

**MINUTES OF THE WORK SESSION
OF THE MAYOR AND BOARD OF ALDERMEN
OF THE CITY OF STARKVILLE, MISSISSIPPI
AUGUST 30, 2024**

Be it remembered that the Mayor and members of the Board of Aldermen met in a Work Session on Friday, August 30, 2024 at 11:00 a.m. in the second-floor conference room of City Hall located at 110 West Main Street, Starkville, MS. Present were Mayor Lynn Spruill, Alderwoman Kim Moreland, Alderwoman Sandra Sistrunk and Alderman Hamp Beatty. City Attorney Berk Huskison and City Clerk / CFO Lesa Hardin were also present.

Mayor Spruill opened the work session. The work session was properly noticed pursuant to Miss. Code Ann. §25-41-13 and a copy of that notice is included in the minutes. The work session was live streamed on Facebook. The public and media were welcomed and attended. The session is also available for viewing on the City website.

Utilities General Manager Edward Kemp presented an overview of the Water / Wastewater Capital Improvement Projects – completed, in progress and planned. Representatives from the University of North Carolina Environmental Finance Center presented their review of Starkville’s Utility Financial Health. Dr. Jason Barrett, MSU Associate Extension Professor, then presented comparisons and a recommendation of water and wastewater rates.

The Mayor and members of the Board discussed items on the upcoming September 3, 2024 agenda. Department Directors were available to answer questions related to the items. All agenda items were discussed. Mayor Spruill then closed the work session.

SIGNED AND SEALED THIS THE 17th DAY OF SEPTEMBER, 2024.

MAYOR D. LYNN SPRUILL

Attest:

Seal

LESA HARDIN, CITY CLERK/CFO



**THERE WILL BE A WORK SESSION OF THE
MAYOR AND BOARD OF ALDERMEN ON
FRIDAY, AUGUST 30, 2024**

**AT 11:00 AM IN THE STARKVILLE CITY HALL
LOCATED AT 110 WEST MAIN STREET
IN THE SECOND FLOOR CONFERENCE ROOM**

The public and media are invited to attend.

The City of Starkville is accessible to persons with disabilities. Please call the ADA Coordinator at (662) 323-2525 ext. 3119, in advance for any services requested.



WORK SESSION

CITY OF STARKVILLE, MISSISSIPPI

AUGUST 30, 2024

11:00 a.m.

- A. CALL THE MEETING TO ORDER**
- B. PRESENTATION OF A UTILITIES UPDATE FOR PROPOSED WATER AND SEWER RATE ADJUSTMENTS BY DR. JASON BARRETT AND AN UPDATE OF THE PROJECTS FOR THE UTILITIES DEPARTMENT.**
- C. DISCUSSION OF THE AGENDA ITEMS FOR THE SEPTEMBER 3, 2024, MEETING OF THE BOARD OF ALDERMEN FOR THE CITY OF STARKVILLE.**
- D. ADJOURN MEETING**



Starkville
UTILITIES

WE. CONNECT

SED



Starkville
UTILITIES



WATER AND SEWER RATE EVALUATION & CAPITAL IMPROVEMENT PLAN

BOARD OF ALDERMEN WORK SESSION
AUGUST 30, 2024



AGENDA

2024 Accomplishments

Financial Health Checkup

Water Loss Plan

Capital Improvement Plan

Project and Funding Plan

Rate Comparison

Rate Recommendations and Evaluation

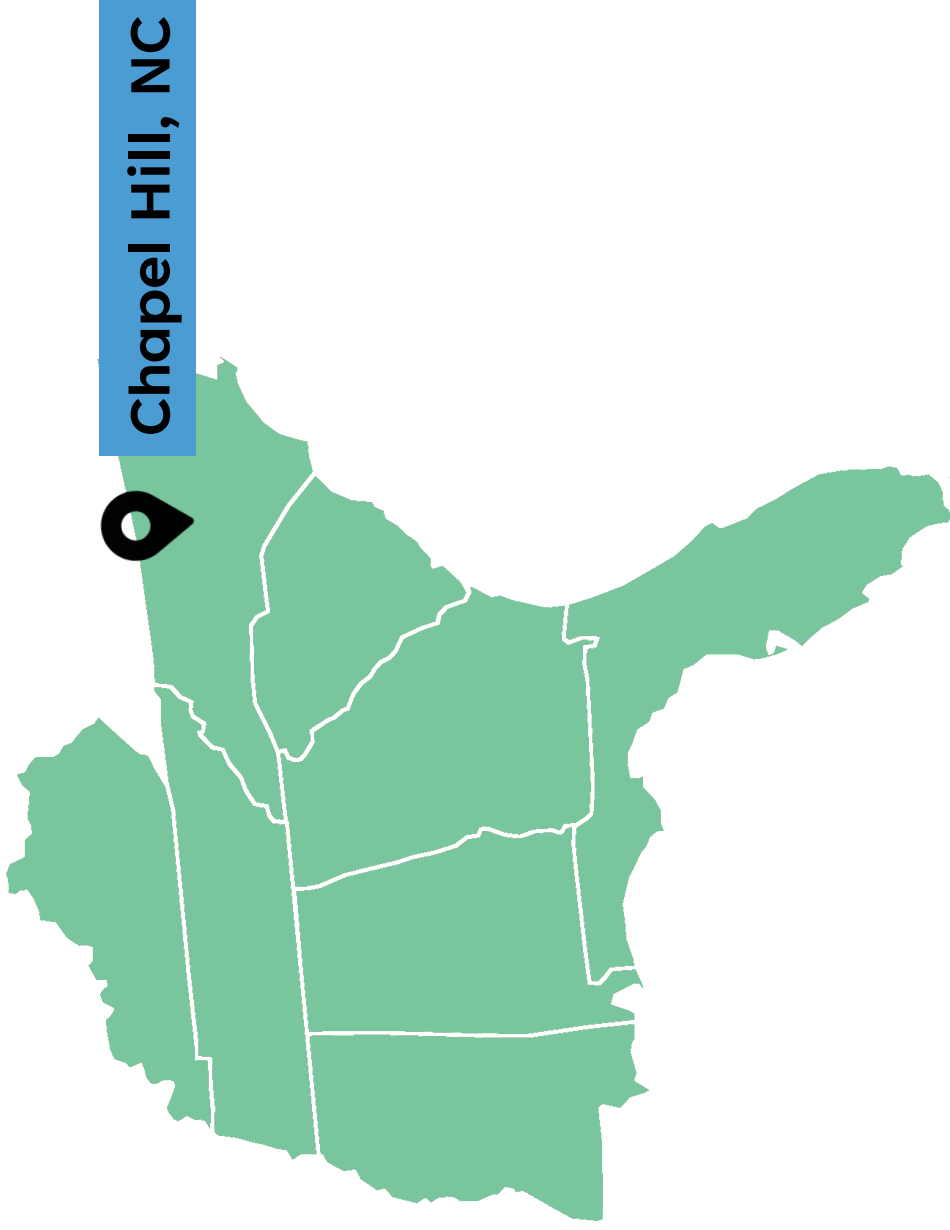
2024 ACCOMPLISHMENTS

COMPLETED	IN CONSTRUCTION	IN DESIGN
MAIN STREET WATER AND SEWER PROJECT	HWY 182 REPLACEMENT	WWTP AERATOR REPLACEMENT
GREEN OAKS SEWER REHAB	AZALEA LN TANK REHAB	WWTP ELECTRICAL UPGRADES
ROLLING HILLS SEWER REHAB	LEAD-COPPER INVENTORY	INFLUENT STATION REHAB
OLD WEST POINT/ BROAD ST. WATERMAIN REPLACEMENT		HENDERSON/SAND RD CDBG
COMPREHENSIVE EVALUATIONS		STARK ROAD FORCEMAIN/WM REPLACEMENT



SCHOOL OF GOVERNMENT

Environmental Finance Center



Supporting fair, effective, and financially sustainable delivery of environmental services through:

- Applied Research
- Program Design and Evaluation
- Teaching and Outreach
- Advising
- Policy Analysis

FINANCIAL HEALTH CHECKUP TOOL

INPUTS

Annual audits

OUTPUTS

Graphs of key performance indicators compared to benchmarks (targets)

Above dotted line = exceeded target (good)

Below dotted line = did not meet target (needs improvement)

OPERATING RATIO

$$\frac{\text{Total Operating Revenues}}{\text{Total Operating Expenses} \\ \text{(Including Depreciation)}}$$

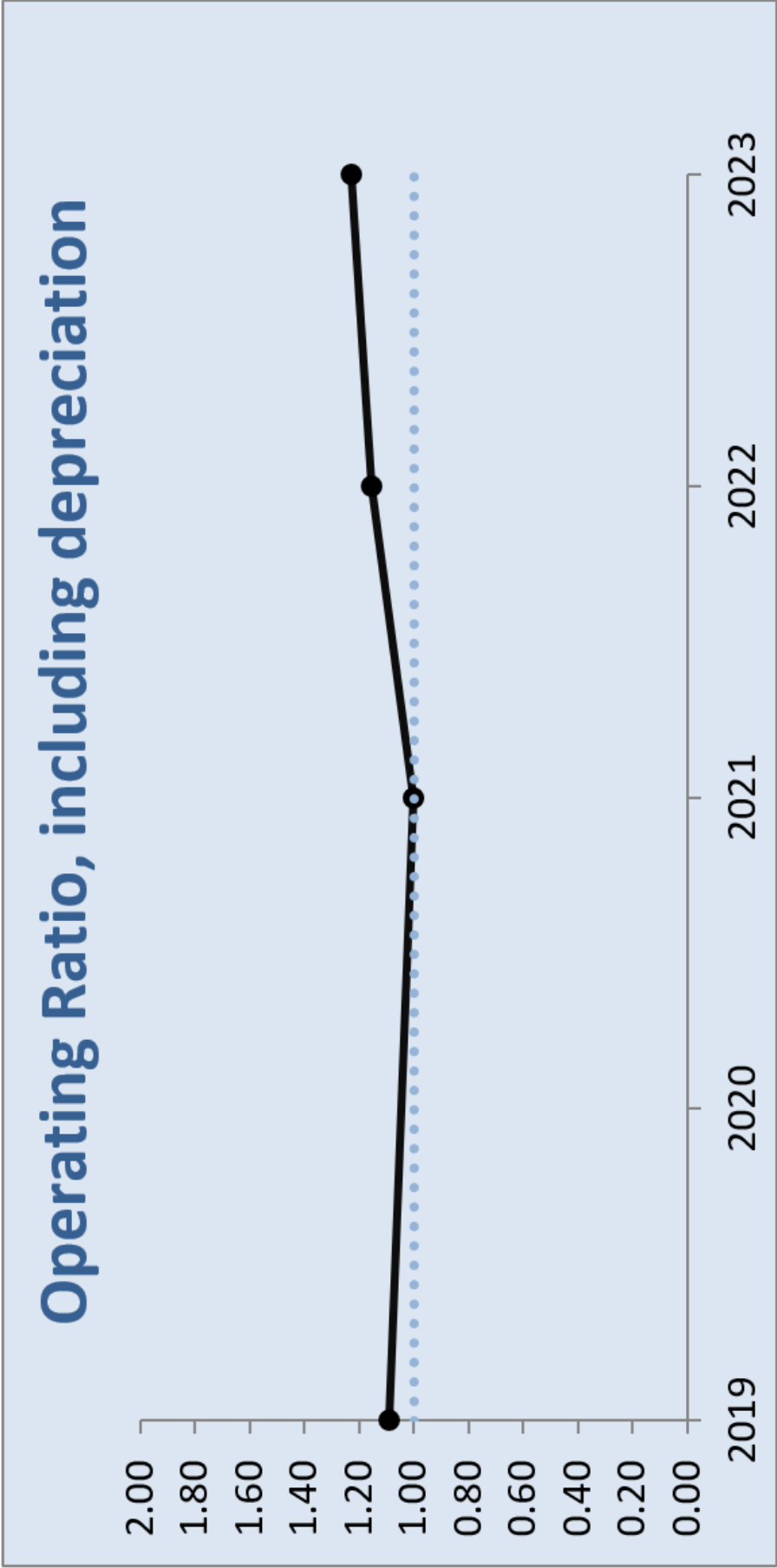
Did you generate the revenues needed to pay for O&M and a little for capital? (including depreciation)

1.2

Target of >1.0, met

0.1

Trend, increased



DEBT SERVICE COVERAGE RATIO

$$\frac{\text{Total Operating Revenues - } (\text{Total Operating Expenses - Depreciation})}{\text{Debt Principal + Debt Interest Payments}}$$

Did you generate the revenues needed to pay for O&M and existing debt service?

