

# Values and Benefits from Asset Management

An International Web Program Series of Asset Management Success Stories

Asset Management Council & Asset Leadership Network

## Objective:

- Support executives and their organisations start and complete their asset management journey

## Program:

- Collect stories of successful asset management implementation
- Build a database of stories for review, education and learning



# Values and Benefits from Asset Management

An International Web Program Series of Asset Management Success Stories

## Facilitators



**Michael Bordenaro**, ALN Director, Communications



**Sally Nugent**, CEO Salyent



**Peter Kohler**, Executive Liaison Officer, AM Council





ASSET MANAGEMENT COUNCIL



Asset Leadership Network

The Asset Management Council and the Asset Leadership Network  
are pleased to present

# Values and Benefits from Asset Management

An International Web Program Series of Asset Management Success Stories

Featuring



Amanda Lewry  
General Manager Sustainable Infrastructure  
SA Water



Jessica Dzara  
Director of Operations & Maintenance  
Loudoun Water

# Values and Benefits from Asset Management



**Amanda Lewry**

General Manager Sustainable Infrastructure  
SA Water

Amanda has almost 30 years' experience in leading and managing diverse teams. Amanda has developed a deep understanding of the water sector, drawn from more than a decade of leading asset, operations and delivery teams in the industry.

Amanda has worked across every stage of the asset lifecycle and is well versed in international and Australian asset management practices having managed asset management throughout Australia and Asia-Pacific.



# Values and Benefits from Asset Management

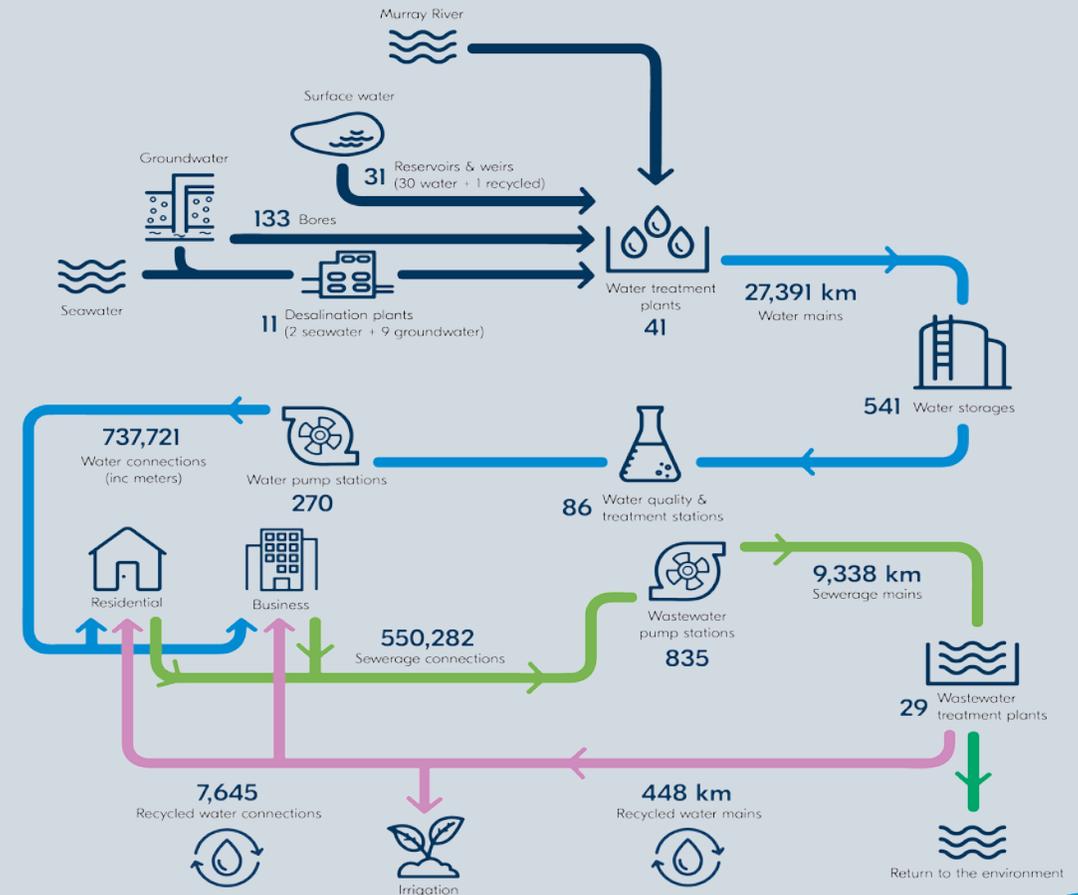
## Organizational Context

South Australia's \$16bn statewide end-to-end water utility

Driest state in the driest inhabited continent

165+ years old

Revenue is economically regulated



Correct as at August 2023



# Values and Benefits from Asset Management

## Objectives of the Asset Management Project / Activity

Development of a four year infrastructure investment program for SA Water's Assets that is prudent and efficient and maximises value to our customers and stakeholders.



