LEXINGTON-FAYETTE URBAN COUNTY COUNCIL

SPECIAL ENVIRONMENTAL COMMITTEE OF THE WHOLE

AUGUST 23RD, 2011
11:00AM-12:00PM

Council Chambers Government Center

AGENDA

I. Sanitary Sewer Consent Decree Implementation 10 year Financial Model/Remedial Measures Capital Improvement Plan (Martin, Barrow)

Sanitary Sewer

Consent Decree Implementation

10 Year Financial Model / Remedial Measures Plan

Committee of the Whole

August 23, 2011

Lexington-Fayette Urban County Government
DEPARTMENT OF FINANCE
DEPARTMENT OF ENVIRONMENTAL QUALITY & PUBLIC WORKS

Background

- Consent Decree requires the elimination of sanitary sewer overflows (SSOs) within 11 to 13 years, starting from January 3, 2011.
- Failure to meet SSO elimination criteria results in significant, recurring and cumulative financial penalties.
- Failure to meet requirements of Consent Decree likely to result in further legal action by the U.S. Department of Justice.

Revisiting Previous Presentations

January 18, April 19, May 3 and June 21, 2011

- Remedial Measures Plans (RMP) - Division of Water Quality presented Consent Decree requirements for sanitary sewer capital construction program.
- Three separate plans must be submitted for **EPA approval**.
- The plans are clustered into "groups" of watersheds based on the perceived severity of SSO problems.

Revisiting Previous Presentations

January 18, April 19, May 3 and June 21, 2011

- Groups
  - Group 1 – West Hickman / East Hickman / Wolf Run
  - Group 2 – Town Branch / Cane Run
  - Group 3 – North Elkhorn / South Elkhorn
- Plan due dates
  - Group 1 – October 13, 2011
  - Group 2 – April 13, 2012
  - Group 3 – October 13, 2012

Revisiting Previous Presentations

January 18, April 19, May 3 and June 21, 2011

- Remedial Measures Plans must recommend a "design" storm, which provides a basis for sizing of sanitary sewer infrastructure (pipes, pump stations, storage tanks and treatment plants).

- The Group 1 Remedial Measures Plan will set the design storm standard for the other two subsequent plans.

- Because the Group 1 plan is due to EPA in October, Water Quality has been seeking guidance from the Environmental Quality Committee and other stakeholders.

Revisiting June 21, 2011 Presentation

- The Division recommended using the 2 year / 24 hour design storm as the basis for the Remedial Measures Plans.

- The 2 year / 24 hour design storm is recommended because:

  - The Division believes that a smaller storm will not be approved by EPA, and

  - This design storm is the lowest cost alternative that EPA would likely consider for approval.

Design Storm / Capital Cost Estimates

April 21 and June 21, 2011 Presentations

Storm	Rainfall	Estimated Capital Cost	Rate Impacts By 2024 – Due to Capital
2-Year	3.2”	$540 million	$28.25
5-Year	3.8”	$718 million	$37.57
10-Year	4.3”	$814 million	$42.59

Rate impacts is the estimated monthly increase above current monthly bills, 13 years from now, necessary to cover capital costs.

Potential monthly rate increases are based on financing capital improvements for 20 years at 3%, spread to 106,000 customer accounts.

Rate increases would be implemented over 10 years.

Outcome of June 21, 2011 Presentation

- Division recommendation – 2 year / 24 hour design storm is the most cost effective recommendation for inclusion in Remedial Measures Plans.
- Committee Request – financial model including personnel costs, operating costs, existing and proposed debt, etc.

Financial Model Assumptions

- Estimates and assumptions drive the Financial Model because:
  - EPA has not approved all plans / schedules required by the Consent Decree. Submittals are ongoing and will go on throughout 2012.
  - Specific projects / costs / associated construction schedules are uncertain until EPA approves them.
  - Project estimates are for planning purposes, actual project costs aren't known until each individual project is bid.

Financial Model Assumptions

- Estimated small increase in personnel cost to manage expanded operational and capital obligations that will result from Remedial Measures Plan (RMP) and CMOM Specific Plan approvals.
- Estimated annual increases in operating based on historical trends and anticipated costs for implementing RMP and CMOM programs.

