Water & Sewer Rate Study

2027-2031

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zactax

Table of Content

Introduction

On behalf of ZacTax, it is my privilege to present this Water and Sewer Rate Study to the City of Merkel. At ZacTax, we believe that healthy cities don't happen by chance, they happen when leaders have the clarity and tools to make confident fiscal choices. Our team is made up of former city managers, finance directors, and planners who have sat in your seats, navigated tight budgets, and carried the weight of a community's expectations. That experience is what drives everything we do, and it is what shaped our approach to this study. Rather than offering a cookie-cutter analysis, we set out to tell your utility's fiscal story in a way that leaders, staff, and residents can actually understand and act on, because your community deserves nothing less.

"Better fiscal choices lead to stronger communities."

This rate study represents our commitment to the long-term financial health of Merkel's water and sewer system. Inside, you will find a thorough analysis of your current cost of service, revenue requirements, and rate structure. All grounded in practical, real-world methodology and presented with the transparency your council and citizens deserve. We have lived the consequences of municipal decisions, and we know how important it is to get this right. Rates that are fair, defensible, and sustainable are not just a financial necessity, they are the foundation of public trust. We are honored to serve as your partner in this work, and we remain committed to helping Merkel build the fiscal strength that strong communities depend on.

Patrick Lawler

CEO & Co-Founder

Executive Summary

Overview:

This report documents the methodology and regulatory compliance framework used in developing the City of Merkel Water and Sewer Rate Model. The model was designed to ensure full compliance with the American Water Works Association (AWWA) M1 Manual, 8th Edition (2025), as well as applicable Texas Public Utility Commission (PUC) and Texas Commission on Environmental Quality (TCEQ) requirements.

Critical Findings: Declining Population Trend

Per Texas Water Development Board (TWDB) projections, the City of Merkel faces a declining population and customer base. This creates a significant financial challenge, revenue erodes while fixed costs continue to increase with inflation. Key demographic factors include:

- Population decline: -0.57% annually (TWDB projection)
- Water demand decline: -0.42% annually
- Impact: Revenue erodes while costs increase, requiring higher per-customer rates to maintain system viability

Key Findings

Key Cost Drivers:

- New Water Debt Service: $298,636 annually (Year 1-4), doubling to $597,272 in Year 5
- New Sewer Debt Service: $304,483 annually (Year 1-4), doubling to $608,966 in Year 5
- Purchased Water Costs: $815,000 annually (approximately 50% of water O&M)
- Inflation: 3.0% annually on operating costs

Water Fund Metrics

	Values
Current Annual Revenue	$1,529,308
Year 1 (FY2027) Revenue Requirement	$1,884,805
Revenue Shortfall	$355,498
Required Rate Increase (Year 1)	**23.25%**

Sewer Fund Metrics

	Values
Current Annual Revenue	$695,961
Year 1 (FY2027) Revenue Requirement	$1,081,036
Revenue Shortfall	$385,201
Required Rate Increase (Year 1)	**55.33%**

Typical Residential Bill Impact

	Current	Proposed	Monthly Increase
Water	$112.10	$147.65	$35.55 (23.25%)
Sewer	$59.50	$92.5	$33 (53.33%)
Total Monthly Bill	**$171.60**	**$240.15**	**$68.55 (40.0%)**

Background & Framework

City of Merkel Water System Overview

The City of Merkel provides water and sewer services to approximately 1,274 water accounts and 1,055 sewer accounts within the city limits and surrounding areas. The City purchases treated water from the City of Abilene through a wholesale water supply agreement, making this a significant cost driver for the water utility.

Note on Purchased Water Costs: Recent meter readings from Abilene have been running slow for several months, which has artificially reduced the apparent purchased water expense. The model uses historical data to normalize this cost component and ensure accurate projections.

AWWA & Texas Requirements

The AWWA M1 Manual, "Principles of Water Rates, Fees, and Charges," is the industry standard for water utility rate design. The 8th Edition (2025) provides updated guidance on cost-of-service principles that form the foundation of this rate study.

