



ARIZONA WATER PROFESSIONALS



Operational Overview and Budget Discussion

April 18, 2019



Mission

Provide valuable services that protect public health and the environment, bolster the local economy, and are an integral part of the vibrant lifestyle enjoyed in Mesa

Service

170 square mile service area with a growing population of over 496,000

Connections

Water System – 157,000 residential and commercial connections

Wastewater Collection System – 127,000 residential and commercial connections

Water Resources

**Community Safety
and Sustainable
Economy**

Accomplishments

- Continue to meet over 100 state and federal water quality standards
- Opening and dedication of Signal Butte Water Treatment Plant – increasing Mesa’s water treatment capacity by 24 MGD
- AZ Water Association 2019 Water Treatment Project of the Year – Signal Butte Water Treatment Plant
- Water and Wastes Digest 2018 Project of the Year – Signal Butte Water Treatment Plant
- PRSA Copper Anvil Award of Merit – Digital Water Quality Consumer Confidence Report
- MARCOM Platinum Award – Digital Water Quality Consumer Confidence Report
- \$44,200 grant from SRPMIC for Know Your H2O Water Education Program
- Know Your H2O Water Bar eliminated over 30k water bottles from plastic waste at community events



Operational Efficiencies

- Recruiting and retaining highly qualified staff
- Succession planning
- Technology

Water Commodity

- Increasing costs
- Update on the Colorado River System

Infrastructure

- Rehabilitation of distribution and collection system
- Capacity expansion
- Reliability

Top Challenges

Measuring Success - Water

Water meter read error rate

- Target: Meter readers collectively will not exceed 4.0 errors per 10,000 reads per month
- Average: 5.7 errors per 10,000 reads per month

% of Groundwater pumped

- Target: 10.00% per month
- Average: 11.75% per month

of Leaks and breaks per 100 miles of pipe

- Target: 1.0 per month
- Average: 1.6 per month



Measuring Success - Wastewater

of miles of sewer lines cleaned

- Target: 26.0 per month
- Average: 19.8 per month

of miles sewer lines inspected

- Target: 20.0 per quarter
- Average: 60.5 per quarter

of Sanitary Sewer Overflows (SSO's)

- Target: 0.0 per quarter
- Average: 0.5 per quarter



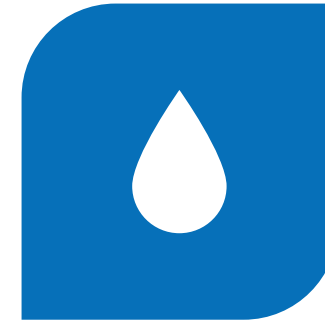
Advanced Metering Infrastructure (AMI)



