

Asset Management Demystified



Overview

- Asset Management:
 - Why Asset Management (AM)?
 - Definition
 - Recommended Components & Foundational Elements

Key Message:

A good Asset Management System needs to be tailored to your organization

Typical Community Challenges

- Aging assets with increasing service expectations
- Loss of knowledge
- Long asset lives
- Increasing regulatory requirements
- Diverse user and community expectations
- Shrinking budgets
- Increasing costs
- Providing evidence
- Securing external funding



What is Asset Management?



Asset Management Myths

- AM is overly complex
- What works at “org. A” must work at “org. B”
- AM is a software system (exclusive to):
 - Maintenance Management
 - Personnel Management
 - Financial Management
 - Capital Planning
 - Financial Planning
 - GIS
- AM needs large financial resources

Asset Management is NOT new!



Changing the Culture of Service Delivery

- 180-degree Shift
 - Preventative vs. Reactive
- Planning Exercise
 - Not one simple item...



Asset

Anything that provides value

Differing Value Illustration



Value Drives Operations



Clear Management Expectations

Stakeholders

Staff



Stakeholder Value



Policy Makers

Stakeholders

Staff







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Value Illustration

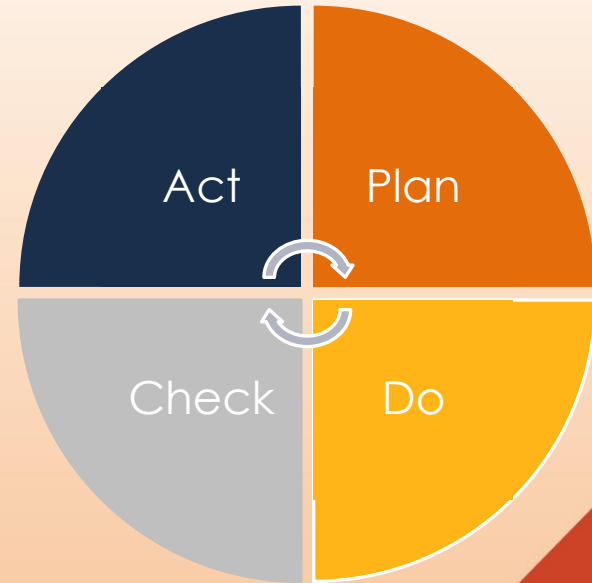



Asset Management is a Business Model

Alignment



Management Process



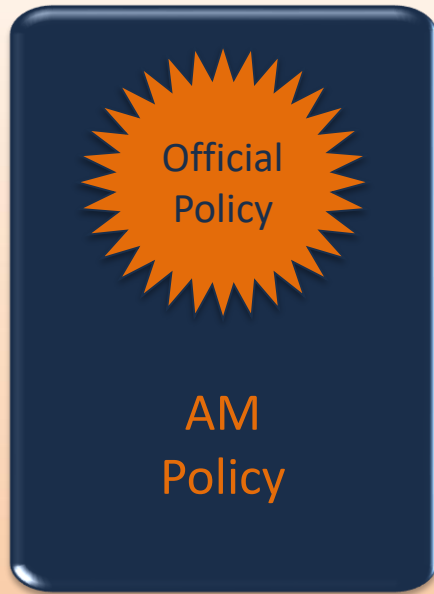


Foundational Elements of Asset Management

AM System – Foundational Elements



AM System – Foundational Elements



Ex. – “All physical infrastructure will be managed to obtain the lowest total lifecycle cost”

AM System – Foundational Elements



AM Objectives

- Policy - All physical infrastructure will be managed to obtain the lowest total lifecycle cost
- Objective - Prior to acquisition, a life cycle cost analysis will be conducted on available alternatives and the lowest life cycle cost selected

