

Oregon Association of Clean Water Agencies



Setting Rates to Plan for Infrastructure Replacement

Scott Bash
Doug Gabbard
March 9, 2016





Presentation Outline

1. The Computational Angle

- How are we doing?
- How can we do better?
- How does this fit into the big picture?

2. The Policy Angle

- Levels of Service
- Risk Policy
- Replacement Planning





How Are We Doing?

City of Salem, Oregon
Notes to the Financial Statements
June 30, 2015

3. Capital asset activity for business-type activities for the year ended June 30, 2015 is as follows:

<u>Business-type activities</u>	Beginning Balance	Increases	Decreases	Ending Balance
Land, land improvements, and art	\$ 17,023,954	\$ 65,686	\$ -	\$ 17,089,640
Construction work-in-progress	50,108,453	2,584,282	-	52,692,735
Total non-depreciable	<u>67,132,407</u>	<u>2,649,968</u>	<u>-</u>	<u>69,782,375</u>
Buildings and building improvements	31,272,483	11,092	-	31,283,575
Equipment and machinery	6,016,256	10,816	-	6,027,072
Water and sewer system	825,851,158	8,123,205	(257,959)	833,716,404
Total depreciable	<u>863,139,897</u>	<u>8,145,113</u>	<u>(257,959)</u>	<u>871,027,051</u>
Accumulated depreciation				
Buildings and building improvements	(6,076,578)	(676,808)	-	(6,753,386)
Equipment and machinery	(5,258,412)	(181,485)	-	(5,439,897)
Water and sewer system	(256,167,727)	(16,413,931)	257,959	(272,323,699)
Total accumulated depreciation	<u>(267,502,717)</u>	<u>(17,272,224)</u>	<u>257,959</u>	<u>(284,516,982)</u>
Business-type activities capital assets, net	<u>\$ 662,769,587</u>	<u>\$ (6,477,143)</u>	<u>\$ -</u>	<u>\$ 656,292,444</u>



How Are We Doing?

Salem Water and Sewer Utility

	6/30/2014	6/30/2015	Change	
			\$	%
Assets at original cost	\$ 825,851,158	\$ 833,716,404	\$ 7,865,246	0.95%
Accumulated depreciation	(256,167,727)	(272,323,699)	(16,155,972)	6.31%
Book value of assets	\$ 569,683,431	\$ 561,392,705	\$ (8,290,726)	-1.46%

Portion of useful life consumed	32.66%
Portion of useful life remaining	67.34%
Annual depreciation	\$ 16,413,931
Average useful life in years	50.55
Average asset age in years	16.51
Average remaining useful life in years	34.04



How Can We Do Better?

System Reinvestment Options

Depreciation, uninflated	\$ 16,413,931
Annual escalation of replacement value	2.50%
Depreciation, inflated to replacement value	\$ 24,677,043
$\$24,677,043 = \$16,413,931 \times (1.025 \wedge 16.51)$	

Both methods can be netted against principal payments on debt incurred for asset replacement

