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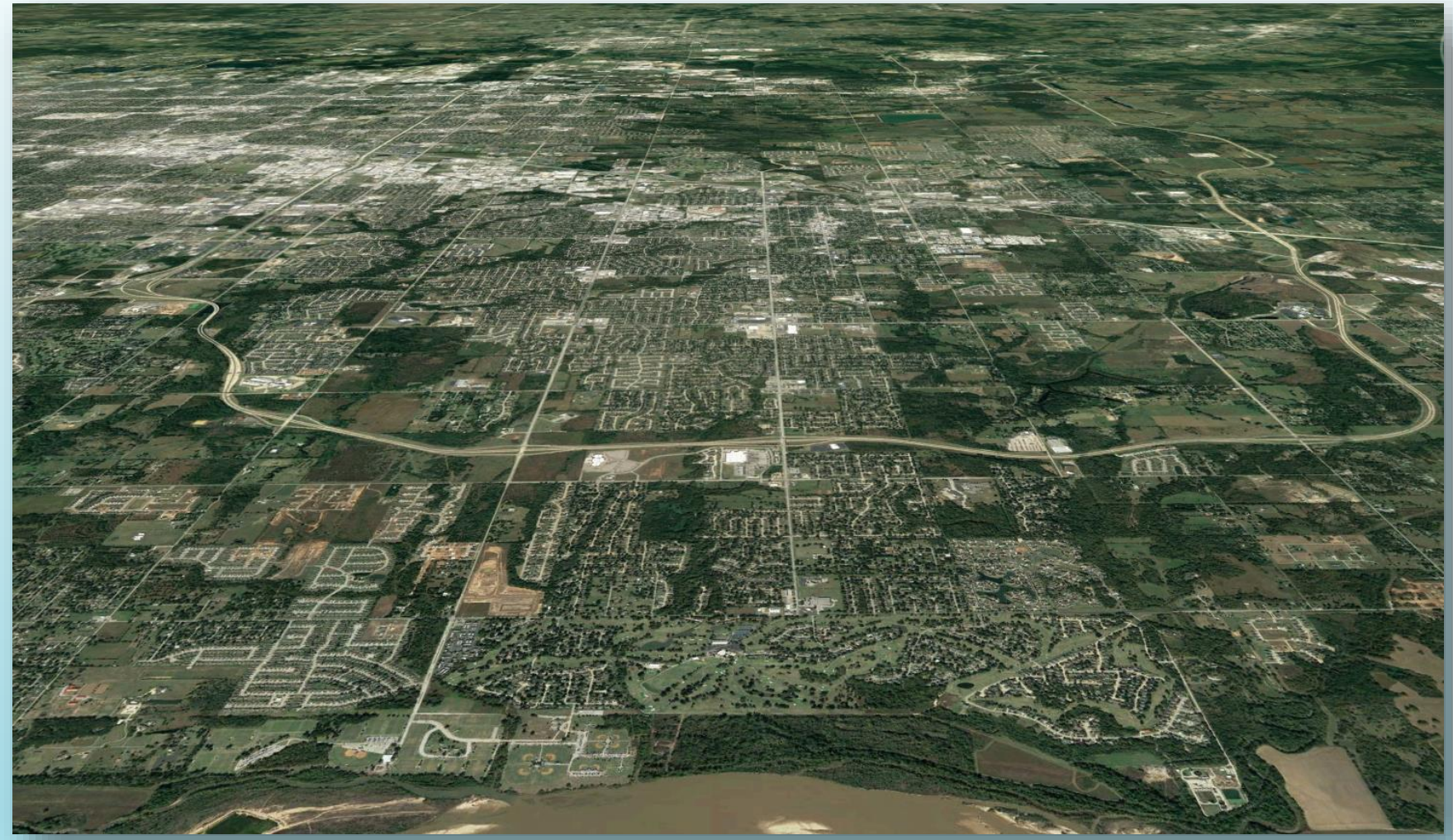
Adams Creek Wastewater System Feasibility Study