2.3

Target of >1.2, met

0.5

Trend, increased



DAYS CASH ON HAND

$$\frac{\text{Unrestricted Cash \& Investments}}{(\text{Total Operating Expenses} - \text{Depreciation}) \div 365}$$

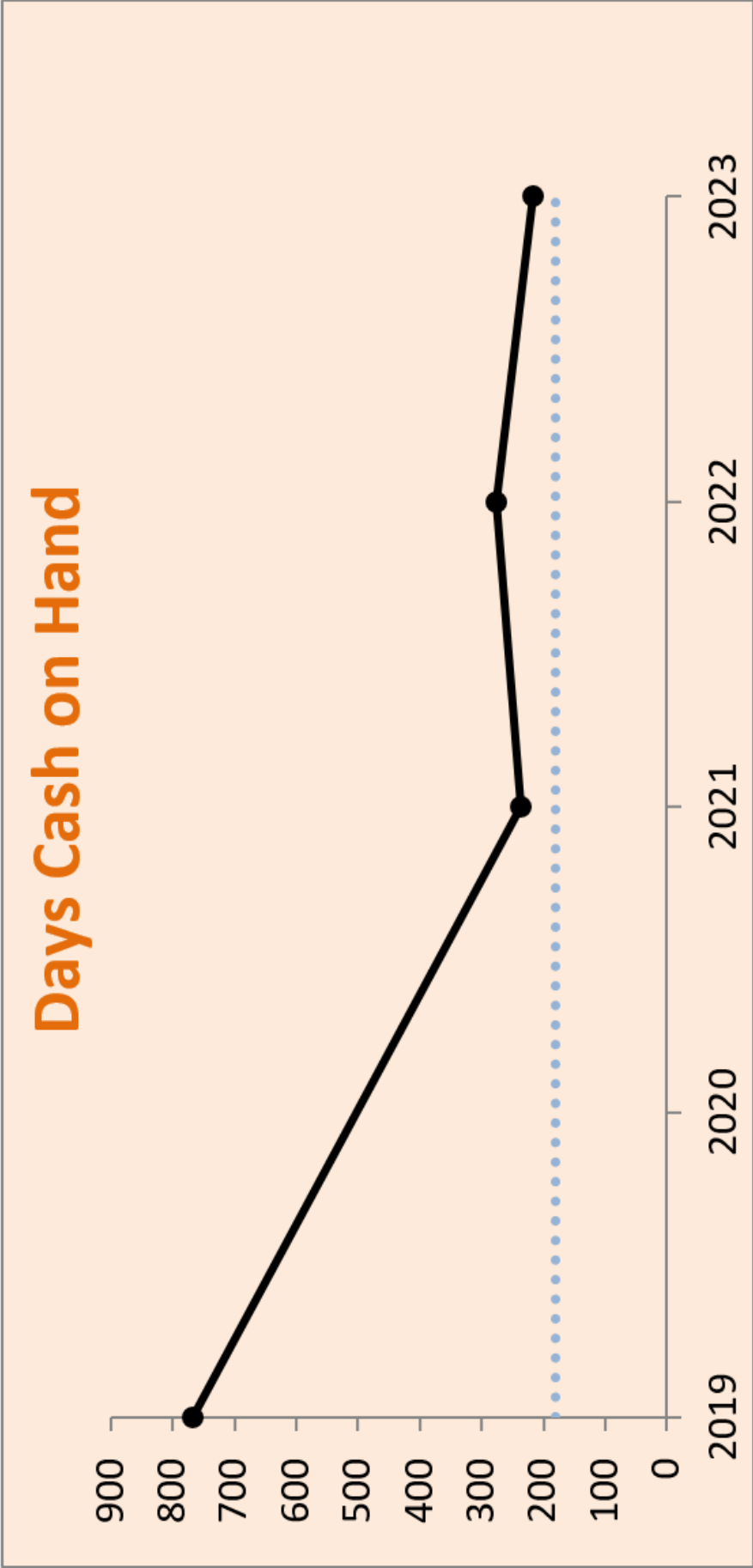
How many days could you continue to operate the utility with the cash levels available?

216

Target of >180, met

-60

Trend, decreased



PERCENT OF CAPITAL ASSETS DEPRECIATED

$$\frac{\text{Total Accumulated Depreciation}}{\text{Total Depreciable Capital Assets}}$$

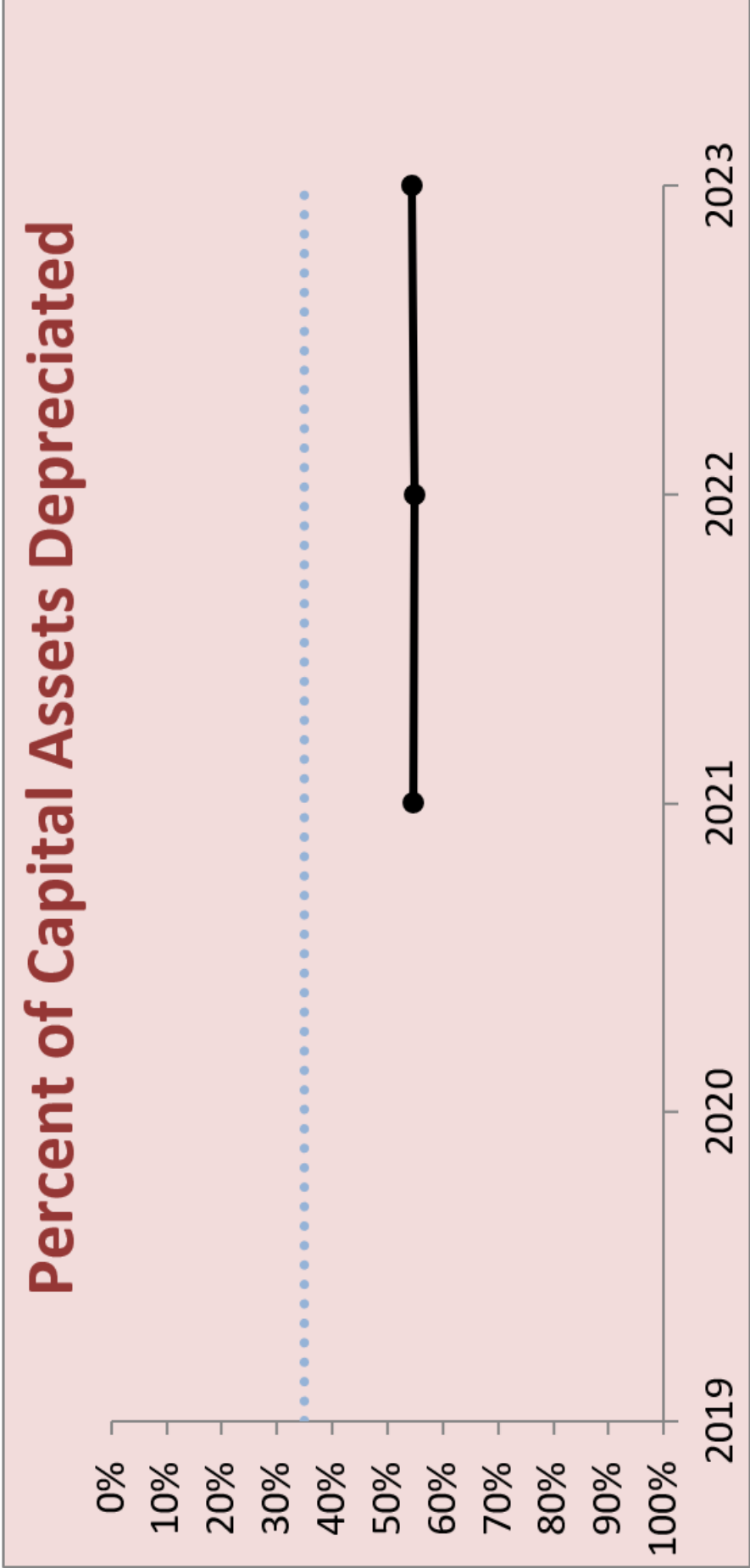
How much have your utility's assets depreciated (nearing the end of their lives)?

54%

Target of <35%, missed

-1%

Trend, steady



QUESTIONS? CONTACT US!

Justin Nolan

Project Director

jnolan@sog.unc.edu



Amanda Peele

Project Analyst

apeele@sog.unc.edu



Hope Thomson

Senior Project Director

hope.thomson@sog.unc.edu



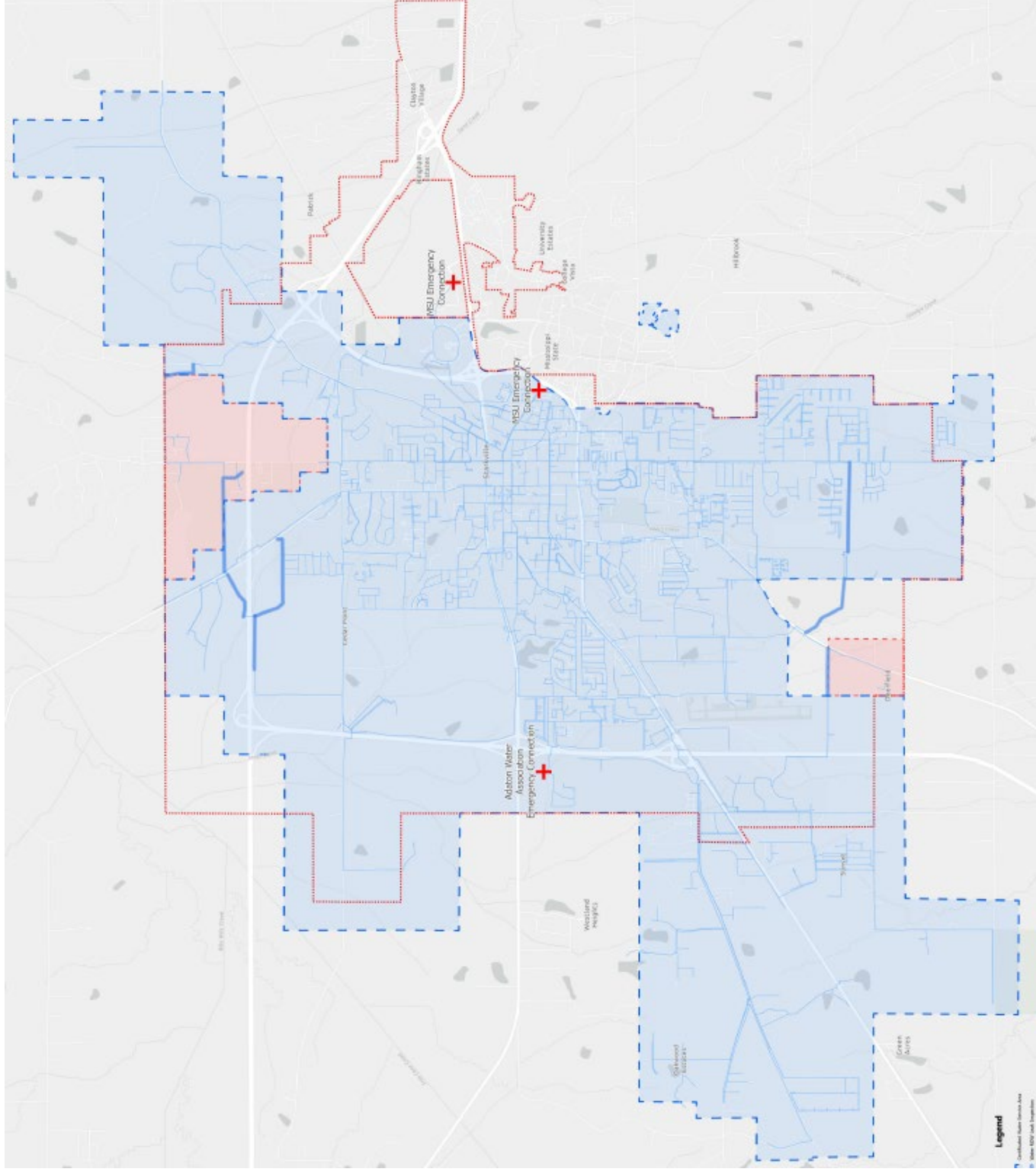
WATER LOSS PLAN

COMPLETED/ ONGOING

INSPECTION OF ALL
EMERGENCY CONNECTIONS

INSPECT ALL CROSS-
COUNTRY LINES

INVESTIGATE UNMETERED
FIRE PROTECTION LINES



WATER LOSS PLAN

IN PROCESS

VALIDATE DATA/ BILLING

METER REPLACEMENT
PROCESS

AWWA WATER LOSS AUDIT

TRACKING MONTHLY
PUMPED VS. SALES



Best Practice in Water Loss Control: Improved Concepts for 21st Century Water Management

In 2003 the American Water Works Association (AWWA) adopted improved best practice methods for defining and measuring water loss in water distribution systems. This transition into a new era of effective water management marked a departure from previous terms and practices no longer useful to the industry. The following explains this departure from obsolete practices and articulates key points and best practices in water loss control today.

