

Mayor Dan Clodfelter Mayor Pro Tem Michael D. Barnes

Al Austin
John Autry
Ed Driggs
Claire Fallon
David L. Howard

Patsy Kinsey
Vi Lyles
LaWana Mayfield
Greg Phipps
Kenny Smith

CITY COUNCIL MEETING

Monday, December 1, 2014

Room 267

5:00 p.m.	Dinner
5:15 p.m.	CDOT's FY14 Snow and Ice Control Plan
5:45 p.m.	Charlotte-Mecklenburg Utility Department Capital and Financial Planning
7:30 p.m.	Citizens Forum
Adjourn	

COUNCIL WORKSHOP AGENDA ITEM SUMMARY

TOPIC: CDOT'S FY14 Snow and Ice Control Plan

COUNCIL FOCUS AREA: Transportation

RESOURCES: Phil Reiger, Assistant Director-CDOT
Saleem Khattak, Street Superintendent

KEY POINTS:

- The objective of this presentation is to provide Council with an overview of the Snow and Ice Control Program.
- Information to be presented includes:
 - Response Summary of February 2014 Snow Event
 - Program Objective and Scope
 - Preparation
 - Road Weather Information
 - Treatment Methods
 - Storm Severity and Response Plans
 - Resources
 - Communication and Coordination

COUNCIL DECISION OR DIRECTION REQUESTED:

None. This presentation is for informational purposes only.

ATTACHMENTS:

None.

COUNCIL WORKSHOP AGENDA ITEM SUMMARY

TOPIC: Charlotte-Mecklenburg Utility Department
Capital and Financial Planning

COUNCIL FOCUS AREA: Environment

RESOURCES: Barry Gullet, Charlotte-Mecklenburg
Utility Department

KEY POINTS:



- During the Fiscal Year 2015 budget setting process, an in-depth overview of the Charlotte-Mecklenburg Utility Department (CMUD) water and sewer capital and financial planning was requested.
- Water and sewer utilities are capital intensive and capital investment decisions impact future water and sewer rates.
- Sustaining the water and sewer system is crucial to community viability, economic growth, and quality of life.

COUNCIL DECISION OR DIRECTION REQUESTED:

None. This presentation is for informational purposes only.


ATTACHMENTS:

Water & Sewer Capital and Financial Planning Presentation
CMUD Fiscal Year 2015 Water & Sewer Financial Projection Summary
CMUD Community Investment Plan Projects by Type



Water & Sewer Capital and Financial Planning

The Impact of Water Service on a City



The Stage

- History of annual rate increases
- Concerns about cumulative fee and tax increases
- Changing socio-economics and demographics
- Capital investment intensity of utility systems
- Complex financial planning structure
- Questions about FY15 rate increase



Take Aways

- Success tied to long-term planning and execution of the plan
- Community Investment Plan decisions now impact future water & sewer rates
- Utility operating and capital costs are increasing faster than general inflation
- Robust water/sewer system is critical to community viability, economic growth, and quality of life
- History of success



Policy Questions

- Is the CMUD Community Investment Plan funded at appropriate level?
- What should be the frequency of rate increases?
 - Current projections are annual at 4% - 6%/year
 - Less frequent increases would require each increase to be larger



Water & Sewer System

- Supports more than 1,000,000 people every day
- Foundation for jobs and economy
- Largest water & sewer utility in NC
- 8,400 miles of pipe
- 8 treatment plants
- Regional provider
- Protects public health & safety
- Prevents pollution of creeks, rivers, lakes
- Billions of dollars in capital investment; \$1.4B in past 10 years
- AAA Credit Rating



CMUD 5-Year Community Investment Plan

Goal: Sustainable water & sewer system supporting land use plans, quality of life, environmental protection



Irwin Creek Wastewater Treatment Plant



CMUD 5-Year Community Investment Plan

- Needs evaluated continuously
- Rolling 5-year Plan approved annually
- Based on planning & modeling, community feedback, and maintenance history
- CIP projects approved in FY15 are projected at \$106.9M
- \$213M revenue required for FY15
 - PAYGO to fund projects - \$41M
 - Annual debt service payment - \$147M
 - Funds to CMUD reserves for debt coverage requirements - \$25M



Community Investment Projects by Type
FY15 – FY19

- | | |
|---|---|
| <ul style="list-style-type: none"> – Rehabilitation and replacement:
\$224.9M – Capacity for growth:
\$262.9M | <ul style="list-style-type: none"> – Regulatory requirements:
\$85.2M – Commitment to public projects and utility operations:
\$36.8M |
|---|---|

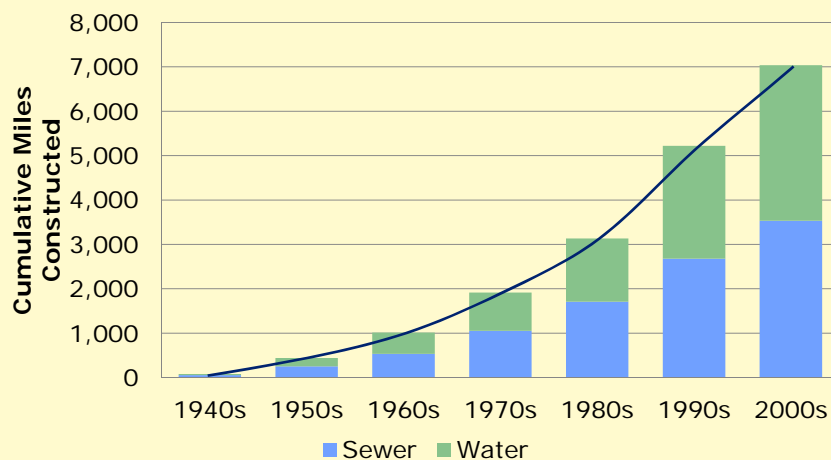


Examples of Rehabilitation and Replacement Projects in FY15-19 CIP

- Irwin Creek WWTP Upgrade
\$33M
- Water/Sewer Line Rehabilitation
\$114.5M
- Sugar Creek WWTP Upgrade - Phase II
\$18M
- Water/Wastewater Plant Rehab and Upgrades
\$43.1M
- Fire Hydrant Installation/Replacement
\$1M



Water & Sewer System Expansion By Decade



- 74% of the system was built in the last 30 years
- Much of it was donated to CMUD by developers



Example: Replacing/Relining Water Pipes

- Improves drinking water quality and water pressure to customers

FY15 Budget - \$7.5 Million
5-Year Need - \$49.5M



Example: Replacing/Relining Sewer Pipes

- Protects the environment by reducing sewer leaks and spills

FY15 Budget - \$13M
5-Year Need - \$65M





Example: Water Storage Tank Maintenance

Franklin Water Treatment Plant



- Extends life of asset
- Improves aesthetics

FY15 Budget - \$650,000
5-Year Need - \$1.25M



Example: Emergency Generators



- Resilience to continue operation during power outages

FY15 Budget - \$2.5M
5-Year Need - \$3.9M

Irwin Creek Wastewater Treatment Plant



Examples of Capacity for Growth Projects in FY15-19 CIP

- Steele Creek Lift Station & Trunk Replacement
\$66M
- Briar Creek Relief Sewer (Phases 2&3)
\$37M
- Upper McAlpine Creek Relief Sewer (Phases 3&4)
\$40M
- Water/Sewer Street Main Extensions
\$51M
- Northeast Water Transmission Main
\$48M
- Dixie Berryhill Water/Sewer Projects
\$13M
- Long Creek WWTP
\$197M

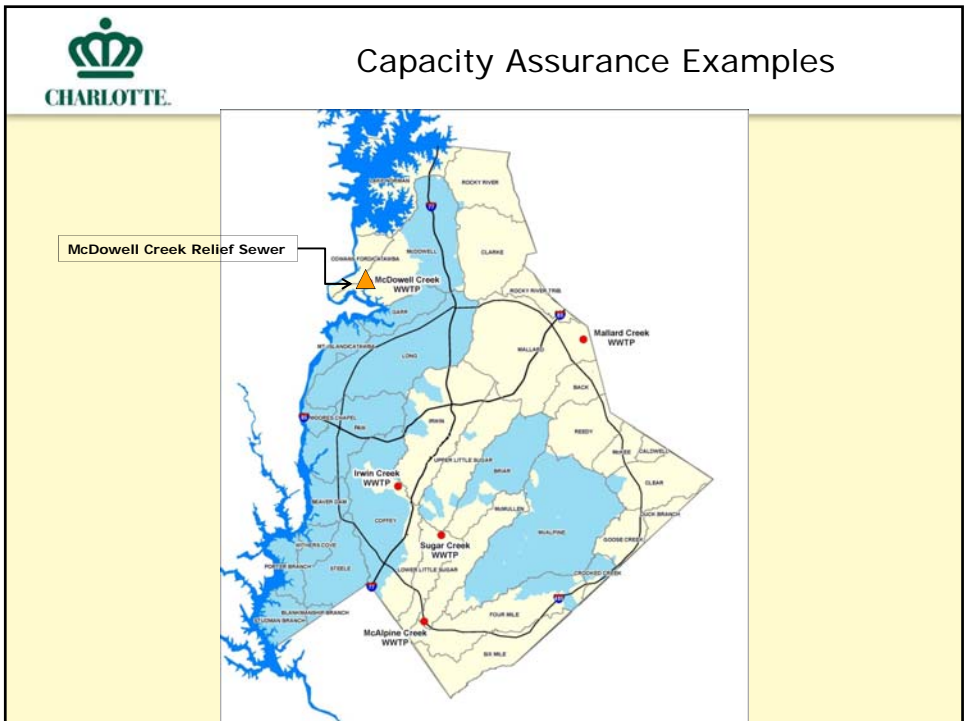
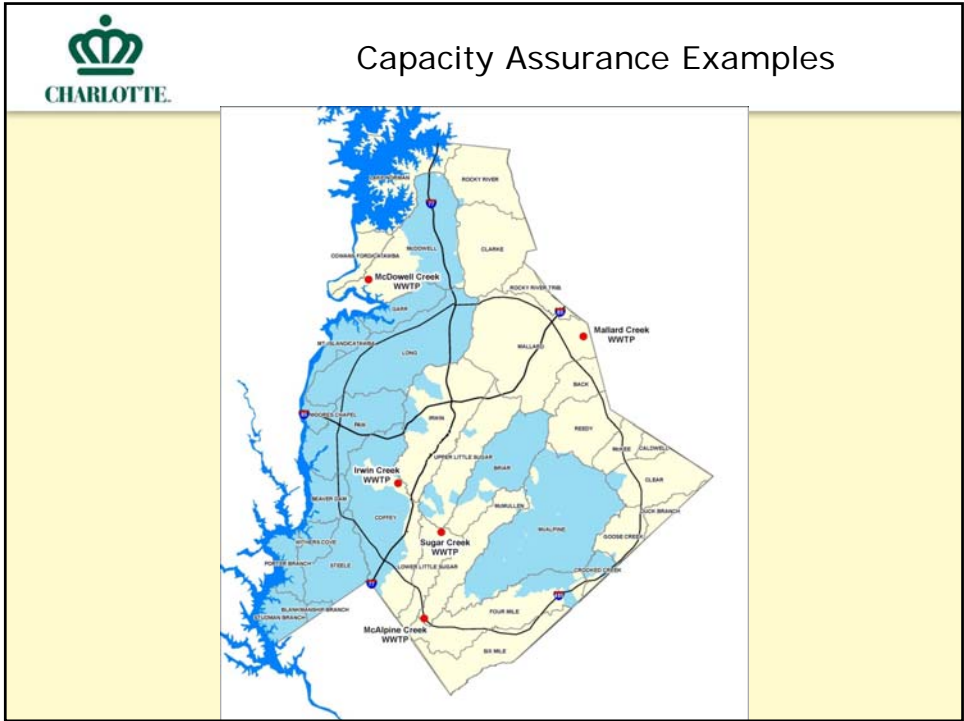


