



Midwest City Sewer System Financial Evaluation

February 8, 2024



SEWER SYSTEM DISCUSSION ITEMS

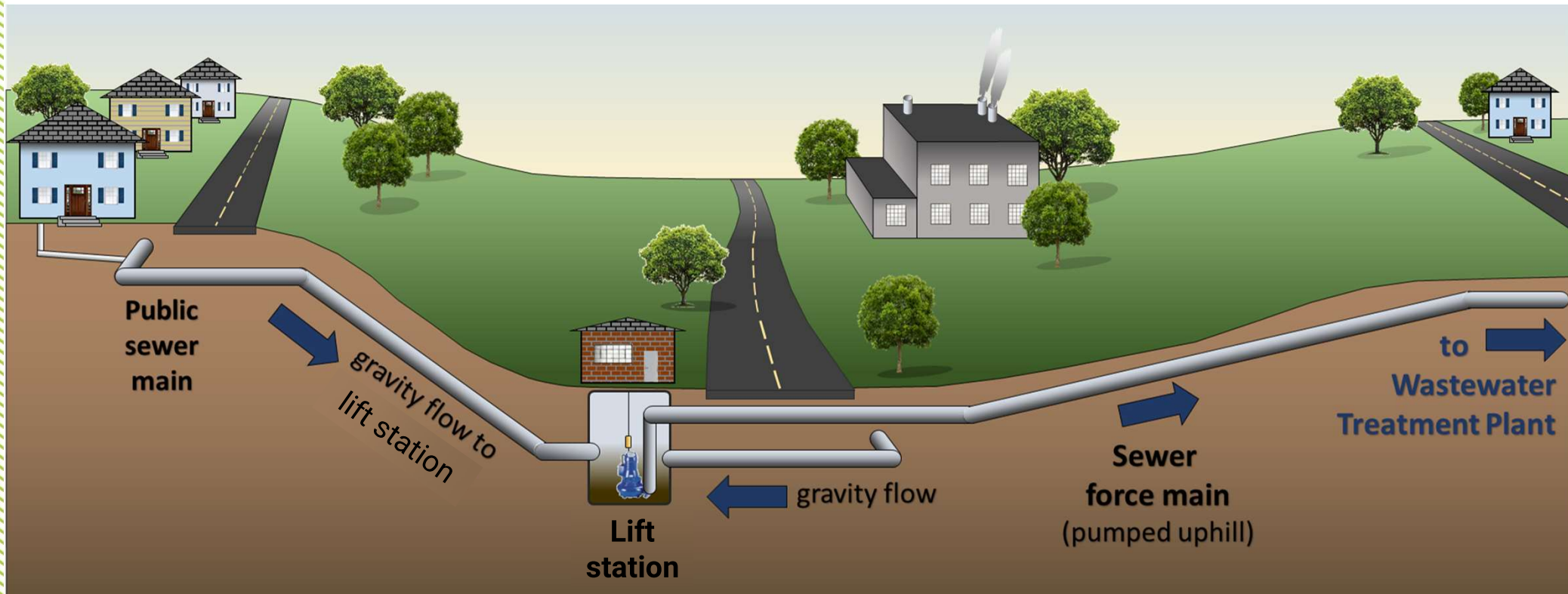
1. System Overview
2. Actions to Date
3. Funding Evaluation
4. Funding Scenarios

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What is a Sewer System and Why is it of interest now?

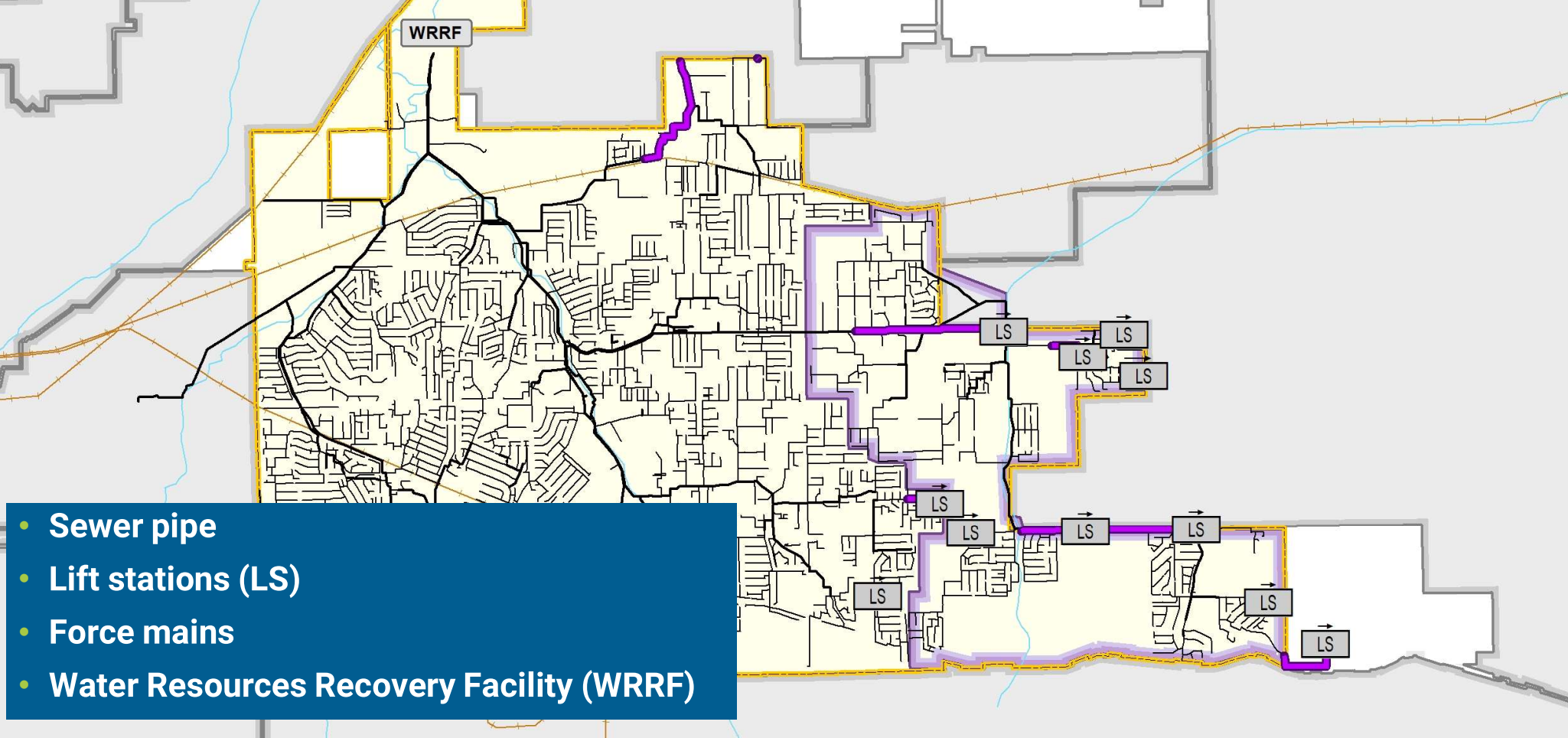
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How the Sewer System Works



