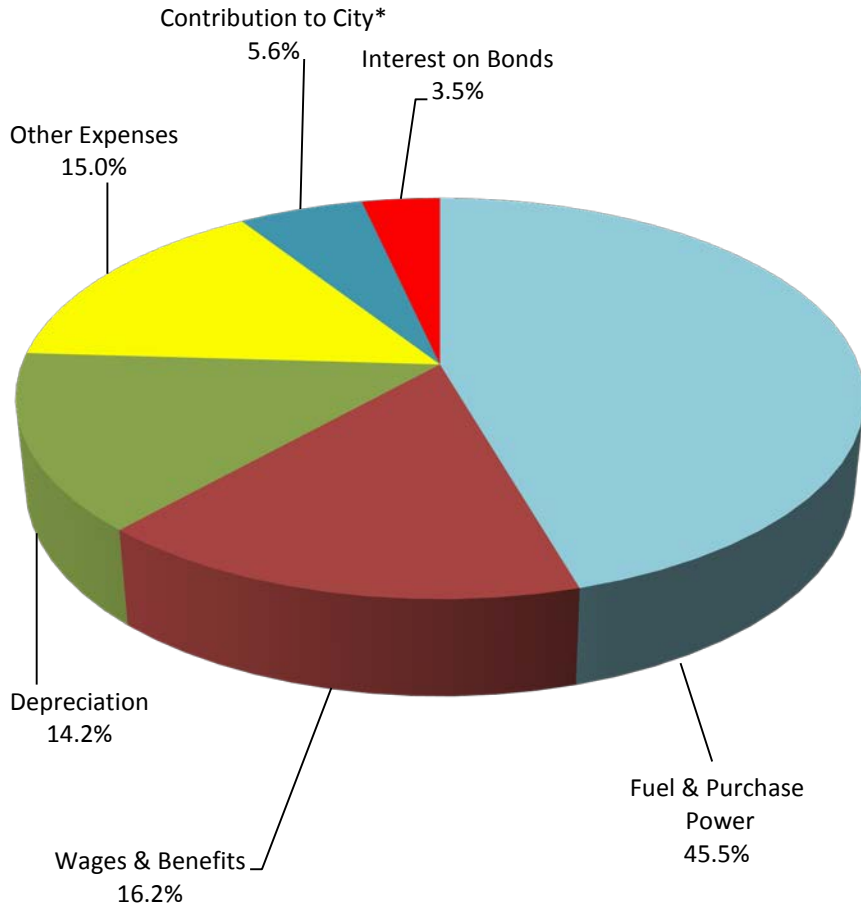
April 14, 2016

Financial Metrics driving revenue requirements

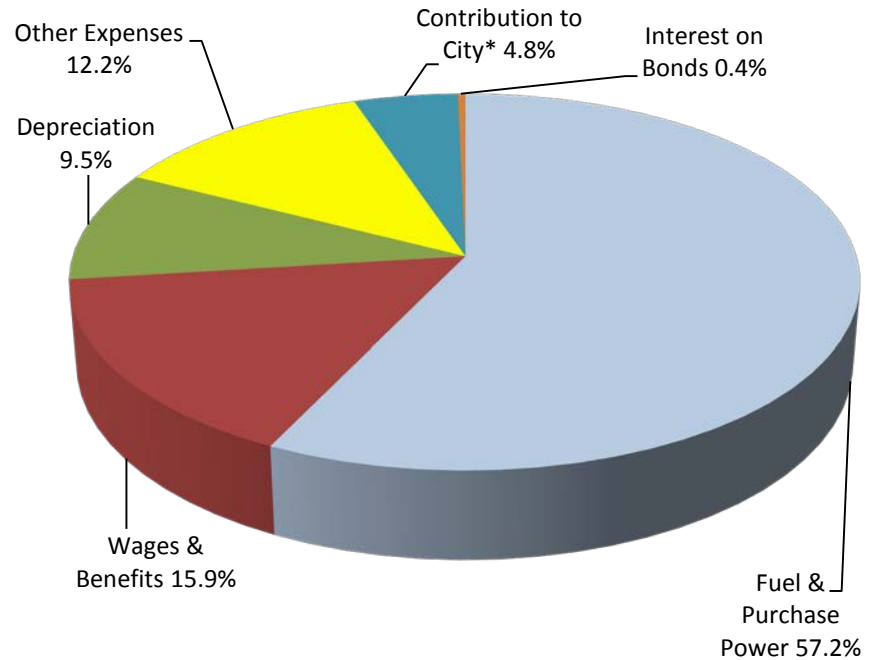
- Debt Coverage Ratio
 - $\frac{\text{Net income} + \text{interest expense} + \text{depreciation}}{\text{Annual debt service principal and interest}}$
- Minimum Cash Reserves
 - Restricted cash + established Reserve Requirement
- Return on Net Plant
 - $\frac{\text{Net income}}{\text{Net plant assets}}$

HOLLAND BOARD OF PUBLIC WORKS

Fiscal Year 2017 Expense Budget - \$ 104,235,027



Fiscal Year 2016 Expense Budget - \$110,543,252



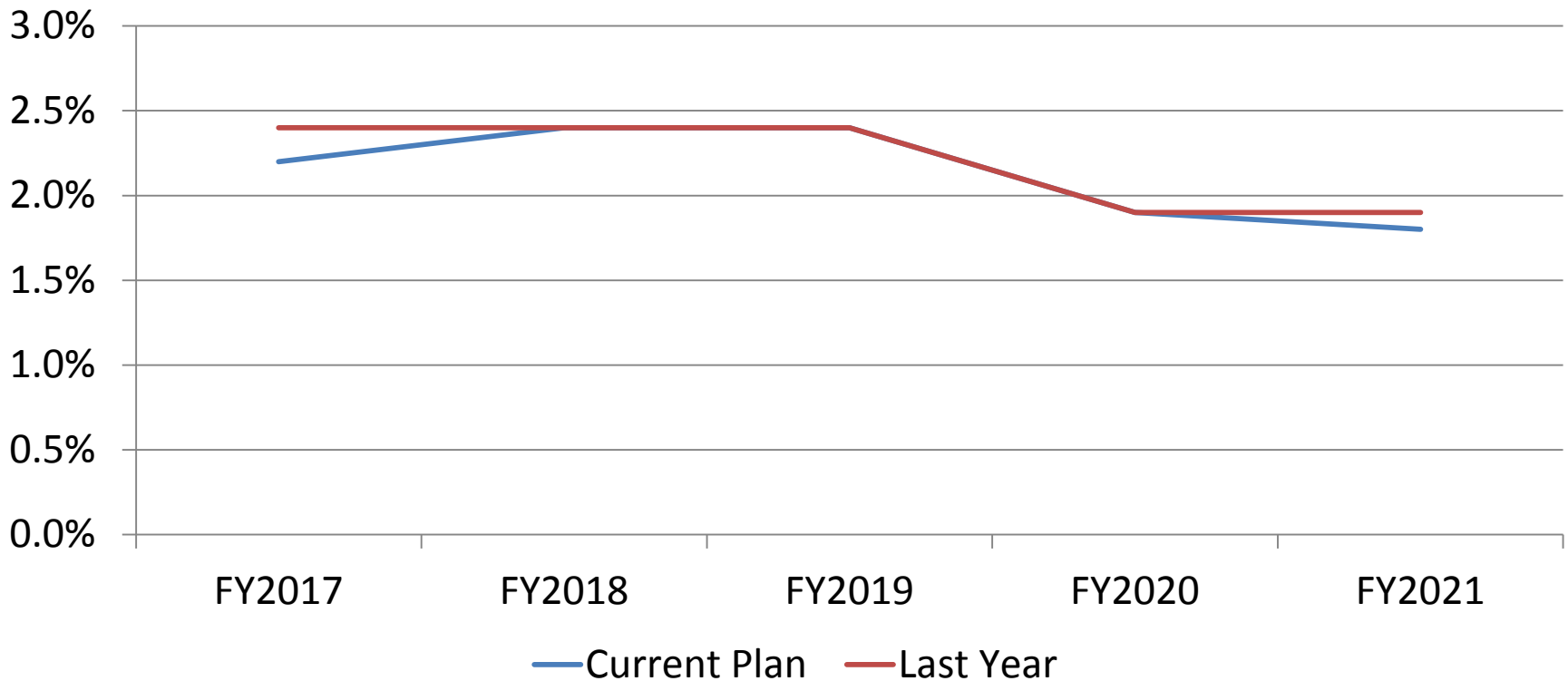
	<u>Actual FY 2015</u>	<u>Forecast FY 2016</u>	<u>Budgeted FY 2016</u>	<u>Proposed FY 2017</u>	<u>% FY17 vs FY16 Budget</u>	<u>\$ FY17 vs FY16 Budget</u>
Major Expense Items:						
Fuel & Purchased Power	57,037,446	53,349,056	63,207,936	47,422,205	(24.97)%	(\$15,785,731)
Salaries & Wages	11,126,139	11,892,957	11,880,009	12,522,040	5.40 %	\$642,031
MERS Employer Contributions	2,233,698	899,781	2,374,779	982,357	(58.63)%	(\$1,392,422)
Health Insurance	1,878,235	2,152,944	2,163,142	2,171,963	0.41 %	\$8,821
Soc. Sec., Life Ins., LTD, STD	1,017,312	1,116,477	1,132,708	1,186,228	4.72 %	\$53,520
Interest on Bonds	460,827	652,897	384,004	3,649,407	850.36 %	\$3,265,403
Contribution to City	5,344,000	5,535,000	5,352,000	5,850,000	9.30 %	\$498,000
Depreciation	9,952,670	10,092,542	10,500,288	14,871,806	41.63 %	\$4,371,518
Subtotal of Major Expenses	89,050,328	85,691,654	96,994,866	88,656,006	(8.60)%	(\$8,338,860)
Detail of Expense Items:						
Maintenance Supplies / Services	2,084,860	2,505,937	2,468,423	3,278,919	32.83 %	\$810,496
Other Outside Services	442,172	704,904	662,700	1,180,728	78.17 %	\$518,028
Conservation Programs - Electric	1,190,251	1,176,867	1,125,000	1,100,000	(2.22)%	(\$25,000)
Chemicals - PP/WTP/WWTP	956,747	1,066,589	1,036,764	1,134,228	9.40 %	\$97,464
Prop. / Liab. Ins. and Claims Paid	1,017,349	903,505	1,078,689	1,293,611	19.92 %	\$214,922
Production Electricity	986,860	1,037,178	1,039,532	942,263	(9.36)%	(\$97,269)
Bio-solids Disposal - WWTP	825,318	878,159	838,500	814,000	(2.92)%	(\$24,500)
Tree Trimming	443,859	705,317	587,040	686,130	16.88 %	\$99,090
Legal / Professional / Consulting	629,353	560,517	497,646	605,304	21.63 %	\$107,658
Education and Training	332,474	407,595	555,509	494,815	(10.93)%	(\$60,694)
Computer Software / Services Fees	333,357	463,000	484,216	540,181	11.56 %	\$55,965
Electrical System Supplies / Mainte	402,568	386,275	294,650	382,700	29.88 %	\$88,050
Production Water - PP/WWTP	76,506	85,024	112,000	305,000	172.32 %	\$193,000
Vehicles	314,310	298,095	366,757	302,282	(17.58)%	(\$64,475)
Facilities Gas Heating	80,741	72,401	106,501	228,300	114.36 %	\$121,799
Electric Subs O & M	157,022	195,733	206,500	252,400	22.23 %	\$45,900
Facilities Electricity	200,271	205,440	206,900	210,300	1.64 %	\$3,400
Postage	193,466	183,861	188,730	199,139	5.52 %	\$10,409
Safety	189,185	154,985	182,828	182,396	(0.24)%	(\$432)
Corporate Memberships	122,668	147,170	155,771	160,399	2.97 %	\$4,628
Facilities Expense	144,359	133,419	149,478	157,842	5.60 %	\$8,364
Operating Permit and Fees	146,304	118,156	144,625	150,970	4.39 %	\$6,345
Customer Assistance Program		64,164		135,240		\$135,240
Telephone	126,284	126,501	114,989	124,277	8.08 %	\$9,288
Computer Hardware/Maintenance	74,714	77,680	129,960	98,200	(24.44)%	(\$31,760)
Uncollectibles	54,260	105,940	110,000	110,000		
Promotions and Special Events	31,481	72,113	104,950	61,978	(40.95)%	(\$42,972)
Business Economic Development	125,000		52,500	75,000	42.86 %	\$22,500
Other Electric Production - PP	54,391	33,205	57,200	52,100	(8.92)%	(\$5,100)
Advertising	24,785	17,483	39,200	32,204	(17.85)%	(\$6,996)
Bank Service Charges	3,448	7,153	62,929	12,929	(79.45)%	(\$50,000)
Subtotal of Expenses	11,764,363	12,894,367	13,160,487	15,303,834	16.29 %	\$2,143,347
All Other Remaining Expenses	161,568	255,286	387,900	275,186	(29.06)%	(\$112,714)
Grand Total BPW Expenses	100,976,259	98,841,307	110,543,253	104,235,027	(5.71)%	(\$6,308,226)