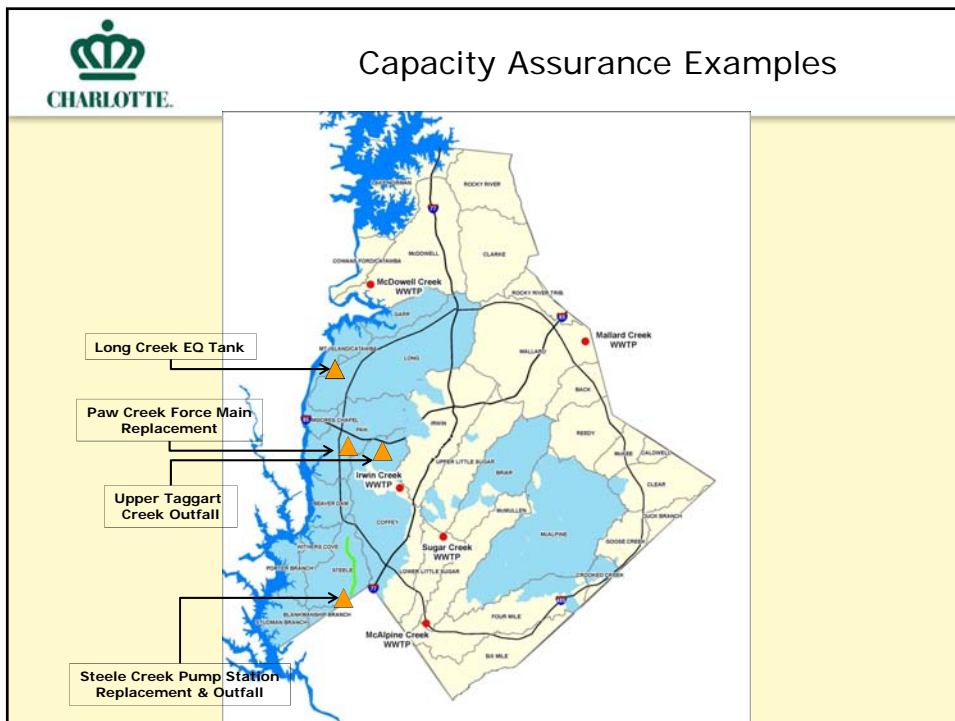
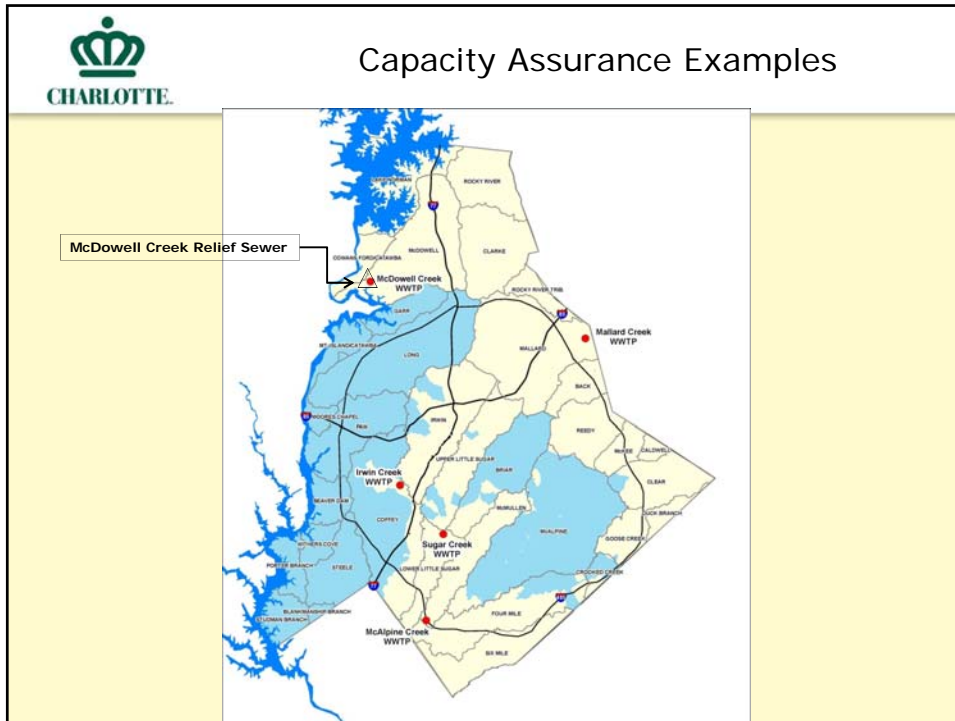
Example: Provide System Capacity to Support New Customers

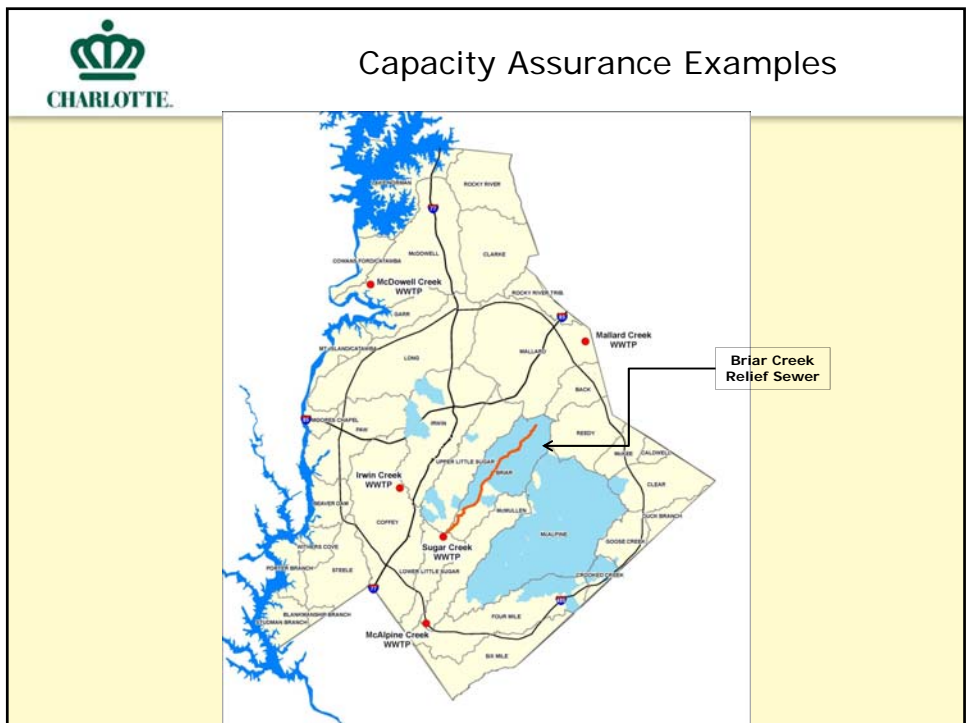
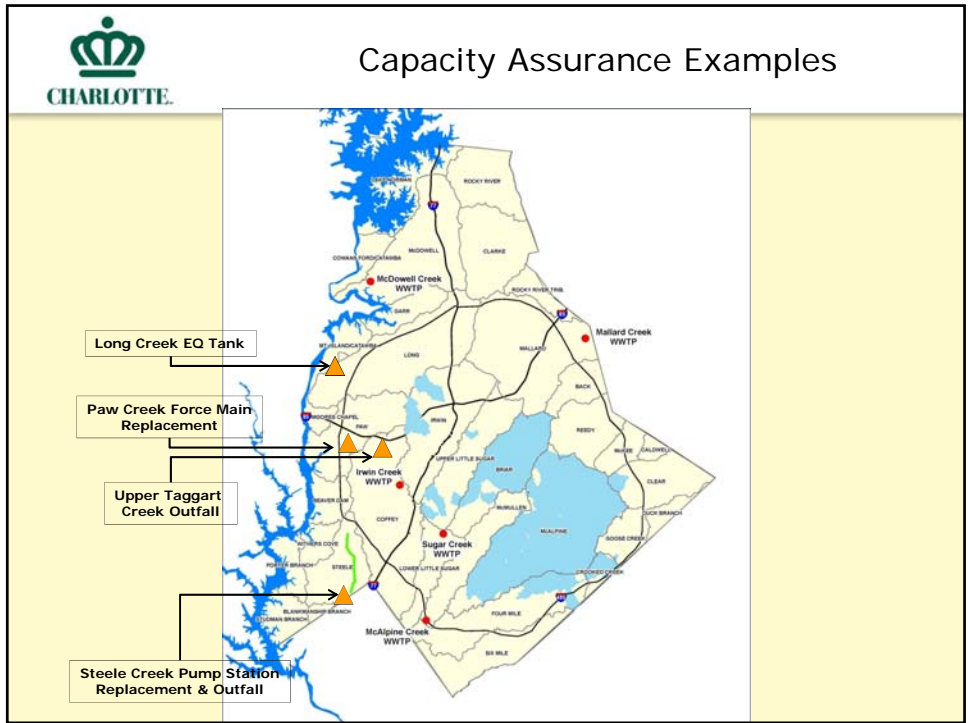
Capacity Assurance Program certifies required sewer capacity exists:

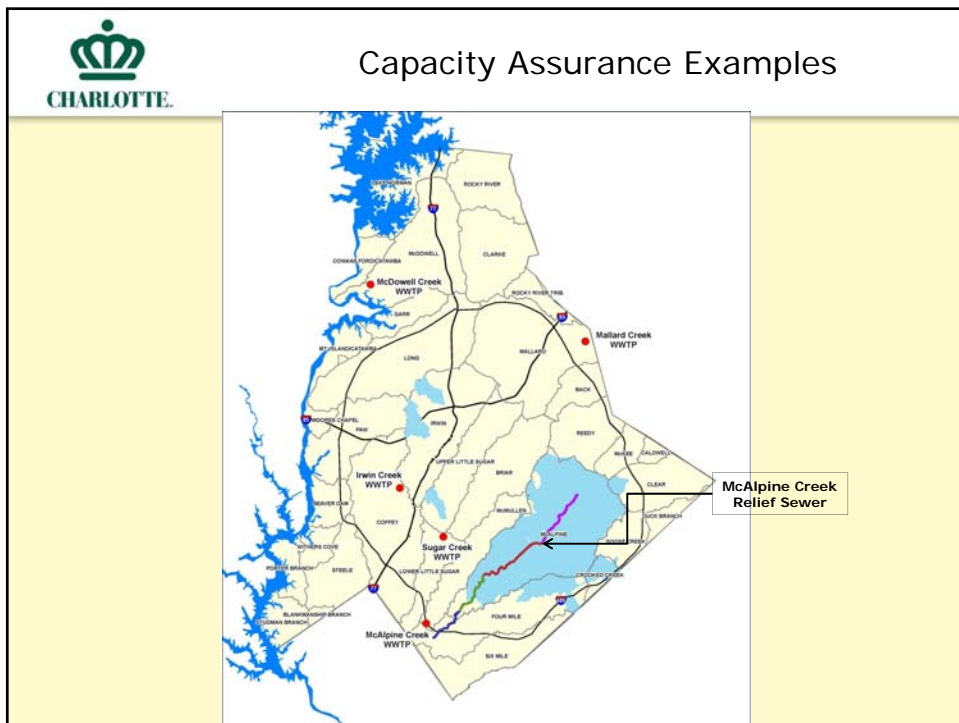
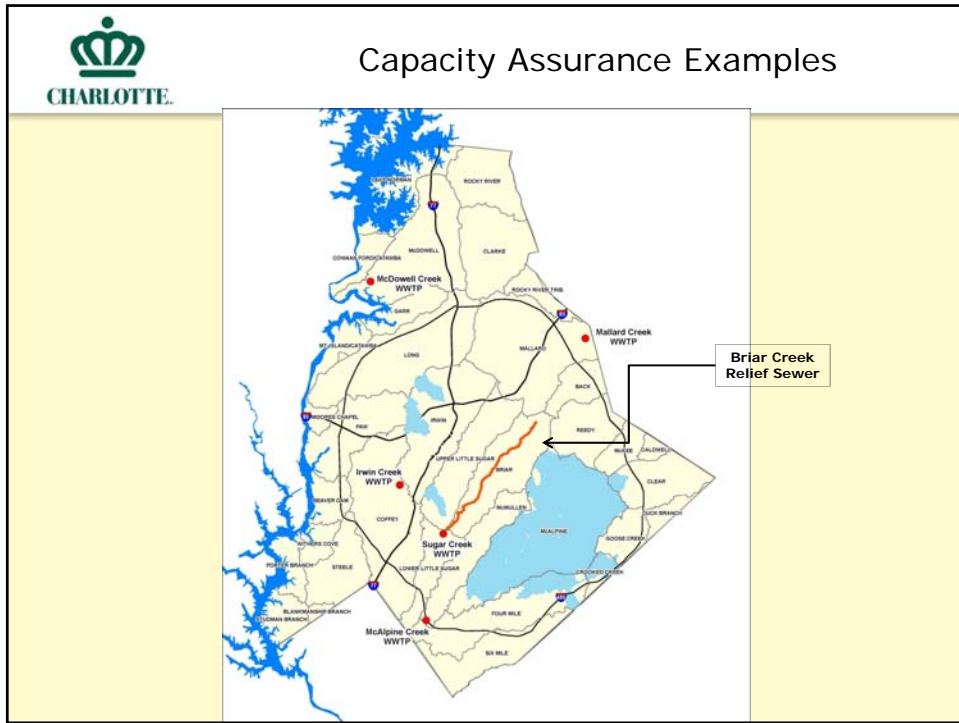
- Pipes and pumps to move wastewater from new connection to treatment plant
- Treat wastewater to required quality

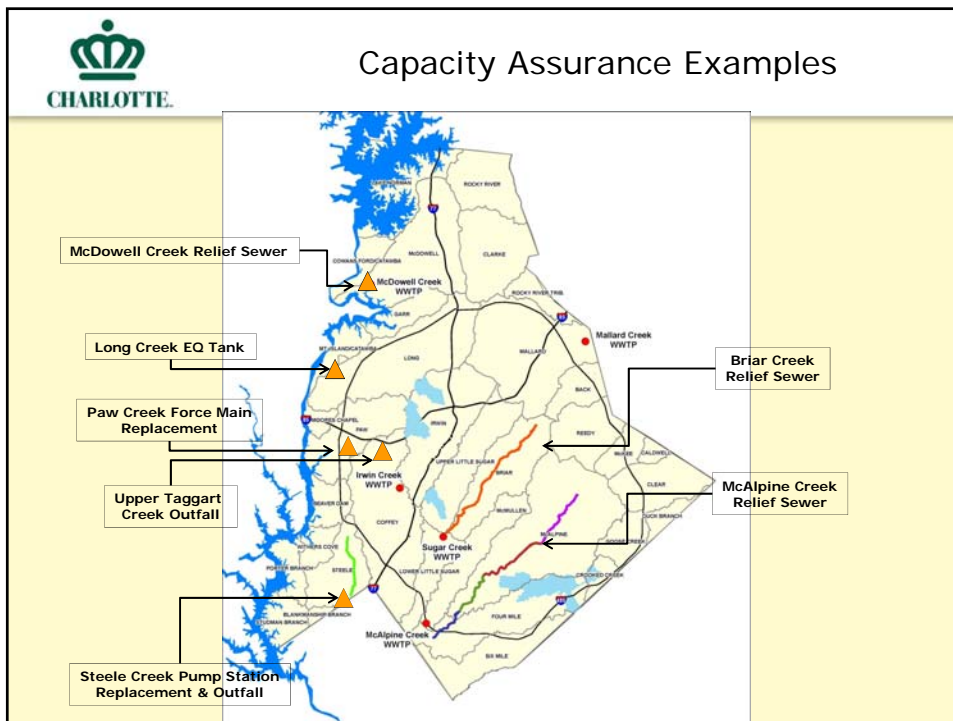
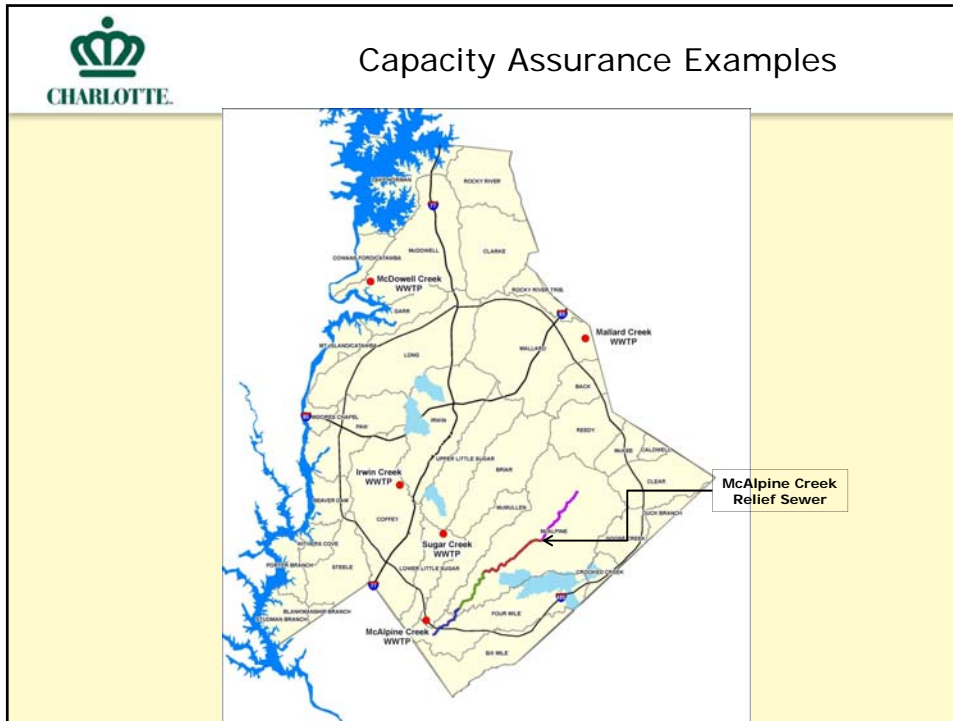
Lack of available sewer capacity means no new connections allowed