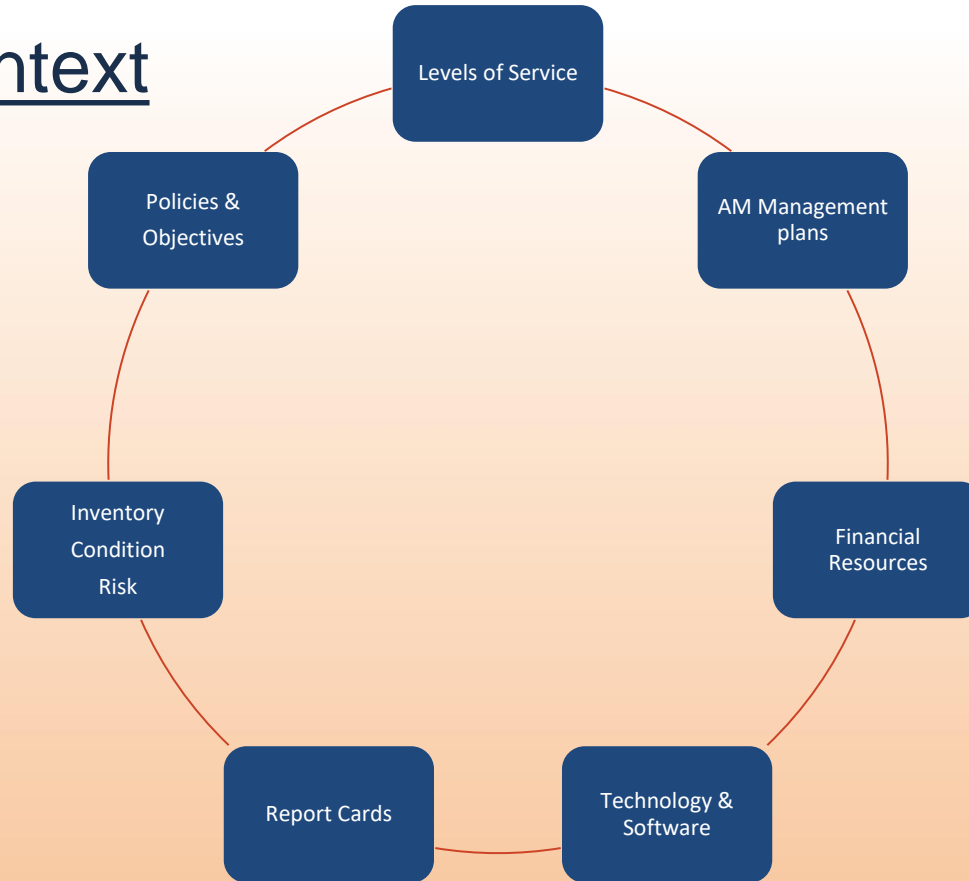
AM System – Foundational Elements



AM
Plan(s)

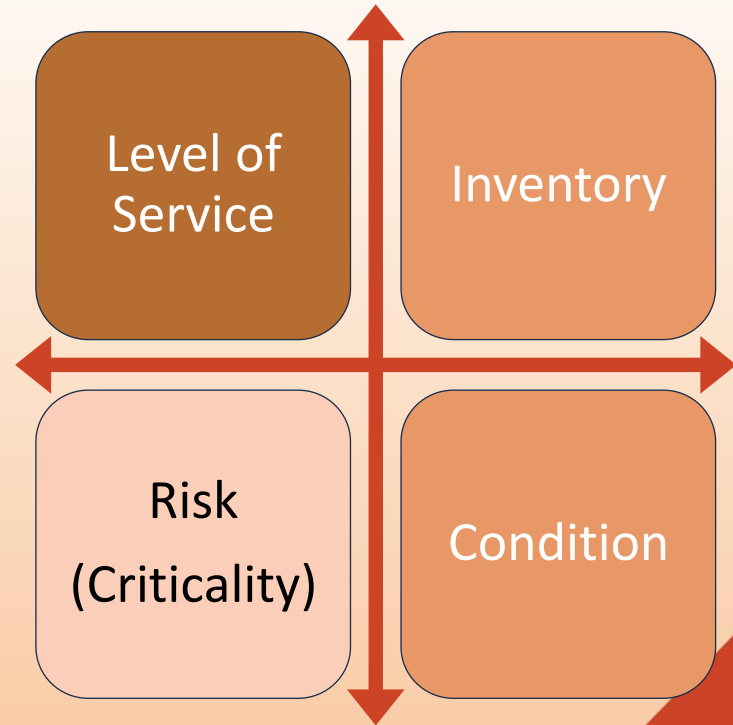
Specific details associated
with asset class designed to
meet objectives