Electric Utility Plan Details

- New combined-cycle plant construction will be completed within the 2017 fiscal year
- Incremental fuel and power prices based on market prices in effect in early February, 2016
- Revenue adjustments are just over 2%, with similar planned future adjustments over the forecast period of 2018-2021



Electric Utility Revenue Adjustments

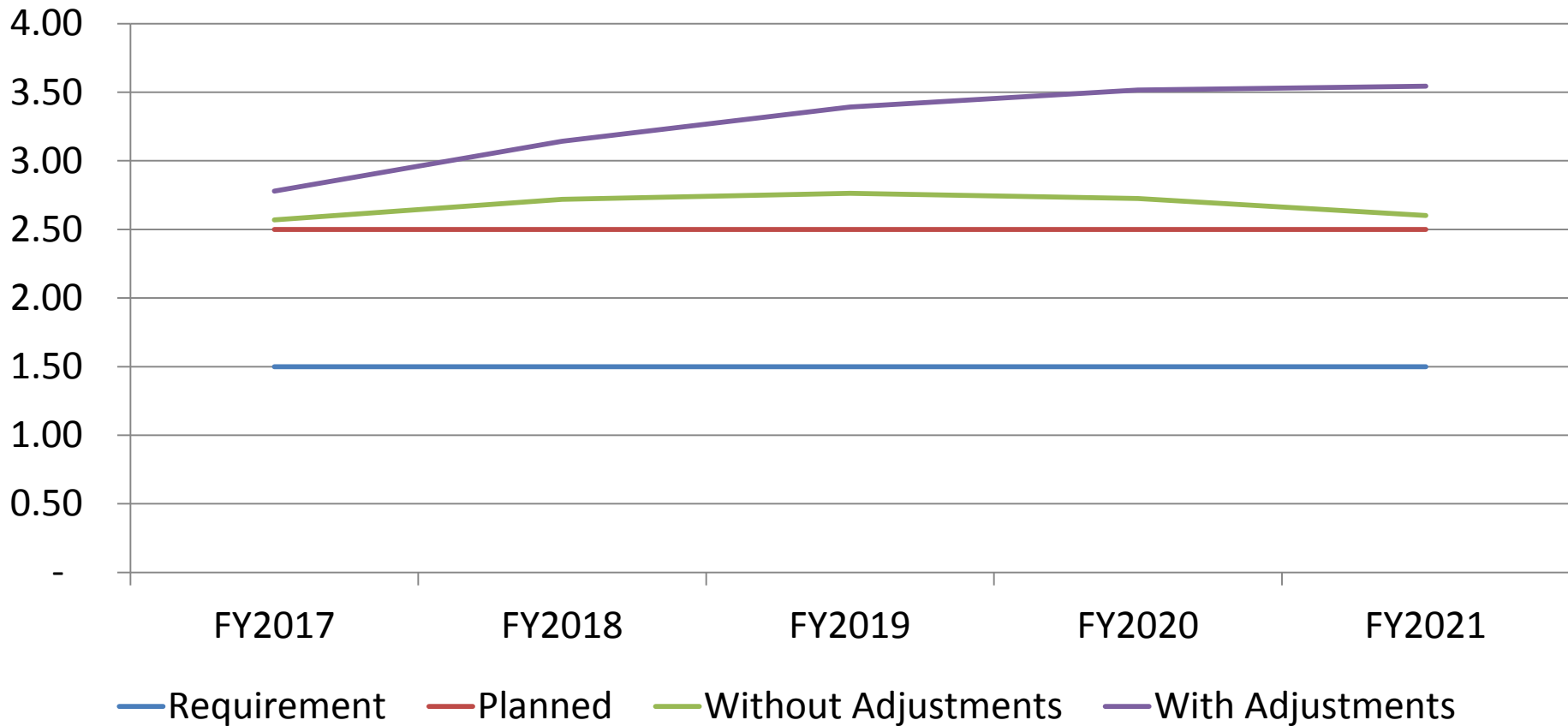


Electric Utility 5 Year Projection Revenues and Expenses

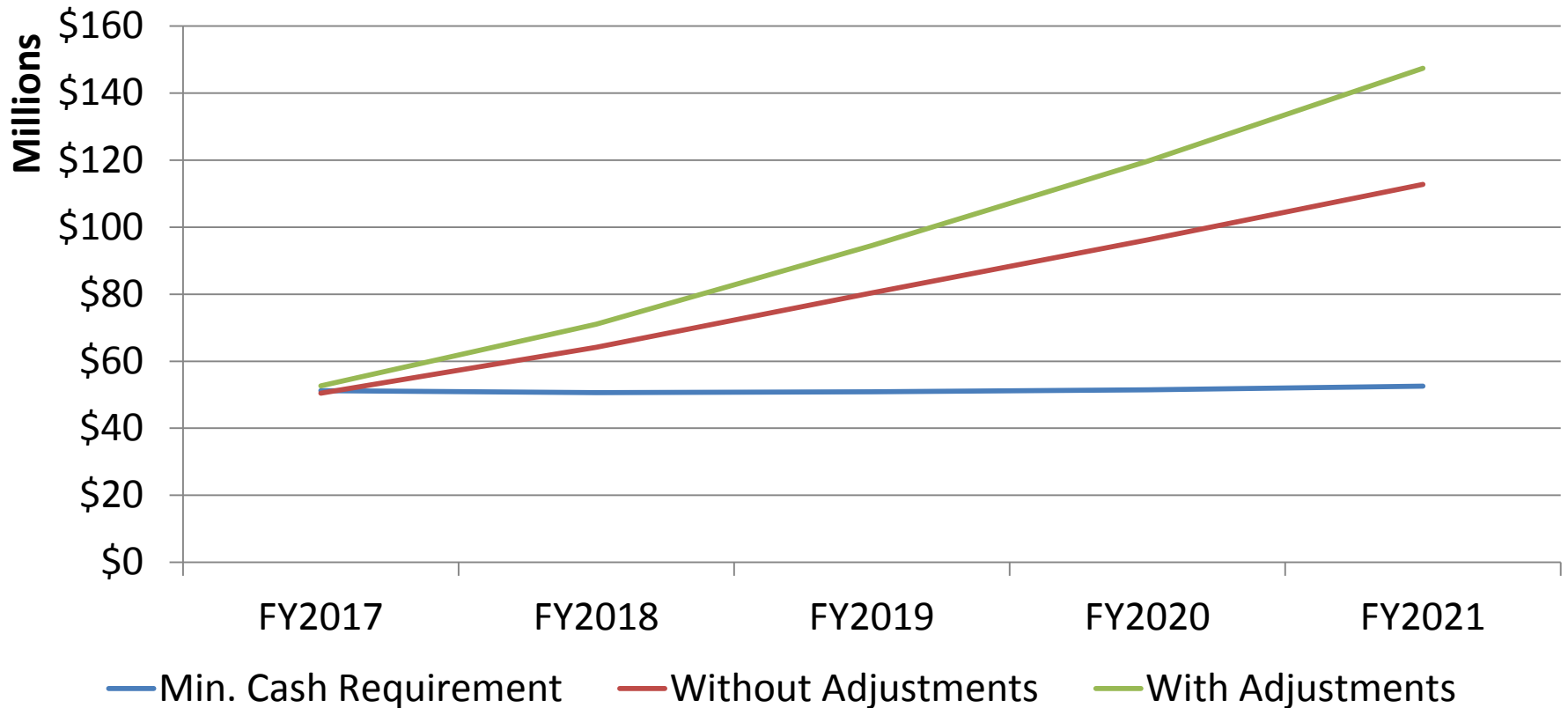
Revenue	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Retail Sales \$	99,182,232	\$ 102,634,240	\$ 105,897,327	\$ 109,248,160	\$ 112,133,806	\$ 115,092,072
Wholesale		\$ 77,211	\$ 130,101	\$ 93,903	\$ 102,165	\$ 73,391
Energy Optimization	1,281,966	1,308,696	1,337,387	1,353,323	1,383,024	1,399,537
Renewable Energy	1,782,268	1,918,014	1,960,606	1,960,606	1,960,606	1,960,606
Fees & Other	522,159	595,000	595,595	596,191	599,172	602,167
Total Revenue	\$ 102,768,624	\$ 106,533,161	\$ 109,921,016	\$ 113,252,182	\$ 116,178,773	\$ 119,127,772
Operating Expenses						
Fuel & Power \$	53,354,545	\$ 47,439,205	\$ 45,925,303	\$ 45,947,823	\$ 47,115,447	\$ 49,165,253
Non Fuel O&M	10,821,991	13,383,425	13,450,342	13,517,593	13,585,181	13,653,107
Conservation Electric	1,434,643	1,364,663	1,371,486	1,378,343	1,392,127	1,399,087
Administrative & General	4,593,343	5,036,550	5,061,733	5,087,042	5,112,477	5,138,039
Depreciation	6,487,394	10,074,724	14,601,045	14,527,975	14,721,516	12,931,953
Total Operating Expenses	\$ 76,691,915	\$ 77,298,566	\$ 80,409,909	\$ 80,458,777	\$ 81,926,747	\$ 82,287,440
Non-operating Income/(Expense)						
Interest Income \$	730,943	\$ 420,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000
Interest Expense	(106,951)	(2,976,765)	(6,738,789)	(6,648,290)	(6,512,289)	(6,394,540)
Contribution to the City	(5,535,000)	(5,850,000)	(5,879,172)	(6,087,005)	(6,278,731)	(6,811,002)
Other	26,683	95,004	-	-	-	-
Total Non-operating Income/(Expense)	\$ (4,884,326)	\$ (8,311,761)	\$ (12,497,961)	\$ (12,615,295)	\$ (12,671,019)	\$ (13,085,542)
Net Income	\$ 21,192,383	\$ 20,922,833	\$ 17,013,146	\$ 20,178,111	\$ 21,581,006	\$ 23,754,791



