



Water & Sewer Fund

Proposed FY 2011 - 2012 Rate Structure/CIP

May 5, 2011

DURHAM



1869
CITY OF MEDICINE

Teer Quarry





Outline

- Rate Objectives & Strategies
- Key Issues
- Capital Improvement Program
- Customer Consumption
- Proposed Rates



Rate Setting Objectives

- Sustainability
 - Increasing operating costs
 - Long-term capital needs
- Conservation
 - Tiered rate approach to promote conservation
 - Cost-Based
 - Recognize impacts of year-round irrigation schedule
- Affordability
 - Fairness and Equity



Multi-Year Rate Strategy

- Increase rates sufficiently in FY12 to continue sustainable rate increases in future years
- Provide large revenue bond funding for CIP implementation
- Issue revenue bonds to flatten 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 contentious customers



Key Issues

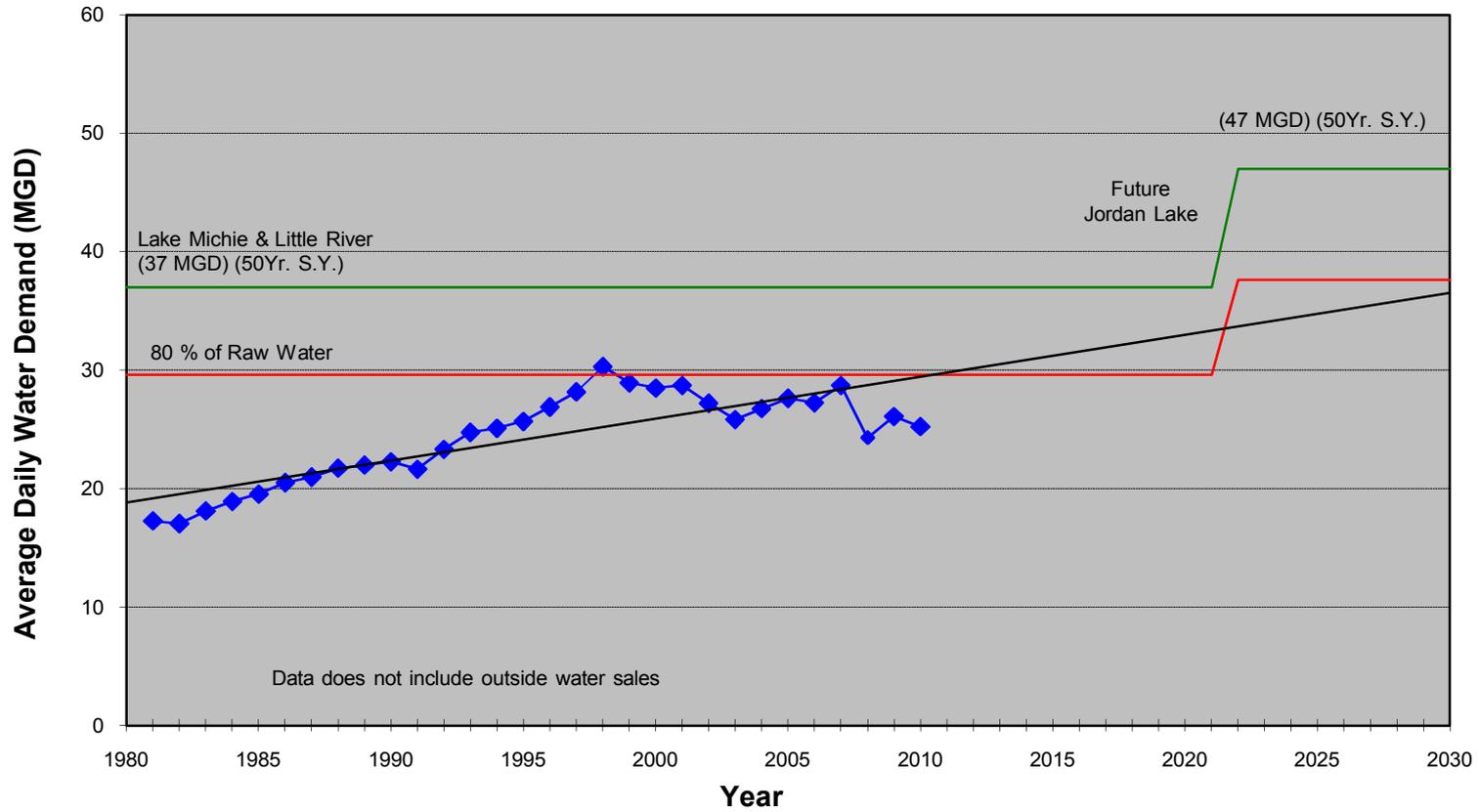
- Capital Project budget is \$32.96 M in FY12
 - \$249 M over next five years
- Water efficiency/restrictions will keep demand relatively flat
- Revenue bond debt issues will be necessary over FY12 to FY16 to fund major capital projects
 - Projected \$60 M in FY11 & \$140 M in FY13
 - Anticipate \$227 M in construction spending over next 3 fiscal years
- U.S. economic downturn continues to have significant impact on our customers