Financial Model Assumptions

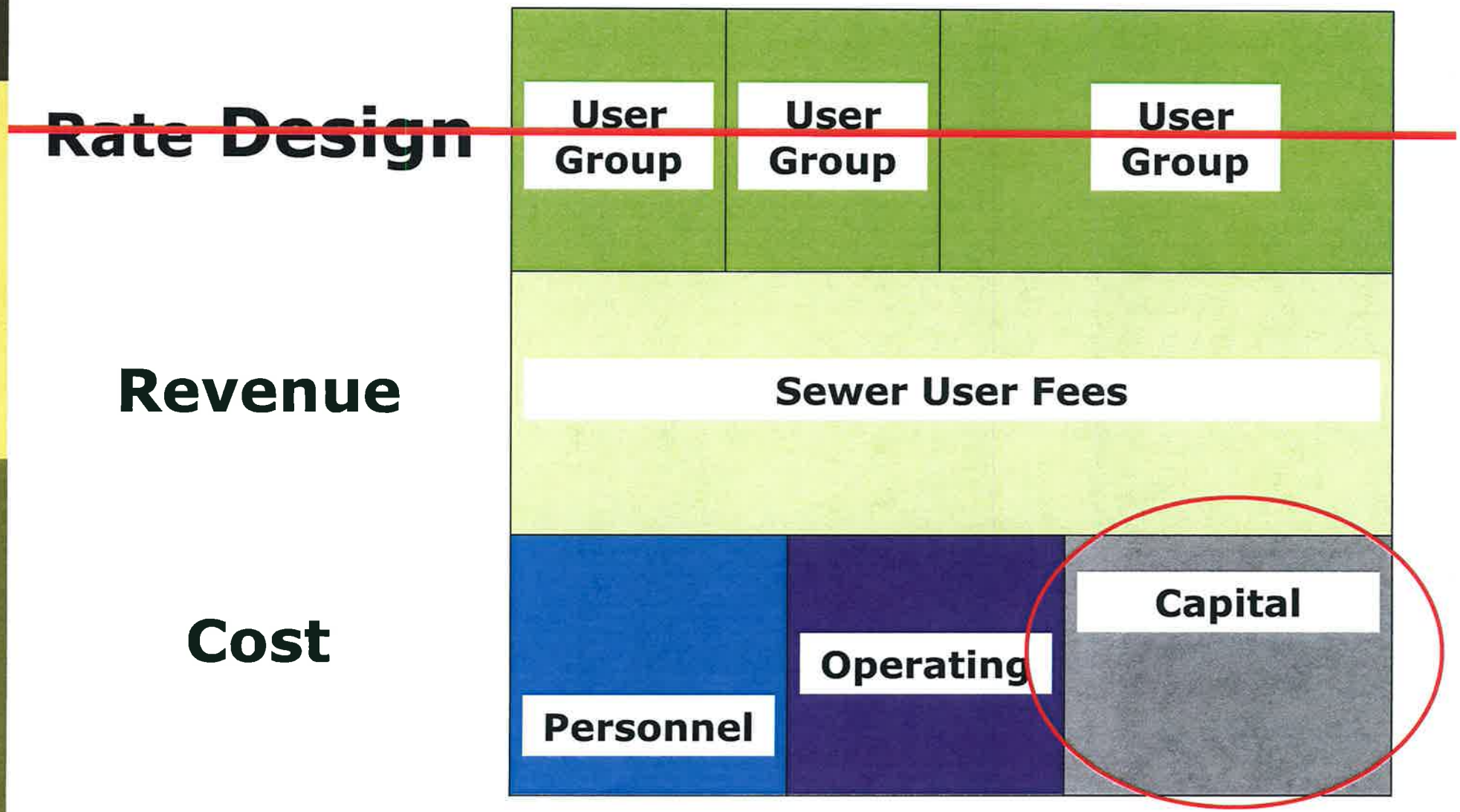
Estimated $540 M capital expenditure distributed through 2022 as a bell curve.

