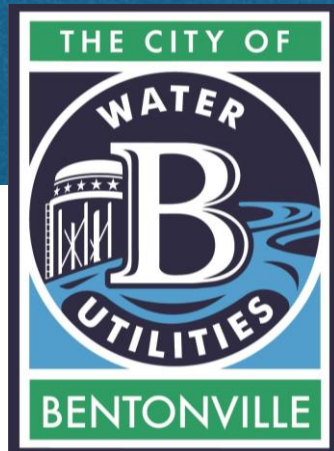


Water Utilities Overarching Capital Improvement Plan

January 27, 2026



Agenda

- Project Overview
- Primary Project Tasks
 - *Develop the CIP System*
 - *Integrate all Projects into a Unified/Comprehensive CIP*
- Financial & Budgetary Analysis
- Asset Renewal Program
- Next Steps





Project Overview

Primary Goal



Create a Water Utilities Comprehensive Capital Improvement Plan (CIP) to provide a structured approach to support Bentonville's rapid growth.



Additional Goals



Determine a structured framework for prioritizing new projects to address future BWU needs and growth drivers



Develop and recommend annual asset renewal programs to manage and sustain BWUs assets to proactively address aging infrastructure

Project Drivers

Growth



Unprecedented
CIP



Aggressive
Schedules



Workforce
Constraints



Funding



Multiple Studies



Regulatory
Concerns



Aging
Infrastructure



Leveraging Other
City Projects



Water/Wastewater CIP Development



Capacity Driven Additions

- Master Plans
- Regulatory Compliance
- Plan for Development



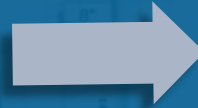
Asset Renewal Program

- Aging Infrastructure Replacement and Rehabilitation
- Level of Service metrics (SSOs, Unplanned outages, compliance, etc.)
- Asset condition assessment
- Remaining useful life
- Risk based approach – (Likelihood x Impact) of asset failure

Primary Project Tasks

Develop CIP System:

- Project Information Forms
- 1,5,10, & 25 Year CIPs



Integrate All Projects into a Unified/Comprehensive CIP



**Capacity Driven Projects
– Current Specific List**



**Annual
Programs**

Summary of Projects

40

Capacity Driven Projects

- Water Distribution
- Wastewater Mains
- Wastewater Facilities

9

Annual Programs

- Asset Renewals
- State Highway Relocations

40 Capacity Driven Projects

Water Distribution

- 8 New Transmission Mains
- 3 New Tanks/Pump Stations
- 1 Upgrade Tank/Pump Station



Wastewater Mains

- 5 New Interceptors
- 18 Replacement Interceptors



Wastewater Facilities

- 1 New Lift Station
- 3 Lift Station Upgrades
- 1 Water Resource Recovery Facility Upgrade



Data Sources for Capacity Driven Projects

- Recently submitted studies from Garver, Olsson, and TREKK
- Inner department data provided by City

BENTONVILLE BASELINE SANITARY SEWER CAPACITY STUDY -PART I

Prepared for:
City of Bentonville
Bentonville, Arkansas



REV February 2023
Olsson Project No. 020-2321

olsson

SEWER COLLECTION ANALYSIS AND PEAK FLOW MANAGEMENT PROGRAM - PART II



Prepared for:
City of Bentonville
Bentonville, Arkansas

March 13, 2025
Olsson Project No. 020-2321

olsson

Bentonville Town Branch Sewer Improvements

RDII Analysis and CIP Evaluation



City of Bentonville, AR

Prepared by:



Suite 240
4300 South JB Hunt Dr
Rogers, AR 72758

September 5th, 2025
Garver Project No. W01-2501941

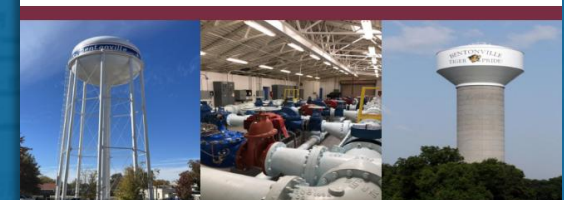
GARVER



Water Master Plan Update

PREPARED FOR
Bentonville Water Utilities

April 2024



Project Review & Compilation



Unification of CIP Projects

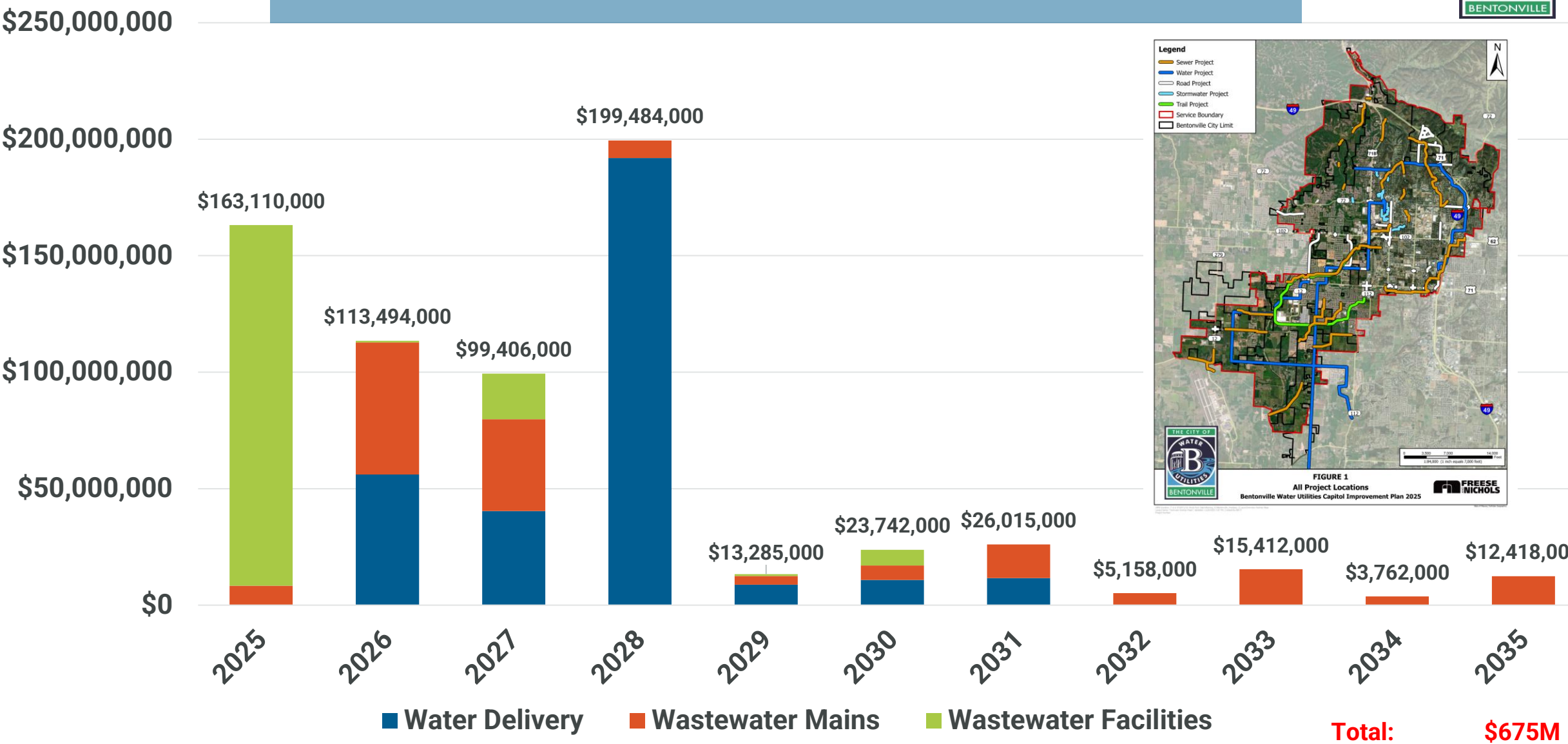
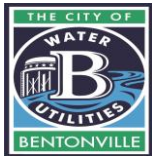
- Standardized format prioritizations and drivers
- Reviewed/Adjusted schedules
- Adjusted cost estimates



