

DEBT!



**Special thanks to the State and
Local Government Finance
Division of the North Carolina
Department of State Treasurer
for providing data on local
governments' debt**



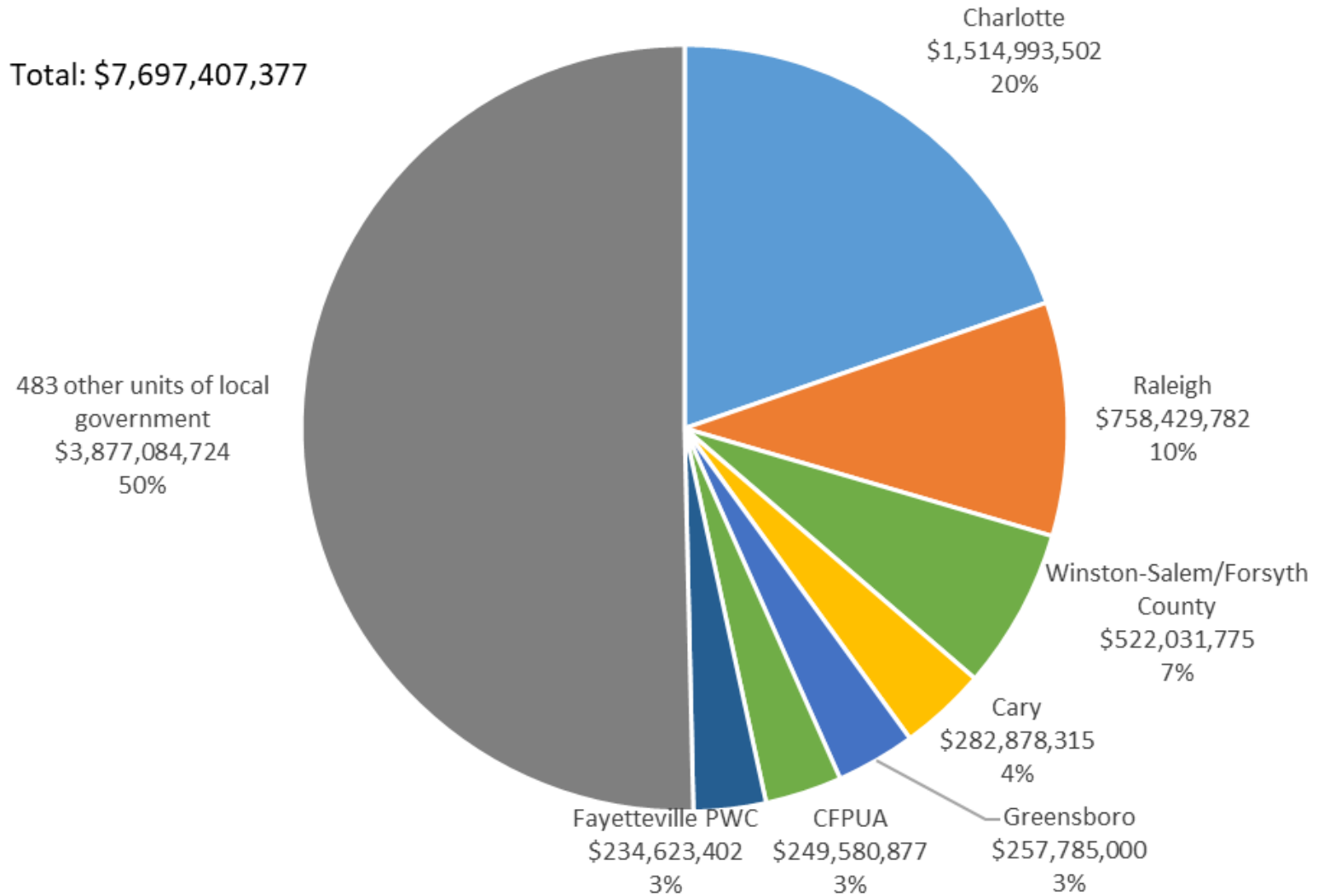
In North Carolina, there were
490* units of local government
carrying **\$7,697,407,377** in
water and wastewater debt
as of **June 30, 2018**.

* Includes several units of local government without an active water/wastewater utility.
There are 380 active water/wastewater utilities with outstanding debt (\$7.4 billion).

There are also **109 active** local government utilities
that **have \$0** outstanding debt
as of **June 30, 2018**.