TIMELY REPLACEMENT OF
INACCURATE METERS
IMPROVES REVENUE STABILITY



ADVANCED ANALYTICS HELP
IMPROVE SYSTEM
MANAGEMENT

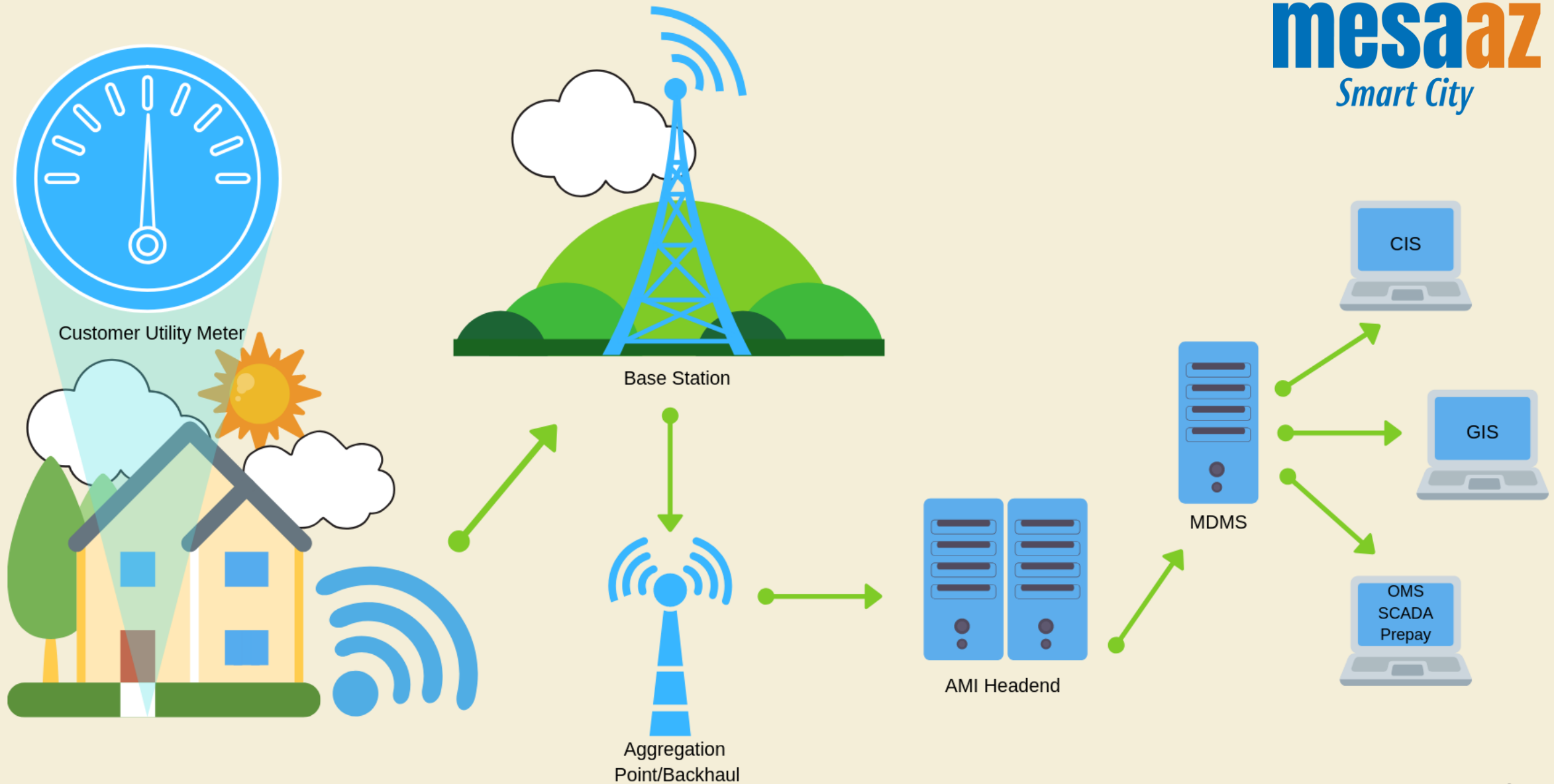


REDUCED WATER LEAKAGE
WITH EARLY DETECTION



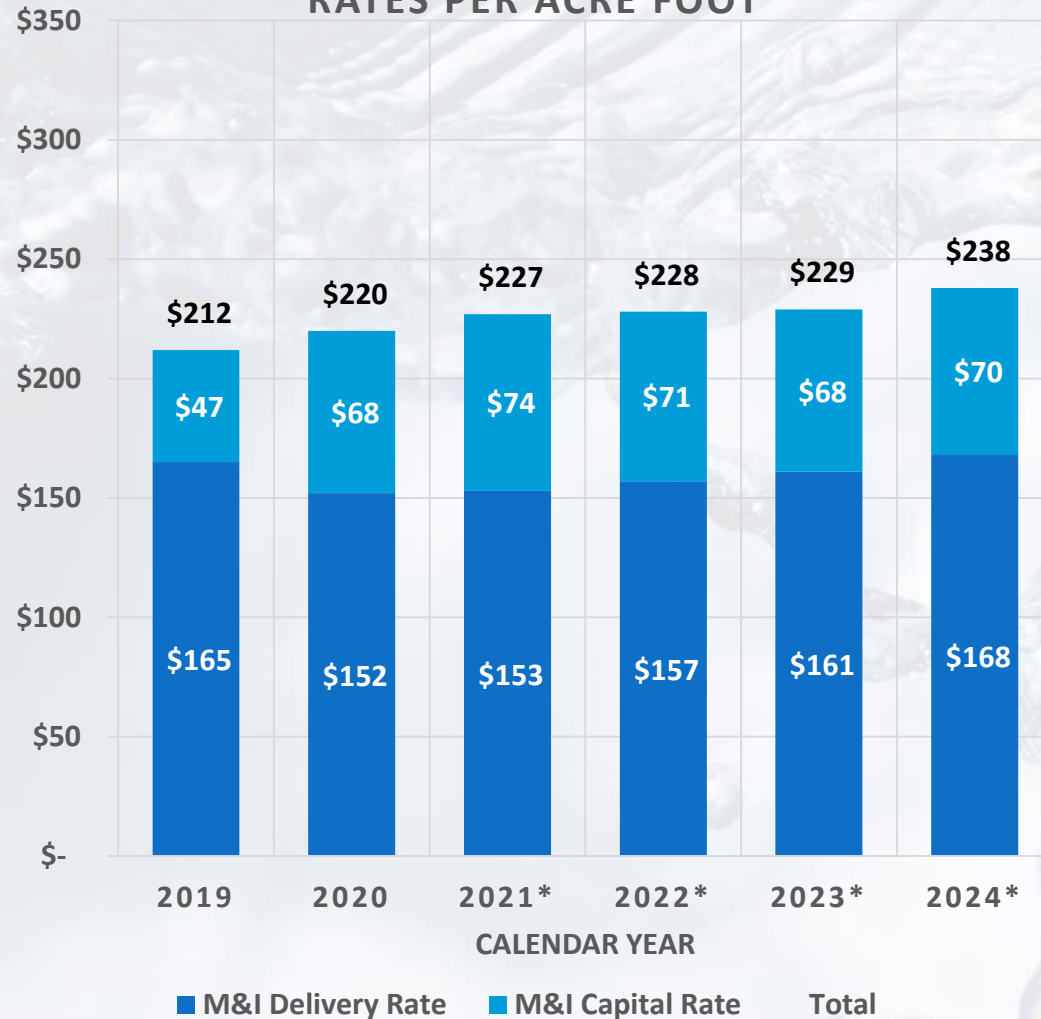
IMPROVES CUSTOMER
EXPERIENCE AND
ENGAGEMENT

Advanced Metering Infrastructure (AMI)