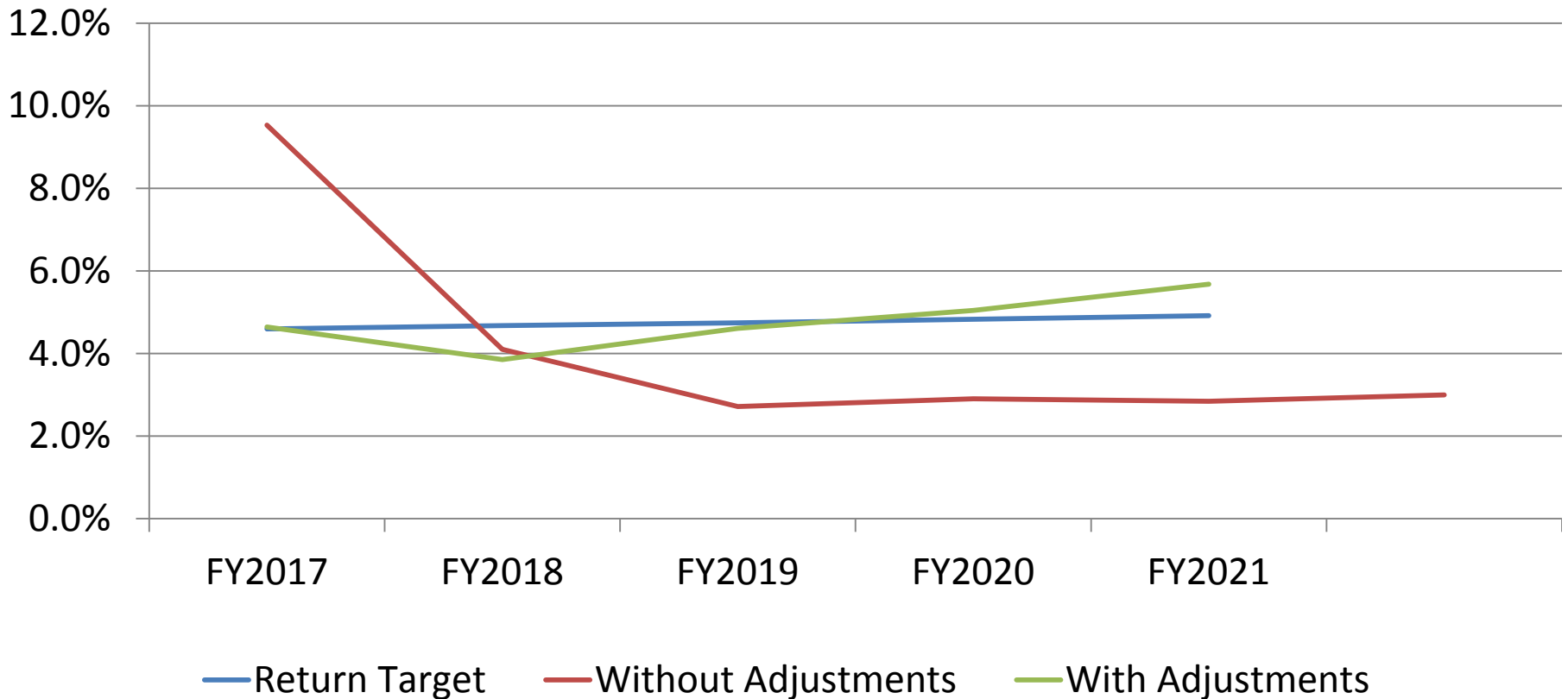
Electric Utility Debt Coverage Ratio



Electric Utility Minimum Cash Reserve



Electric Utility Return on Net Plant



Electric Utility Capital Plan Review FY2017

<u>Production Capital</u>	<u>Cash Outflow</u>
– Combined Cycle Power Plant	\$32,340,789
– Snowmelt Valve Upgrades	500,000
– Snowmelt Lines	450,000
– Units 7, 8, & 9 Upgrades	231,000
– Miscellaneous Equipment/Tools	161,500
– Forklift & Truck #55	130,000
– HEP Procedures & Operator Qual. Program	125,000
<u>Transmission & Distribution</u>	
– Substation improvements	\$3,340,000
– Distribution improvements	2,045,000
– Metering	1,800,000
– Fiber Optics – lines and equipment	506,000
– Miscellaneous Equipment/Truck	375,000
– LED Street Light Replacements	350,000
Total	\$42,354,289

