Asset Management Lite for the Small User

Lessons Learned from a WPCF

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This session's target audience

- Small facility with limited staff.
- Budget constraints limit ability to obtain outside help.
- You may have heard about Asset Management (AM), but may not have a program.
- Concerned about better managing your plant's infrastructure as well as its operations.
- Overwhelmed or confused about all the specifics or requirements required in an ideal AM program.
- Curious about what others in similar situations are doing.

What is Infrastructure Asset Management?

Infrastructure asset management is the integrated, multidisciplinary set of strategies in sustaining public infrastructure assets such as water treatment facilities.

Generally, the process focuses on the later stages of a facility's life cycle specifically maintenance, rehabilitation, and replacement.

Asset management specifically uses software tools to organize and implement these strategies with the fundamental goal to preserve and extend the service life of long-term infrastructure assets.

Cagle, R. F. (2003). "Infrastructure Asset Management: An Emerging Direction". *AACE International Transactions*.

Asset Management

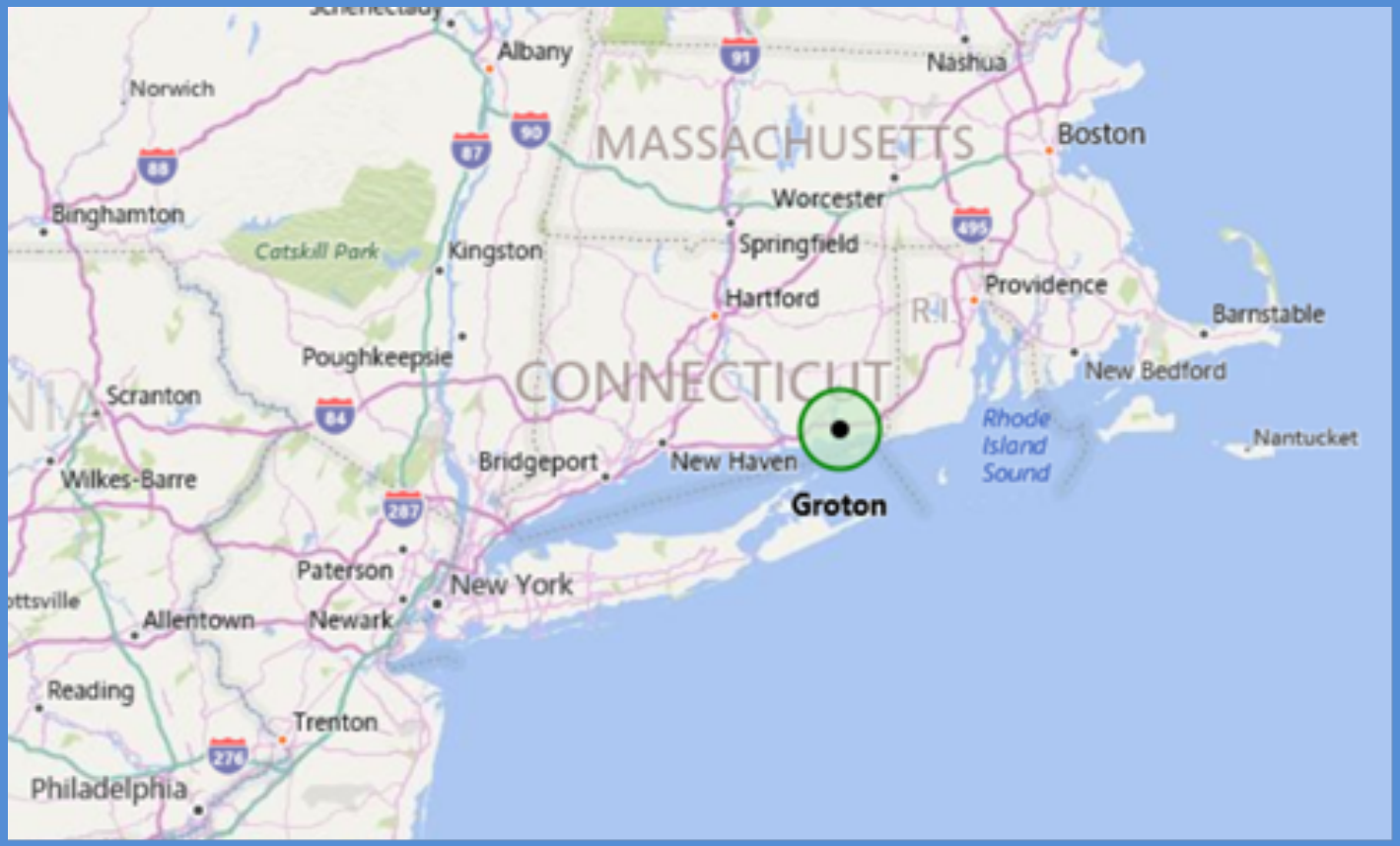
You should be doing it.