Preliminary analysis

Outstanding Water and Sanitary Sewer Debt on 6/30/2018 in North Carolina



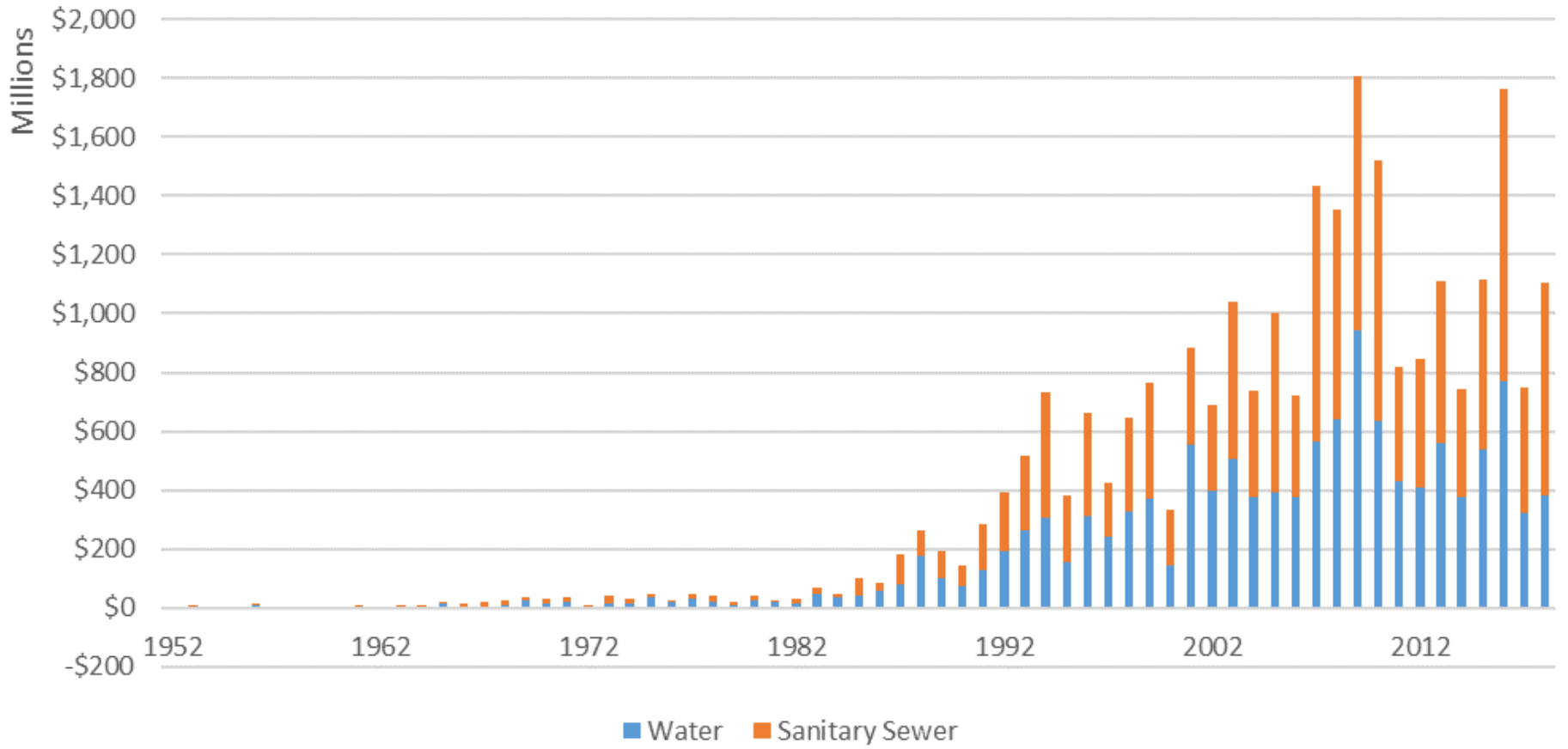
Preliminary analysis

Analysis by the Environmental Finance Center at the UNC School of Government.

Source: Debt data maintained by the State and Local Government Finance Division of the North Carolina Department of State Treasurer.