Project Mapping

- Developed GIS based project mapping
- Identified potential interdepartmental project coordination opportunities

Capacity Driven CIP *



* From studies **2025 Projects approved by City Council

Annual Programs

6

Asset Renewals:

- Water Distribution Mains
- Water Transmission Mains
- Water Tanks/Pump Stations
- Wastewater Collection Mains
- Wastewater Lift Stations
- Water Resource Recovery Facility

Asset Renewal Programs to be based on Financial & Budgetary Analysis and Risk Based Assessment

3

State Highway Relocations:

- Water Distribution Mains
- Water Transmission Mains
- Wastewater Collection Mains

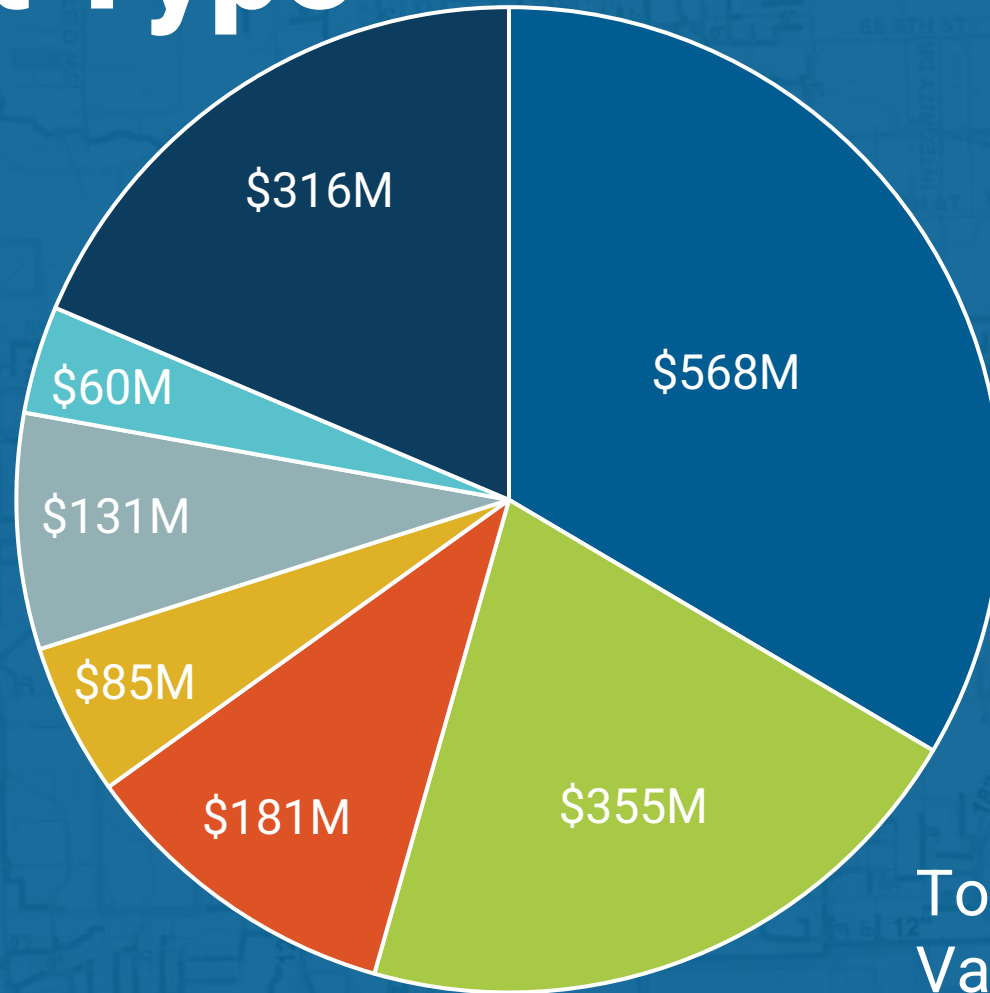
Only if projects are known and required

The background is a blue-tinted map of a city grid. Street names are visible in a light blue font, including "NORTH ST", "E CENTRAL AVE", "E BATTLEFIELD BLVD", "E 5TH ST", "E 6TH ST", "E 7TH ST", "E 8TH ST", "E 9TH ST", "E 10TH ST", "E 11TH ST", "E 12TH ST", "E 13TH ST", "E 14TH ST", "E 15TH ST", "E 16TH ST", "E 17TH ST", "E 18TH ST", "E 19TH ST", "E 20TH ST", "E 21ST", "E 22ND", "E 23RD", "E 24TH", "E 25TH", "E 26TH", "E 27TH", "E 28TH", "E 29TH", "E 30TH", "E 31ST", "E 32ND", "E 33RD", "E 34TH", "E 35TH", "E 36TH", "E 37TH", "E 38TH", "E 39TH", "E 40TH", "E 41ST", "E 42ND", "E 43RD", "E 44TH", "E 45TH", "E 46TH", "E 47TH", "E 48TH", "E 49TH", "E 50TH", "E 51ST", "E 52ND", "E 53RD", "E 54TH", "E 55TH", "E 56TH", "E 57TH", "E 58TH", "E 59TH", "E 60TH", "E 61ST", "E 62ND", "E 63RD", "E 64TH", "E 65TH", "E 66TH", "E 67TH", "E 68TH", "E 69TH", "E 70TH", "E 71ST", "E 72ND", "E 73RD", "E 