Capital Improvement Program

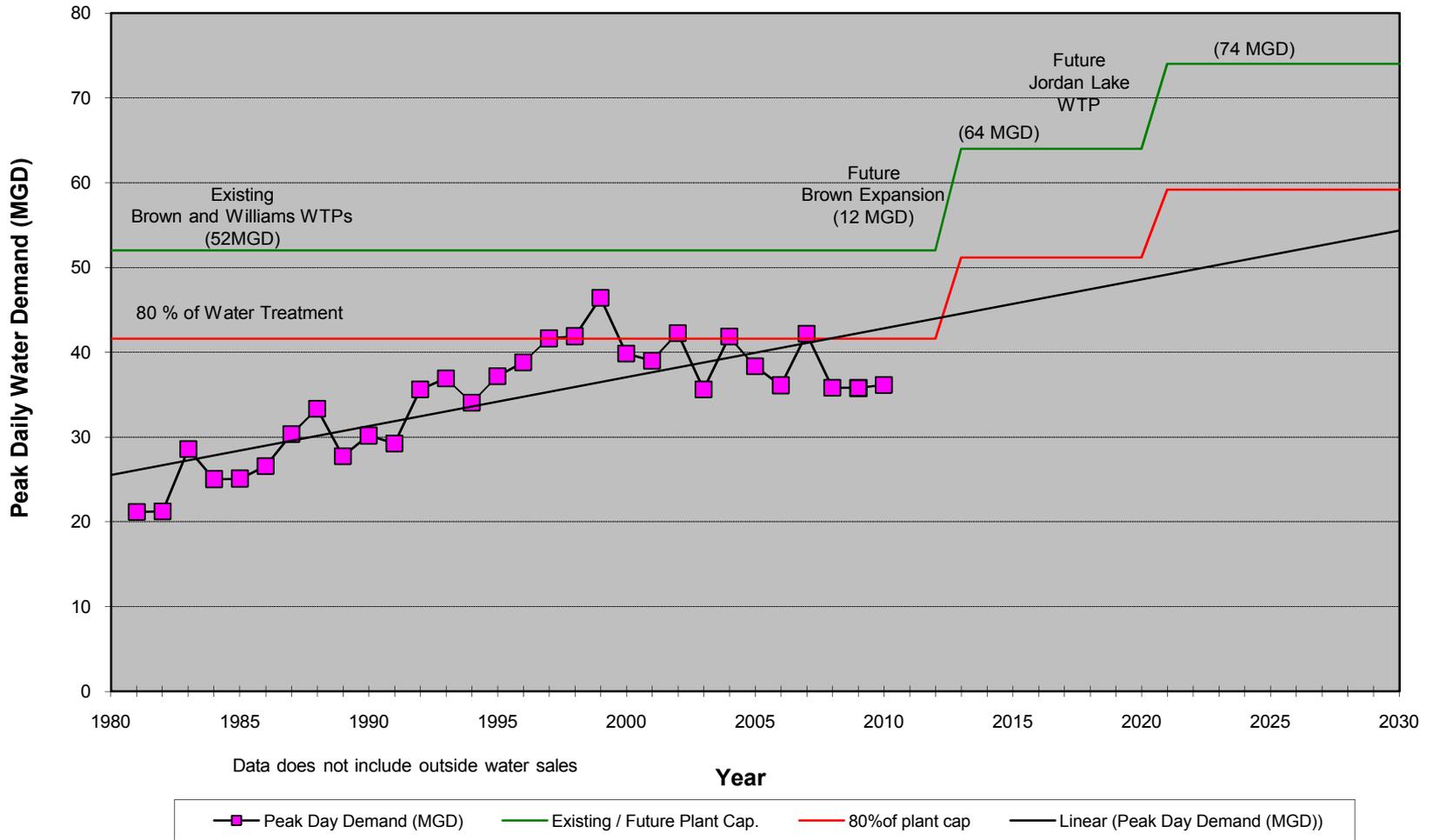
Future Water Demand Projections

Department of Water Management - 2011
Raw Water Supply (calendar year)

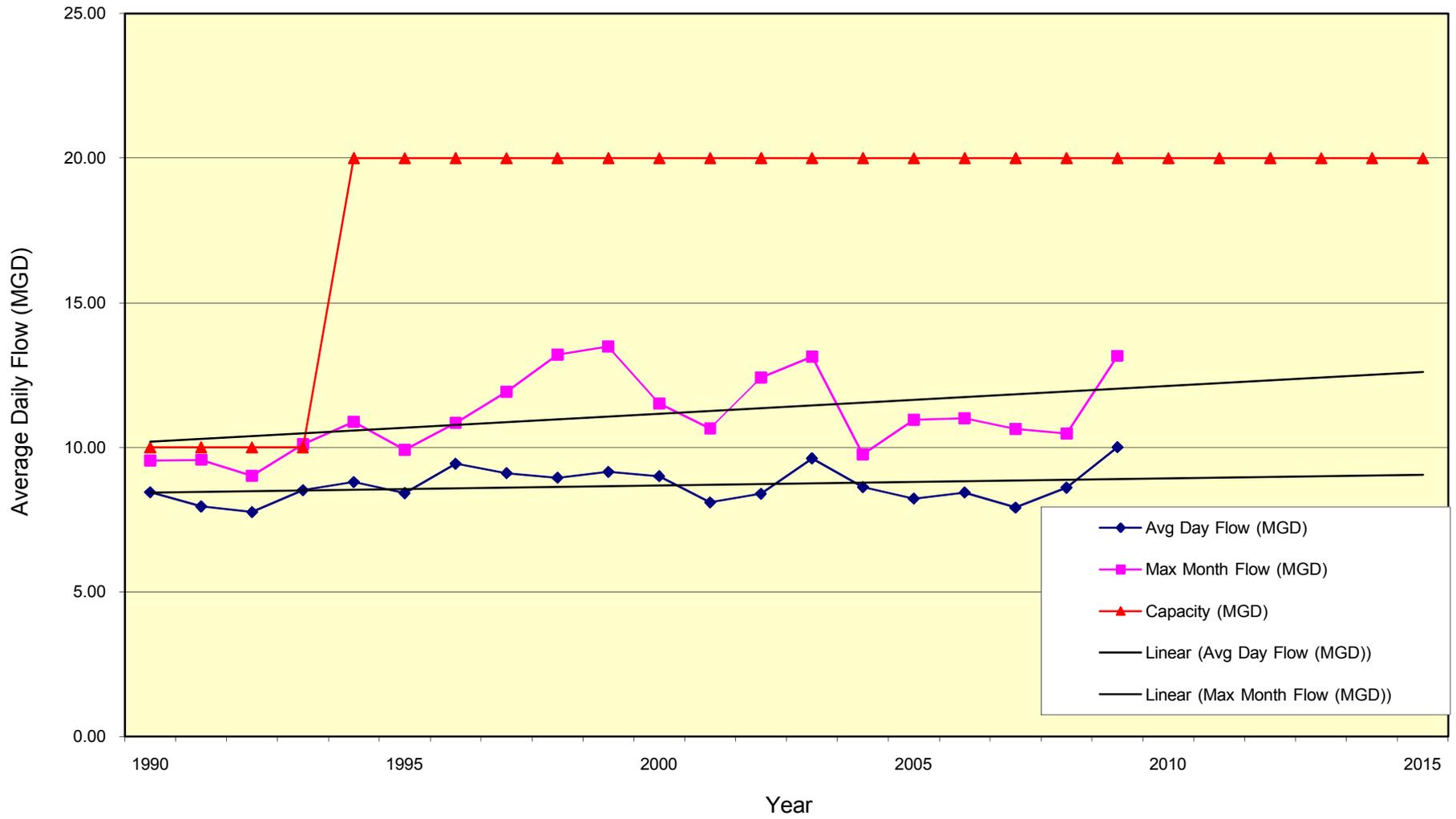


◆ Average Day Demand (MGD)
 — Existing / Future Raw Water Supply Cap.
 — 80% of Raw Water Supply
 — Linear (Average Day Demand (MGD))