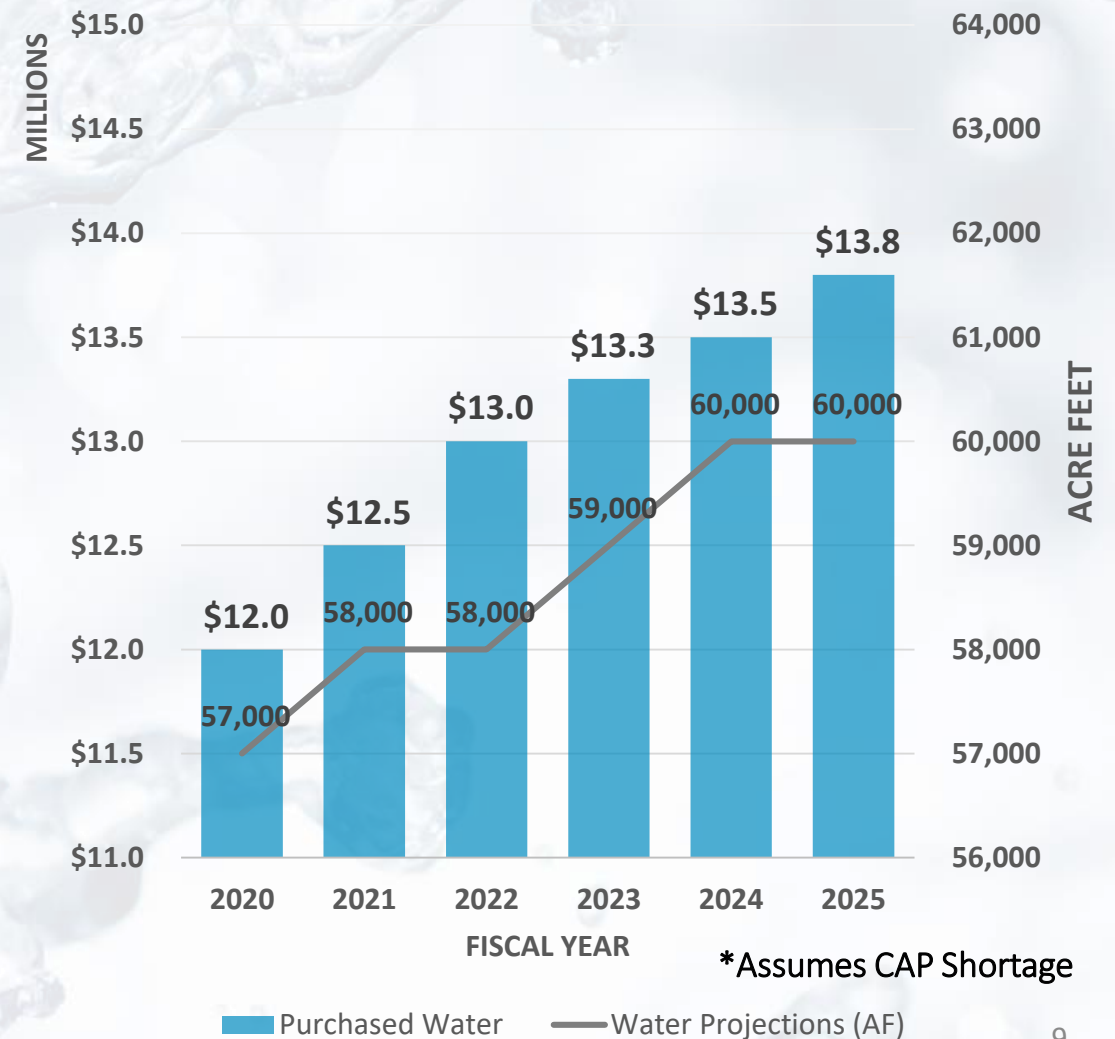


Water Commodity Costs – Central Arizona Project

MUNICIPAL & INDUSTRIAL (M&I) WATER RATES PER ACRE FOOT

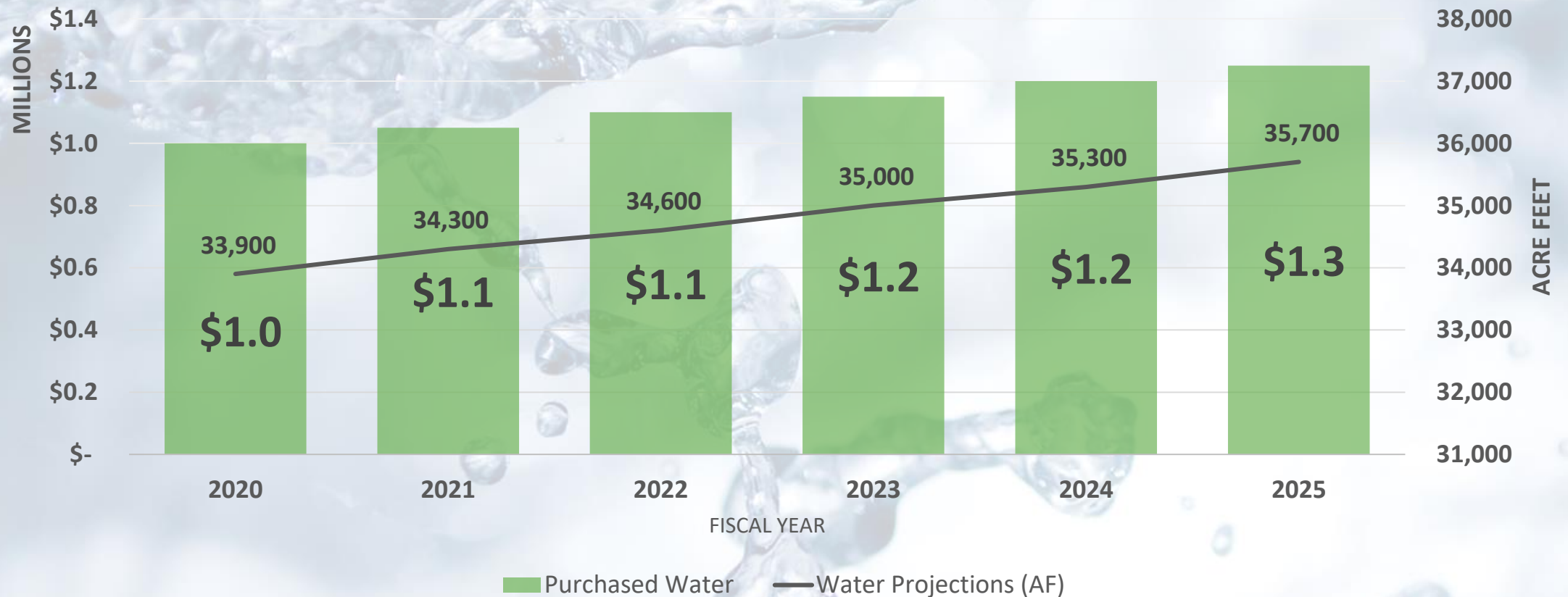


MESA COST BASED ON CAP FLOW PROJECTIONS



Water Commodity Costs - SRP

