

Hands On Asset Management

David Dunn PE, City of Olympia

Why Implement Asset Management?

- Better cared for systems
- Fewer unplanned service disruptions
- Confidence about what you own.
- More effective and better scheduled maintenance
- Better budget estimates (capital and operations)
- Extend the life of assets
- Save money



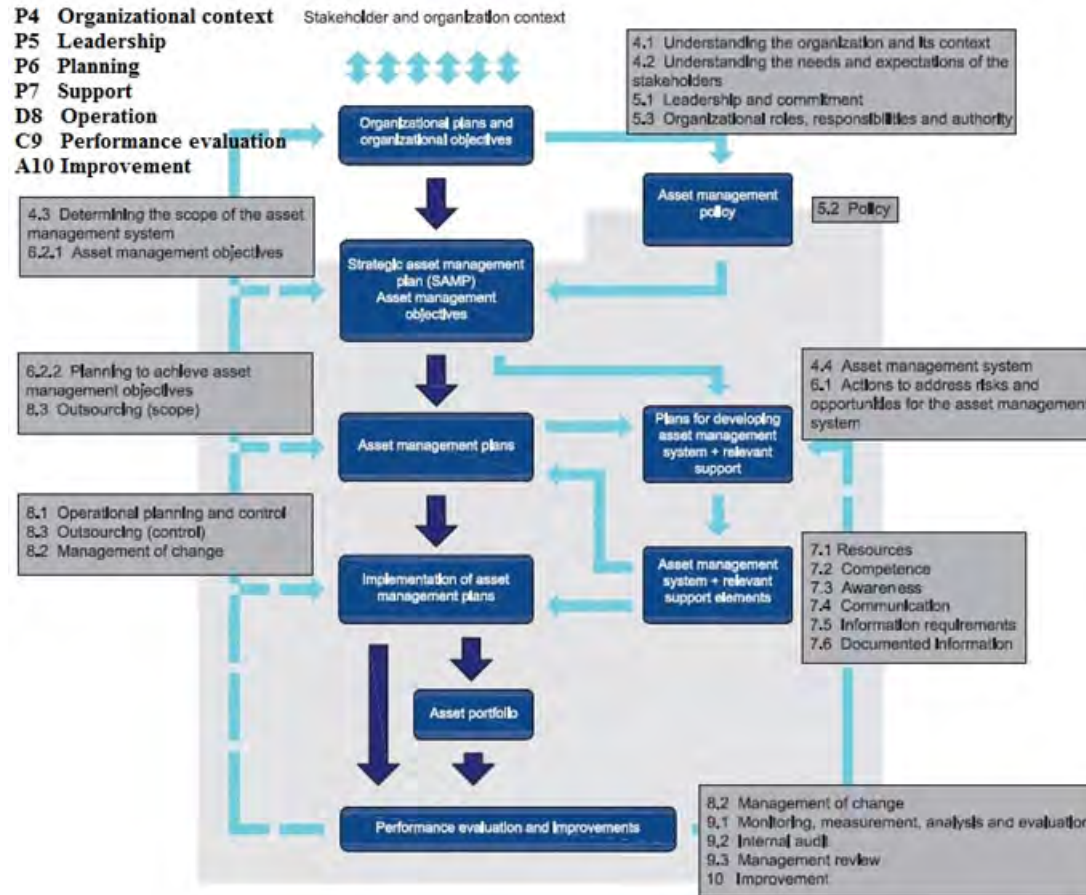
What is Asset Management?

- Mapping?
- Data Tracking?
- Maintenance?
- Capital Planning?
- Risk Management?
- All of the above?