System Context



AM Plan Considerations

These are the key foundational elements that policies, objectives, and plans should incorporate.



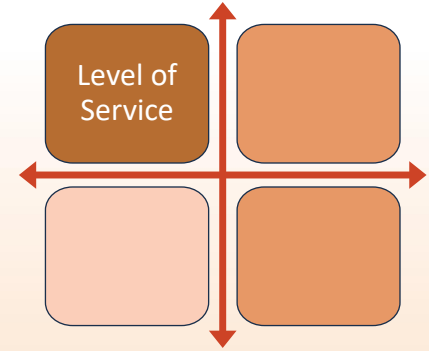
Level of Service Considerations

- Cost (initial or total)
- Safety
- Reliability
- Appearance
- Resilience

Quantify
LOS



Non-LED



Cost Example

- Lowest Total Cost

LOS= \$/mile

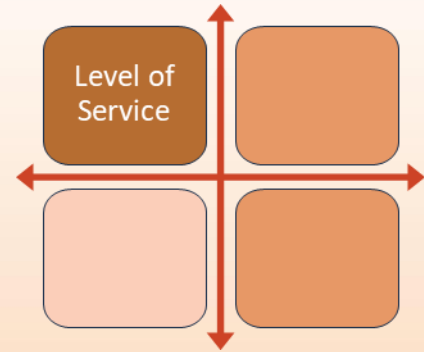


Appearance Example



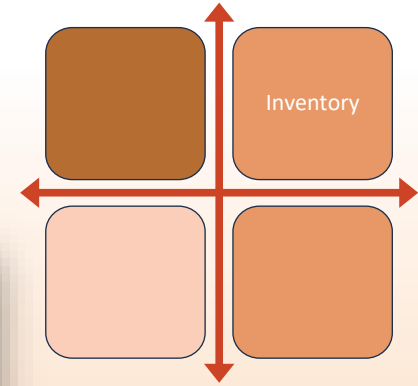
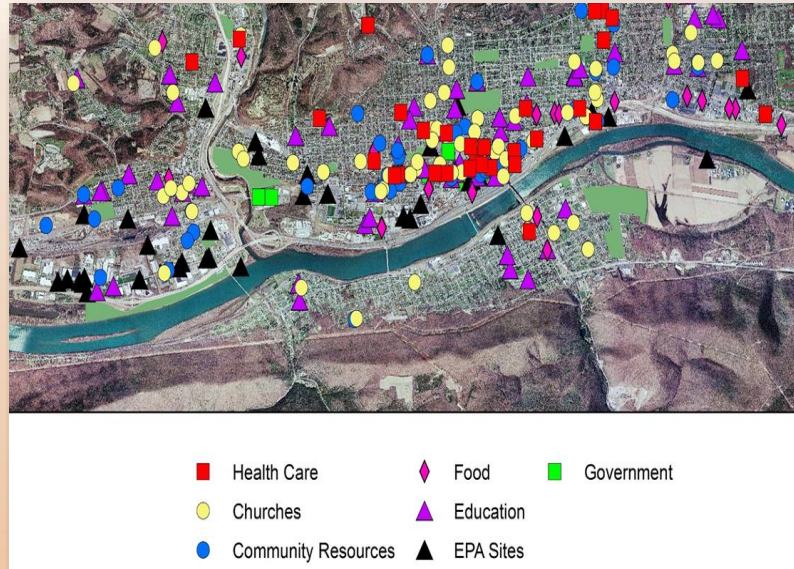
Identify Maintenance Service Levels