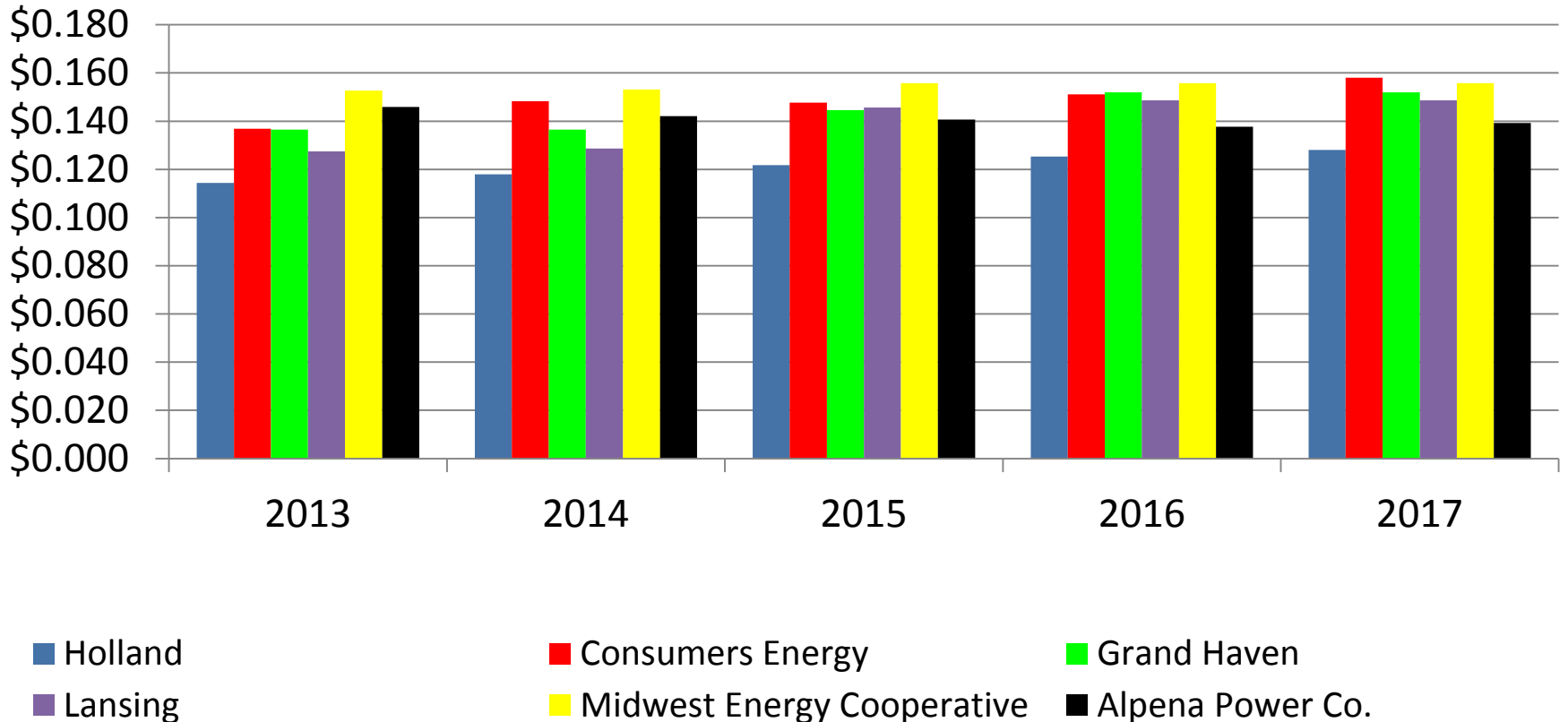


Electric Utility Summary

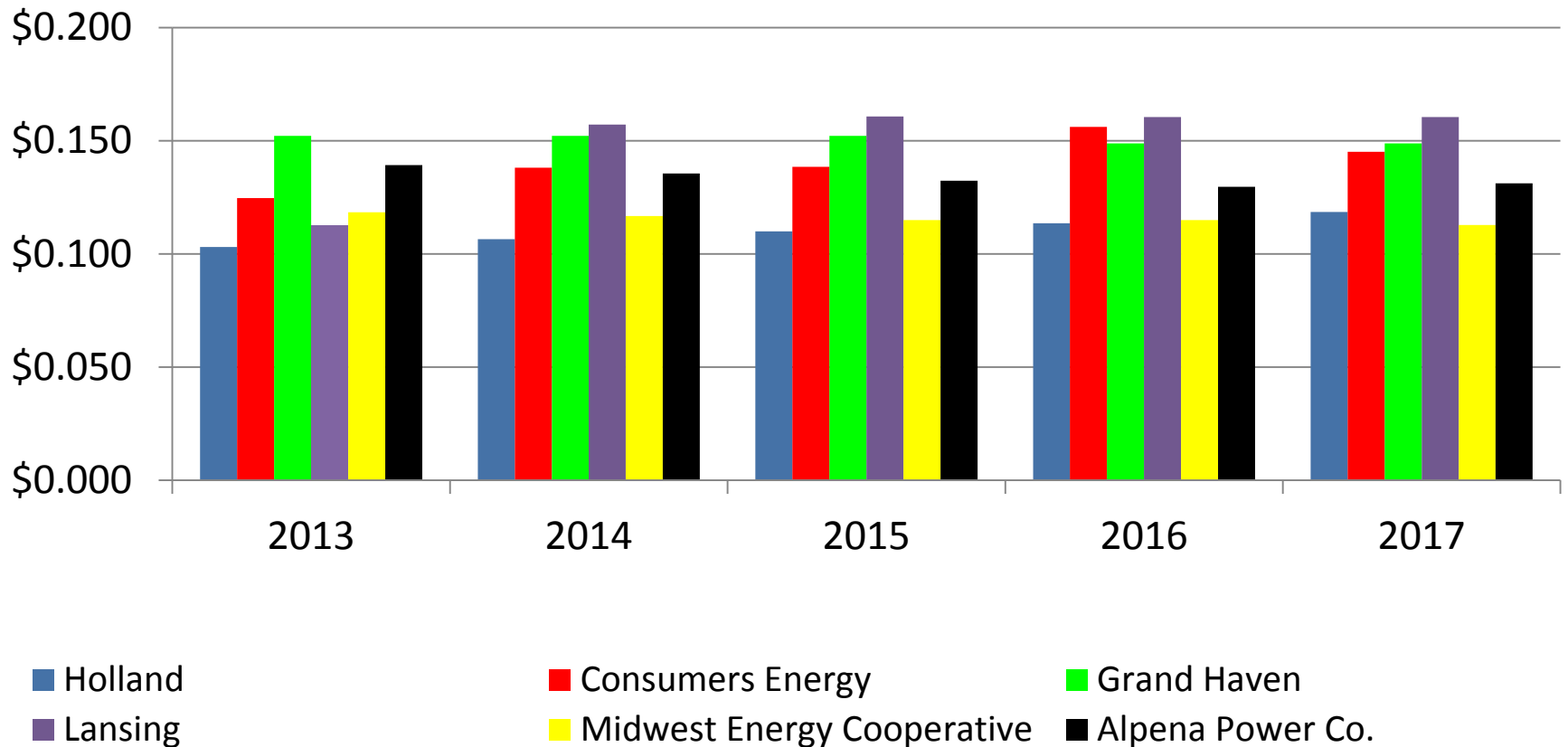
- Planned capital expenditures for next five years is \$65,436,199
 - 50% is the new power plant
- Rate adjustment recommendations are consistent with plans developed four years ago
- Retail rates remain very competitive after adjustments



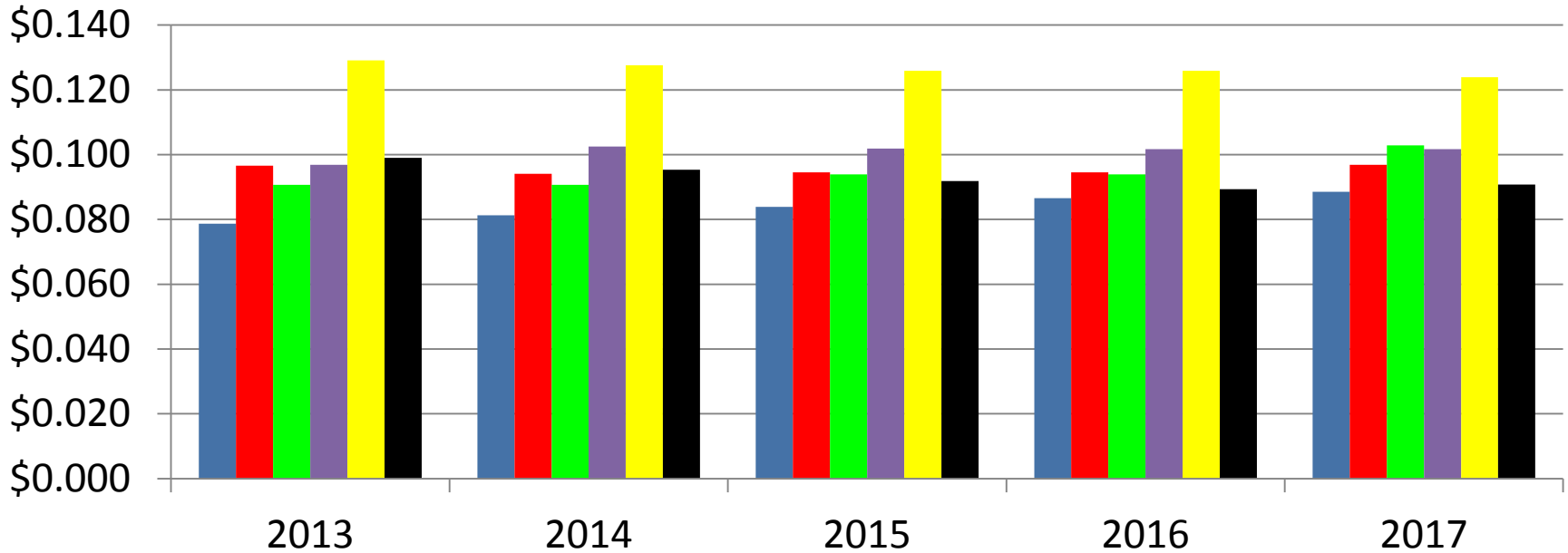
Electric Utility Residential Average Rate per kwh



Electric Utility Commercial Average Rate per kwh



Electric Utility Industrial Average Rate per kwh



■ Holland
■ Lansing

■ Consumers Energy
■ Midwest Energy Cooperative

■ Grand Haven
■ Alpena Power Co.