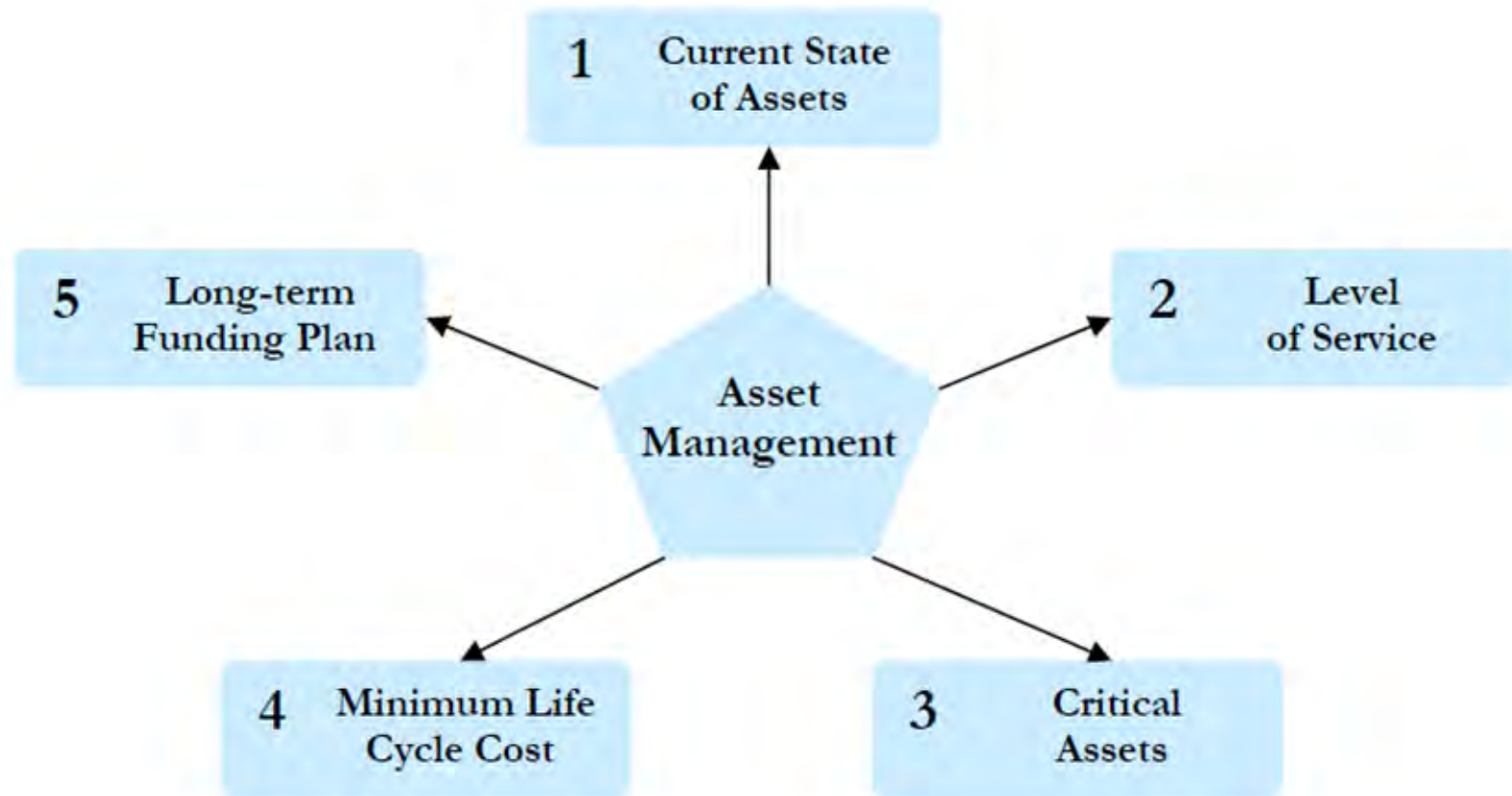




ISO 55001 Standard



EPA Framework



Two Facts

- Nothing lasts forever
- Nothing is free



Asset Management

- A system for monitoring and maintaining *STUFF* that has value to your organization, with the goal of optimizing the value of those assets.
- Anyone who owns or manages *STUFF* will benefit from asset management.



What are you Managing?

