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Water & Sewer Fund

Proposed FY 2013 Rates

April 19, 2012

Outline

- Completed Major Plant Projects
- Rate Objectives & Strategies
- Key Issues
- Capital Improvement Program
- Customer Consumption
- Proposed Rates

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Brown Water Plant

New Finished Water Pumping Building

Brown Water Plant

New Finished Water Pumping Building

Brown Water Plant

Filters 1 - 4 Rehabilitation

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Williams Water Plant

Painting, Mud Valve Replacement & Stormwater Rehabilitation

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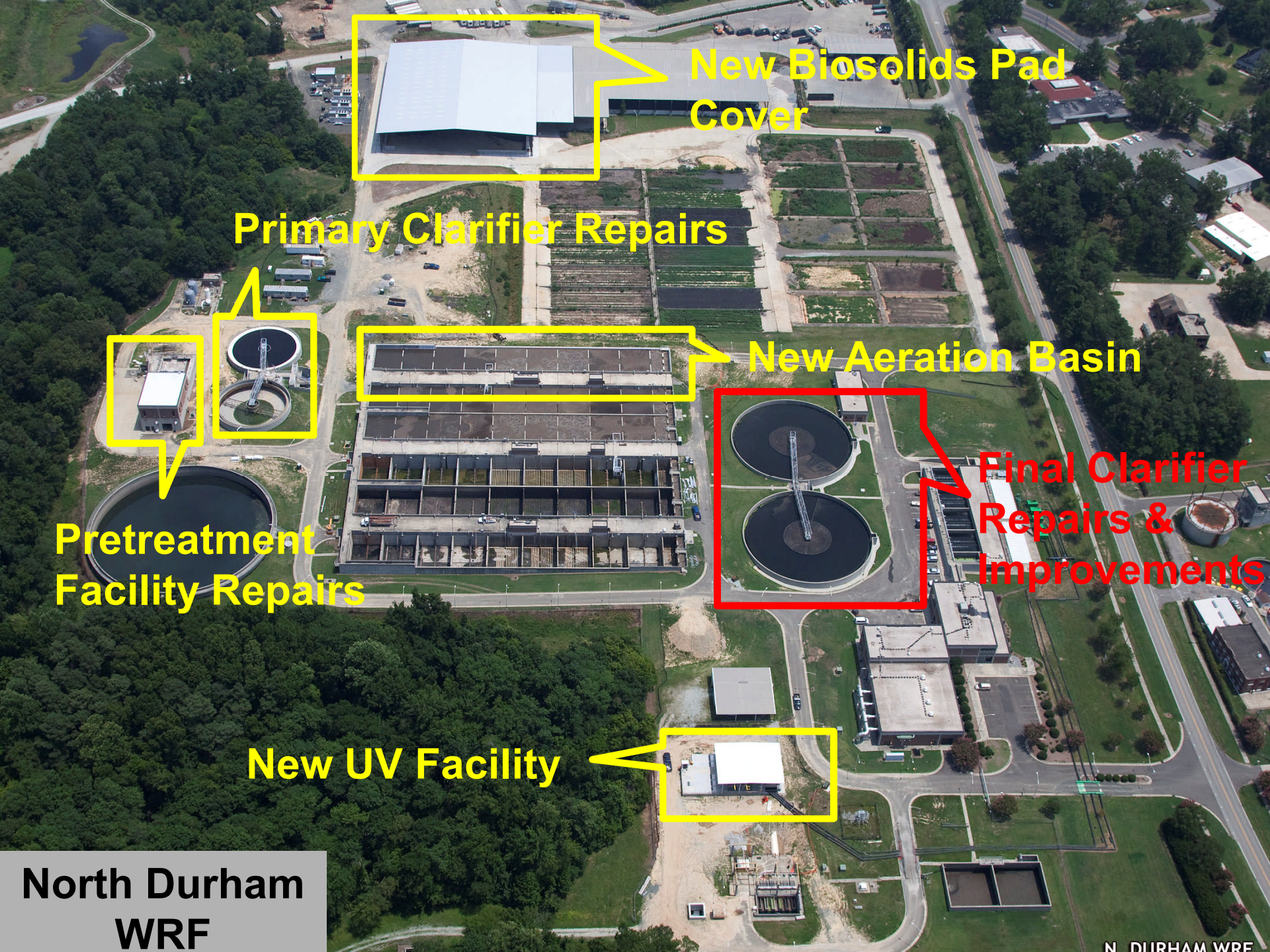
South Durham WRF

Gas Holder, Grit Chamber
& Clarifier Rehabilitation


New Biosolids Pad Cover
Primary Clarifier Repairs
New Aeration Basin
Final Clarifier Repairs & Improvements
Pretreatment Facility Repairs
New UV Facility
North Durham WRF
N. DURHAM WRF

North Durham WRF

New Aeration Basin

North Durham WRF

New UV Facility
Sludge Pad Cover

Rate Setting Objectives

- Sustainability
  - Address increasing operating costs
  - Fund long-term capital needs
- Conservation
  - Continue tiered rate approach to promote conservation
  - Cost-Based
  - Recognize impacts of year-round irrigation schedule
- Affordability
  - Fairness and Equity

Multi-Year Rate Strategy

- Cover increasing operating and regulatory costs via moderate sustainable rate increases
- Provide funding for CIP implementation
- Issue revenue bonds to smooth impact of rate increases
- Raise rates sufficiently to cover future debt service covenants on large revenue bond issues
- Reward conservation efforts by providing lower rates for water efficient customers

Key Issues

- Capital Project budget is $31.65 M in FY13
  - ➢ $337 M over next five years
- Revenue bond debt issues will be necessary in FY14 to FY16 to fund major capital projects
- Water efficiency/restrictions and economy will keep demand relatively flat
- Concerns with raising rates in slow economy
- Prudent use of reserves
- Maintaining adequate debt service coverage to minimize interest expense

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Capital Improvement Program

Overall CIP Strategy

- Continue to fund rehabilitation programs for dams, plants, sewer collection and water distribution systems
- Continue Jordan Lake initiatives
  - Planning, environmental and regulatory
  - Delay need for large capital investment
- Implement necessary improvements to meet regulatory requirements, compliance with Falls and Jordan Lake Rule vital
- Continue to fund utility efficiencies

Typical Timeframes For Projects

- Lake Development/New Plants – 10 Years
- Plant Expansion/Renovation – 4 Years
- Major Pipelines – 4 Years
- Rehabilitation Projects – 2 years

Capital Improvement Program

- Anticipate significant spending as more projects move out of the design phase and into construction phase
  - FY13 - $31.65 M
  - FY14 - $84.40 M
  - FY15 - $91.60 M
- Major construction projects will be occurring at all facilities

Proposed Capital Funding

(in $Million)