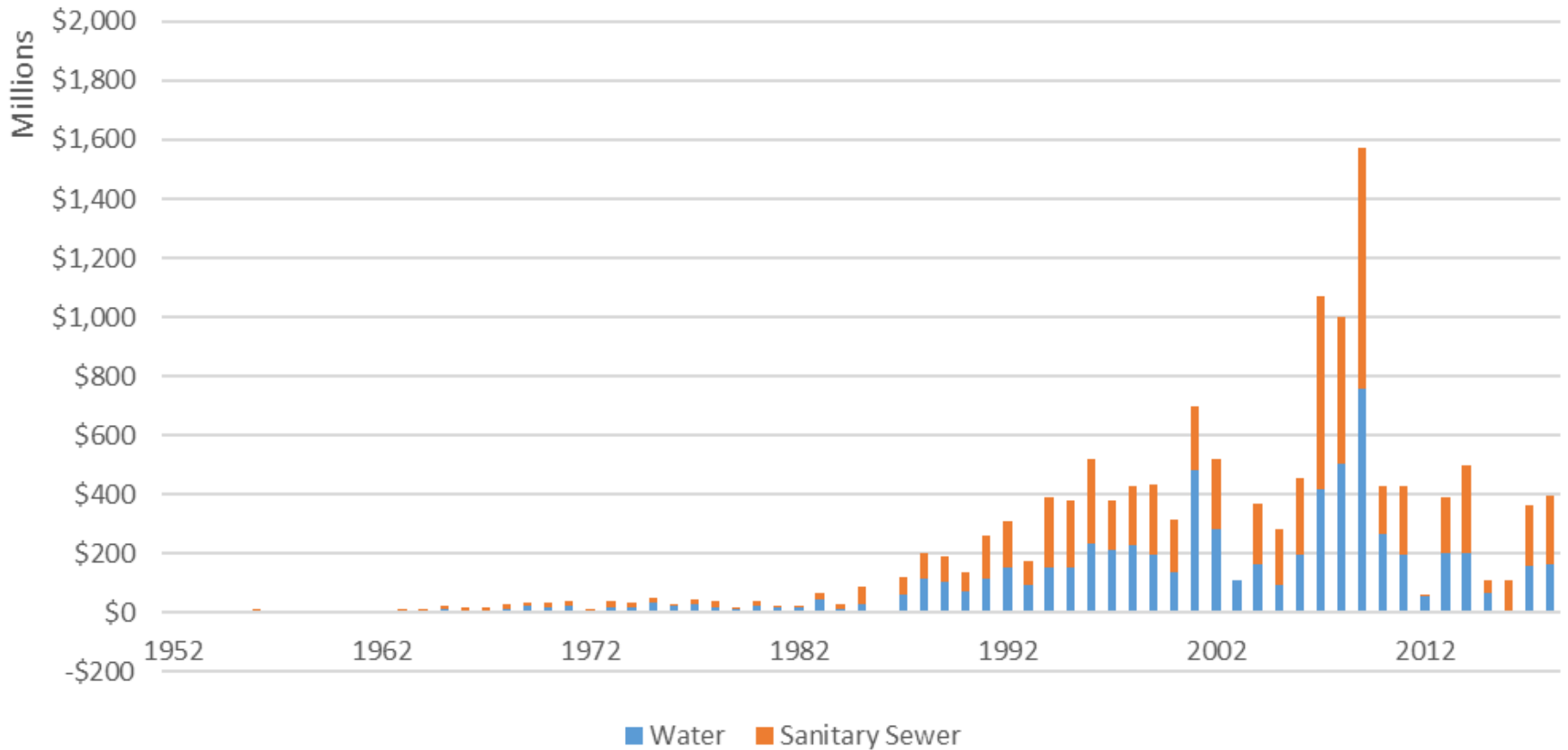
Water and Sanitary Sewer Debt Issuances by Fiscal Year

(nominal dollars, includes amounts to refund existing debt)



Preliminary analysis

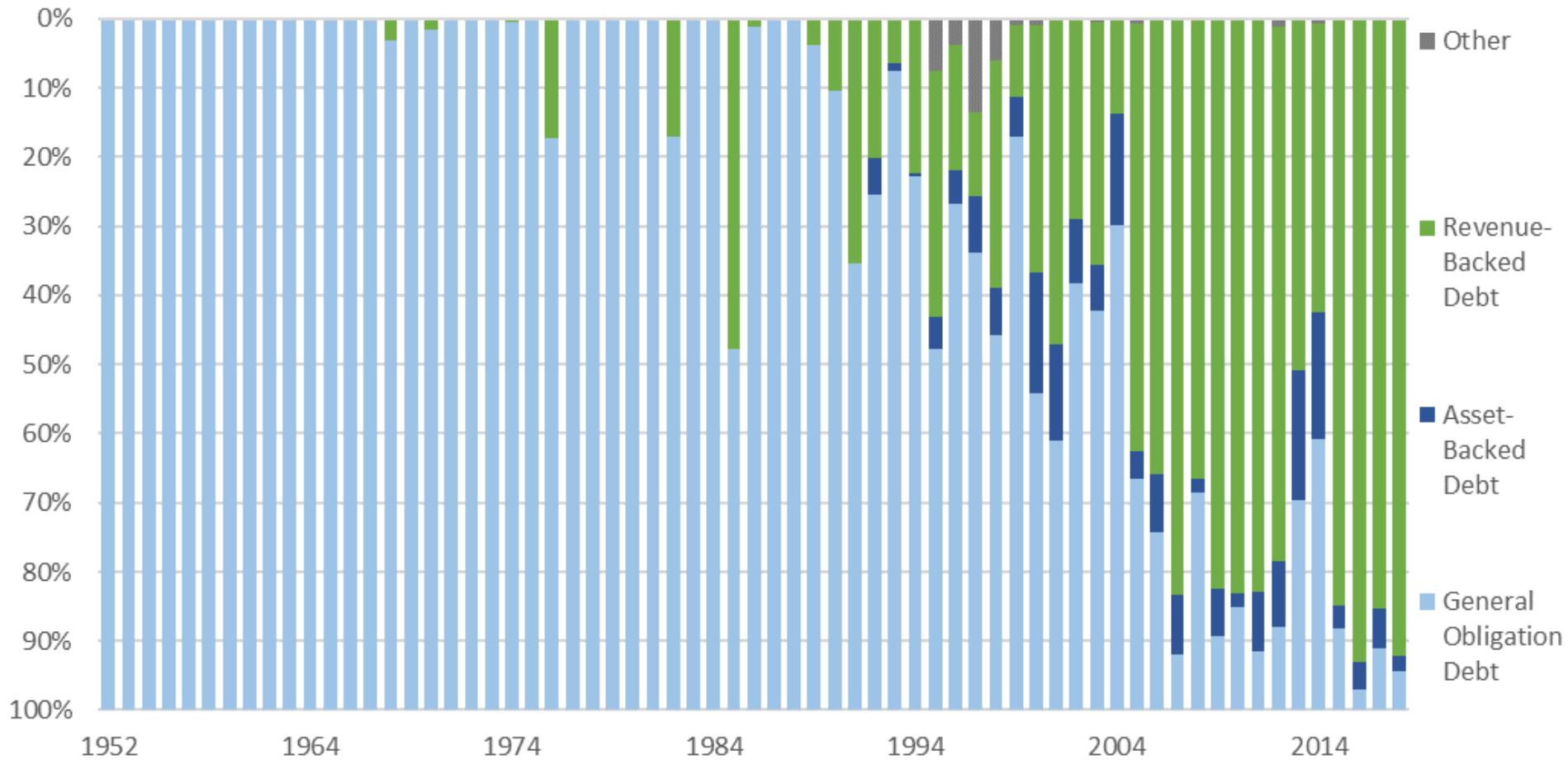
Water and Sanitary Sewer Debt Issuances Net of Refunding Amounts (nominal dollars, excludes amounts to refund existing debt)