PLANNING FOR THE FUTURE

A History of Dependable Service

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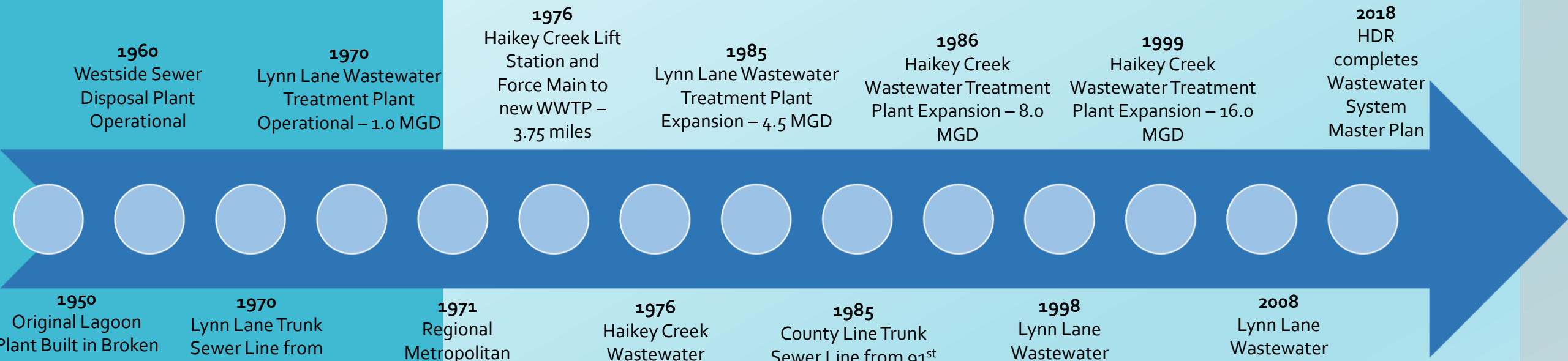
Over the past several decades, the City has constructed, maintained, and rehabilitated the wastewater treatment and collection system that transports and treats our wastewater safely and effectively