	FY 13	FY 14	FY 15	FY 16	FY 17	Total
Water Projects	$9.85	$30.40	$44.50	$36.70	$15.30	**$136.75**
Sewer Projects	$21.80	$54.00	$47.10	$28.50	$48.60	**$200.00**
Required CIP Funding	**$31.65**	**$84.40**	**$91.60**	**$65.20**	**$63.90**	**$336.75**

CIP – Water Projects

Project	FY 2012-13 millions
Automatic Meter Replacement	$0.80
Lake Michie & Little River Dam Rehabilitation	$0.50
Southern Reinforcing Main – Phase II	$1.10
Downtown Reinforcing Main	$0.25
Water Extensions & Improvements	$2.00
Water - Future Supply/Source Water Protection	$0.50
Water Main Rehabilitation	$2.10
Water Facilities Rehabilitation	$1.30
Water Residuals Handling	$1.30
Total Water	**$9.85**

CIP – Wastewater Projects

Project	FY 2012-13 millions
Facility Paving	$0.60
Orange County Development Zone	$0.70
Sewer Collection System Rehabilitation	$7.50
Sewer Extensions & Improvements	$1.50
Wastewater Process Rehabilitation	$6.50
Water Management Facility Expansion	$5.00
Total Wastewater	**$21.80**

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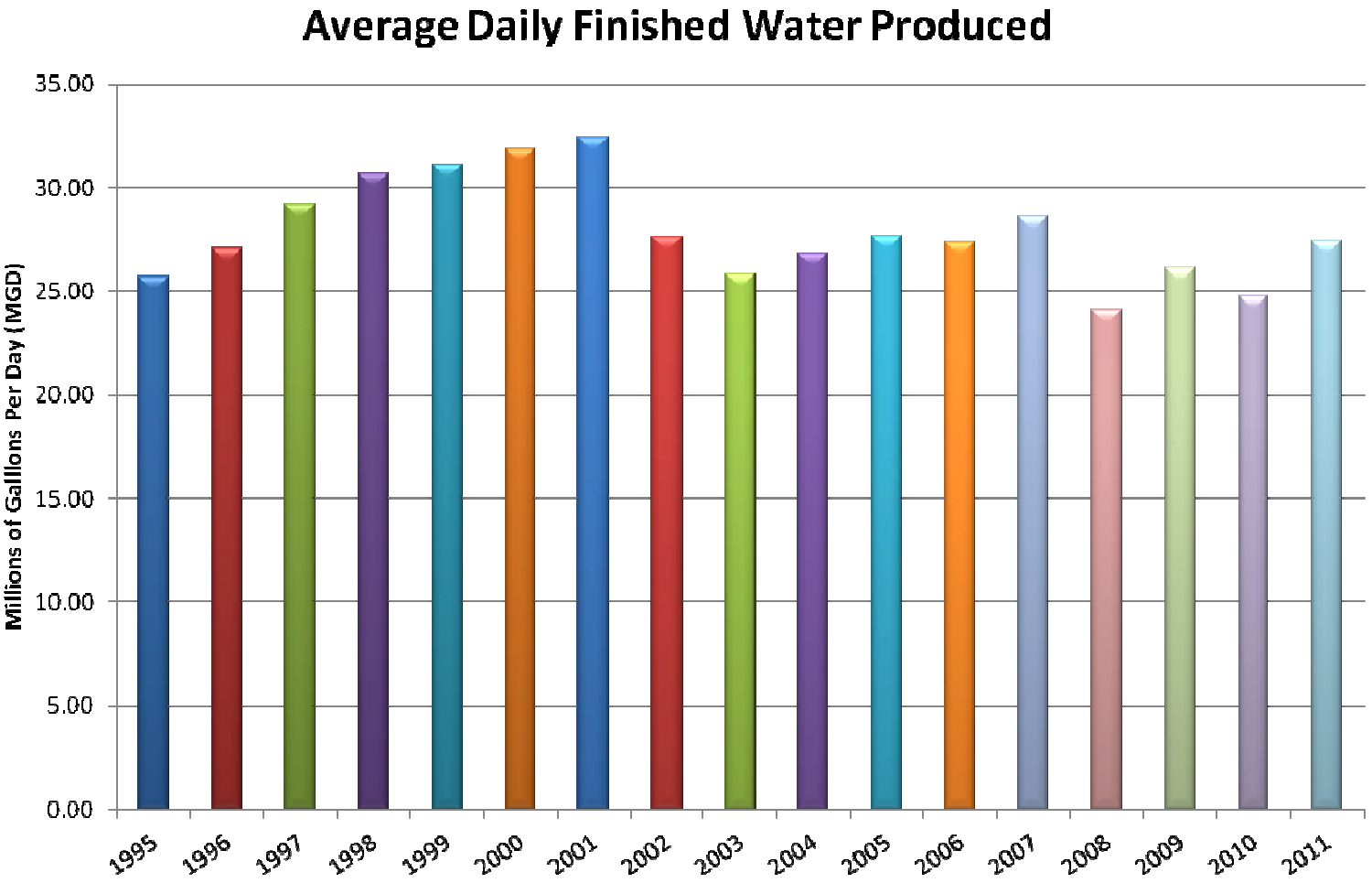
Customer Consumption

Water Production – 1995 - 2011



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Consumption by Category - CY 2011

Customer Type	% of All Consumption
Single Family Residential (SFR) Tiers 1-5	38.9%
Nonresidential (ICI) Institutional, Commercial, Industrial	56.0%
Irrigation Only (IO)	5.1%