MESA COST BASED ON SALT RIVER PROJECT (SRP) FLOW PROJECTIONS

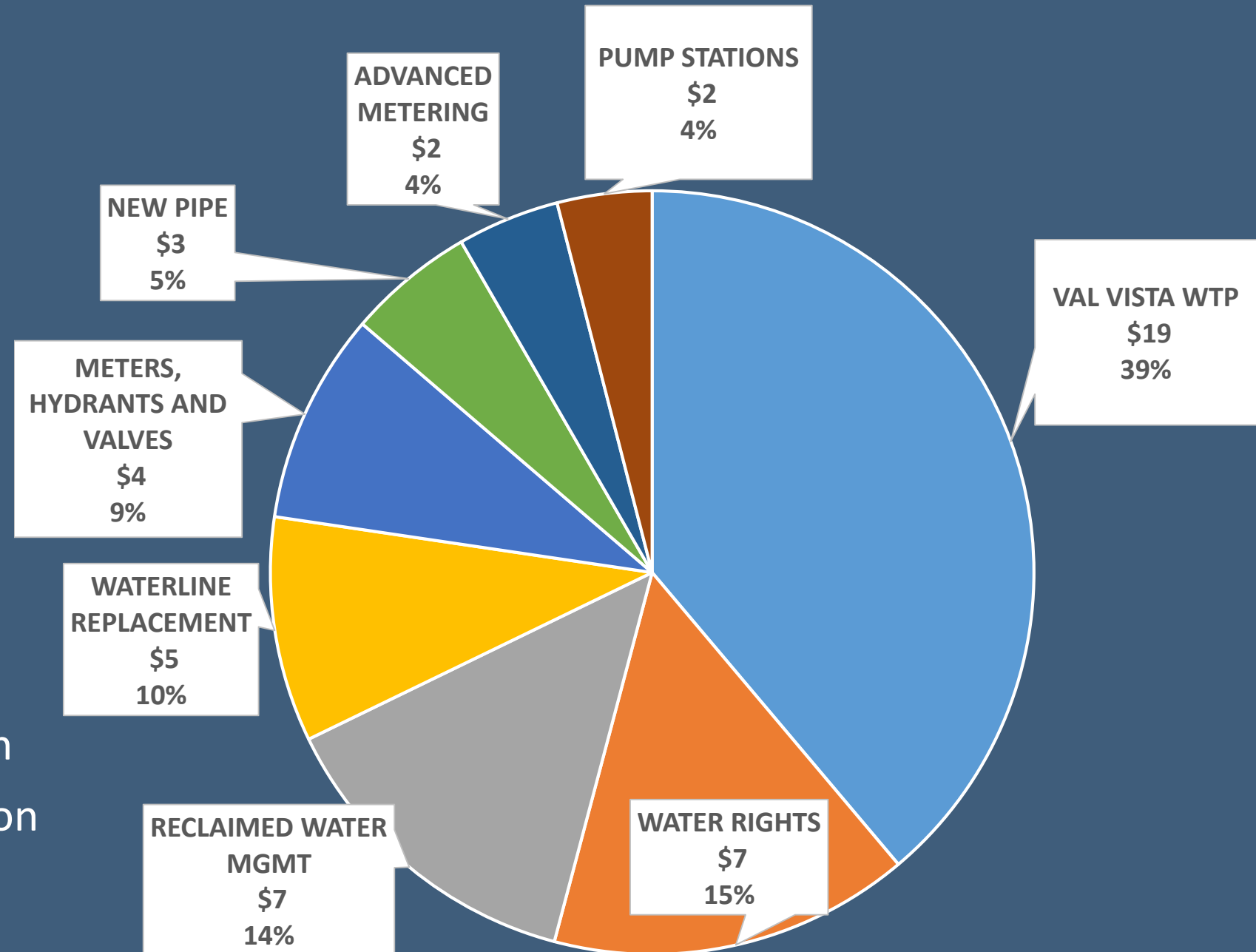




Update on Colorado River System

Remaining 2014 Water Bond Authorization (millions)

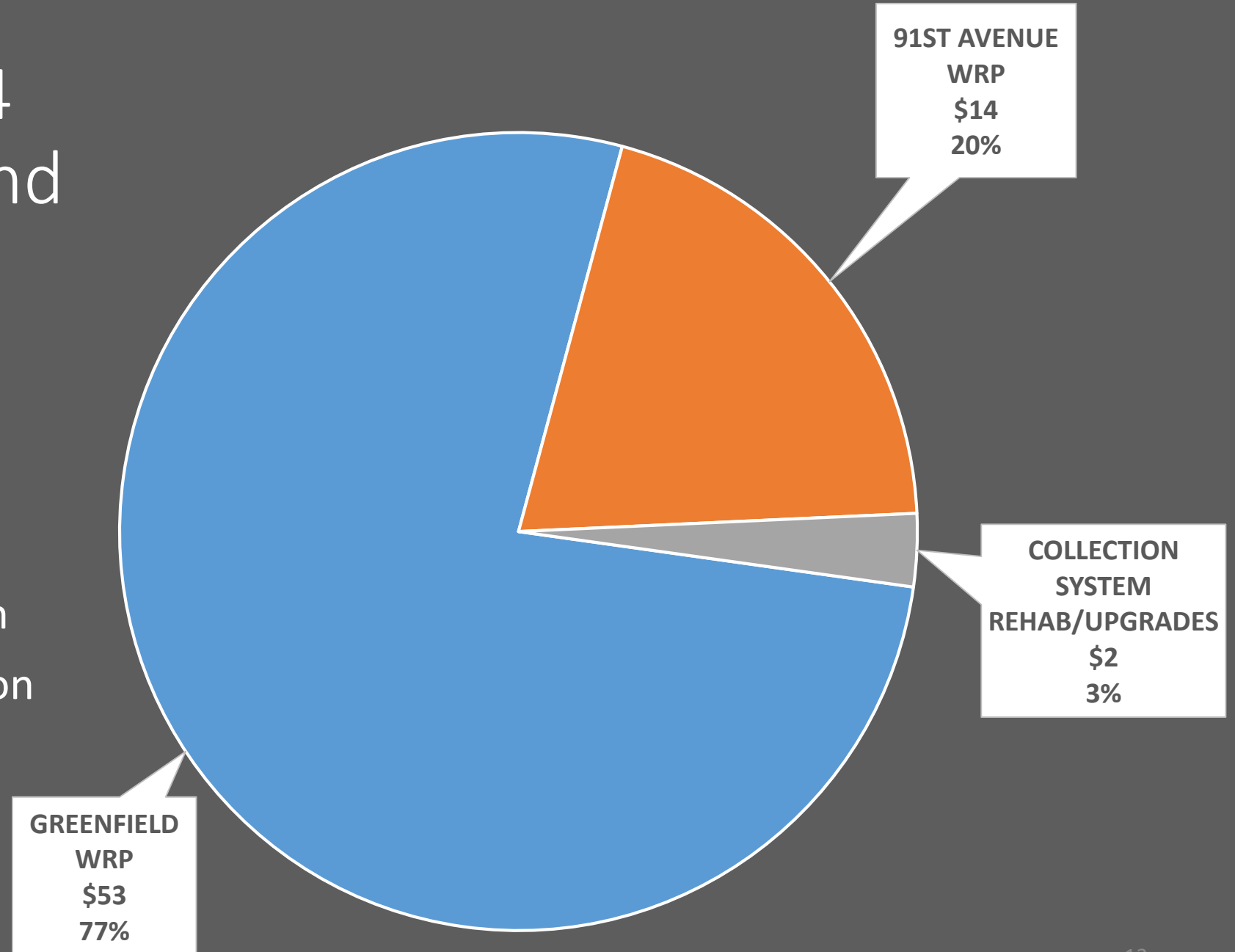
Authorization: \$316 million
Current CIP Plan: \$49 million