Preliminary analysis

Water and Sanitary Sewer Debt Issuances by Type

(Percent by issue amount per Fiscal Year, including amounts to refund existing debt)



Outstanding water and sanitary sewer debt on 6/30/2018:

Revenue-backed = 84%

GO debt = 9%

Asset-backed = 7%

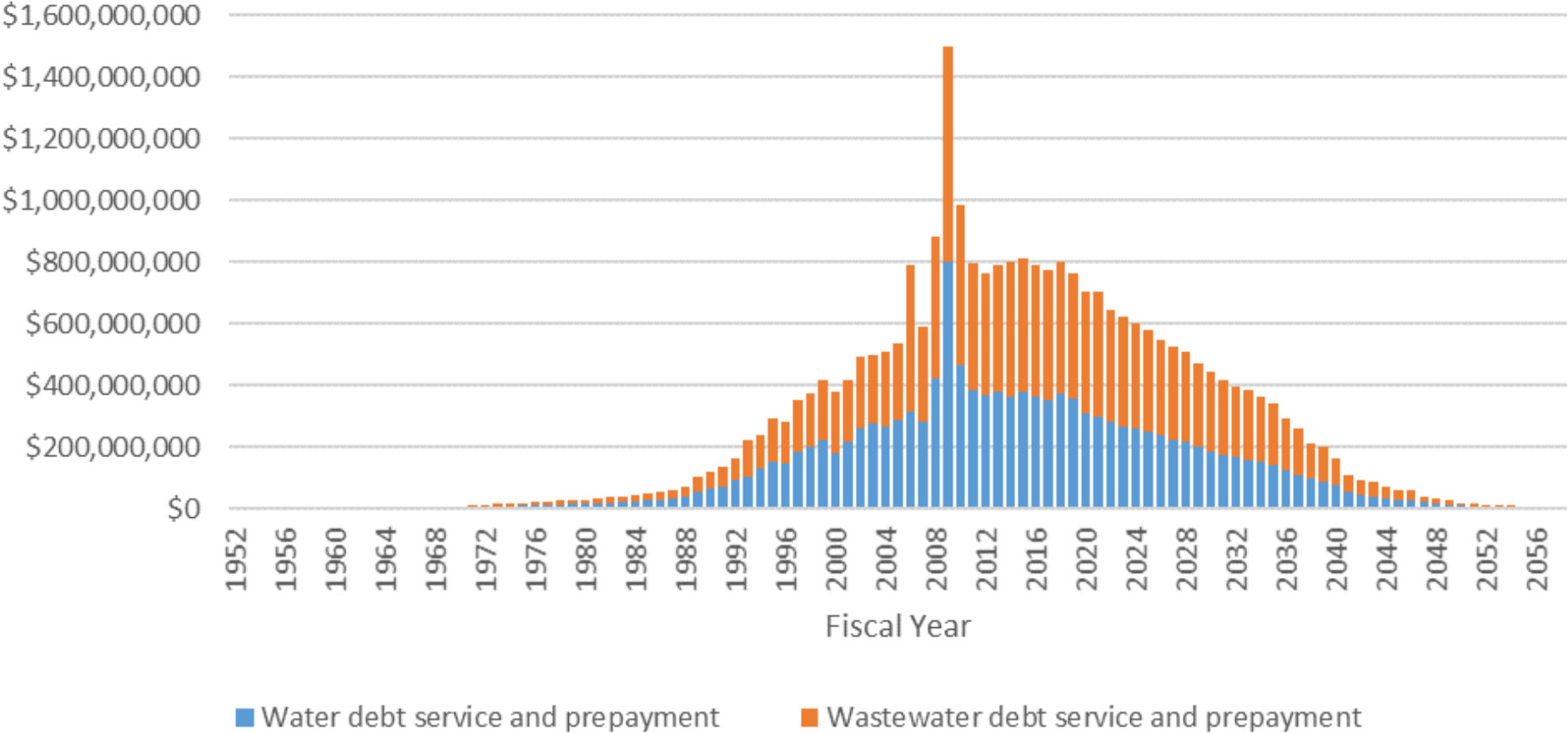
Other = 0.1%

Preliminary analysis



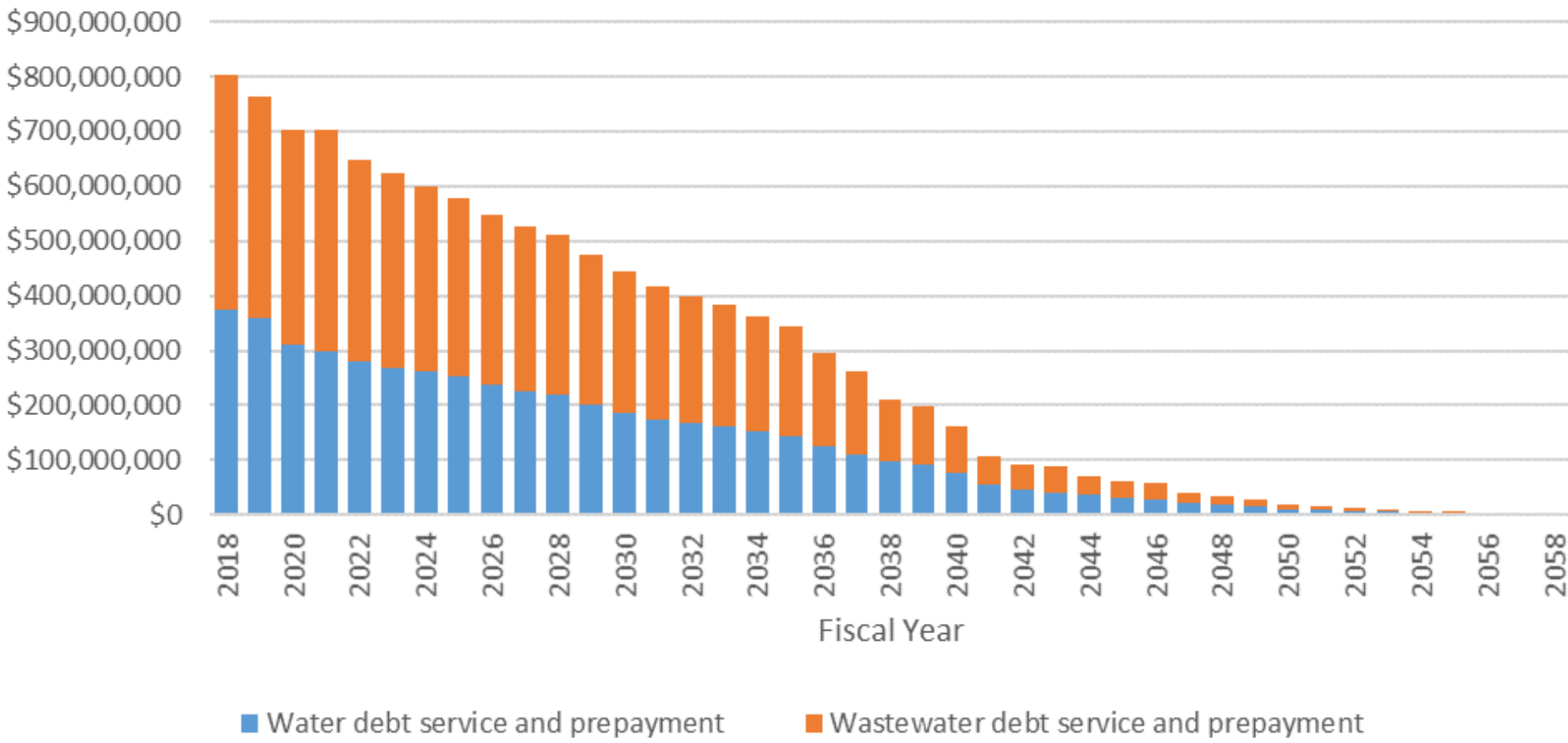
SCHOOL OF GOVERNMENT
Environmental Finance Center

Principal, Interest, Accretion, Sinking Fund, and Prepayments on Water and Sanitary Sewer Debts by all Local Governments in NC (nominal dollars, excludes refunding)



Preliminary analysis

Principal, Interest, Accretion, Sinking Fund, and Prepayments on Water and Sanitary Sewer Debts by all Local Governments in NC (nominal dollars, excludes refunding)



Preliminary analysis

2017

North Carolina's Statewide Water and Wastewater INFRASTRUCTURE MASTER PLAN *The Road to Viability*



Water Infrastructure
ENVIRONMENTAL QUALITY



Executive Summary

Infrastructure is a cornerstone of the economy and there is no more basic infrastructure need than that for water. Clean, safe water – whether for drinking and cooking or for industrial and manufacturing purposes – is needed by every citizen and business in North Carolina. The development of water infrastructure over more than 100 years by local, state, and federal governments is a great accomplishment – yet that success is placed at risk when our water infrastructure is not maintained or modernized.

Over the next 20 years, capital cost estimates for water system needs range from \$10 to \$15 billion, while costs for wastewater system needs range from \$7 to \$11 billion – more likely at the higher end of these ranges. While North Carolina has a competitive advantage over many other states with respect to water resources, these resources are made usable by the infrastructure systems that clean and transport the water. North Carolina's water and wastewater infrastructure must be ready for the needs and challenges of the future.