Likely, you are already employing several aspects of AM in your daily work.

Start formalizing and filling in the gaps.

Eat the elephant – one bite at a time!

Town of Groton

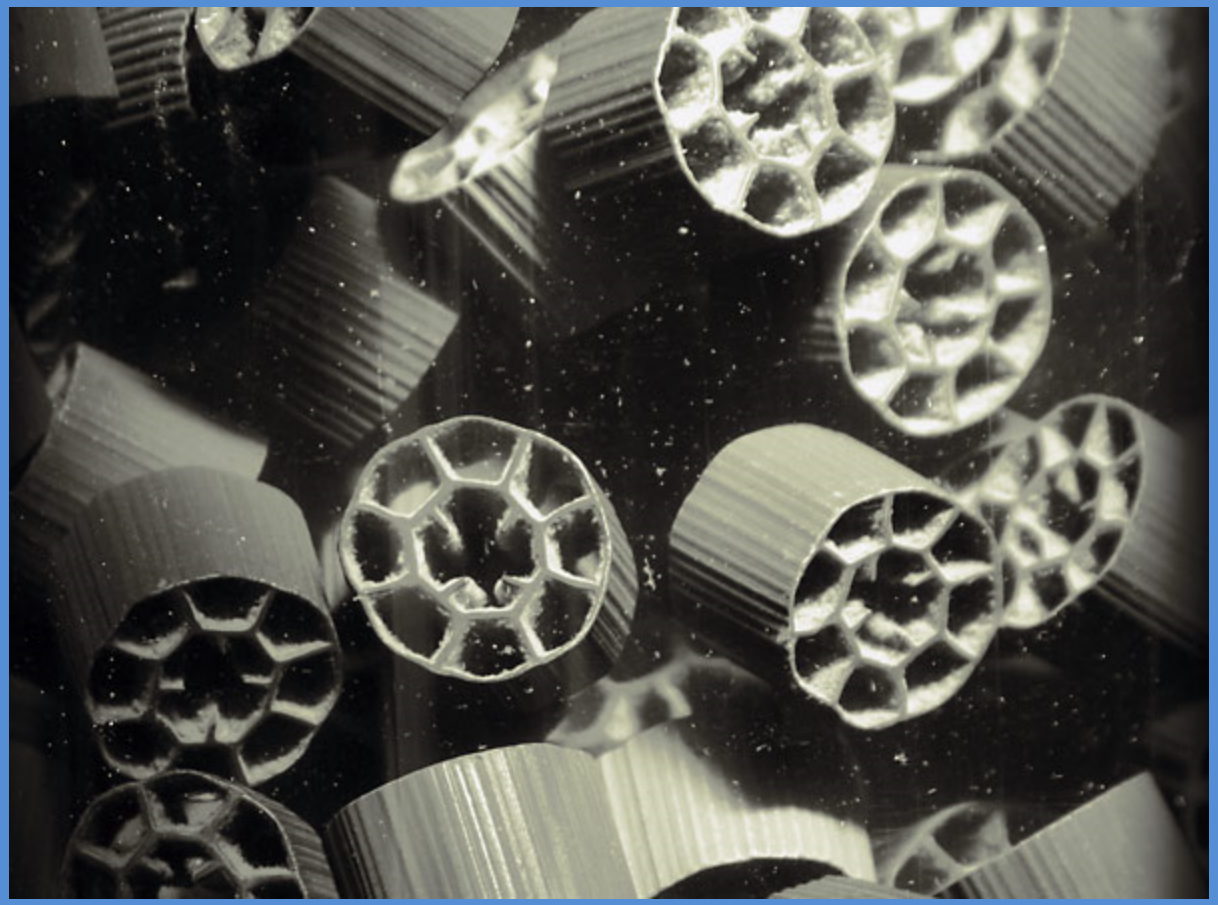


Town of Groton WPCF

Town of Groton WPCF

- Characteristics
  - Design: 7.5 MGD; Peak: 15 MGD; Average: 3 MGD
  - IFAS (Integrated Fixed Film Activated Sludge)
  - Aerated grit, screening, primary, secondary, sodium hypochlorite disinfection
  - Effluent pumped 4 miles to discharge
  - Sludge: gravity thickening/RST/offsite incineration

IFAS Media



Meteor® Suez

Town of Groton Collection System

- Characteristics
  - 136 Miles of sewer line
  - 2500 manholes
  - 22 pump stations

My Asset Management Background

Welcome to the WPCF

- Shared an overly complicated software system with whole department
- Data entry lacking (staff, procedures, paper)
- Generally no formal CIP nor good internal process for developing plans
- Shrinking staff (ops and support)
- Stagnant CIP funds
- Age and obsolescence starting to show

What's your goal?

- Better planning / Prioritizing
- Overcoming obsolescence
- Saving money / Getting more money
- Better use of time and materials
- I want to be a first class asset manager.