Remaining 2014 Wastewater Bond Authorization

(millions)

Authorization: \$178 million
Current CIP Plan: \$69 million





Headworks



Digesters

Greenfield Water Reclamation Expansion – Phase III



Secondary Clarifiers



Aeration Basins

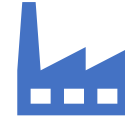
Future Capital Needs



Infrastructure
Replacement



Reclaimed Water
Management – GRIC
Exchange



Signal Butte Water
Treatment Plant
Expansion Phase II



Collection System
Rehabilitation



Water Reclamation
Plants Expansion and
Rehabilitation

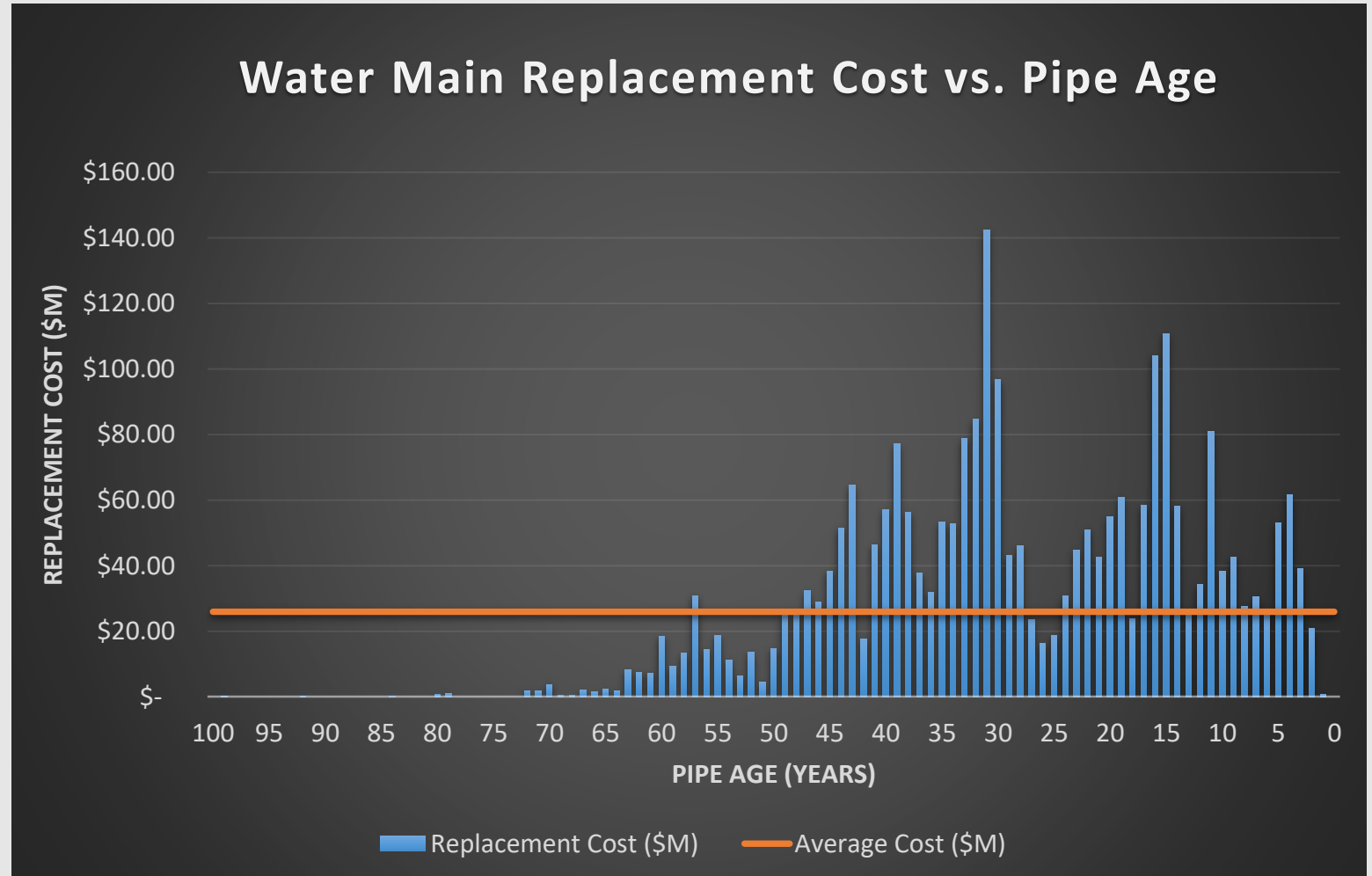


Advanced Metering
Infrastructure (AMI)

