



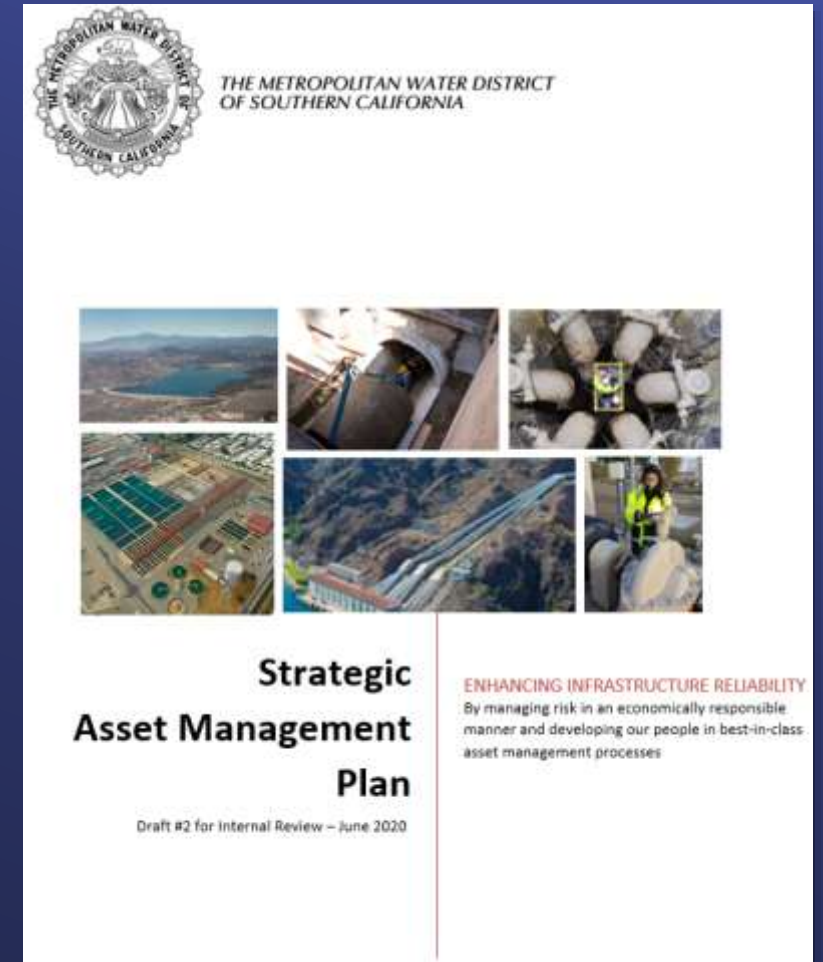
Engineering, Operations, & Technology Committee

Asset Management Program Update

Item 6b
October 9, 2023

Asset Management Program

- Strategic Asset Management Plan adopted in April 2021
- Cross group collaboration of ESG, IT & WSO
- Input from staff and external agencies including DWR
- Several ongoing pilot projects incorporating tactical asset management plans
- Implemented CIP risk framework
- Focusing improvement efforts on O&M side of asset management



Asset Management Levels

“Asset management is a systematic process of developing, operating, maintaining, upgrading, and disposing of assets cost effectively”



Set aside funding in anticipation of a replacement or overhaul based on value and risk using assessments, diagnostics and trending