Be realistic about what you want and can do.

Getting started

1. Do you know what you own?
2. Do you know what condition it is in?
3. Do you have a capital improvement plan?
4. Do you have a system in place for data and knowledge capture and management?
5. What resources (staff/funds) do you have to devote to implementing this practice?

(You may be your only resource)

First things first

- Where do I start?
  - You have to know what you have.
  - You need to know its current condition.
  - Divide and conquer by location or system.
- Some formal means of tracking information
  - Various dedicated software packages
  - Excel spreadsheet
  - Paper/Binder

Maintenance & Repair

- Scheduled and unplanned
  - Track completion
  - Create an actual schedule for preventive maintenance
  - Publish and post
  - Investigate Reliability centered maintenance
  - Build from the O&M manuals
  - Do not forget or neglect the non-process assets (roofs, roads, HVAC, etc.)

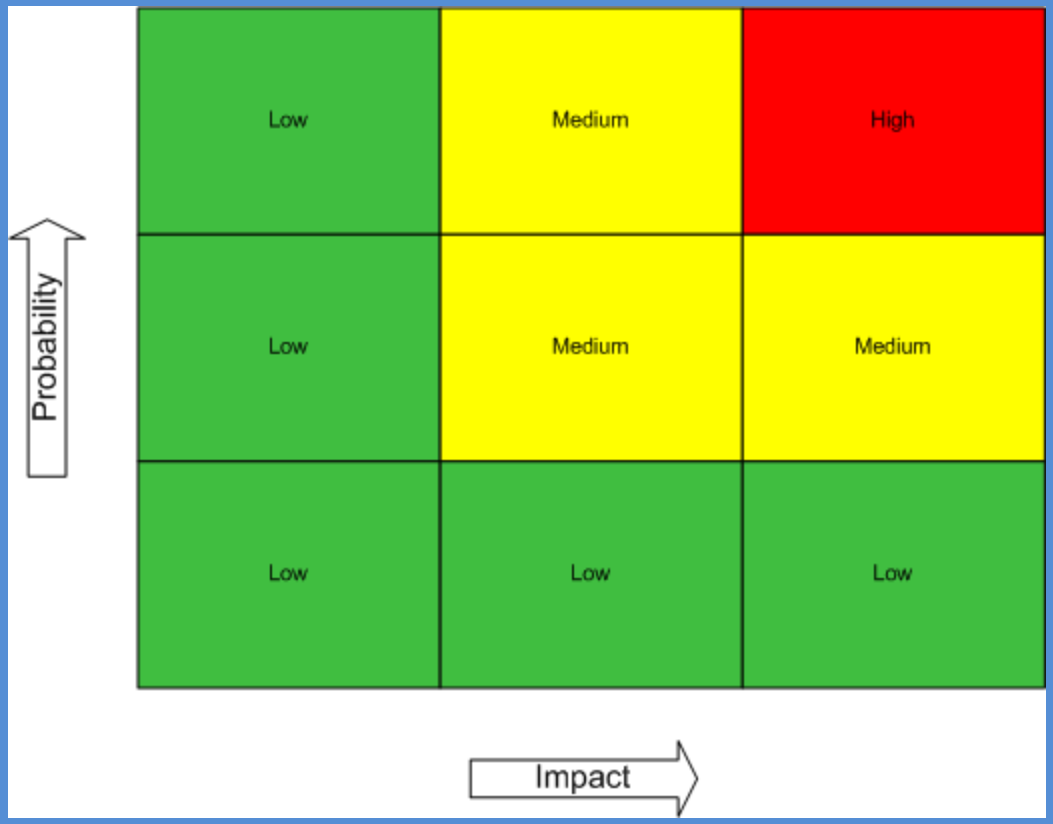
Develop a Capital Plan

- No less than five years. Longer is better.
  - Plan for replacement the day an asset is placed in service
- Prioritizing (age, condition, risk)
- Practical factors (combining like projects)
- Cost estimating
- Risk Management – Likelihood and Impact of Failure

Selling the Plan

- Consultant help –an outside source sometimes is better respected
- Accurate cost estimates (see above)
- Multi-stage projects (engineering year 1 and return for construction funds later)
- Risk Management – Likelihood and consequences of Failure
- PHOTOS AND TOURS!

Risk Management



End of Service Life Issues

- Obsolescence
  - Vendor relationships for advance warning
- When do I take something out of service?
  - References for expected service life for various types of equipment, manufacturers.
  - Pay me now or pay me later – what can you afford?
  - Maintenance records

When do I seek help?

- Can you do it yourself?
- Can you afford it?
- Do your appropriating authorities respond better to an outside expert?

Where can I find help?

- NEWEA Asset Management Committee
- Professional Organizations
- Other facilities / your network
- Published guidance
- Vendors
- Consultants

You can do it!

Questions?