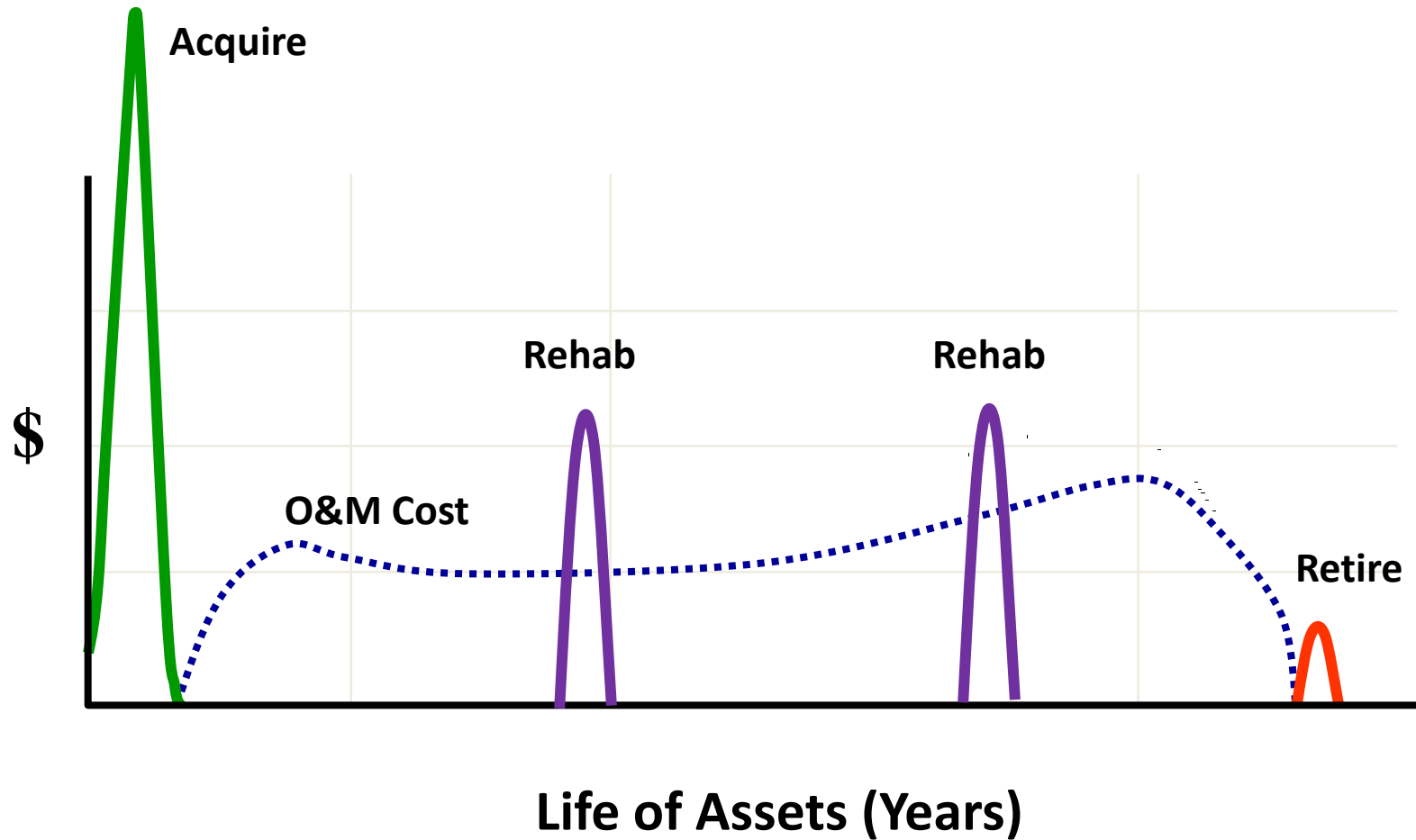


How Does This Fit into the Big Picture?

1. **Operating expenditures**
 - Personnel services
 - Materials and services
2. **Asset replacement expenditures**
 - Debt service
 - Capital outlays
 - Reserves
3. **Growth-related expenditures**
 - Debt service
 - Capital outlays
 - Reserves