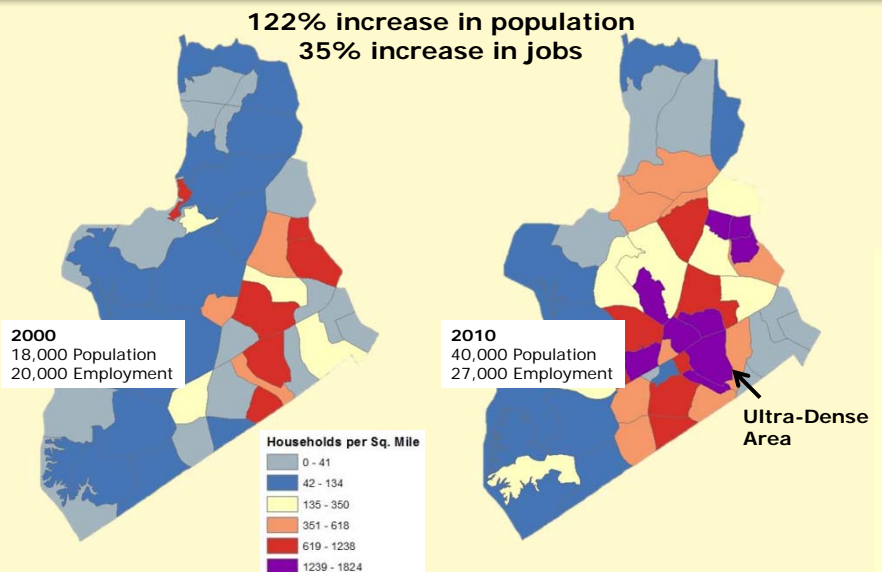
 Example: McAlpine Creek Relief Sewer

- Replaces 16.7 miles of pipes from 1960's
- Provides capacity to serve new homes and businesses across 3,700 acres
- Protects water quality in creek by reducing sewer spills
- Total investment: \$97M
- Phase III & IV Under construction



 Example: Southwest Charlotte

122% increase in population
35% increase in jobs



2000
18,000 Population
20,000 Employment

2010
40,000 Population
27,000 Employment

Ultra-Dense Area

Households per Sq. Mile

- 0 - 41
- 42 - 134
- 135 - 350
- 351 - 618
- 619 - 1238
- 1239 - 1824

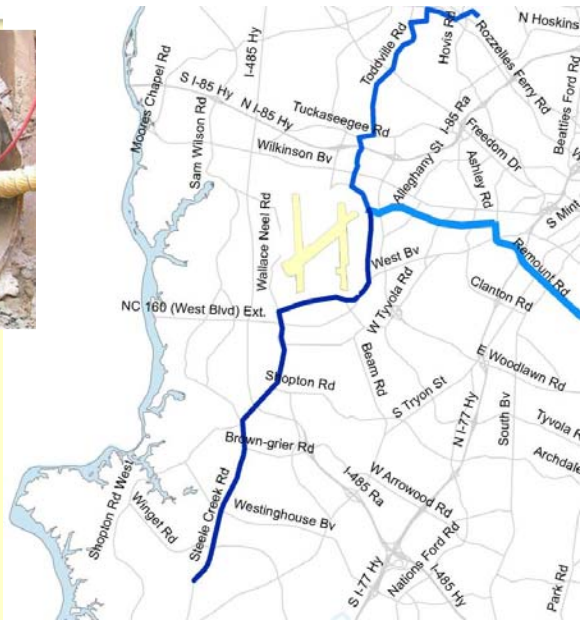


Example: Southwest Water Transmission Main



- 15 miles of pipe to support growth in Southwest Charlotte

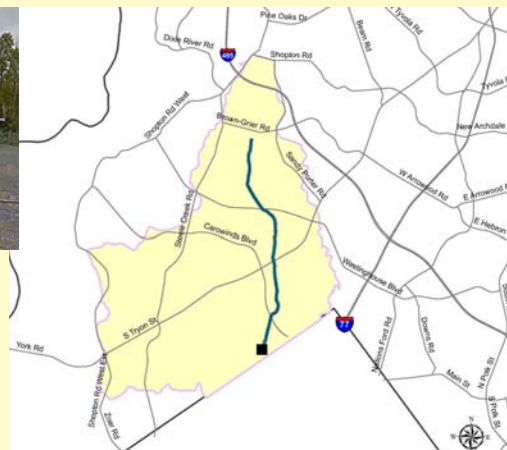
Completed: 2009
 CMUD Investment: \$89M



Example: Steele Creek Lift Station



- Provide more capacity for additional sewer services in Southwest Charlotte
- Estimated investment: \$66M





Example: McAlpine Creek Wastewater Treatment Plant

- Built in 1966 to treat 10 MGD
 - Expected to serve 15,000 people living in South Charlotte
- Expanded in 1974 to treat 20 MGD
- Expanded again in 80s, 90s and early 2000s
- Today capacity to treat 64 MGD

Plant replacement value of \$750M



Example: McAlpine Creek Wastewater Treatment Plant

- Serving customers from as far as Northlake Mall and Lawyers Road as well as Southwest Charlotte
- Currently operating at 76% of rated capacity





Examples of Regulatory Requirement Projects in FY15-19 CIP

- Water Quality Sampling Stations
\$2.6M
- Water Distribution Flow Monitoring Program
\$0.5M
- Water Treatment Regulatory Improvements
\$0.5M
- McAlpine Biosolids Class A Process
\$57.1M
- McAlpine Dewatering Building Upgrades
\$3.4M



Example: Nutrient Removal



- Protect Catawba River by reducing phosphorus in treated effluent
- Investment: \$28M at McAlpine Plant in 2006
- Need: Sugar and Irwin Creek Plant improvements that incorporate nutrient removal



Example: McAlpine Creek Wastewater Treatment Plant Biosolids Treatment Improvements

- New and rebuilt digesters improve sludge treatment, protect environment
- More than \$15M investment in recent years
- Need: Sludge processing improvements including conversion to Class A will cost > \$100M over next 6-8 years



Example: McAlpine Creek Wastewater Treatment Plant Water Quality Improvements

- Expand filter complex
- Higher treatment level protects water quality in McAlpine Creek
- Investment: \$25 Million
- Completed: 2014



*First Design-Build Project



Examples of Commitment to Public Projects and Utility Operations Projects in FY15-19 CIP

- Independence Blvd. Widening
\$10M
- Gold Line Utility Improvements
\$1.2M
- Water/Sewer Lines for Street Improvements
\$22.75M



Impact of Public Projects on CMUD System

- Opportunities to work together to minimize future costs and disruption
- CMUD required to fund conflict resolution in many cases
- NCDOT Projects
 - Pipeline conflicts in road rights of way
 - Conflicts where new road crosses existing pipeline
- City street & intersection projects
- Rail projects
- Greenways
- Large public buildings & public-private partnerships



Financial Plan

Financial plan models 10-year projections of:

- Future revenue requirements to operate, sustain, and expand the system
- Customer growth and water use
- Operating cost
- Debt service coverage ratios
- Fund balance
- Rate increases required to sustain plan