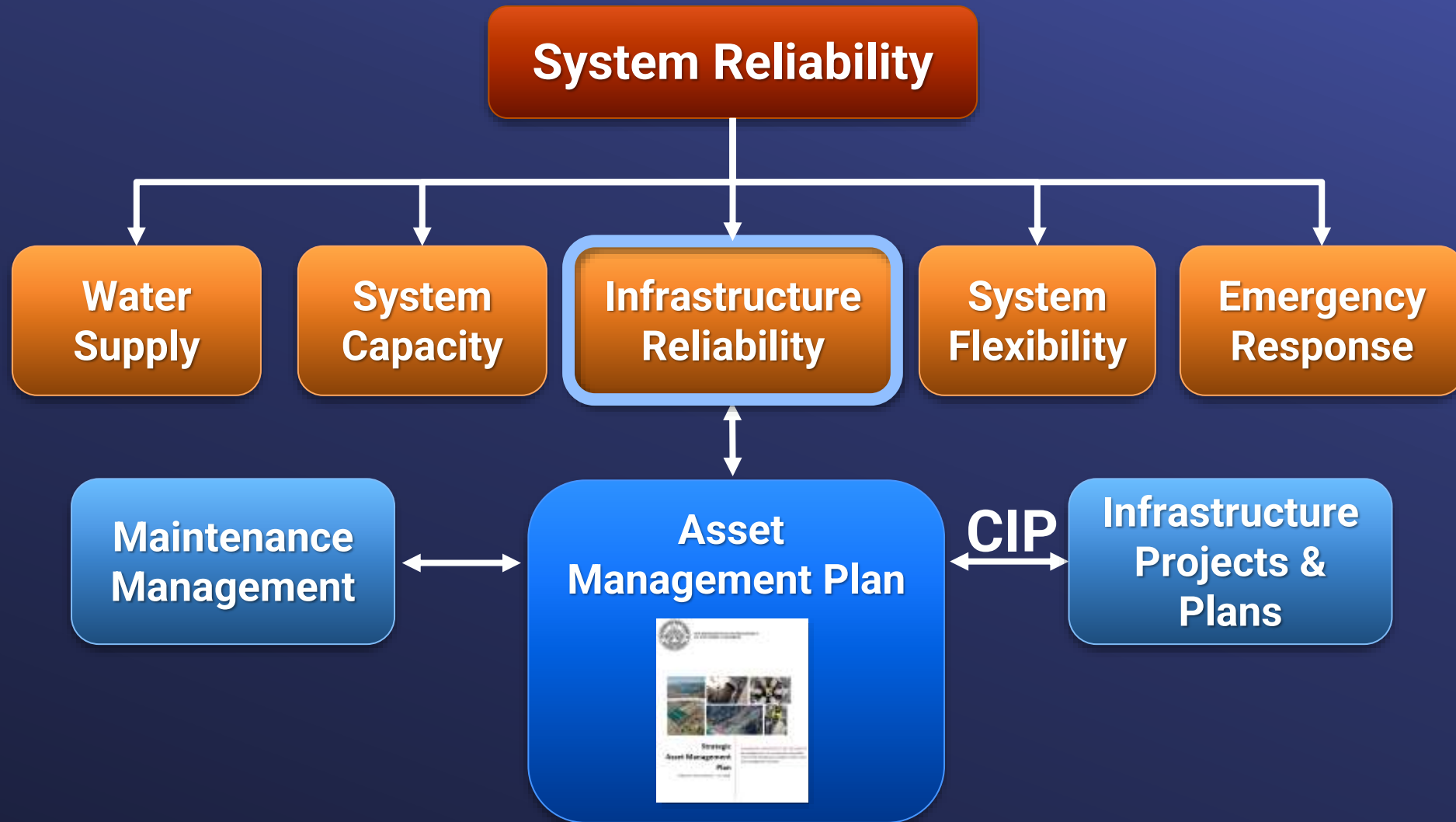
Anticipate a replacement or overhaul **based on value and risk** using assessments, diagnostics and trending