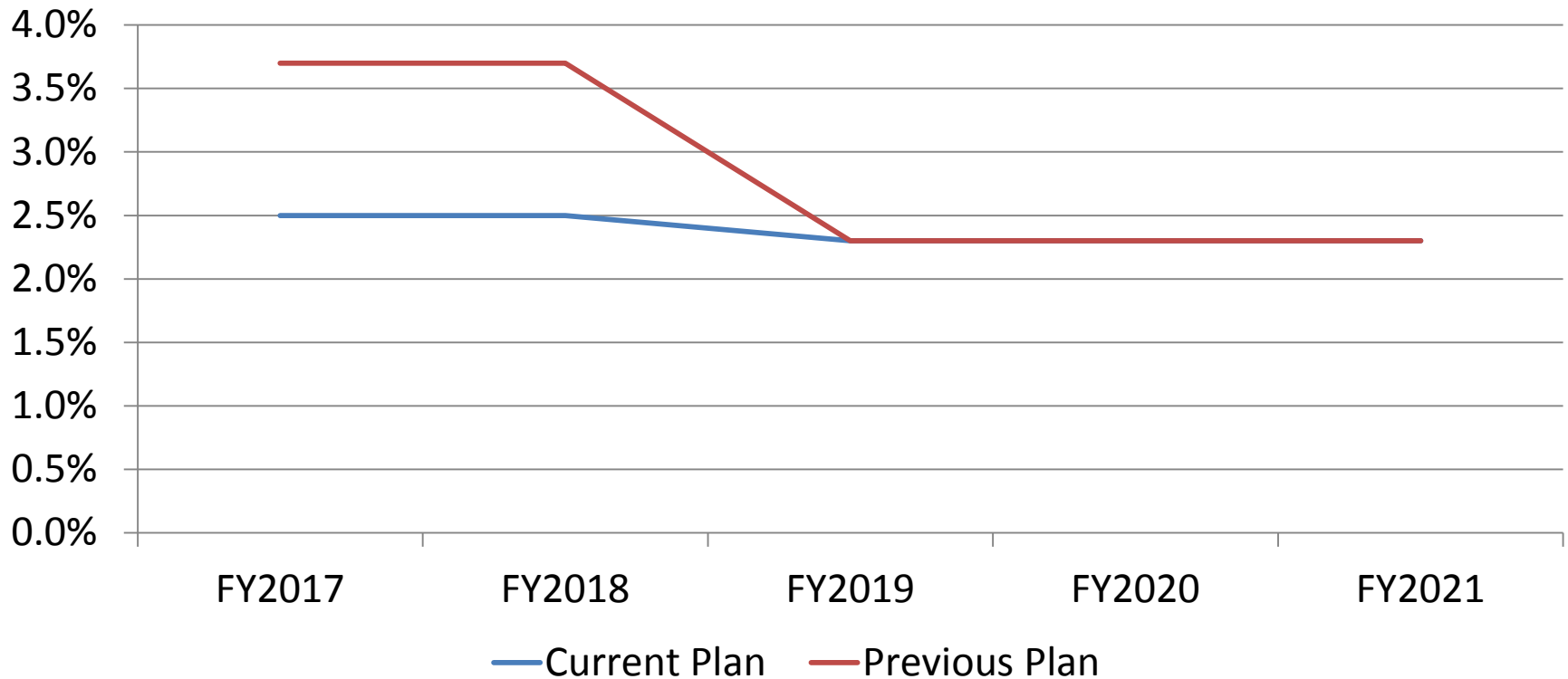


Water Utility Plan Details

- Significant distribution capital project plans over the next few years
- No retail sales unit growth planned
- Refinancing of debt and steady sales have improved cash flow projections
- Current plan: 2.5% increase in FY 2017, with similar adjustments in the next four years
- Adjustments planned for both the readiness-to-serve and commodity rates based on cost of service targets



Water Utility Revenue Adjustments

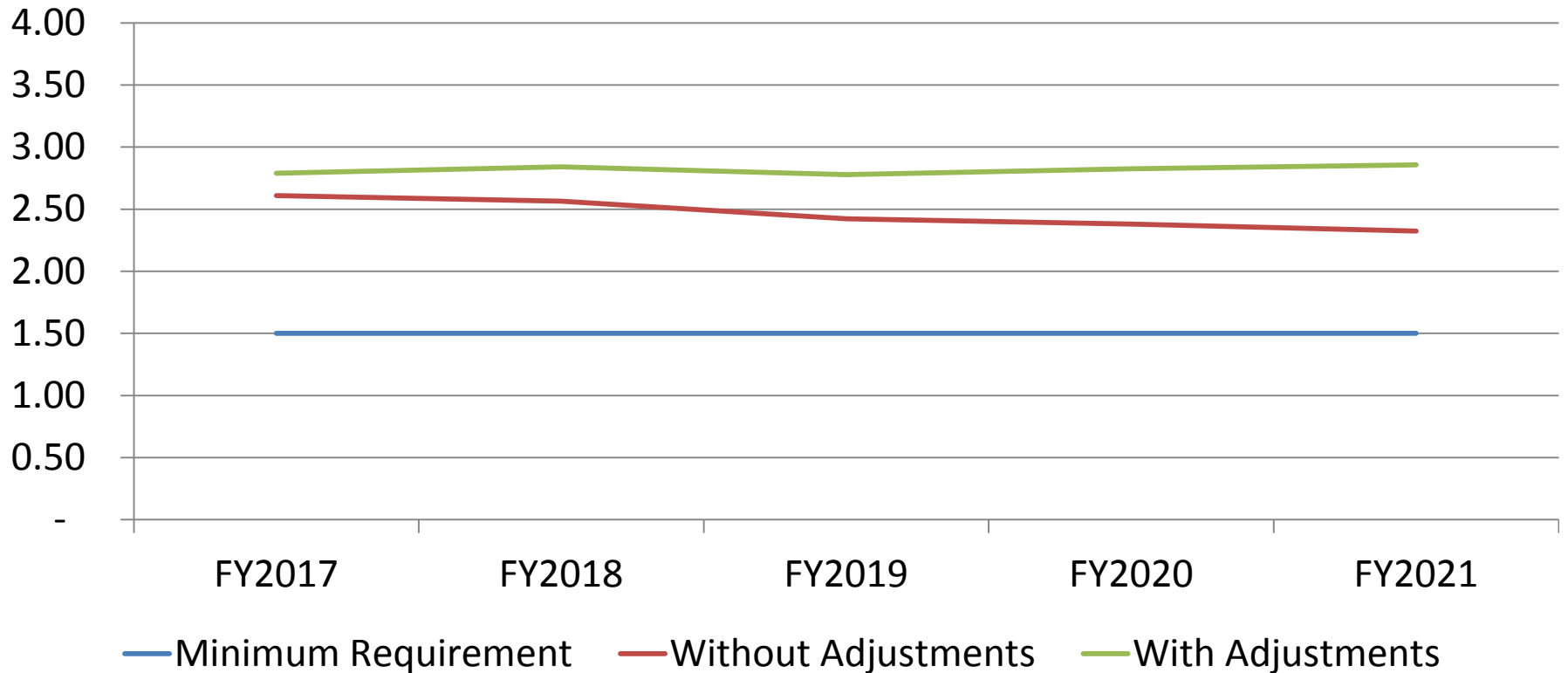


Water Utility 5 Year Projection Revenues and Expenses

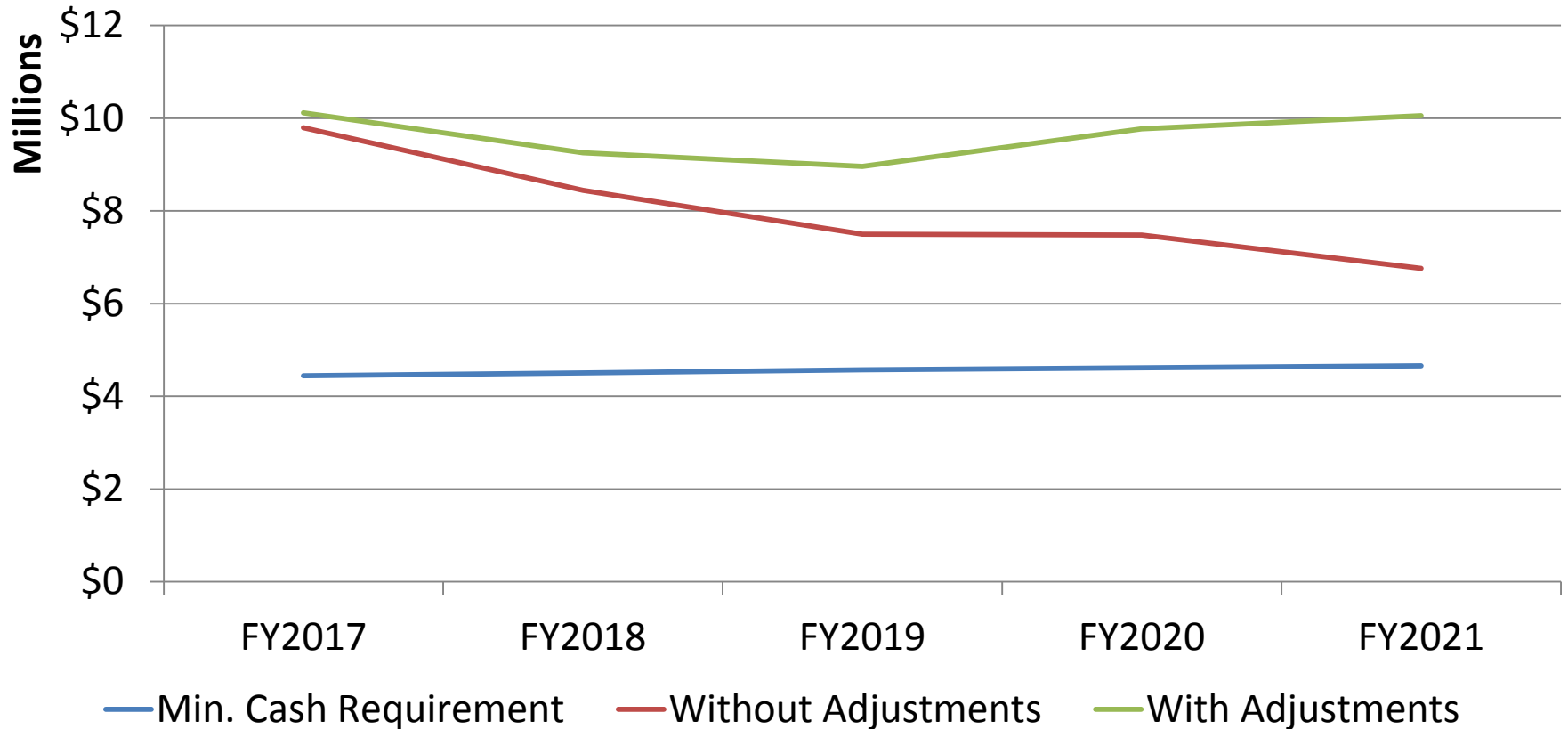
Revenue	<u>FY2016</u>	<u>FY2017</u>	<u>FY2018</u>	<u>FY2019</u>	<u>FY2020</u>	<u>FY2021</u>
Retail Sales	\$ 6,935,769	\$ 7,114,135	\$ 7,285,477	\$ 7,450,649	\$ 7,619,691	\$ 7,792,694
Wholesale	2,087,734	1,983,098	1,993,014	2,002,979	2,012,994	2,023,059
Fees & Other	181,065	175,000	176,750	178,518	178,518	178,518
Total Revenue	\$ 9,204,569	\$ 9,272,234	\$ 9,455,241	\$ 9,632,145	\$ 9,811,202	\$ 9,994,270
Operating Expenses						
Operation & Maintenance	\$ 4,188,276	\$ 4,452,982	\$ 4,532,787	\$ 4,614,141	\$ 4,697,076	\$ 4,781,623
Depreciation	1,592,358	1,791,048	1,916,105	1,783,688	1,842,150	1,885,657
Total Operating Expenses	\$ 5,780,634	\$ 6,244,030	\$ 6,448,892	\$ 6,397,829	\$ 6,539,226	\$ 6,667,281
Non-operating Income/(Expense)						
Interest Income	\$ 46,140	\$ 40,129	\$ 13,011	\$ 6,506	\$ 6,506	\$ 6,506
Interest Expense	(418,839)	(429,658)	(394,845)	(362,668)	(319,635)	(274,294)
Other	83,890	100,000	101,000	102,010	103,030	104,060
Total Non-operating Income/(Expense)	\$ (288,809)	\$ (289,528)	\$ (280,834)	\$ (254,153)	\$ (210,099)	\$ (163,728)
Net Income	\$ 3,135,125	\$ 2,738,675	\$ 2,725,514	\$ 2,980,163	\$ 3,061,877	\$ 3,163,261