Courtesy Des Moines Wastewater Reclamation Authority

Midwest City Sewer System



Sewer System Investment Demands

Aging Infrastructure



Growth



Midwest City Sewer System Desktop Condition Evaluation

Pipe Material	Miles	Expected Service Life (years)	Estimated Miles at End of Service Life	Midwest City System Notes
Clay	125	50+	100	80% of clay pipe is more than 50 years old
PVC	113	100+	~0	90% of PVC pipe is more than 44 years old
Concrete	50	50+	Varies	Concrete pipe generally installed between 1960-1990 *May include some unknown material that is at service life maturity and needs to be fixed
Ductile Iron	3	75+	~0	Ductile iron pipe generally installed since 1980

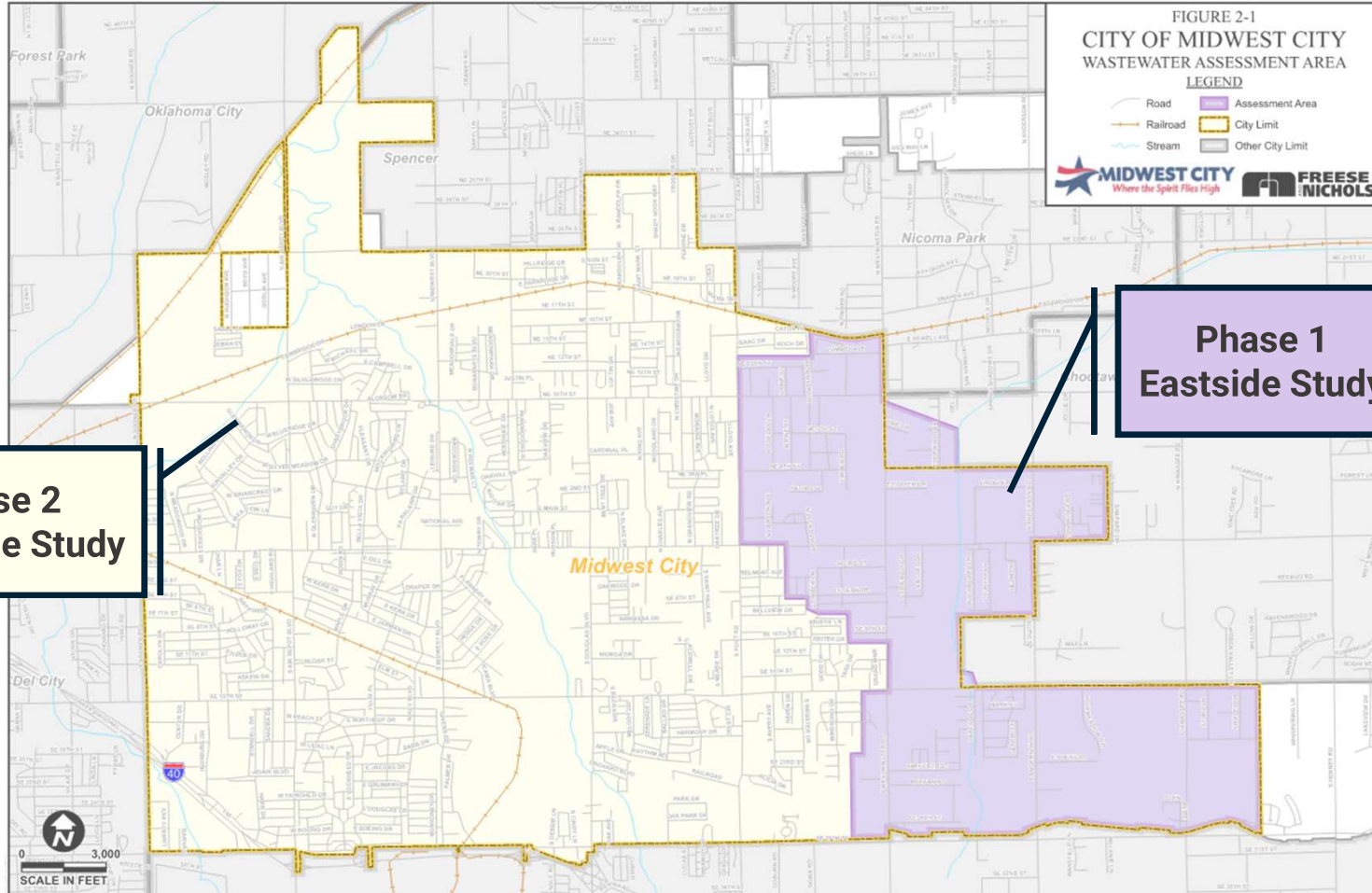
2

Actions to Date

1. System Overview
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Sewer System Assessments

FIGURE 2-1
CITY OF MIDWEST CITY
WASTEWATER ASSESSMENT AREA



Phase 2
City-wide Study

Phase 1
Eastside Study

Phase 1 Engineering Study - Complete



Innovative approaches
Practical results
Outstanding service

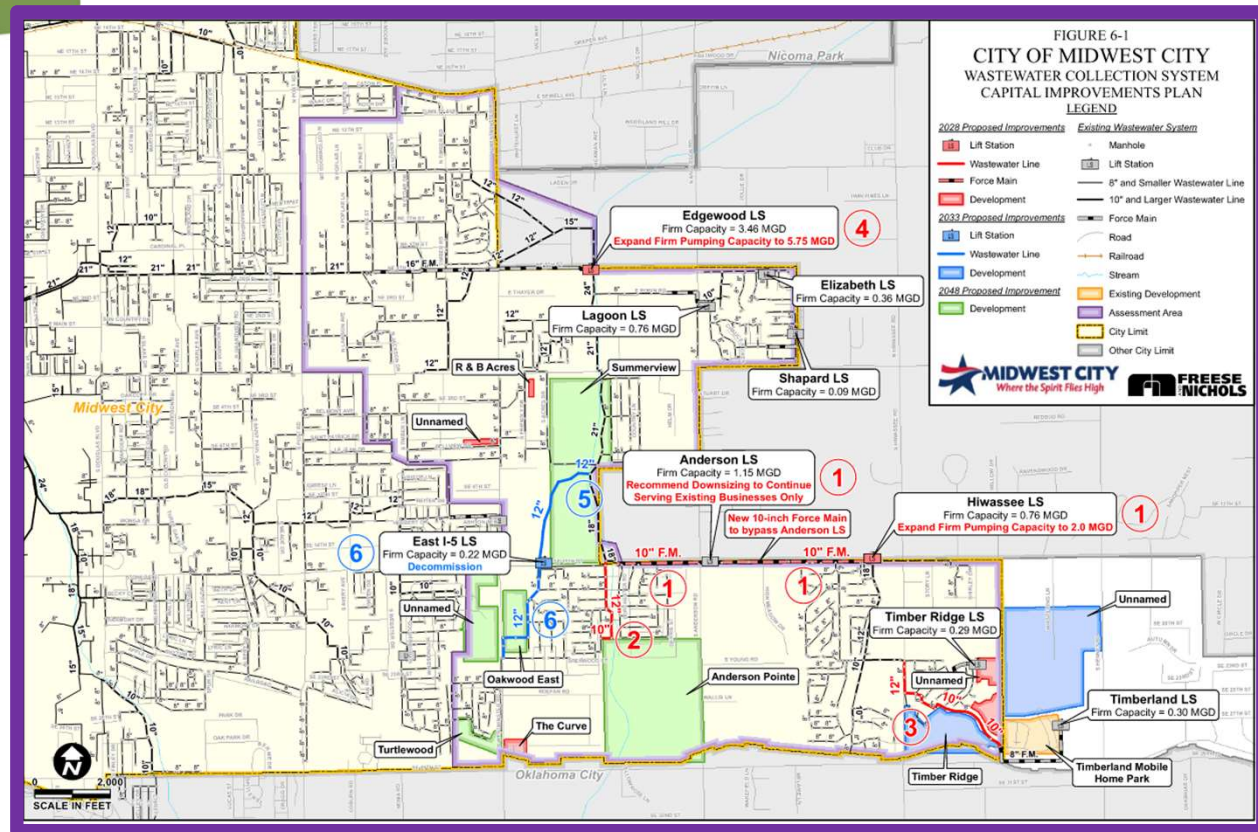
EASTSIDE ASSESSMENT AREA WASTEWATER COLLECTION SYSTEM MASTER PLAN REPORT

Prepared for:
City of Midwest City



Accepted July 25, 2023

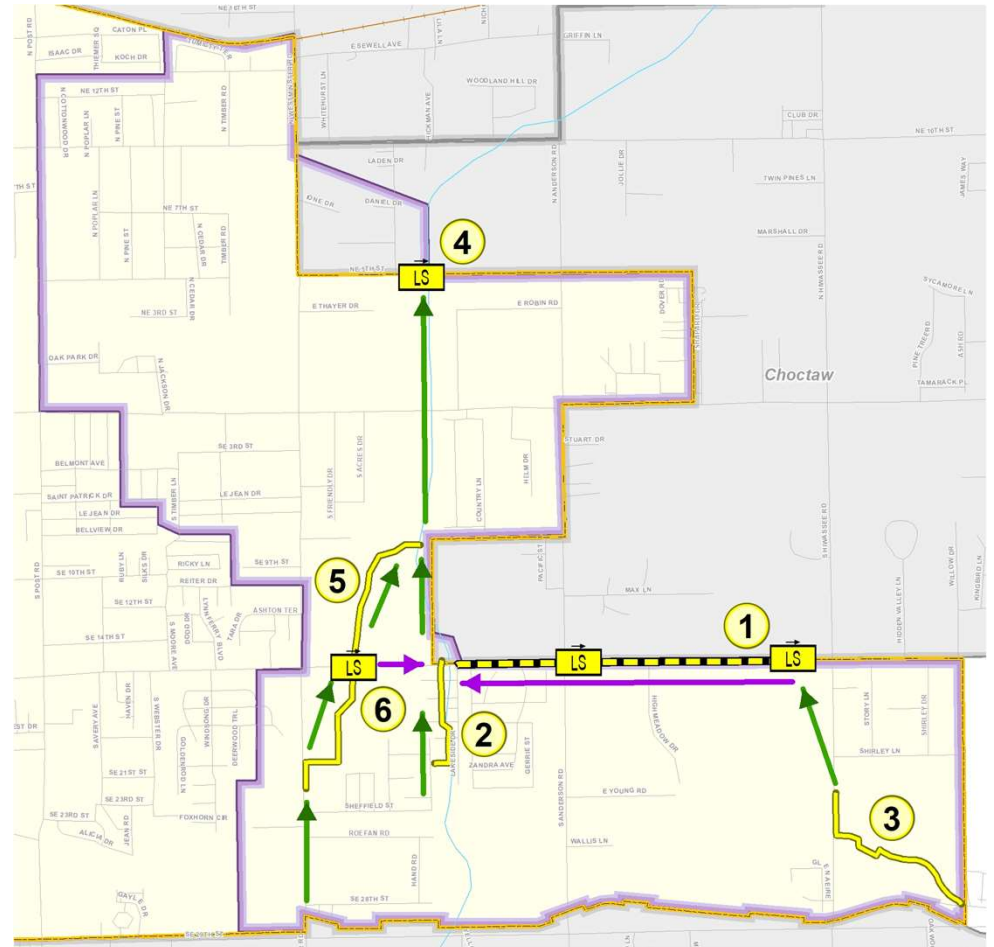
Prepared by:
FREESE AND NICHOLS, INC.
3600 NW 138th St., Suite 202
Oklahoma City, OK 73134
405-607-7060