Evaluate replacement or overhaul options **based on value** when it breaks

Replace or overhaul when it breaks

Optimal level varies based on cost & risk

Metropolitan's Comprehensive Reliability Approach



Asset Management Program

Key Objectives



**Improve
long-term
forecast of
future
capital
costs**



**Refine risk
evaluation
used to
prioritize
CIP Projects**



**Coordinate
& integrate
condition
assessment**



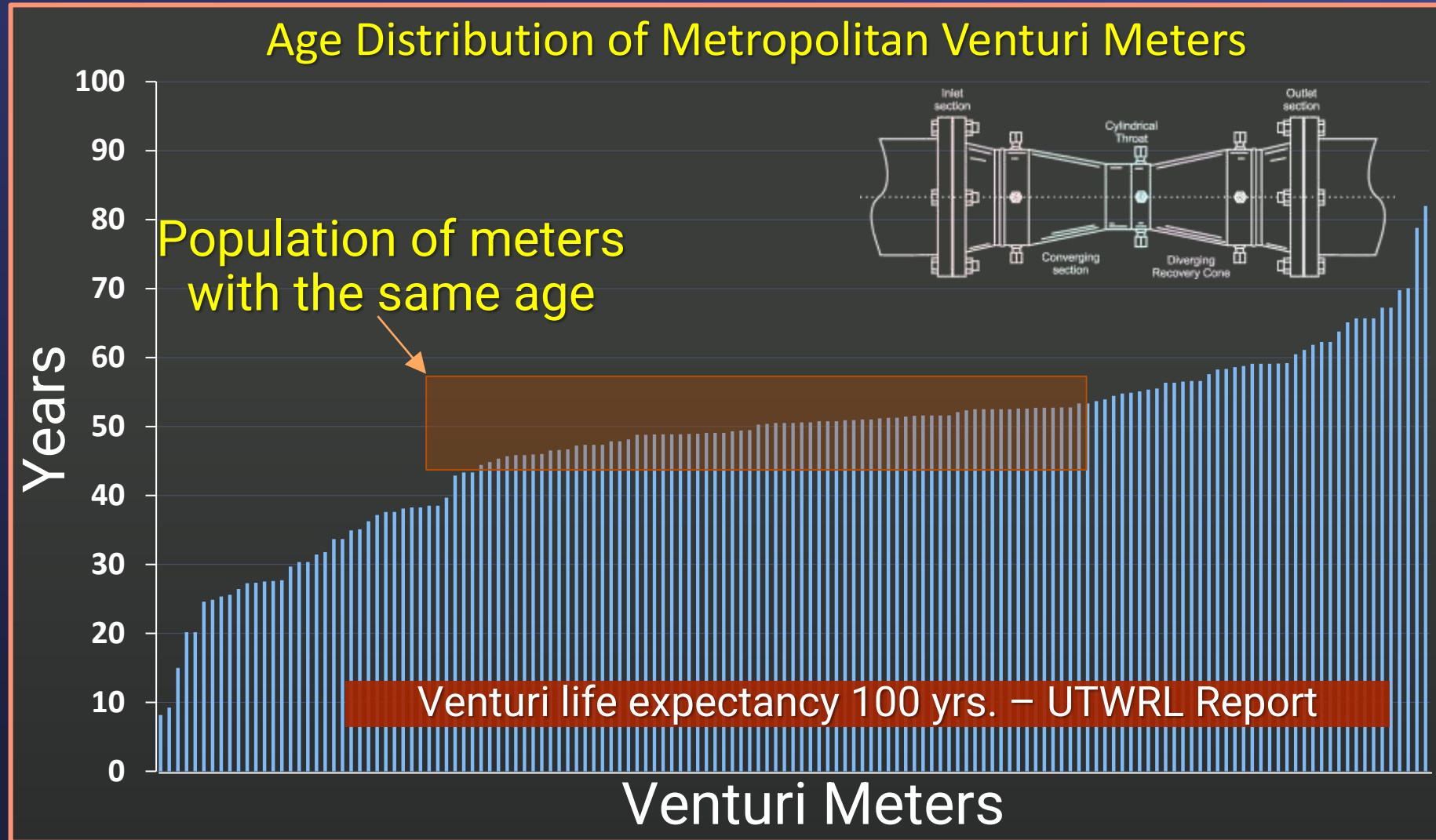
**Standardize
asset data**



**Facilitate
access to
asset data**

Enhancing Infrastructure Reliability Planning

Tactical Asset Management Plans (Example)