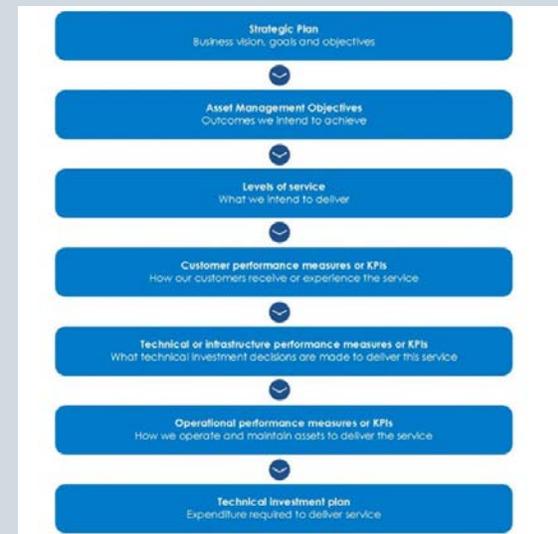
Informed by customers and stakeholders



Line of sight with demonstrable evidence-based decision making

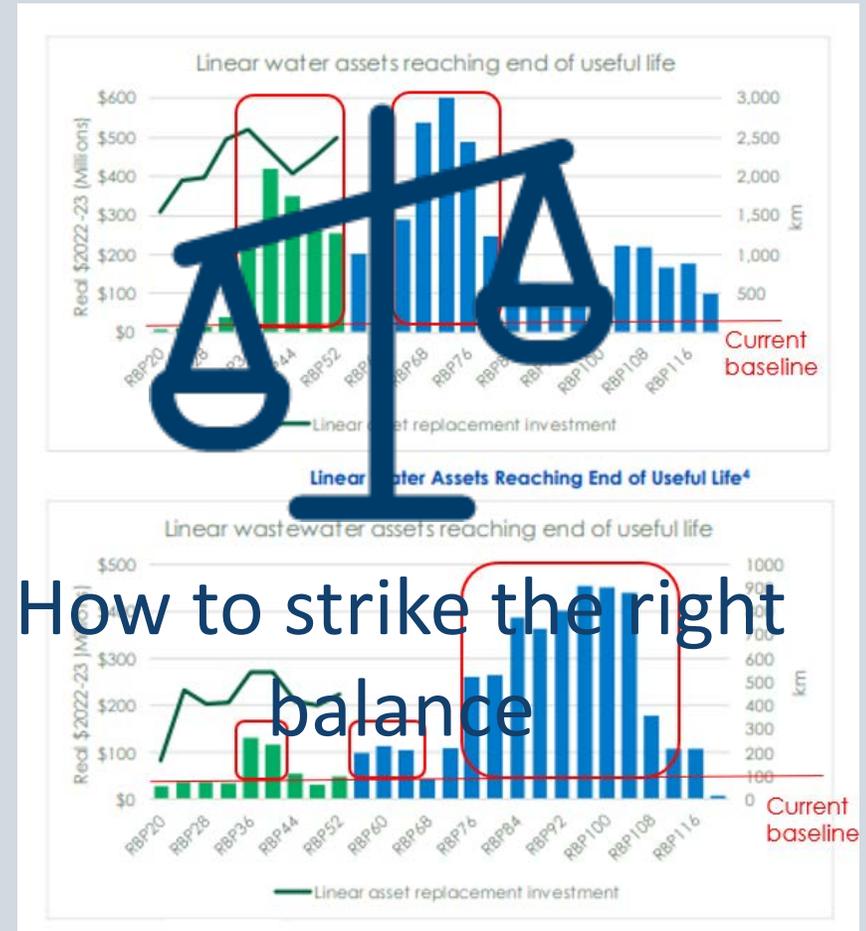
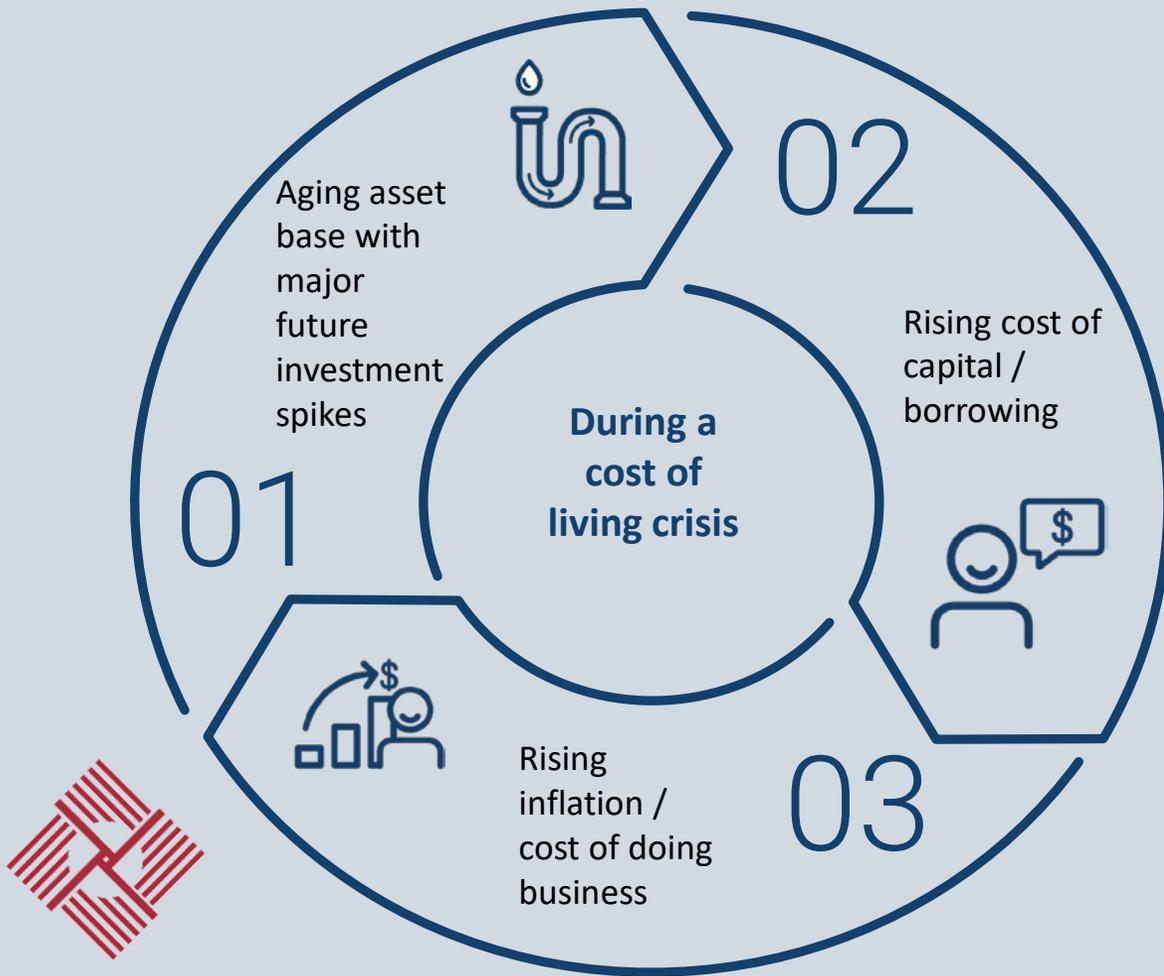


