

# Madison Water Utility

## Strategic Asset Management Plan

### Water Utility Board Presentation

July 25, 2017



## Introductions



Seth McClure, PE



Gage Muckleroy, PE



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## Today's Presentation Objectives

- What is asset management?
- How will the Strategic Asset Management Plan be translated into action?
- What is the schedule for implementation?
- What is the Water Utility Board's role?

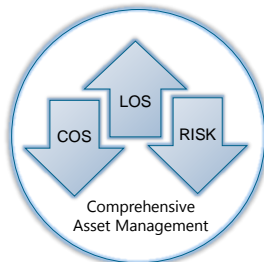


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What is asset management?

## Asset Management



Balance between Levels of Service (LOS), Cost of Service (COS), and Acceptable Risk



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## Five Core Questions of Asset Management

1. What is the current state of my assets?
2. What is my required level of service (LOS)?
3. Which assets are critical to sustained performance?
4. What are my best O&M and CIP investment strategies?
5. What is my best long-term funding strategy?



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**Fit-for-Purpose**

ONE SIZE  
DOES NOT  
FIT ALL



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**Asset Management Outcomes**

1. Reduced life cycle costs from better-focused (redirected) resource use
2. Better value-per-dollar spending
3. Confidence in decision-making

The right work,  
the right investment,  
at the right time,  
for the right  
reasons.



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How will the Strategic Asset Management Plan be translated to action?

**Asset Management Team**

- Tom Heikkinen, *General Manager*
- Amy Barrilleaux, *Public Information Officer*
- Joe Demorett, P.G., *Water Supply Manager*
- Al Larson, P.E., *Principal Engineer*
- Pete Braselton, *Mapping/GIS Coordinator*
- Seth McClure, *Asset Manager*
- Joe Grande, *Water Quality Manager*
- Dan Rodefled, *Operations Manager*
- Doug Van Horn, *Maintenance Supervisor*
- Tom Rosemeyer, *Field Supervisor*
- Robin Piper, *Chief Administrative Officer*



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**SAMP Program Schedule**

Task	Status/Schedule
SAM Program and Team Chartering	October-2016
Staff Interviews	October-2016
SAM Policy Development	December-2016
SAM Framework Development Workshops	December-2016
Draft SAM Plan and Roadmap	February-2017
Board Presentation	February-2017
Final SAM Plan and Roadmap	July 2017
Board Presentation	July 2017
Implementation	August 2017



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**Strategic Asset Management Program – Vision and Mission**

**SAM Program Vision**

Consistently meet our established levels of service targets/goals at sustainable and responsible asset lifecycle costs and acceptable levels of risk. Individually and as an organization, lead and be known as best in class in asset management in Wisconsin and nationally. As an organization, meet MWU Board policies and City, State, and Federal requirements.

**SAM Program Mission**

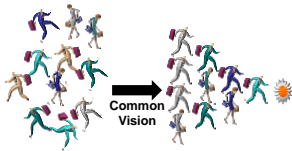
This asset management program will be implemented over a multi-year period, and will be sustained into the future to provide customers ongoing service excellence and cost effectiveness through:

- Asset knowledge management
- Optimized organizational decision-making
- Protection of the environment
- Responsible financial stewardship (sustainable, equitable, affordable)
- Promotion of health and safety
- Transparent decision making
- Staff capability development and training – agility in making improvements



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**Common vision** for asset management



Align staff to be on the same page  
Roadmap appropriate for MWU  
Strategy and Framework

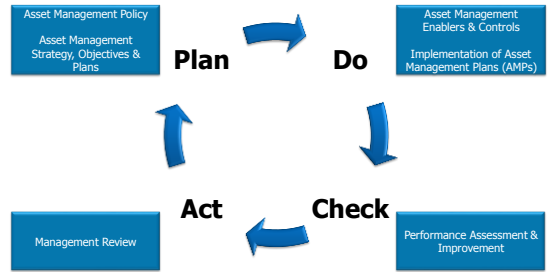


**MWU AM Policy**



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**Key Issues** for an Asset Management System



Source: Adapted from ISO 55000:2014



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**Embed sustainable asset management practices throughout the organization.**

- Engage the entire organization to provide training on asset management processes and procedures appropriate to individual roles and responsibilities.
- Establish defined roles and responsibilities to implement and sustain asset management practices.
- Apply effective data and information technology solutions to support the asset management program.
- Dedicate adequate resources to support the continued development and implementation of the asset management program.