(i.e. maximum annual costs between FY16 and FY22)

ASSIGNMENT

Develop a Sewer Fund 10-year Forecasting Model

Sewer Rate Methodology



Financial Model Details

- RESULT
  - Developed an interactive financial forecasting tool to facilitate the decision making process.
  - Composed of an in-depth analysis of Revenue, Capital, Debt, Operations & Personnel through FY 2025.
- KEY CONSIDERATION
  - Forecasting tool is predicated on numerous assumptions and estimates of policy decision. Variables can and will have a large impact on forecasted cost (i.e. Design Storm)

Financial Model Assumptions

Revenue

- Customer Growth by Class
- Customer Usage by Class
- Water Conservation Initiatives
- Excluded Revenue
- Miscellaneous Revenue Sources & Growth
- Restricted & Non-Restricted Interest Income
- Rate Structure

Operating

- Existing Personnel
- Additional Personnel for Operational Requirements
- Utilities & Gas
- Vehicle & Equipment Fuel
- General Insurance
- Other Cost
- Inflow & Infiltration

Capital

- Cost of Capital - Open Market
- Cost of Capital - KIA Funding
- Grant Funding
- Base Project Funding & Timing (i.e. I&I)
- Remedial Measures Funding & Timing
- Cash Funded Capital Plan
- Debt Service Coverage Requirements

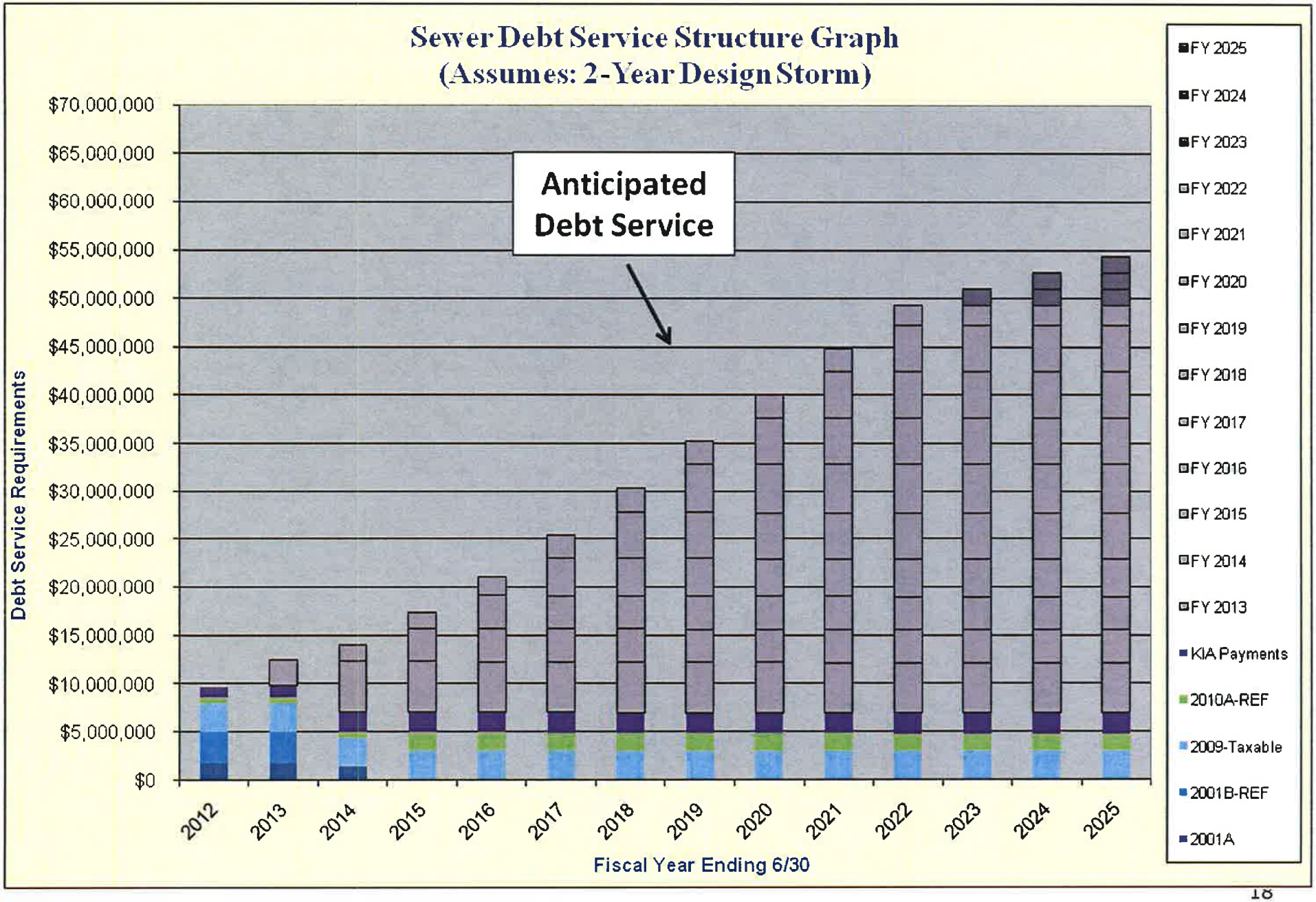
"Numerous issues impact the cost of the long-term"