Balancing levels of service, risk, affordability and intergenerational equity



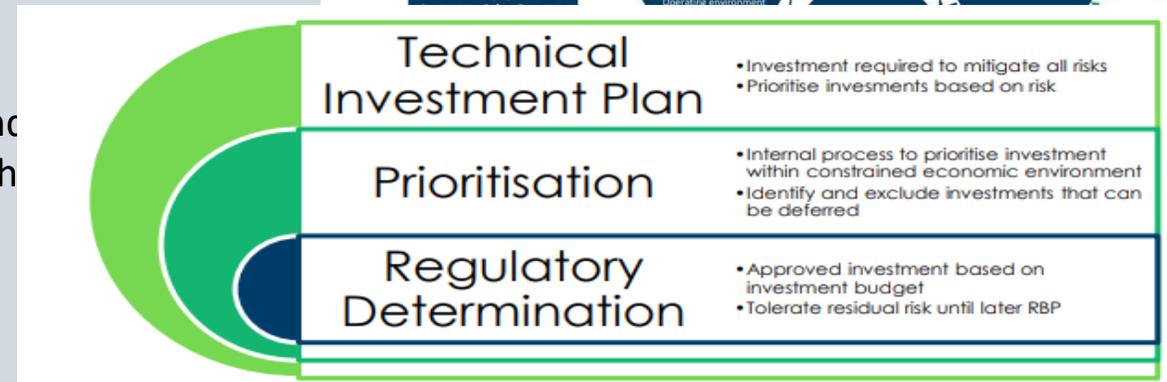
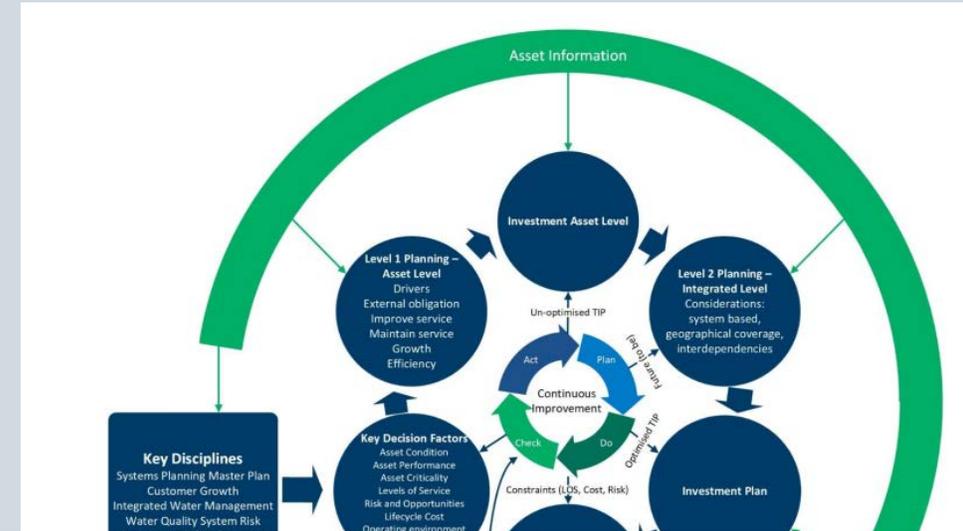
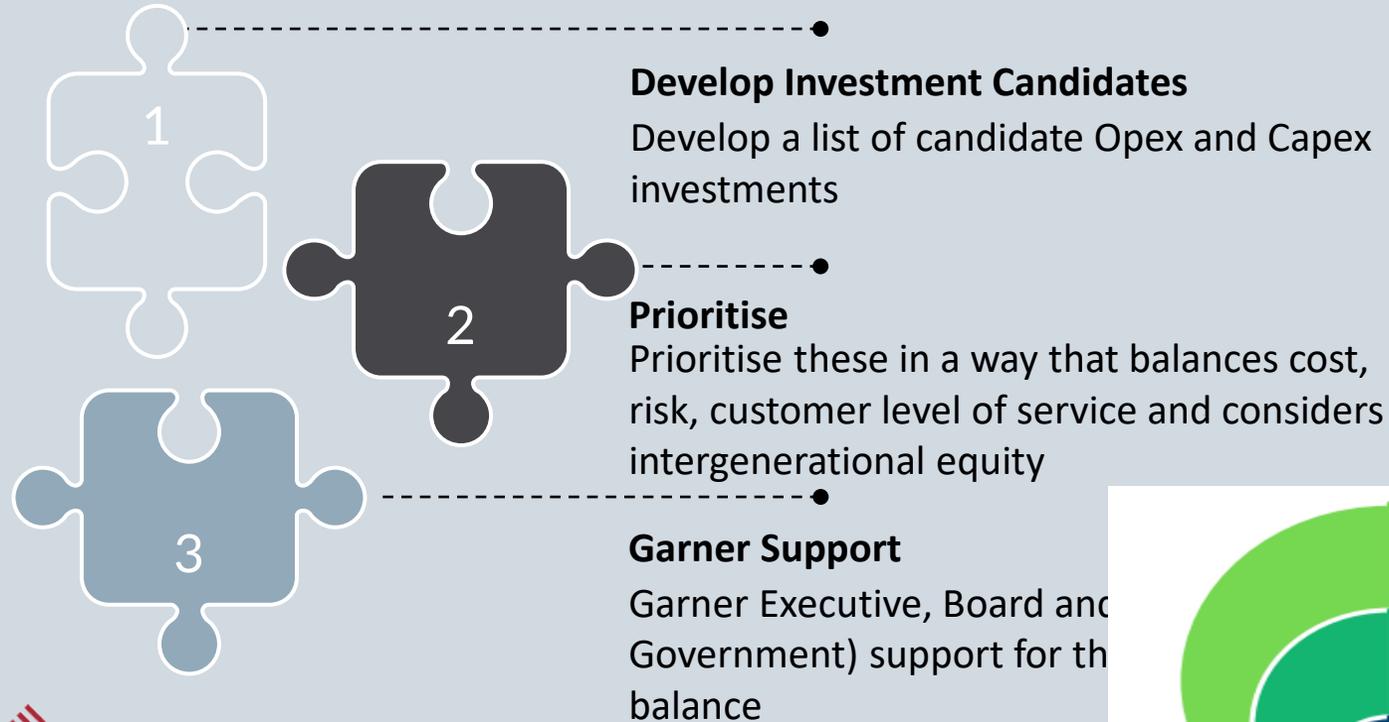
# Values and Benefits from Asset Management

## Key Challenges of the Asset Management Project Activity



# Values and Benefits from Asset Management

## Scope of Asset Management Project / Activity



# Values and Benefits from Asset Management

## Outline of the Asset Management Activity

We needed to be able to clearly, concisely and effectively communicating with senior stakeholders on the various investment options and garner support for the recommended investment balance.



Demonstrating that investment decisions planning and prioritisation were grounded in customers and stakeholders feedback and value preferences.



Ensuring a line of sight with demonstrable evidence-based decision making.

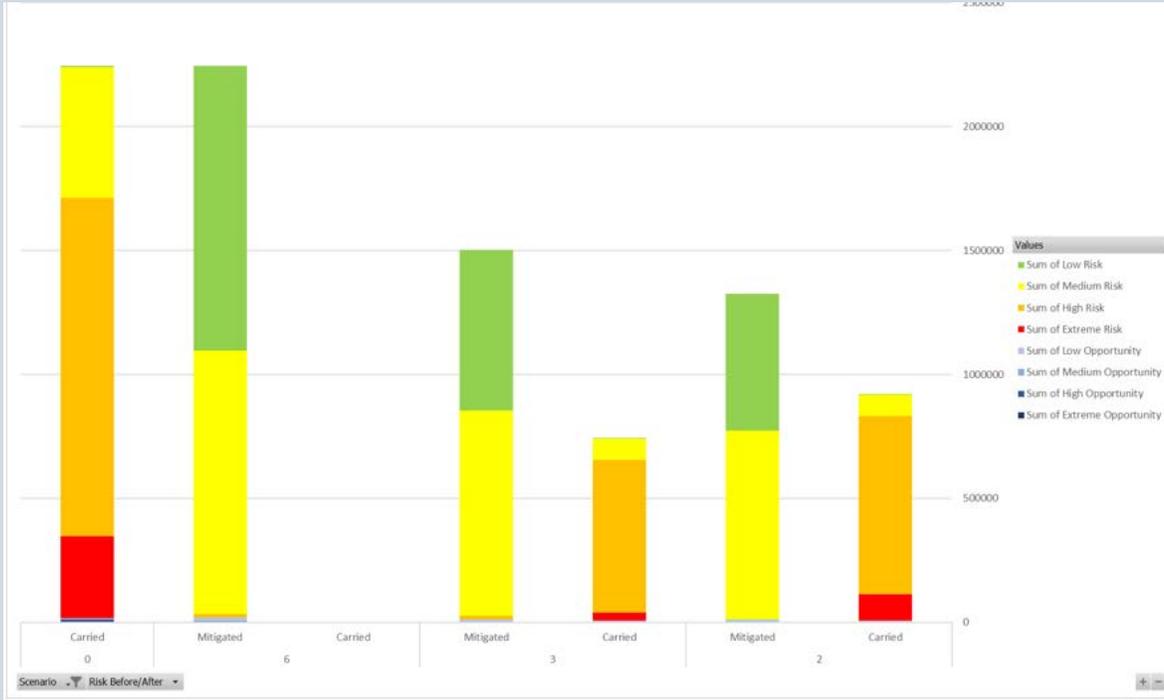


Demonstrating the interplay between levels of service, risk and affordability and actively discussing the trade-offs in decisions. We also were able to discuss the intergenerational equity element of short term decisions on long term outcomes.