AWWA M1 Manual Compliance:

M1 Principle	Application in Model
Revenue Sufficiency	Cash-basis revenue requirements ensure all costs are recovered
Cost Causation	Base-Extra Capacity method allocates costs based on system demands
Equity	Customer classes pay proportional share without cross-subsidization
Rate Structure	Inclining block rates promote conservation; two-part sewer rates

Texas Regulatory Requirements:

The Texas PUC regulates water and sewer utilities under Texas Water Code Chapter 13 and Texas Administrative Code Title 30, Part 1, Chapter 24. This rate study addresses the following requirements:

01 - Just and Reasonable Rates (TAC 24.21):

Rates are based on demonstrated cost of providing service

02 - Customer Class Differentiation (TAC 24.23):

ICL/OCL rate differentials reflect actual cost differences

03 - Conservation Rates (TWC 13.144):

Inclining block structure encourages water conservation

Texas Commission on Environmental Quality (TCEQ)

TCEQ oversees water quality, system operations, and financial capability. The model addresses TCEQ requirements under 30 TAC Chapter 290 by ensuring adequate revenue for system maintenance, capital reserves for infrastructure replacement, and water loss reduction programs.

Methodologies & Data

Revenue Requirements, Rate Code Changes, and Customer Data

Revenue Requirements

Through this analysis, our team sought to understand the full revenue requirements necessary to sustain the City's water and sewer services. We determined the total revenue needed to cover all cash outlays, including operations and maintenance, debt service, and capital investments, in order to establish the required revenue baseline for the rate study's start year of 2027.

Rate Code Update

The City of Merkel's current rate structure includes ten separate rate codes for water and eight for sewer. To standardize and simplify the rate structure, we are proposing to consolidate these into four rate codes for each service, water and sewer.

Customer Data & Units

Understanding each customer class's average annual usage and total account count is important for determining what percentage of current revenues each class contributes, and how the proposed rates will impact their share of future revenues.

Revenue Needs & Total Accounts

Below, our team outlines the key revenue needs and findings that informed the proposed rate structure.

Water Fund Revenue Year 1 Requirements:

$1,534,767
Operations & Maintenance

$142,00
Existing Debt Service

$298,636
Proposed New Debt Service

$51,500
Capital Reserve Contributions

-$142,037
Non-Rate Revenues

$1,884,866
TOTAL WATER REVENUE REQUIREMENT

Sewer Fund Revenue Year 1 Requirements:

$503,633
Operations & Maintenance

$235,500
Existing Debt Service

$304,483
Proposed New Debt Service

$51,500
Capital Reserve Contributions

-$14,080
Non-Rate Revenues

$1,081,036
TOTAL SEWER REVENUE REQUIREMENT

Residential In City Limits	1,022	water
	982	sewer
Residential Outside City Limits	149	water
	2	sewer
Commercial In City Limits	82	water
	71	sewer
Commercial Outside City Limits	21	water
	0	sewer

1,274
Total Water Accounts

1,055
Total Sewer Accounts

Proposed Rate Design

Rate Structure

The proposed rate structure was developed in accordance with the guidance outlined by AWWA, which serves as the industry standard for water and sewer rate design. For water, we are recommending an inclining block structure, where the volumetric rate increases as usage rises, a design intentionally built to encourage conservation and ensure that higher-volume users contribute a greater share of system costs. For sewer, the proposed structure consists of two components: a fixed base charge that covers the baseline costs of maintaining the system, and a volumetric rate tied to actual usage. Together, these structures are designed to be both equitable for customers and financially sustainable for the City over the long term.

Rate Structure for FY 2027

Proposed Water Rates	Base	Tier 1	Tier 2	Tier 3	%Change
Residential ICL	$46.03	$18.43	$19.04	$19.66	23%
Residential OCL	$55.24	$22.12	$22.85	$23.59	23%
Commercial ICL	$52.50	$20.89	$21.51	$22.12	23%
Commercial OCL	$63.00	$25.07	$25.81	$26.54	25%

Note: Volumetric rates are per 1,000 gallons. Tier 1 = 0-5,000 gal; Tier 2 = 5,001-10,000 gal; Tier 3 = 10,001+ gal

Proposed Sewer Rates	Base	Per 1,000 Gal	%Change
Residential ICL	$65.24	$5.44	55.33%
Residential OCL	$78.29	$6.53	28.76%
Commercial ICL	$67.57	$5.82	55.33%
Commercial OCL	$81.08	$6.98	59.00%

Outside City Limits (OCL) Rate Premium Justification

OCL customers pay a 20% premium over Inside City Limits (ICL) rates. This differential is justified by:

- Extended distribution infrastructure and maintenance costs
- Higher peaking factors requiring additional system capacity
- No City property tax contribution to utility operations
- Increased service complexity (travel time, emergency response)

City Water Rate Comparison

The rates used to build the graphs reflect the City of Merkel's proposed rates for the upcoming fiscal year, not the current or prior rates.