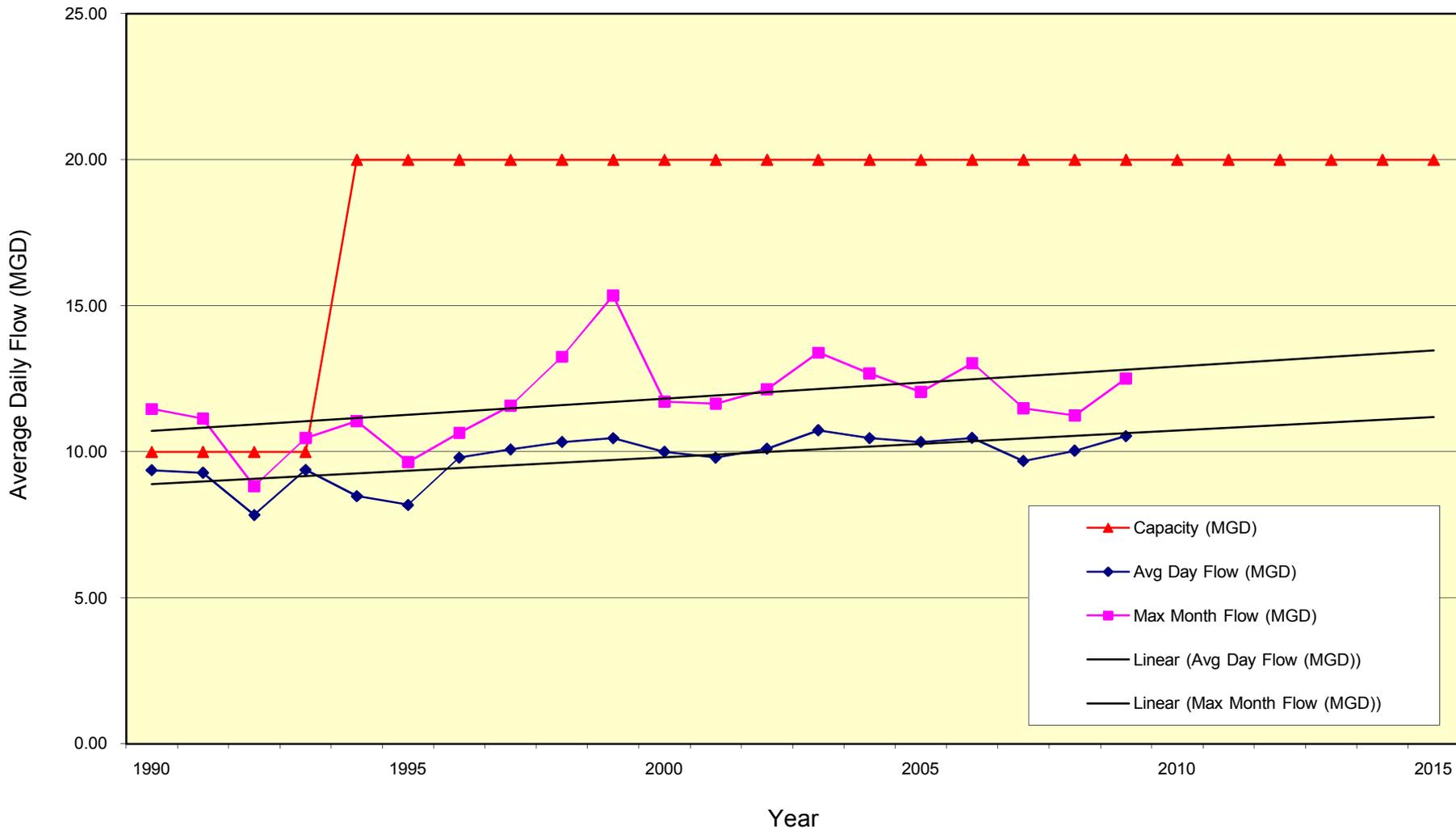
Future Water Demand Projections
 Department of Water Management - 2011
 Water Treatment Capacity (calendar year)



Wastewater Capacity Projections
 Department of Water Management - 2010
 North Durham Water Reclamation Facility



Wastewater Capacity Projections
 Department of Water Management - 2010
 South Durham Water Reclamation Facility





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, especially Falls and Jordan Lake Rule compliance
- Continue to fund utility efficiencies



Proposed Capital Funding

(in \$Million)

	FY 12	FY 13	FY 14	FY 15	FY 16	Total
Water Projects	\$18.92	\$43.54	\$17.56	\$20.60	\$18.90	\$119.52
Sewer Projects	\$16.86	\$32.26	\$25.96	\$21.90	\$35.30	\$132.28
Required CIP Funding	\$35.78	\$75.80	\$43.52	\$42.50	\$54.20	\$251.80



CIP – Water Projects

Project	FY 2011-12 millions
Lake Michie & Little River Dam Rehabilitation	\$ 0.86
Southeast Pressure Zone	\$ 0.77
Southern Reinforcing Main – Phase II	\$ 5.35
Water Extensions & Improvements	\$ 1.00
Water - Future Supply/Source Water Protection	\$ 0.50
Water Main Rehabilitation	\$ 2.00
Water Facilities Rehabilitation	\$ 3.19
Water Residuals Handling	\$ 5.25
Total Water	\$ 18.92