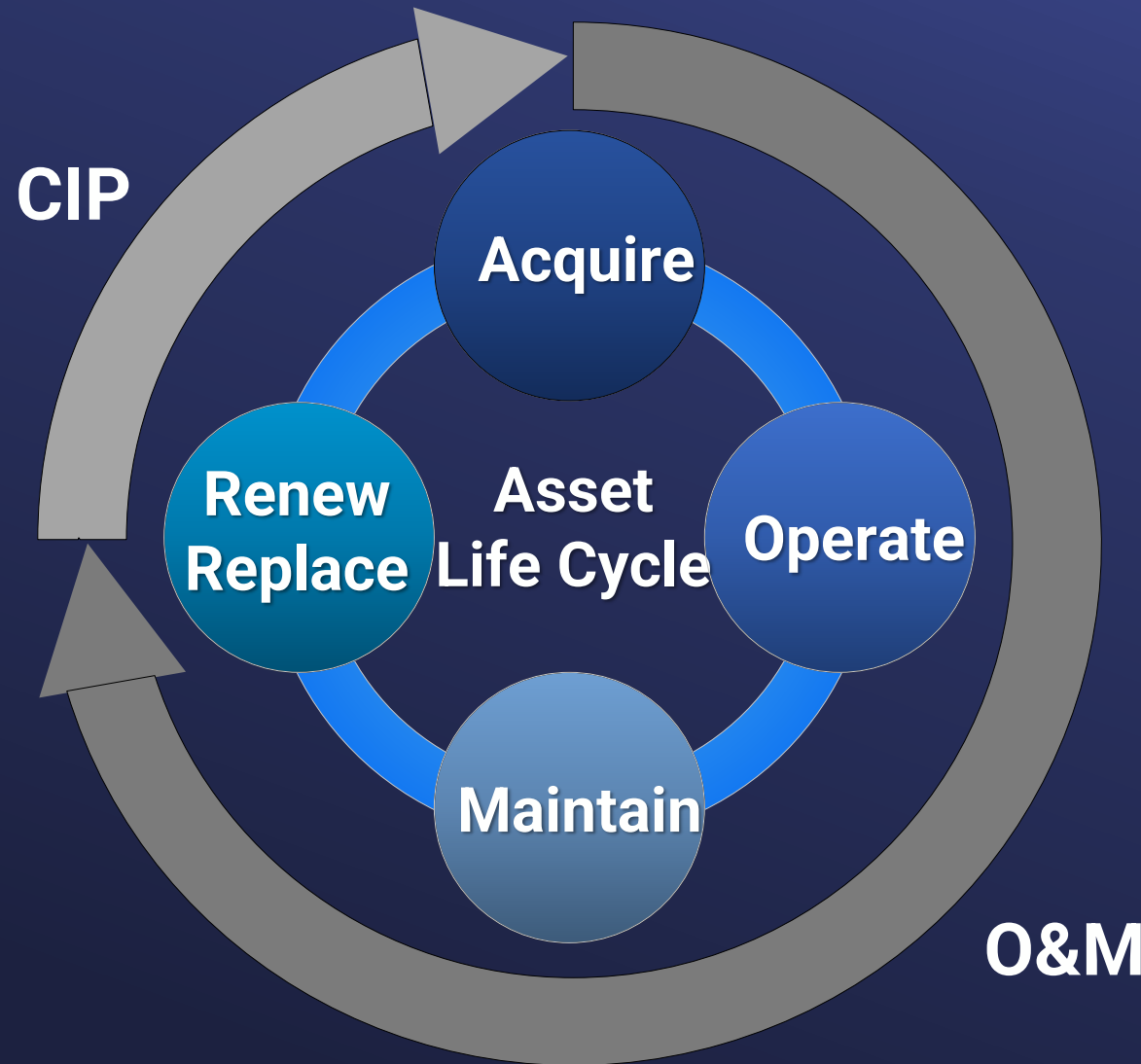


Utah Water Research



Asset Management Program

Goals for Improvement



- Integrated management of assets over their entire life
- Support a resilient, fast & nimble operations
- Planned & prioritized to org goals
- Focused on being effective and efficient