Merkel Proposed Water Rates

	Base Charge	Charge /1,000 Gallons
Residential	$46.03	$18.43
Commercial	$52.50	$ 20.89

City Comparison

	Res Base Charge	Res Charge /1,000 Gallons	Com Base Charge	Com Charge /1,000 Gallons
Blair WSC	$30.00	$20.00	n/a	n/a
City of Ballinger	$44.49	$8.93	$44.49	$8.93
City of Buffalo Gap	$34.60	$13.85	$34.60	$13.85
City of Clyde	$60.50	$8.50	$72.50	$9.50
City of Hamlin	$25.00	$8.00	$25.00	$8.00
City of TYE	$24.08	$11.29	$27.00	$11.29
S.U.N. WSC	$70.00	$14.85	n/a	n/a
Steamboat WSC	$27.50	$13.57	n/a	n/a

City Sewer Rate Comparison

The rates used to build the graphs reflect the City of Merkel's proposed rates for the upcoming fiscal year, not the current or prior rates.

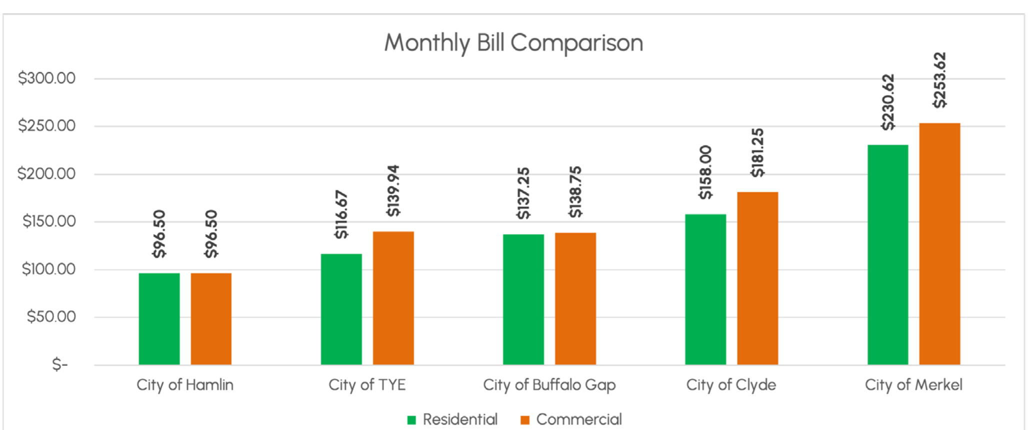
Merkel Proposed Sewer Rates

	Base Charge	Charge /1,000 Gallons
Residential	$65.24	$5.44
Commercial	$67.57	$5.82

City Comparison

	Res Base Charge	Res Charge /1,000 Gallons	Com Base Charge	Com Charge /1,000 Gallons
City of Buffalo Gap	$28.40	$1.00	$29.90	$1.00
City of Clyde	$47.50	$1.50	$52.50	$1.75
City of Hamlin	$21.00	$2.10	$21.00	$2.10
City of TYE	$12.79	$4.67	$33.14	$4.67

Monthly bill is calculated for inside city limit accounts for first tier of usage (6,000 gallons) for both sewer and water rates



Five Year Financial Projections

Assumptions

Inflation Rate	Customer Growth (TWDB)	Usage Growth (TWDB)	OCL Rate Premium
3.0% Annually	-0.57% annually (declining)	-0.42% annually (declining)	20%

Annual Rate Adjustments Required

To meet the City's projected revenue requirements, our team is recommending phased rate increases over the study period. Year 1 (FY 2027) and Year 5 (FY 2031) reflect the most significant adjustments. The Year 1 increase is driven by the need to bring rates in line with the current cost of service. Many systems experience this initial step-up when rates have not kept pace with rising operational demands. The Year 5 increase is largely attributable to anticipated new debt issuance associated with planned capital improvements.