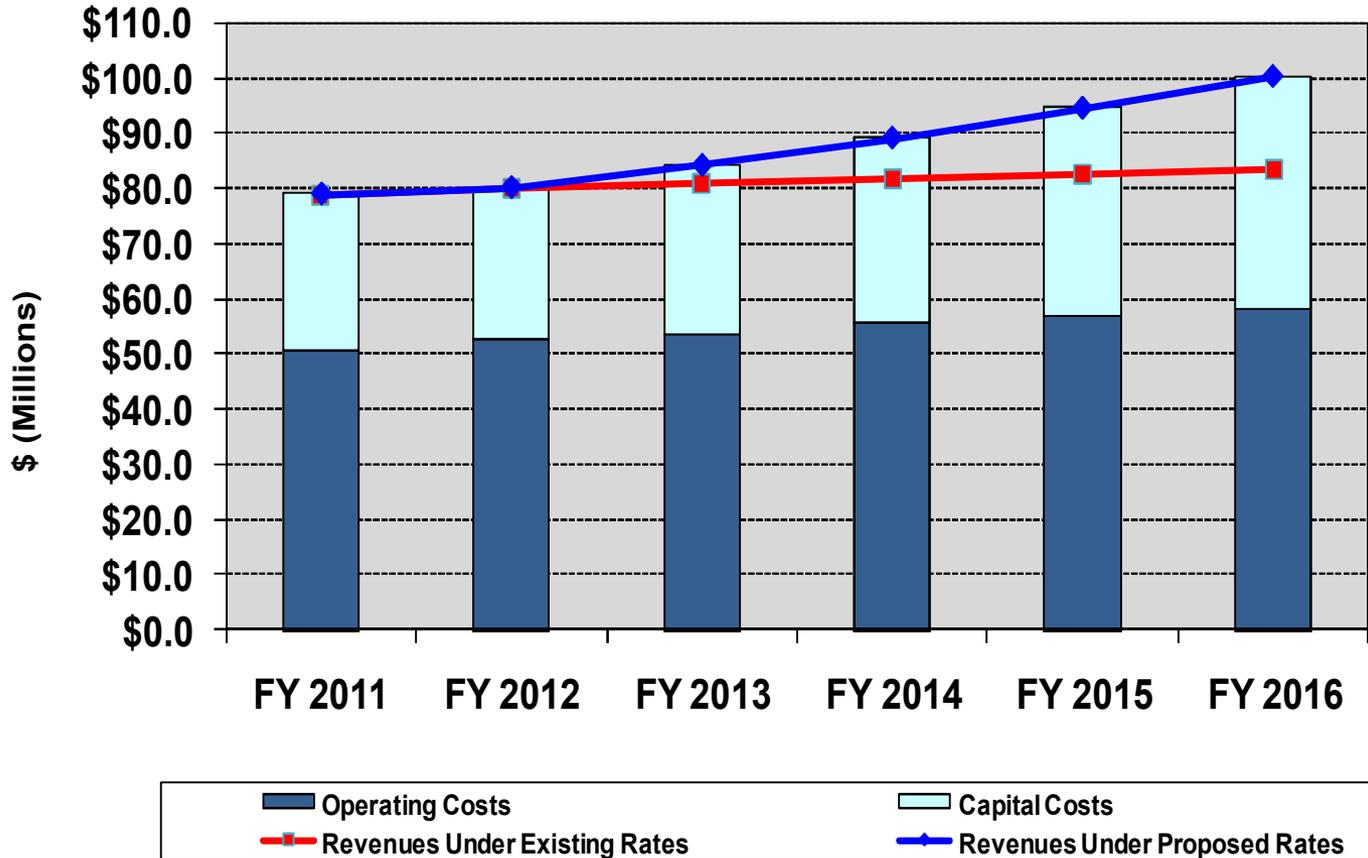


CIP – Wastewater Projects

Project	FY 2011-12 millions
SDWRF Sludge Pad Expansion	\$ 3.10
Sewer Collection System Rehabilitation	\$ 2.00
Sewer Extensions & Improvements	\$ 1.25
Wastewater Process Rehabilitation	\$ 7.65
Facility Paving	\$ 0.86
Water Management Facility Expansion	\$ 2.00
Total Wastewater	\$ 16.86



Projection of Water & Sewer Revenue Requirements



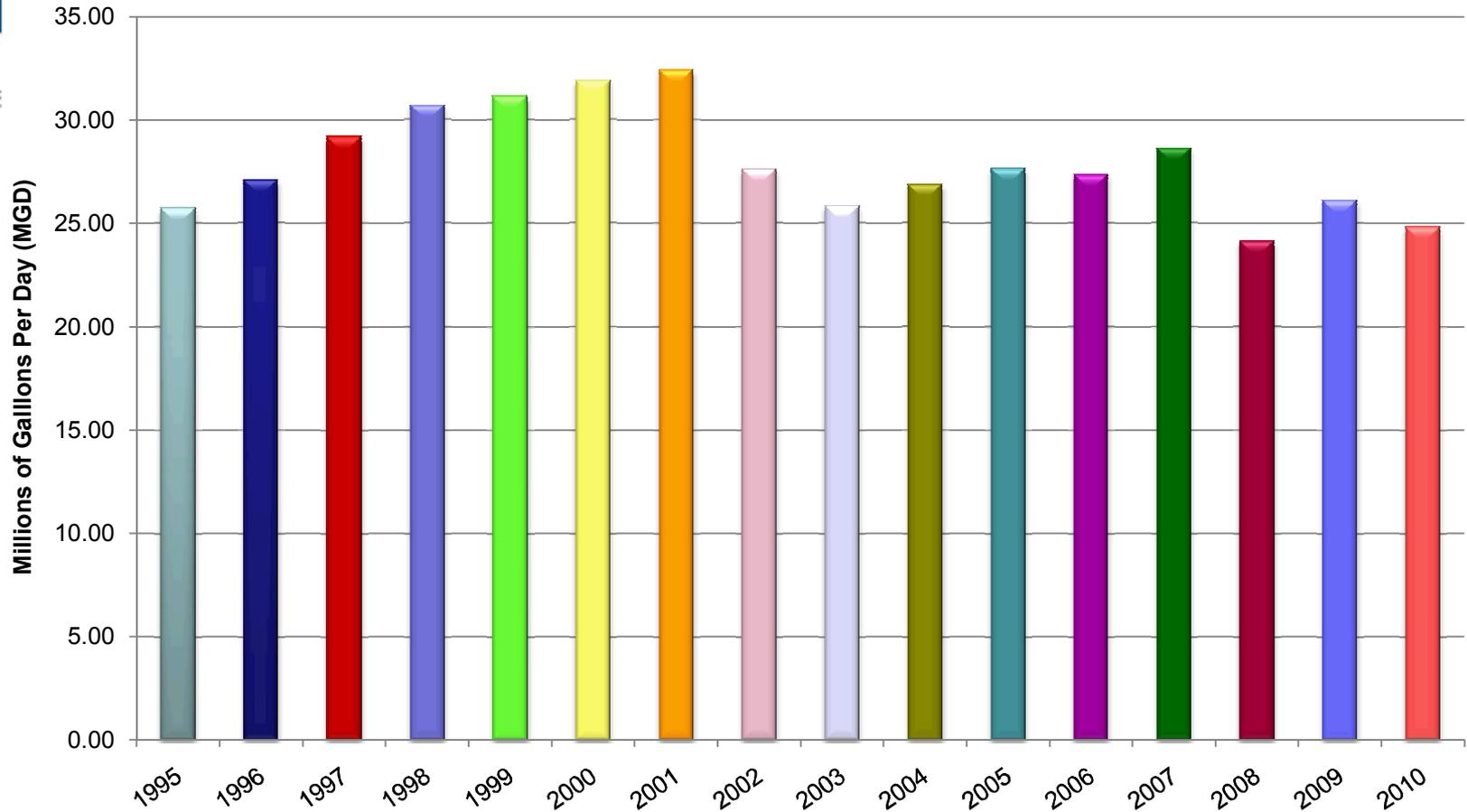


Customer Consumption



Water Consumption – 1995 - 2010

Average Daily Finished Water Produced





Consumption by Category - 2010

Customer Type	% of All Consumption
Single Family Residential (SFR) Tiers 1-5	44.8%
Nonresidential (ICI) Institutional, Commercial, Industrial	49.7%
Irrigation Only (IO)	5.5%



Percent of all 2010 Consumption (SFR, ICI,IO) by Tier

Tier	% of Consumption
Tier 1 (0 – 200 cf)	14.4%
Tier 2 (201 – 500 cf)	14.3%
Tier 3 (501 – 800 cf)	55.9%
Tier 4 (801 – 1500 cf)	4.1%
Tier 5 (>1500 cf)	11.3%