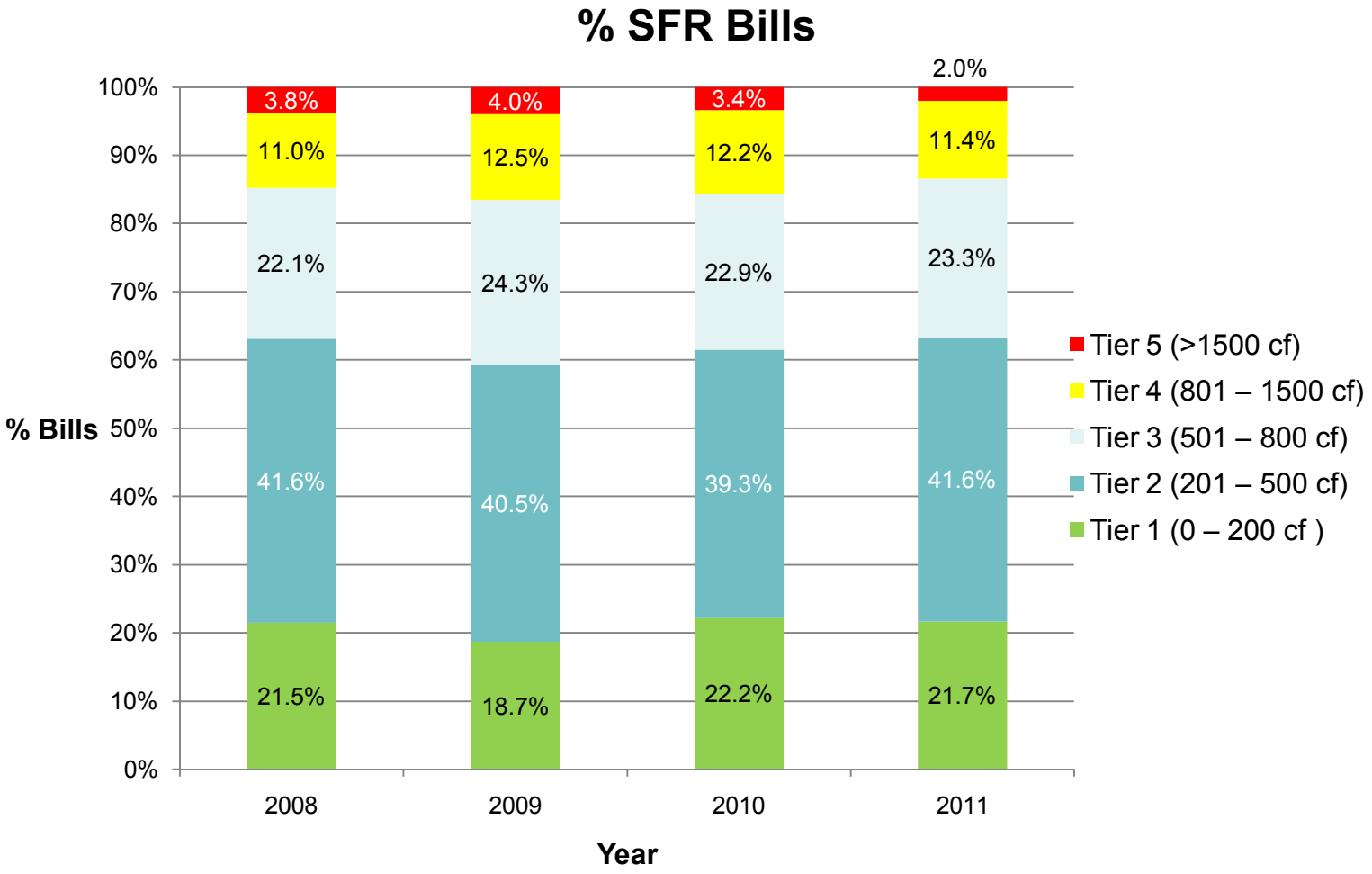
Percent of all CY 2011 Consumption
(SFR, ICI,IO) by Tier

Tier	% of Consumption
Tier 1 (0 – 200 cf)	14.5%
Tier 2 (201 – 500 cf)	14.2%
Tier 3 (501 – 800 cf)	61.8%
Tier 4 (801 – 1500 cf)	3.2%
Tier 5 (>1500 cf)	6.3%

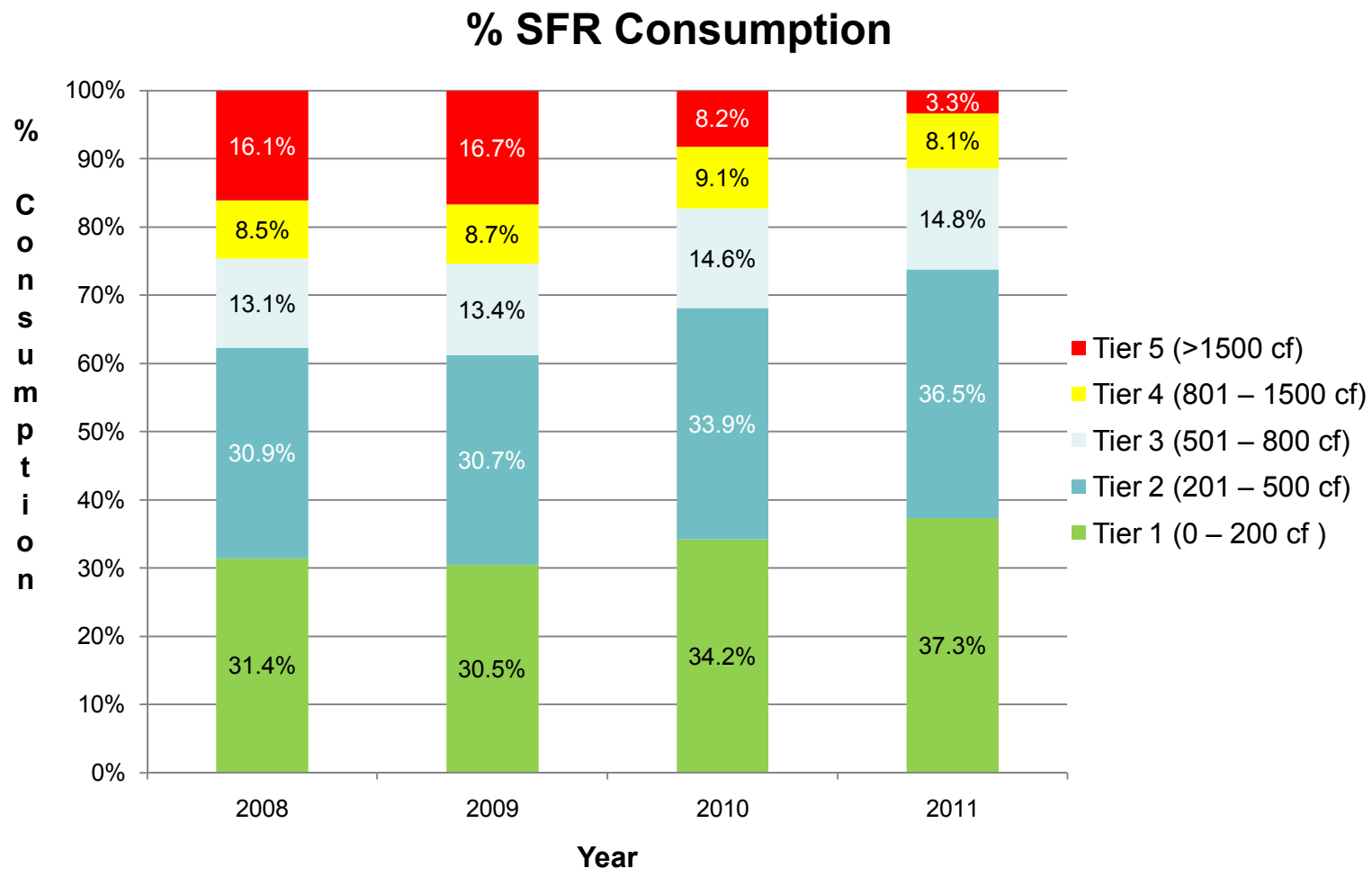
Percent of all Consumption Comparison
(SFR, ICI,IO) by Tier