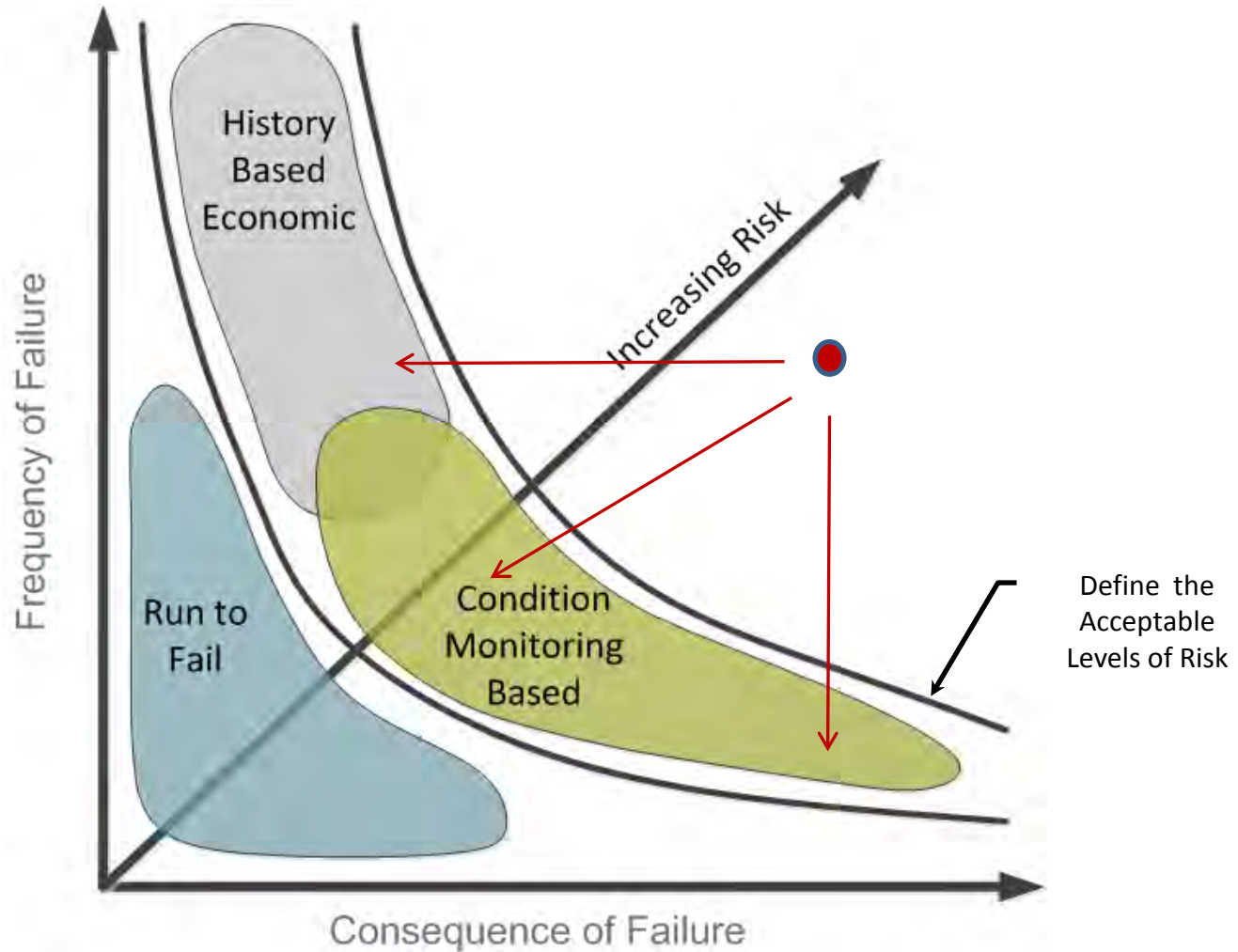


Asset Planning Improves the Economic Life of Assets



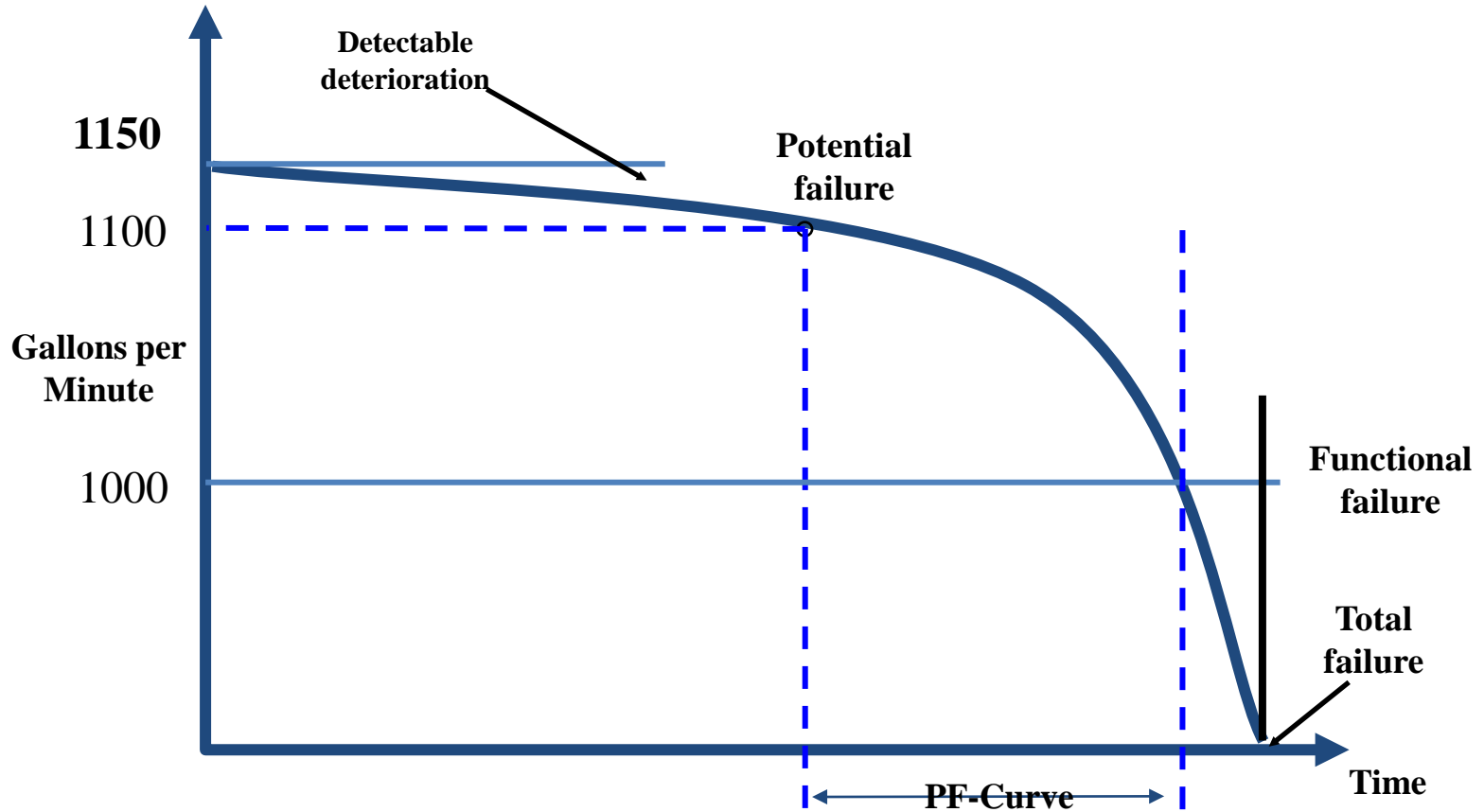