Year	Water	Sewer
Year 1 - 2027	23.35%	55.33%
Year 2 - 2028	2.3%	1.5%
Year 3 - 2029	2.3%	1.5%
Year 4 - 2030	2.3%	1.55%
Year 5 - 2031	17.13%	28.5%

Revenue Requirements Projections:

Water Fund

$1.88M
Year 1

$1.93M
Year 2

$1.97M
Year 3

$2.02M
Year 4

$2.36M
Year 5

Sewer Fund

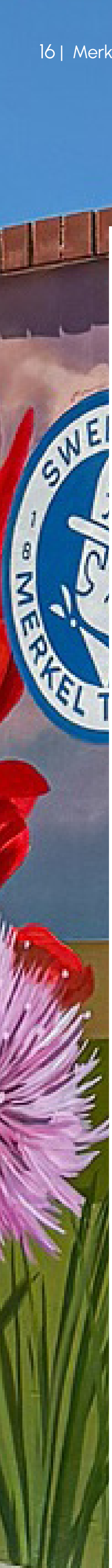
$1.08M
Year 1

$1.1M
Year 2

$1.114M
Year 3

$1.13M
Year 4

$1.45M
Year 5



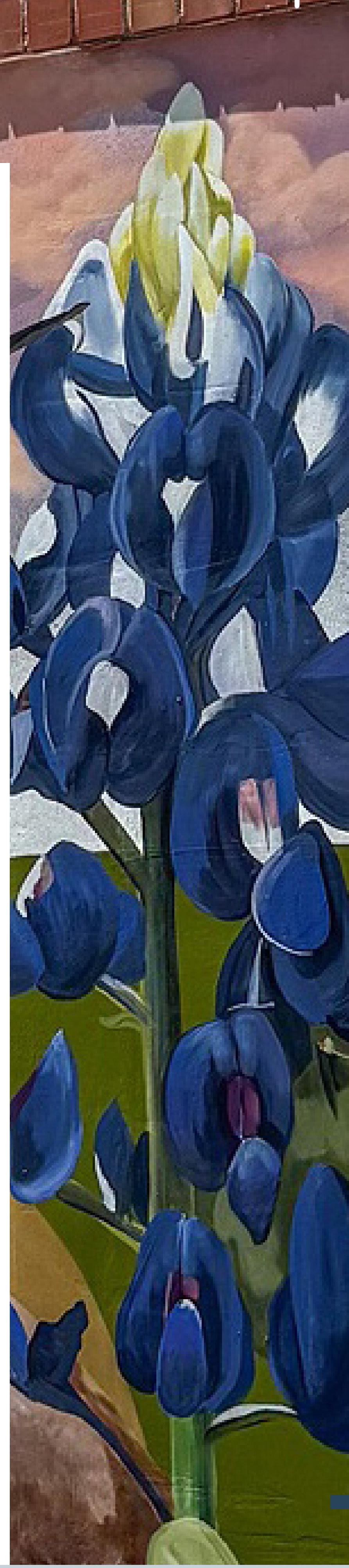
New Debt Impact

Alternative Rate Structure

The model includes a scenario analysis comparing rates with and without proposed new debt service. This demonstrates the portion of rate increases attributable to capital financing.

Although this an alternative scenario without new debt calculated in the rate structure, it's important to note that even without new debt, significant rate increases would still be required due to:

- Current revenue shortfall (rates have not kept pace with costs)
- Ongoing inflation on operating costs
- Declining customer base spreading fixed costs across fewer customers



Alternative Rate Structure for FY 2027

Proposed Water Rates	Base	Tier 1	Tier 2	Tier 3	%Change
Residential ICL	$38.74	$15.51	$16.03	$16.54	3.7%
Residential OCL	$46.49	$18.61	$19.24	$19.85	3.7%
Commercial ICL	$44.19	$17.58	$18.10	$18.62	3.7%
Commercial OCL	$53.03	$21.10	$21.72	$22.34	5.85%

Note: Volumetric rates are per 1,000 gallons. Tier 1 = 0-5,000 gal; Tier 2 = 5,001-10,000 gal; Tier 3 = 10,001+ gal