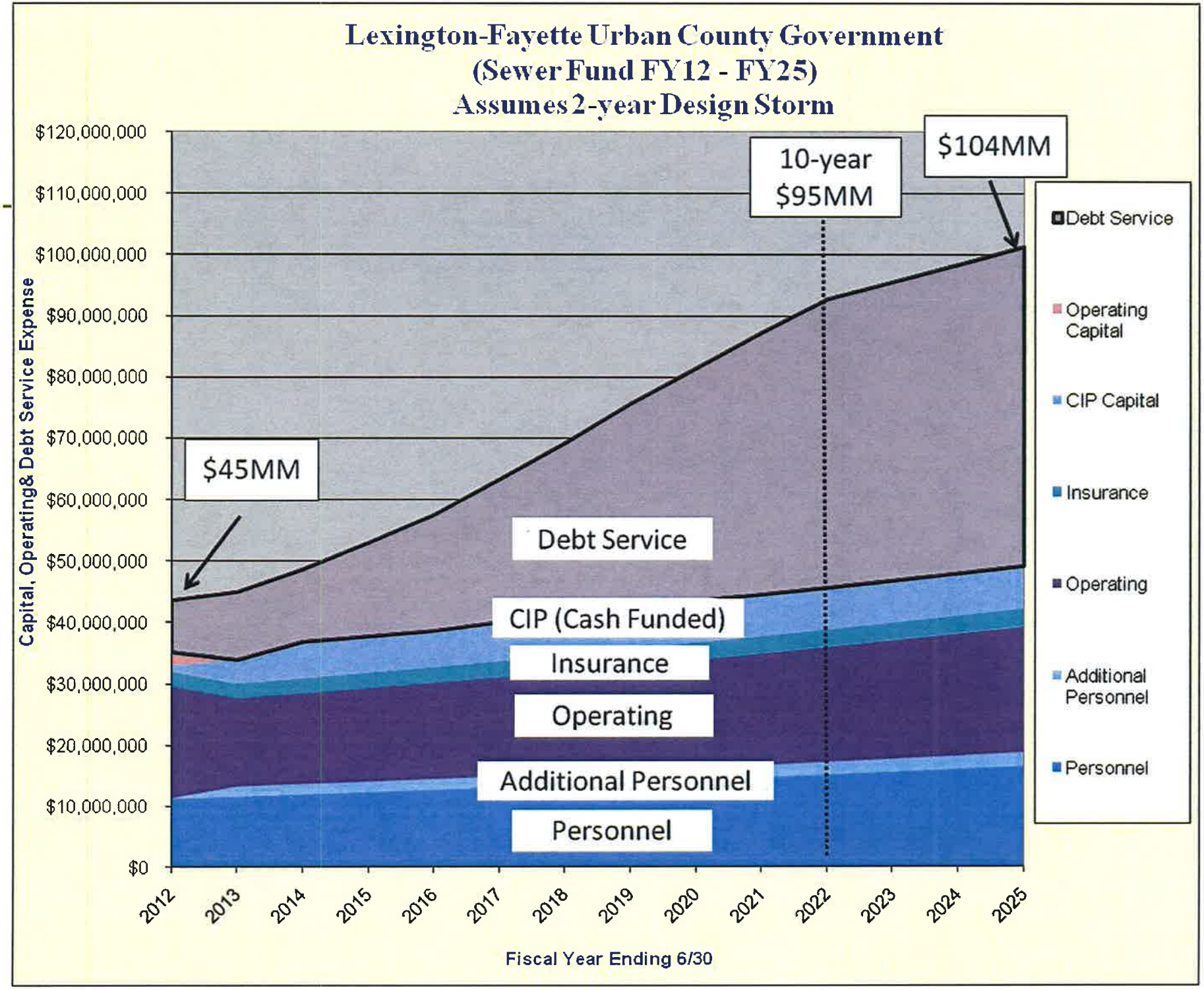
Example: Capital Planning

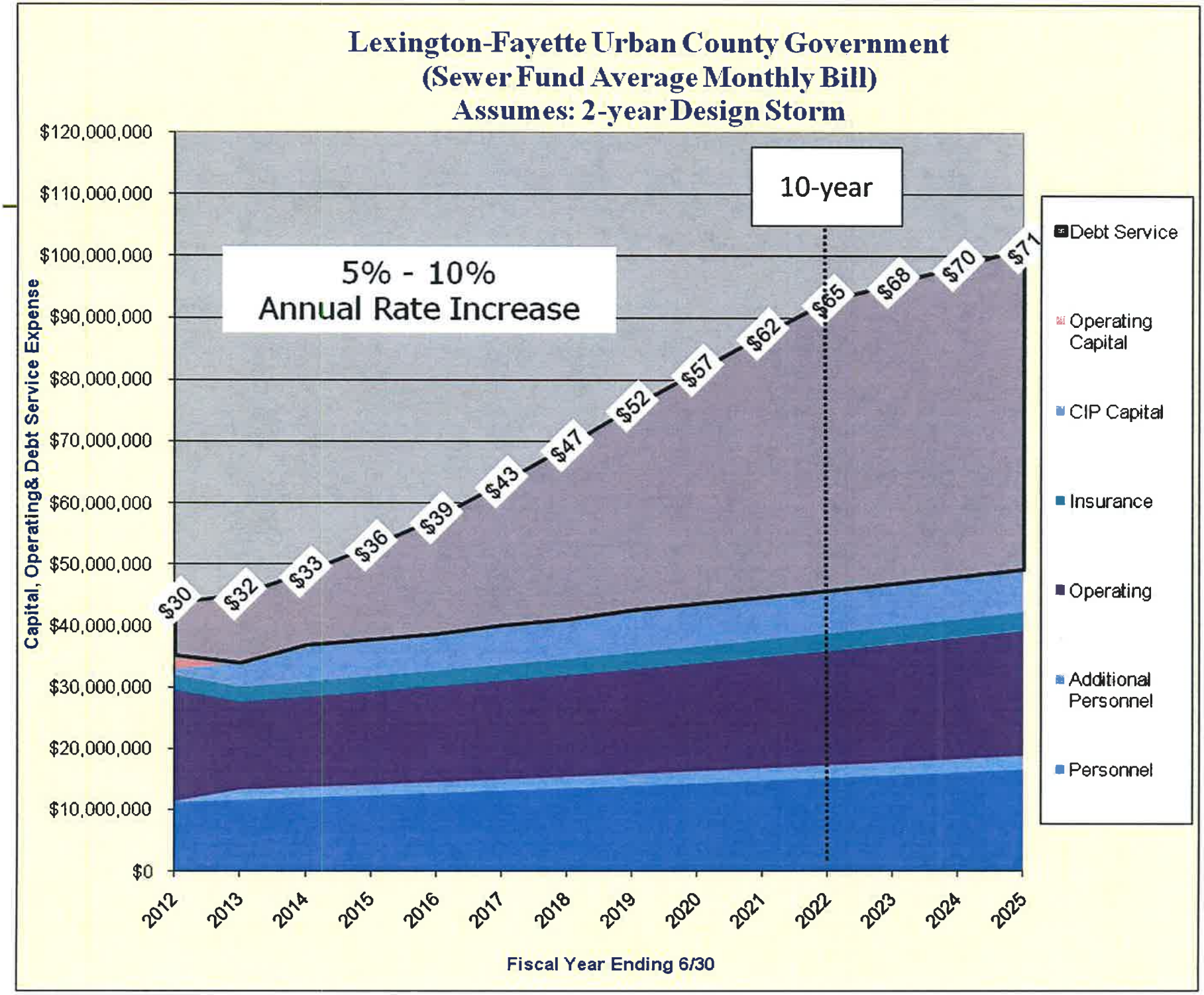
	($) Fiscal Year 2013	($) Fiscal Year 2014	($) Fiscal Year 2015	($) Fiscal Year 2016	($) Fiscal Year 2017	($) Fisca 20
Projects						
Pump Station Generators	$333,333	$333,333	$333,334			
Inflow and Infiltration	$5,000,000	$5,000,000	$5,000,000	$5,000,000	$5,000,000	$5,0
Upgrade TBW WTP/Lab	$1,820,000					
Town Branch WWTP	$2,129,000					
SCADA	$7,100,280					
Wolf Run Pump Station/FM	$2,910,000					
Expansion Area - LFUCG Portion	$4,800,800					
Manhole Monitoring System for SSORP	$2,000,000					
Remedial Measures Plan	$34,000,000	$34,000,000	$34,000,000	$40,000,000	$50,000,000	$54,00
Total Capital Plan	$60,093,413	$39,333,333	$39,333,334	$45,000,000	$55,000,000	$59,00