- Infrastructure (sewer, water roads)
- IT equipment
- Buildings
- Vehicles
- Tools and Equipment
- Laboratory equipment



Fundamental Principles of Asset Management

- What do you own?
- What kind of shape is it in?
- What are you going to do with it?



Start Small, but Start Now

- You don't need a perfect system.
- Some Asset Management is better than no Asset Management.
- Start somewhere. (It's OK to start small)
- You will learn as you go.
- More is not always better



Asset Inventory

(What do you own?)

Asset Inventory

- How to do you track your assets?
- What is an asset?
- What do you own?



From the ground up (or down)

- Start with assets you can see
- Add in new projects as they are built
- Add underground assets whenever you dig.
- Start with one asset class to learn and experiment.
- There is no “right way” to do this
- What you group and how you track your assets is your decision
- Start off with manageable chunks



You know more than you think you do

Start with assets you can see

Add in new projects as they are built

Add underground assets whenever you have to dig.

Start with only one asset class to learn and experiment.

There is no “right way” to divide up your system into assets

What you group and how you track your assets is your decision

Start off with manageable chunks



Condition Rating

(What shape is it in?)

Condition Rating

- Age
- Visual Inspection
- Television Inspection
- Maintenance History
- Motor Run Times
- Function
- Fancy Stuff (Vibration, Thermal Imaging)
-



Condition Rating

- How easy is it to do?
- Is it accurate?
- Does it give a warning?

- How do you all do condition rating?



Maintain / Rehab / Replace

(What are you going to do?)

Maintain

- Un-scheduled maintenance
 - Scheduled Maintenance
 - Predictive Maintenance
 - Reliability Based Maintenance
-
- More is not always better.
-
- How do you schedule or plan your maintenance activities?



Replace (end of life)

- Failure
- Cost of Maintenance
- Hassle of Maintenance
- Capacity
- Risk
- Level of Service
- Live Cycle Costs



Planning for Replacement

- Capital Improvement Plan
- Budgeting
- Financing
- Rate Setting



Level of Service

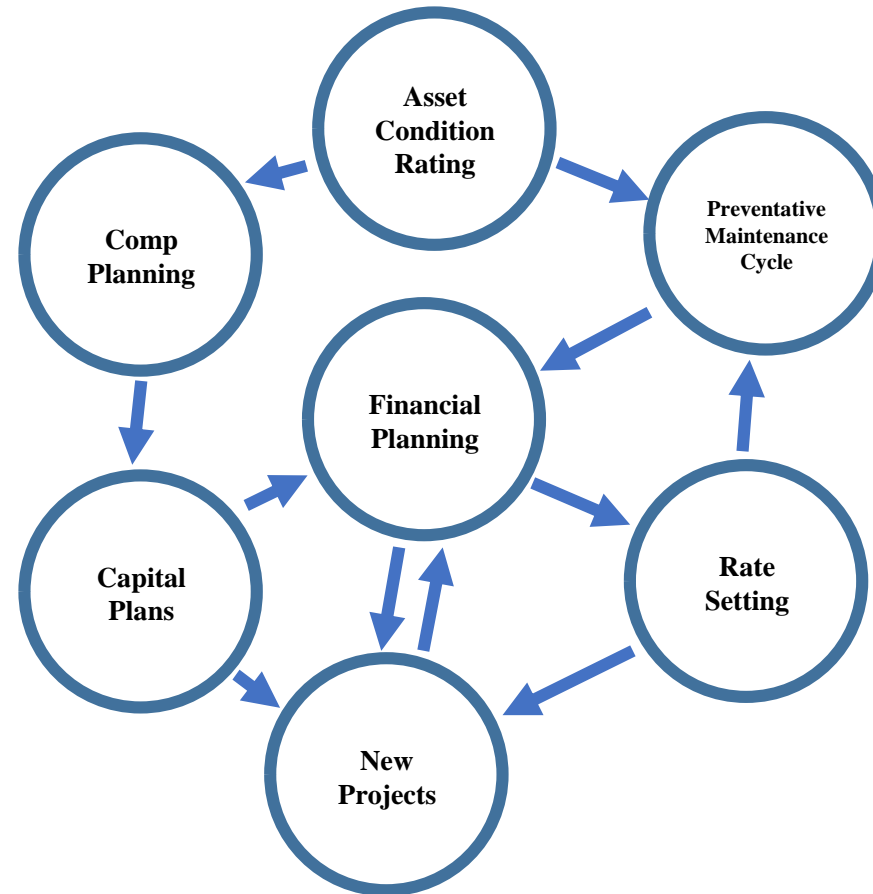
- Your chosen level of service will drive the maintain / repair / replace decision
- A useful Level of service will be measurable and actionable
- Be honest (and humble) about your level of service