Plan is reviewed frequently and updated each year




Financial Plan

*Water and Sewer Projection Summary
(\$ 000's where applicable)*

	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Unaudited 2014	Adopted 2015	Planning 2016	Planning 2017	Planning 2018	Planning 2019	Planning 2020	Planning 2021	Planning 2022
Capital program													
Debt - CF revenue bonds	\$ 157,900	\$ 163,000	\$ -	\$ -	\$ 78,261	\$ 75,048	\$ 99,545	\$ 81,686	\$ 40,004	\$ 38,788	\$ 42,982	\$ 53,965	\$ 59,467
Debt - equipment L/P	1,850	0	1,364	4,000	4,000	4,650	4,000	4,000	4,000	4,000	4,000	4,000	4,000
PAYGO	16,950	27,850	27,850	59,475	72,779	63,930	84,798	56,850	74,850	80,850	100,850	105,850	128,850
Total	\$ 176,700	\$ 190,850	\$ 29,214	\$ 63,475	\$ 155,040	\$ 143,628	\$ 188,343	\$ 142,536	\$ 118,854	\$ 123,638	\$ 147,832	\$ 163,815	\$ 192,317
PAYGO as % of total	10%	15%	99%	94%	47%	45%	45%	40%	63%	65%	68%	65%	67%
Commercial paper balance (6/30)	\$ -	\$ -	\$ -	\$ -	\$ 78,261	\$ 153,309	\$ 73,412	\$ 155,098	\$ 40,004	\$ 78,792	\$ 42,982	\$ 96,946	\$ 59,467
Capital program by bond issue:													
Series 2009 issue dated 12/1/09	\$ 157,900	\$ 163,000											
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Series 2023 issue dated 7/1/23													\$ 59,467
Number of water customers	245,854	247,000	248,235	257,683	260,673	259,238	260,534	261,837	263,146	264,462	265,784	267,113	268,449
% incr. in avg. residential bill	5.20%	7.65%	8.89%	5.87%	4.20%	3.23%	5.57%	5.52%	5.60%	5.65%	5.66%	5.72%	5.77%
% incr. in water sales volume	3.58%	0.44%	2.66%	-3.98%	0.41%	-3.67%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total revenue	\$ 251,851	\$ 270,367	\$ 293,023	\$ 306,029	\$ 318,582	\$ 332,458	\$ 351,147	\$ 372,067	\$ 394,844	\$ 419,671	\$ 446,766	\$ 477,283	\$ 507,811
Total operating expenditures	100,376	100,286	103,937	104,866	115,690	119,416	125,134	130,696	135,997	141,616	147,859	154,300	161,178
Net income available for DS	\$ 151,475	\$ 170,080	\$ 189,086	\$ 201,163	\$ 202,892	\$ 213,043	\$ 226,013	\$ 241,371	\$ 258,847	\$ 278,055	\$ 298,907	\$ 322,983	\$ 346,633
Total revenue bond DS⁽¹⁾	\$ 77,673	\$ 92,617	\$ 98,227	\$ 105,556	\$ 107,772	\$ 107,239	\$ 110,509	\$ 122,614	\$ 124,491	\$ 132,034	\$ 132,880	\$ 137,065	\$ 139,007
Total G.O. and other DS	48,708	44,488	42,372	39,542	39,510	37,072	37,790	38,589	36,016	32,034	24,917	20,315	11,237
Total DS	\$ 126,380	\$ 137,104	\$ 140,599	\$ 145,099	\$ 147,282	\$ 144,312	\$ 148,298	\$ 161,203	\$ 160,508	\$ 164,067	\$ 157,798	\$ 157,380	\$ 150,243
DS as % of total revenue	50%	51%	48%	47%	46%	43%	42%	43%	41%	39%	35%	33%	30%
DS coverage - revenue bonds	1.95	1.84	1.92	1.91	1.88	1.99	2.05	1.97	2.08	2.11	2.25	2.36	2.49
DS coverage - total	1.20	1.24	1.34	1.39	1.38	1.48	1.52	1.50	1.61	1.69	1.89	2.05	2.31
Debt service/operating fund bal.	\$ 110,487	\$ 130,613	\$ 149,945	\$ 142,534	\$ 113,788	\$ 141,669	\$ 154,533	\$ 177,852	\$ 201,341	\$ 234,479	\$ 274,738	\$ 334,492	\$ 402,032
As % of op. exp. and DS	49%	55%	61%	57%	43%	54%	57%	61%	68%	77%	90%	107%	129%


⁽¹⁾ Includes interest on commercial paper.



Funding a Sustainable Utility

Industry Best Practice


- Rates set to recover full costs
 - Operations
 - Maintenance
 - Rehabilitation and replacement of system
 - Debt service
 - Capital improvements
 - Maintaining cash reserves



Costs Recovered by Utility Revenues Nationally

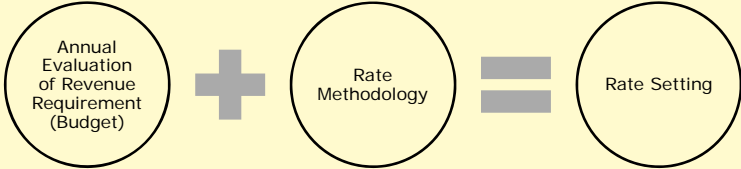
Number of Utilities	Costs recovered by rates				
	Operating and Maintenance	Debt Service including principal and interest	System rehabilitation and replacement	Capital Improvements	Sufficient funding of reserves
32 Other / I don't know					
18	X				
70	X	X			
27	X	X	X		
98	X	X	X	X	
123 (Includes CMUD)	X	X	X	X	X

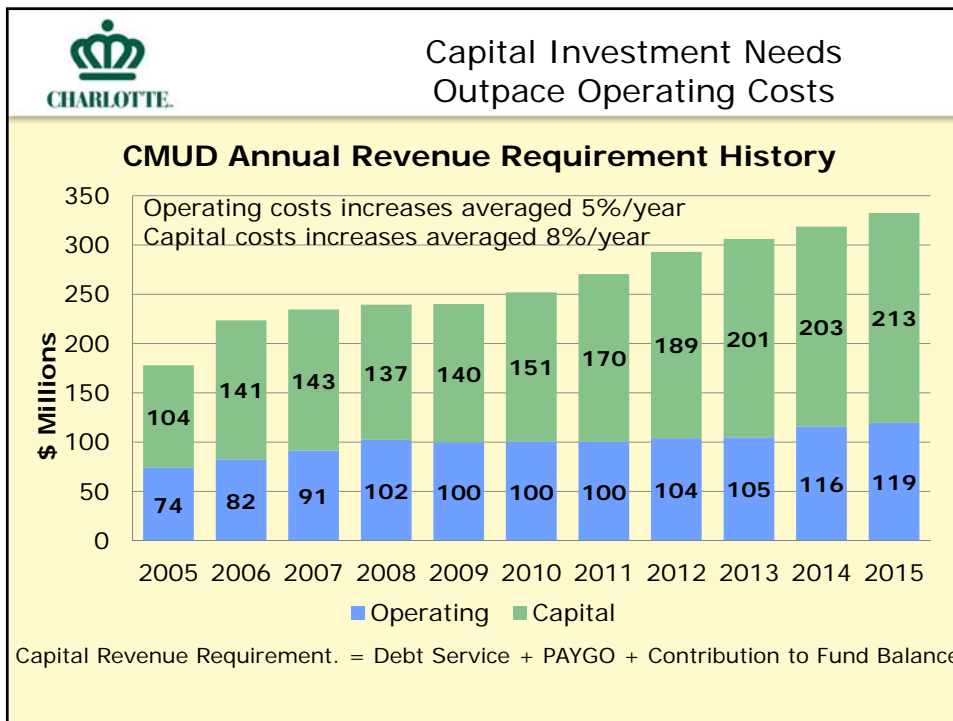
Data from Black & Veatch survey of 368 U.S. water/sewer utilities