Levels of Service (Stakeholder Value)



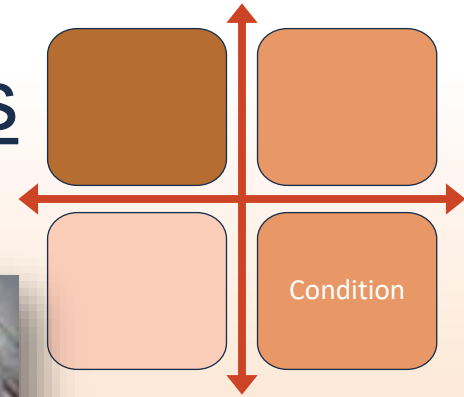
Inventory Considerations

- What's owned
- Function
- Location
- Attributes
 - Size
 - Material
 - Date Installed
 - Last Maintained
 - Etc.



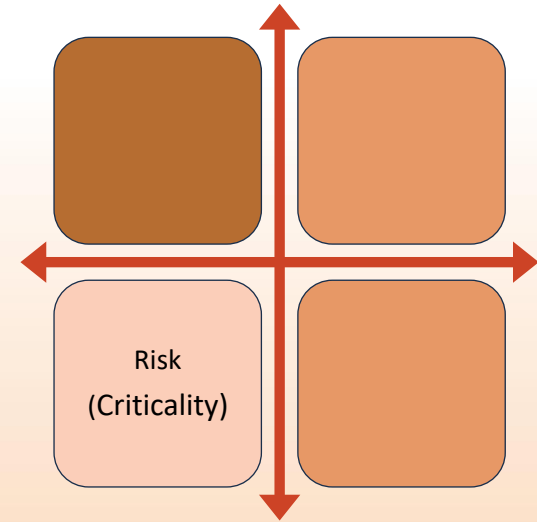
Condition Considerations

- Complete Assessment
- Remaining Lifespan?
- Costs?
 - Maintenance
 - Repair
 - Replacement



Risk/Criticality Considerations

- What does the asset mitigate?
- Risks of NOT achieving LOS or the intended value
- Undesirable events, occurrences, or conditions?
- Probability & Consequence and likelihood



Measuring Risk

Likelihood of Failure (LoF)

- Probability of failure based upon an asset's physical condition
- Condition rating systems (i.e. NASSCO, FHWA)

Consequence of Failure (CoF)

- Combination of direct and indirect impacts on the vicinity and community due to asset failure
- Direct impact = repair costs, emergency response costs, property damage, etc.
- Indirect impact = environmental, quality of life

Risk = LoF x CoF

	Medium	High	High	Extreme
	Low	Medium	High	Extreme
	Low	Medium	High	High
	Low	Low	Medium	Medium
	Low	Low	Low	Medium

Develop Capital Improvement Strategy

- Determine Funding or long-term investment strategy
- What needs to be done and why? What is the Cost? Level of Service impact? Duration? How is it funded?