- What LOS do you use?
- How did you choose that LOS?

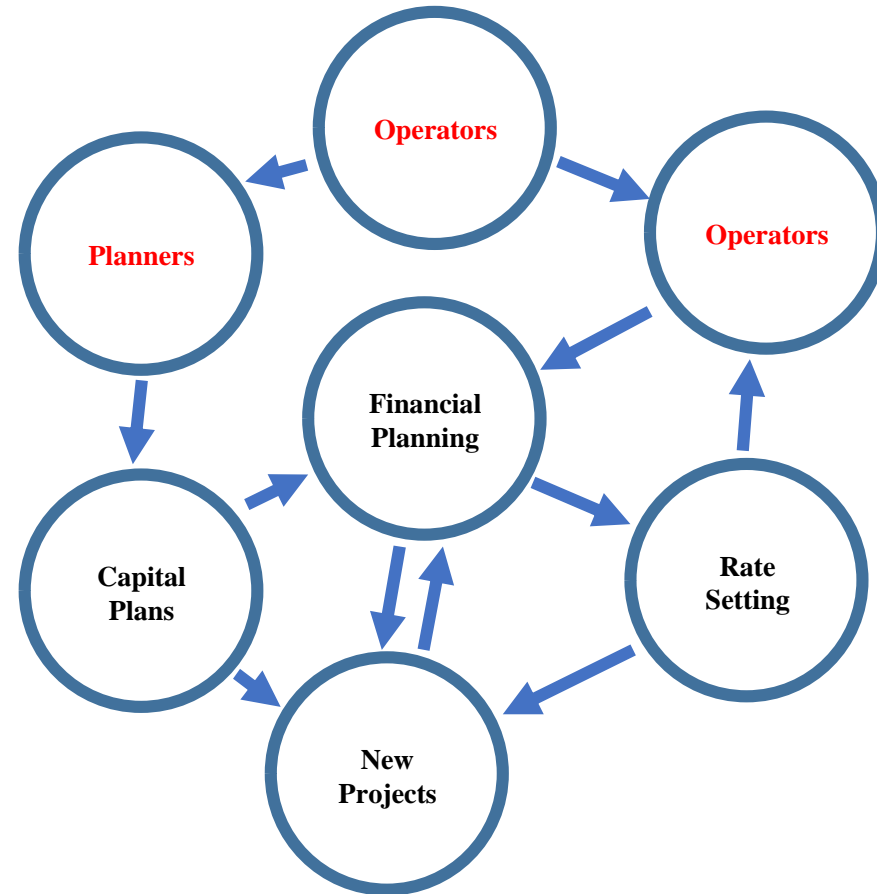


Putting it all Together

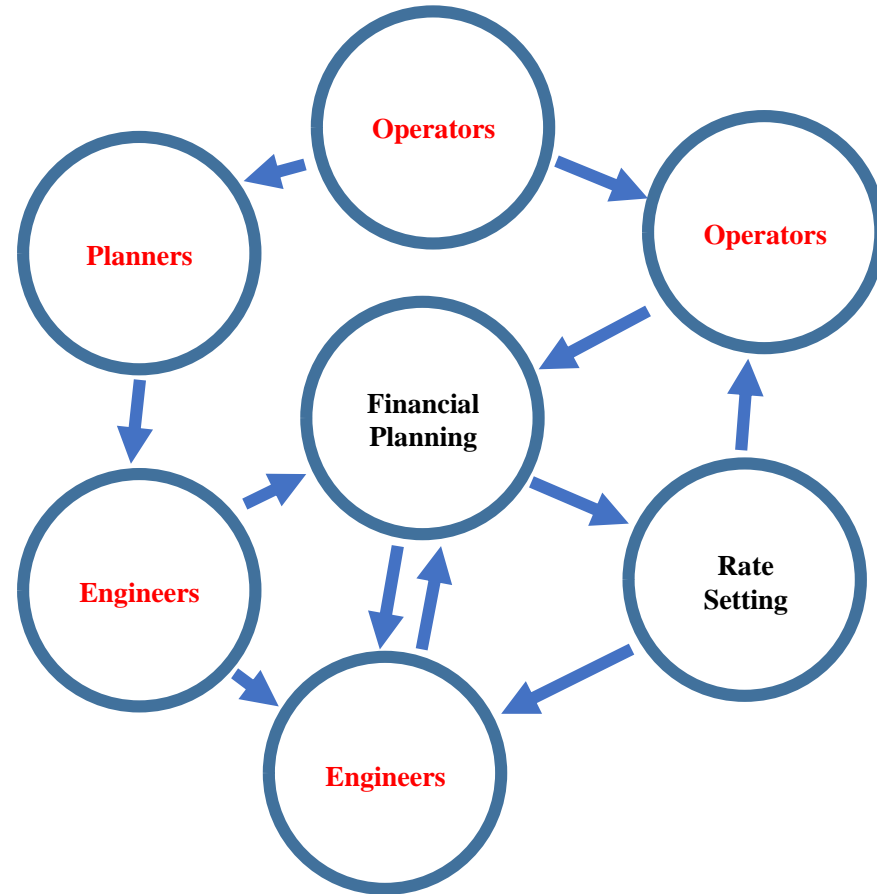
Putting it all together



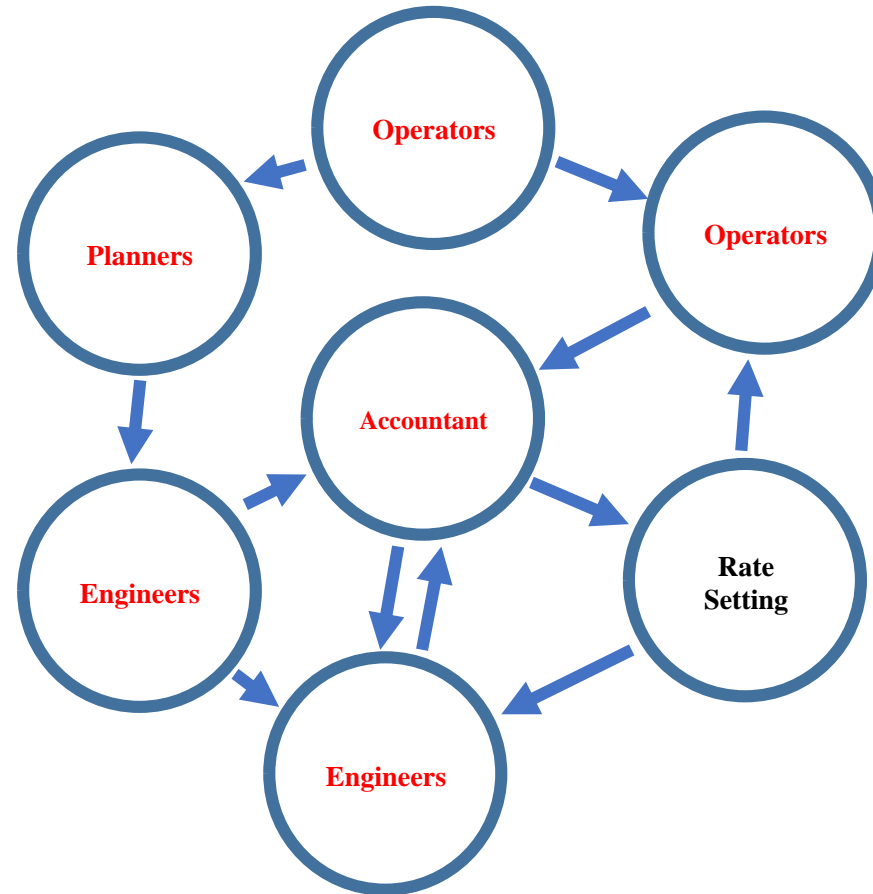
Putting it all together



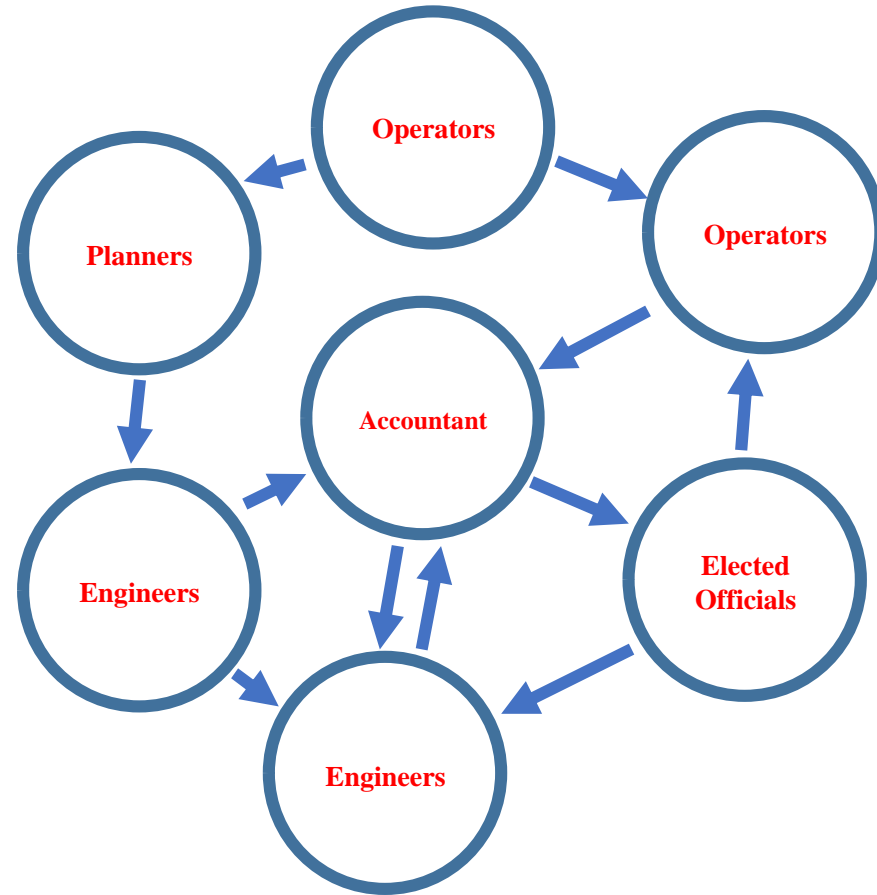
Putting it all together



Putting it all together



Putting it all together



Tips to overcome cultural inertia

- Appoint/nominate/draft an “AM lead”
- Make condition rating easy for field staff
- Use condition rating to help field staff
- Involve everyone in project planning (finance, engineering, operators, IT, elected)
- Cross training and cross silo communication.
- Communicate with elected officials and the public
- Build a process into the program to improve the AM program

- How did you all get started? Where are you stuck?



“Society grows strong when old men plant trees in whose shade they will never sit.”
– Greek proverb.



David Dunn P.E.

Water Resources – Wastewater Engineer

ddunn@ci.olympia.wa.us

360-753-8562