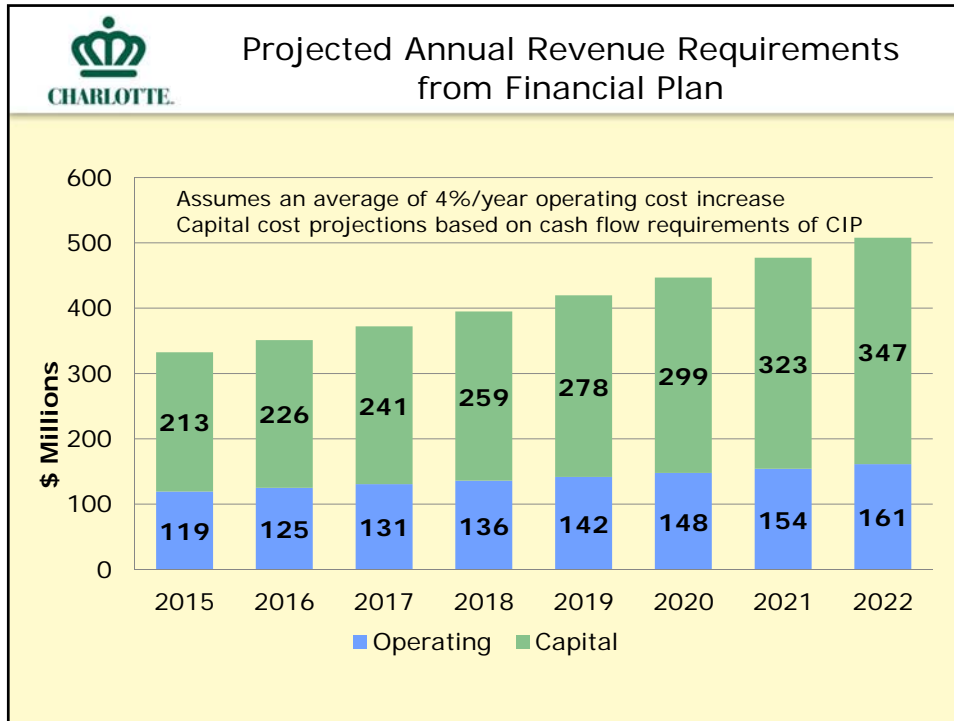


CMUD Funding

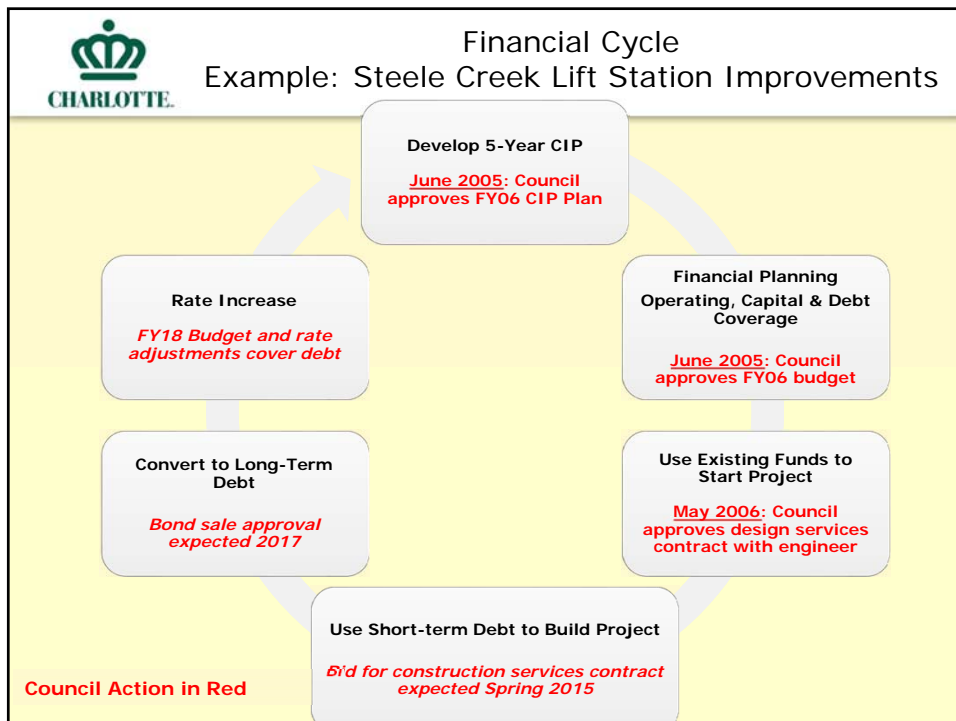
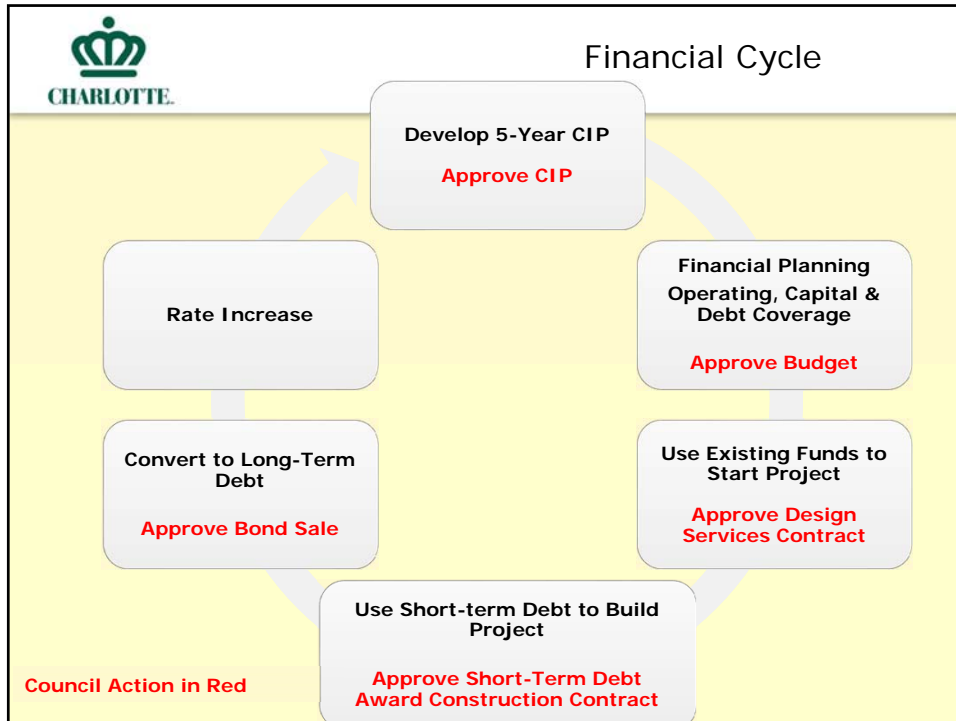
- Only revenue from water/sewer bills & user fees
 - No tax dollars
 - No “profit” for shareholders (like investor-owned utilities)
- Rate Methodology
 - Rate Methodology approved by Council in 2011
 - Prescribes how rates are calculated








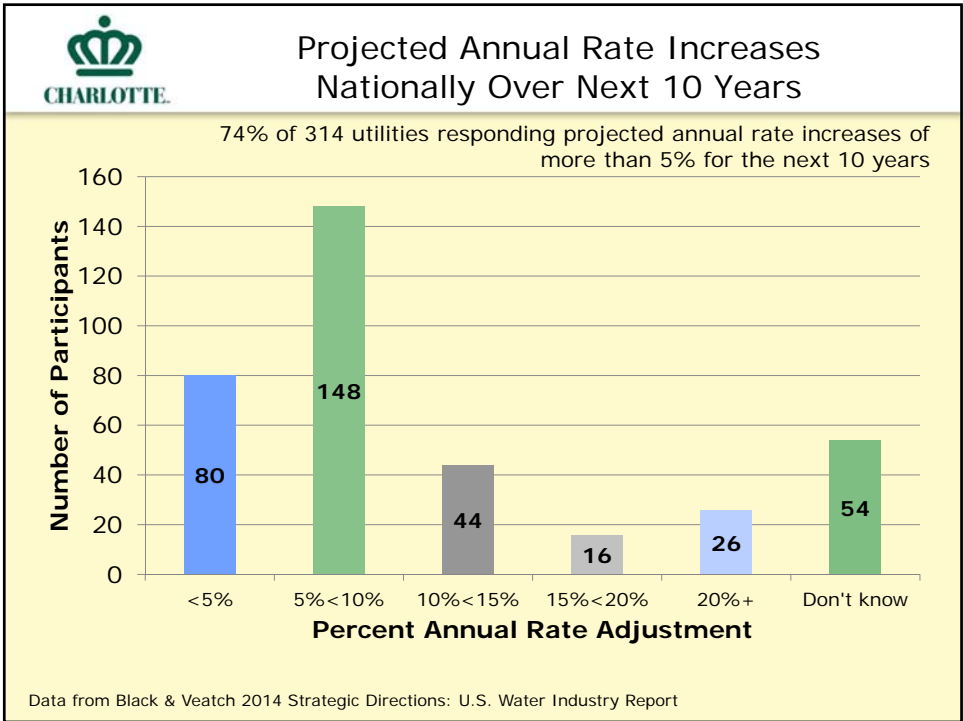
-
- ### Capital Financing
- Historical heavy reliance on borrowing
 - Currently increasing PAYGO financing
 - Cash flow financing saves \$\$, provides flexibility
 - Commercial paper construction period financing
 - Convert to 30-year revenue bond debt
 - Issue debt based on cash flow requirements
 - Commitment to new debt occurs prior to rate adjustment
 - New debt service due year after bonds issued can drive rate increase

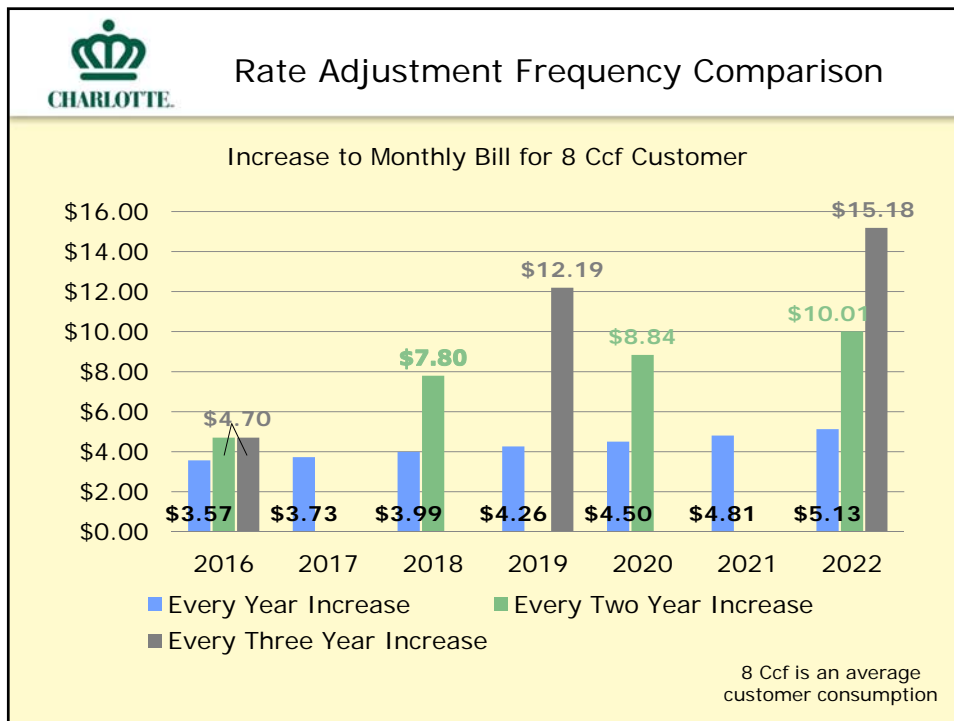
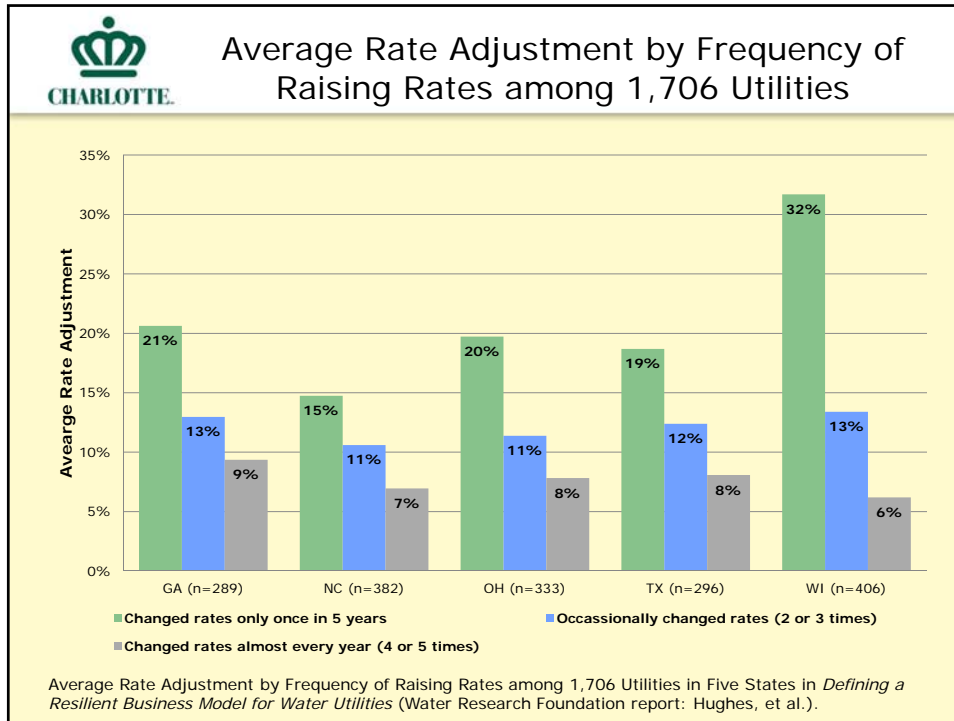