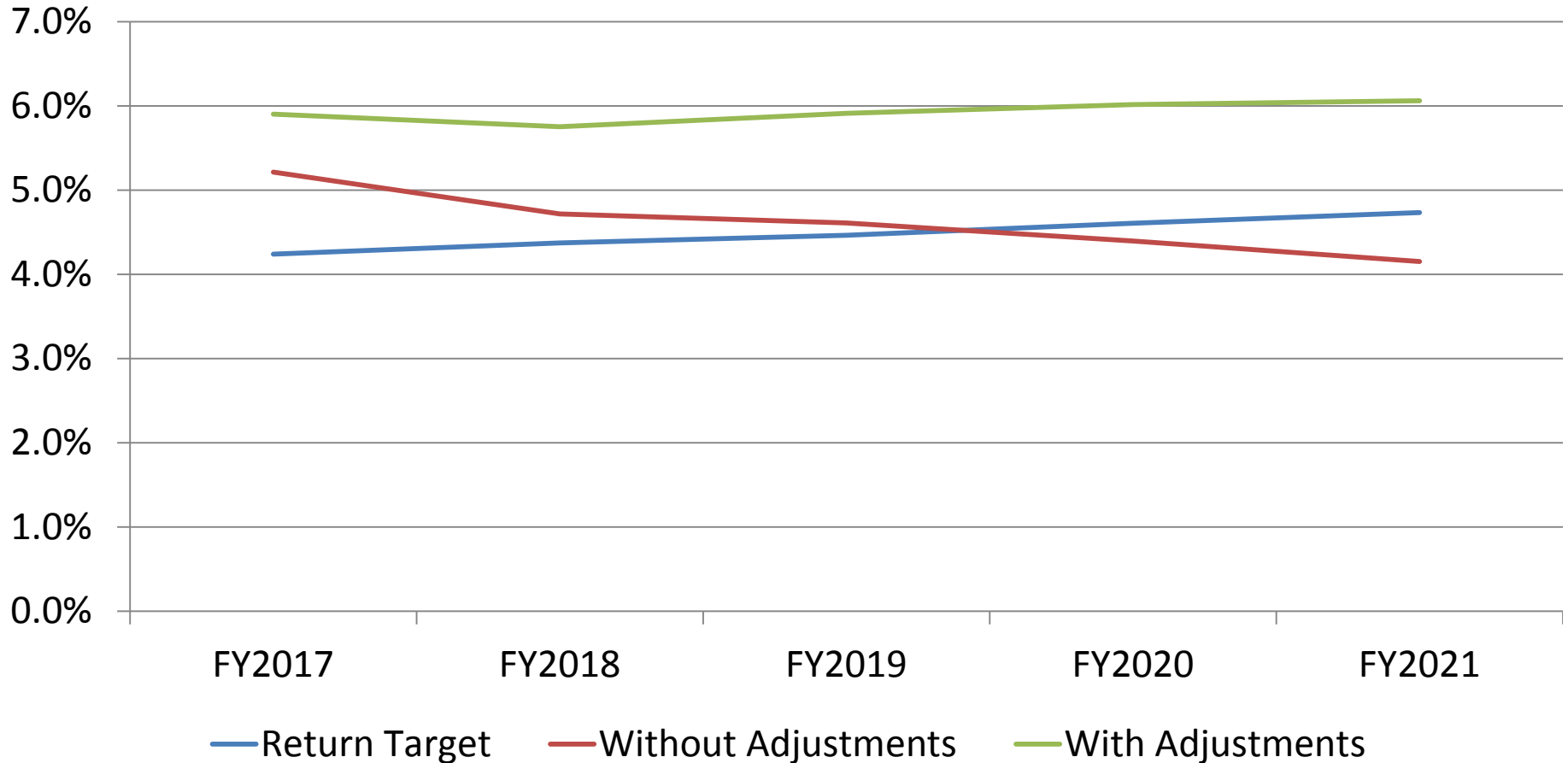
Water Utility Debt Coverage Ratio



Water Utility Minimum Cash Reserve



Water Utility Return on Net Plant



Water Utility Capital Plan Review FY2017

<u>Water Treatment Plant</u>	<u>Cash Outflow</u>
– Valve Replacement Projects	\$175,100
– PLC rebuild	120,000
– Basin rebuild	100,000
– Various equipment replace/rebuilds	145,200
– Wonderware Upgrade	74,330
– Bulk Chemical Tank Repair	50,000
<u>Water Distribution</u>	
– Water mains replacement	\$2,250,000
– Replace Electric Svc at Waverly	400,000
– Various improvements	355,000
– Hydrant replacement	50,000
– Vehicle replacement (#70)	35,000
Total	\$3,754,630

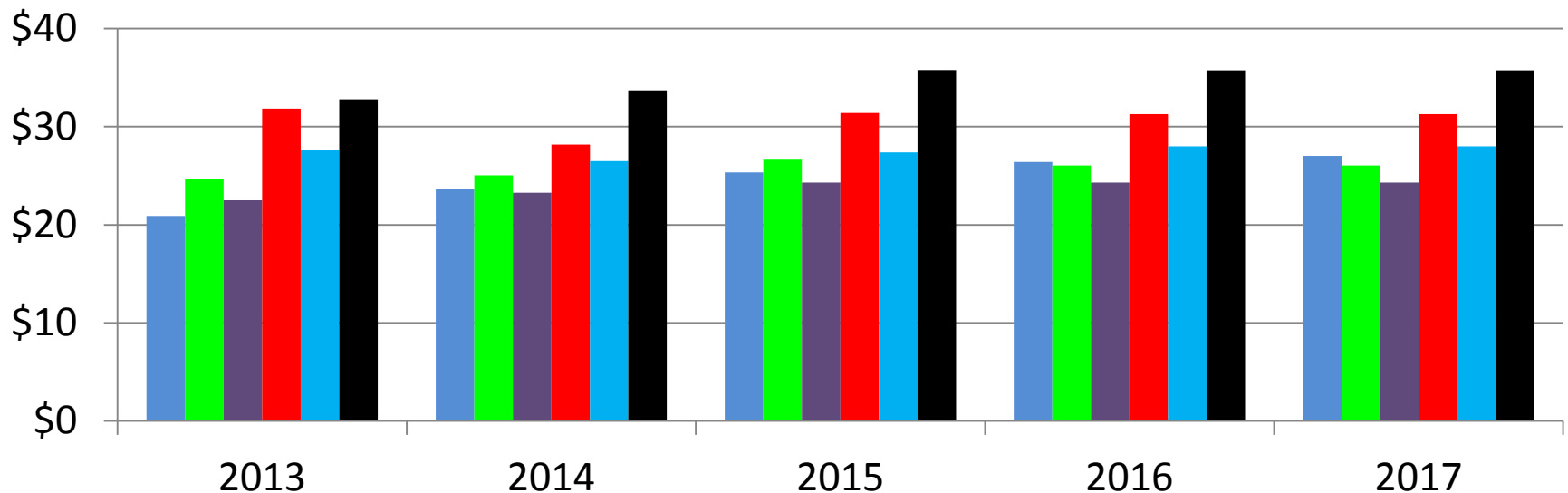


Water Utility Summary

- Planned capital expenditures for next five years is \$17,197,031
 - Planned water main replacement for the next five years is \$9,996,400
- To meet this capital expenditure plan requires additional annual revenue to maintain minimum cash
- The planned revenue adjustments are sufficient to achieve targeted return on net plant



Water Utility Residential Average Bill (5/8" meter 10 ccf)



■ Holland
■ Zeeland
■ City of Grand Rapids

■ Wyoming Ottawa Communities
■ Northwest Ottawa Communities
■ Grand Rapids Ottawa Communities