# Values and Benefits from Asset Management

## Outline of the Asset Management Activity



- Considers risks against organisational risk framework, estimated cost and impacted levels of service by program
- Enabled trade-offs in capital program to support informed decision making
- Arrive at granular decisions on investment



# Values and Benefits from Asset Management

## Outline of the Asset Management Activity

Wastewater Network Reliabilities	Scenario 6 - \$ high b	Scenario 3 - \$ medium b	Scenario 2 - \$ low b
RBP24 BC-101 - Wastewater Reticulation Mains Renewal	\$ A	\$ A	\$ A
RBP24 BC-102 - Wastewater Pumping Main Renewals	\$ B	\$ B - 50%	\$ B - 60%
RBP24 BC-103 - Wastewater Trunk Main Renewals	\$ C	\$ C - 50%	\$ C - 95%
RBP24 BC-104 - Wastewater Ancillary Renewals	\$ D	\$ D	\$ D - 90%
RBP24 BC-107 - Wastewater Third Party Works	\$ E	\$ E	\$ E
RBP24 BC-111 - Wastewater Network Facility Management	\$ F	\$ F - 10%	\$ F - 20%
RBP24 BC-112 - Adelaide Wastewater Trunk Main Renewal	\$ G	\$ G	\$ G
RBP24 BC-113 - Wastewater Inflow and Infiltration Management	\$ H	\$ H - 50%	\$ -
RBP24 BC-115 - SCADA Systems Reliability WW	\$ I	\$ I - 99%	\$ -
RBP24 BC-118 - WW Pump Station Improve Performance	\$ J	\$ J - 60%	\$ J - 60%



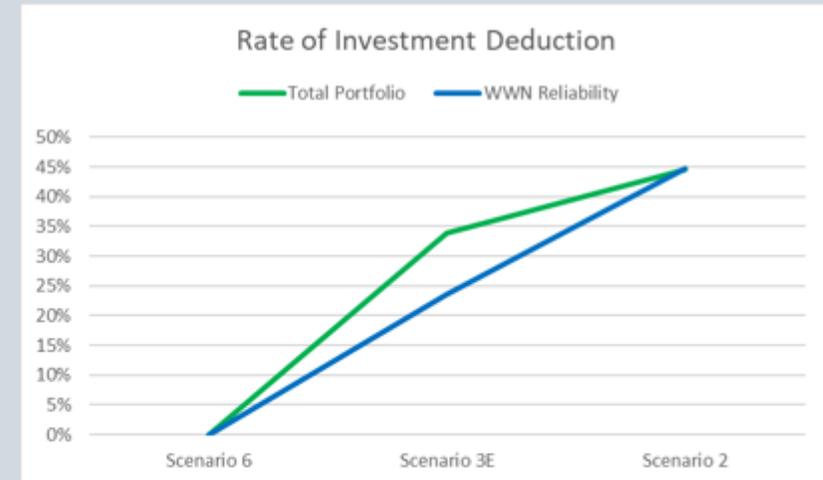
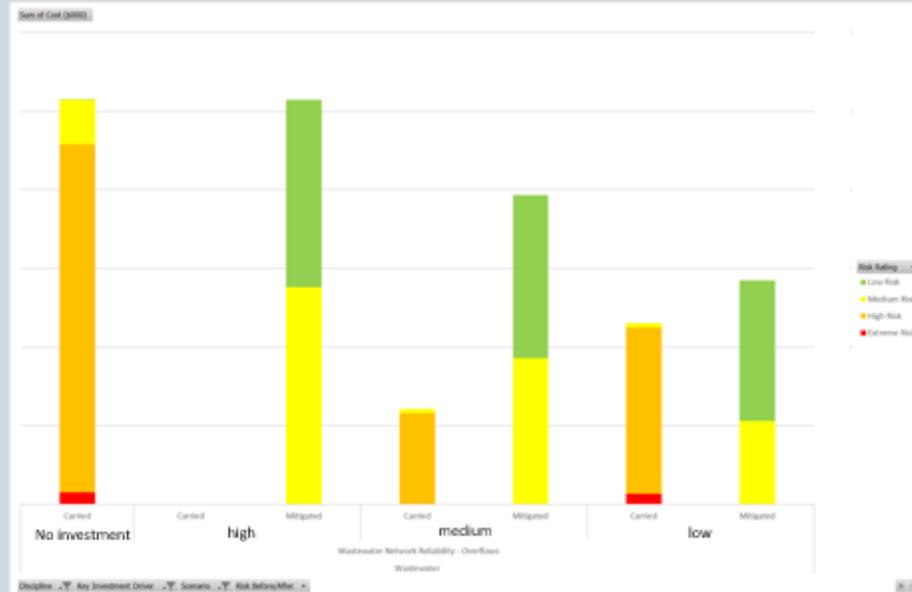
### Reducing wastewater overflows

#### Service outcome for customers:

- Improved environmental protection from reduced number of wastewater overflows to the environment
- Reliable wastewater services for customers

How this is measured	Target
Number of customers experiencing more than one wastewater internal overflow in five years	<36 in 2021 <21 by 2024
Number of Type 1 and Type 2* environmental overflow events reported to the Environment Protection Authority (five year annual average)	<135
Number of customers that have had an internal overflow in the last 12 months	<191

Would propose to [redacted] the targets for RD24 on what is achievable base on CAPEX and OPEX



Greenline - % reduction from \$ [redacted] billion  
Blue Line - % reduction from \$ [redacted] m

# Values and Benefits from Asset Management

## Measurable Value of Asset Management Project / Activity



Clear ability to have a strategic stakeholder discussion on the trade off between cost, risk and customer level of service now and into the future.

**01**  
Informed strategic stakeholder discussions



Prioritisation process that was informed by the varying value that our customers place on different drivers of investment.

**02**  
Customer value driven decision making



Clear line of sight between customer value and investment decision.