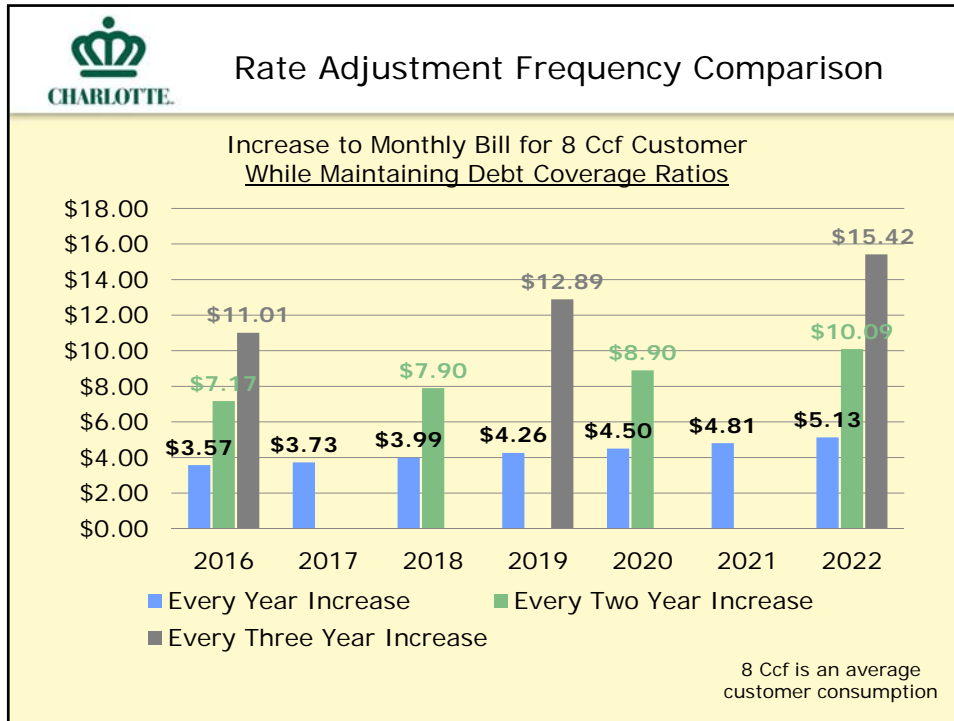


Rate Setting

- Rates set according to approved methodology
- Financial Plan based on annual increases
- Conservative assumptions about future growth
- Water sales difficult to predict
- Most costs are fixed, most revenue is variable
- Heavy reliance on very volatile Tier 4 revenue







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- Conclusion**
- Water & sewer utilities are capital intensive
 - Success requires investments and a long-term financial plan
 - Sustaining the water and sewer system is crucial to community viability, economic growth, and quality of life
 - CMUD aligns with peers and industry leaders by following national best practices



Policy Questions

- Is CMUD CIP funded at appropriate level?
- What should be the frequency of rate increases?
 - Current projections are annual at 4% - 6% / year
 - Option at current CIP funding level would be larger increases if done less frequently



Discussion

Water and Sewer Projection Summary
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Total G.O. and other DS	48,708	44,488	42,372	39,542	39,510	37,072	37,790	38,589	36,016	32,034	24,917	20,315	11,237
Total DS	<u>\$ 126,380</u>	<u>\$ 137,104</u>	<u>\$ 140,599</u>	<u>\$ 145,099</u>	<u>\$ 147,282</u>	<u>\$ 144,312</u>	<u>\$ 148,298</u>	<u>\$ 161,203</u>	<u>\$ 160,508</u>	<u>\$ 164,067</u>	<u>\$ 157,798</u>	<u>\$ 157,380</u>	<u>\$ 150,243</u>
DS as % of total revenue	50%	51%	48%	47%	46%	43%	42%	43%	41%	39%	35%	33%	30%
DS coverage - revenue bonds	1.95	1.84	1.92	1.91	1.88	1.99	2.05	1.97	2.08	2.11	2.25	2.36	2.49
DS coverage - total	1.20	1.24	1.34	1.39	1.38	1.48	1.52	1.50	1.61	1.69	1.89	2.05	2.31
Debt service/operating fund bal.	\$ 110,487	\$ 130,613	\$ 149,945	\$ 142,534	\$ 113,788	\$ 141,669	\$ 154,533	\$ 177,852	\$ 201,341	\$ 234,479	\$ 274,738	\$ 334,492	\$ 402,032
As % of op. exp. and DS	49%	55%	61%	57%	43%	54%	57%	61%	68%	77%	90%	107%	129%

⁽¹⁾ Includes interest on commercial paper.

Project Title	Active Project Budget	FY15	FY16	FY17	FY18	FY19	Total
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Sewer

Rehabilitation and Replacement

Clems Branch Pump Station Improvements	\$1,500,000	\$0	\$0	\$0	\$0	\$0	\$1,500,000
Irwin Creek WWTP Upgrade	\$13,000,000	\$0	\$0	\$0	\$0	\$0	\$13,000,000
Mallard Creek WRF Generator Project	\$2,500,000	\$0	\$0	\$0	\$0	\$0	\$2,500,000
Remove Aerial Crossings	\$500,000	\$0	\$0	\$0	\$0	\$0	\$500,000
Sanitary Sewer Line Rehabilitation	\$13,000,000	\$13,000,000	\$13,000,000	\$13,000,000	\$13,000,000	\$13,000,000	\$65,000,000
Site Work at All WWTPs	\$1,000,000	\$1,500,000	\$0	\$0	\$0	\$0	\$2,500,000
Work and Asset Management	\$790,400	\$770,400	\$0	\$0	\$0	\$0	\$1,560,800
WWTP Rehab and Upgrades	\$4,800,000	\$4,800,000	\$4,800,000	\$4,800,000	\$4,800,000	\$4,800,000	\$24,000,000
Rehabilitation and Replacement	\$37,090,400	\$20,070,400	\$17,800,000	\$17,800,000	\$17,800,000	\$17,800,000	\$110,560,800

Project Title	Active Project Budget	FY15	FY16	FY17	FY18	FY19	Total
Support Growth and Development							
Beaver Dam Creek West Branch Outfall		\$0	\$0	\$0	\$0	\$1,300,000	\$1,300,000
Campus Ridge Rd. Lift Station, Force Main, & Gravity Sewer		\$0	\$0	\$0	\$0	\$2,500,000	\$2,500,000
Cane Creek Southeast Tributary Trunk Sewer		\$0	\$0	\$0	\$0	\$700,000	\$700,000
Clarkes Creek to Ramah Church Road Trunk Sewer		\$2,900,000	\$0	\$0	\$0	\$0	\$2,900,000
Developer Constructed Sewer - Reimbursable		\$925,000	\$310,000	\$310,000	\$310,000	\$310,000	\$2,165,000
Dixie Berryhill Sewer Projects		\$0	\$0	\$5,540,000	\$0	\$0	\$5,540,000
Dixon Branch Trunk Sewer Extension		\$0	\$0	\$0	\$0	\$1,600,000	\$1,600,000
Fuda Creek Trunk Sewer		\$0	\$0	\$0	\$0	\$1,550,000	\$1,550,000
Goose Creek PS and Outfall		\$0	\$0	\$0	\$0	\$3,000,000	\$3,000,000
Gum Branch Outfall Replacement		\$1,000,000	\$3,000,000	\$0	\$0	\$0	\$4,000,000
Hidden Valley Trunk Sewer Replacement		\$1,300,000	\$0	\$0	\$0	\$0	\$1,300,000
Little Sugar Creek Lift Station		\$0	\$0	\$0	\$0	\$1,500,000	\$1,500,000
McCullough Branch LS Improvements		\$0	\$0	\$0	\$0	\$1,500,000	\$1,500,000
McDowell Basin Trunk Sewers		\$0	\$3,000,000	\$0	\$17,000,000	\$0	\$20,000,000
McKee Creek Tributary - Larkhaven GC Trunk Sewer		\$0	\$0	\$0	\$0	\$2,500,000	\$2,500,000
McMullen Creek Parallel Sewer & Flow EQ		\$0	\$0	\$7,000,000	\$0	\$0	\$7,000,000
Mountain Island Tributary Extension		\$0	\$0	\$0	\$0	\$510,000	\$510,000
North Fork of Crooked Creek Trunk Sewer		\$0	\$0	\$0	\$0	\$2,700,000	\$2,700,000
Paw Creek Tributary Outfall Replacement		\$4,550,000	\$0	\$0	\$0	\$0	\$4,550,000
South Davidson LS Replacement		\$0	\$0	\$400,000	\$0	\$0	\$400,000
Steele Creek LS Replacement	\$44,200,000	\$10,000,000	\$0	\$0	\$0	\$0	\$10,000,000
Torrence Creek Tributary Sewer to Hambright Rd.		\$0	\$0	\$0	\$0	\$975,000	\$975,000
Upper Clear Creek Tributary Sewer		\$0	\$0	\$0	\$0	\$1,000,000	\$1,000,000
Upper Taggart Creek Outfall Replacement	\$1,000,000	\$4,000,000	\$0	\$0	\$0	\$0	\$4,000,000
Little Paw Creek Lift Station, Force Main, & Gravity Sewer	\$4,400,000						\$0
McAlpine Creek WWTP Filters	\$32,000,000						\$0
Paw Creek Force Main Replacement	\$12,500,000						\$0
Ramah Creek Trunk Sewer	\$10,500,000						\$0
Steele Creek Parallel Outfall	\$12,000,000						\$0
Upper McAlpine Creek Relief Sewer (PHIIIA, PHIIIB, & PHIV)	\$39,600,000	\$0	\$0	\$4,500,000	\$0	\$0	\$4,500,000
Briar Creek Relief Sewer (PHII & PHIII)	\$37,100,000						\$0
Long Creek WWTP to 11 mgd	\$14,000,000						\$0
Lake Road Trunk Sewer		\$0	\$0	\$0	\$0	\$625,000	\$625,000
Matthews Commons Gravity Sewer & PS Elimination		\$1,000,000	\$0	\$0	\$0	\$0	\$1,000,000
New Service Installation Sewer		\$2,300,000	\$2,300,000	\$2,300,000	\$2,300,000	\$2,300,000	\$11,500,000
Street and Minor Sewer Main Extension		\$6,000,000	\$6,000,000	\$6,000,000	\$6,000,000	\$6,000,000	\$30,000,000
FY2016 Sewer Annexation		\$0	\$5,000,000	\$0	\$0	\$0	\$5,000,000
Support Growth and Development Total	\$207,300,000	\$33,975,000	\$19,610,000	\$26,050,000	\$25,610,000	\$30,570,000	\$135,815,000