Proposed Sewer Rates	Base	Per 1,000 Gal	%Change
Residential ICL	$46.86	$3.91	11.6%
Residential OCL	$56.23	$4.69	-7.5%
Commercial ICL	$48.54	$4.18	11.6%
Commercial OCL	$58.25	$5.02	14.2%

Rate Increase Comparison

	With New Debt	Without Debt	Debt Impact
Water	23.25%	3.7%	19.5%
Sewer	55.33%	11.6%	43.75%

Note: "Debt Impact" shows the additional rate increase required solely to fund proposed capital projects

5-year Bond Issuance + Inflation

As part of the ongoing analysis to support the recommended water and sewer capital replacement needs, we modeled three funding scenarios: a $5 million issuance, a $7.5 million issuance, and a $9.7 million issuance. The purpose of this analysis was to evaluate how each issuance level would perform in meeting the City's projected capital requirements over time.

The results indicate that neither the $5 million nor the $7.5 million issuance cycle provided sufficient funding to address capital needs in a timely or sustainable manner. A $5 million issuance every five years was unable to fully meet capital requirements due to anticipated inflationary increases in the cost of goods and services, which eroded the purchasing power of each issuance. Similarly, a $7.5 million issuance every five years failed to generate adequate funding within a reasonable timeframe, resulting in deferred projects and increased long-term costs.

By comparison, the $9.7 million issuance provided the most effective and timely approach, fully funding the necessary projects within a 33-year period. This higher issuance amount allowed for more consistent reinvestment in infrastructure and helped mitigate the effects of inflation and deferred maintenance.

Accordingly, rate models have not been developed for the $5 million and $7.5 million issuance scenarios. **Appendix A** at the end of the report provides additional detail on the performance of the lower issuance amounts and illustrates their limitations in meeting long-term capital funding needs.

Recommendations

Immediate Actions

1. Implement Proposed Rates: Adopt Year 1 rates to address revenue shortfall and fund critical infrastructure
2. Monitor Abilene Meters: Work with City of Abilene to resolve meter accuracy issues
3. Customer Communication: Develop communication plan explaining rate changes and capital needs

Ongoing Actions

1. Annual Rate Review: Implement annual reviews per the 5-year projection schedule
2. Capital Planning: Coordinate rate adjustments with capital improvement timing
3. Reserve Fund Targets: Maintain annual capital reserve contributions per M1 guidance