Asset Management Program

Goals for O&M Improvement



Integrate and implement enterprise-wide data governance



Develop and implement a system wide criticality assessment



Refine operational strategy for climate change



Assess & optimize our maintenance program



Implement enhanced dashboards

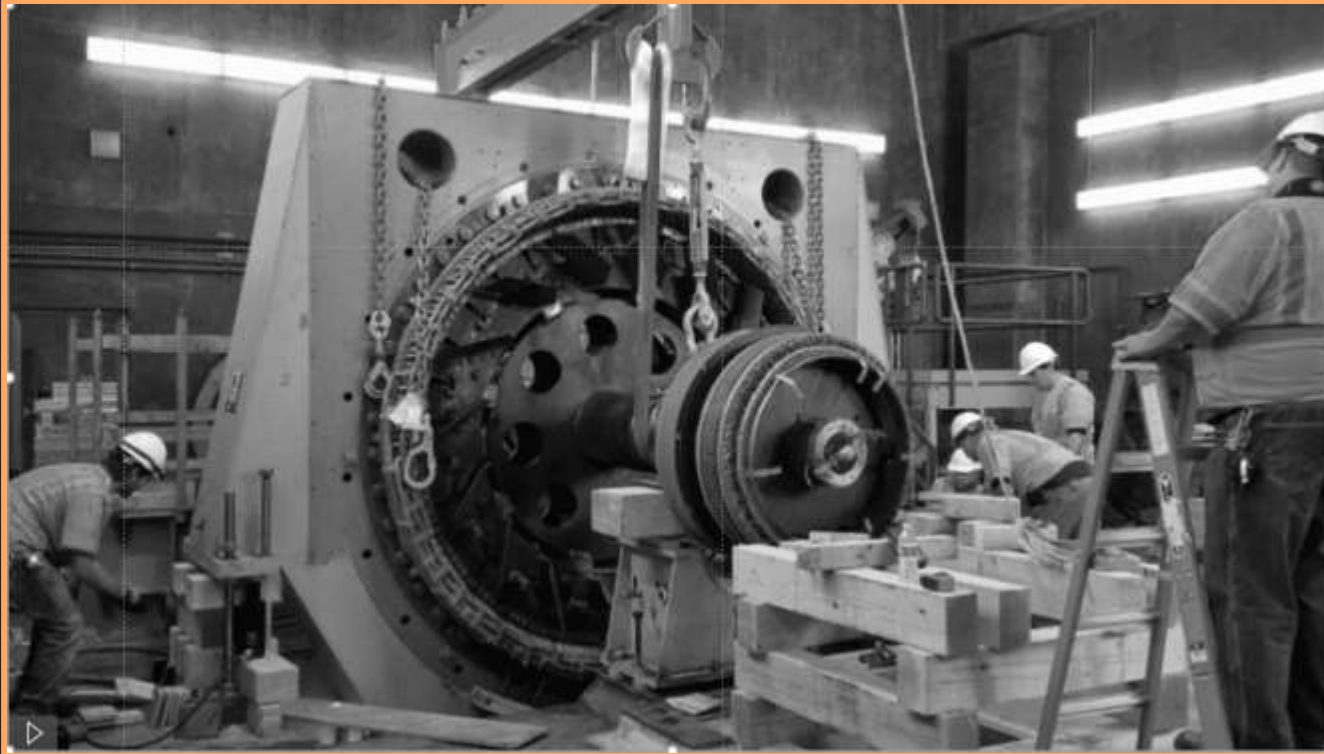


Review and update key performance indicators (KPI)