74TH", "E 75TH", "E 76TH", "E 77TH", "E 78TH", "E 79TH", "E 80TH", "E 81ST", "E 82ND", "E 83RD", "E 84TH", "E 85TH", "E 86TH", "E 87TH", "E 88TH", "E 89TH", "E 90TH", "E 91ST", "E 92ND", "E 93RD", "E 94TH", "E 95TH", "E 96TH", "E 97TH", "E 98TH", "E 99TH", "E 100TH". Dimensions are also visible, such as "12'", "18'", "24'", "30'", "36'", "42'", "48'", "54'", "60'", "66'", "72'", "78'", "84'", "90'", "96'", "102'", "108'", "114'", "120'", "126'", "132'", "138'", "144'", "150'", "156'", "162'", "168'", "174'", "180'", "186'", "192'", "198'", "204'", "210'", "216'", "222'", "228'", "234'", "240'", "246'", "252'", "258'", "264'", "270'", "276'", "282'", "288'", "294'", "300'", "306'", "312'", "318'", "324'", "330'", "336'", "342'", "348'", "354'", "360'", "366'", "372'", "378'", "384'", "390'", "396'", "402'", "408'", "414'", "420'", "426'", "432'", "438'", "444'", "450'", "456'", "462'", "468'", "474'", "480'", "486'", "492'", "498'", "504'", "510'", "516'", "522'", "528'", "534'", "540'", "546'", "552'", "558'", "564'", "570'", "576'", "582'", "588'", "594'", "600'", "606'", "612'", "618'", "624'", "630'", "636'", "642'", "648'", "654'", "660'", "666'", "672'", "678'", "684'", "690'", "696'", "702'", "708'", "714'", "720'", "726'", "732'", "738'", "744'", "750'", "756'", "762'", "768'", "774'", "780'", "786'", "792'", "798'", "804'", "810'", "816'", "822'", "828'", "834'", "840'", "846'", "852'", "858'", "864'", "870'", "876'", "882'", "888'", "894'", "900'", "906'", "912'", "918'", "924'", "930'", "936'", "942'", "948'", "954'", "960'", "966'", "972'", "978'", "984'", "990'", "996'", "1000'".