Infrastructure investments that have been deferred year after year result in an infrastructure gap or deficit. The owners of utilities and other water professionals must be prepared to invest in their economic future by taking the steps needed to address infrastructure challenges and keep North Carolina ahead of other states in economic development.

The State Water Infrastructure Authority (Authority) was created by the General Assembly in 2013 to assess the state's water and wastewater infrastructure needs, the role of the state in funding needed infrastructure, and the funding programs currently available to local governments and utilities. While subsidized loans are the primary vehicle to help make infrastructure more affordable, the Authority recognizes that **only a fraction of today's infrastructure capital needs can be met with currently available state or federal subsidized funding levels. The Authority has initiated a different approach to assist water utilities in closing the gap.**

1

Vision for the Future

The state will best be able to meet its water infrastructure needs by ensuring individual utilities are, or are on a path to be, viable systems

.....

A viable system is one that functions as a long-term, self-sufficient business enterprise, establishes organizational excellence, and provides appropriate levels of infrastructure maintenance, operation, and reinvestment that allow the utility to provide reliable water services now and in the future

Over next 20 years,
capital costs range
\$17 - \$26 billion for
water and wastewater
infrastructure in NC.

Question: can local
governments borrow their
way through these costs?



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Scenario 1: Every local government utility adds a new monthly fee/account

If 456 local government utilities raise their water and/or wastewater monthly bills by:	Potential new debt that can be financed with the fee increase: All utilities	Only utilities with up to 5,000 accounts
\$1.00	\$1.03 billion	\$160 million
\$2.00	\$2.06 billion	\$319 million
\$3.00	\$3.09 billion	\$479 million
\$5.00	\$5.15 billion	\$798 million
\$10.00	\$10.30 billion	\$1.60 billion

Significant assumptions were made regarding wastewater service connections.
Only debt issues >\$25,000 are included.

Preliminary analysis



Scenario 1: Every local government utility adds a new monthly fee/account

If 456 local government utilities raise their water and/or wastewater monthly bills <u>EVERY YEAR</u> for 20 years by:	Potential new debt over 20 years that can be financed with the fee increases: All utilities	Only utilities with up to 5,000 accounts
\$0.25	\$6.02 billion	\$887 million
\$0.50	\$12.06 billion	\$1.80 billion
\$1.00	\$24.13 billion	\$3.62 billion

Significant assumptions were made regarding wastewater service connections, and about the 20-year forecasted number of accounts. Only debt issues >\$25,000 are included.

Preliminary analysis



Scenario 2: Low-rate local government utilities raise rates one time

If raise water and/or wastewater monthly bills for 4,000 gallons/month to match the statewide:	Number of local government utilities generating new revenue (out of 456):	Potential new debt that can be financed with the fee increase: All utilities	Only utilities with up to 5,000 accounts
50th percentile (W: \$29.00, WW: \$36.25)	266	\$4.86 billion	\$614 million
60th percentile (W: \$31.14, WW: \$39.22)	309	\$6.85 billion	\$843 million
75th percentile (W: \$36.25, WW: \$45.00)	367	\$11.56 billion	\$1.45 billion

Significant assumptions were made regarding wastewater service connections.