Risk Policies Mitigate the Risk of Not Meeting Levels of Service





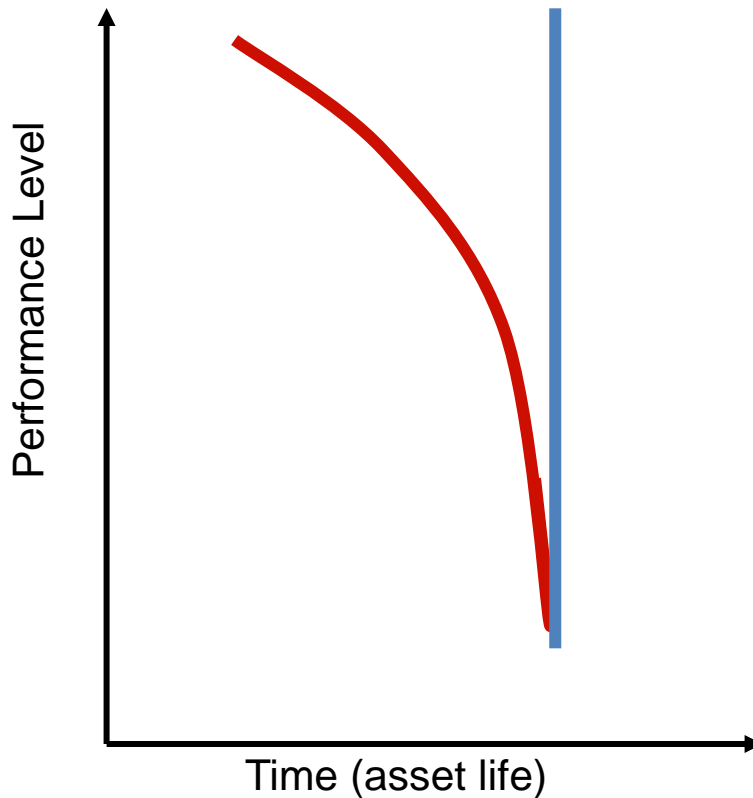
Condition Assessment Protocols Help to Predict End of Economic Life