**03**  
Customer value driven investment



# Values and Benefits from Asset Management

## Lessons Learned and Insights Gained from Asset Management Project / Activity



# Values and Benefits from Asset Management

## International objectives (e.g. UN Sustainability Goals) assisted by AM Actions

- 1. No Poverty
- 2. Zero Hunger
- 3. Good Health and Well-Being
- 4. Quality Education
- 5. Gender Equality
- 6. Clean water and Sanitation
- 7. Affordable and Clean Energy
- 8. Decent Work and economic Growth
- 9. Industry, Innovation and Infrastructure
- 10. Reduced Inequalities
- 11. Sustainable cities and communities
- 12. Responsible Consumption and Production
- 13. Climate Action
- 14. Life Below Water
- 15. Life on Land
- 16. Peace Justice and Strong Institutions
- 17. Partnerships for the Goals

**Delivering trusted water services for a sustainable and healthy South Australia**

**Driving customer outcomes**  
Safe, smart, reliable and affordable services.  
**Success is:** maintained trust, water quality, asset reliability, service continuity, efficient and affordable

**Water for the future**  
All water sources, delivery and service options considered.  
**Success is:** secure customer access to fit for purpose water

**Healthy communities**  
Promote the health and wellbeing of active, thriving communities.  
**Success is:** greener, cooler communities, reconciliation in action

**Proactive environmental leadership**  
Climate change action with a reduce and reuse mindset.  
**Success is:** waste reduced, increased by-product reuse, climate change resilience

**Our people for the future**  
A more diverse, inclusive and capable workforce.  
**Success is:** safe and healthy workplaces, high employee engagement, creativity through diversity

The organisation we need to be:  
**Safe • Innovative • Trustworthy • Courageous • Agile • Collaborative**



# Values and Benefits from Asset Management

An International Web Program Series of Asset Management Success Stories

## Facilitators



**Michael Bordenaro**, ALN Director, Communications



**Sally Nugent**, CEO Salyent



**Peter Kohler**, Executive Liaison Officer, AM Council



# Values and Benefits from Asset Management



**Jessica Dzara**

Director of Operations and Maintenance Programs,  
Loudoun Water

**Jessica Dzara**, is Director of Operations & Maintenance Programs, Loudoun Water. She has been leading the asset management initiatives at Loudoun Water since the program was formally introduced in 2018.

She is a Certified Professional Property Manager and Consulting Fellow through the National Property Management Association, where she was an Executive Board Member for eight years.

Prior to her current role, Ms. Dzara was a Senior Manager at Sunflower Systems, an asset management software company, for 12 years.

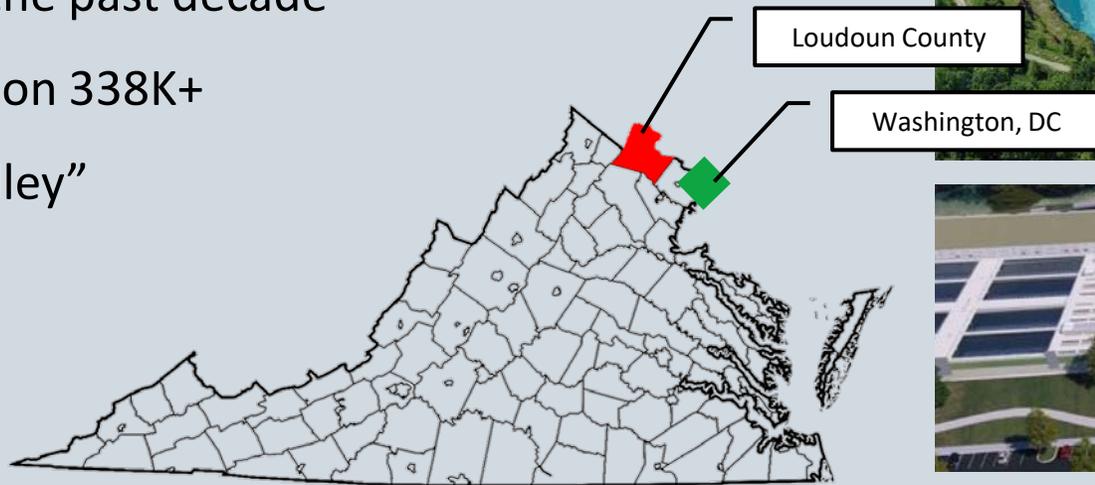


# Values and Benefits from Asset Management

## Organizational Context



- Loudoun County, VA is located 25 miles west of Washington, DC
- One of the fastest growing counties in the US over the past decade
- Serves population 338K+
- “Data Center Alley”