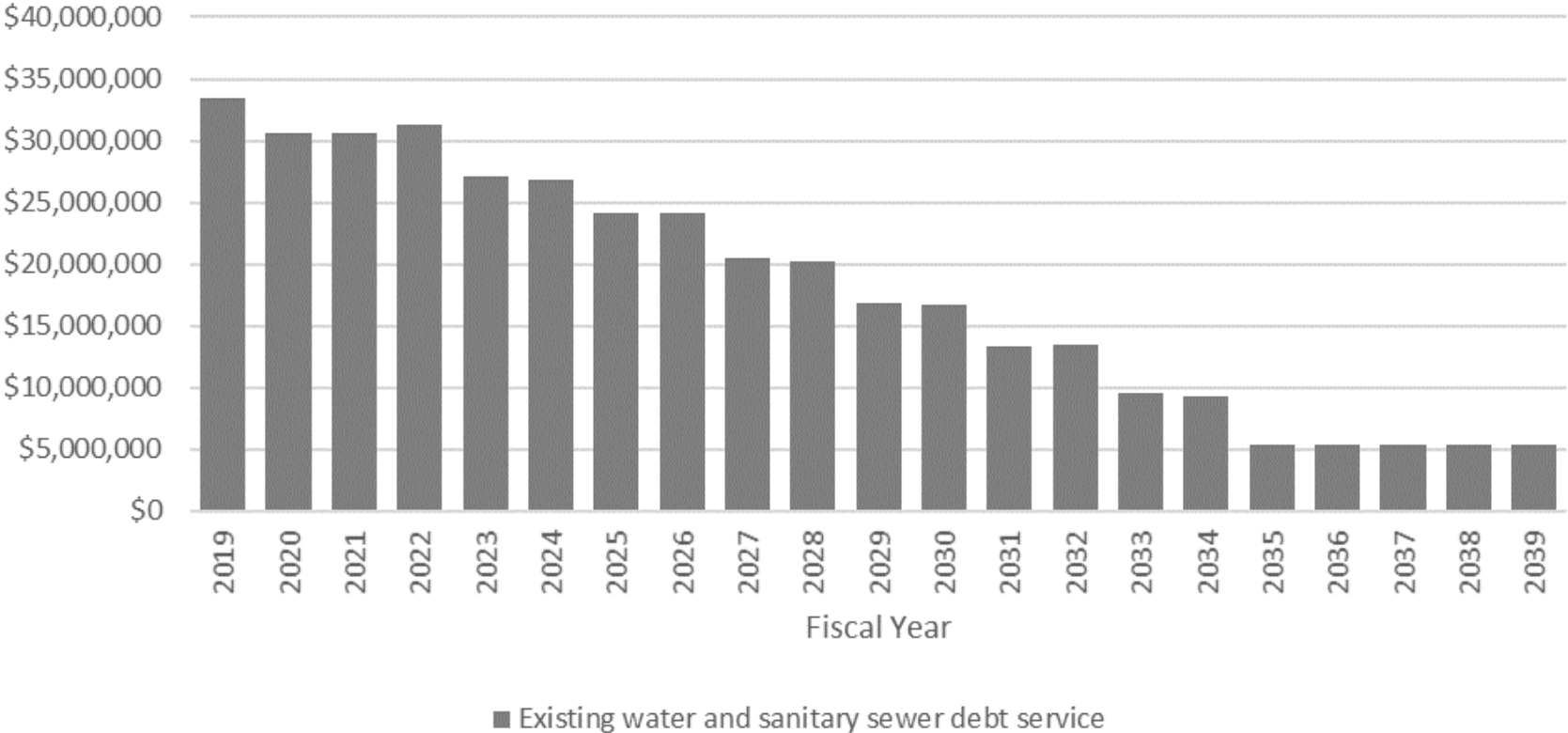
Preliminary analysis

Assumes a fixed fee increase to base charges. Only debt issues >\$25,000 are included.



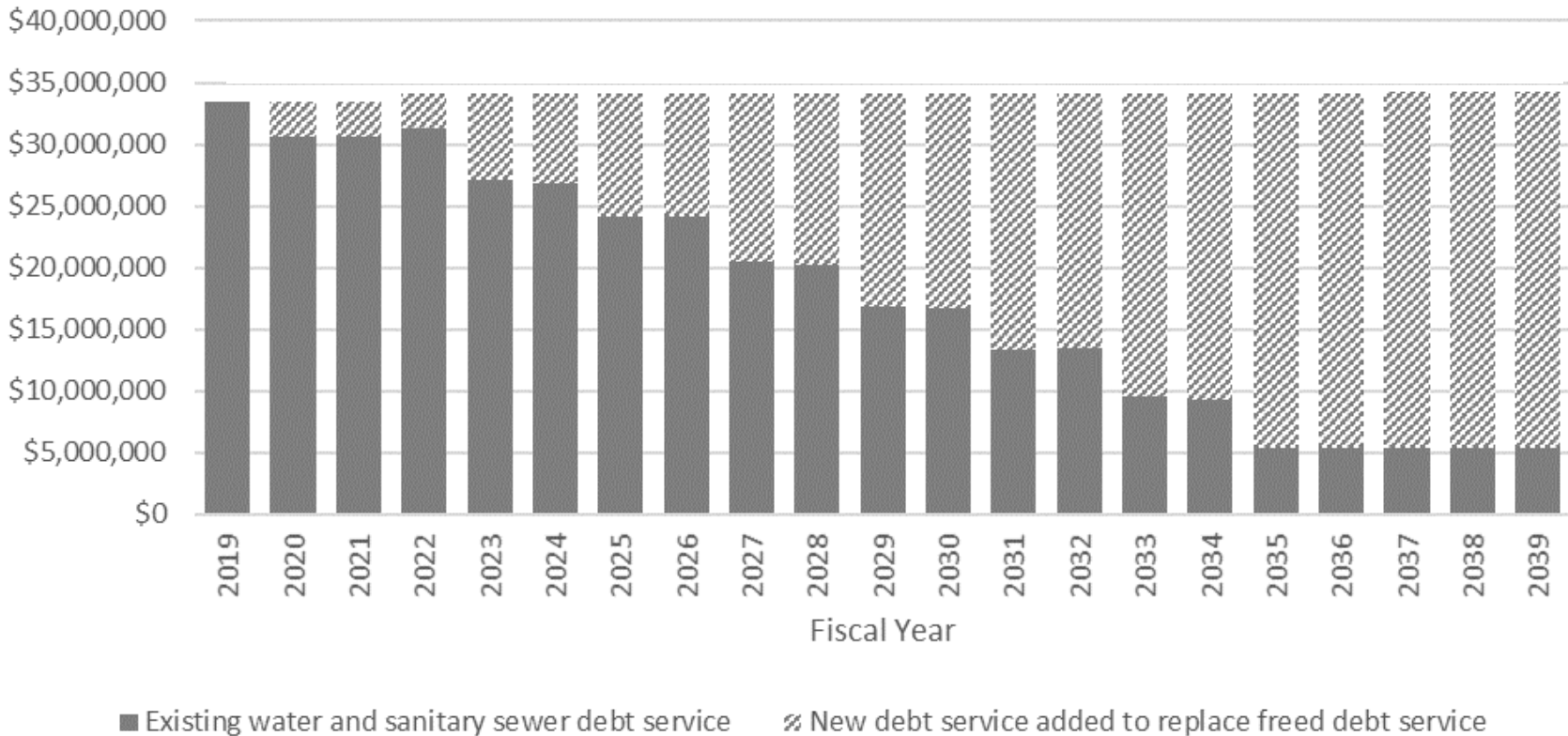
Scenario 3: Always maintain peak debt service payments