DRAFT RESULTS

Sewer Fund 10-year Forecast

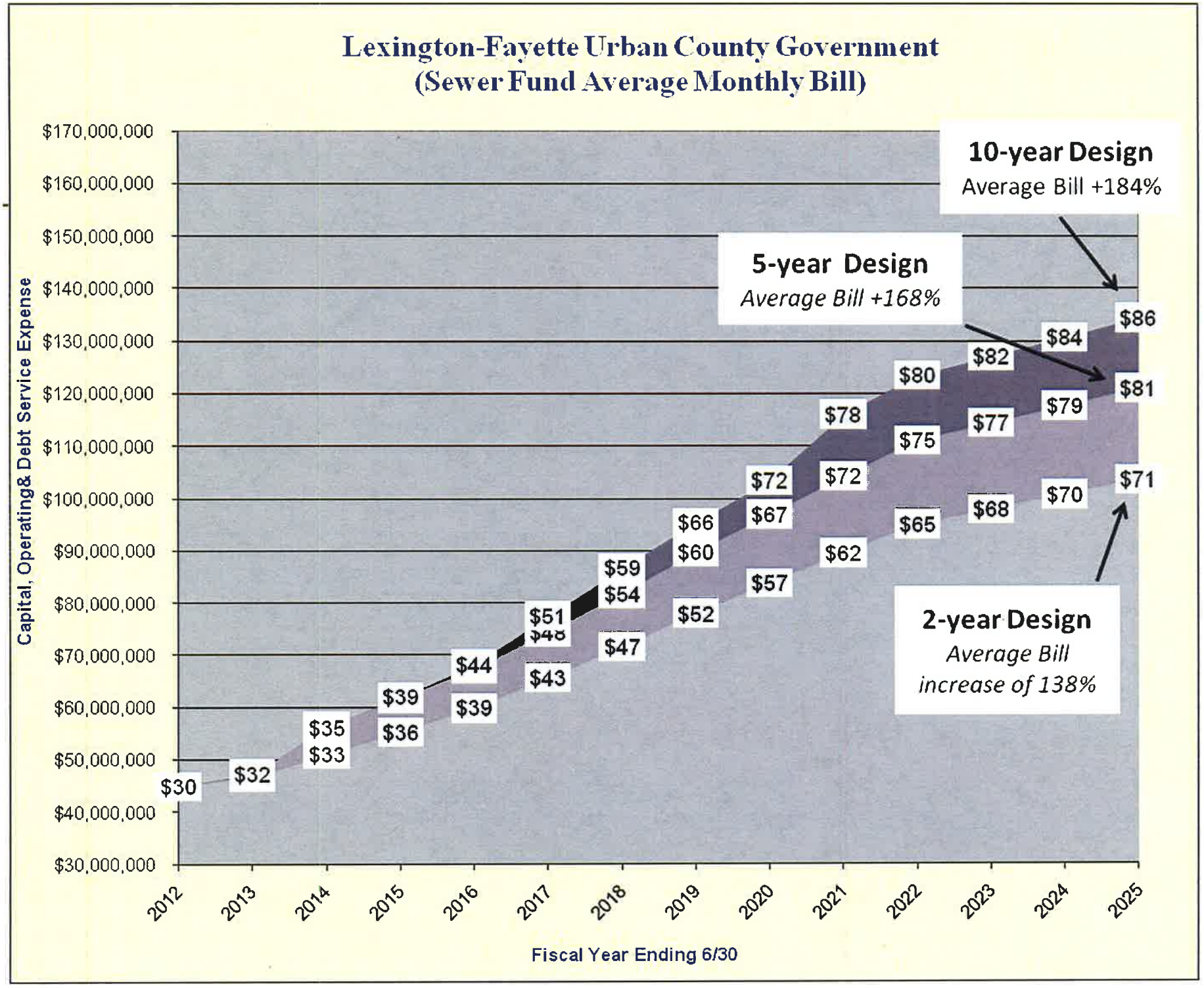

Sewer Debt Service Structure Graph
(Assumes: 2-Year Design Storm)
Anticipated Debt Service
Debt Service Requirements
$70,000,000
$65,000,000
$60,000,000
$55,000,000
$50,000,000
$45,000,000
$40,000,000
$35,000,000
$30,000,000
$25,000,000
$20,000,000
$15,000,000
$10,000,000
$5,000,000
$0
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Fiscal Year Ending 6/30
FY 2025
FY 2024
FY 2023
FY 2022
FY 2021
FY 2020
FY 2019
FY 2018
FY 2017
FY 2016
FY 2015
FY 2014
FY 2013
KIA Payments
2010A-REF
2009-Taxable
2001B-REF
2001A


Lexington-Fayette Urban County Government
(Sewer Fund FY12 - FY25)
Assumes 2-year Design Storm
$120,000,000
$110,000,000
$100,000,000
$90,000,000
$80,000,000
$70,000,000
$60,000,000
$50,000,000
$40,000,000
$30,000,000
$20,000,000
$10,000,000
$0
Capital, Operating& Debt Service Expense
$45MM
10-year
$95MM
$104MM
Debt Service
CIP (Cash Funded)
Insurance
Operating
Additional Personnel
Personnel
Debt Service
Operating Capital
CIP Capital
Insurance
Operating
Additional Personnel
Personnel
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Fiscal Year Ending 6/30


Lexington-Fayette Urban County Government
(Sewer Fund Average Monthly Bill)
Assumes: 2-year Design Storm
10-year
5% - 10%
Annual Rate Increase
$30
$32
$33
$36
$39
$43
$47
$52
$57
$62
$65
$68
$70
$71
$120,000,000
$110,000,000
$100,000,000
$90,000,000
$80,000,000
$70,000,000
$60,000,000
$50,000,000
$40,000,000
$30,000,000
$20,000,000
$10,000,000
$0
Capital, Operating& Debt Service Expense
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Fiscal Year Ending 6/30
Debt Service
Operating Capital
CIP Capital
Insurance
Operating
Additional Personnel
Personnel