Project Title	Active Project Budget	FY15	FY16	FY17	FY18	FY19	Total
Support for Other Public Projects and for Utilities Operations							
Sewer Lines in Streets to be Widened		\$1,850,000	\$2,850,000	\$1,850,000	\$1,850,000	\$1,850,000	\$10,250,000
WW Collect. Div. Site Needs		\$0	\$1,000,000	\$0	\$0	\$0	\$1,000,000
Support for Other Public Projects and for Utilities Operations Total		\$1,850,000	\$3,850,000	\$1,850,000	\$1,850,000	\$1,850,000	\$11,250,000
Regulatory							
PS & WAS Pipelines from Irwin to McAlpine		\$0	\$0	\$0	\$0	\$1,800,000	\$1,800,000
Sugar & Irwin WAS Equalization Tanks at McAlpine		\$130,000	\$880,000	\$0	\$0	\$0	\$1,010,000
Sugar Creek WWTP - Phase II		\$0	\$0	\$17,000,000	\$0	\$0	\$17,000,000
Thermal Hydrolysis System at McAlpine		\$0	\$0	\$0	\$7,710,000	\$49,400,000	\$57,110,000
Dewatering Complex Upgrade at McAlpine		\$0	\$0	\$440,000	\$2,970,000	\$0	\$3,410,000
Gas Conditioning System at Mallard		\$0	\$170,000	\$1,130,000	\$0	\$0	\$1,300,000
Regulatory Total		\$130,000	\$1,050,000	\$18,570,000	\$10,680,000	\$51,200,000	\$81,630,000
Sewer Total		\$73,045,400	\$44,580,400	\$64,270,000	\$55,940,000	\$101,420,000	\$339,255,800
Water							
Rehabilitation and Replacement							
Building and Facility Support		\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
Duke Dewatering Building and Residuals Storage Facility		\$0	\$0	\$0	\$470,000	\$3,120,000	\$3,590,000
Elevated Water Storage Tank Rehabilitation		\$650,000	\$0	\$100,000	\$200,000	\$300,000	\$1,250,000
Fire Hydrant Installation / Replacement		\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
Franklin Dewatered Residuals Storage Facility		\$0	\$660,000	\$4,470,000	\$0	\$0	\$5,130,000
Franklin Solids Handling		\$440,000	\$0	\$0	\$0	\$0	\$440,000
Franklin to Vest - Raw/Finished WM ROW		\$200,000	\$0	\$0	\$0	\$0	\$200,000
Franklin WTP - Renovation Main Bldg.		\$0	\$0	\$0	\$6,500,000	\$0	\$6,500,000
LIMS Replacement		\$50,000	\$0	\$0	\$0	\$0	\$50,000
N Meck WTP Generator		\$0	\$1,400,000	\$0	\$0	\$0	\$1,400,000
Technology Projects		\$1,275,000	\$1,275,000	\$1,275,000	\$1,275,000	\$1,275,000	\$6,375,000
UMS / Advantage Operations and 4.3 Upgrade		\$1,208,400	\$1,400,000	\$200,000	\$150,000	\$150,000	\$3,108,400
Vest FM & Pump Station to Franklin		\$300,000	\$2,030,000	\$0	\$0	\$0	\$2,330,000
Water Line Rehabilitation/Replacement		\$7,500,000	\$10,500,000	\$10,500,000	\$10,500,000	\$10,500,000	\$49,500,000
Water Metering Upgrade Program		\$600,000	\$1,200,000	\$1,400,000	\$1,400,000	\$1,600,000	\$6,200,000
WM - Freedom / Tuckaseegee Rd. Replacement		\$0	\$0	\$0	\$7,200,000	\$0	\$7,200,000
WTP Rehab and Upgrades		\$3,600,000	\$3,600,000	\$3,600,000	\$3,600,000	\$3,600,000	\$18,000,000
WTPs and BP Stations Upgrades and Rehab		\$700,000	\$100,000	\$100,000	\$100,000	\$100,000	\$1,100,000
Sulkirk Road 24' Water Main Replacement	\$7,300,000						\$0
Rehabilitation and Replacement	\$7,300,000	\$16,923,400	\$22,565,000	\$22,045,000	\$31,795,000	\$21,045,000	\$114,373,400

Project Title	Active Project Budget	FY15	FY16	FY17	FY18	FY19	Total
Regulatory Requirements							
Water Treatment Regulatory Improvements		\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
Water Distribution Flow Monitoring Program		\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
Water Quality Sampling Stations		\$500,000	\$700,000	\$700,000	\$700,000	\$0	\$2,600,000
Regulatory Requirements Total		\$700,000	\$900,000	\$900,000	\$900,000	\$200,000	\$3,600,000
Support for Other Public Projects and for Utilities Operations							
GIS Facilities Mapping		\$620,000	\$200,000	\$200,000	\$200,000	\$0	\$1,220,000
Independence Blvd. Widening - Water and Sewer		\$0	\$0	\$0	\$10,000,000	\$0	\$10,000,000
Streetcar Program Utility Improvements Phase II		\$1,200,000	\$0	\$0	\$0	\$0	\$1,200,000
Water Lines for Street Improv.		\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$12,500,000
Security Improvements - Water System		\$0	\$200,000	\$200,000	\$200,000	\$0	\$600,000
Support for Other Public Projects and for Utilities Operations Total		\$4,320,000	\$2,900,000	\$2,900,000	\$12,900,000	\$2,500,000	\$25,520,000
Support Growth and Development							
978 Booster Pump Station		\$0	\$0	\$0	\$5,000,000	\$0	\$5,000,000
978' North-South Transmission Main (formerly Hwy. 21 WM)		\$0	\$8,000,000	\$0	\$0	\$0	\$8,000,000
978 Zone Elevated Storage			\$4,500,000	\$0	\$0	\$0	\$4,500,000
Camp Stewart and Rocky River Church Rd 12" Water Main		\$0	\$0	\$0	\$0	\$1,500,000	\$1,500,000
Dixie Berryhill Water Projects		\$0	\$0	\$5,400,000	\$0	\$0	\$5,400,000
Dixie River Road 24" Water Main		\$0	\$0	\$0	\$900,000	\$0	\$900,000
Gibbon / Nevin to Mallard Tank Transmission Main		\$0	\$0	\$0	\$3,000,000	\$0	\$3,000,000
Lee S. Dukes WTP/Stumptown Rd. Transmission Main		\$0	\$0	\$0	\$3,650,000	\$0	\$3,650,000
North Tryon Transmission Main		\$0	\$2,000,000	\$0	\$0	\$0	\$2,000,000
Northeast Water Transmission Main		\$0	\$4,200,000	\$0	\$25,700,000	\$0	\$29,900,000
Plaza BPS Intake Transmission Main -NEWT Extension		\$0	\$0	\$1,250,000	\$0	\$0	\$1,250,000
Plaza Rd. BPS to W.T. Harris TM		\$0	\$0	\$500,000	\$0	\$0	\$500,000
W.T. Harris / Albemarle Rd.		\$0	\$5,800,000	\$0	\$0	\$0	\$5,800,000
Water Dist. System Study		\$1,400,000	\$0	\$0	\$0	\$0	\$1,400,000
WM: Main St. Huntersville from Gilead to Ramah Ch		\$800,000	\$0	\$0	\$0	\$0	\$800,000
New Service Installation Water		\$5,500,000	\$5,500,000	\$5,500,000	\$5,500,000	\$5,500,000	\$27,500,000
Street and Minor Water Main Extensions		\$4,200,000	\$4,200,000	\$4,200,000	\$4,200,000	\$4,200,000	\$21,000,000
FY2016 Water Annexation		\$0	\$5,000,000	\$0	\$0	\$0	\$5,000,000
Support Growth and Development Total		\$11,900,000	\$39,200,000	\$16,850,000	\$47,950,000	\$11,200,000	\$127,100,000
Water Total		\$33,843,400	\$65,565,000	\$42,695,000	\$93,545,000	\$34,945,000	\$270,593,400
Grand Total		\$106,888,800	\$110,145,400	\$106,965,000	\$149,485,000	\$136,365,000	\$609,849,200
Rehabilitation and Replacement	\$224,934,200						
Support Growth and Development	\$262,915,000						
Regulatory	\$85,230,000						

Project Title	Active Project Budget	FY15	FY16	FY17	FY18	FY19	Total
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Support Public Projects and Utilities Operations	\$36,770,000						
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