1950
Original Lagoon Plant Built in Broken Arrow

1960
Westside Sewer Disposal Plant Operational

1970
Lynn Lane Trunk Sewer Line from Downtown/ Westside to new plant – 6.73 miles

1970
Lynn Lane Wastewater Treatment Plant Operational – 1.0 MGD

1971
Regional Metropolitan Utility Authority (RMUA) Trust Declaration

1976
Haikey Creek Lift Station and Force Main to new WWTP – 3.75 miles

1976
Haikey Creek Wastewater Treatment Plant Operational – 2.0 MGD

1985
Lynn Lane Wastewater Treatment Plant Expansion – 4.5 MGD

1985
County Line Trunk Sewer Line from 91st Street to Lynn Lane Plant – 5.63 miles

1986
Haikey Creek Wastewater Treatment Plant Expansion – 8.0 MGD

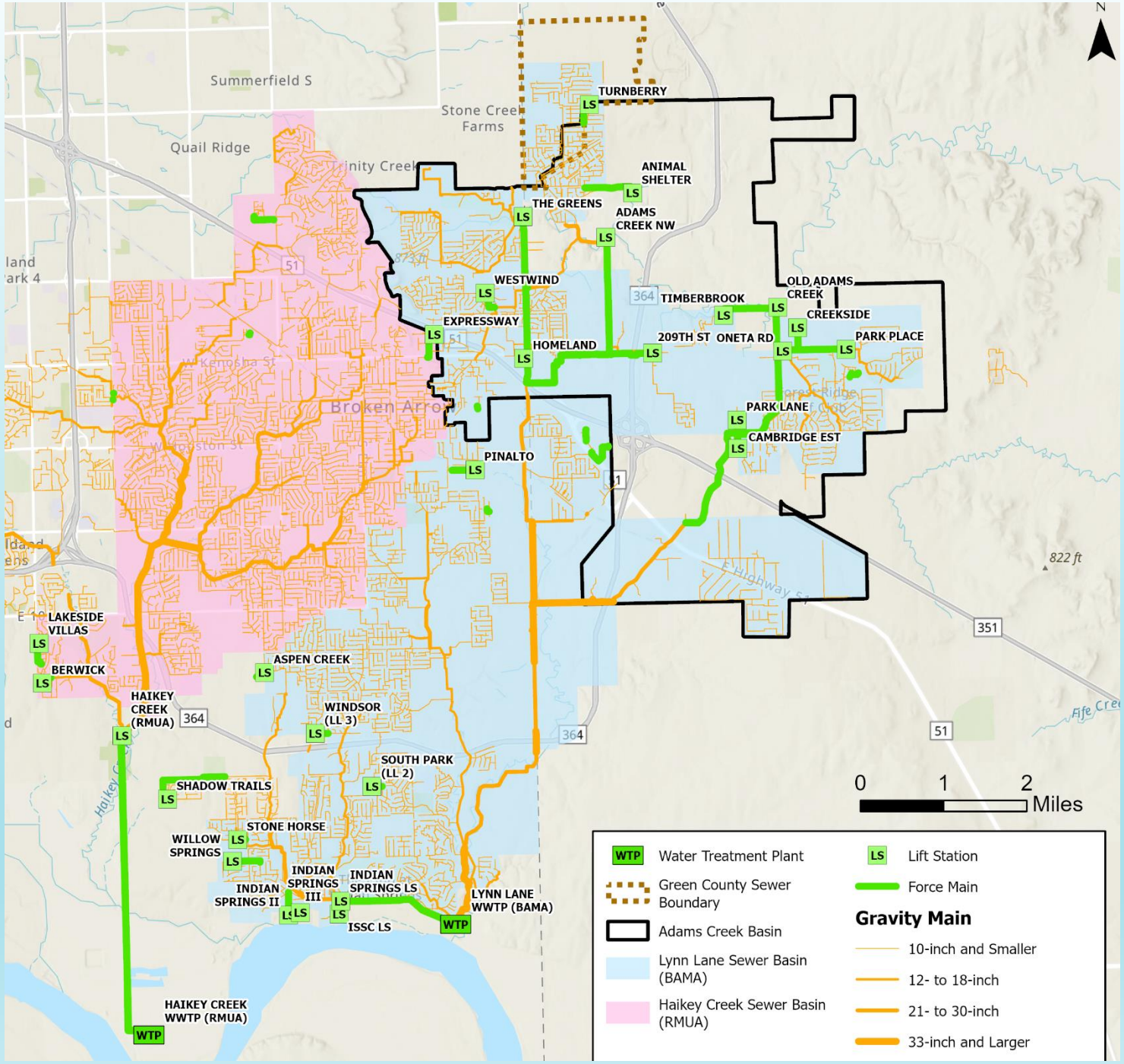
1998
Lynn Lane Wastewater Treatment Plant Expansion – 6.5 MGD