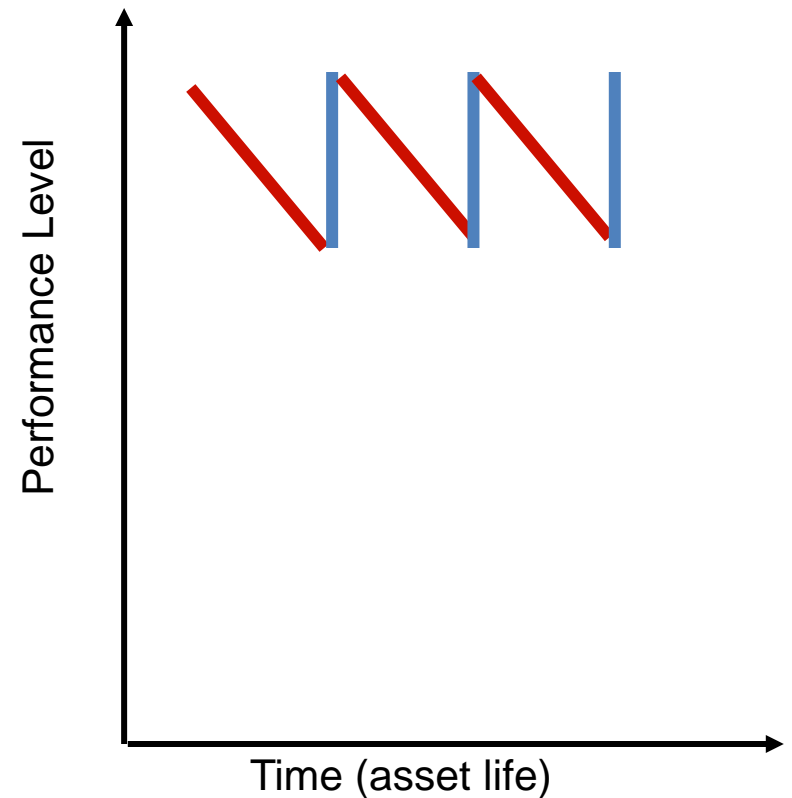


Asset Plans Mitigate Risk and Optimize Both Capital and O&M Budgets

Traditional Approach



Asset Management Approach (Lifecycle Rehab & Replacement)