Improved Terminology: Non-revenue Water

In 2003 AWWA abandoned use of the term "unaccounted-for" water (UFW) because all volumes of water supplied within a distribution system go toward either beneficial consumption or wasteful loss. *All water sent into the distribution system can be accounted for.* Today, the industry term favored by AWWA and its Water Loss Control Committee when quantifying water loss is "non-revenue" water (NRW).

NRW is specifically defined to include the sum of specific types of water loss and any authorized, unbilled consumption that occurs within water distribution systems.

Enhanced Performance Indicators to Measure Progress

Although percentage indicators—typically the ratio of authorized customer consumption to distribution system input—still exist in the industry, AWWA discourages use of percentage indicators, such as the "unaccounted-for" water percentage. Using percentage indicators to assess water loss in distribution systems gives a misleading and unreliable measure of utility performance because a percentage indicator

- is greatly affected by changing levels of customer consumption
- cannot distinguish among the specific components of non-revenue water occurring in a distribution system
- reveals nothing about water volumes and associated costs (the two most important factors in assessing water waste within a distribution system).

Today, the industry best practice for water loss auditing created by the International Water Association (IWA) and AWWA now quantifies several key performance indicators, which provide vastly superior means for assessing water loss performance in distribution systems, while recognizing that contributing factors and potential corrective measures are specific to each water utility.



CAPITAL IMPROVEMENT PLANS



Ernest E. Jones Wastewater Treatment Plant Comprehensive Plan

PREPARED FOR
Starkville Utilities
April 2024



Water System and Treatment Comprehensive Evaluation
FOR CITY OF STARKVILLE | STARKVILLE UTILITIES
Starkville, MS



Prepared by
NEEL-SCHAEFER
ENGINEERS & ARCHITECTS, P.C.

APPROACH

- MEET GROWING DEMAND
- COMPREHENSIVE EVALUATIONS
- DATA DRIVEN
- SYSTEM MODERNIZING
- PROACTIVE
- PLANNING FOR THE FUTURE

CAPITAL IMPROVEMENT PROJECT SCHEDULE



WASTEWATER COLLECTION AND TREATMENT																					
	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033	FY2034	FY2035	FY2036	FY2037	FY2038	FY2039	FY2040	FY2041	FY2042	FY2043	Future	Total
TOTAL WASTEWATER COLLECTION AND TREATMENT	\$5,301,900	\$5,800,000	\$4,725,000	\$5,650,000	\$3,750,000	\$3,310,000	\$3,870,000	\$310,000	\$610,000	\$2,310,000	\$3,900,000	\$360,000	\$1,370,000	\$360,000	\$360,000	\$1,180,000	\$410,000	\$3,910,000	\$410,000	\$10,660,000	
EXTERNALLY FUNDED (Estimated)	\$495,190	\$505,000	\$440,000	\$480,000	\$350,000	\$300,000	\$356,000	\$ -	\$ 30,000	\$200,000	\$354,000	\$ -	\$101,000								
FUNDING REQUIRED	\$4,806,710	\$5,295,000	\$4,285,000	\$5,170,000	\$3,400,000	\$3,010,000	\$3,514,000	\$310,000	\$580,000	\$2,110,000	\$3,546,000	\$360,000	\$1,269,000								
CAPITAL PROJECTS	\$4,951,900	\$5,050,000	\$4,400,000	\$4,800,000	\$3,500,000	\$3,000,000	\$3,560,000	\$0	\$300,000	\$2,000,000	\$3,540,000	\$0	\$1,010,000	\$0	\$0	\$770,000	\$0	\$3,500,000	\$0	#####	#####
Green Oaks South/Rolling Hills Sewer Rehab																					\$848,204
Main St./Lampkin St Water/Sewer Line Replacement																					\$1,271,622
WWTP Influent PS Rehab (\$780k ARC grant)	\$120,000																				\$209,300
Fairgrounds Sewer Replacement		\$300,000	\$850,000																		\$1,150,000
Stark Road Foremain Replacement	\$150,000	\$1,500,000																			\$1,650,000
WWTP - Aerator (\$2.24M ARPA, \$1.24M MCWT)	\$5,781,900	\$2,000,000																			\$6,520,000
New Headworks Facility		\$200,000	\$2,900,000	\$2,900,000																	\$6,000,000
EQ Basin					\$300,000	\$3,000,000	\$3,560,000														\$6,860,000
Clarifier Repairs & Splitter Box									\$300,000	\$2,000,000	\$3,540,000										\$5,840,000
New Oxidation Ditch																				#####	\$10,220,000
Henderson Rd./Sand Rd Sewer (CDBG Grant Amt #####)	\$900,000																				\$931,000
Okibbcha Gardens Sewer Rehab					\$1,800,000																\$1,800,000
Josey PS to Trim Cane PS Force Main Replacement				\$100,000	\$1,400,000																\$1,500,000
Trim Cane to Hwy 12 Force Main Replacement				\$800,000																	\$800,000
Annexation Sewer Expansion (Approp. Request \$2.1M)		\$800,000	\$600,000	\$1,000,000																	\$2,400,000
SCADA Wastewater Upgrades		\$250,000	\$50,000																		\$300,000
RAS Pumps 1&2 Rehab													\$1,010,000								\$1,010,000
Effluent Parshall Flume																\$160,000					\$160,000
Retention Basin Improvements																\$610,000					\$610,000
Various Pumps Rehab																		\$3,500,000			\$3,500,000
MAJOR CONSTRUCTION	\$300,000	\$700,000	\$200,000	\$200,000	\$200,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$350,000	\$350,000	\$350,000	\$350,000	\$6,251,800
Collection Systems Sewer line upgrades	\$200,000	\$325,000	\$40,000	\$200,000	\$200,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$350,000	\$350,000	\$350,000	\$350,000	\$5,465,000
South Montgomery Sewer - Locksley to Pleasant Acres			\$100,000																		\$100,000
Sewer Line Replacement & Reroute at Starkville High Football		\$175,000																			\$175,000
College View Sewer Re-Route		\$50,000																			\$50,000
Bluecut Lift Station	\$50,000																				\$50,000
Wood St Sewer	\$50,000																				\$50,000
Lakeview Drive/Overstreet Sewer		\$150,000																			\$150,000
Carver Drive Sewer Line Replacement			\$60,000																		\$60,000
WWTP Comprehensive Evaluation																					\$151,800
ASSET PURCHASES- EQUIPMENT AND VEHICLES	\$50,000	\$50,000	\$125,000	\$650,000	\$50,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$90,000	\$1,945,000
Replacement of aging fleet, equipment and pumps																					
Replace #129 for Wastewater Treatment	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$1,150,000
8" Bypass Pump																					\$40,000
Bush Hog Skid Steer Attachment																				\$30,000	\$30,000
Replace #135 for Wastewater Treatment																					\$0
New Vac/Jet Truck				\$600,000																	\$600,000
Generator for Influent LS			\$75,000																		\$75,000
WWTP Evaluation Recommendations																					
Externally Funded percentage (Estimated)																					