1999
Haikey Creek Wastewater Treatment Plant Expansion – 16.0 MGD

2008
Lynn Lane Wastewater Treatment Plant Expansion – 8.0 MGD

2018
HDR completes Wastewater System Master Plan

Sewer Basins



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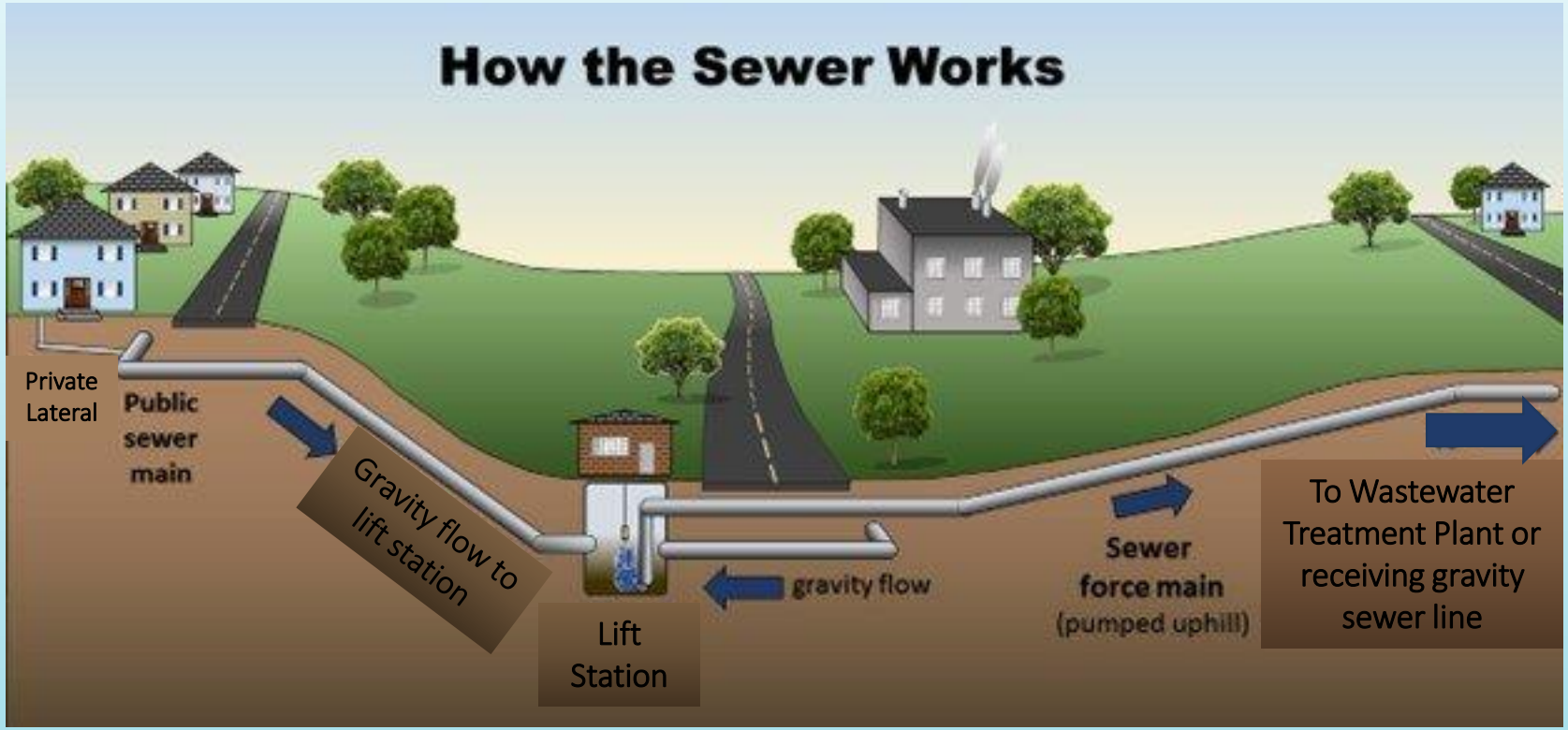
Lift Station Explanation



