



# Strategic Asset Management

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City of Wyoming

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# City of Wyoming

- A City of Vision and Progress
- 72,000 Residents
- 2015 SAW Grant recipient
- 2016 NPDES permit requirement



# City of Wyoming-Mission

- Wyoming provides excellent and efficient municipal services necessary to support and protect the life and property of all residents and businesses-including public safety, public parks and facilities, public street, water and sewer systems.

# City of Wyoming- Guiding Principles

Providing  
Optimum  
Customer  
Service

High Quality  
Infrastructure  
Standards

Community  
Aesthetics

Stewardship of  
Resources

Financial  
Stability

# City of Wyoming Sustainability Statement

- The advancement and promotion, with equal priority, of environments quality, economic strength and social equity, so that stable and vibrant community can be assured for current and future generations.

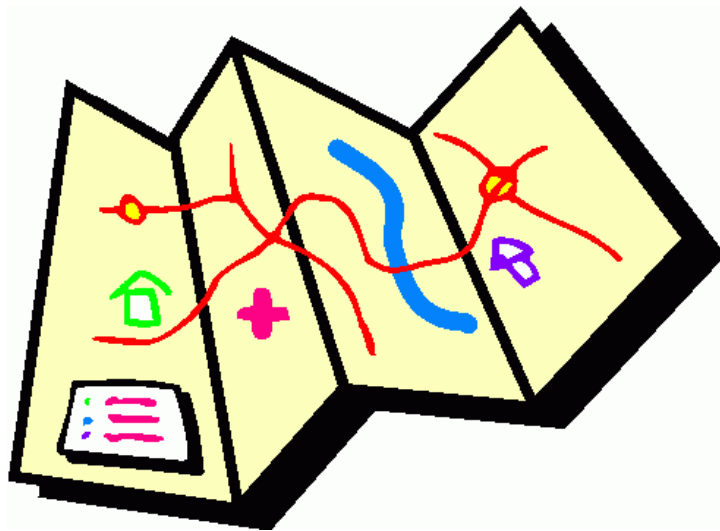
# Goals- Our Vision

- Decisions that are based on data, sound principles and an ethical framework
- Infrastructure that is up-to-date, reliable and suited for purpose
- Regulatory compliance
- A reputation for high quality and responsive customer service
- Active transparency where citizens and customers are informed and involved
- Highest regard for the health and welfare of our population
- Economic growth and vitality
- Rates that are stable and affordable

# Gap Analysis

- Identified 4 main focuses:
  - Asset management program structure
  - Asset risk management
  - Operational improvements
  - Information management
- Tasks included
  - Increased documentation, assigning roles and responsibilities, establish risk framework, procure hardware and software systems, lots and lots of staff training

# Gap Analysis



- Determines current position
- Clarifies future vision
- Develops a plan to fill the gap



**Strategic** Leadership steering committee, organizational goals, policy

**Tactical** AM Teams, key performance indicators, asset management strategy,  
asset management plans

**Operational** Departments, performance indicators, operating procedures.

# Strategic Planning

- Mission and Vision
- Evaluate objectives and strategy
- Analyzing external environment and internal organization
- Set measurements for success



**Organizational  
Policy**

**Strategic Asset  
Management  
Plan**

**Asset  
Management  
Program**

**Asset Register**

# How to Implement AM Strategically?

- Connect activities to the organization's mission, vision and objectives
- Involve other departments: Engineering, Public Works, Information Technology, Finance
- Create a strategy map for implementation with measurements
- Assign a position or a champion to see the process through

# AM Policy

**Outlines the principles and requirements for implementing AM across the organization:**

- Vision
- Responsibilities and training
- Key Principles
- Sustainability
- Review and reporting

# AM Strategy

**Specific high level, long term action plan and objectives:**

- Asst networks
- Asset practices and systems
- Develop and implement AM plans
- Implement AM systems
- Performance measures

# AM Planning

**Long term plans that outline the asset activities for each service area or asset class and resources to provide defined level of service in the most cost effective way.**

- Asset inventory, heirarchy and valuation
- Asset performance in terms of condition, maintenance history
- Risk assessment
- Demand forecasting
- Lifecycle
- Budget sufficiency

# Operations

**Operational programs designed to support policy, straegy and planning perspectives.**

- Asset maintenance programs
- Capital improvement plan
- Performance monitoring
- Annual auditing and reporting