Forecasting Replacement Cost and Date is a Key Part of Asset Planning





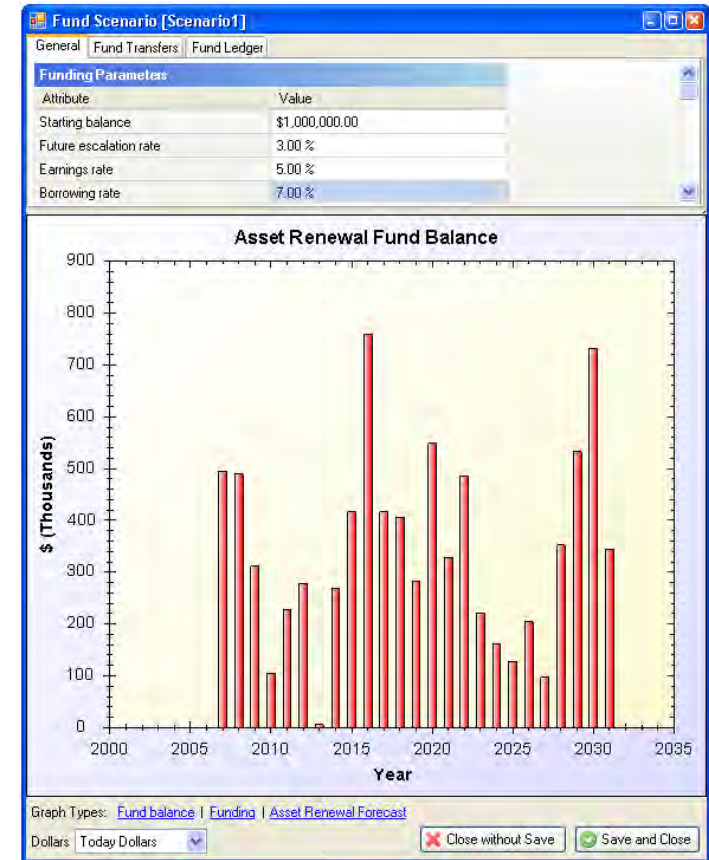
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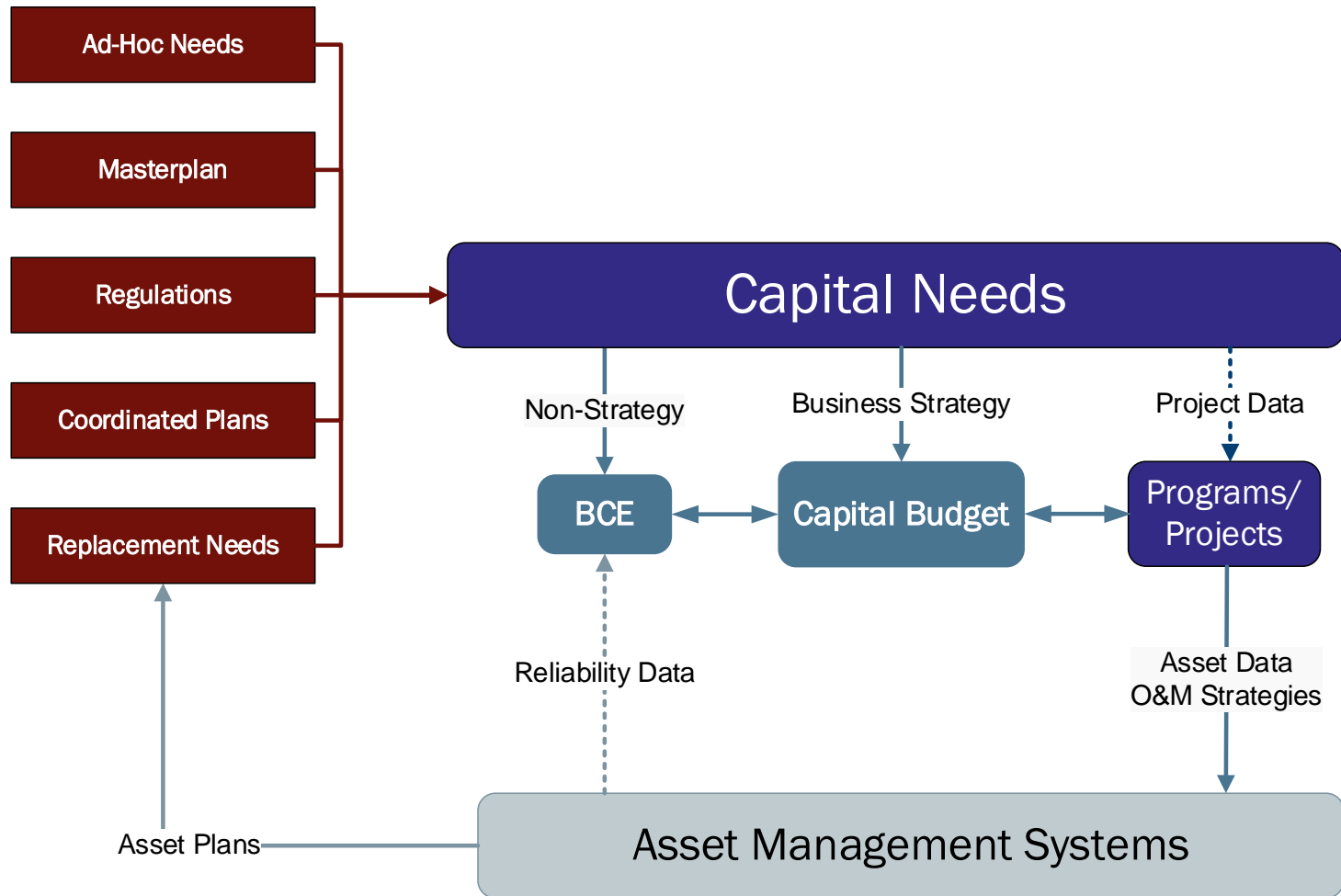




Plans and Policy are Organized as Part of a Financial Management Strategy

- Asset Valuations
- Risk Analysis
- Asset Acquisition
- Replacement Planning
- O&M Plans
- Funding Plan
- Rate Planning
- Financial Plans







Sound Policies Maximize the Economic Life of Assets and Optimize the Rate Path

- Mitigate asset risk with renewal strategy
- Determine optimum age to replace assets
- Forecast the cost of asset replacement
- Continually balance capital budget with O&M budget
- Determine the revenue and rate path for sustaining Levels of Service



Questions and Discussion