https://noloveov.shop/product_details/1499840.html

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Adams Creek Basin

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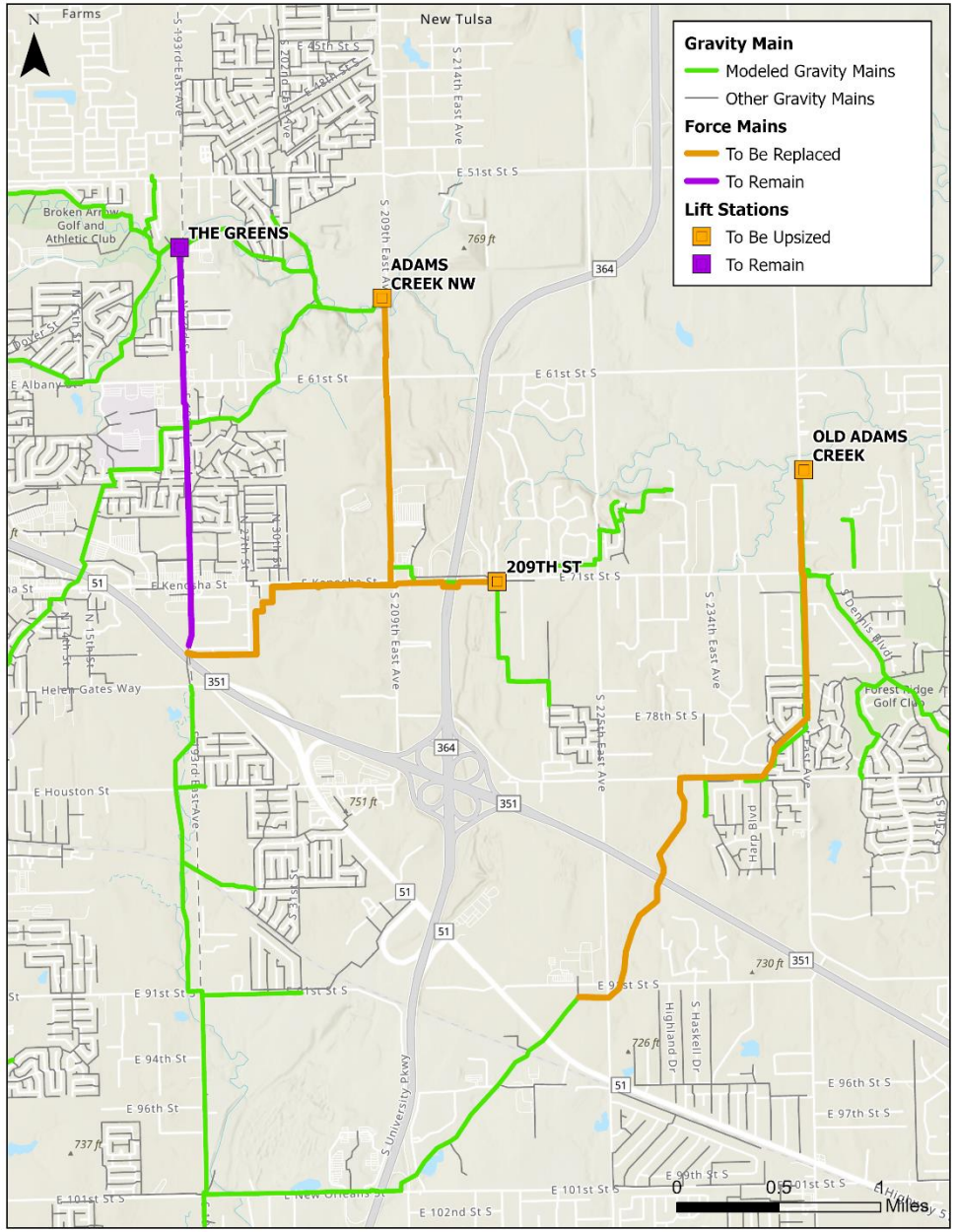
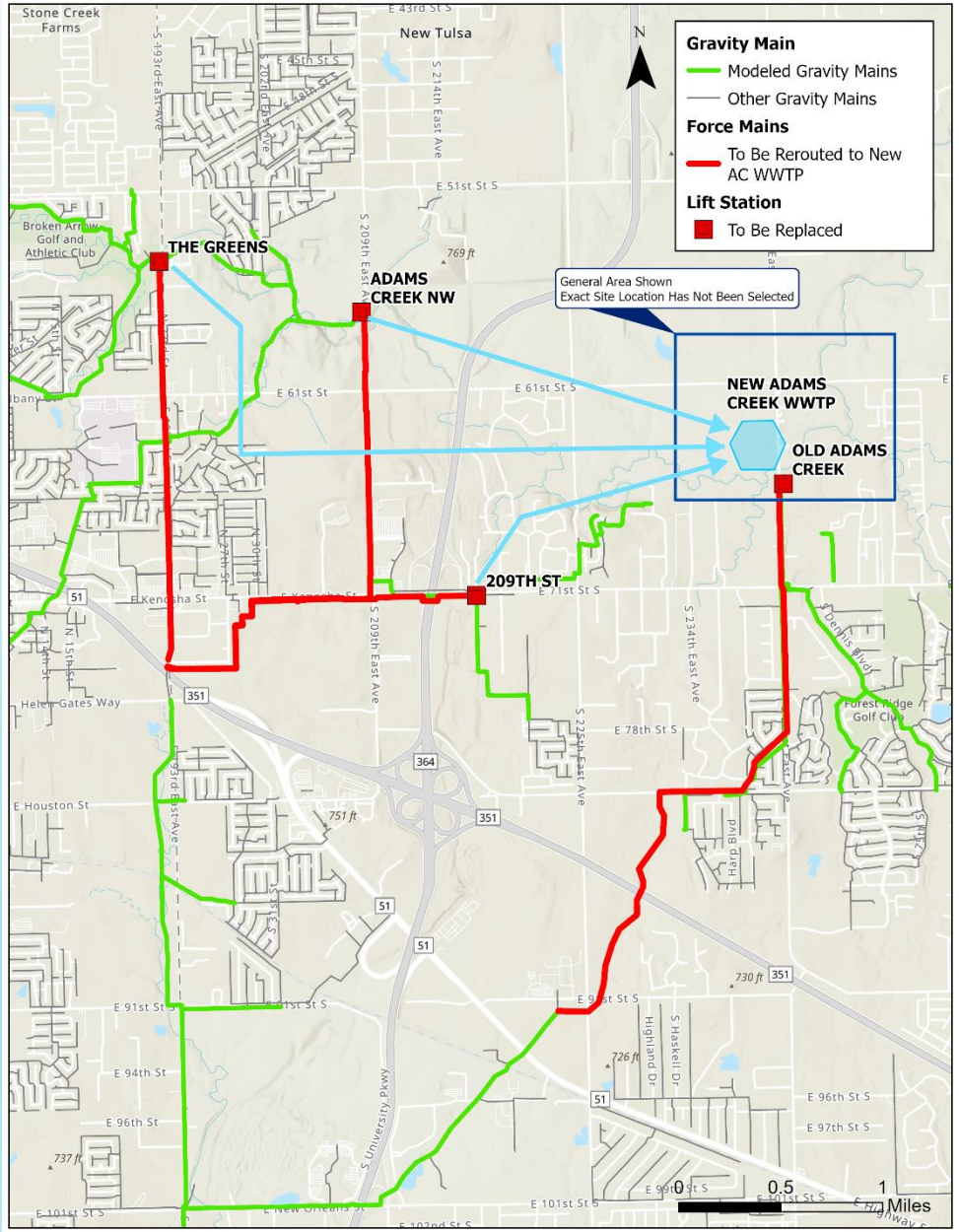
Flow Transfer Scenarios