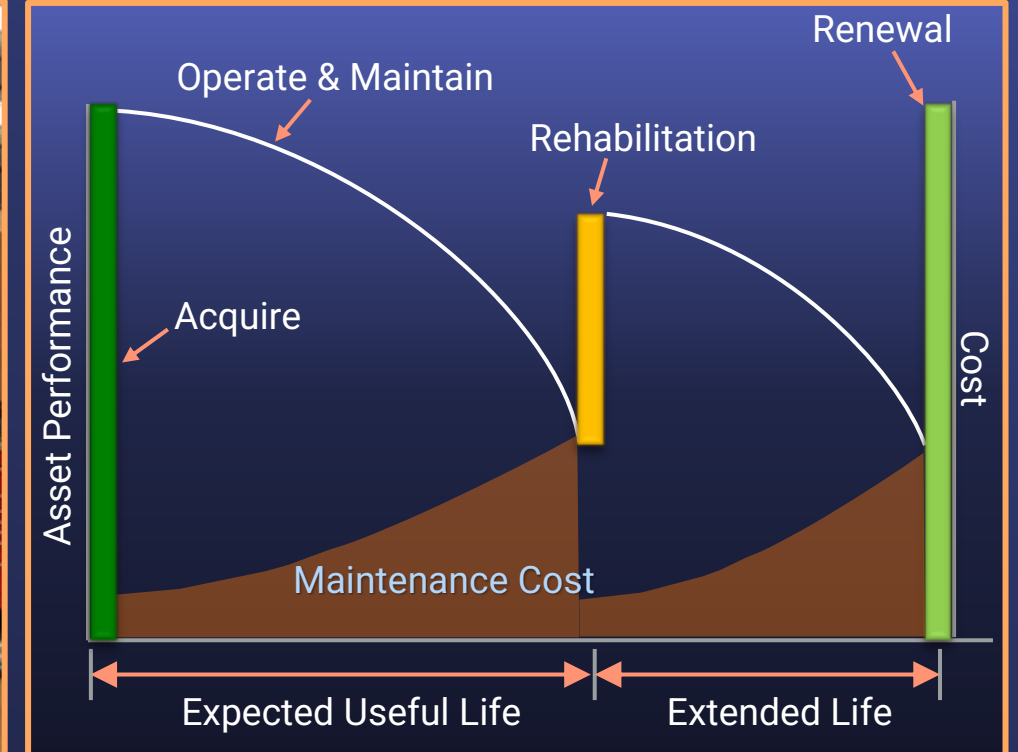
Enhancing Infrastructure Reliability

Drivers for Improvement

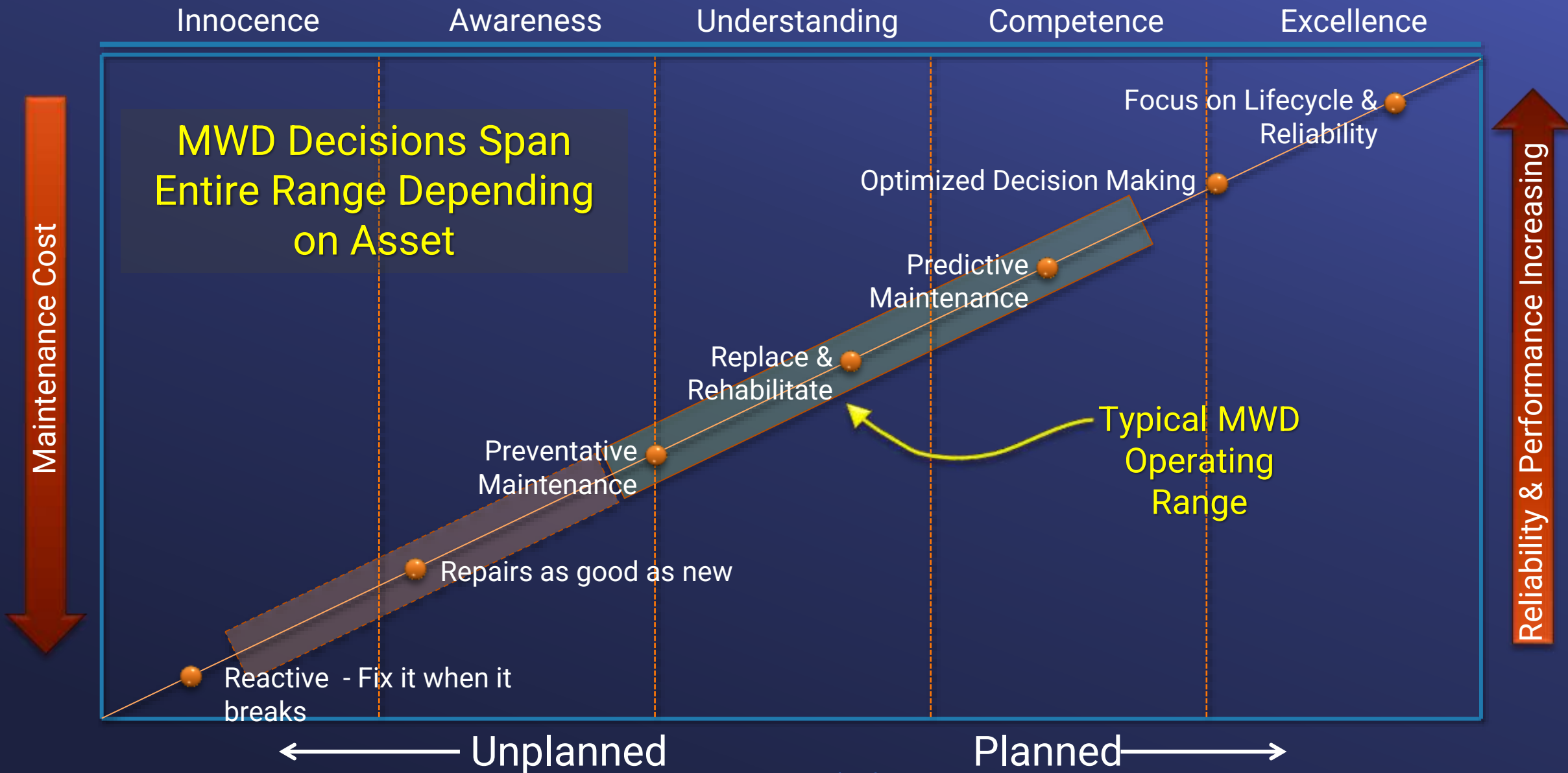
- Focused rehabilitations that extend the life of key assets
- Key assets important to Metropolitan goals