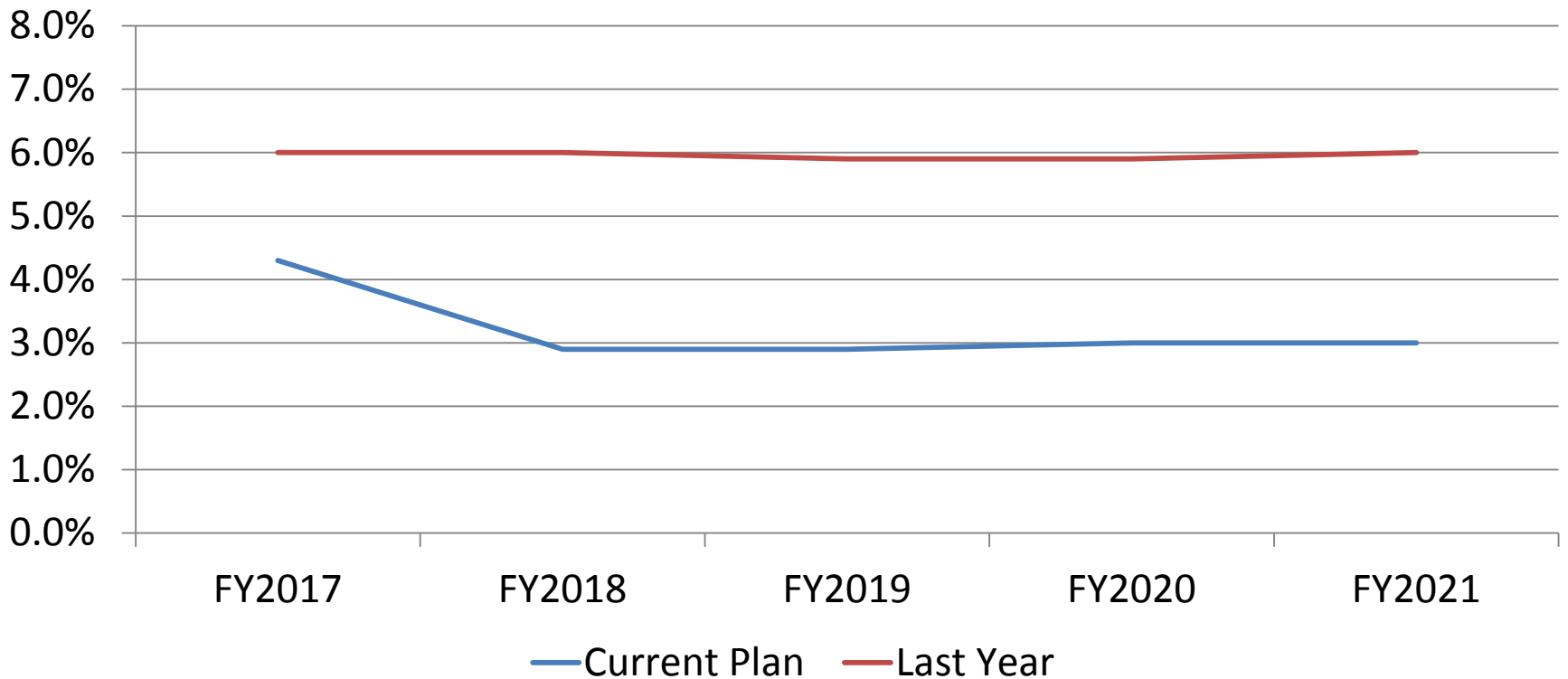


Wastewater Utility Plan Details

- Bio-Solids improvements and East Plant Optimization construction is underway and expected completion by October, 2017
- Aging collection infrastructure needs addressing at higher rate
- Lift station improvements are ongoing
- Current plan: 4.3% increase in FY 2017, then reduced amounts in next four years
 - More evaluation is needed to distinguish plant and collection system revenue needs
- Adjustments planned for both the readiness-to-serve, commodity rates and high strength surcharges



Wastewater Utility Revenue Adjustments

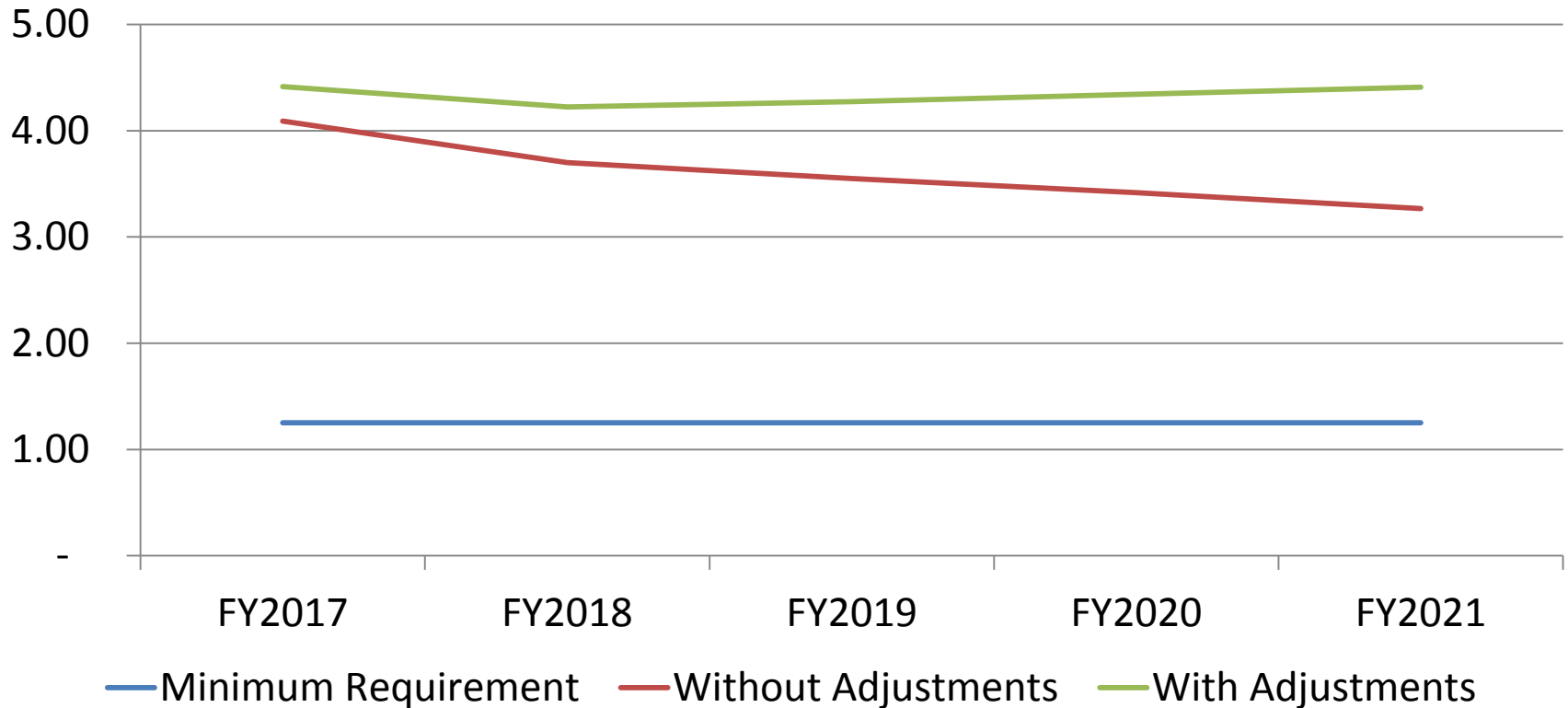


Wastewater Utility 5 Year Projection Revenues and Expenses

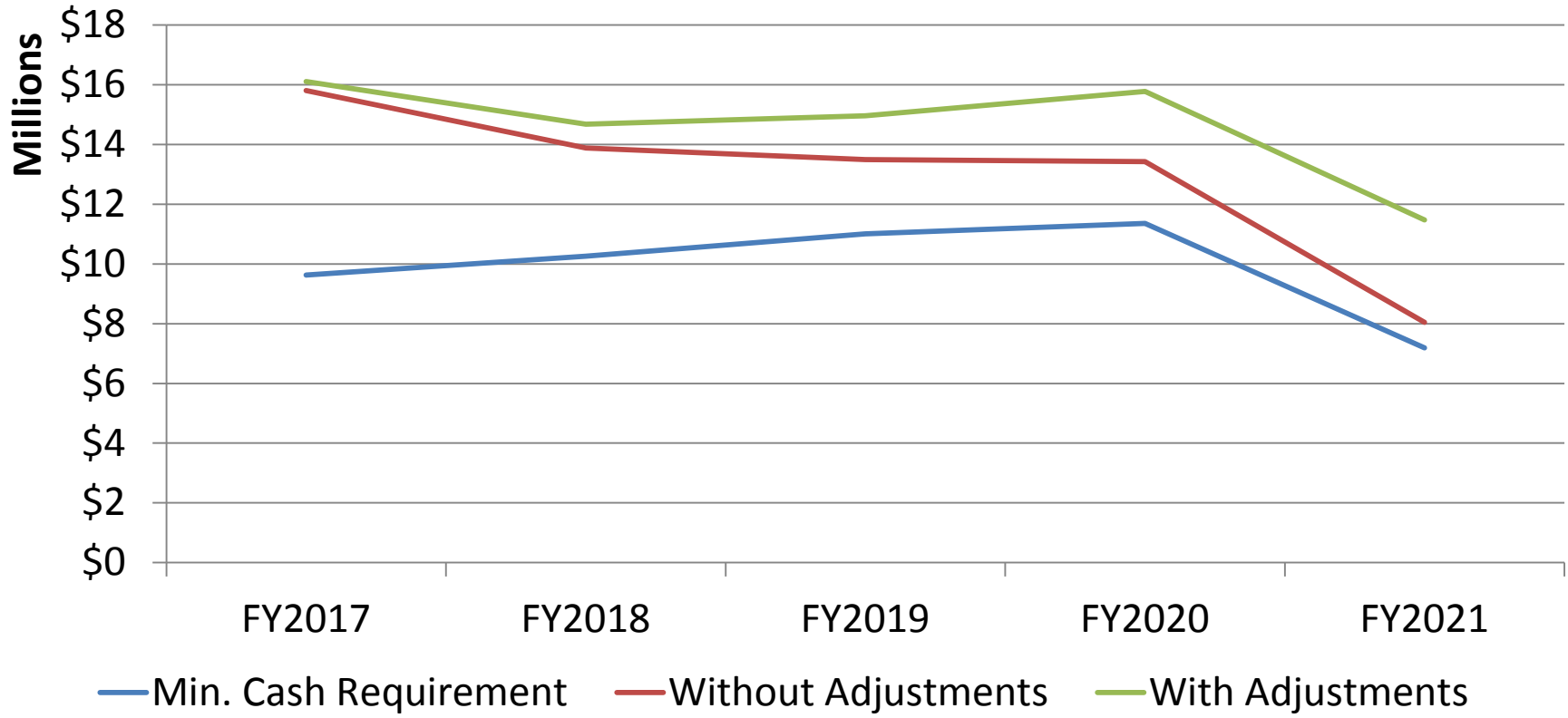
Revenue	<u>FY2016</u>	<u>FY2017</u>	<u>FY2018</u>	<u>FY2019</u>	<u>FY2020</u>	<u>FY2021</u>
Retail Sales \$	5,953,669	\$ 6,322,443	\$ 6,507,288	\$ 6,698,751	\$ 6,897,108	\$ 7,102,651
Wholesale	2,391,036	2,231,801	2,120,211	2,141,413	2,184,241	2,206,084
Surcharge & Pollution Control	2,251,236	2,262,940	2,269,420	2,271,458	2,273,538	2,273,578
Fees & Other	54,164	45,500	45,500	45,500	45,500	45,500
Total Revenue	\$ 10,650,105	\$ 10,862,684	\$ 10,942,419	\$ 11,157,122	\$ 11,400,387	\$ 11,627,813
Operating Expenses						
Operation & Maintenance \$	7,150,275	\$ 7,062,492	\$ 7,133,117	\$ 7,275,780	\$ 7,421,295	\$ 7,569,721
Depreciation	1,913,838	2,878,823	3,343,130	3,438,090	3,456,954	3,481,393
Total Operating Expenses	\$ 9,064,113	\$ 9,941,316	\$ 10,476,247	\$ 10,713,869	\$ 10,878,249	\$ 11,051,114
Non-operating Income/(Expense)						
Interest Income \$	56,092	\$ 27,972	\$ -	\$ -	\$ -	\$ -
Interest Expense	(31,346)	(238,221)	(290,871)	(282,984)	(272,994)	(261,072)
Other	601,222	267,271	127,500	127,500	127,500	127,500
Total Non-operating Income/(Expense)	\$ 625,968	\$ 57,022	\$ (163,371)	\$ (155,484)	\$ (145,494)	\$ (133,572)
Net Income	\$ 2,211,960	\$ 978,390	\$ 302,802	\$ 287,769	\$ 376,643	\$ 443,128



