

Sustainable Infrastructure Management

Asset Management Planning Overview



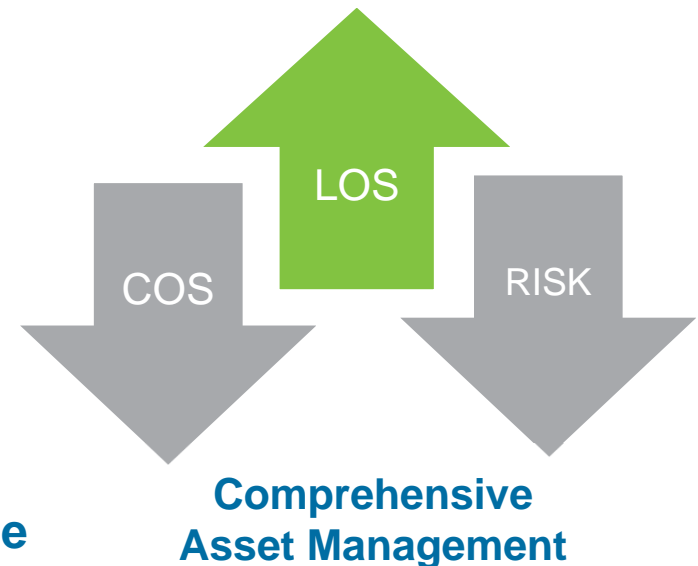
Florida Keys National Marine Sanctuary
Water Quality Steering Committee
September 30, 2015

Presentation objectives

- ✓ Define Asset Management (AM) and its value proposition to infrastructure investment
- ✓ Describe how to establish an AM strategy
- ✓ Discuss building blocks and implementation approach for AM
- ✓ Provide guidance on developing an AM knowledge base

Asset Management defined

- Establishes management paradigm and body of management practices
- Applies practices to the **entire portfolio** of infrastructure assets at all levels of the organization
- Seeks to **minimize total costs** of acquiring, building, operating, maintaining, and renewing assets
- Recognizes there are limited resources
 - **While continuously delivering the service levels** customers desire and regulators require
 - Recognizes an acceptable level of **risk** to all stakeholders



The infrastructure asset life cycle



Challenges facing infrastructure owners



Characteristics of good Asset Management

“An Asset Management system realizes value from all of the assets in order to achieve organizational objectives”

Characteristic	Demonstration of Application
Multi-Disciplinary	Crosses departmental & discipline boundaries with focus on net value for money
Systematic	Rigorously applied in a structured management system
Systems-Oriented	Looks at assets in their system context
Risk Based	Incorporates Risk into all decision making
Optimal	Seeking best compromise. Cost vs Performance vs Risk & Short term vs Long term
Sustainable	Life cycle value, Environmental performance
Integrated	Joined up - it is more than a sum of the parts

Source: Adapted from PAS-55:2008 and ISO 55000

US EPA Framework

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?

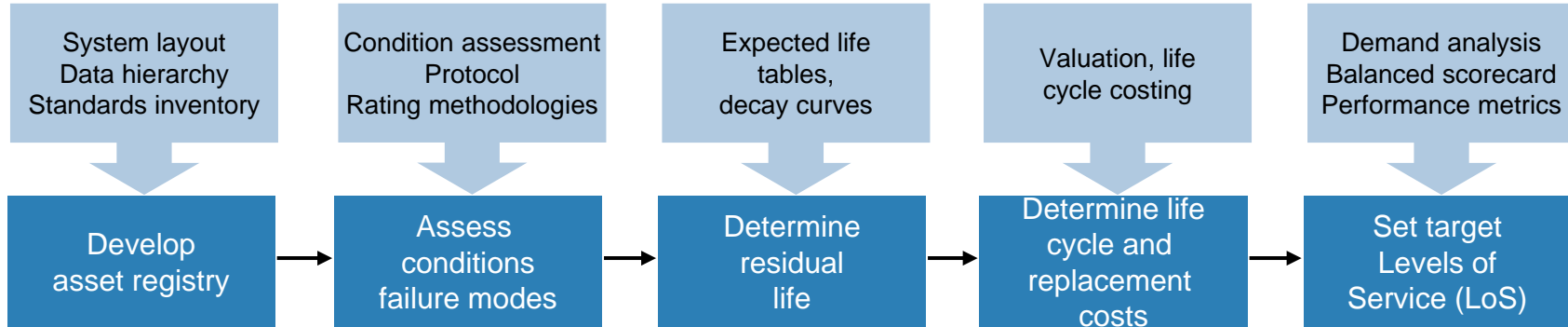
- What alternative management options exist?
- Which are the most feasible for my organization?

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

US EPA Framework

10 Step Process to Build the AMP

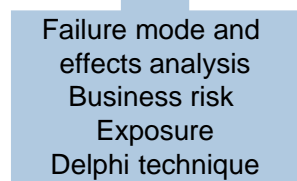
1. What is the current state of my assets?