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Appendix A

$5 Million Scenario Schedule					
Row #	Fiscal Year	Bond Issued This Year	Cum Bonds Issued	Remaining Balance (inflated	Total Funding Required
0	2026	$0.00	$0.00	$39,979,520.80	$39,979,520.80
1	2027	$0.00	$0.00	$41,178,906.42	$41,178,906.42
2	2028	$5,000,000.00	$5,000,000.00	$37,414,273.62	$42,414,273.62
3	2029	$0.00	$5,000,000.00	$38,536,701.83	$43,536,701.83
4	2030	$0.00	$5,000,000.00	$39,692,802.88	$44,692,802.88
5	2031	$0.00	$5,000,000.00	$40,883,586.97	$45,883,586.97
6	2032	$0.00	$5,000,000.00	$42,110,094.58	$47,110,094.58
7	2033	$5,000,000.00	$10,000,000.00	$38,373,397.41	$48,373,397.41
8	2034	$0.00	$10,000,000.00	$39,524,599.34	$49,524,599.34
9	2035	$0.00	$10,000,000.00	$40,710,337.32	$50,710,337.32
10	2036	$0.00	$10,000,000.00	$41,931,647.43	$51,931,647.43
11	2037	$0.00	$10,000,000.00	$43,189,596.86	$53,189,596.86
12	2038	$5,000,000.00	$15,000,000.00	$39,485,284.76	$54,485,284.76
13	2039	$0.00	$15,000,000.00	$40,669,843.31	$55,669,843.31
14	2040	$0.00	$15,000,000.00	$41,889,938.61	$56,889,938.61
15	2041	$0.00	$15,000,000.00	$43,146,636.76	$58,146,636.76
16	2042	$0.00	$15,000,000.00	$44,441,035.87	$59,441,035.87
17	2043	$5,000,000.00	$20,000,000.00	$40,774,266.94	$60,774,266.94
18	2044	$0.00	$20,000,000.00	$41,997,494.95	$61,997,494.95
19	2045	$0.00	$20,000,000.00	$43,257,419.80	$63,257,419.80
20	2046	$0.00	$20,000,000.00	$44,555,142.39	$64,555,142.39
21	2047	$0.00	$20,000,000.00	$45,891,796.66	$65,891,796.66
22	2048	$5,000,000.00	$25,000,000.00	$42,268,550.56	$67,268,550.56
23	2049	$0.00	$25,000,000.00	$43,536,607.08	$68,536,607.08
24	2050	$0.00	$25,000,000.00	$44,842,705.29	$69,842,705.29
25	2051	$0.00	$25,000,000.00	$46,187,986.45	$71,187,986.45
26	2052	$0.00	$25,000,000.00	$47,573,626.05	$72,573,626.05
27	2053	$5,000,000.00	$30,000,000.00	$44,000,834.83	$74,000,834.83
28	2054	$0.00	$30,000,000.00	$45,320,859.87	$75,320,859.87
29	2055	$0.00	$30,000,000.00	$46,680,485.67	$76,680,485.67
30	2056	$0.00	$30,000,000.00	$48,080,900.24	$78,080,900.24
31	2057	$0.00	$30,000,000.00	$49,523,327.25	$79,523,327.25
32	2058	$5,000,000.00	$35,000,000.00	$46,009,027.06	$81,009,027.06
33	2059	$0.00	$35,000,000.00	$47,389,297.88	$82,389,297.88
34	2060	$0.00	$35,000,000.00	$48,810,976.81	$83,810,976.81
35	2061	$0.00	$35,000,000.00	$50,275,306.12	$85,275,306.12
36	2062	$0.00	$35,000,000.00	$51,783,565.30	$86,783,565.30
37	2063	$5,000,000.00	$40,000,000.00	$48,337,072.26	$88,337,072.26
38	2064	$0.00	$40,000,000.00	$49,787,184.43	$89,787,184.43
39	2065	$0.00	$40,000,000.00	$51,280,799.96	$91,280,799.96
40	2066	$0.00	$40,000,000.00	$52,819,223.96	$92,819,223.96
41	2067	$0.00	$40,000,000.00	$54,403,800.68	$94,403,800.68
42	2068	$5,000,000.00	$45,000,000.00	$51,035,914.70	$96,035,914.70
43	2069	$0.00	$45,000,000.00	$52,566,992.14	$97,566,992.14
44	2070	$0.00	$45,000,000.00	$54,144,001.90	$99,144,001.90
45	2071	$0.00	$45,000,000.00	$55,768,321.96	$100,768,321.96
46	2072	$0.00	$45,000,000.00	$57,441,371.62	$102,441,371.62
47	2073	$5,000,000.00	$50,000,000.00	$54,164,612.77	$104,164,612.77
48	2074	$0.00	$50,000,000.00	$55,789,551.15	$105,789,551.15
49	2075	$0.00	$50,000,000.00	$57,463,237.68	$107,463,237.68
50	2076	$0.00	$50,000,000.00	$59,187,134.81	$109,187,134.81
51	2077	$0.00	$50,000,000.00	$60,962,748.86	$110,962,748.86
52	2078	$5,000,000.00	$55,000,000.00	$57,791,631.32	$112,791,631.32
53	2079	$0.00	$55,000,000.00	$59,525,380.26	$114,525,380.26
54	2080	$0.00	$55,000,000.00	$61,311,141.67	$116,311,141.67
55	2081	$0.00	$55,000,000.00	$63,150,475.92	$118,150,475.92
56	2082	$0.00	$55,000,000.00	$65,044,990.20	$120,044,990.20
57	2083	$5,000,000.00	$60,000,000.00	$61,996,339.91	$121,996,339.91
58	2084	$0.00	$60,000,000.00	$63,856,230.10	$123,856,230.10
59	2085	$0.00	$60,000,000.00	$65,771,917.01	$125,771,917.01

Appendix A Cont.