# Problems of implementing AM without strategic planning

- Many incompatible software solutions
- A complete asset registry but no plan for maintaining and updating
- Measuring and collecting the wrong data
- Difficulty implementing top-down and bottom-up

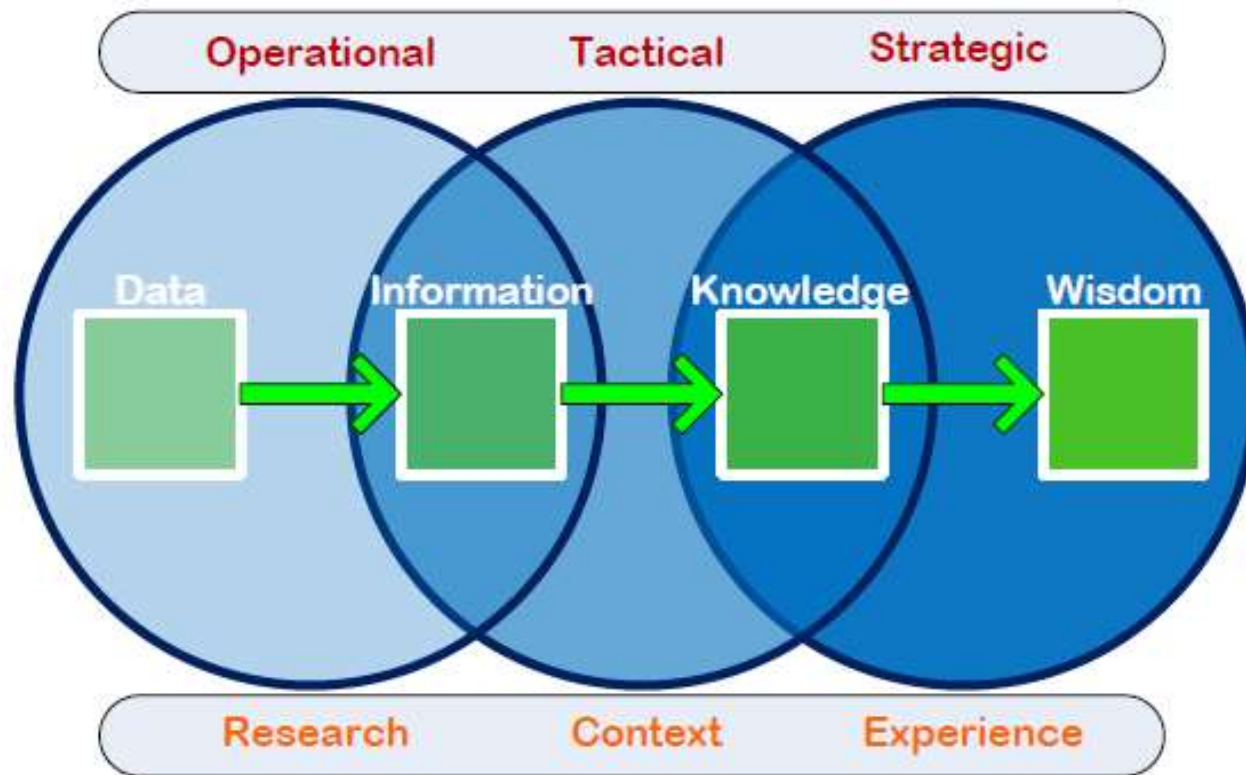


Figure 4-1. Data Transformation Into Information, Knowledge, and Wisdom.