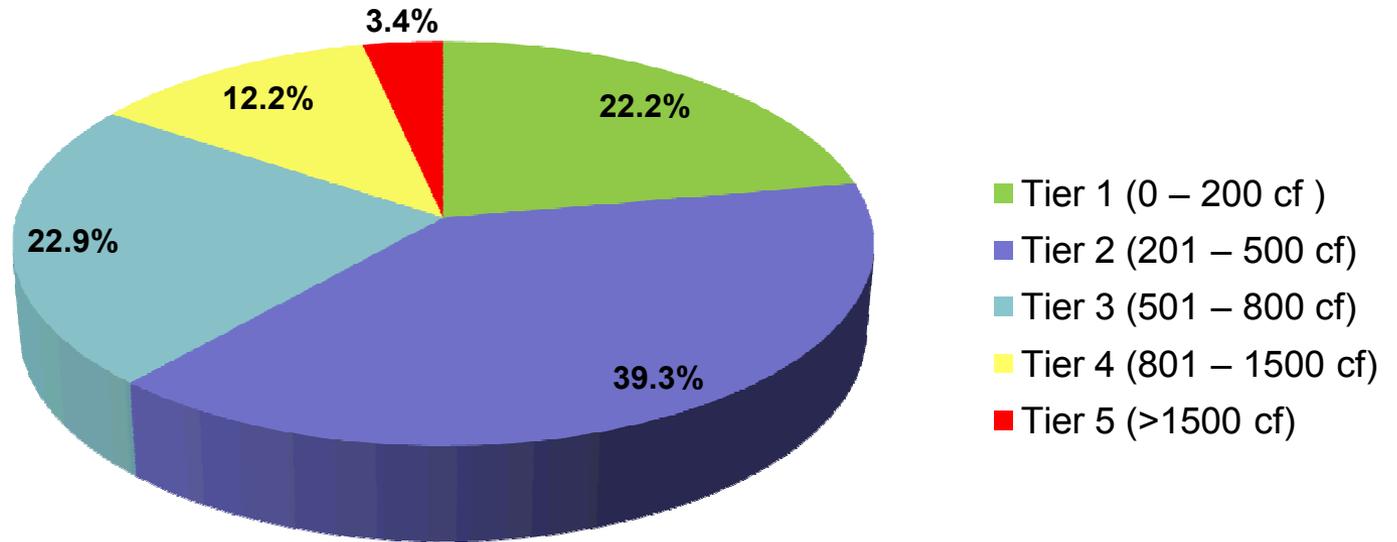


Percent of all Consumption (SFR, ICI,IO) by Tier

Tier	% of Consumption	
	2009	2010
Tier 1 (0 – 200 cf)	13.6%	14.4%
Tier 2 (201 – 500 cf)	13.7%	14.3%
Tier 3 (501 – 800 cf)	56.3%	55.9%
Tier 4 (801 – 1500 cf)	4.0%	4.1%
Tier 5 (>1500 cf)	12.4%	11.3%

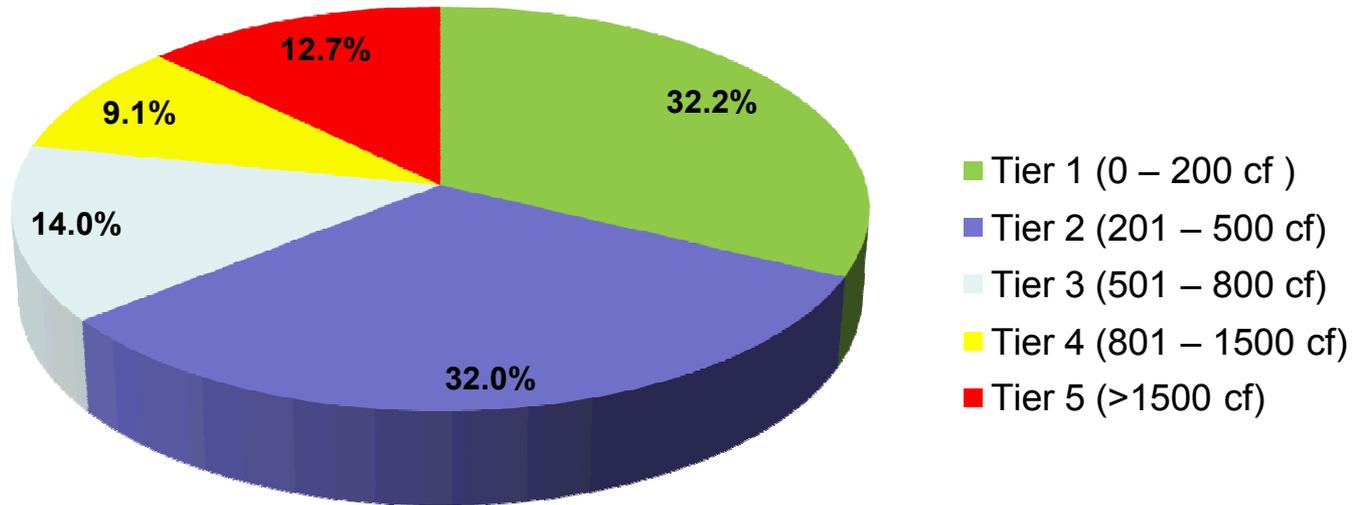


Percent of SFR Bills by Tiers – CY 10





Percent of SFR Consumption by Tiers – CY 10





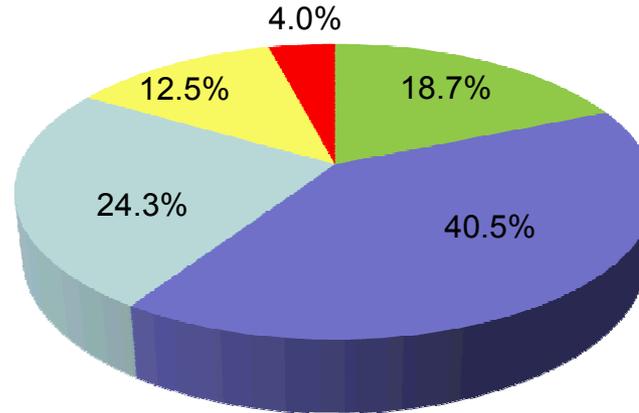
Monthly SFR Rate Tiers - 2010

Residential Customers	% of SFR Bills	% of SFR Consumption
Tier 1 (0 – 200 cf)	22.2%	32.2%
Tier 2 (201 – 500 cf)	39.3%	32.0%
Tier 3 (501 – 800 cf)	22.9%	14.0%
Tier 4 (801 – 1500 cf)	12.2%	9.1%
Tier 5 (>1500 cf)	3.4%	12.7%