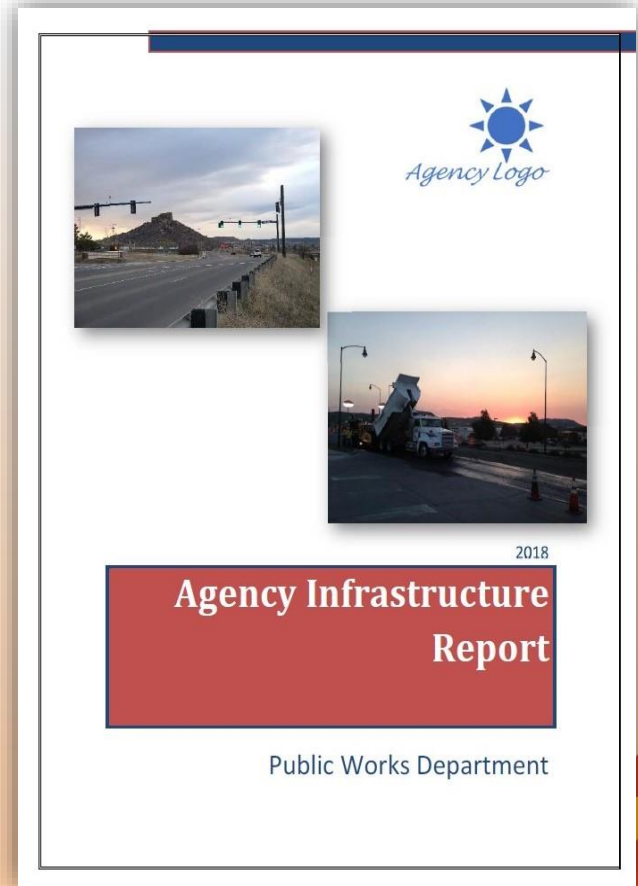
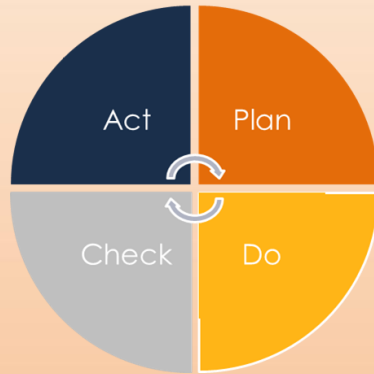
Sustainability = Balanced Decision Making



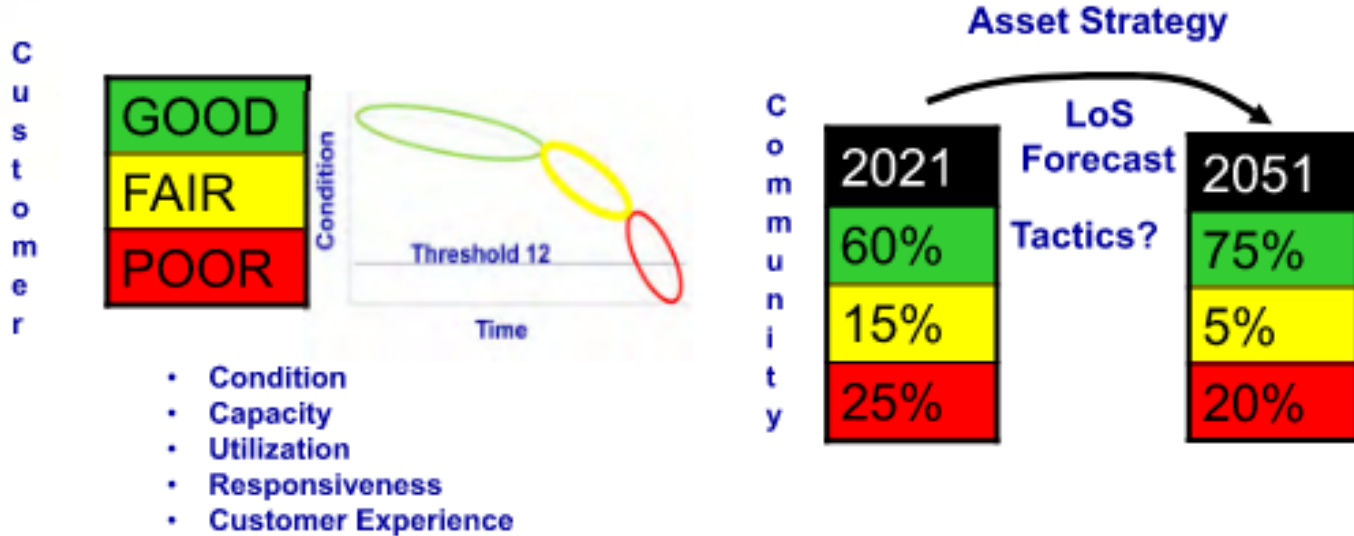
Transparency & Check-In

How do we communicate the value being received for the resources being expended?