Valley View HEP Rehabilitation

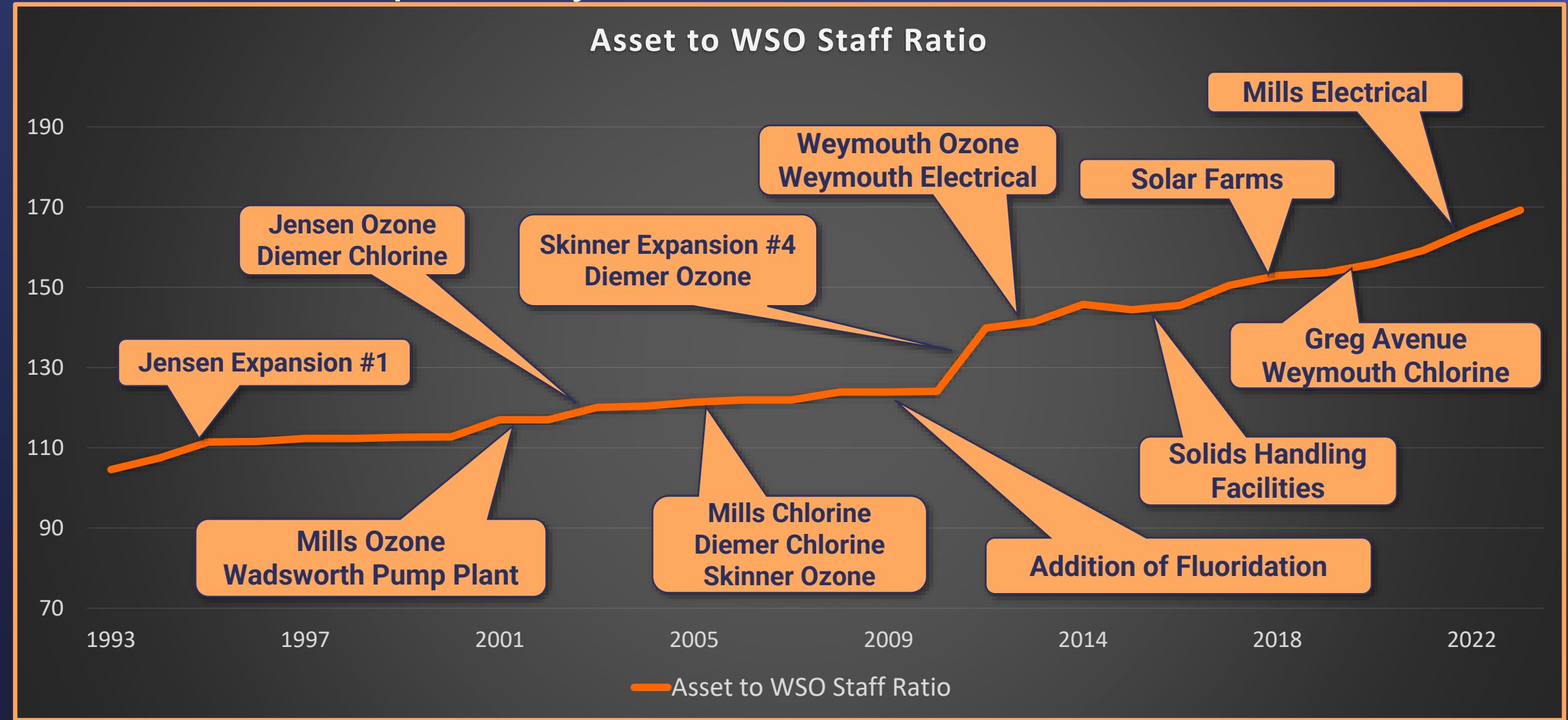


Asset Management Maturity Level



Increasing Challenges

O&M responsibility almost doubled over last two decades



Increasing Challenges

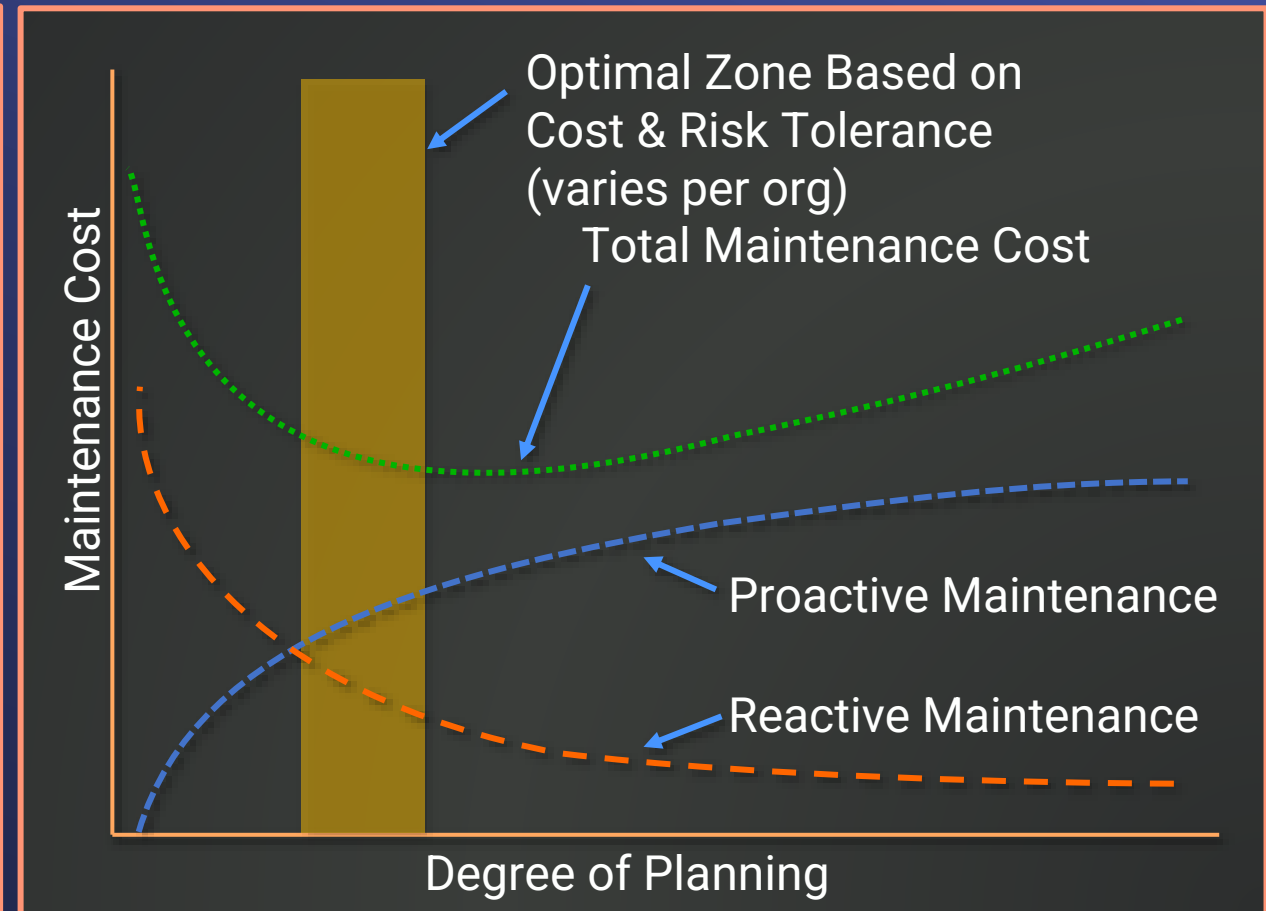