Example: Principal, Interest, Accretion, Sinking Fund, and Prepayments on Water and Sanitary Sewer Debts by the City of Greensboro (nominal dollars)



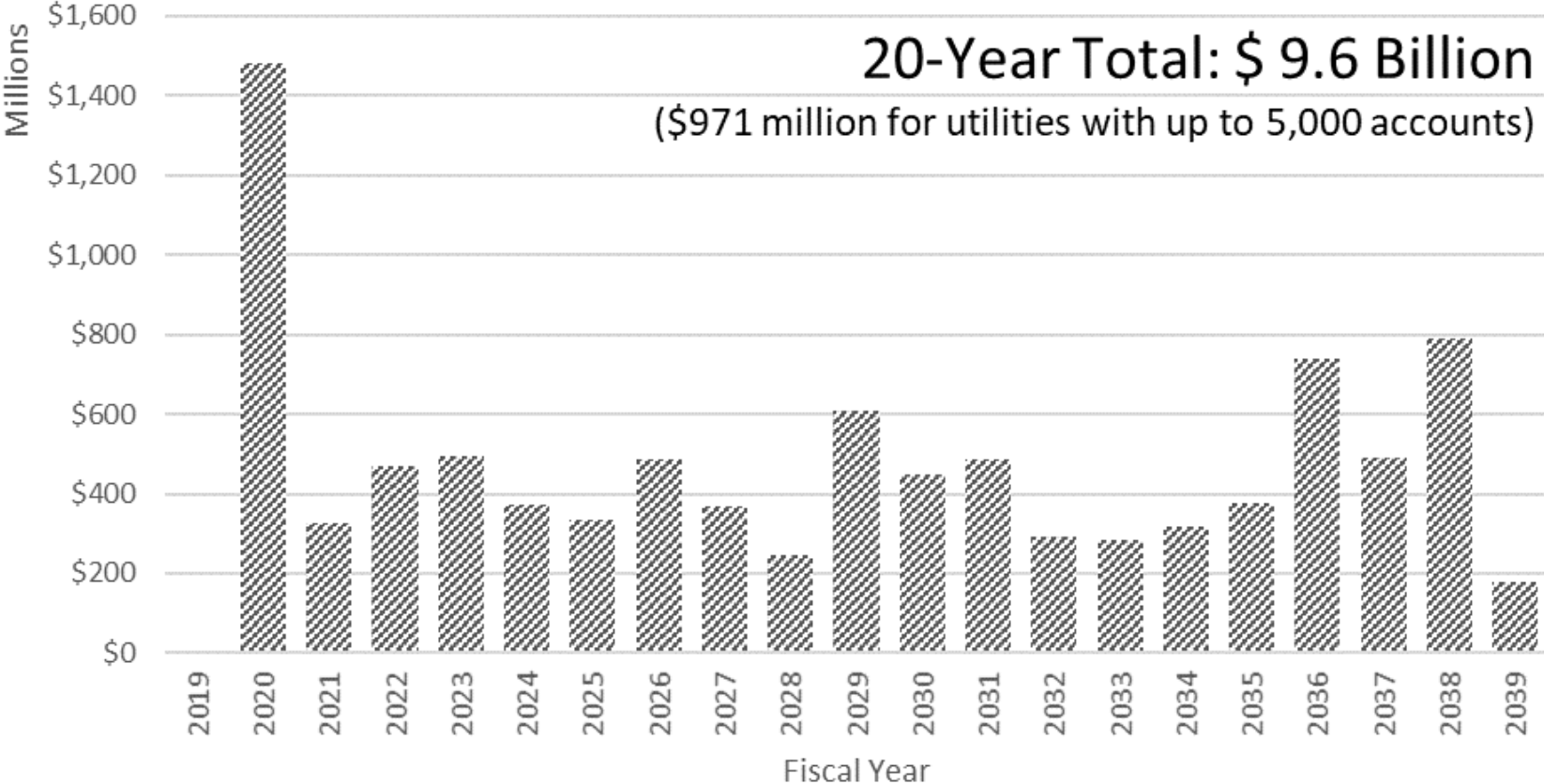
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Scenario 3: Always maintain peak debt service payments

Potential New Debt to Replace Freed Water and Sanitary Sewer Debt Service Across North Carolina Local Governments



Assumes all debt issued as 20-year loans at 2.5% interest rate

Preliminary analysis