Financial & Budgetary Analysis for Annual Programs

Current Estimated Replacement Value by Asset Type

- Water Distribution Mains
- WW Collection Mains
- Water Transmission Mains
- Tanks and Pump Stations
- WW Interceptor Mains
- Lift Stations
- WRRF

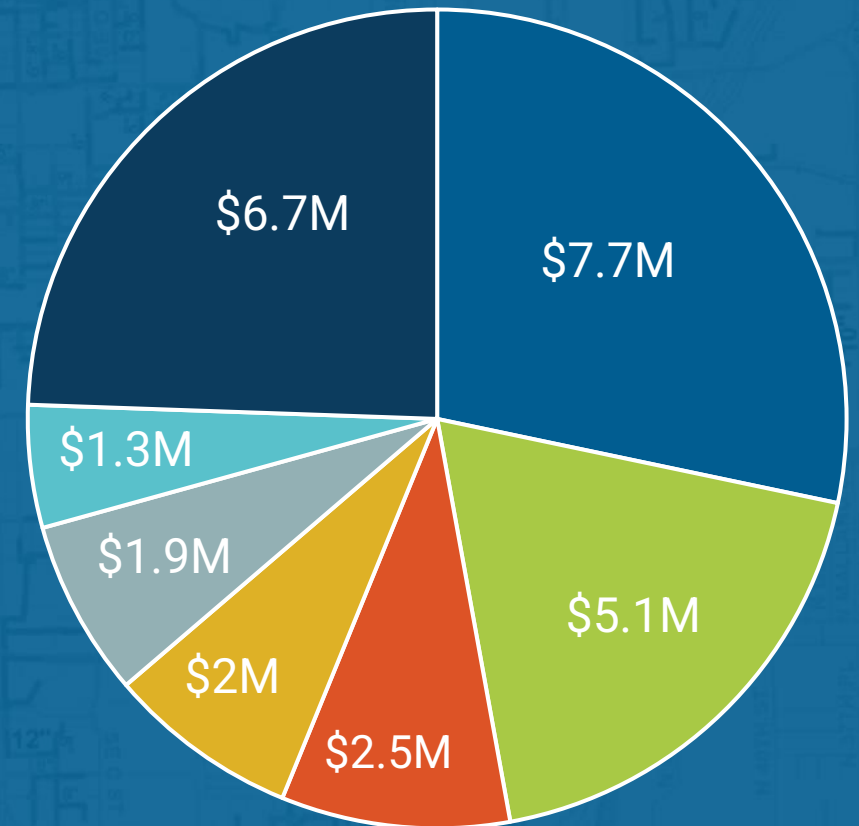


Total Approximate
Value: \$1.7 Billion

Avg Estimated Annual Investment Level in Replacements Over Asset Lifespans

- Average estimated lifespan based on industry guidelines (years) :
 - Water Mains: 80
 - Wastewater Mains: 75
 - Tanks, Lift Stations, Treatment Plants: 50
 - Pump Stations: 30
- Approximately \$27M/year* + growth & inflation