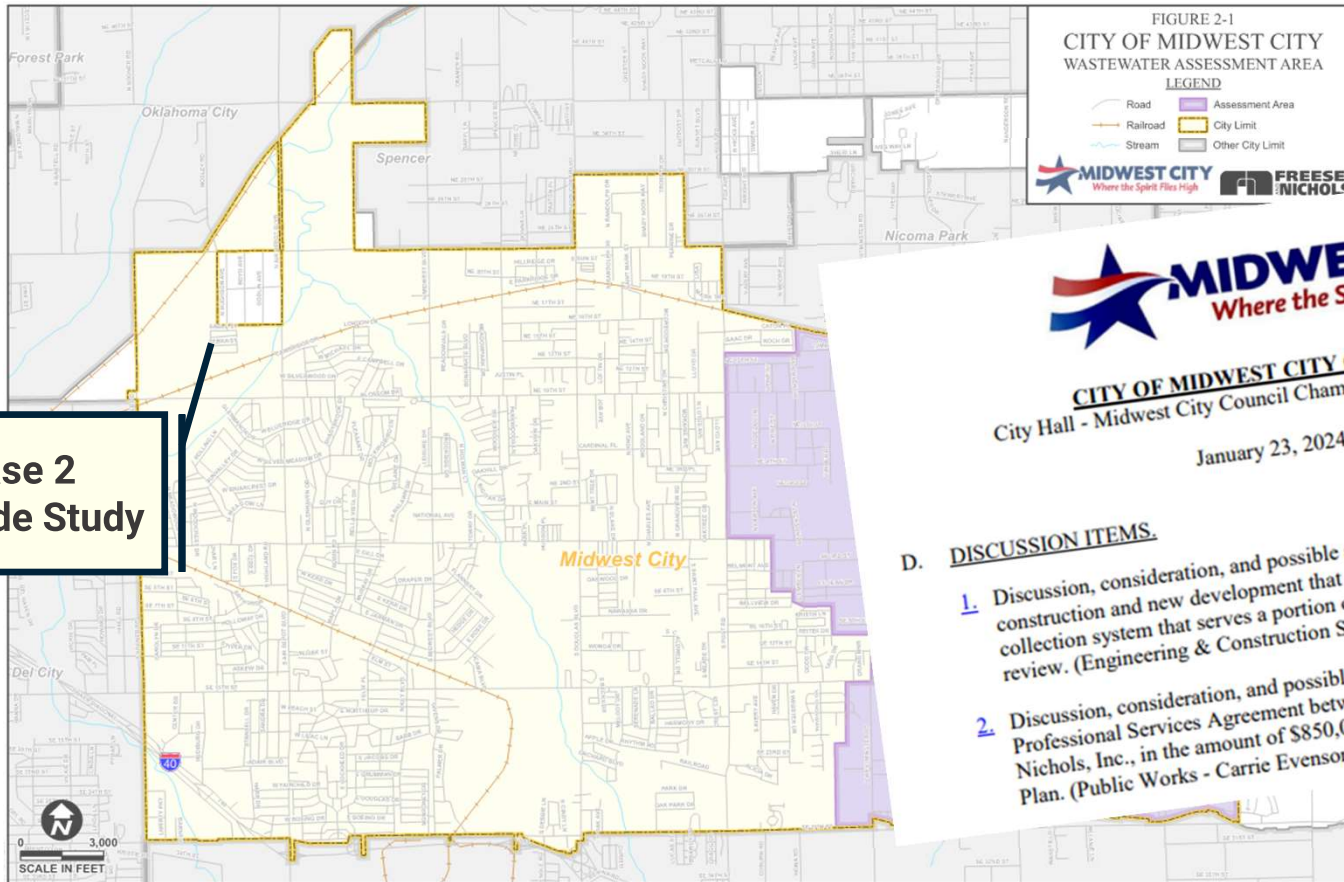
Phase 1 Engineering Recommendations

July 2023
Original Report

Timeline	Cost (2024 \$)	Projects
Short-Term	\$23.8M	1 Hiwassee Lift Station & Force Main 2 Lakeside Dr. Sewer Line 3 Timber Ridge Sewer Line 4 Edgewood Lift Station
Long-Term	\$5.0M	5 East 1-5 Bypass Sewer Line 6 East 1-5 Lift Station and Sewer Line
Total	\$28.8M	



Phase 2 City-wide Engineering Study - Pending



MIDWEST CITY
Where the Spirit Flies High

CITY OF MIDWEST CITY COUNCIL AGENDA
City Hall - Midwest City Council Chambers, 100 N. Midwest Boulevard
January 23, 2024 – 6:00 PM

D. DISCUSSION ITEMS.

1. Discussion, consideration, and possible action of review of the moratorium on new construction and new development that will connect to the Midwest City wastewater collection system that serves a portion of the east side of Midwest City, 6-month review. (Engineering & Construction Services - B. Bundy)
2. Discussion, consideration, and possible action of approving Amendment No. 3 to a Professional Services Agreement between the City of Midwest City and Freese and Nichols, Inc., in the amount of \$850,000.00 to develop a citywide Wastewater Master Plan. (Public Works - Carrie Evenson)

3

Funding Evaluation

1. System Overview
2. Actions to Date
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4. Funding Scenarios



Phase 1 Financial Study Objectives

1. Eastside Wastewater CIP Funding Evaluation

- Identify **funding approaches** for Eastside CIP
- Identify **developer cost share** of CIP
- Identify wastewater **rate schedule**

2. Screening Level Assessment of City-wide Aging Infrastructure Needs

Phase 1 Refinements

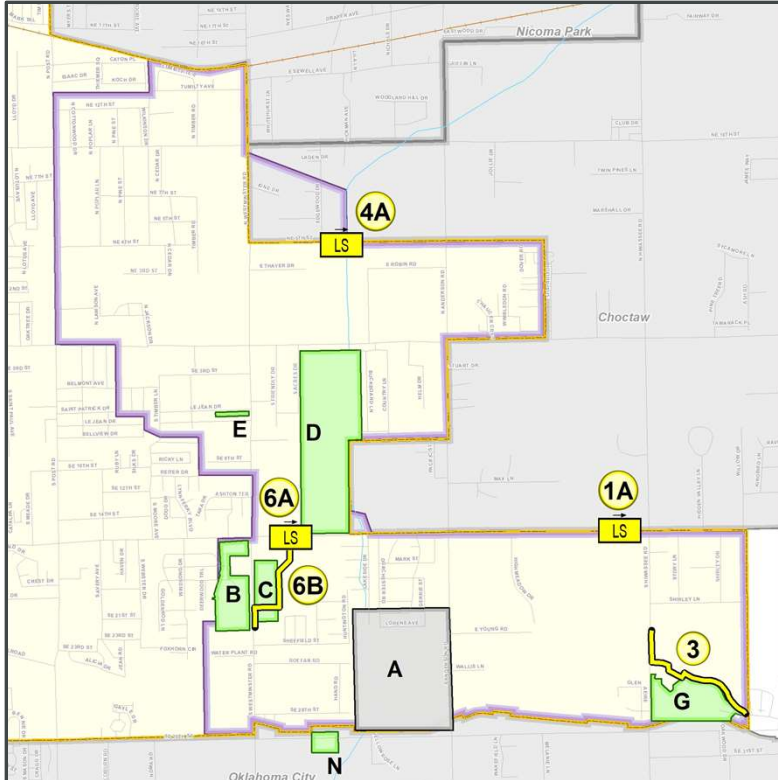
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Refinements

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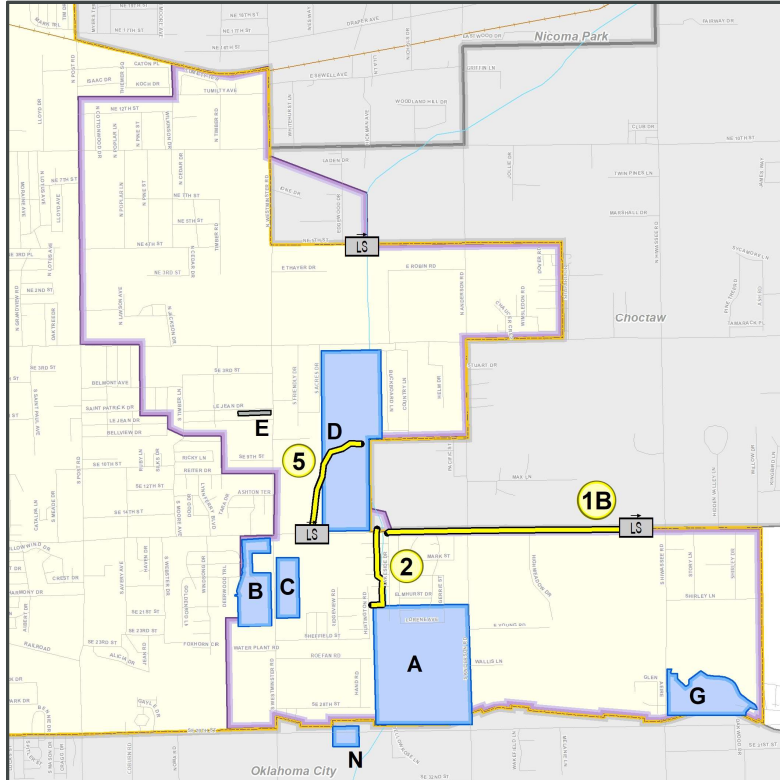
Timeline	Cost (2024 \$)	Projects
Already Funded	--	1A Hiwassee Lift Station Interim Improvements 4A Edgewood Lift Station Interim Improvements 6A East 1-5 Lift Station Operational Optimizations
Immediate (2024)	\$5.1M	3 Timber Ridge Sewer Line 6B East 1-5 Sewer Line
Short-Term (2025-2033)	\$12.1M	1B Hiwassee Lift Station & Force Main 2 Lakeside Dr. Sewer Line 5 East 1-5 Bypass Sewer Line
Long-Term (2034 and later)	\$11.6M	4B Edgewood Lift Station Rebuild 6C East 1-5 Lift Station
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Phase I Refinements – 2024 Actions