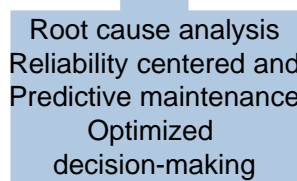
2. What is the required LoS?



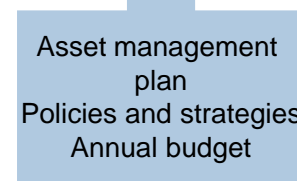
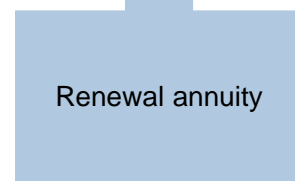
3. Which assets are critical?



4. Best O&M and CIP strategy



5. Best funding strategy

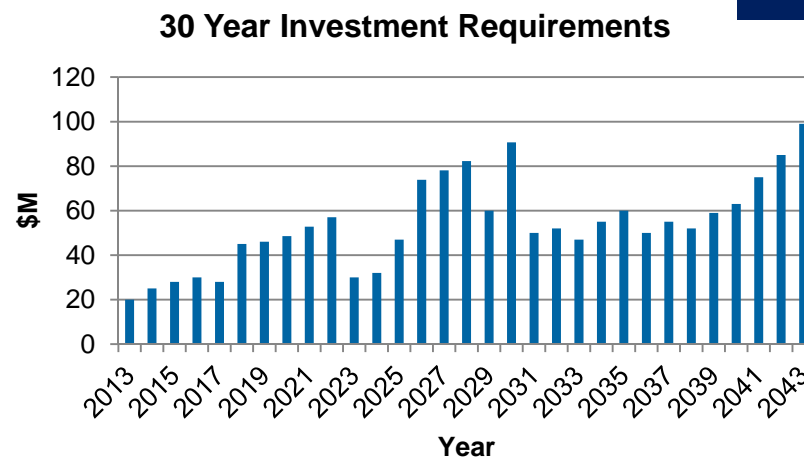


What is the AMP used for?

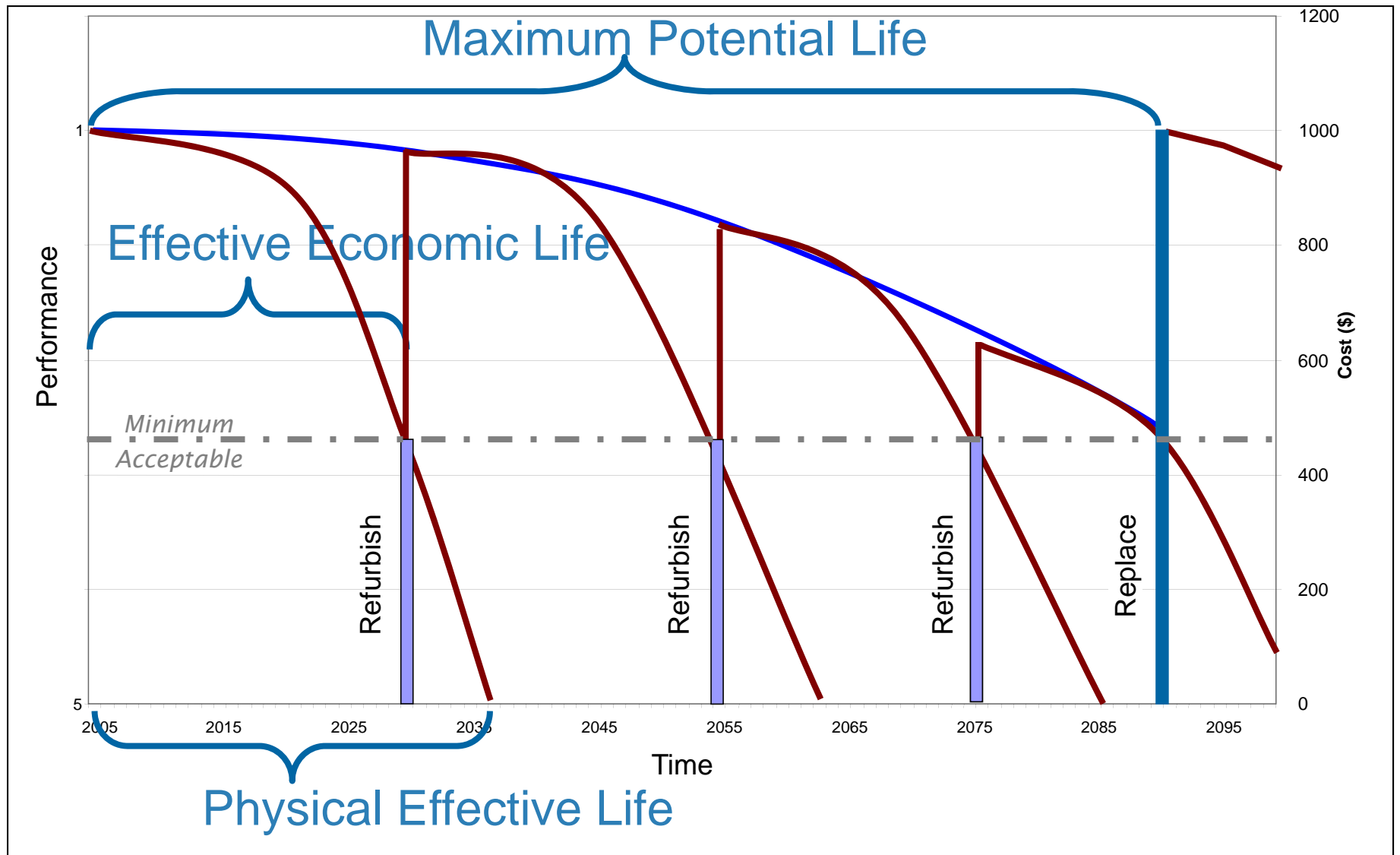
1. Current State of the Assets
2. Infrastructure Improvement Plan
3. Risk Management Plan
4. Business Improvement Plan
5. Long term capital and O&M projection (Nessie Curve)
6. Funding Plan