Scenario 1



Scenario 2



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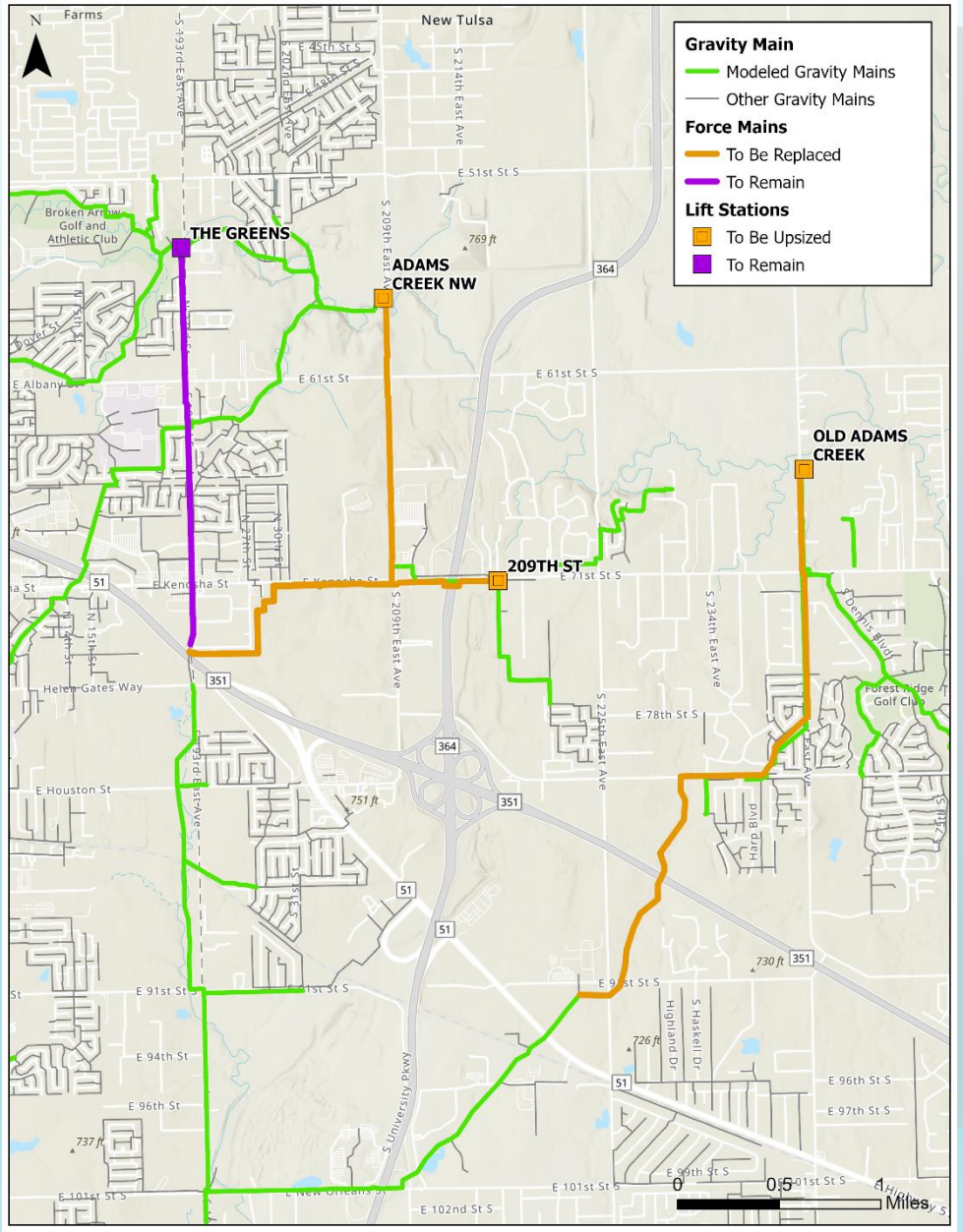
Scenario 1