Tier	% of Consumption	
	2010	2011
Tier 1 (0 – 200 cf)	14.4%	14.5%
Tier 2 (201 – 500 cf)	14.3%	14.2%
Tier 3 (501 – 800 cf)	55.9%	61.8%
Tier 4 (801 – 1500 cf)	4.1%	3.2%
Tier 5 (>1500 cf)	11.3%	6.3%

Percent of SFR Bills by Tiers – CY 2011



Percent of SFR Consumption by Tiers CY 2011



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FY 2012 - 2013
Proposed Water & Sewer Rates

Revenue Bond/Debt Strategy

- Spend down ~$60 M in reserves over time to:
  - minimize revenue bond requirements
  - maintain 180 days operating costs reserve - about $30 M
- Shift revenue bonds from 20 year to 30 year to level out and minimize rate increases
- Shifted Rate Model to cash flow model instead of appropriation based
- Anticipate spending $208 M from FY13 – FY15 as projects transition from design to construction
- Projected Revenue Bonds - $150M FY14 & $115 M FY16

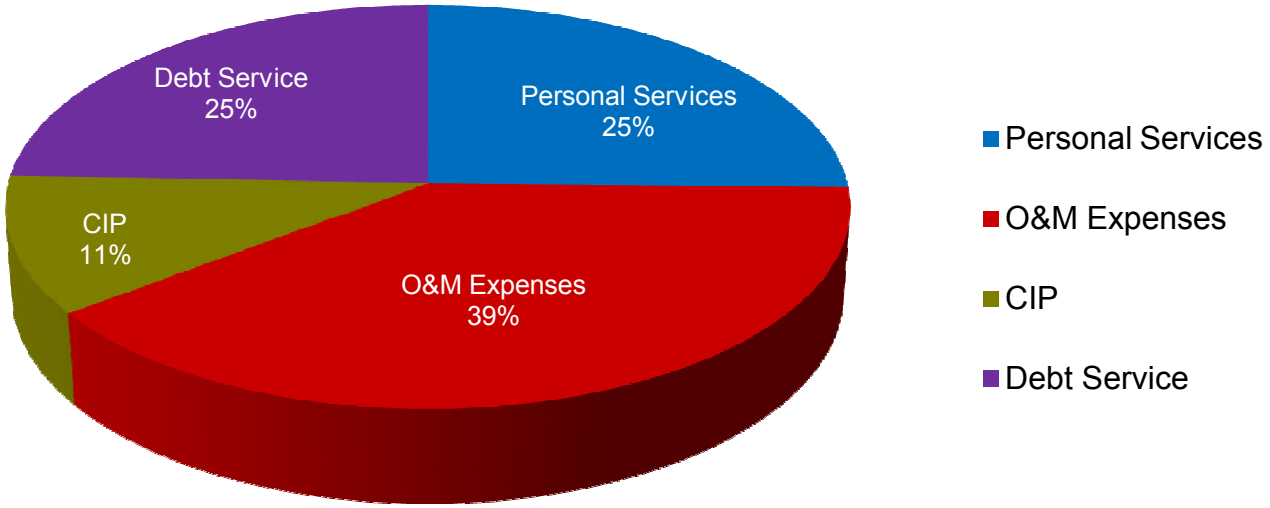
FY13 Water & Sewer Rates - Proposed

- Increases to the water and sewer service charges
- Modest increase water consumption charges (all tiers)
- Increase to the sewer consumption charges, uniform for all customers
- Based on usage, customers will see different percentage increases in actual bills
- Will impact residential customers with higher rates as usage moves into higher tiers:
  - Targets elective water uses
  - Minimizes impact to lower use customers
- Continue to bill Commercial, Multi-Family Residential, Industrial and Institutional customers at Tier 3 rates
- Outside double rates continue

Proposed FY 13 Rates Will

- Cover:
  - Operating Budget (w/ New Initiatives)
  - Pay for Performance
  - Pay-Go CIP Funding
  - Debt
  - Fleet Replacement Fund
  - Radio Replacement Project
- Maintain proper debt covenants
- Maintain operating reserves