* *Estimated replacement cost* in 2026



□ Water Distribution Mains

■ Water Transmission

■ Wastewater Interceptor Mains

□ WRRF

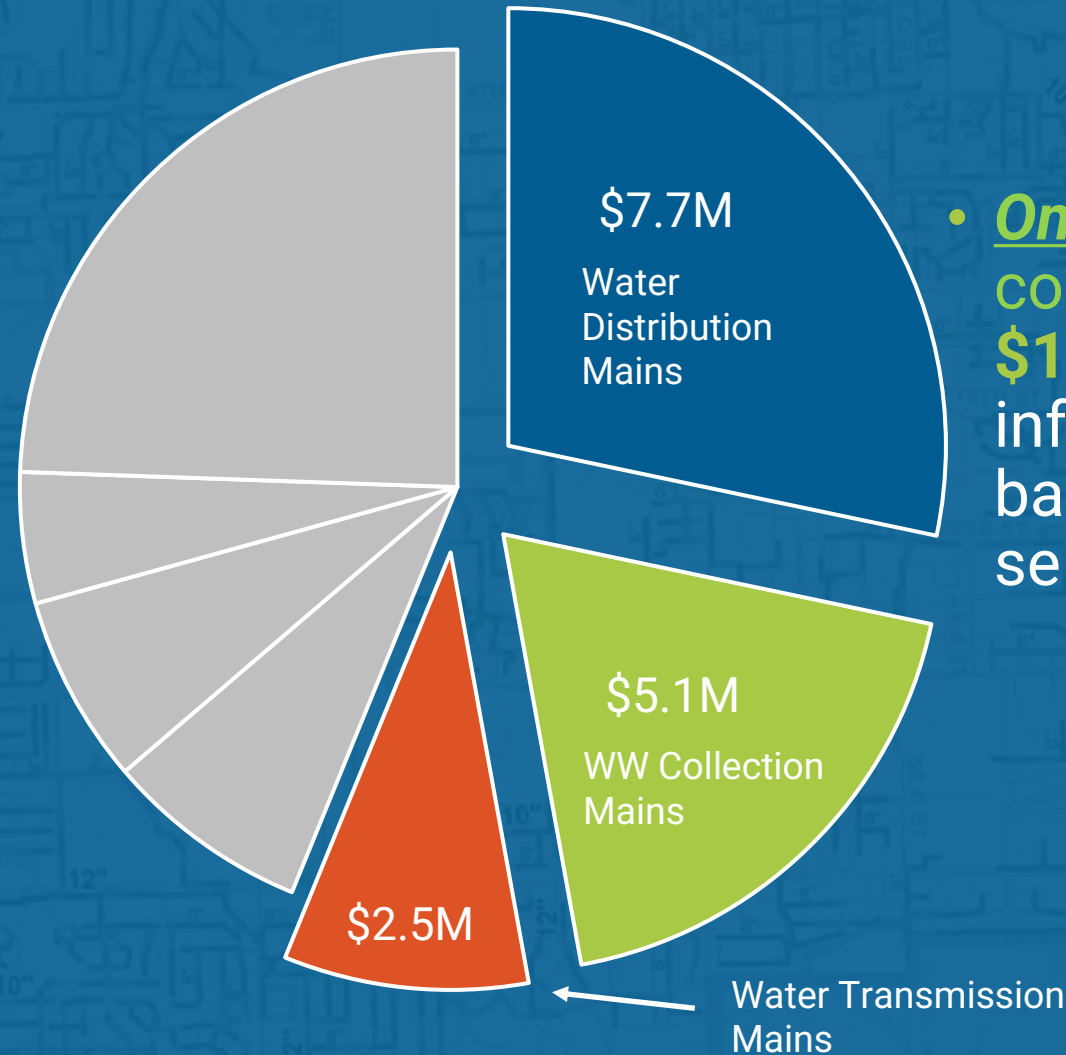
■ Wastewater Collection Mains

■ Water Tanks & Pump Stations

■ Lift Stations

Annual Asset Renewal Budgetary Scenario

- Capacity driven projects address most annual renewals for 10+ yrs for:
 - Wastewater Interceptor Mains
 - Water Tanks & Pump Stations
 - Lift Stations
 - WRRF
- ~\$3M/yr to replace components such as large pumps and motors



- On average, over time, complete approximately **\$15.3M/year** (+ growth & inflation) for asset renewal based on risk-based selection criteria