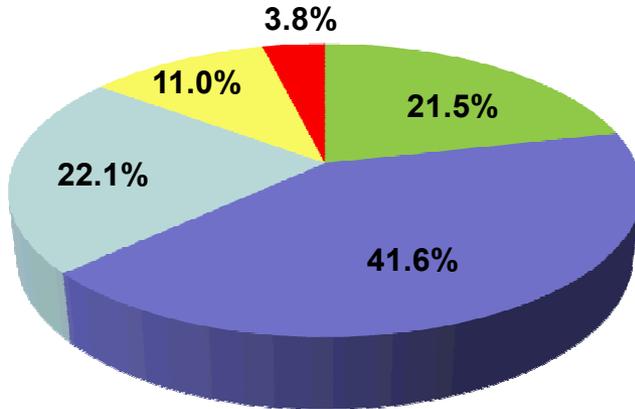


Percent of SFR Bills by Tiers

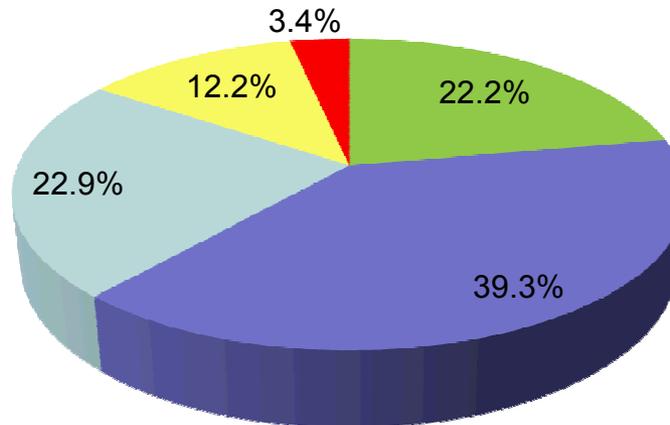
% of SFR Bills – 2009



% of SFR Bills – 2008



% of SFR Bills - 2010

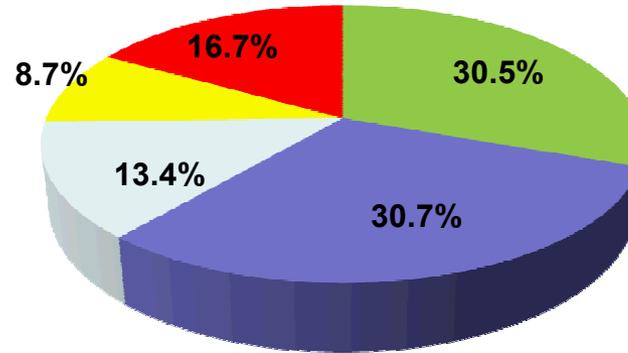


- Tier 1 (0 – 200 cf)
- Tier 2 (201 – 500 cf)
- Tier 3 (501 – 800 cf)
- Tier 4 (801 – 1500 cf)
- Tier 5 (>1500 cf)

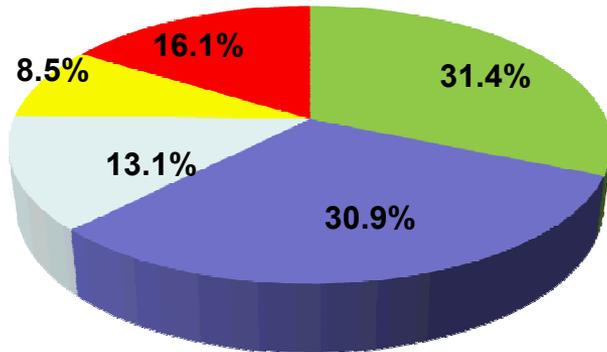


Percent of SFR Consumption by Tiers

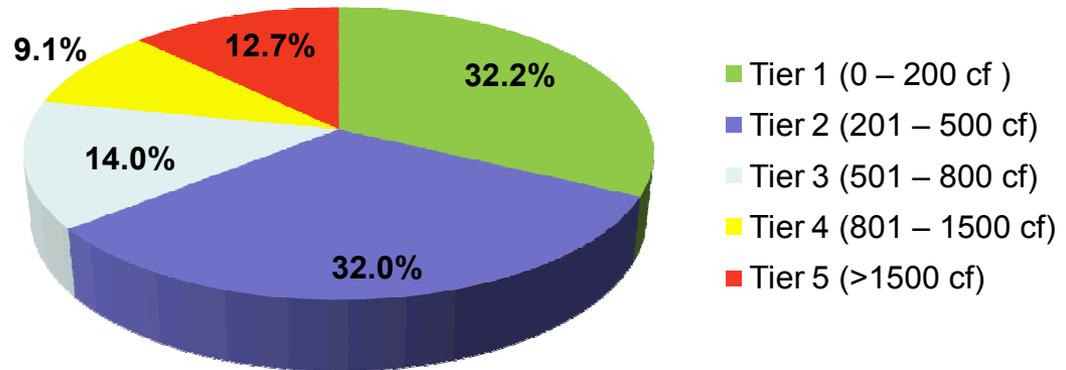
% of SFR Consumption – 2009



% of SFR Consumption – 2008



% of SFR Consumption - 2010





Proposed FY 2011-2012 Rate Structure



FY12 Proposed Rate Structure

- Slight increases to the water and sewer service charges
- No increase water consumption charges (all tiers)
- Moderate increase to the sewer consumption charges
- Based on usage, customers will see different percentage increases in actual bills
- The rate tiers will impact residential customers with higher rates as usage goes up:
 - Target elective water uses with higher tiers
 - Minimize impacts 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 12 Rate Structure

- Rates will:
 - 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



Proposed FY 2012 SFR Rate Structure

	FY 11 Rates	FY 12 Rates
<u>Monthly Water Rates</u>		
Service Charge	\$ 5.35	\$ 5.56
Volume Charge - Tiered Rates (per 100 cubic foot - ccf)		
Tier 1 (0 - 2 ccf)	\$ 1.72	\$ 1.72
Tier 2 (>2 - 5 ccf)	\$ 2.59	\$ 2.59
Tier 3 (>5 - 8 ccf)	\$ 2.84	\$ 2.84
Tier 4 (>8 - 15 ccf)	\$ 3.71	\$ 3.71
Tier 5 (>15 ccf)	\$ 5.56	\$ 5.56
<u>Monthly Sewer Rates</u>		
Service Charge	\$ 6.24	\$ 6.49
Volume Charge (per ccf)	\$ 3.28	\$ 3.56