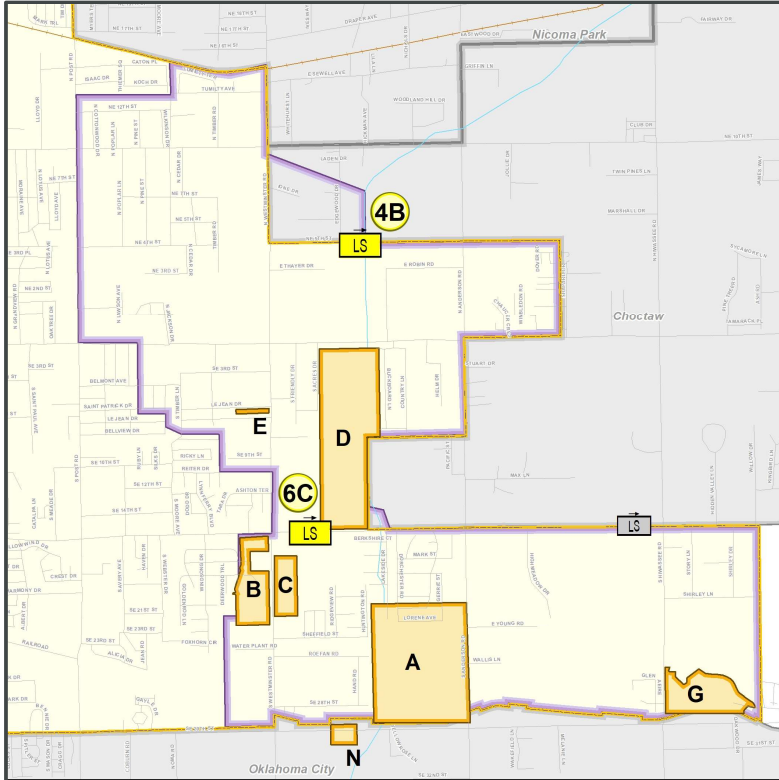
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Phase I Refinements – 2025-2033



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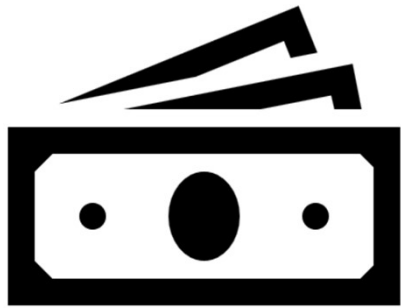
Phase I Refinements – 2034 and Later



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Other Rate Drivers

Funding recommendations are solely to address Phase I Eastside Capital Improvement Plan based on current understanding of planned development



Inflation



**Regulatory
Requirements**



Aging Infrastructure

- Phase 2 City-wide Study
- Water Resource Recovery Facility Study

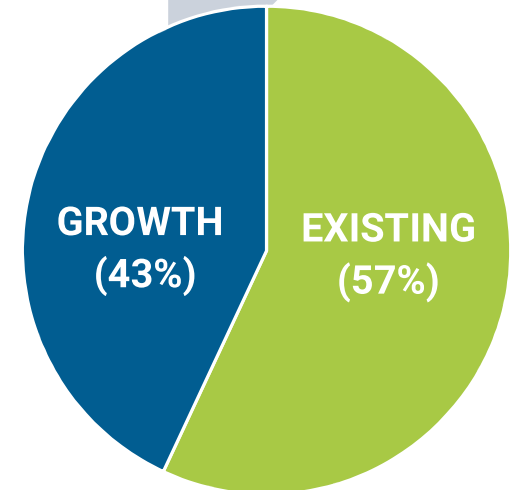
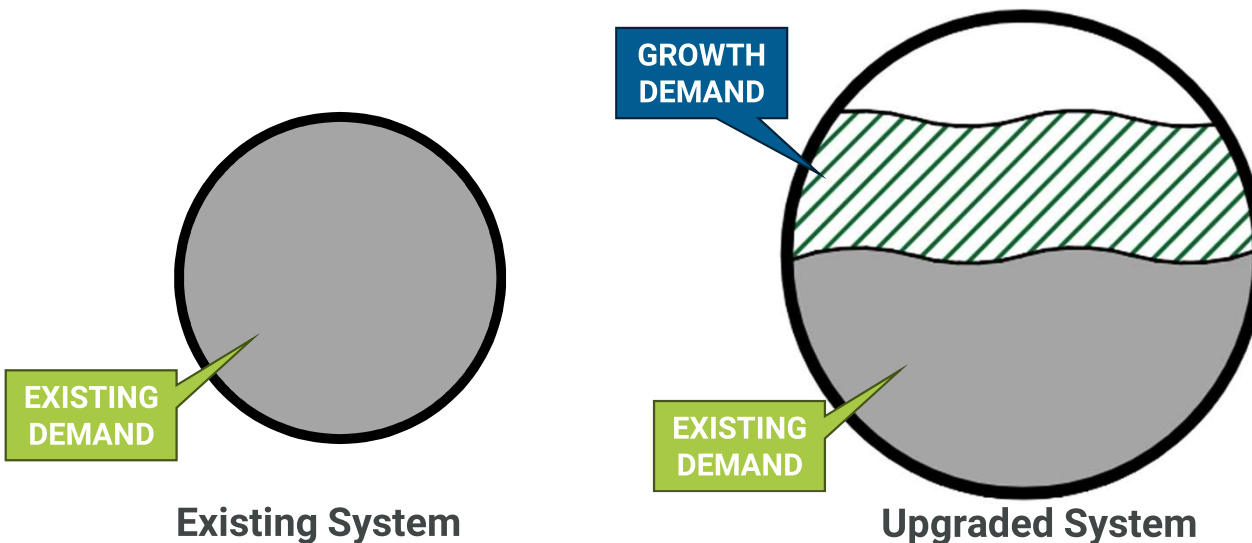
Process to Identify Existing, New Impacts