# Steering Committee

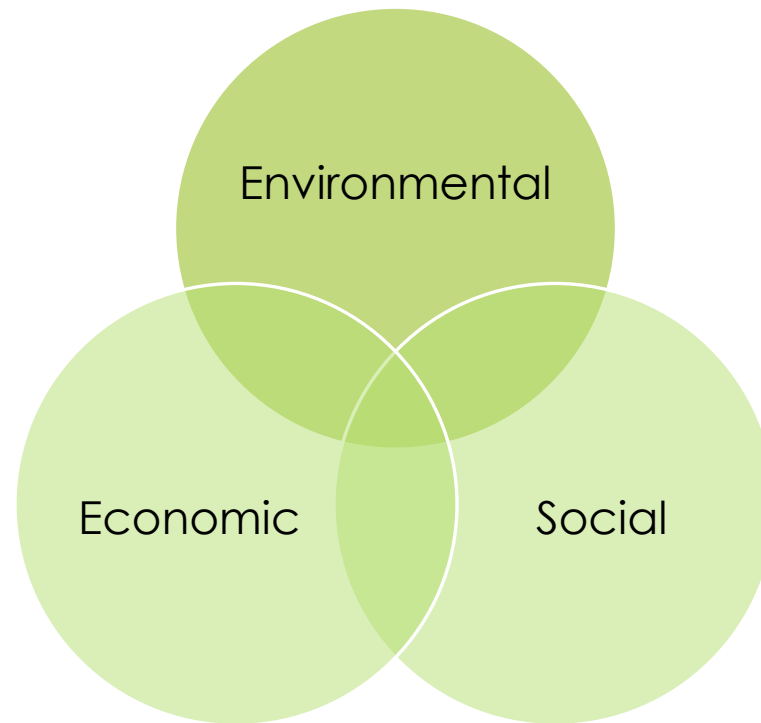
- Steering committee includes Clean Water Plant, Drinking Water Plant, Public Works, Engineering, and Information Technology
  - Allows us to consider how these decisions affect other city functions
  - Keeps the software solutions compatible
  - Prepares us for implementation in other departments like Drinking Water
- Assigned a Asset Management Coordinator to lead the implementation



# Policy Framework

- A logical structure that establishes how to organize a policy document into groupings and categories
- Contemplating 2 Frameworks
  - Sustainability-based
  - Modified Balanced Scorecard

# Sustainability-Based



# Sustainability-Based

Perspective	Objective	KPI
Social	Meet customer expectations	Customer satisfaction index
	Ensure public health and safety	# of illnesses related to wastewater
Environmental	Maintain regulatory compliance	# of NPDES violations
Economic	Rates that are affordable	Rate increases do not exceed cost of living index
	Assess real costs	Real cost compared to predicted costs