$7.5 Million Scenario Schedule					
Row #	Fiscal Year	Bond Issued This Year	Cum Bonds Issued	Remaining Balance (inflated)	Total Funding Required
0	2026	$0.00	$0.00	$39,979,520.80	$39,979,520.80
1	2027	$0.00	$0.00	$41,178,906.42	$41,178,906.42
2	2028	$7,500,000.00	$7,500,000.00	$34,914,273.62	$42,414,273.62
3	2029	$0.00	$7,500,000.00	$35,961,701.83	$43,461,701.83
4	2030	$0.00	$7,500,000.00	$37,040,552.88	$44,540,552.88
5	2031	$0.00	$7,500,000.00	$38,151,769.47	$45,651,769.47
6	2032	$0.00	$7,500,000.00	$39,296,322.55	$46,796,322.55
7	2033	$7,500,000.00	$15,000,000.00	$32,975,212.23	$47,975,212.23
8	2034	$0.00	$15,000,000.00	$33,964,468.59	$48,964,468.59
9	2035	$0.00	$15,000,000.00	$34,983,402.65	$49,983,402.65
10	2036	$0.00	$15,000,000.00	$36,032,904.73	$51,032,904.73
11	2037	$0.00	$15,000,000.00	$37,113,891.87	$52,113,891.87
12	2038	$7,500,000.00	$22,500,000.00	$30,727,308.63	$53,227,308.63
13	2039	$0.00	$22,500,000.00	$31,649,127.89	$54,149,127.89
14	2040	$0.00	$22,500,000.00	$32,598,601.72	$55,098,601.72
15	2041	$0.00	$22,500,000.00	$33,576,559.78	$56,076,559.78
16	2042	$0.00	$22,500,000.00	$34,583,856.57	$57,083,856.57
17	2043	$7,500,000.00	$30,000,000.00	$28,121,372.27	$58,121,372.27
18	2044	$0.00	$30,000,000.00	$28,965,013.43	$58,965,013.43
19	2045	$0.00	$30,000,000.00	$29,833,963.84	$59,833,963.84
20	2046	$0.00	$30,000,000.00	$30,728,982.75	$60,728,982.75
21	2047	$0.00	$30,000,000.00	$31,650,852.24	$61,650,852.24
22	2048	$7,500,000.00	$37,500,000.00	$25,100,377.80	$62,600,377.80
23	2049	$0.00	$37,500,000.00	$25,853,389.14	$63,353,389.14
24	2050	$0.00	$37,500,000.00	$26,628,990.81	$64,128,990.81
25	2051	$0.00	$37,500,000.00	$27,427,860.54	$64,927,860.54
26	2052	$0.00	$37,500,000.00	$28,250,696.35	$65,750,696.35
27	2053	$7,500,000.00	$45,000,000.00	$21,598,217.24	$66,598,217.24
28	2054	$0.00	$45,000,000.00	$22,246,163.76	$67,246,163.76
29	2055	$0.00	$45,000,000.00	$22,913,548.67	$67,913,548.67
30	2056	$0.00	$45,000,000.00	$23,600,955.13	$68,600,955.13
31	2057	$0.00	$45,000,000.00	$24,308,983.79	$69,308,983.79
32	2058	$7,500,000.00	$52,500,000.00	$17,538,253.30	$70,038,253.30
33	2059	$0.00	$52,500,000.00	$18,064,400.90	$70,564,400.90
34	2060	$0.00	$52,500,000.00	$18,606,332.93	$71,106,332.93
35	2061	$0.00	$52,500,000.00	$19,164,522.91	$71,664,522.91
36	2062	$0.00	$52,500,000.00	$19,739,458.60	$72,239,458.60
37	2063	$7,500,000.00	$60,000,000.00	$12,831,642.36	$72,831,642.36
38	2064	$0.00	$60,000,000.00	$13,216,591.63	$73,216,591.63
39	2065	$0.00	$60,000,000.00	$13,613,089.38	$73,613,089.38
40	2066	$0.00	$60,000,000.00	$14,021,482.06	$74,021,482.06
41	2067	$0.00	$60,000,000.00	$14,442,126.52	$74,442,126.52
42	2068	$7,500,000.00	$67,500,000.00	$7,375,390.32	$74,875,390.32
43	2069	$0.00	$67,500,000.00	$7,596,652.03	$75,096,652.03
44	2070	$0.00	$67,500,000.00	$7,824,551.59	$75,324,551.59
45	2071	$0.00	$67,500,000.00	$8,059,288.13	$75,559,288.13
46	2072	$0.00	$67,500,000.00	$8,301,066.78	$75,801,066.78
47	2073	$7,500,000.00	$75,000,000.00	$1,050,098.78	$76,050,098.78
48	2074	$0.00	$75,000,000.00	$1,081,601.75	$76,081,601.75
49	2075	$0.00	$75,000,000.00	$1,114,049.80	$76,114,049.80
50	2076	$0.00	$75,000,000.00	$1,147,471.29	$76,147,471.29
51	2077	$0.00	$75,000,000.00	$1,181,895.43	$76,181,895.43
52	2078	$1,217,352.29	$76,217,352.29	$0.00	$76,217,352.29
53	2079	$0.00	$76,217,352.29	$0.00	$76,217,352.29