Water Main Replacement and Rehabilitation Program

Water Lifecycle Program

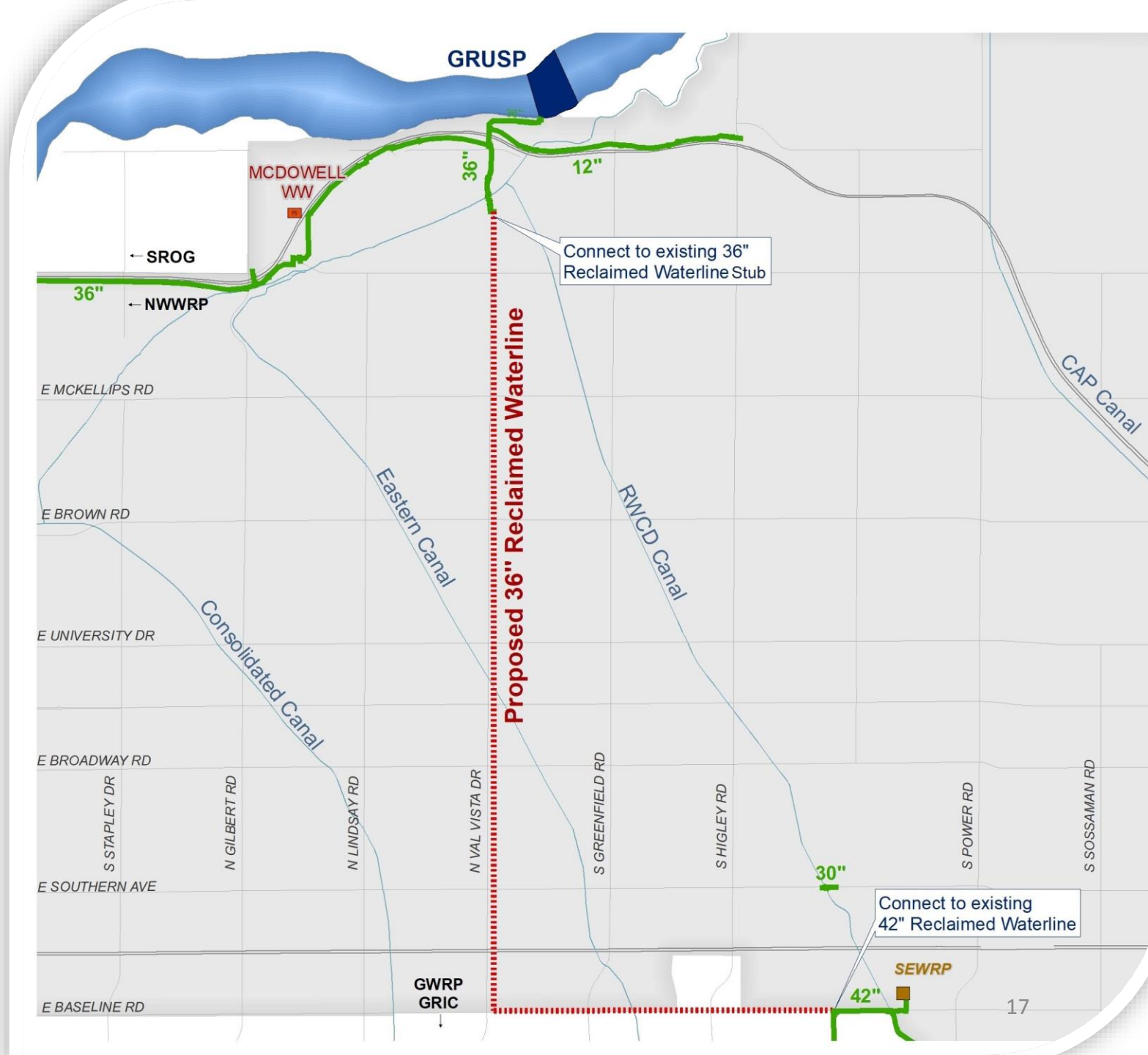
- Replace infrastructure to avoid service disruption
- Need \$26M annually for 50-year service life
- Risks and Concerns:
 - Averaged \$3.6M per year for replacement over last three fiscal years
 - Remaining 2014 Bond Dollars for Replacement: Less than \$10M



Reclaimed Water Management (GRIC Exchange)