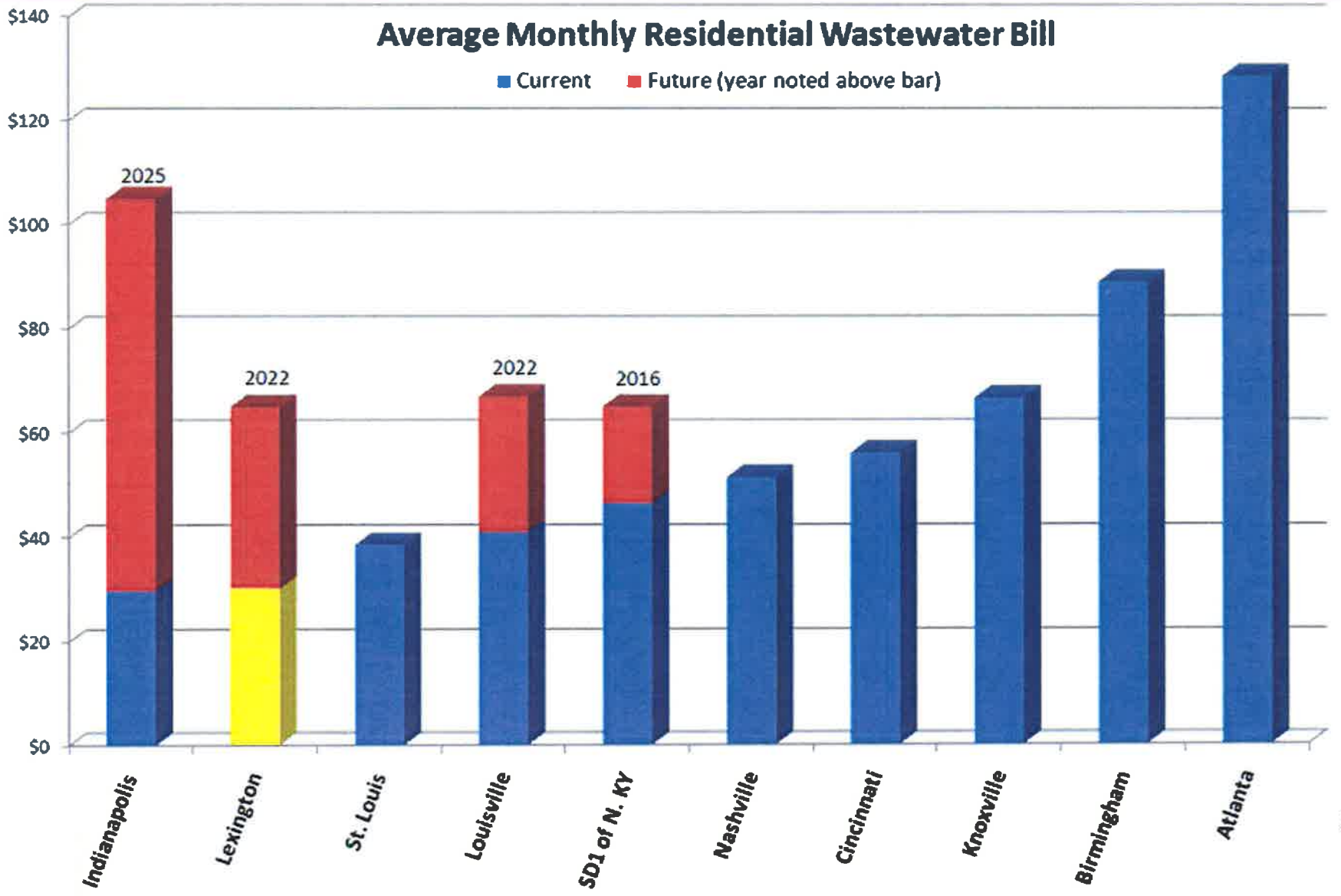
COMPARISON

2-year, 5-year & 10-year Storm Design Capital Investment


Lexington-Fayette Urban County Government
(Sewer Fund Average Monthly Bill)
Capital, Operating& Debt Service Expense
$170,000,000
$160,000,000
$150,000,000
$140,000,000
$130,000,000
$120,000,000
$110,000,000
$100,000,000
$90,000,000
$80,000,000
$70,000,000
$60,000,000
$50,000,000
$40,000,000
$30,000,000
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Fiscal Year Ending 6/30
10-year Design
Average Bill +184%
5-year Design
Average Bill +168%
2-year Design
Average Bill
increase of 138%
$30
$32
$35
$33
$39
$36
$44
$39
$51
$43
$59
$54
$47
$66
$60
$52
$72
$67
$57
$78
$72
$62
$80
$75
$65
$82
$77
$68
$84
$79
$70
$86
$81
$71

Comparison of Present / Future Rates

2 Year / 24 Hour Design Storm



Conclusion

- The decision needed today- Does the council want to reverse the Department of Environmental Quality and Public Works decision to choose the 2 year / 24 storm as the basis for Sanitary Sewer Remedial Measures Plans?
- The decision not needed today – Decision on an immediate rate increase.

Questions and Answers

LIVE Green
LEXINGTON
Department of Environmental Quality