Assess current system capacity to meet existing + new demand*

**to buildout*

Identify system improvements and cost to meet existing + new demand

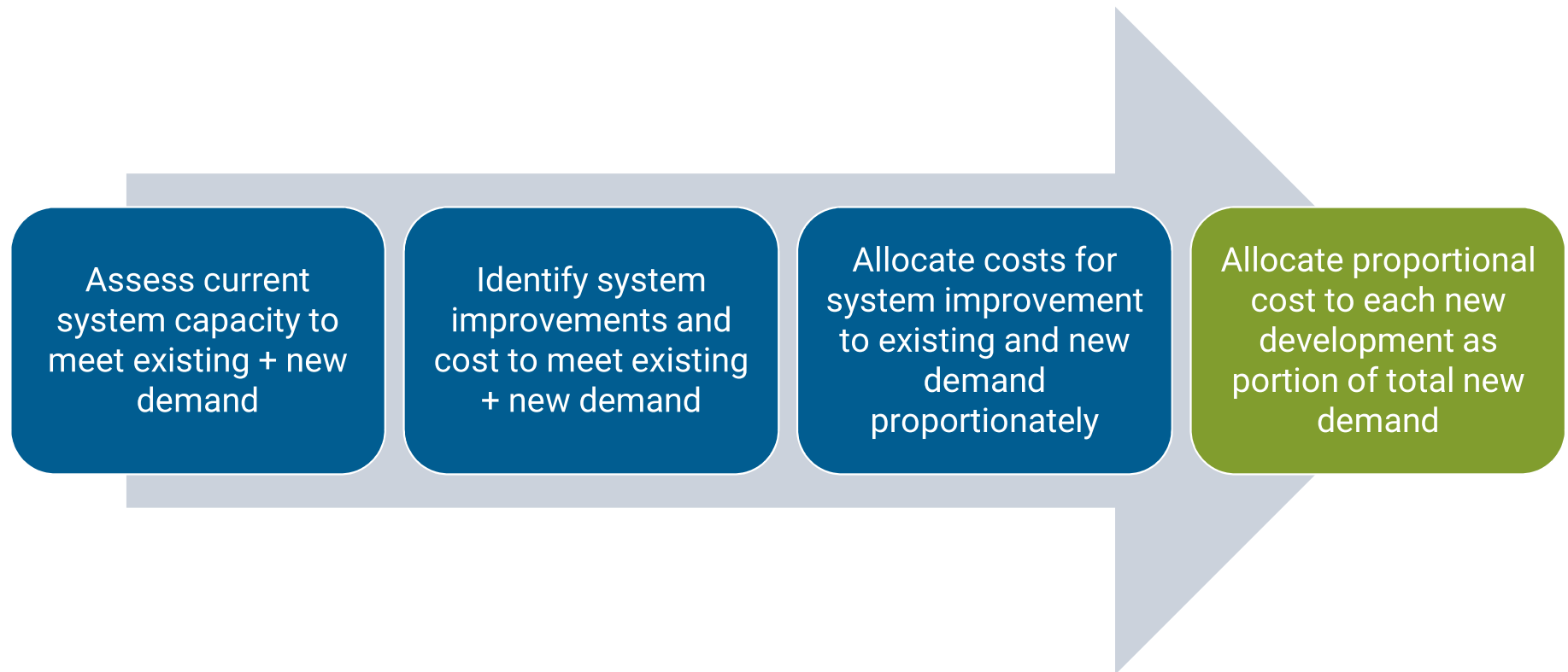
Proportionately allocate costs for system improvements between existing and new demand



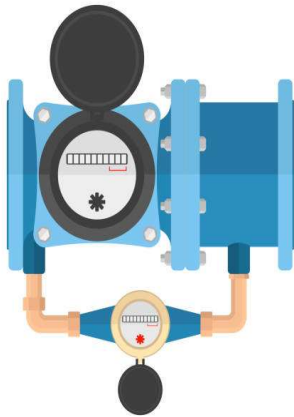
Phase 1 CIP Cost Proportionality*

** 2024 project costs, financing costs not included*

Process to Identify Existing, New Demand



Considered Funding Mechanisms



**Wastewater
Usage Rates**



**Development
Impact Fee**

What is a Development Impact Fee?



One-time
charge



Funds facilities
to serve
new/expanded
development



Applies to all
development
projects within a
defined geographic
area



Imposed at
building permit
stage

Oklahoma Impact Fee Law

Oklahoma Statutes §62-895 Municipal Development Fees

- B.1. Development fees shall not exceed a clear, ascertainable, and reasonably determined proportionate share of the cost of capital improvement to the public infrastructure system **attributable to the expansion or increase in functional service capacity generated, or to be generated by, the development** being charged the fee....
- B.2. **Development fees cannot be adopted or used to fund repairs, maintenance, restorations, refurbishments, alterations, improvements, or fixes to existing** public infrastructure systems in any way that does not result in an increase or expansion in the functional service capacity of the system which is available to serve new or expanded existing growth and development in the applicable service area.
- F. Municipalities may establish a process for the collection of development fees to occur at a point in time **no earlier than the issuance of a building permit.**

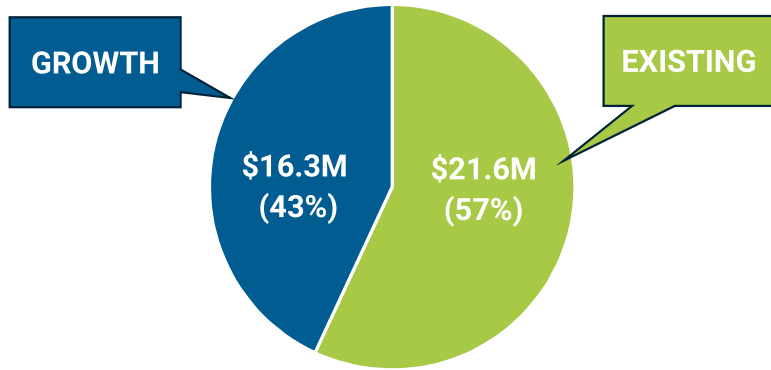
Example Development Impact Fee Schedule

TYPICAL LAND USES	Meter Size	Flow Rate (gpm) ⁽¹⁾	Development Units
Single family residential*	5/8" x 3/4"	15	1.0
	1"	40	2.7
	1-1/2"	50	3.3
	2"	100	6.7
Multi-family, commercial, industrial, institution, etc.	3"	350	23.3
	4"	600	40.0
	6"	800	53.3
	8"	2,000	133.3
	10"	3,000	200.0
	12"	4,000	266.7

*may include septic connections to system

⁽¹⁾ Safe maximum operating capacity is based on AWWA standards C700, C710, and C715

Development Impact Fee - Phase 1



\$16.3M* Eastside growth portion of capital improvement project costs

4,000** Eastside projected growth single development units

* Financing costs not included

** Estimated based on currently available information

Development Impact Fee per single development unit

\$4,100 ← **\$6,700**
Cash funded capital improvements Debt financed capital improvements

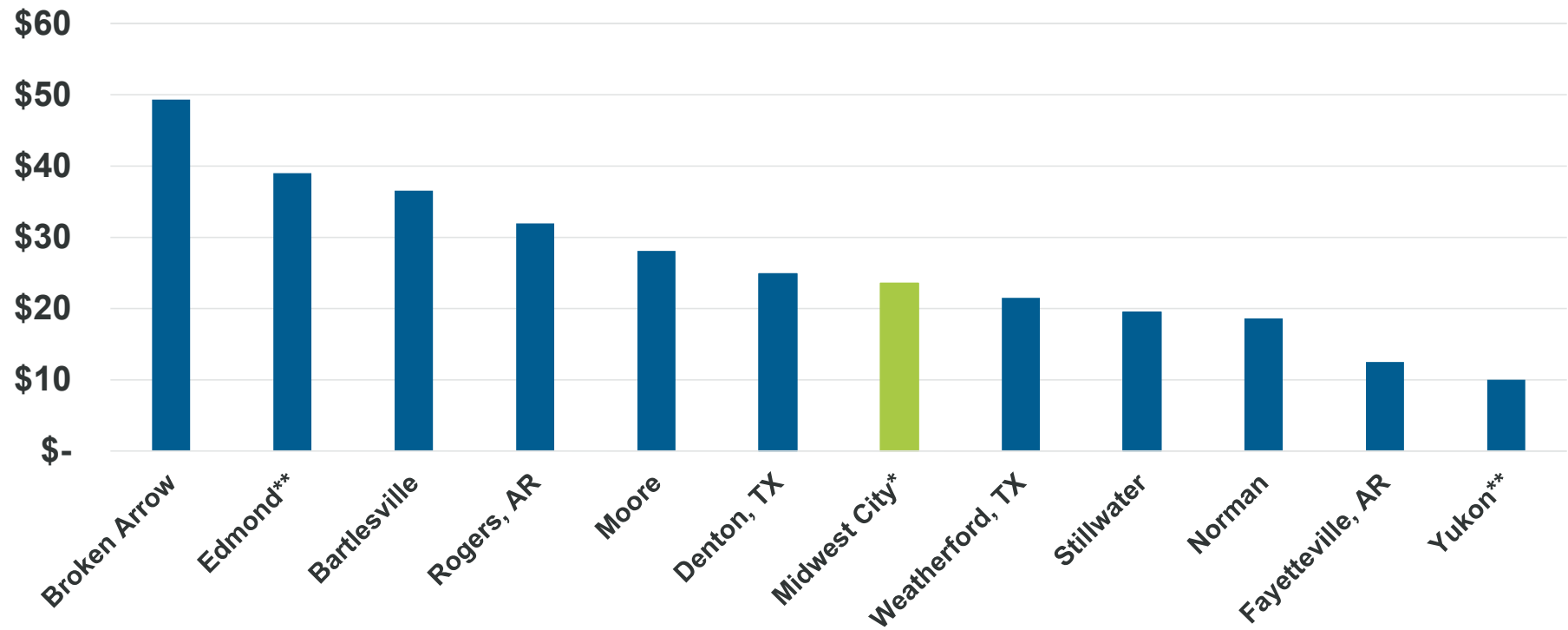
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Phase 1 Wastewater CIP Financial Scenarios