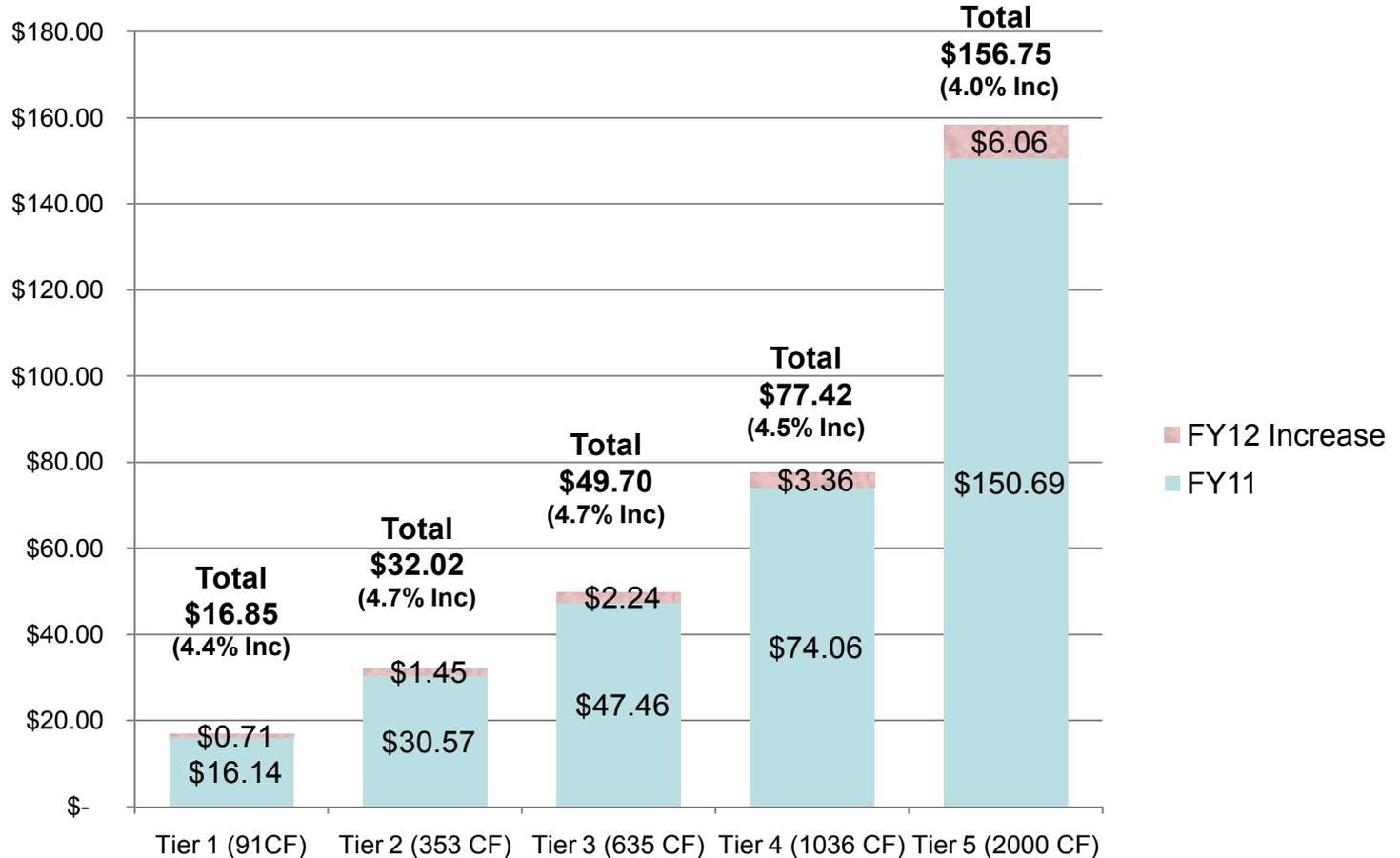


Comparison of Monthly Average Residential Inside Water & Sewer Bill FY11 vs. FY12

	Min % Change in Tier	Avg. Customer % Change in Tier	Max % Change in Tier
Tier 1 (0-200 cf)	3.97%	4.43%	4.72%
\$ Increase	\$0.46	\$0.71	\$1.02
<i>Volume used (cf)</i>	<i>000</i>	<i>91</i>	<i>200</i>
Tier 2 (201-500 cf)	4.72%	4.74%	4.74%
\$ Increase	\$1.02	\$1.45	\$1.86
<i>Volume used (cf)</i>	<i>201</i>	<i>353</i>	<i>500</i>
Tier 3 (501-800 cf)	4.74%	4.72%	4.69%
\$ Increase	\$1.86	\$2.24	\$2.70
<i>Volume used (cf)</i>	<i>501</i>	<i>635</i>	<i>800</i>
Tier 4 (801-1500 cf)	4.69%	4.54%	4.38%
\$ Increase	\$2.70	\$3.36	\$4.66
<i>Volume used (cf)</i>	<i>801</i>	<i>1036</i>	<i>1500</i>
Tier 5 (>1500 cf)	4.37%	4.02%	3.17%
\$ Increase	\$4.66	\$6.06	∞
<i>Volume used (cf)</i>	<i>1501</i>	<i>2000</i>	∞

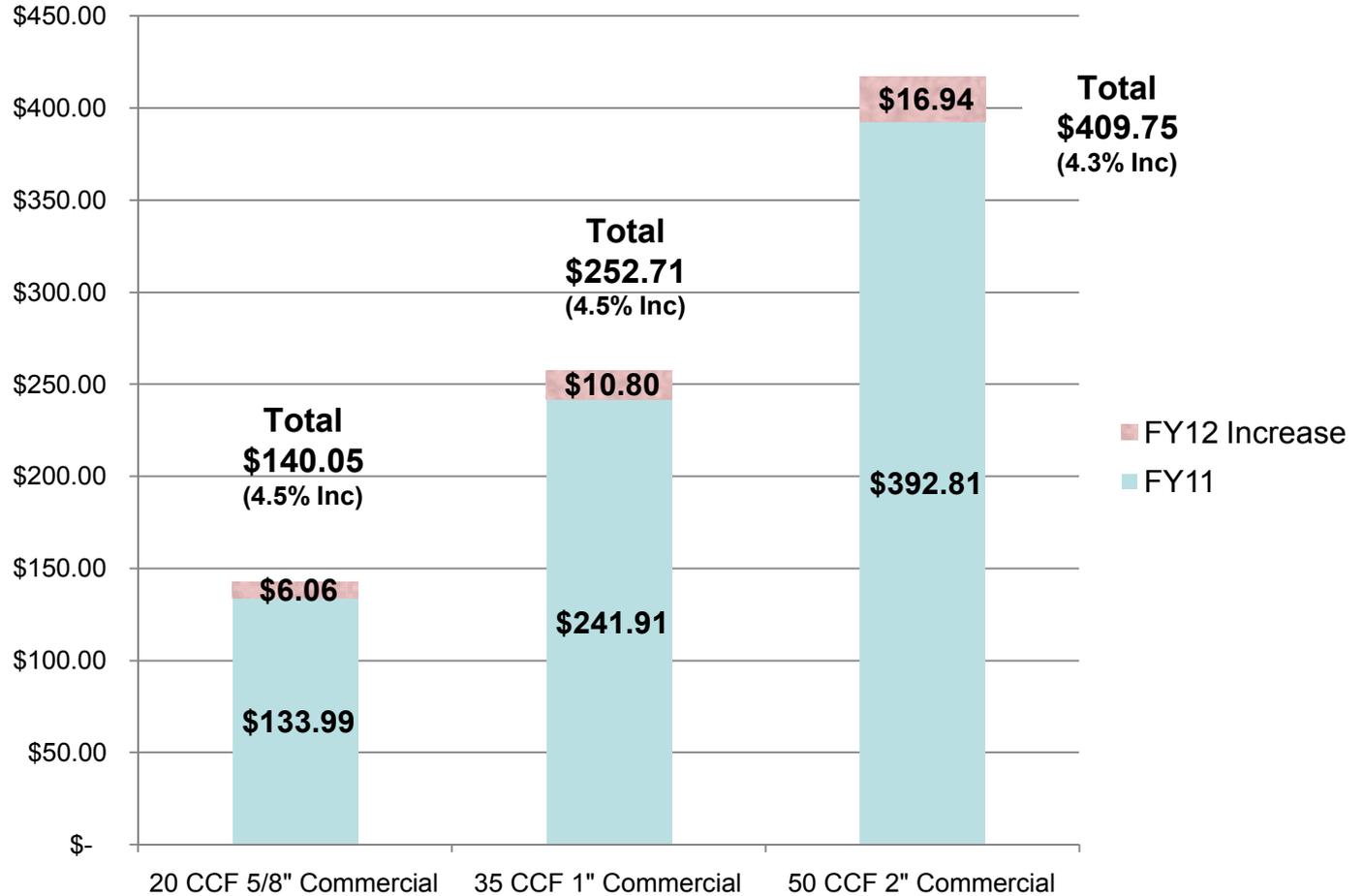


Comparison of Monthly Average Residential Inside Water & Sewer Bill FY11 vs. FY12