Major FY2013 Budget Components



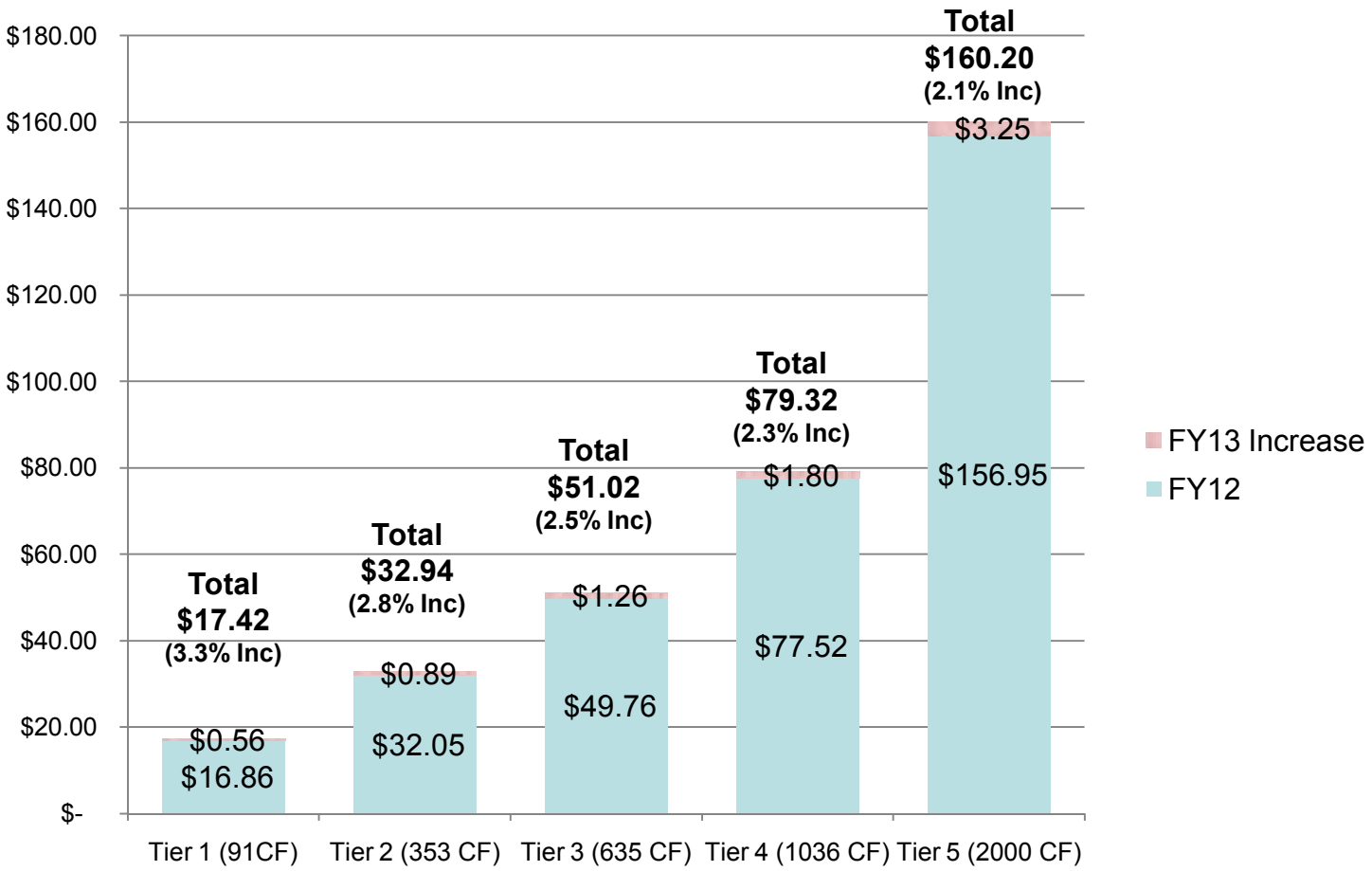
Proposed FY 2013 SFR Rate Increase

	FY 12 Rates	FY 13 Rates
Monthly Water Rates		
Service Charge	$ 5.56	$ 5.77
Volume Charge - Tiered Rates (per 100 cubic foot - ccf)		
Tier 1 (0 - 2 ccf)	$ 1.73	$ 1.74
Tier 2 (>2 - 5 ccf)	$ 2.60	$ 2.62
Tier 3 (>5 - 8 ccf)	$ 2.85	$ 2.87
Tier 4 (>8 - 15 ccf)	$ 3.72	$ 3.75
Tier 5 (>15 ccf)	$ 5.57	$ 5.62
Monthly Sewer Rates		
Service Charge	$ 6.49	$ 6.73
Volume Charge (per ccf)	$ 3.56	$ 3.67

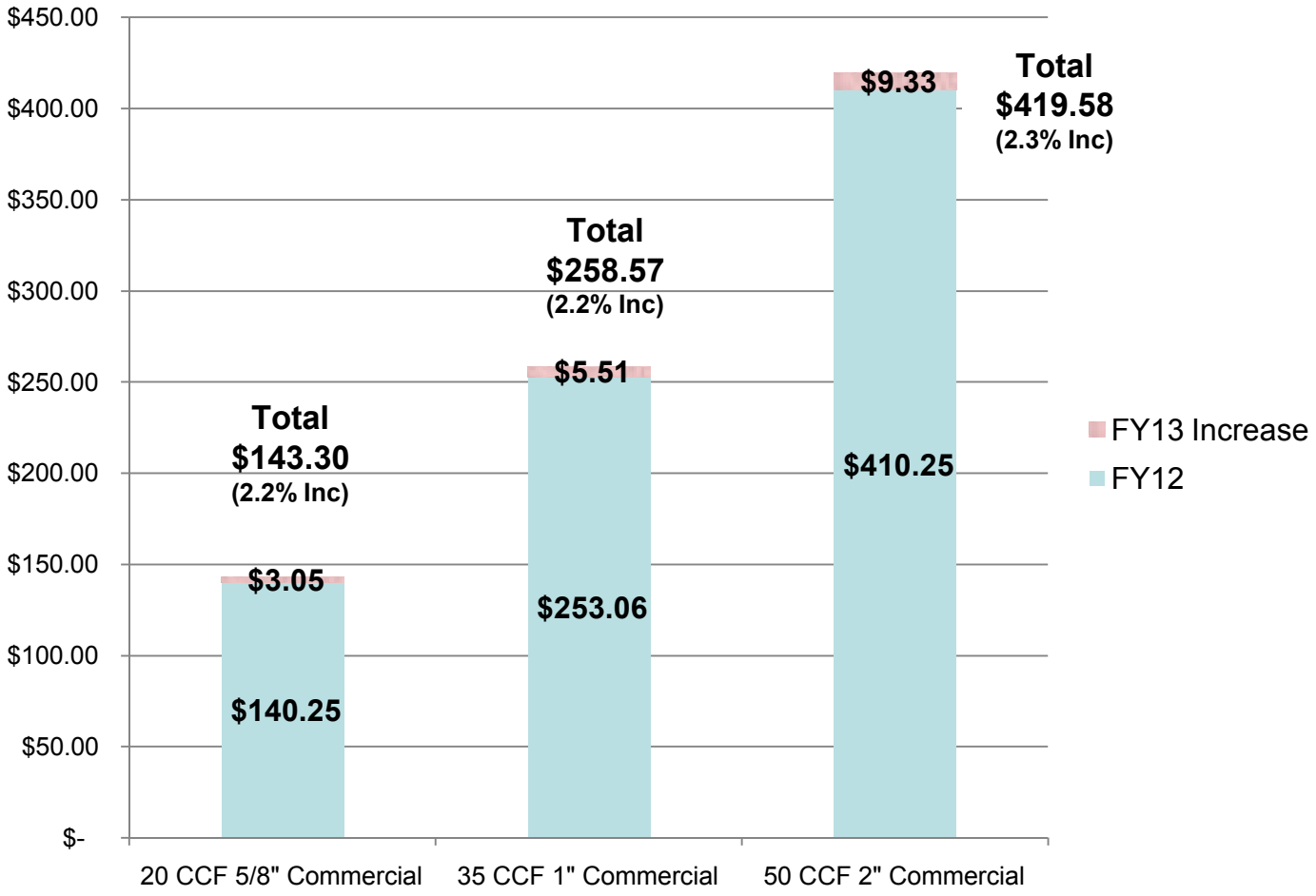
Comparison of Monthly Average Residential Inside Water & Sewer Bill FY12 vs. FY13