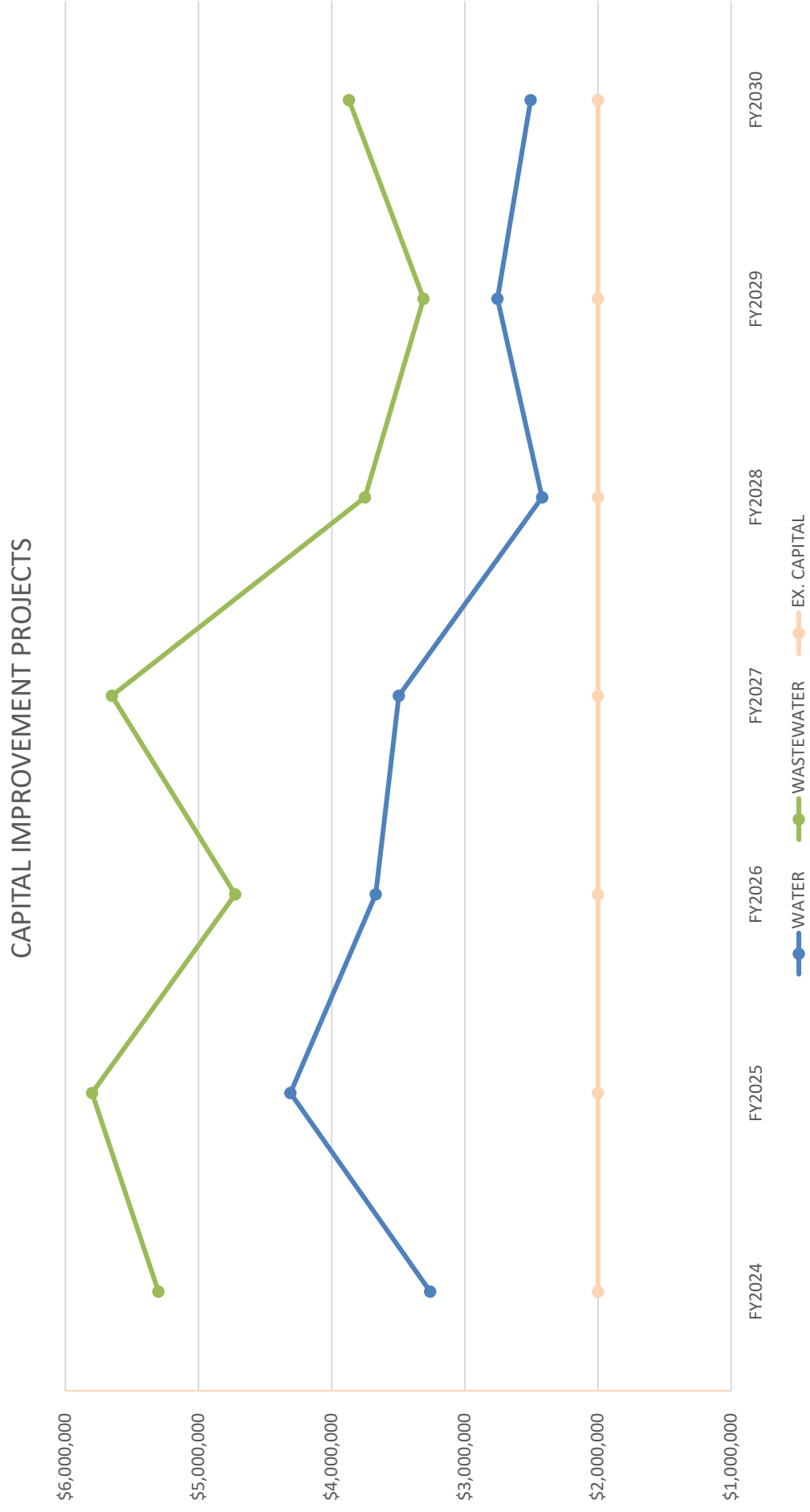
WATER TREATMENT AND DISTRIBUTION

		FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033	FY2034	FY2035	FY2036	FY2037	FY2038	FY2039	FY2040	FY2041	FY2042	FY2043	Future	Total			
TOTAL WATER TREATMENT AND DISTRIBUTION		\$3,260,000	\$4,310,000	\$3,670,000	\$3,495,000	\$2,420,000	\$2,755,000	\$2,505,000	\$1,830,000	\$2,205,000	\$2,410,000	\$2,910,000	\$760,000	\$9,210,000	\$810,000	\$1,435,000	\$635,000	\$635,000	\$7,665,000	\$450,000	\$3,825,000	\$1,360,000	\$ 86,741,960		
EXTERNALLY FUNDED (Estimated)		\$288,000	\$400,000	\$340,000	\$302,500	\$215,000	\$242,500	\$217,500	\$150,000	\$187,500	\$200,000	\$255,000	\$ 40,000	\$885,000	\$ 45,000	\$107,500	\$ 22,500	\$ 22,500	\$725,500	\$ 4,000	\$341,500	\$ 95,000	\$5,107,628		
FUNDING REQUIRED		\$2,972,000	\$3,910,000	\$3,330,000	\$3,192,500	\$2,205,000	\$2,512,500	\$2,287,500	\$1,680,000	\$2,017,500	\$2,210,000	\$2,655,000	\$720,000	\$8,325,000	\$765,000	\$1,327,500	\$612,500	\$612,500	\$6,939,500	\$3,483,500	\$1,265,000	\$ 53,634,333			
CAPITAL PROJECTS		\$2,880,000	\$4,000,000	\$3,400,000	\$3,025,000	\$2,150,000	\$2,425,000	\$2,175,000	\$1,500,000	\$1,875,000	\$2,000,000	\$2,550,000	\$400,000	\$8,850,000	\$450,000	\$1,075,000	\$225,000	\$225,000	\$7,255,000	\$40,000	\$3,415,000	\$950,000	#####		
New Production Wells and WTP		\$1,250,000	\$1,750,000	\$2,000,000			\$1,500,000	\$2,000,000	\$1,500,000					\$6,350,000					\$5,825,000				\$22,175,000		
New Elevated Storage Tank																				\$3,100,000			\$3,100,000		
Green Oaks Water Replacement, Ph I					\$100,000	\$1,400,000																	\$1,500,000		
OWP Rd Water Assoc. Improvements										\$100,000	\$2,000,000	\$700,000											\$2,800,000		
Stark Road Water Line Replacement		\$150,000	\$1,500,000																				\$1,650,000		
Bluefield Water Repl. (\$1.9M STAC; 3.072M Total)			\$500,000	\$600,000	\$800,000																		\$1,900,000		
Existing Well Improvements/Rehab		\$150,000	\$150,000	\$150,000	\$150,000	\$175,000	\$175,000	\$175,000				\$200,000	\$400,000	\$200,000	\$200,000	\$225,000	\$225,000	\$450,000					\$3,025,000		
Replace Existing Generators						\$200,000				\$225,000					\$250,000					\$275,000			\$950,000		
Curry St. WTP Rehab		\$150,000	\$150,000		\$400,000	\$375,000								\$1,600,000						\$40,000			\$2,565,000		
Parkdale WTP Rehab		\$350,000																\$940,000					\$1,290,000		
S. Mont. St. WTP Rehab										\$700,000		\$750,000				\$850,000			\$40,000				\$2,300,000		
Bluefield WTP Rehab		\$350,000			\$1,075,000													\$40,000	\$40,000		\$950,000		\$2,455,000		
Azalea Tank Repairs and Paint																							\$436,275		
Curry St Tank Repairs and Paint		\$480,000																					\$480,000		
Tank Repairs and Painting							\$750,000			\$850,000		\$900,000		\$700,000									\$3,200,000		
Fairgrounds Waterline replacement			\$100,000	\$650,000	\$500,000																		\$1,250,000		
MAJOR CONSTRUCTION		\$330,000	\$260,000	\$220,000	\$220,000	\$220,000	\$270,000	\$270,000	\$270,000	\$270,000	\$350,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$350,000	\$350,000	\$350,000	\$350,000	\$350,000	\$6,245,685			
OWP Rd Water Replacement - Hwy 182 to Broad St*																							\$200,000		
Booster Station Improvements		\$150,000									\$100,000												\$250,000		
Water Loss Improvements		\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000													\$180,000		
Water Line Upgrades		\$20,000	\$200,000	\$200,000	\$200,000	\$200,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$350,000	\$350,000	\$350,000	\$350,000	\$350,000	\$5,320,000			
Chestnut Dr, Phase II (Jardens-Louisville)		\$50,000																					\$50,000		
Hillside Dr		\$50,000																					\$50,000		
Water & Sewer Line Upgrades on Lakeview			\$40,000																				\$40,000		
OWP/Broad Water Upgrade Phase 3		\$40,000																					\$40,000		
Lead and Copper Inventory																							\$50,000		
Water Treatment/Supply Comprehensive Evaluation																							\$65,685		
ASSET PURCHASES- EQUIPMENT AND VEHICLES		\$50,000	\$50,000	\$50,000	\$250,000	\$50,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$1,420,000			
Replace #103 Small Dump Truck**																							\$70,000		
Replacement of aging fleet, equipment and pumps		\$50,000	\$50,000	\$50,000	\$250,000	\$50,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$1,350,000			
Water Supply//Treatment Evaluation Recommendations Externally Funded Percentage (Estimated)							RATE EVALUATION AND CAPITAL IMPROVEMENT PLAN																		

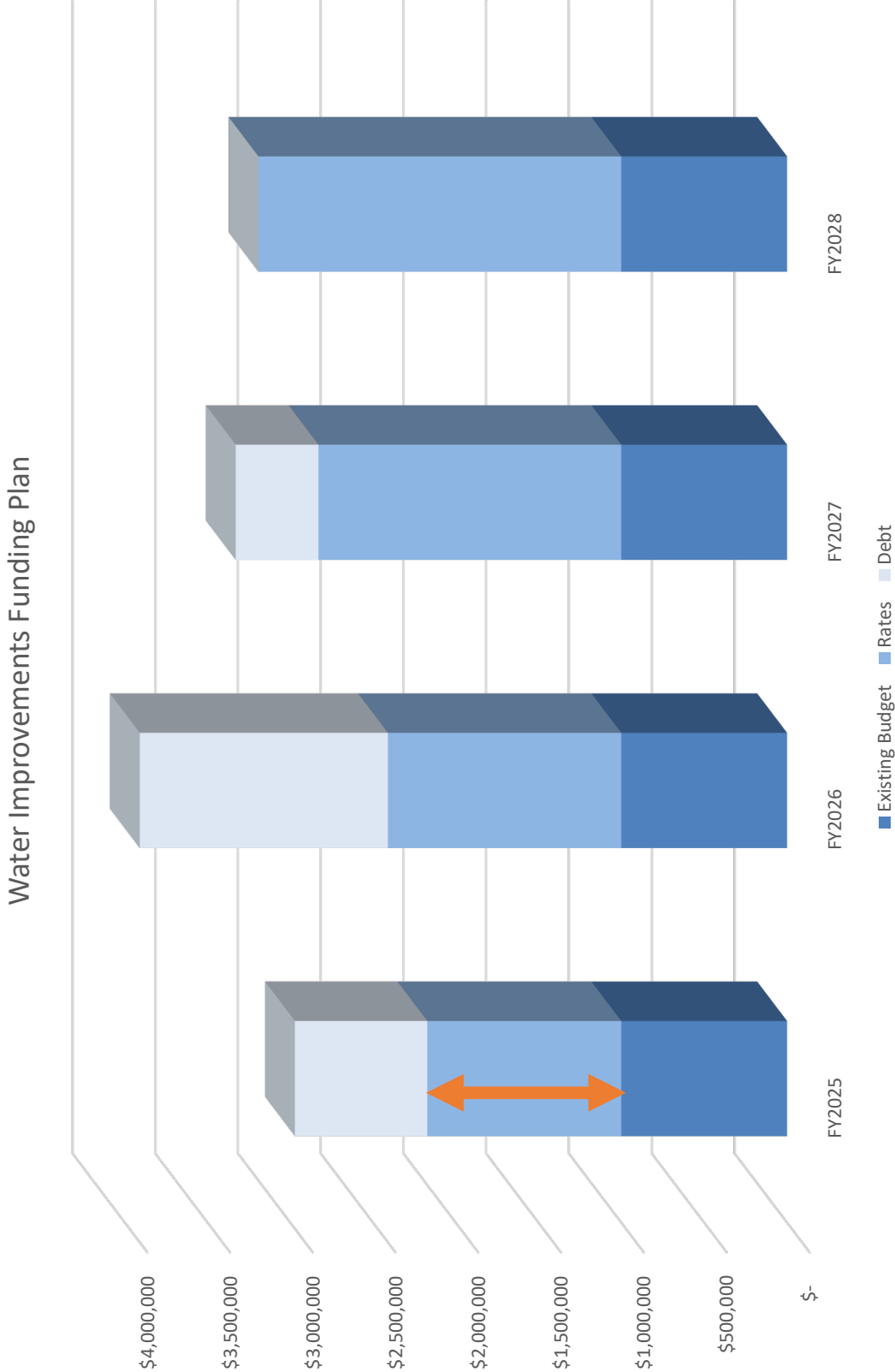
PROJECT FUNDING PLAN

CAPITAL IMPROVEMENT RECAP	FY2025	FY2026	FY2027	FY2028
EXISTING BUDGET CAPITAL FUNDING	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000
WASTEWATER FUNDING PROJECTS	\$4,491,710	\$5,295,000	\$4,285,000	\$5,170,000
WASTEWATER FUNDING REQUIRED (DEBT)	\$1,500,000	\$2,000,000	\$750,000	\$1,250,000
WASTEWATER FUNDING REQUIRED (RATES)	\$1,991,710	\$2,295,000	\$2,535,000	\$2,920,000
WATER FUNDING PROJECTS	\$2,972,000	\$3,910,000	\$3,330,000	\$3,192,500
WATER FUNDING REQUIRED (DEBT)	\$800,000	\$1,500,000	\$500,000	\$-
WATER FUNDING REQUIRED (RATES)	\$1,172,000	\$1,410,000	\$1,830,000	\$2,192,500
RUNNING DEBT SCHEDULE				
	\$ 2,300,000	\$ 5,800,000	\$ 7,050,000	\$ 8,300,000