Comparison in Monthly Commercial Inside Bill FY11 vs. FY12



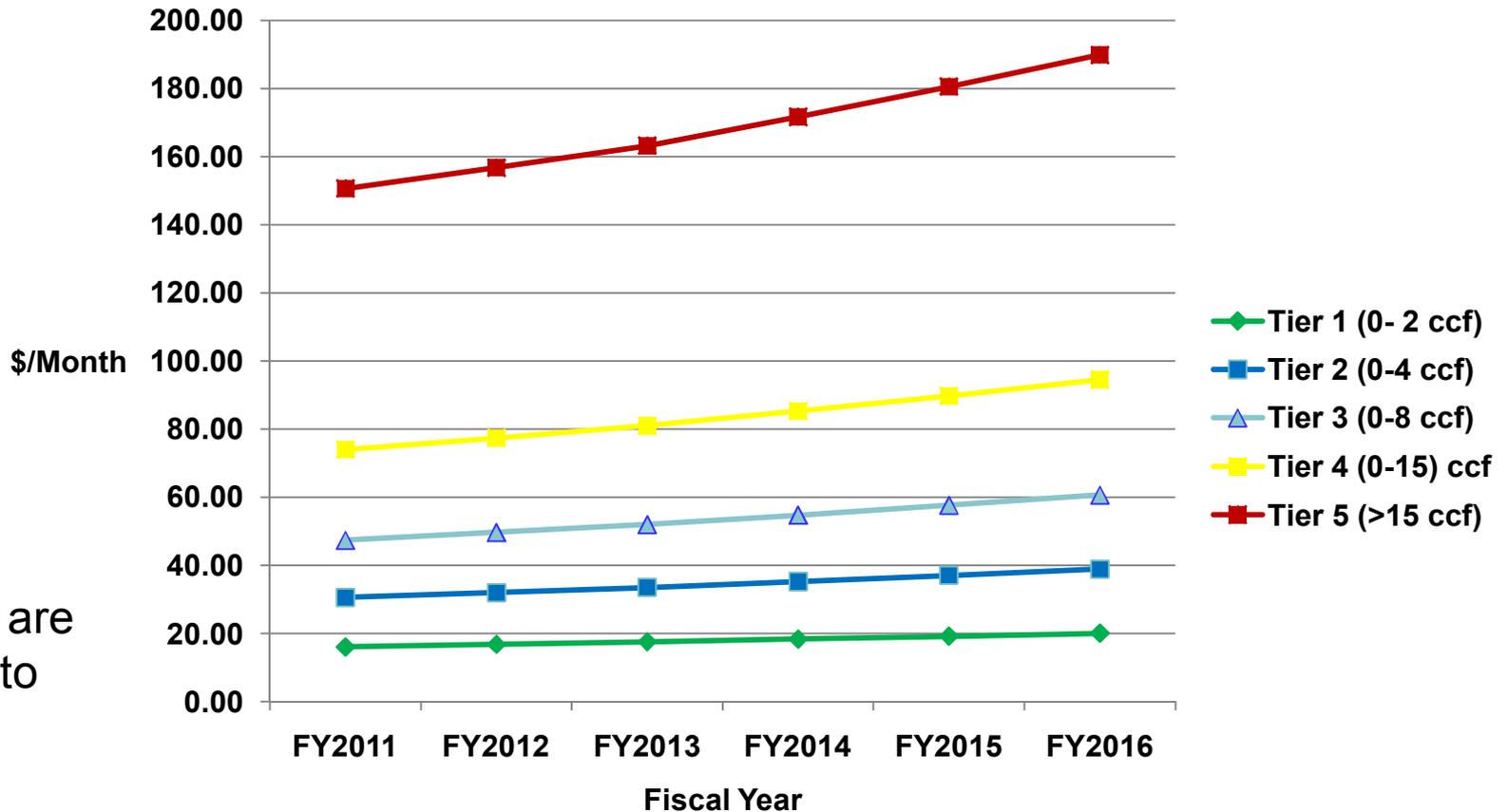


Long Term Affect of Strategic But Moderate Increases

- 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



Projected Average SFR Monthly Cost per Tier



Rate increases are projected to be ~5% annually



NC Water and Wastewater Rates Dashboard

April 2011

Dashboard may take a few seconds to refresh after each input

Durham

- Rates Comparison
- Financial Benchmarks
- Characteristics
- Links

Select residential bill and consumption amount

Water Bill
 Sewer Bill
 Water + Sewer

5,000 gallons/month (avg. use)

Monthly Bill: \$49.51

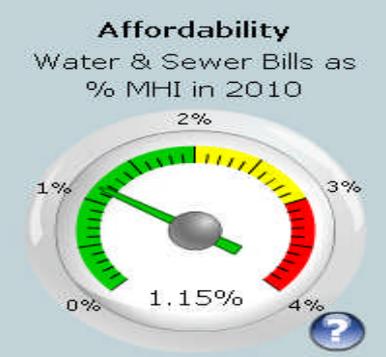
Select your comparison group

All Utilities

All utilities in the survey Durham

381 rate structures compared

Observe the effects of raising rates by: 0%



Print



Monthly Water & Sewer Bill Comparison*

Durham

Winston Salem

Raleigh

Charlotte

Fayetteville PWC

Greensboro

CFPUA/Wilmington

Cary

OWASA

Average

	FY 2011 Average Bill		FY 2012 Projected Bill
	\$ 41.34	→	\$ 43.30
	\$ 24.98		\$ 27.10
	\$ 36.58		\$ 39.87
	\$ 35.86		\$ 39.09
	\$ 40.00		\$ 41.36
	\$ 31.34	→	
	\$ 44.08		
	\$ 48.70		
	\$ 69.25		\$ 70.64
	\$ 41.35		\$ 43.56

* 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 2012



Sewer Only Account Initiative

Two pronged attack:

- Coordinated effort between CBS & GBC to collect delinquent funds
 - Initial letter from City
 - Follow-up after 30-days
- Discontinue service
 - 1st Time:
 - WSM installs a valve and cleanout on the lateral at the location, leaves doorhanger
 - Charge customer full cost of Installation – approximately \$1,000 for labor, materials, equipment to install valve and cleanout
 - Valve crew (FSR, depending on the site) closes valve



Sewer Only Account Initiative (cont.)

- 2nd Time:
 - Initial letter from City
 - Follow-up after 30-days
 - Valve crew (FSR, depending on the site) closes valve, leaves doorhanger
- Re-establish Service
 - Valve crew (FSR, depending on the site) opens valve, leaves door hanger
 - Charge customer turn-off/on charge - \$250
- Discuss process with Durham County Health Department



County Basin Charges

- City reimburses County at County Rates
- Ability to adjust our rates in basin to ensure City does not take a loss
- Revisit after County sets their rates



SUMMARY

- Met Budget Guidance Memorandum
 - ✓ Limit increase cost to typical customer to <5%
- Proposed Rate Structure will:
 - ✓ Continue to cover operating costs
 - ✓ Continue to cover debt service
 - ✓ Continue to cover operating reserves
 - ✓ Continue to fund Capital Improvement Program



Q & A