	Min % Change in Tier	Avg. Customer % Change in Tier	Max % Change in Tier
Tier 1 (0-200 cf)	3.73%	3.32%	3.05%
$ Increase	***$0.45***	***$0.56***	***$0.69***
Volume used (cf)	*000*	*91*	*200*
Tier 2 (201-500 cf)	3.04%	2.78%	2.63%
$ Increase	***$0.69***	***$0.89***	***$1.08***
Volume used (cf)	*201*	*353*	*500*
Tier 3 (501-800 cf)	2.65%	2.53%	2.44%
$ Increase	***$1.09***	***$1.26***	***$1.47***
Volume used (cf)	*501*	*635*	*800*
Tier 4 (801-1500 cf)	2.43%	2.32%	2.20%
$ Increase	***$1.47***	***$1.80***	***$2.45***
Volume used (cf)	*801*	*1036*	*1500*
Tier 5 (>1500 cf)	2.20%	2.07%	1.75%
$ Increase	***$2.45***	***$3.25***	∞
Volume used (cf)	*1501*	*2000*	∞

Comparison of Monthly Average Residential Inside Water & Sewer Bill FY12 vs. FY13



Comparison in Monthly Commercial Inside Bill FY12 vs. FY13



Long Term Effect of Strategic But Moderate Increases

- Cover increasing operating and maintenance costs
- Fund increasing rehabilitation and renewal costs
- Provide source for pay-as-you-go funding for capital projects
- Limit the need for large revenue bond spending
- Keep rates lower over extended periods of time
- Strengthen the financial position of the utility and the City

UNC ENVIRONMENTAL FINANCE CENTER

NC Water and Wastewater Rates Dashboard
Rates: March 2012

Durham

Rates Comparison | Financial Benchmarks | Characteristics | Links

Select residential bill and consumption amount

Water Bill Sewer Bill Water + Sewer

0 15

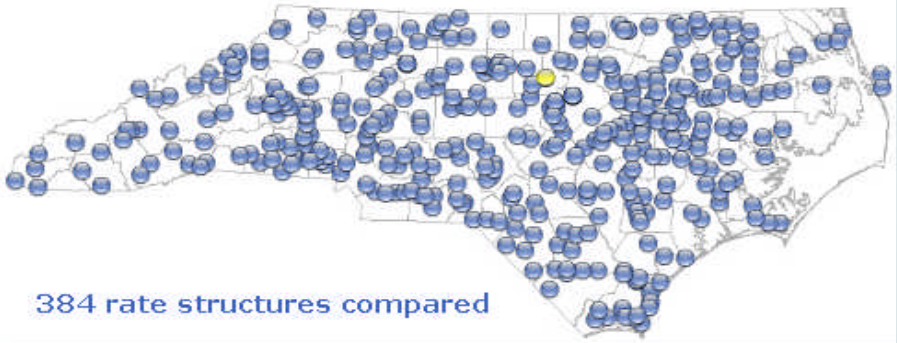
5,000 gallons
668 cubic feet

Monthly Water & Sewer Bill: $51.91

Select your comparison group

All Utilities

Comparing to all utilities in the survey

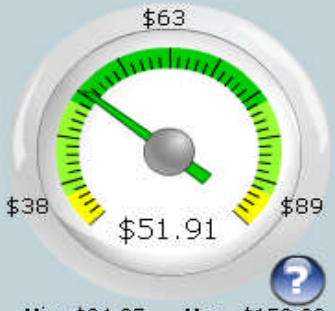


384 rate structures compared

Observe the effects of raising rates by: 0%

Bill Comparison

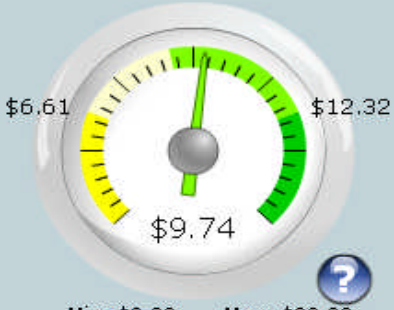
Water & Sewer Bill at 5,000 gallons



Min. $24.85 Max. $152.00

Conservation Signal

Water & Sewer Price/1,000 Gallons after 10,000 Gallons



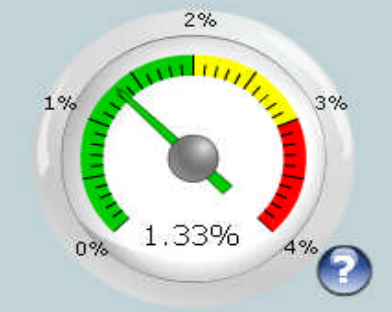
Min. $0.00 Max. $33.00

Cost Recovery

Water & Sewer Op. Revenues / Op. Expenses inc. Depreciation (FY11)

Affordability

Water & Sewer Bills as % MHI in 2010



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NC Water and Wastewater Rates Dashboard
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Select residential bill and consumption amount

Water Bill Sewer Bill Water + Sewer

0 15

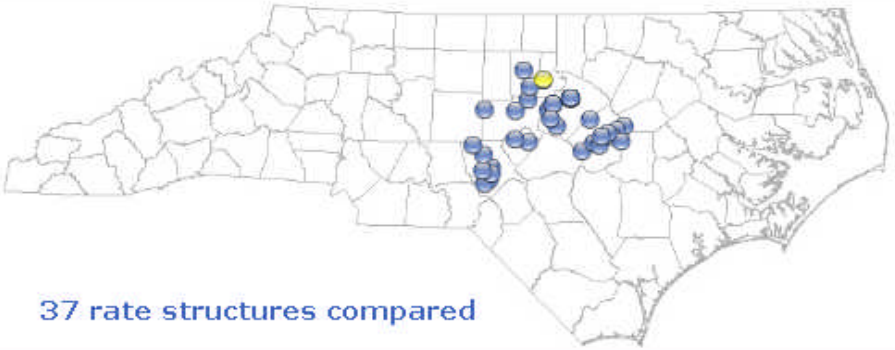
5,000 gallons
668 cubic feet

Monthly Water & Sewer Bill: $51.91

Select your comparison group

Same Region COG

Comparing to utilities also in the Triangle J Council of Government region

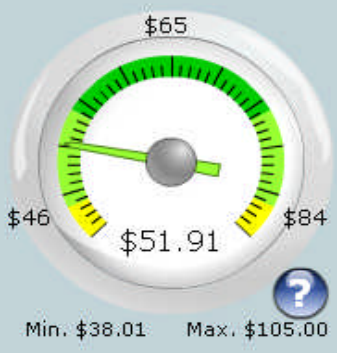


37 rate structures compared

Observe the effects of raising rates by: 0%

Bill Comparison

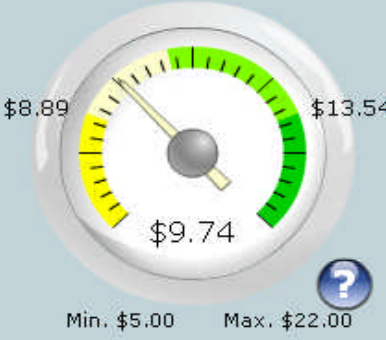
Water & Sewer Bill at 5,000 gallons



Min. $38.01 Max. $105.00

Conservation Signal

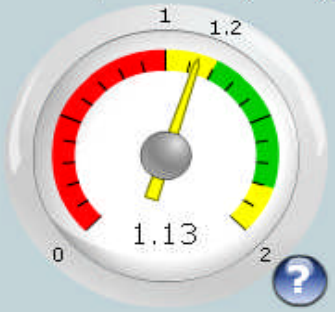
Water & Sewer Price/1,000 Gallons after 10,000 Gallons