# Values and Benefits from Asset Management

## Organizational Context – Linear Infrastructure

**1,021** Miles of Gravity Main

**1,454** Miles of Water Main

**48,946** Water Valves

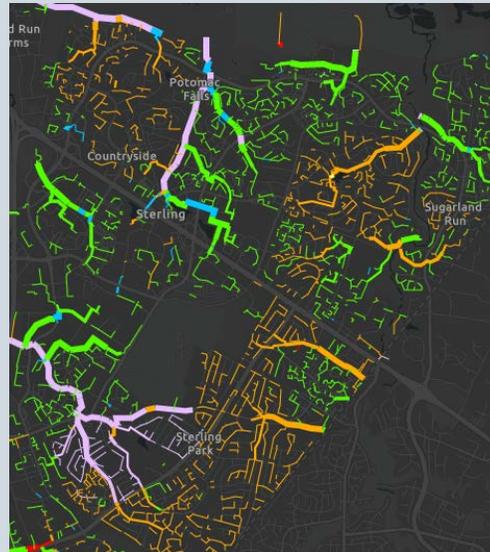
**30,717** Sewer Manholes

**14,647** Water Hydrants

**306** Sampling Stations

**55** Miles of Force Main

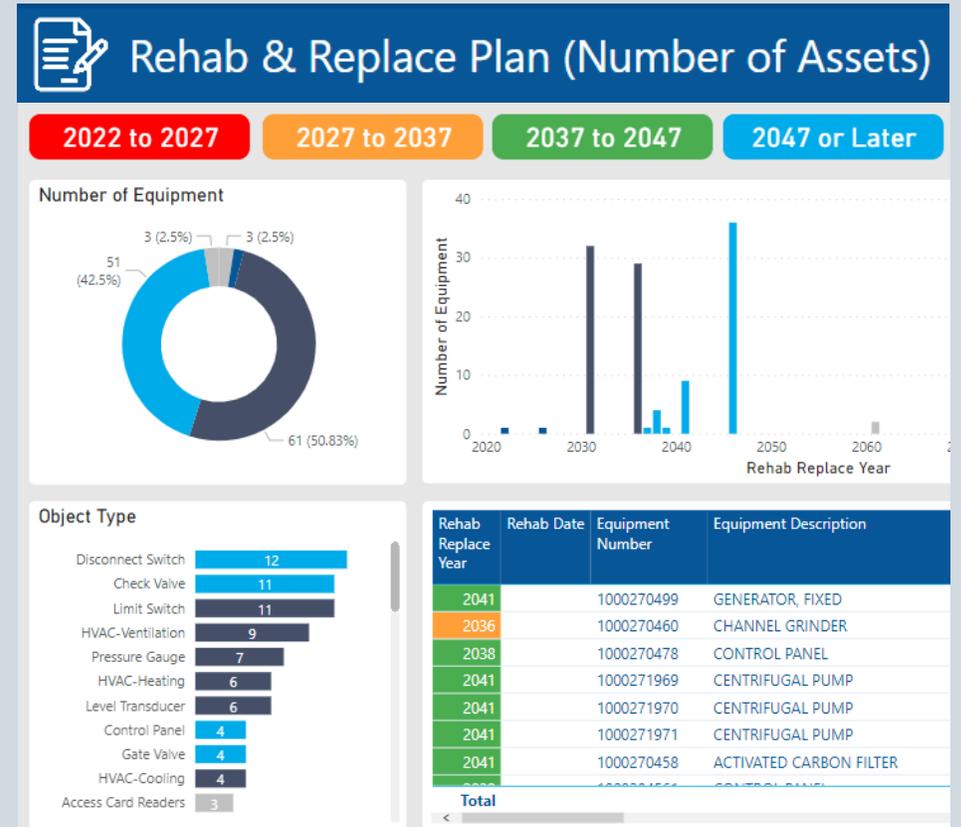
**22** Miles of Reclaimed Main



# Values and Benefits from Asset Management

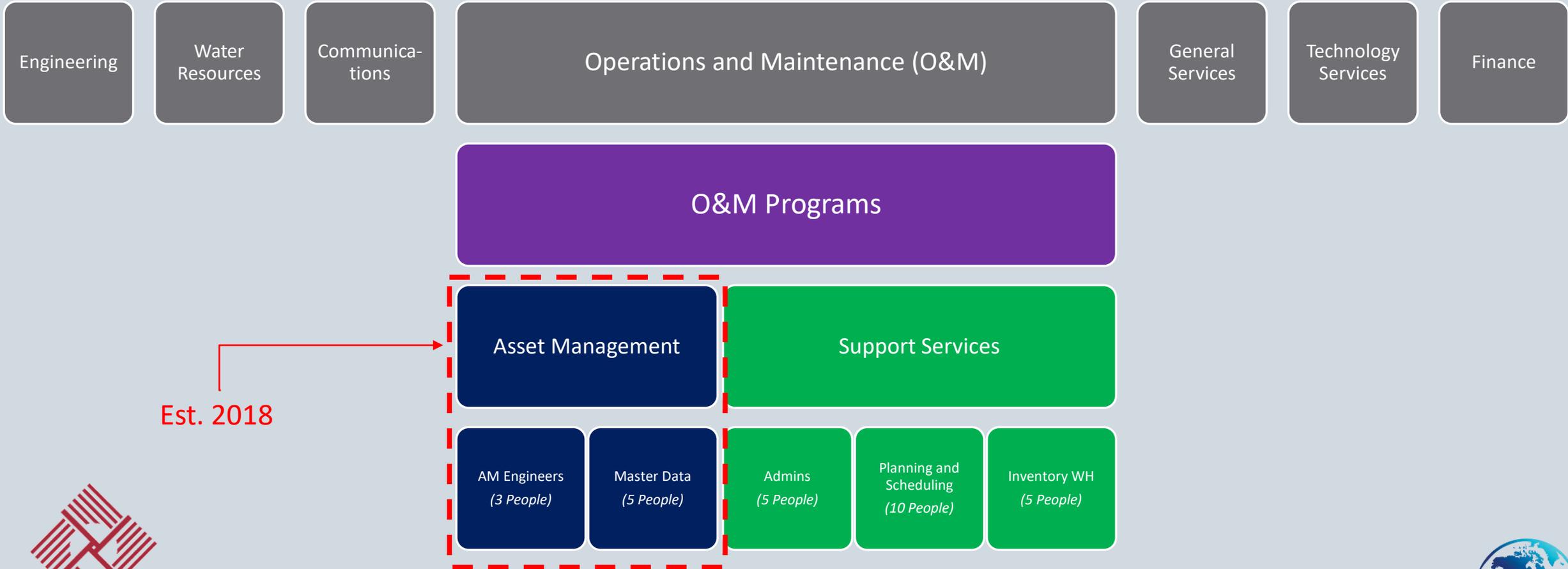
## Organizational Context – Vertical Infrastructure

7	Water Treatment Facilities	9	Wastewater Treatment Facilities
2	Water Reservoirs	27	Sewer Pump Stations
2	Dams	30	Sewer Vaults
36	Water PRVs	15,610	Individual Equipment



# Values and Benefits from Asset Management

## Organizational Context



# Values and Benefits from Asset Management

## Objectives of the Asset Management Project / Activity



### 1. EXEMPLARY WORKFORCE

### 2. SUSTAINABLE INFRASTRUCTURE

Drive efficiency by proactively managing our infrastructure for generations to come.

### 3. EXCEPTIONAL OPERATIONS

### 4. SOUND FINANCIAL POSITION

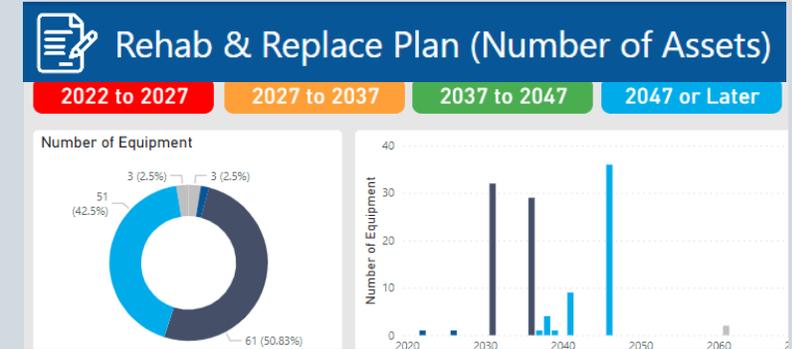
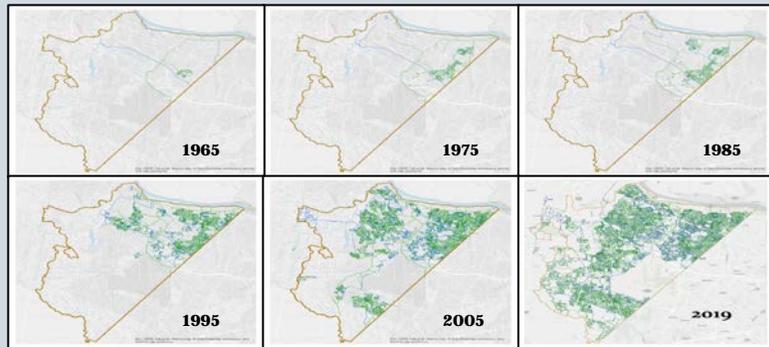
### 5. ACTIVE COMMUNITY ENGAGEMENT