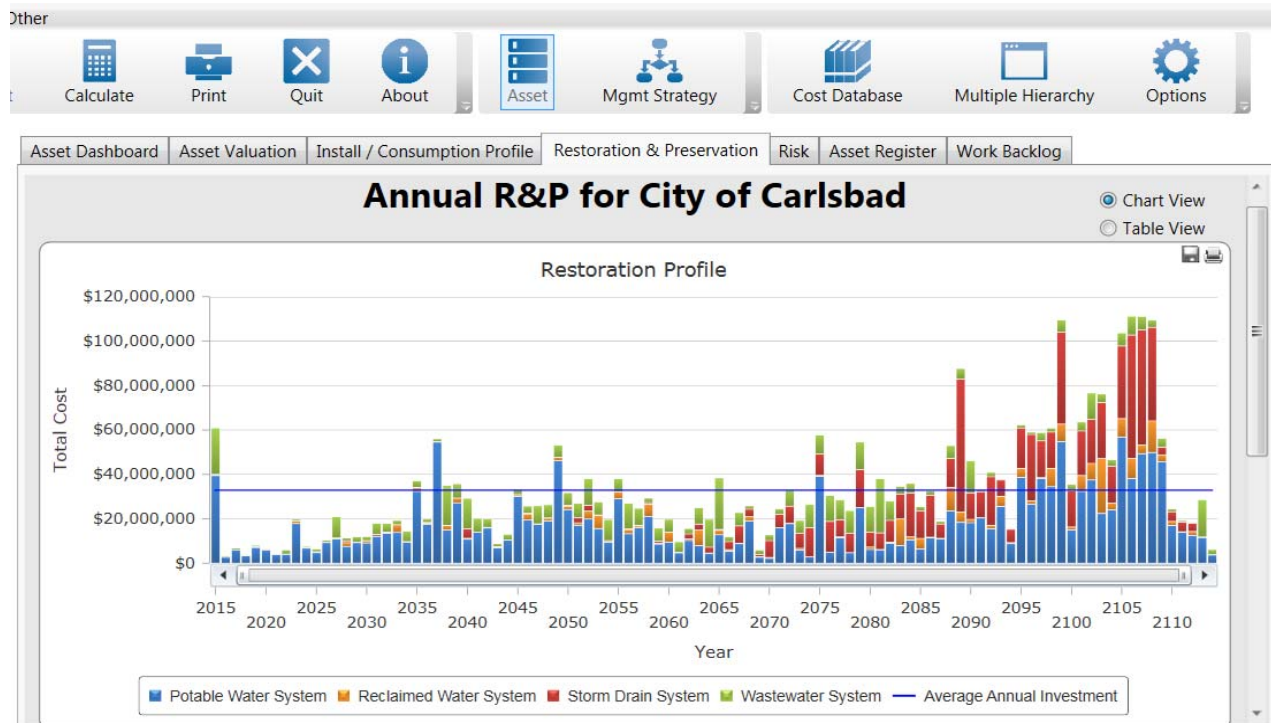
**The AM Plan
tells the
story...**



Asset life cycle



Budget and financial plan



Optimized Maintenance and Renewal & Replacement Planning Process Helps Smooth Investment Curve

Fit-for-Purpose

**ONE SIZE
DOES NOT
FIT ALL**

Thank You!

For more information please contact:

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Role of the Asset Manager

- ✓ Asset Managers bridge traditional boundaries.
- ✓ Specialists are needed – without them the business would not function, and the context is different.
- ✓ A different and wider ranging set of competencies.