1. System Overview
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Rates Benchmarking – Current

Typical Residential Monthly Sewer Bill (3,000 gal)



*Midwest City Impact Fee for limited area in the Eastside

**Edmond and Yukon are currently evaluating Impact Fee implementation

Scenarios Evaluated

No Rate / Impact Fee Changes

Rates Only

- Cash Funded
- Debt Funded

Rates + Impact Fees

- Cash Funded
- Debt Funded

No Rate / Impact Fee Changes

Revenue Actions

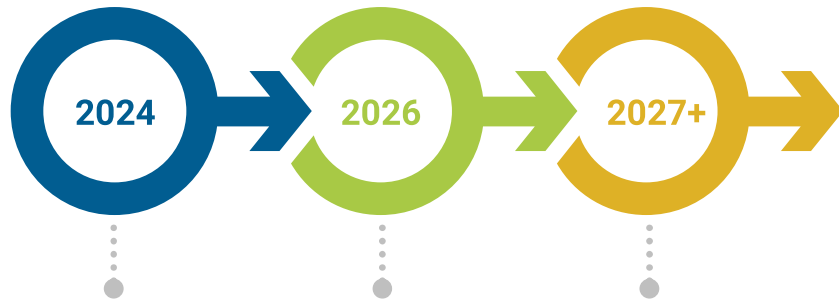
- No rate increases
- No impact fee implementation
- City pays for Edgewood lift station pumps and Hiwassee lift station Interim Improvements from existing funds

Effects

- No change to rates
- New development constrained from proceeding
- Capacity issues for existing demand remain

Rates Only

Cash



Rate Increases

25%

3%

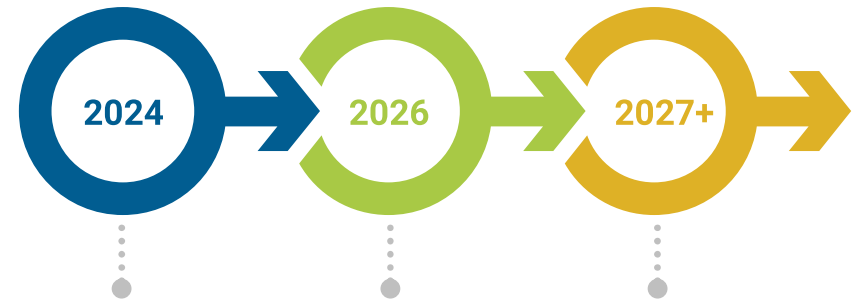
No Additional
Rate Increases
Projected

Average Residential Bill Increase (from \$23.53)

+ \$5.87

+ \$0.83

Debt



Rate Increases

5%

3%

No Additional
Rate Increases
Projected

Average Residential Bill Increase (from \$23.53)

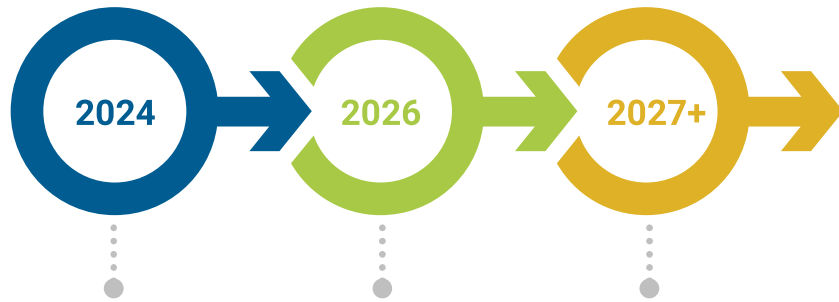
+ \$1.14

+ \$0.72

* Specific to Phase 1 Eastside CIP. Re-evaluate city-wide CIP needs after completion of Phase 2 city-wide master plan

Rates + Impact Fees

Cash



Rate Increases

14%

2%

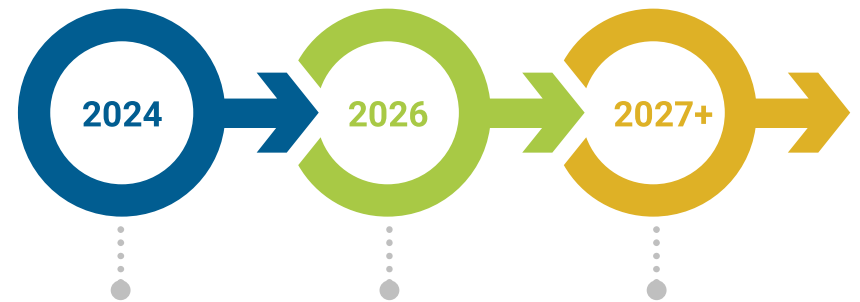
No Additional
Rate Increases
Projected

Average Residential Bill Increase (from \$23.53)