CAPITAL IMPROVEMENT PROJECT SCHEDULE

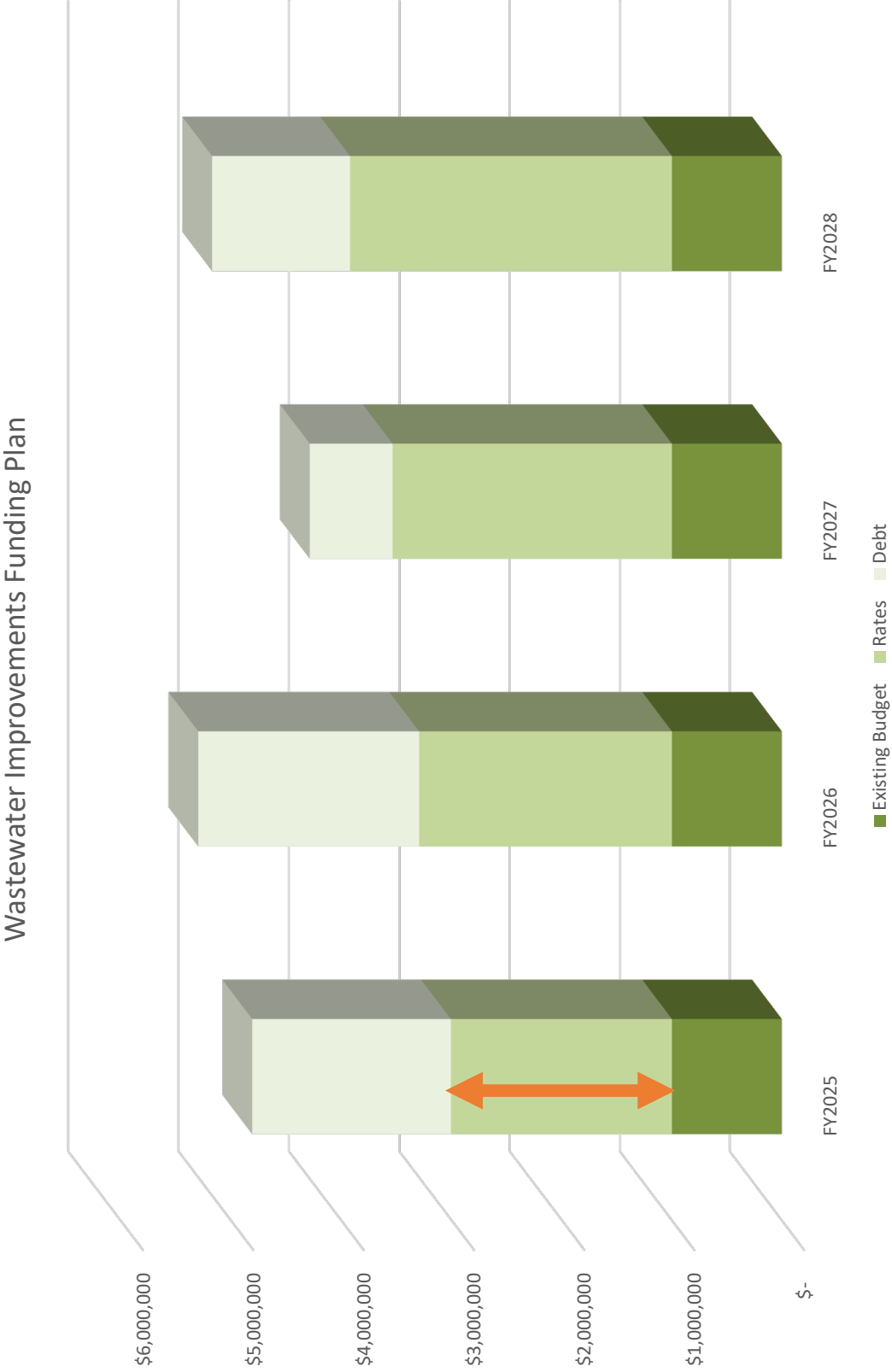


WATER TREATMENT AND DISTRIBUTION FUNDING PLAN



TARGET:
\$1 Million

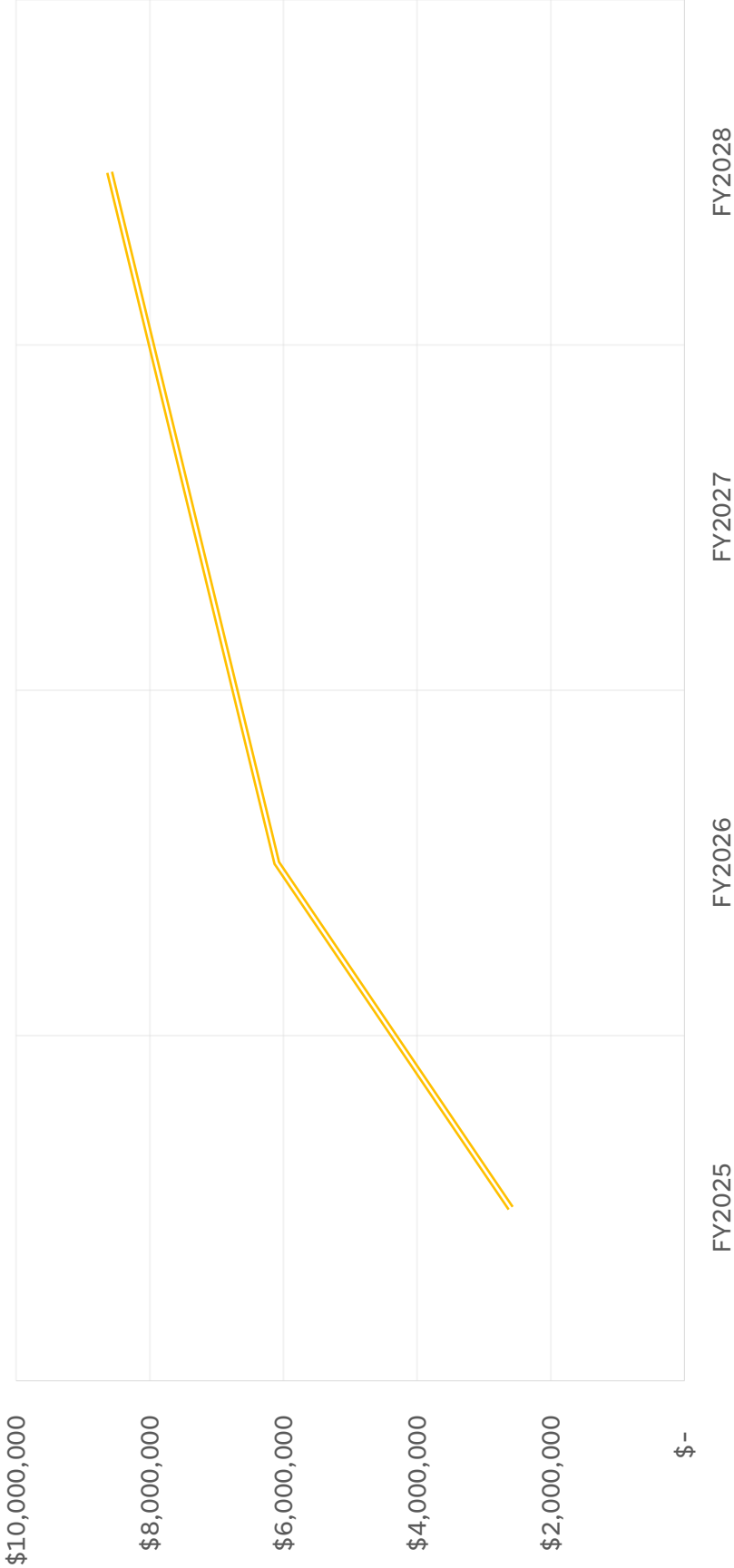
WASTEWATER COLLECTION AND TREATMENT FUNDING PLAN



TARGET:
\$2 Million

DEBT REQUIRED FOR FUNDING PLAN

INCURRED DEBT WATER AND WASTEWATER IMPROVEMENTS



EXTERNAL FUNDING EFFORTS



MISSISSIPPI STATE DEPARTMENT OF HEALTH



Mississippi State University Extension Water Resources Research Institute

Starkville Utilities Water & Sewer Rates & Comparisons

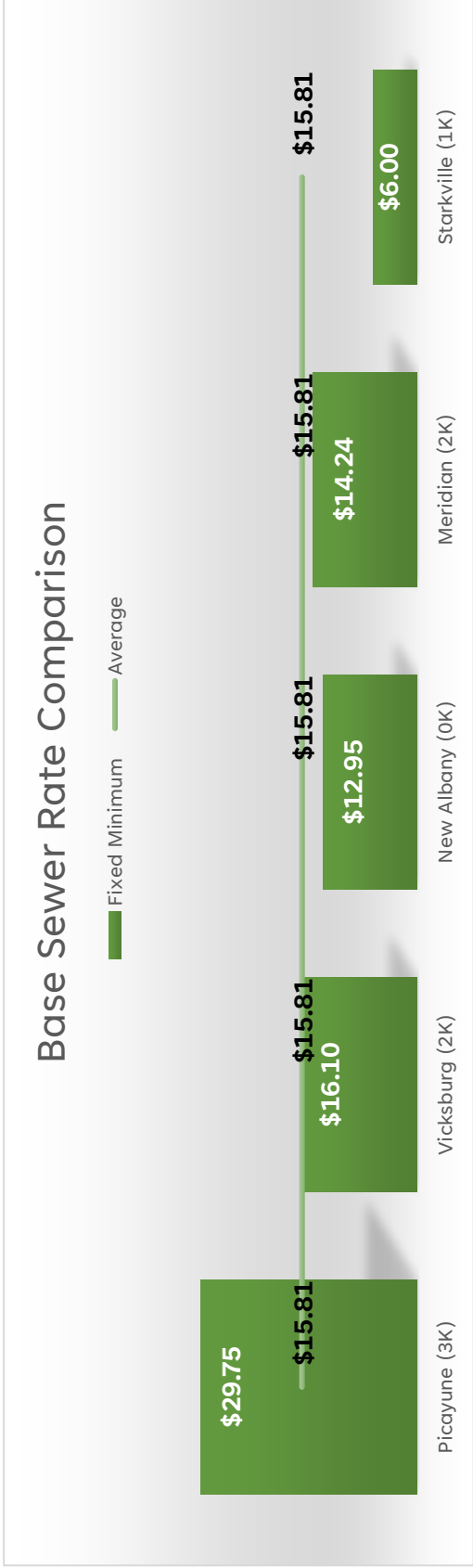
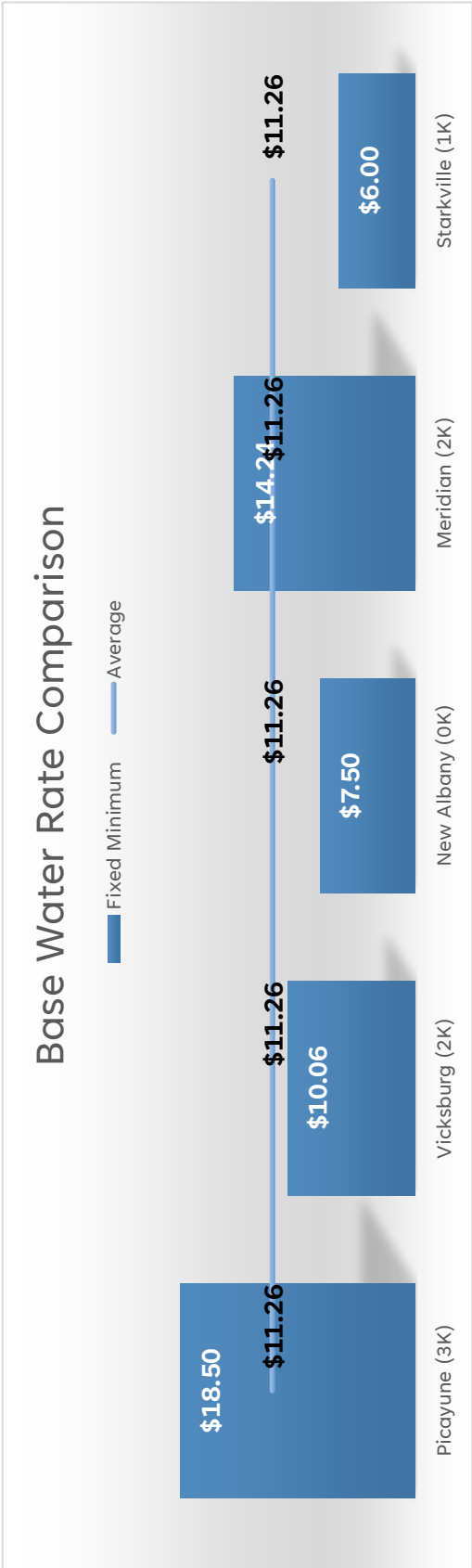
Dr. Jason R. Barrett
Associate Extension Professor
Water Resources Research Institute
Box 9547
Mississippi State, MS 39762
Phone: 662.325.1788
Jason.barrett@msstate.edu