### 6. EFFECTIVE WATER RESOURCES MANAGEMENT



# Values and Benefits from Asset Management

## Key Challenges of the Asset Management Project Activity



1 Balance Growth with Aging Infrastructure

2 Data Based Decision Making

3 Long Term R&R Planning



# Values and Benefits from Asset Management

## Scope of the Asset Management Activities

RISK  
ANALYSIS



ASSET  
ASSESSMENTS



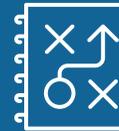
LEAK  
DETECTION



STRATEGIC  
MAINTENANCE



REPLACEMENT  
PLANNING



CATHODIC  
PROTECTION



REHAB  
PLANNING



ASSET  
PRESERVATION



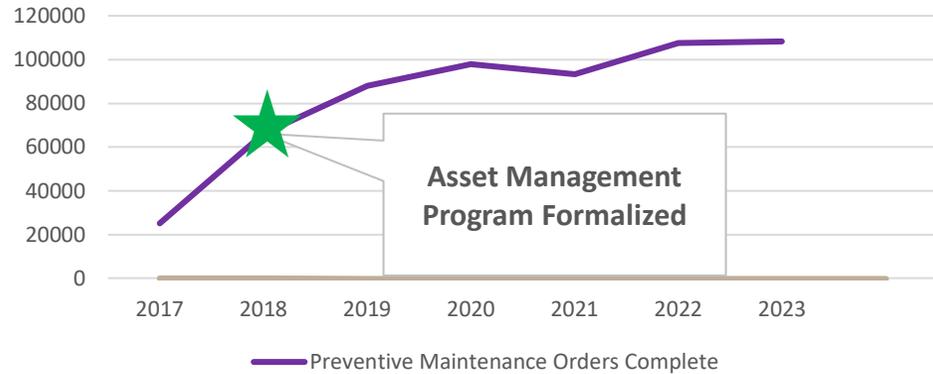
I&I  
REDUCTION



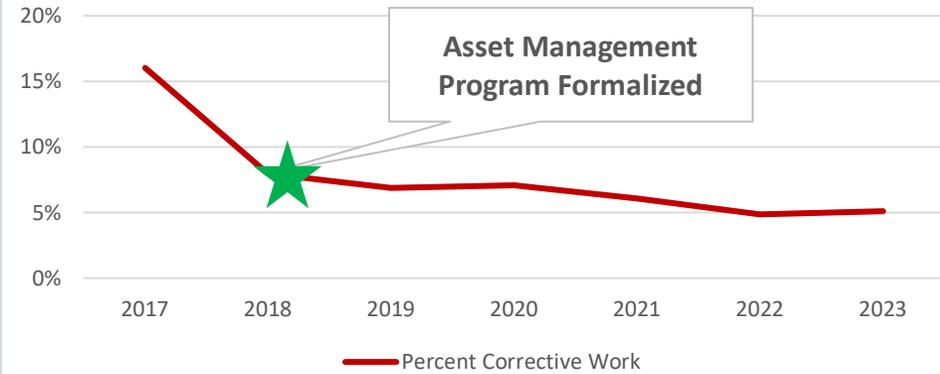
# Values and Benefits from Asset Management

## Measurable Value of Asset Management Project / Activity

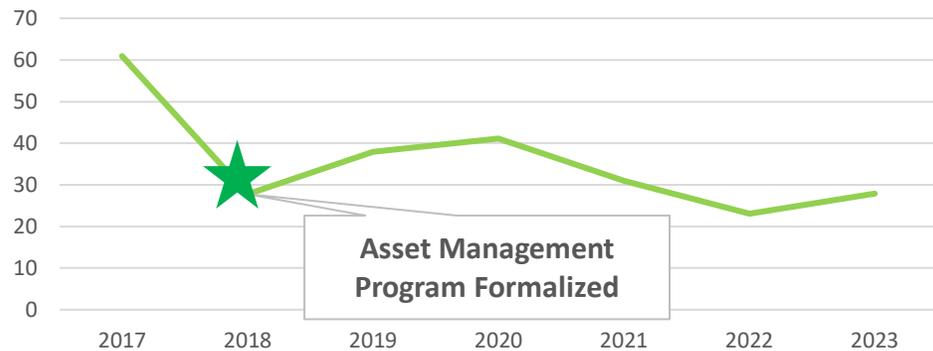
### Total Preventive Maintenance Orders



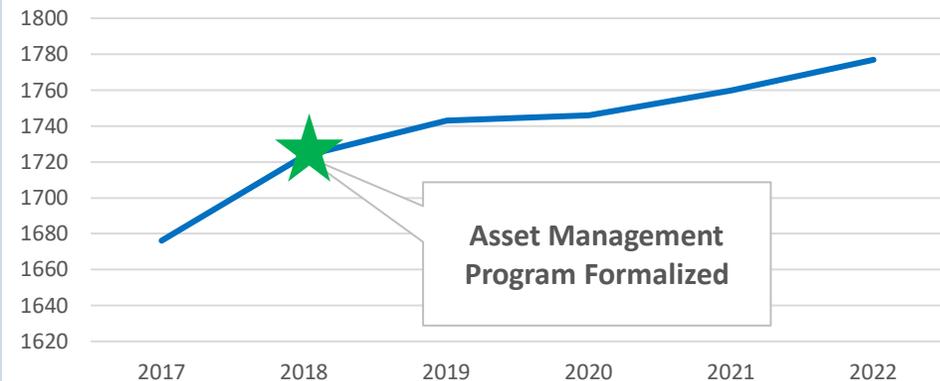
### Percent Corrective Work Orders



### Average Cost Per Work Order



### Capital Assets (Million \$s)



# Values and Benefits from Asset Management

## Measurable Value of Asset Management Project / Activity

Increasing Credit Rating Agency Interest in Asset Management

=

Essential to Keeping User Rates LOW

Water loss control program

Number of breaks per 100 miles

Pipe replacement rate

Percent water meters over 15 years old

Drought management plan

Climate modeling

SSO rate

Collection system integrity

No	S&P	Moody's	Fitch	Meaning and Color
1	AAA	Aaa	AAA	Prime
2	AA+	Aa1	AA+	High Grade
3	AA	Aa2	AA	
4	AA-	Aa3	AA	
5	A+	A1	A+	Upper Medium Grade
6	A	A2	A	
7	A-	A3	A-	
8	BBB+	Baa1	BBB+	Lower Medium Grade
9	BBB	Baa2	BBB	
10	BBB-	Baa3	BBB-	
11	BB+	Ba1	BB+	Non Investment Grade Speculative
12	BB	Ba2	BB	
13	BB-	Ba3	BB-	
14	B+	B1	B+	Highly Speculative
15	B	B2	B	
16	B-	B3	B-	
17	CCC+	Caa1	CCC+	Substantial Risks
18	CCC	Caa2	CCC	Extremely Speculative



## Values and Benefits from Asset Management

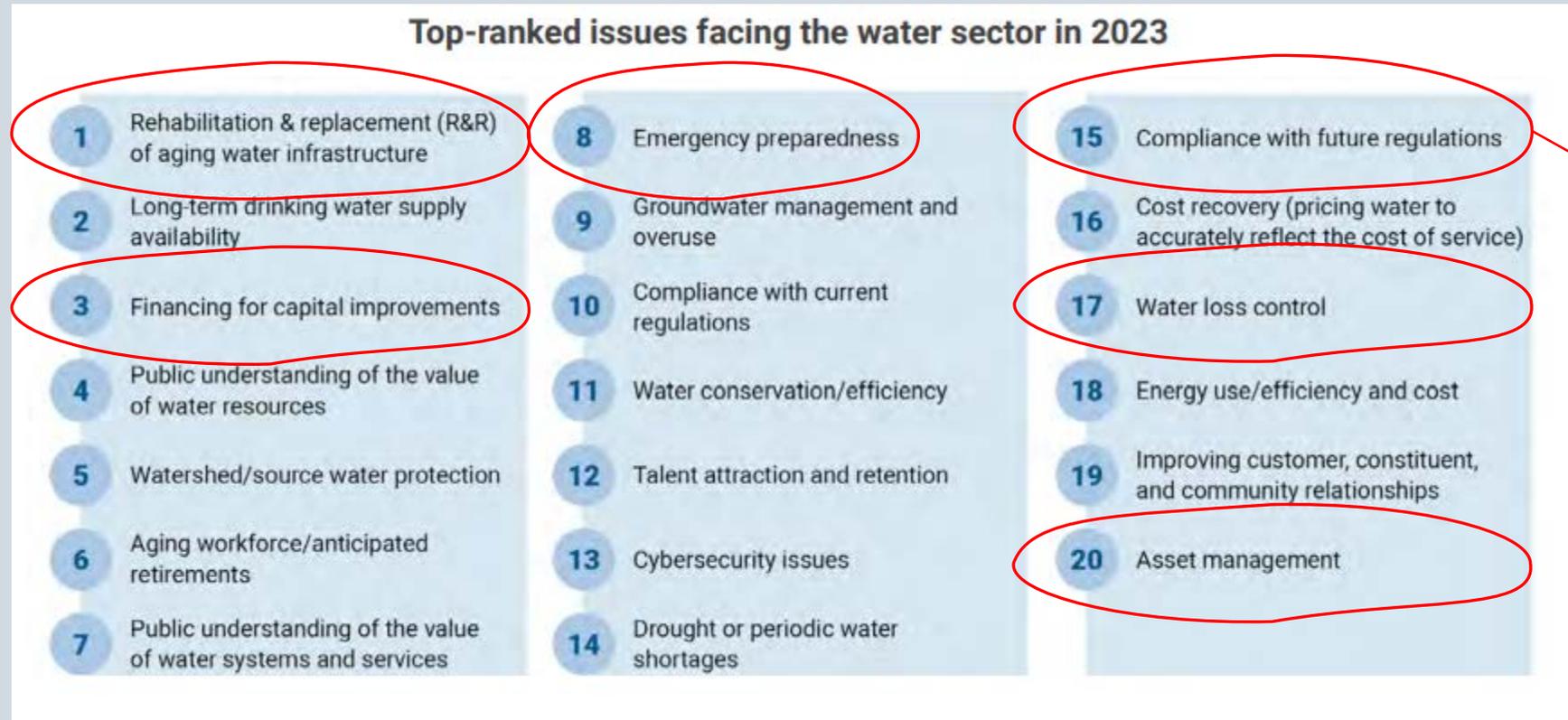
### Lessons Learned and Insights Gained from Asset Management Project / Activity