Min. $5.00 Max. $22.00

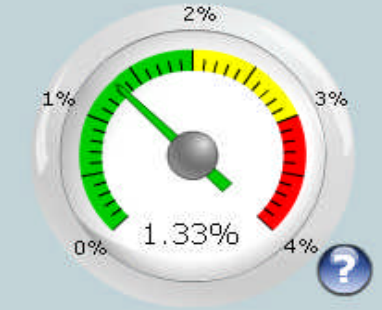
Cost Recovery

Water & Sewer Op. Revenues / Op. Expenses inc. Depreciation (FY11)



Affordability

Water & Sewer Bills as % MHI in 2010



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UNC ENVIRONMENTAL FINANCE CENTER

NC Water and Wastewater Rates Dashboard
Rates: March 2012

Durham

Rates Comparison | Financial Benchmarks | Characteristics | Links

Select residential bill and consumption amount

(•) Water + Sewer ( ) Water Bill ( ) Sewer Bill

0 — 15

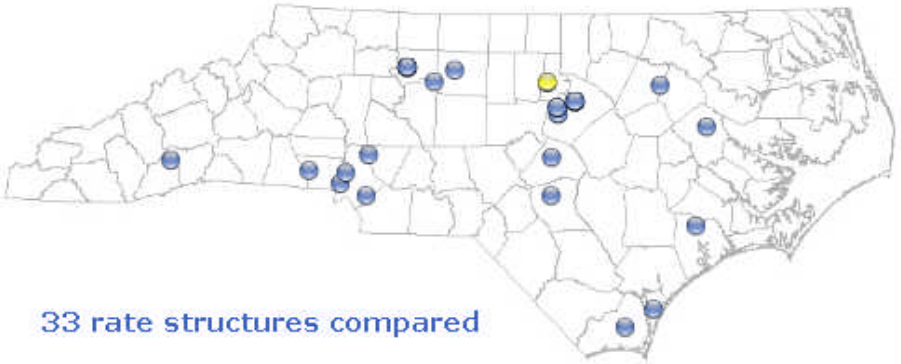
5,000 gallons
668 cubic feet

Monthly Water & Sewer Bill: $51.91

Select your comparison group

Similar Number of Accounts

Comparing to utilities also with more than 25,000 accounts

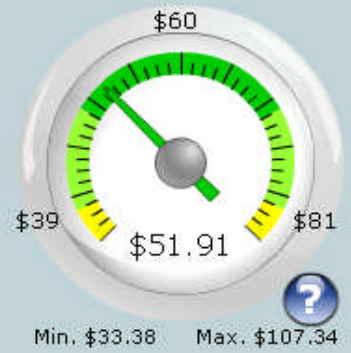


33 rate structures compared

Observe the effects of raising rates by: 0%

Bill Comparison

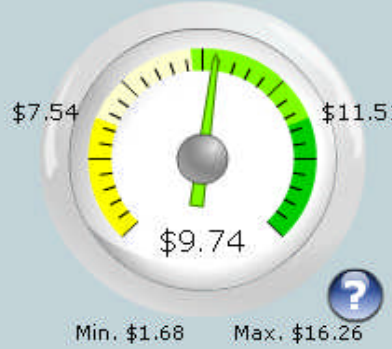
Water & Sewer Bill at 5,000 gallons



Min. $33.38 Max. $107.34

Conservation Signal

Water & Sewer Price/1,000 Gallons after 10,000 Gallons



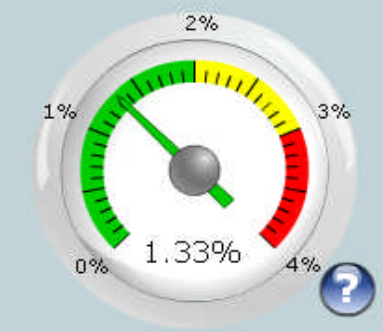
Min. $1.68 Max. $16.26

Cost Recovery

Water & Sewer Op. Revenues / Op. Expenses inc. Depreciation (FY11)

Affordability

Water & Sewer Bills as % MHI in 2010



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Monthly Water & Sewer Bill Comparison*

	FY 2011 Average Bill	FY 2012 Average Bill	Proposed FY 2013 increase
Durham	**$ 41.34**	**$ 43.30**	2.6%
Winston Salem	$ 24.98	$ 27.11	8% - 9%
Raleigh	$ 36.58	$ 40.47	7% - 9%
Charlotte	$ 35.86	$ 40.05	
Fayetteville PWC	$ 40.00	$ 40.22	4% water; 3% sewer
Greensboro	$ 31.34	$ 31.34	8.5%
CFPUA/Wilmington	$ 44.07	$ 50.76	5% water; 13% sewer
Cary	$ 48.70	$ 51.46	4%
OWASA	$ 69.25	$ 70.66	0%
Average	*$ 41.35*	*$ 43.93*	

* 4000 gallons (5.35 CCF) monthly usage (water & sewer service) – Tier 3.

Capital Facilities Fee (CFF)

- Charged for new meter installations
- CFF pays only for new expansion projects
- No increases proposed for FY 2013