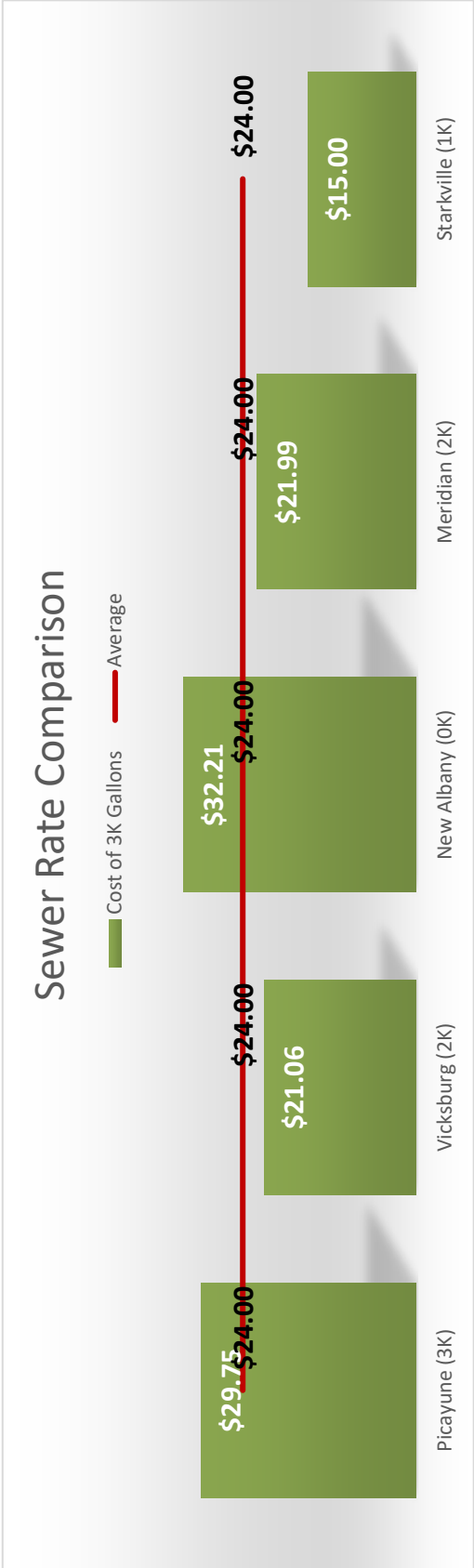
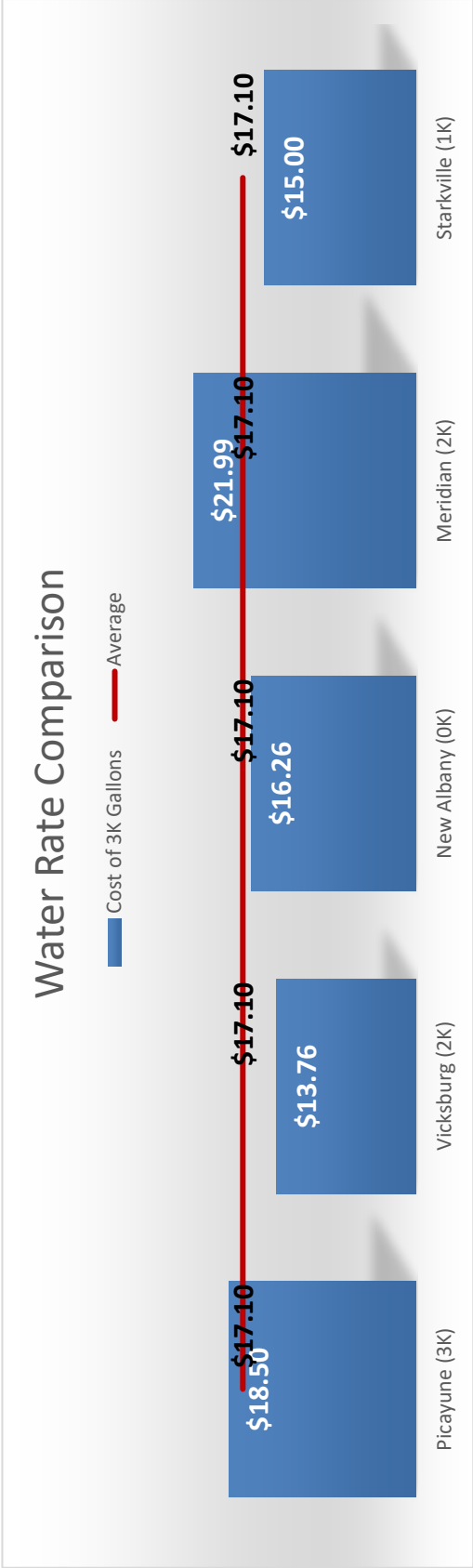
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EXTENSION

Extending Knowledge. Changing Lives.

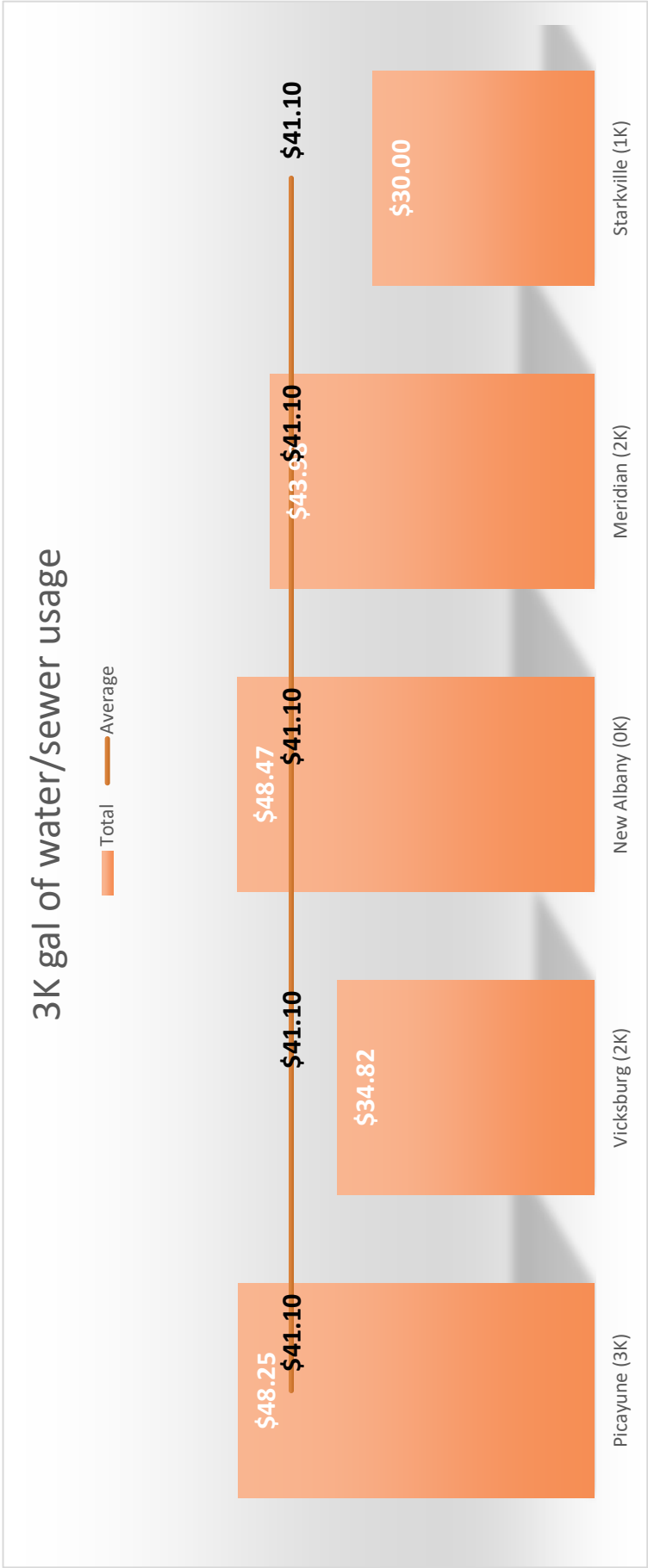
WATER AND SEWER BASE RATE COMPARISON



WATER AND SEWER RATE COMPARISON- 3000 GALLONS



WATER AND SEWER RATE COMPARISON- 3000 GALLONS



RATE RECOMMENDATIONS

WATER RATES	EXISTING	PROPOSED
BASE RATE*:	\$6	\$8.50
VARIABLE RATE:	\$4.50	\$5.00
BULK PURCHASE FOR WATER ASSOC.	N/A	\$6.25

SEWER RATES	EXISTING	PROPOSED
BASE RATE*:	\$6	\$10.75
VARIABLE RATE:	\$4.50	\$6.50
FLAT RATE (SEWER ONLY)**	\$18.67	\$29.05

CUSTOMERS OUTSIDE THE CITY LIMITS: 25% INCREASE IN BASE AND VARIABLE RATES

*INCLUDES 1000 GALLONS IN PROPOSED AND EXISTING BASE RATES

** FOR SINGLE FAMILY RESIDENTIAL CUSTOMERS. OTHER USES CALCULATED USING MSDH DESIGN CRITERIA FOR AVERAGE USAGE

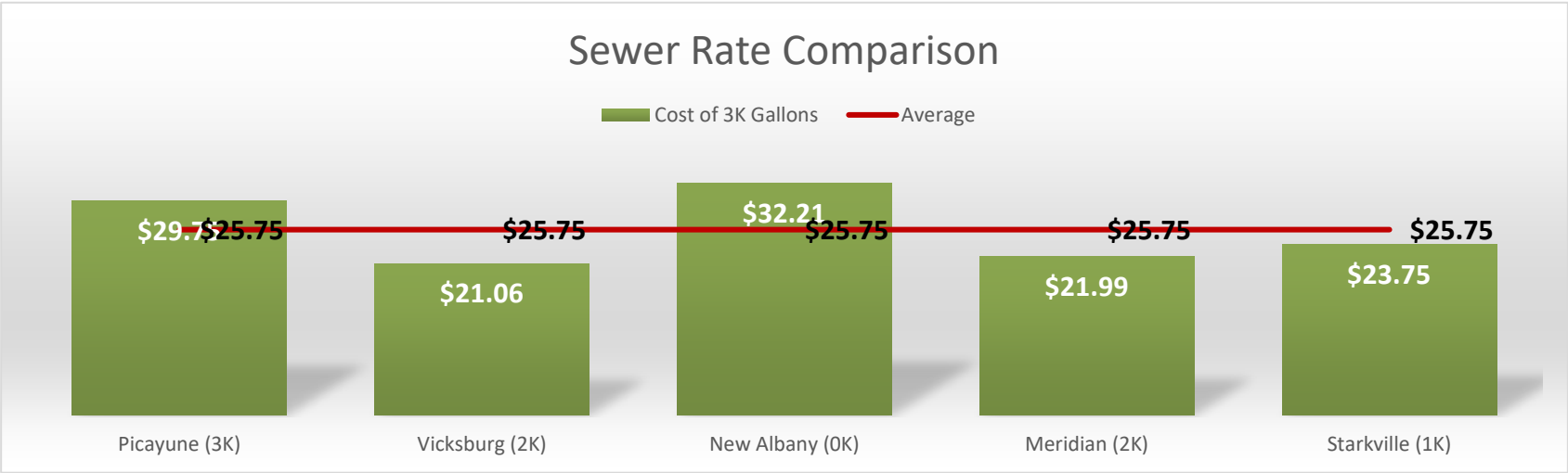
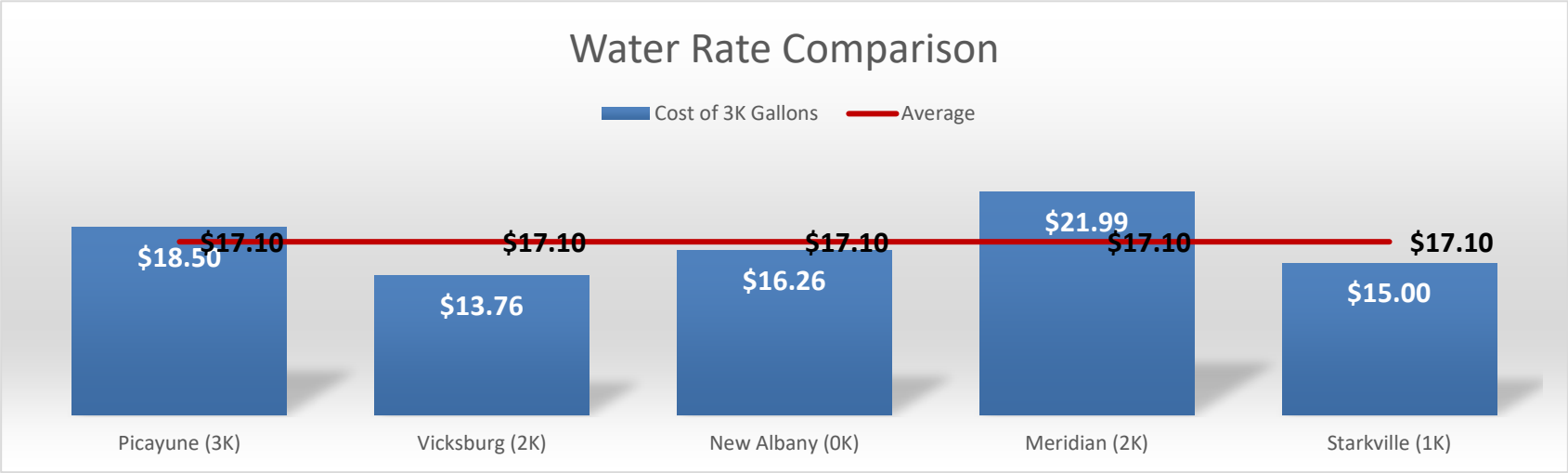
WATER RATE EVALUATION