Asset Management can not be performed in a bubble –  
the entire organization needs to be on board.  
Change management is critical!



# Values and Benefits from Asset Management

## National sustainability goals assisted by Asset Management Actions



EPA's Lead and Copper Rule Revisions – Lead Service Line Inventory



AWWA 2023 Report *State of the Water Industry*

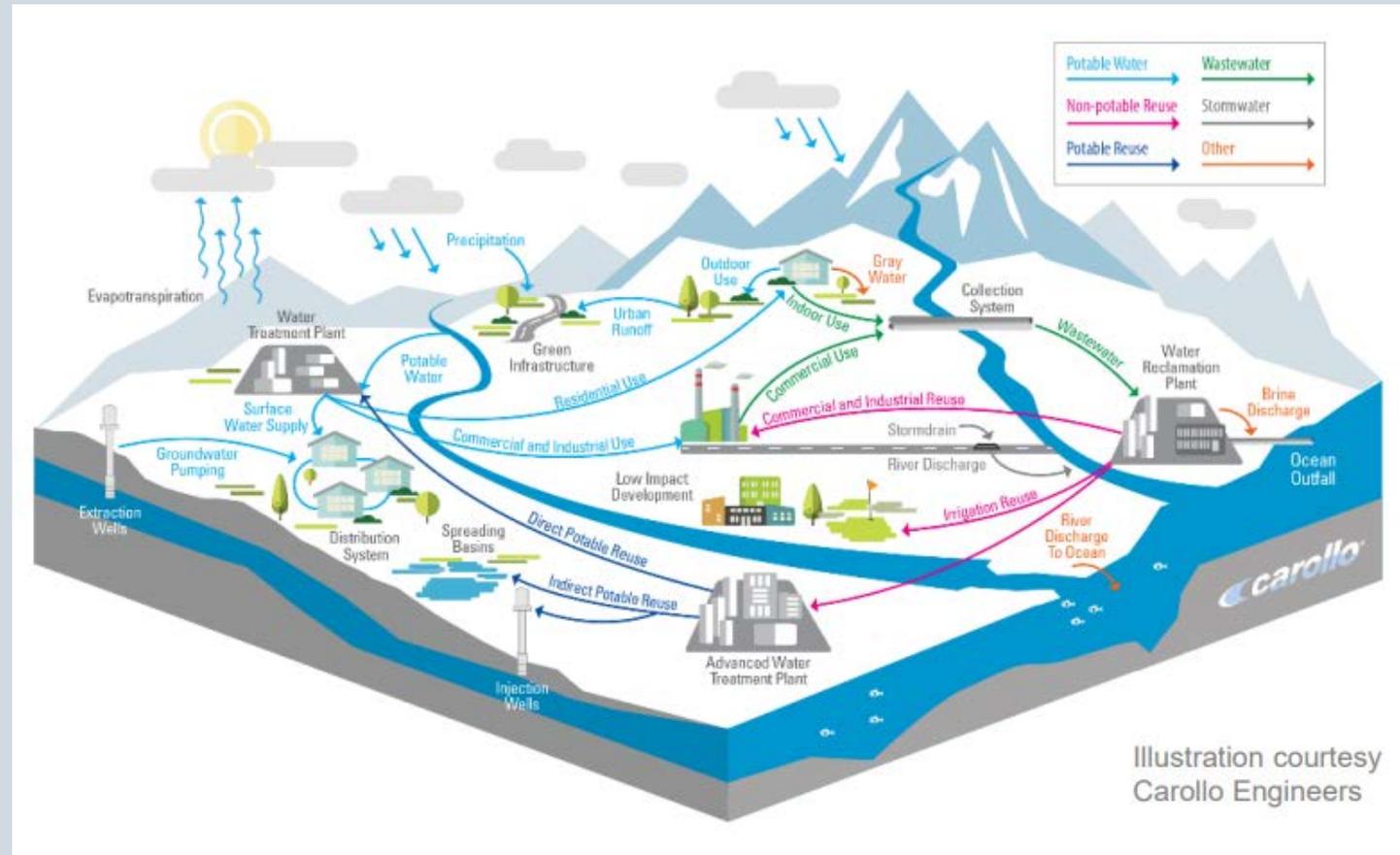


Asset Leadership Network

# Values and Benefits from Asset Management

## International sustainability goals assisted by Asset Management Actions

### One Water



# Values and Benefits from Asset Management

## Questions and Discussion

Moderated by Sally Nugent



# Values and Benefits from Asset Management

## International objectives (e.g. UN Sustainability Goals) assisted by AM Actions

1. No Poverty

2. Zero Hunger

3. Good Health and  
Well- Being

4. Quality Education

5. Gender Equality

6. Clean water  
and Sanitation

7. Affordable and  
Clean Energy

8. Decent Work  
and economic  
Growth

9. Industry, Innovation  
and Infrastructure

10. Reduced  
Inequalities

11. Sustainable  
cities and  
communities

12. Responsible  
Consumption and  
Production

13. Climate Action

14. Life Below Water

15. Life on Land

16. Peace Justice and  
Strong Institutions

17. Partnerships for  
the Goals



# Values and Benefits from Asset Management

An International Web Program Series of Asset Management Success Stories

Thank you to our presenters  
Thank you for attending

Please submit your interest in presenting to:

[info@AMCouncil.com.au](mailto:info@AMCouncil.com.au)

[info@AssetLeadership.net](mailto:info@AssetLeadership.net)