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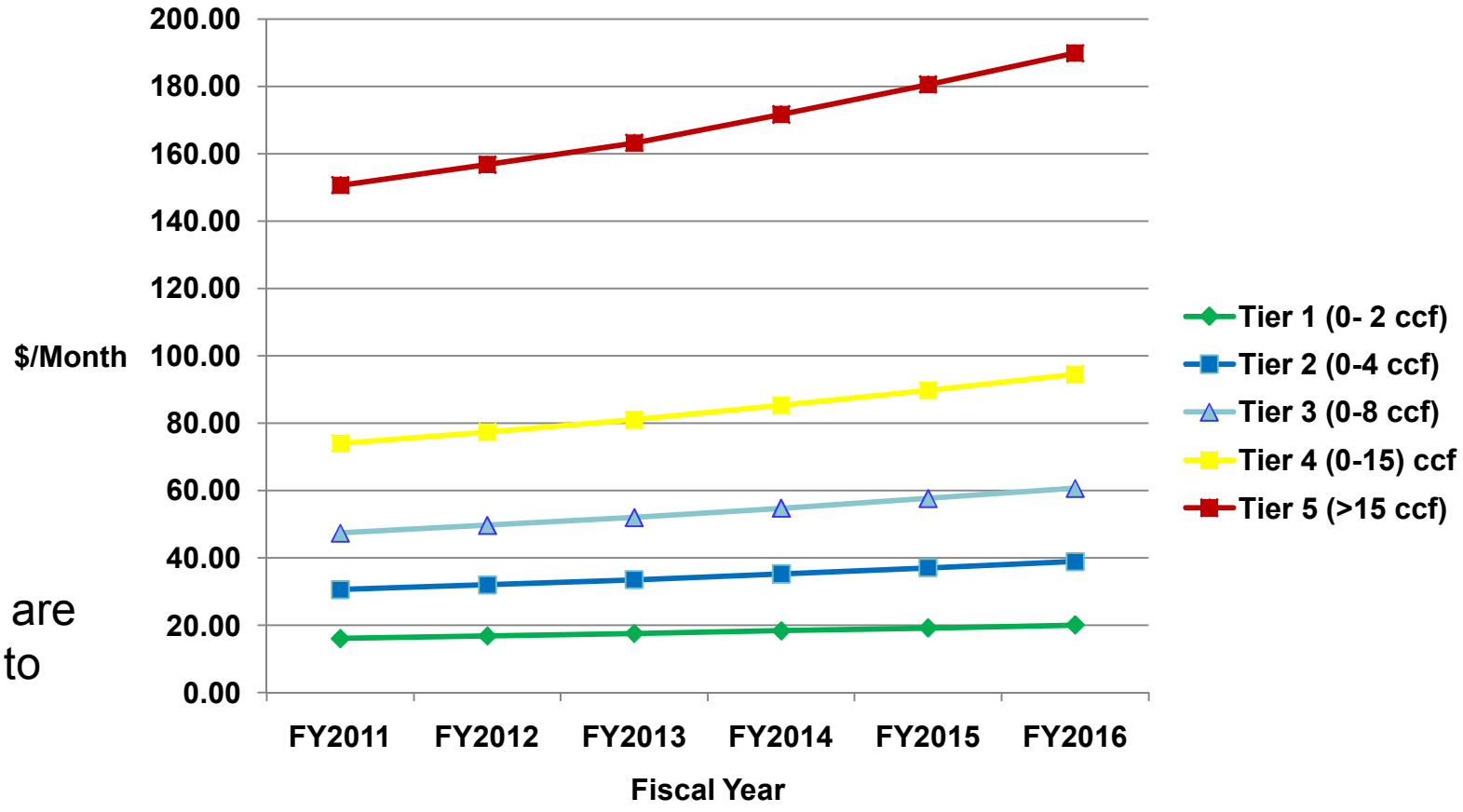
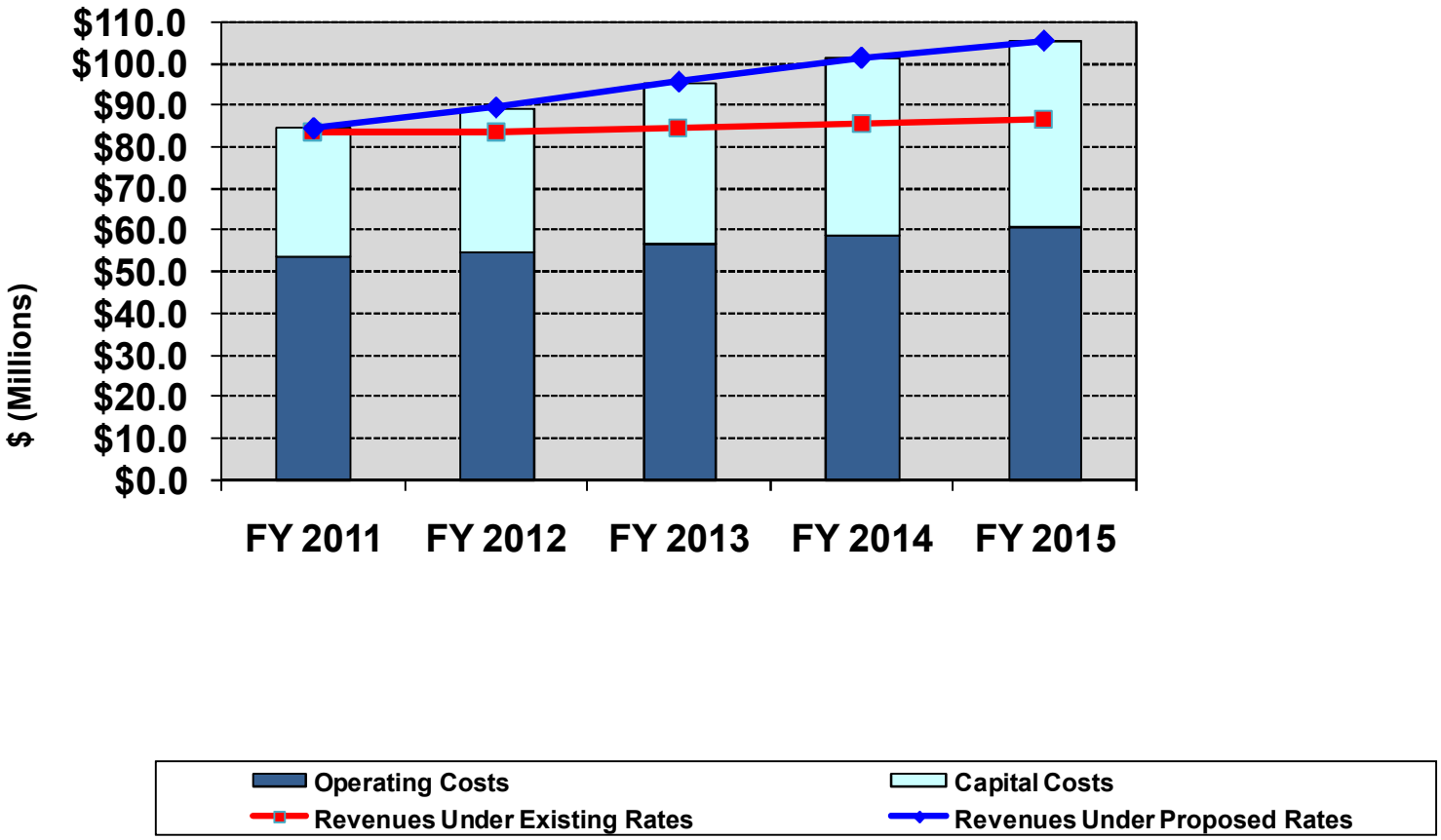
Questions

Projected Average SFR Monthly Cost per Tier – FY 12



Rate increases are projected to be ~4% annually

Projection of Water & Sewer Revenue Requirements – FY 12