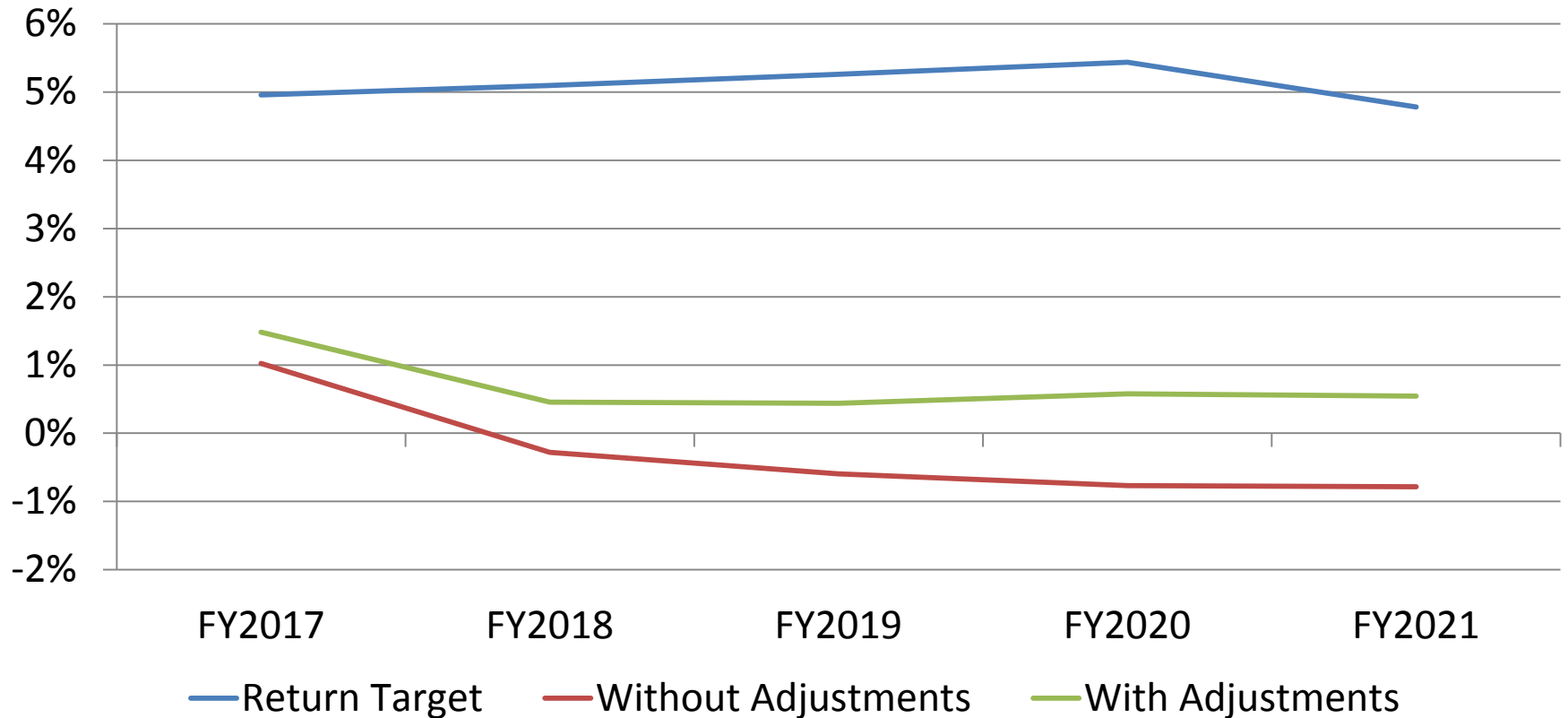
Wastewater Utility Debt Coverage Ratio



Wastewater Utility Minimum Cash Reserve



Wastewater Utility Return on Net Plant



Wastewater Utility Capital Plan Review FY2017

<u>Wastewater Treatment Plant</u>	<u>Cash Outflow</u>
– Bio-Solids Process	\$1,136,900
– Optimization Project	67,800
– Miscellaneous Equipment/Upgrades	739,200
– Replace Disinfection Chemical Storage Tanks	100,000
<u>Wastewater Collection</u>	
– Sewer Lining and Manhole Rehabilitation	\$1,250,000
– Lift Station	950,000
– Sewer Improvements	250,000
– Meters replacement	50,000
– Camera Truck Upgrade	50,000
– Replace Vehicle 84	35,000
Total	\$4,628,900

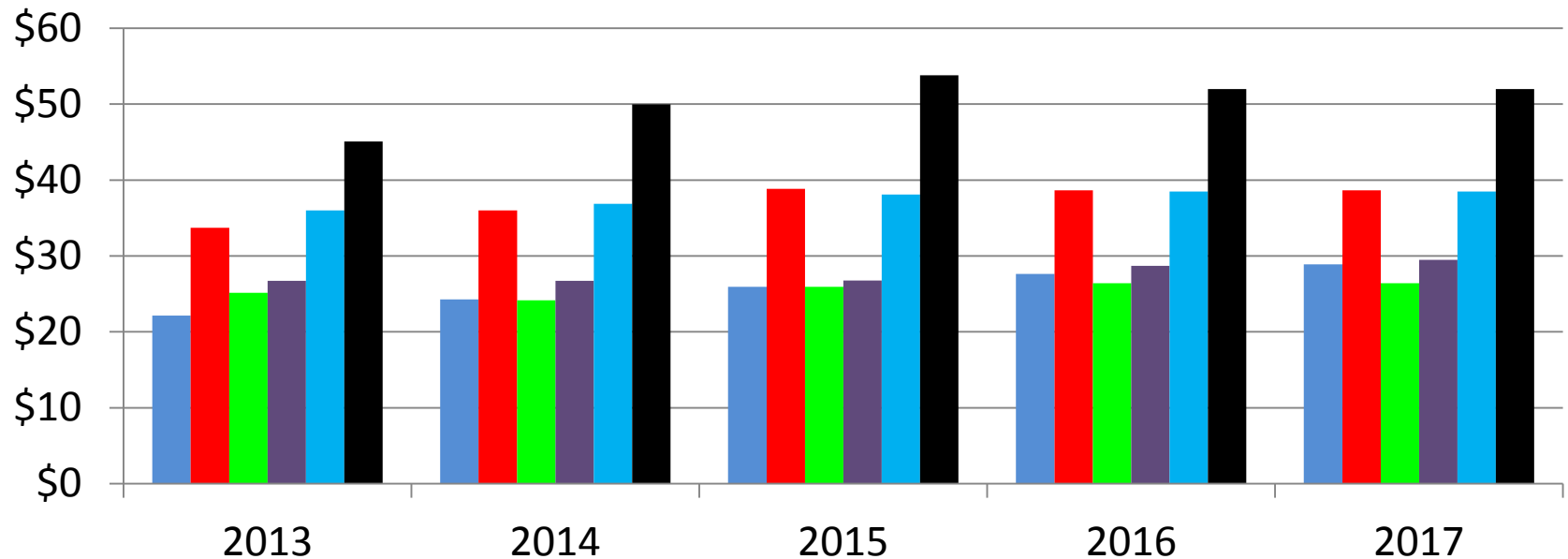


Wastewater Utility Summary

- Planned capital expenditures for next five years is \$21,717,100
 - Planned sewer main work for the next five years is \$6,299,800
- Agreement reached to fund bond payments at 50% South Service Area and 50% Northern Service Area
- Evaluation underway to true up the Northern Service Area contract capacity payment to 50%, better reflecting actual flow
- To meet this capital expenditure plan requires additional revenue to maintain minimum cash
- The revenue adjustments are insufficient to achieve targeted return on net plant. However, staff is working to define revenue requirements for future years based on North-Side and South-Side capacity share



Wastewater Utility Residential Average Bill (5/8" meter 7 ccf)



- Holland
- Grandville's Rush Creek Ottawa Communities
- City of Grand Rapids

- Northwest Ottawa Communities
- Zeeland
- Grand Rapids Ottawa Communities



Administrative & General Capital Plan Review FY2017

	<u>Cash Outflow</u>
• Deploy new storage/backup system	\$200,000
• Hardware and Software Upgrades	145,000
• Replace Garage Make-Up Air Unit	78,000
• Fire Protection Improvements	46,000
• Replace Vehicles	34,400
• Replace Crew Chairs	14,000
• Replace Lights in Garage and Water Shop	10,000
Total	\$527,400



Electric, Water and Wastewater

Residential Monthly Average Bill

Utility	Current Bill	New Bill	\$ Increase per month
Electric (600 kwh)	\$73.18	\$74.80	\$1.62
Water (10 ccf)	\$26.35	\$27.03	\$0.68
Wastewater (7 ccf)	\$27.64	\$28.90	\$1.26
Total	\$127.17	\$130.73	\$3.56
Average cost per day	\$4.24	\$4.36	\$0.12