Management Process



Asset Capability and Strategy



The purpose of spending money is to achieve a measurable result in asset level of service

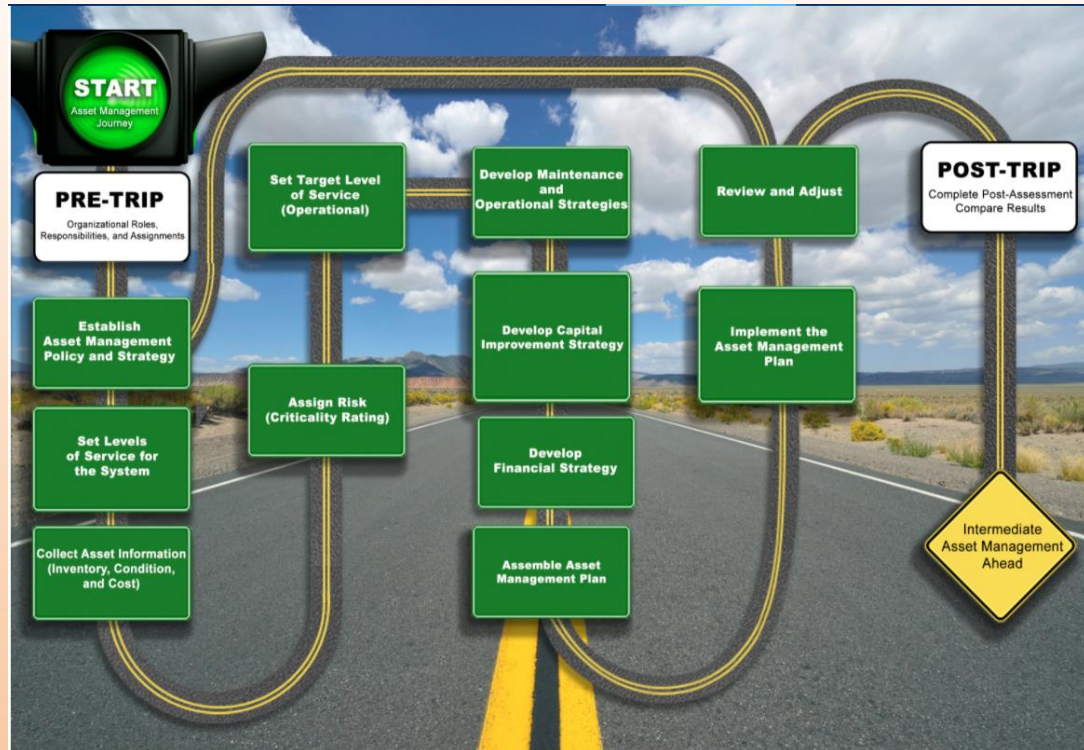
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An integrated capital and operating budget

Reminder!

- Asset Management starts before you even own the Asset!!
- Shift in the way we have traditionally done things.
 - Need to think about maintenance or life-cycle costs prior to making the decision to purchase!

The Road to Asset Management



Where is Camas at Today?

- Pavement Preservation
- Fleet
- WWTP
- Buildings
- Stormwater
- Parks, Water, Sewer

Operational Levels of Service/Strategies

Value and Level of Service

- Differing Value Illustration



Pavement Preservation

PAVEMENT PRESERVATION IS COST EFFECTIVE



Source: National Center for Pavement Preservation.

Fleet Example



Thank You!

Questions??