Water Customer Service Demand Southeast Mesa

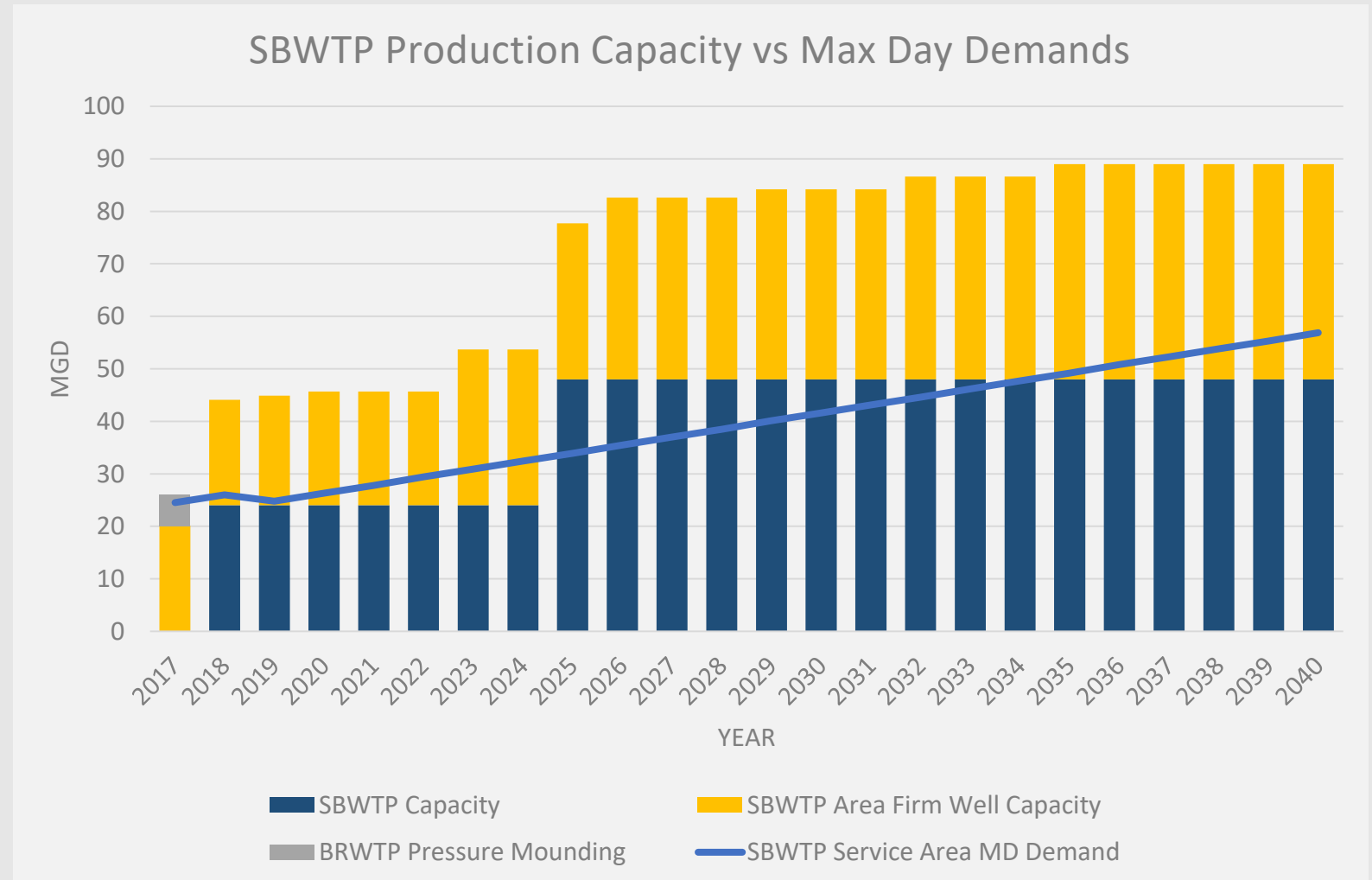
- Total Projected Cost: \$66M
 - \$2M (Alignment Study)
 - \$5M (Design – if approved)
 - \$59M (Construction)
- Project Timeline:
 - Alignment Study: 2019
 - Design Initiation: 2021
 - Projected Start: 2022
 - Projected Completion: 2024
- Significant Issues:
 - Obtaining right-of-way
 - Lengthy construction
 - Traffic restrictions



Signal Butte Water Treatment Plant Expansion Phase II

Water Customer Service Demand Southeast Mesa

- Increase SBWTP Capacity to 48MGD
- Based on existing development trend, demand could be higher
- Projected Cost: \$90M
- Project Initiation: 2021
- Projected Completion: 2025



Collection System Rehabilitation

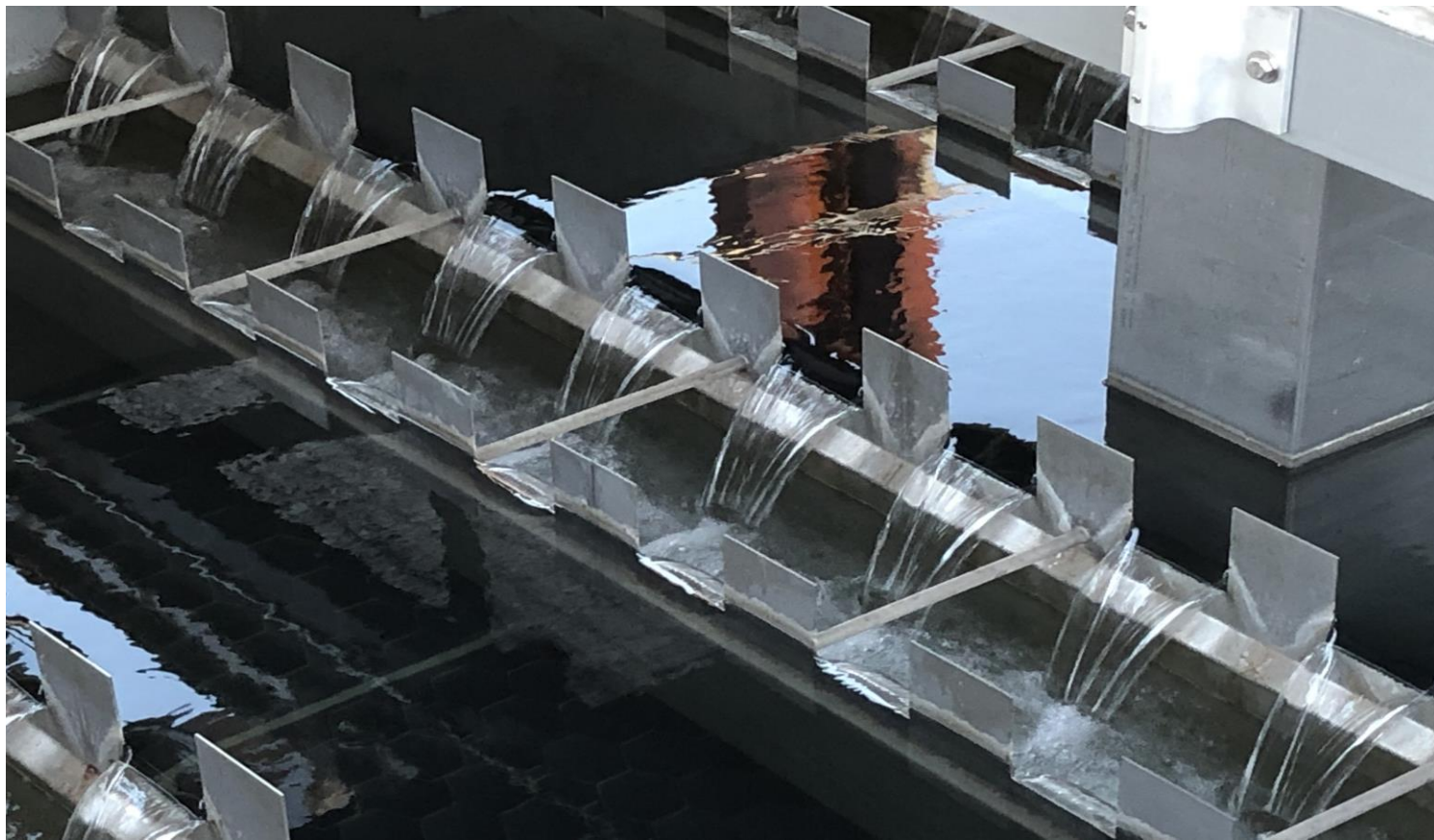
- **Sewer Line Rehab**
- Address aging sewer mains at the end of their useful life
- Annual, ongoing program
- Correct structural deficiencies which could block or overflow sewers
- Manhole Rehabilitation Program
- Proposed expansion of regional sewer interceptors