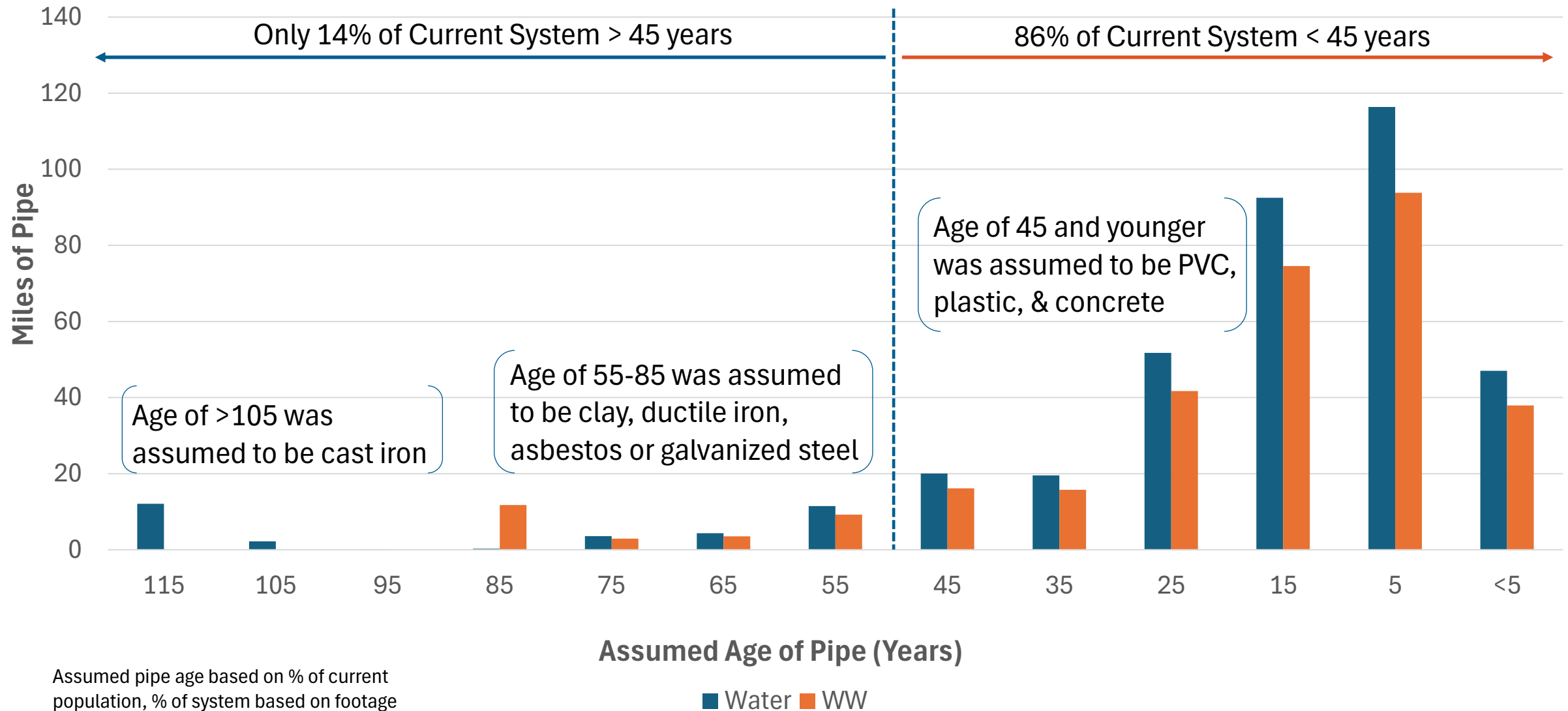


Asset Renewal Program

Example of Initial High Level Desktop Analysis

Actual Program to be Developed with BWU's Asset Management Program

Miles of Pipe in System by Assumed Age



Example of Risk Based Assessment

Determining Criticality and Condition for asset risk

$$\text{Risk} = (\text{Criticality Score} \times \text{Condition Score})$$

CRITICALITY
Consequence of Asset Failure?
Loss of Service
Number and Type of Customers
Damage to Property
Public Image
Environmentally Sensitive Areas
Regulatory Impact

CONDITION
Likelihood of Asset Failure?
Asset Age
Asset Material
Performance of Asset
Available Capacity

} GIS
— CMMS/
CCTV/MSI
— Hydraulic
Model

Next Steps

- Implement the Comprehensive CIP:
 - Update as projects are designed and bid
 - Add new projects based on BWU priorities
 - Upload this Comprehensive CIP into BWU's Enterprise CIP system that is underway to manage projects through construction and commissioning
- Consider the impacts of BWU's annual CIPs in Bentonville annual budgets
- Annual Asset Renewal Program:
 - Dependent upon funding
 - Projects to be selected based on asset management system underway by BWU staff and risk-based selection criteria



Thank you