Customer Use	# of Customers	%	Amount Billed	%	Use By Customers (gal.)	%	Avg. Bill	Est. Amount Billed	%	Est. Avg. Bill	Est. Bill Increase
Less than 1,000 gal.	2,430	25.29%	\$ 20,655	9.1%	696,829	1.9%	\$ 6.00	\$ 20,655	9.4%	\$ 8.50	\$ 2.50
1,001 to 2,000 gal.	1,675	17.43%	\$ 18,432	8.1%	2,513,840	6.8%	\$ 8.25	\$ 18,432	8.4%	\$ 11.00	\$ 2.75
2,001 to 3,000 gal.	1,395	14.52%	\$ 22,356	9.8%	3,494,670	9.4%	\$ 18.78	\$ 31,673	14.5%	\$ 22.70	\$ 3.92
3,001 to 4,000 gal.	1,148	11.95%	\$ 24,124	10.6%	4,021,140	10.8%	\$ 20.35	\$ 28,055	12.8%	\$ 24.44	\$ 4.09
4,001 to 5,000 gal.	865	9.00%	\$ 22,363	9.8%	3,867,070	10.4%	\$ 20.56	\$ 21,349	9.8%	\$ 24.68	\$ 4.12
5,001 to 6,000 gal.	593	6.17%	\$ 18,311	8.0%	3,247,000	8.8%	\$ 20.00	\$ 14,262	6.5%	\$ 24.05	\$ 4.05
6,001 to 7,000 gal	373	3.88%	\$ 13,359	5.9%	2,410,690	6.5%	\$ 20.26	\$ 9,082	4.1%	\$ 24.35	\$ 4.09
7,001 to 8,000 gal	266	2.77%	\$ 10,889	4.8%	1,991,630	5.4%	\$ 20.21	\$ 6,457	2.9%	\$ 24.28	\$ 4.07
8,001 to 9,000 gal	207	2.15%	\$ 9,505	4.2%	1,756,140	4.7%	\$ 18.83	\$ 4,711	2.2%	\$ 22.76	\$ 3.93
9,001 to 10,000 gal	134	1.39%	\$ 6,837	3.0%	1,273,640	3.4%	\$ 20.47	\$ 3,294	1.5%	\$ 24.58	\$ 4.11
More than 10,000 gal.	523	5.44%	\$ 60,926	26.8%	11,819,000	31.9%	\$ 103.19	\$ 60,926	27.8%	\$ 116.49	\$ 13.30
	9,609		\$ 227,756		37,091,649			\$ 218,895.60			

SEWER RATE EVALUATION

Customer Use	# of Customers	%	Amount Billed	%	Amount Billed	Avg. Bill	Est. Avg. Bill	Est. Bill Increase
Less than 1,000 gal.	2,430	25.29%	\$ 14,580	7.7%	\$ 26,123	\$6.00	\$10.75	\$4.75
1,001 to 2,000 gal.	1,675	17.43%	\$ 13,825	7.3%	\$ 23,459	\$8.25	\$14.01	\$5.76
2,001 to 3,000 gal.	1,395	14.52%	\$ 17,819	9.4%	\$ 28,644	\$12.77	\$20.53	\$7.76
3,001 to 4,000 gal.	1,148	11.95%	\$ 19,817	10.5%	\$ 31,016	\$17.26	\$27.02	\$9.76
4,001 to 5,000 gal.	865	9.00%	\$ 18,699	9.9%	\$ 28,812	\$21.62	\$33.31	\$11.69
5,001 to 6,000 gal.	593	6.17%	\$ 15,501	8.2%	\$ 23,626	\$26.14	\$39.84	\$13.70
6,001 to 7,000 gal.	373	3.88%	\$ 11,408	6.0%	\$ 17,255	\$30.58	\$46.26	\$15.68
7,001 to 8,000 gal.	266	2.77%	\$ 9,361	4.9%	\$ 14,076	\$35.19	\$52.92	\$17.73
8,001 to 9,000 gal.	207	2.15%	\$ 8,213	4.3%	\$ 12,295	\$39.68	\$59.39	\$19.71
9,001 to 10,000 gal.	134	1.39%	\$ 5,932	3.1%	\$ 8,848	\$44.27	\$66.03	\$21.76
More than 10,000 gal.	523	5.44%	\$ 53,970	28.5%	\$ 79,046	\$103.19	\$151.14	\$47.95
	9,609		\$ 189,125					

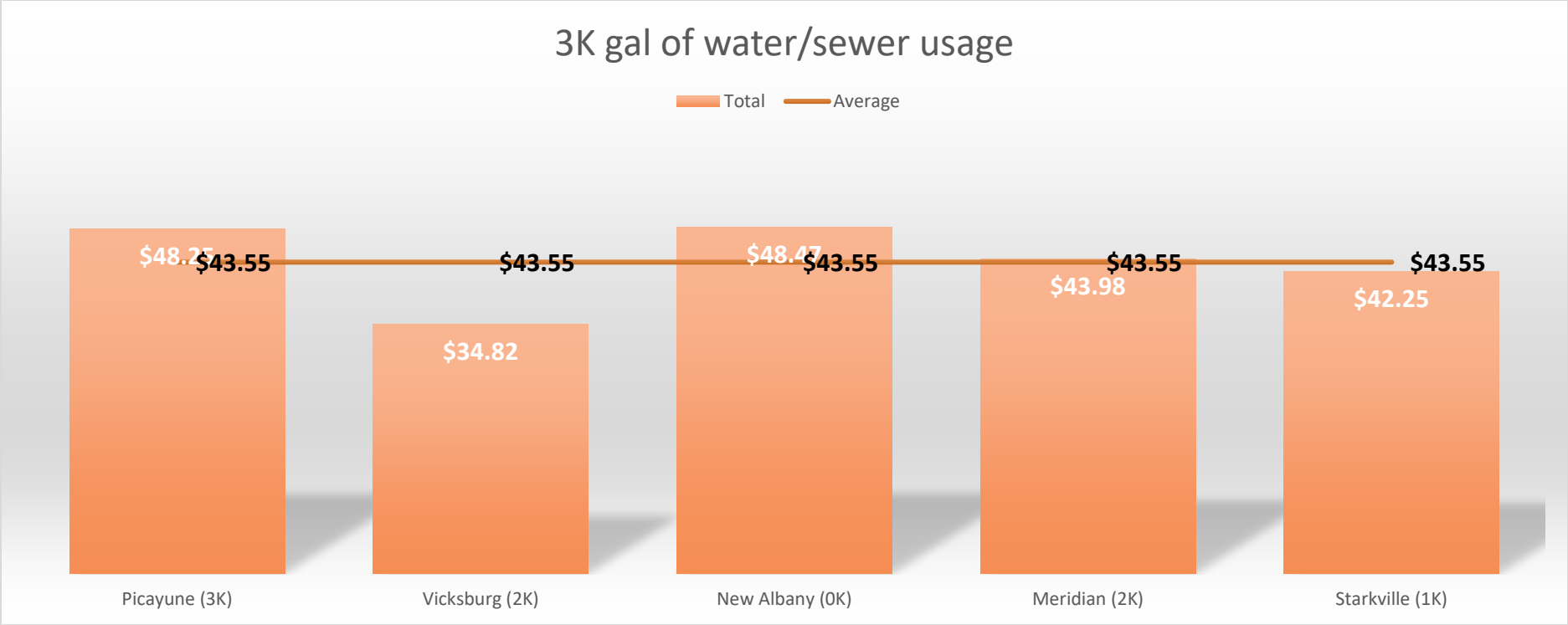
WATER AND SEWER PROPOSED RATE COMPARISON



COMBINED RATE EVALUATION

Customer Use	# of Customers	%	Est. Avg. Bill	Est. Bill Increase	Amount Billed	Avg. Bill	Est. Avg. Bill	Est. Bill Increase	Total Est. Avg. Bill	Total Est. Bill Increase
Less than 1,000 gal.	2,430	25.29%	\$ 8.50	\$ 2.50	\$ 26,123	\$6.00	\$10.75	\$4.75	\$19.25	\$7.25
1,001 to 2,000 gal.	1,675	17.43%	\$ 11.00	\$ 2.75	\$ 23,459	\$8.25	\$14.01	\$5.76	\$25.01	\$8.51
2,001 to 3,000 gal.	1,395	14.52%	\$ 16.03	\$ 3.26	\$ 28,644	\$12.77	\$20.53	\$7.76	\$36.56	\$11.02
3,001 to 4,000 gal.	1,148	11.95%	\$ 21.01	\$ 3.75	\$ 31,016	\$17.26	\$27.02	\$9.76	\$48.03	\$13.51
4,001 to 5,000 gal.	865	9.00%	\$ 25.85	\$ 4.23	\$ 28,812	\$21.62	\$33.31	\$11.69	\$59.16	\$15.92
5,001 to 6,000 gal.	593	6.17%	\$ 30.88	\$ 4.74	\$ 23,626	\$26.14	\$39.84	\$13.70	\$70.72	\$18.44
6,001 to 7,000 gal	373	3.88%	\$ 35.81	\$ 5.23	\$ 17,255	\$30.58	\$46.26	\$15.68	\$82.07	\$20.91
7,001 to 8,000 gal	266	2.77%	\$ 40.94	\$ 5.75	\$ 14,076	\$35.19	\$52.92	\$17.73	\$93.85	\$23.47
8,001 to 9,000 gal	207	2.15%	\$ 45.92	\$ 6.24	\$ 12,295	\$39.68	\$59.39	\$19.71	\$105.31	\$25.95
9,001 to 10,000 gal	134	1.39%	\$ 51.02	\$ 6.75	\$ 8,848	\$44.27	\$66.03	\$21.76	\$117.05	\$28.51
More than 10,000 gal.	523	5.44%	\$ 116.49	\$ 13.30	\$ 79,046	\$103.19	\$151.14	\$47.95	\$267.63	\$61.25

WATER AND SEWER RATE COMPARISON- 3000 GALLONS



THANK YOU
&
QUESTIONS?