Appendix A Cont.

$9.7 Million Scenario Schedule					
Row #	Fiscal Year	Bond Issued This Year	Cum Bonds Issued	Remaining Balance (inflated)	Total Funding Required
0	2026	$0.00	$0.00	$39,979,520.80	$39,979,520.80
1	2027	$0.00	$0.00	$41,178,906.42	$41,178,906.42
2	2028	$9,700,000.00	$9,700,000.00	$32,714,273.62	$42,414,273.62
3	2029	$0.00	$9,700,000.00	$33,695,701.83	$43,395,701.83
4	2030	$0.00	$9,700,000.00	$34,706,572.88	$44,406,572.88
5	2031	$0.00	$9,700,000.00	$35,747,770.07	$45,447,770.07
6	2032	$0.00	$9,700,000.00	$36,820,203.17	$46,520,203.17
7	2033	$9,700,000.00	$19,400,000.00	$28,224,809.26	$47,624,809.26
8	2034	$0.00	$19,400,000.00	$29,071,553.54	$48,471,553.54
9	2035	$0.00	$19,400,000.00	$29,943,700.15	$49,343,700.15
10	2036	$0.00	$19,400,000.00	$30,842,011.15	$50,242,011.15
11	2037	$0.00	$19,400,000.00	$31,767,271.49	$51,167,271.49
12	2038	$9,700,000.00	$29,100,000.00	$23,020,289.63	$52,120,289.63
13	2039	$0.00	$29,100,000.00	$23,710,898.32	$52,810,898.32
14	2040	$0.00	$29,100,000.00	$24,422,225.27	$53,522,225.27
15	2041	$0.00	$29,100,000.00	$25,154,892.03	$54,254,892.03
16	2042	$0.00	$29,100,000.00	$25,909,538.79	$55,009,538.79
17	2043	$9,700,000.00	$38,800,000.00	$16,986,824.95	$55,786,824.95
18	2044	$0.00	$38,800,000.00	$17,496,429.70	$56,296,429.70
19	2045	$0.00	$38,800,000.00	$18,021,322.59	$56,821,322.59
20	2046	$0.00	$38,800,000.00	$18,561,962.27	$57,361,962.27
21	2047	$0.00	$38,800,000.00	$19,118,821.14	$57,918,821.14
22	2048	$9,700,000.00	$48,500,000.00	$9,992,385.77	$58,492,385.77
23	2049	$0.00	$48,500,000.00	$10,292,157.34	$58,792,157.34
24	2050	$0.00	$48,500,000.00	$10,600,922.07	$59,100,922.07
25	2051	$0.00	$48,500,000.00	$10,918,949.73	$59,418,949.73
26	2052	$0.00	$48,500,000.00	$11,246,518.22	$59,746,518.22
27	2053	$9,700,000.00	$58,200,000.00	$1,883,913.77	$60,083,913.77
28	2054	$0.00	$58,200,000.00	$1,940,431.18	$60,140,431.18
29	2055	$0.00	$58,200,000.00	$1,998,644.11	$60,198,644.11
30	2056	$0.00	$58,200,000.00	$2,058,603.44	$60,258,603.44
31	2057	$0.00	$58,200,000.00	$2,120,361.54	$60,320,361.54
32	2058	$2,183,972.39	$60,383,972.39	$0.00	$60,383,972.39
33	2059	$0.00	$60,383,972.39	$0.00	$60,383,972.39