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What is the schedule for implementation?

**Roadmap for AM Implementation – Priority Tasks**

Task ID	Task Name	Priority	2017-Q3	2017-Q4	2018-Q1	2018-Q2	2018-Q3	2018-Q4
P2	Tactical Asset Management Plans (Wells, Distribution, Storage)	Short/Medium/Long						
P3	Master Plan Update	Short						
P4	Capital and O&M Planning Budget Process Improvement (Prioritization, Business Case Evaluations, Budgeting)	Short/Medium						
CS3	Develop and Implement Condition Assessment Process for Linear and Vertical Assets	Short/Medium						
PM1	Develop the AM Performance Management and LOS Framework	Short/Medium						
SS1	Develop and Implement an AM Governance Structure that supports both Corporate and Service Area Objectives	Short/Medium						
SS3	Update and Implement a Consistent Asset Register and Standards for Activity Data Tracking	Short						
SS5	CMMS Implementation	Short						



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What is the Water Utility Board's role?

## How does the Water Utility Board benefit from the Asset Management Program?

- Asset Management Supports Existing Board Policy
  - Levels of Service - Policies O-1, O-2A, O-2B, O-2C
  - Rates/Finances - Policies O-2, EL-2C, EL-2D
  - Sustainability - Policies O-2E, EL-2F, EL-2G
  - Customer Service - Policy EL-2A
  - Continuous Improvement – Policy EI-2I
- In-depth Understanding of Project Justification through Business Case Analysis
- Rate Case Justification
- Maintaining the Utility's Level of Service
- Optimal Return on Investment (ROI)



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## Role of the Water Utility Board

- Understand what Asset Management is and why it is important.
- Understand how Asset Management is being deployed.
- Continued support of the Asset Management Program.



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## Realistic Expectations for Asset Management



- AM is not a software package that you buy
- Takes several years of strategic and detailed work to fully deploy
- Early champions are needed and requires eventual buy-in commitment of the whole organization
- Needs upfront investment to get started, with returns that may be hidden in the initial years



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## For more information please contact:

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## Thank You!



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## Five Core Questions of Asset Management

### 1. What is the current state of my assets?

- What do I own?
- Where is it?
- What condition is it in? What is its performance?
- What is its remaining useful life?
- What is its remaining economic value?

### 2. What is my required level of service (LOS)?

- What is the demand for my services by my stakeholders?
- What do regulators require?
- What is my actual performance?

### 3. Which assets are critical to sustained performance?

- How does it fail? How can it fail?
- What is the likelihood of failure?
- What does it cost to repair?
- What are the consequences of failure?

### 4. What are my best O&M and CIP investment strategies?

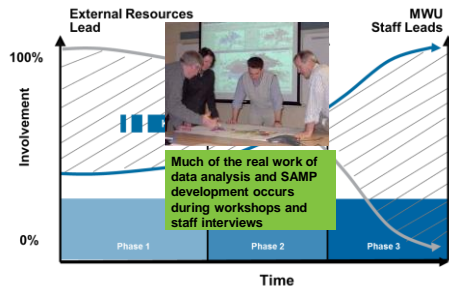
- What alternative management options exist?
- Which are the most feasible for my organization?

### 5. What is my best long-term funding strategy?



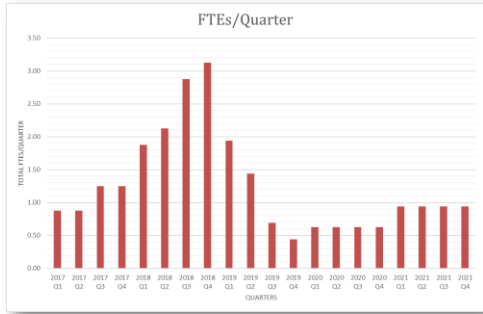
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## Knowledge transfer: Collaborative and interactive workshops



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## MWU Staff needs for implementation



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