- "Status Quo" Alternative
  - Pros:
    - No change from Existing Plan
  - Cons
    - Does not necessarily address Adams Creek Basin issues
    - 2048 upsizing of Lower County Line Interceptor
    - Addition Upgrades needed at LLWWTP
- Estimated Cost in 2023 $ is $270M-$290M over the time horizon out to 2050



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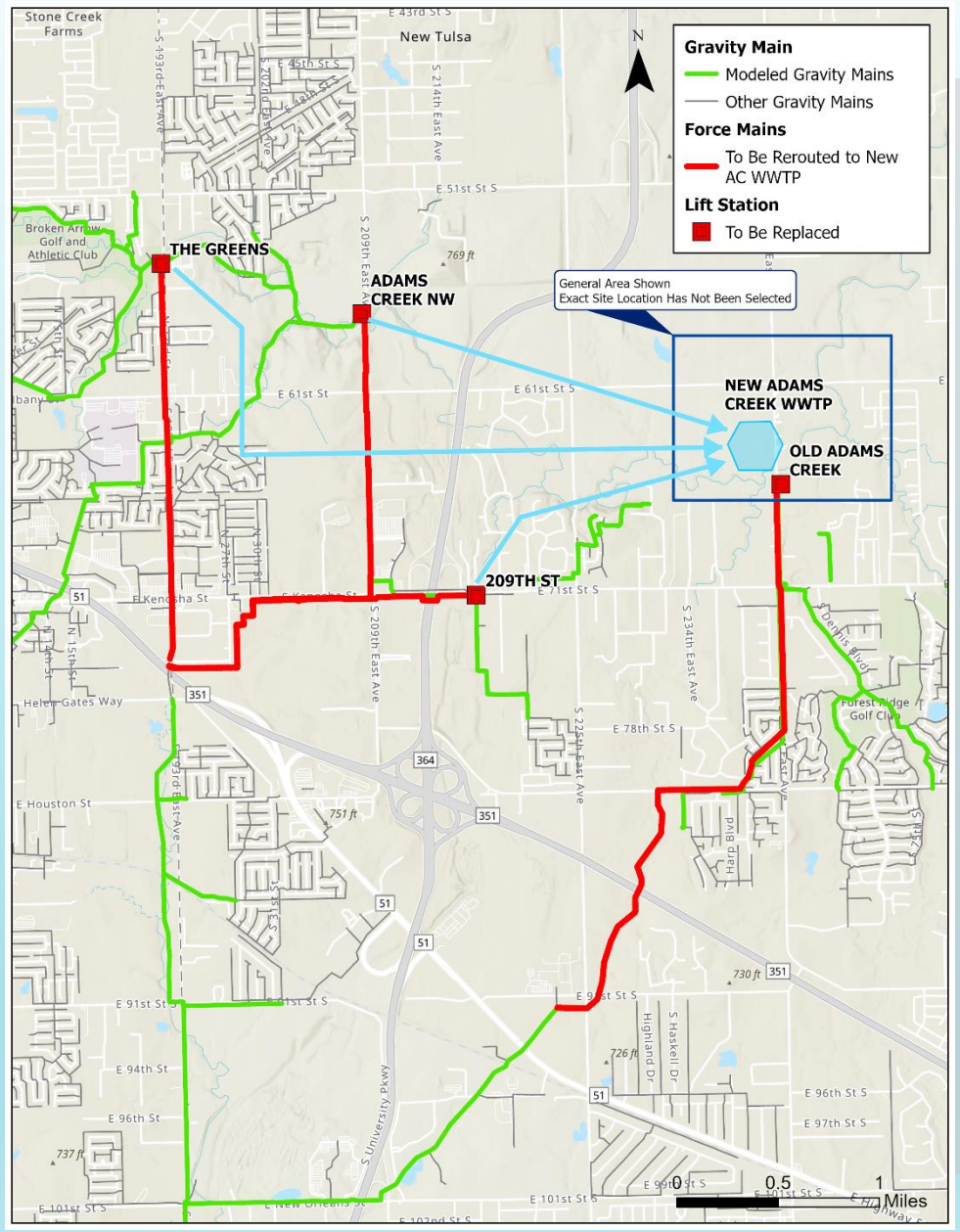
Scenario 2

- New future Adams Creek Plant
  - Pros:
    - Leverages current investments in infrastructure
    - Allows for flexibility of plant timeline/planning
    - Relieves multiple lift stations in the Adams Creek Basin
    - No significant upgrades needed at LLWWTP for capacity
    - Allows for flexibility as growth continues in east Broken Arrow
    - Water reuse benefits
  - Cons
    - Requires significant $$ investment in a shorter period of time (depending on plant timeline)
    - Requires staffing/ Operations/Maintenance of a new Plant
    - Public perception of reuse
- Estimated Cost in 2023 $ is $250M-$295M over the time horizon out to 2050



★ General location shown; specific location not yet determined

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More Cost Comparison

Table 8-9: Scenario 1 Phasing & Planning Cost

Infrastructure	Year	OPCC (2023 Dollars)
ACNW New Lift Station and Force Main	2026	$24,900,000
Lower County Line Interceptor Replacement	2048	$28,800,000
OAC New Lift Station and Force Main	2038	$23,000,000
Upper County Line Interceptor Replacement	2041	$18,400,000
Lynn Lane WWTP Project I Treatment Plant Expansion	2042	$100,000,000
209th New Lift Station and Force Main	2049	$12,000,000
Lynn Lane WWTP Project II Treatment Plant Expansion	2054	$77,300,000
Total Cost		$281,300,000

Scenario 1 Estimates additional cost of $1,875,599/year for operations & maintenance

Scenario 2 Estimates additional cost of $1,989,000/year for operations & maintenance

Table 8-21: Scenario 2 Phasing & Planning Cost

Infrastructure	Year	OPCC (2023 Dollars)
Replacement ACNW Gravity Bypass	2028	$24,800,000
New Regional Adams Creek Lift Station	2028	$32,400,000
Wagoner County Interceptor Replacement	2029	$11,700,000
New Adams Creek WWTP	2042	$193,200,000
Reroute New Regional Adams Creek Lift Station to Adams Creek WWTP	2042	$4,200,000
209th New Lift Station and Force Main	2049	$12,100,000
Total Estimated Cost		$278,400,000

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Questions & Answers

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