\$3.34

\$0.47

Debt



Rate Increases

3%

2%

No Additional
Rate Increases
Projected

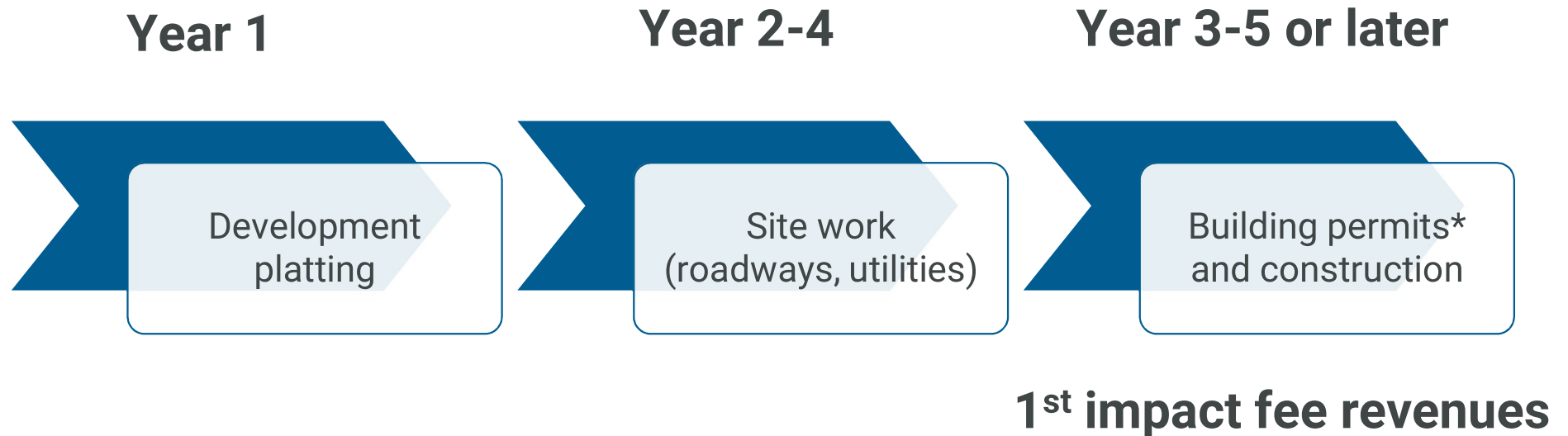
Average Residential Bill Increase (from \$23.53)

\$0.65

\$0.41

* Specific to Phase 1 Eastside CIP. Re-evaluate city-wide CIP needs after completion of Phase 2 city-wide master plan

Development Process and Impact Fee Revenues Correlation



*Municipalities may establish a process for the collection of development fees to occur at a point in time **no earlier than the issuance of a building permit.**

Scenario Summary

	No Change	Rates Only		Rates + Impact Fee	
		<u>Cash</u>	<u>Debt</u>	<u>Cash</u>	<u>Debt</u>

2	4 Increase %	0%	25%	5%	14%	3-5%*
0	Increase \$		+ \$5.87	+ \$1.14	+ \$3.34	+ \$0.65 to \$1.14
2	Avg Bill	\$23.53	\$29.40	\$24.67	\$26.87	\$24.18

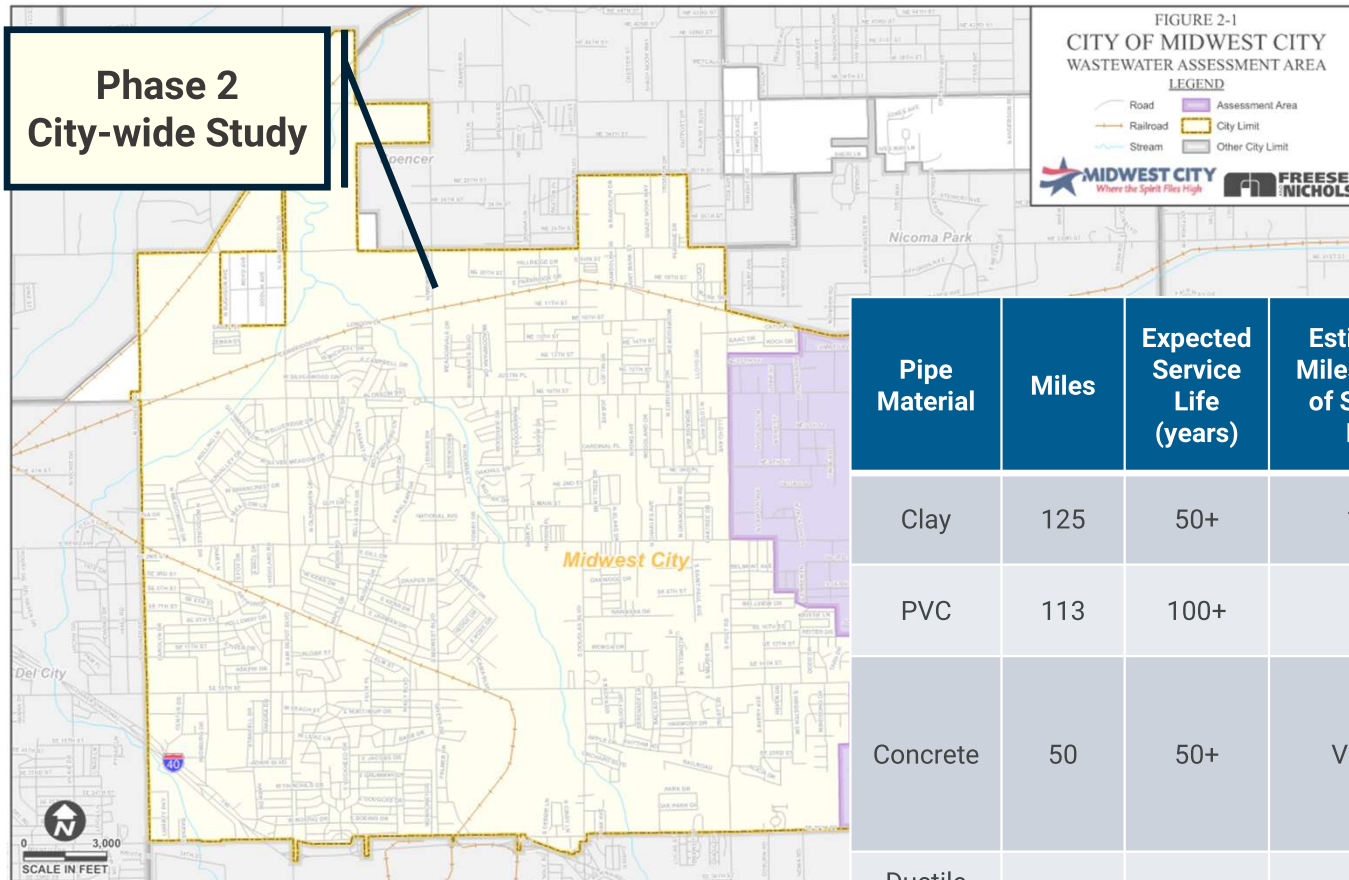
2	6 Increase %	0%	3%	3%	2%	2%
0	Increase \$		+ \$0.83	+ \$0.72	+ \$0.47	+ \$0.41
2	Avg Bill	\$23.53	\$30.23	\$25.39	\$27.34	\$24.59

	Impact Fee	\$0	\$0	\$0	\$4,100	\$6,700
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Potential Path Forward

Phase 2 City-wide Engineering Study - Pending



Pipe Material	Miles	Expected Service Life (years)	Estimated Miles at End of Service Life	Midwest City System Notes
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PVC	113	100+	~0	90% of PVC pipe is more than 44 years old
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Ductile Iron	3	75+	~0	Ductile iron pipe generally installed since 1980

Potential Path Forward



2024

- Implement Eastside Wastewater Development Impact Fee
- 10.0% rate increase
- Issue \$5.1M debt to fund Immediate Eastside Capital Improvements
- Supplement maintenance and rehabilitation funding (\$430,000/year)



2025

- Complete Phase 2 (City-wide) Wastewater Master Plan



2026

- Evaluate full system study capital improvement needs
- Review and update Development Impact Fee
- Review and update wastewater rates.



Midwest City Sewer System Financial Evaluation

February 8, 2024