# Modified Balanced Scorecard

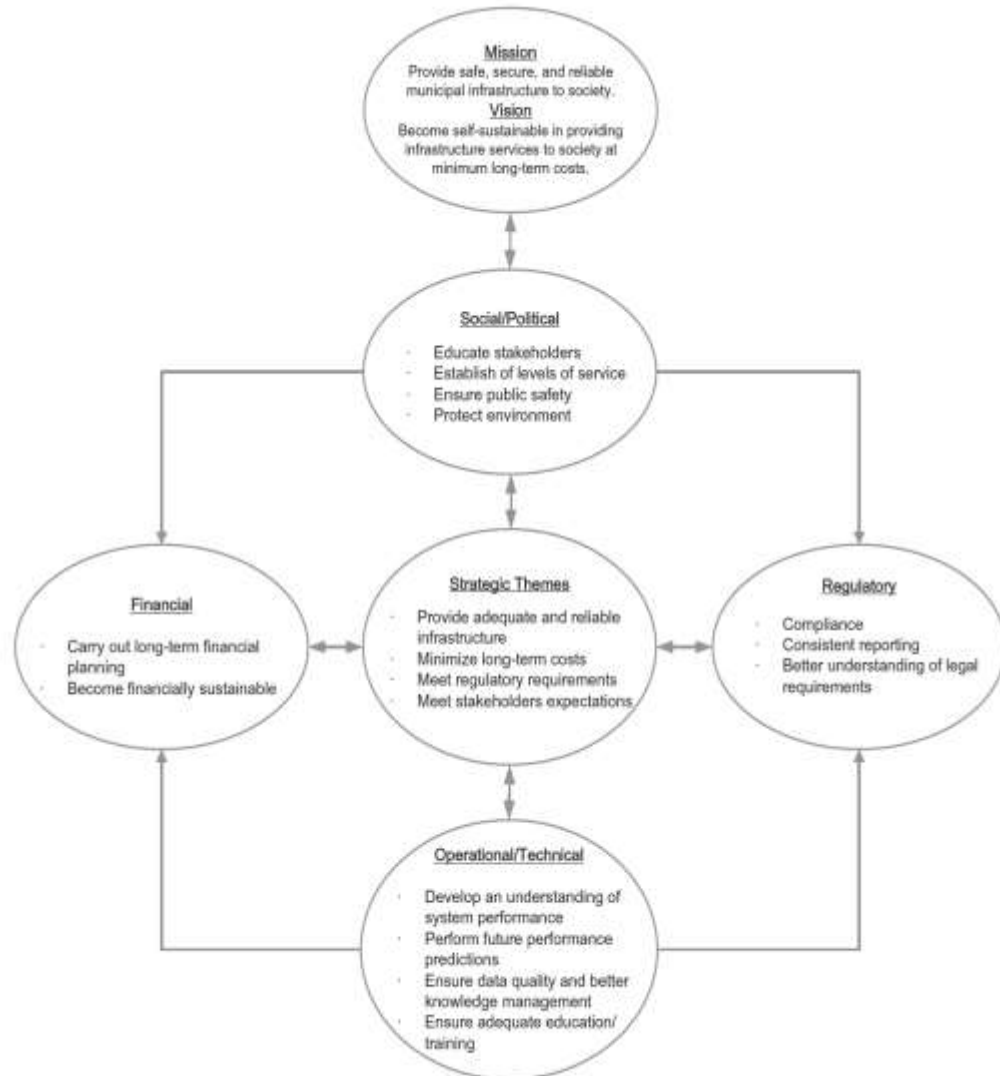


Fig. 3. Modified balanced scorecard model.

# Modified Balanced Scorecard

Perspective	Objective	KPI
Operational	Complete system inventory	% of total system catalogued
	Assess current condition of assets	% of pipeline inspected
		% of equipment inspected
	Reduce risk in system	% of assets with risk value over 3

# References

- Gay, L.F. & Sinha, S. K. (2014). Water Infrastructure Asset Management Primer. WERF
- International Standard Organization. (2014). ISO 55000-55002 Asset Management.
- Younis, R. & Knight, M. (2014). Development and implementation of an asset management framework for wastewater collection networks. *Tunnelling and Underground Space Technology*. 130-143



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# Sustainable Water Infrastructure

- Sustainable Water Infrastructure Home
- Water Infrastructure Challenge
- Policy
- Infrastructure needs
- Local Officials
- Building Sustainable Water Infrastructure
- Water and Energy Efficiency
- Asset Management**
- Alternative Technologies
- Managing Sustainable Water Utilities
- Effective Utility Management
- Planning
- Tools
- Pricing and Affordability

## Asset Management for Water and Wastewater Utilities

- Overview**
- Workshops and Training
- Additional Resources

Renewing and replacing the nation's public water infrastructure is an ongoing task. Asset management can help a utility maximize the value of its capital as well as its operations and maintenance dollars.

Asset management provides utility managers and decision-makers with critical information on capital assets and timing of investments. Some key steps for asset management are making an inventory of critical assets, evaluating their condition and performance, and developing plans to maintain, repair, and replace assets and to fund these activities.

### What is asset management?

Asset management is a process water and wastewater utilities can use to make sure that planned maintenance can be conducted and capital assets (pumps, motors, pipes, etc.) can be repaired,



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### What is Strategic Planning?

Strategic planning is an organizational management activity that is used to set priorities, focus energy and resources, strengthen operations, ensure that employees and other stakeholders are working toward common goals, establish agreement around intended outcomes/results, and assess and adjust the organization's direction in response to a changing environment. It is a disciplined effort that produces fundamental decisions and actions that shape and guide what an organization is, who it serves, what it does, and why it does it, with a focus on the future. Effective strategic planning articulates not only where an organization is going and the actions needed to make progress, but also how it will know if it is successful. See more at the Strategy Management Group website >>

### What is a Strategic Plan?

A strategic plan is a document used to communicate with the organization the organizations goals, the actions needed to achieve those goals and all of the other critical elements developed during the planning exercise.

### What is Strategic Management? What is Strategy Execution?

Strategic management is the comprehensive collection of ongoing activities and processes that organizations use to systematically coordinate and align resources and actions with mission, vision and strategy throughout an organization. Strategic management activities transform the static plan into a system that provides strategic performance feedback to decision making and enables the plan to evolve and grow as requirements and other circumstances change. Strategy Execution is basically synonymous with Strategy Management and amounts to the systematic implementation of a strategy.

### Quick Resources



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Questions?