Water Reclamation Plant Rehabilitation/Improvements

- 91st Ave/SROG Joint Venture
- Northwest Water Reclamation Plant
- Southeast Water Reclamation Plant
- Greenfield Water Reclamation Plant





Water Significant Budget Changes FY19/20

- Increased Debt Service Costs **+\$3.9M**
- Water Commodity **+\$1.0M** (CAP/SRP)
- Val Vista WTP Obligation **+\$600k**
- Chemicals **+\$200k**

Water

Proposed Budget FY19/20

Ongoing Cost:

- 2 FTE Field Workers II - Water Distribution **\$159k**

One-time Cost:

- 2 Vehicles - Water Distribution Positions **\$102k**





Wastewater Significant Budget Changes FY 19/20

- Increased Debt Service Costs **+\$600k**
- 91st Avenue WRP Obligation **+\$450k**
- Greenfield WRP Joint Venture Obligations **-\$375k** (Mesa share)

Wastewater Proposed Budget FY19/20

One-time Cost:

- Aeration Basin Mixers
Overhaul - Greenfield
Joint Venture **\$250k**
- Mesa's Cost Share **\$105k**



Financial Overview



WATER

	FY 17/18 Actuals	FY 18/19 Revised Budget	FY 18/19 Projected	FY 19/20 Proposed Budget
Sources of Funding				
Residential Rate Related Revenues	\$94,175,245	\$97,851,546	\$87,493,383	\$91,059,668
Non-Residential Rate Related Revenues	\$48,573,656	\$49,218,563	\$58,919,400	\$61,019,599
Other Revenues	\$6,655,818	\$4,407,900	\$4,393,923	\$4,426,023
Total Sources	\$149,404,720	\$151,478,009	\$150,806,706	\$156,505,290
Uses of Funding				
Operating Expenditures	\$43,219,565	\$52,692,786	\$51,160,062	\$55,381,652
Project Costs	\$111,757	\$542,255	\$535,772	\$74,600
General Fund Transfer	\$54,965,073	\$55,951,500	\$55,951,500	\$57,090,063
Debt Service Transfer	\$32,215,854	\$36,297,812	\$31,617,463	\$40,159,224
Lifecycle/ Infrastructure Transfers	\$2,975,380	\$2,948,324	\$3,016,134	\$3,126,956
Capital Transfer	\$1,080,000	\$187,340	\$187,340	\$257,752
Economic Investment Fund Transfer	\$2,813,482	\$6,310,840	\$5,592,628	\$1,400,288
Total Uses	\$137,381,112	\$154,930,857	\$148,060,899	\$157,490,535
Net Sources and Uses	\$12,023,608	(\$3,452,848)	\$2,745,807	(\$985,245)

Financial Overview



WASTEWATER

	FY 17/18 Actuals	FY 18/19 Revised Budget	FY 18/19 Projected	FY 19/20 Proposed Budget
Sources of Funding				
Residential Rate Related Revenues	\$43,593,435	\$45,572,684	\$46,296,273	\$46,762,462
Non-Residential Rate Related Revenues	\$36,589,563	\$36,688,094	\$36,967,686	\$38,355,790
Other Revenues	\$2,560,615	\$2,773,004	\$2,651,396	\$2,773,000
Total Sources	\$82,743,613	\$85,033,782	\$85,915,355	\$87,891,252
Uses of Funding				
Operating Expenditures	\$24,738,532	\$27,418,510	\$26,841,052	\$27,376,811
Project Costs	\$119,537	\$525,342	\$525,342	\$44,200
General Fund Transfer	\$15,470,049	\$15,747,681	\$15,747,681	\$16,068,132
Debt Service Transfer	\$37,583,902	\$39,780,589	\$35,755,192	\$40,377,555
Lifecycle/ Infrastructure Transfers	\$1,652,790	\$1,707,208	\$1,718,307	\$1,757,825
Capital Transfer	\$239,000	\$199,787	\$199,787	\$250,905
Economic Investment Fund Transfer	\$560,108	\$1,120,215	\$1,120,215	\$0
Total Uses	\$80,363,917	\$86,499,332	\$81,907,576	\$85,875,428
Net Sources and Uses	\$2,379,695	(\$1,465,550)	\$4,007,779	\$2,015,824



Questions?