RATE RECOMMENDATIONS- ALTERNATE 1

WATER RATES	EXISTING	PROPOSED
BASE RATE*:	\$6	\$7.00
VARIABLE RATE:	\$4.50	\$5.50
BULK PURCHASE FOR WATER ASSOC.	N/A	\$6.25

SEWER RATES	EXISTING	PROPOSED
BASE RATE*:	\$6	\$10.75
VARIABLE RATE:	\$4.50	\$6.50
FLAT RATE (SEWER ONLY)**	\$18.67	\$29.05

CUSTOMERS OUTSIDE THE CITY LIMITS: 25% INCREASE IN BASE AND VARIABLE RATES

*INCLUDES 1000 GALLONS IN PROPOSED AND EXISTING BASE RATES

** FOR SINGLE FAMILY RESIDENTIAL CUSTOMERS. OTHER USES CALCULATED USING MSDH DESIGN CRITERIA FOR AVERAGE USAGE

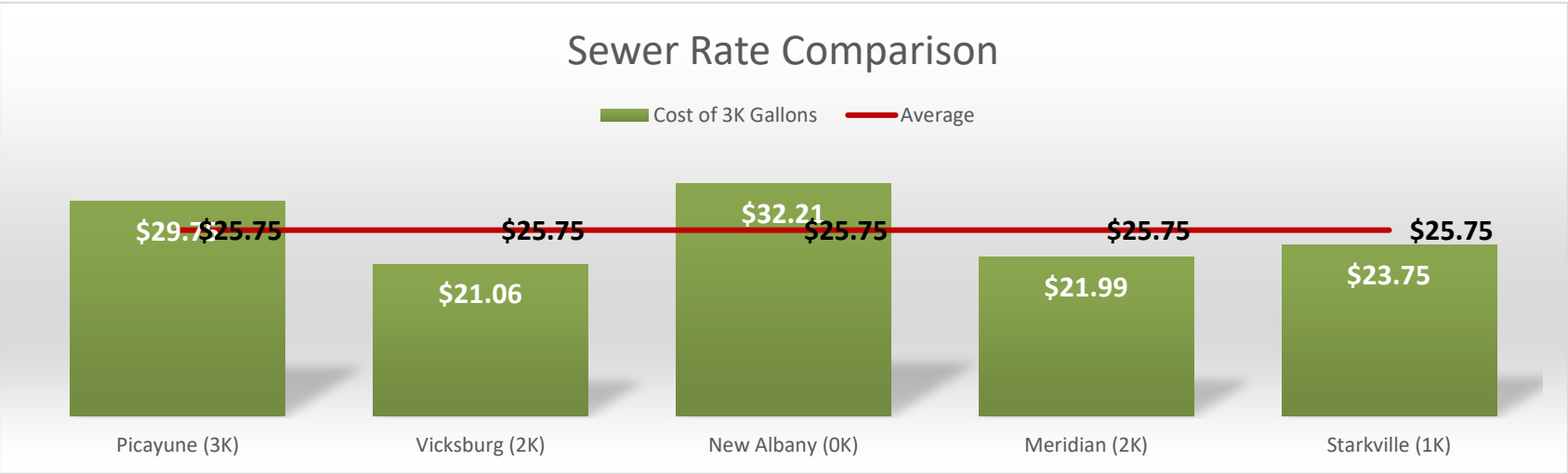
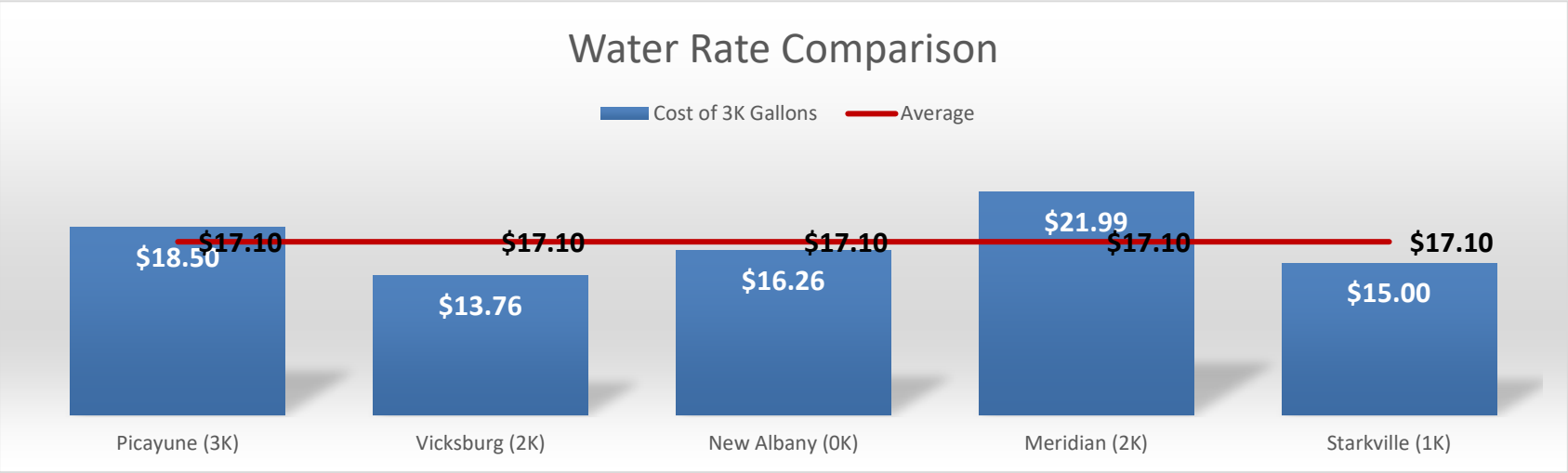
WATER RATE EVALUATION

Customer Use	# of Customers	%	Amount Billed	%	Use By Customers (gal.)	%	Avg. Bill	Est. Amount Billed	%	Est. Avg. Bill	Est. Bill Increase
Less than 1,000 gal.	2,430	25.29%	\$ 17,010	7.5%	696,829	1.9%	\$ 6.00	\$ 17,010	7.5%	\$ 7.00	\$ 1.00
1,001 to 2,000 gal.	1,675	17.43%	\$ 16,339	7.2%	2,513,840	6.8%	\$ 8.25	\$ 16,339	7.2%	\$ 9.75	\$ 1.50
2,001 to 3,000 gal.	1,395	14.52%	\$ 21,313	9.3%	3,494,670	9.4%	\$ 12.77	\$ 21,313	9.3%	\$ 15.28	\$ 2.51
3,001 to 4,000 gal.	1,148	11.95%	\$ 23,838	10.5%	4,021,140	10.8%	\$ 17.26	\$ 23,838	10.5%	\$ 20.77	\$ 3.51
4,001 to 5,000 gal.	865	9.00%	\$ 22,566	9.9%	3,867,070	10.4%	\$ 21.62	\$ 22,566	9.9%	\$ 26.09	\$ 4.47
5,001 to 6,000 gal.	593	6.17%	\$ 18,748	8.2%	3,247,000	8.8%	\$ 26.14	\$ 18,748	8.2%	\$ 31.62	\$ 5.48
6,001 to 7,000 gal	373	3.88%	\$ 13,818	6.1%	2,410,690	6.5%	\$ 30.58	\$ 13,818	6.1%	\$ 37.05	\$ 6.47
7,001 to 8,000 gal	266	2.77%	\$ 11,353	5.0%	1,991,630	5.4%	\$ 35.19	\$ 11,353	5.0%	\$ 42.68	\$ 7.49
8,001 to 9,000 gal	207	2.15%	\$ 9,969	4.4%	1,756,140	4.7%	\$ 39.68	\$ 9,969	4.4%	\$ 48.16	\$ 8.48
9,001 to 10,000 gal	134	1.39%	\$ 7,206	3.2%	1,273,640	3.4%	\$ 44.27	\$ 7,206	3.2%	\$ 53.78	\$ 9.51
More than 10,000 gal.	523	5.44%	\$ 65,789	28.9%	11,819,000	31.9%	\$103.19	\$ 65,789	28.9%	\$ 125.79	\$ 22.60

SEWER RATE EVALUATION

Customer Use	# of Customers	%	Amount Billed	%	Amount Billed	Avg. Bill	Est. Avg. Bill	Est. Bill Increase
Less than 1,000 gal.	2,430	25.29%	\$ 14,580	7.7%	\$ 26,123	\$6.00	\$10.75	\$4.75
1,001 to 2,000 gal.	1,675	17.43%	\$ 13,825	7.3%	\$ 23,459	\$8.25	\$14.01	\$5.76
2,001 to 3,000 gal.	1,395	14.52%	\$ 17,819	9.4%	\$ 28,644	\$12.77	\$20.53	\$7.76
3,001 to 4,000 gal.	1,148	11.95%	\$ 19,817	10.5%	\$ 31,016	\$17.26	\$27.02	\$9.76
4,001 to 5,000 gal.	865	9.00%	\$ 18,699	9.9%	\$ 28,812	\$21.62	\$33.31	\$11.69
5,001 to 6,000 gal.	593	6.17%	\$ 15,501	8.2%	\$ 23,626	\$26.14	\$39.84	\$13.70
6,001 to 7,000 gal.	373	3.88%	\$ 11,408	6.0%	\$ 17,255	\$30.58	\$46.26	\$15.68
7,001 to 8,000 gal.	266	2.77%	\$ 9,361	4.9%	\$ 14,076	\$35.19	\$52.92	\$17.73
8,001 to 9,000 gal.	207	2.15%	\$ 8,213	4.3%	\$ 12,295	\$39.68	\$59.39	\$19.71
9,001 to 10,000 gal.	134	1.39%	\$ 5,932	3.1%	\$ 8,848	\$44.27	\$66.03	\$21.76
More than 10,000 gal.	523	5.44%	\$ 53,970	28.5%	\$ 79,046	\$103.19	\$151.14	\$47.95
	9,609		\$ 189,125					

WATER AND SEWER PROPOSED RATE COMPARISON



COMBINED RATE EVALUATION- ALTERNATE 1

Customer Use	# of Customers	%	Est. Avg. Bill	Est. Bill Increase	Amount Billed	Avg. Bill	Est. Avg. Bill	Est. Bill Increase	Total Est. Avg. Bill	Est. Bill Increase
Less than 1,000 gal.	2,430	25.29%	\$ 7.00	\$ 1.00	\$ 26,123	\$6.00	\$10.75	\$4.75	\$17.75	\$5.75
1,001 to 2,000 gal.	1,675	17.43%	\$ 9.75	\$ 1.50	\$ 23,459	\$8.25	\$14.01	\$5.76	\$23.76	\$7.26
2,001 to 3,000 gal.	1,395	14.52%	\$ 15.28	\$ 2.51	\$ 28,644	\$12.77	\$20.53	\$7.76	\$35.81	\$10.27
3,001 to 4,000 gal.	1,148	11.95%	\$ 20.77	\$ 3.51	\$ 31,016	\$17.26	\$27.02	\$9.76	\$47.78	\$13.26
4,001 to 5,000 gal.	865	9.00%	\$ 26.09	\$ 4.47	\$ 28,812	\$21.62	\$33.31	\$11.69	\$59.40	\$16.16
5,001 to 6,000 gal.	593	6.17%	\$ 31.62	\$ 5.48	\$ 23,626	\$26.14	\$39.84	\$13.70	\$71.46	\$19.18
6,001 to 7,000 gal	373	3.88%	\$ 37.05	\$ 6.47	\$ 17,255	\$30.58	\$46.26	\$15.68	\$83.31	\$22.15
7,001 to 8,000 gal	266	2.77%	\$ 42.68	\$ 7.49	\$ 14,076	\$35.19	\$52.92	\$17.73	\$95.60	\$25.22
8,001 to 9,000 gal	207	2.15%	\$ 48.16	\$ 8.48	\$ 12,295	\$39.68	\$59.39	\$19.71	\$107.56	\$28.20
9,001 to 10,000 gal	134	1.39%	\$ 53.78	\$ 9.51	\$ 8,848	\$44.27	\$66.03	\$21.76	\$119.81	\$31.27
More than 10,000 gal.	523	5.44%	\$ 125.79	\$ 22.60	\$ 79,046	\$103.19	\$151.14	\$47.95	\$276.93	\$70.55