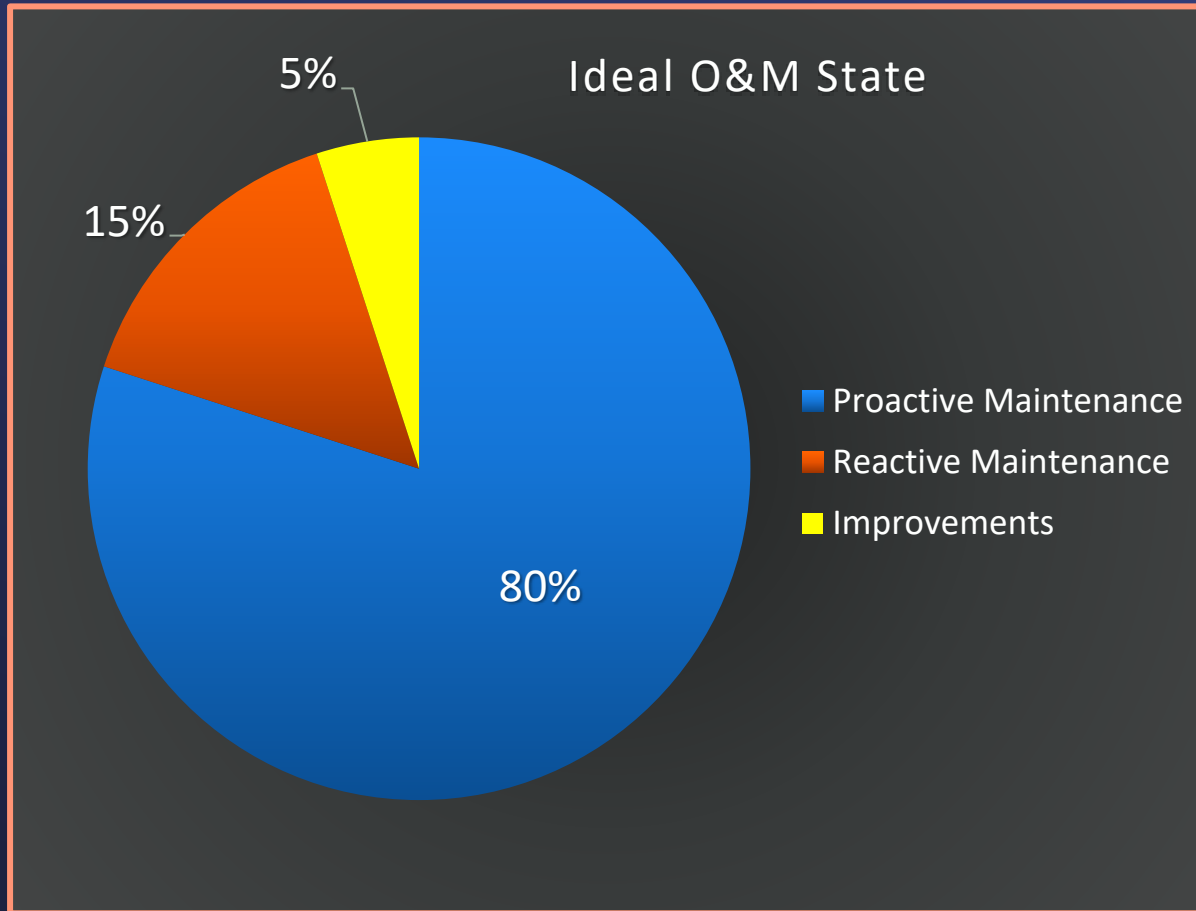
Drivers for Improvement

- Staff operate, maintain, and support capital projects
- Managing impacts of more shutdowns, climate change impacts, and aging infrastructure



Industry Best Practices for Maintenance

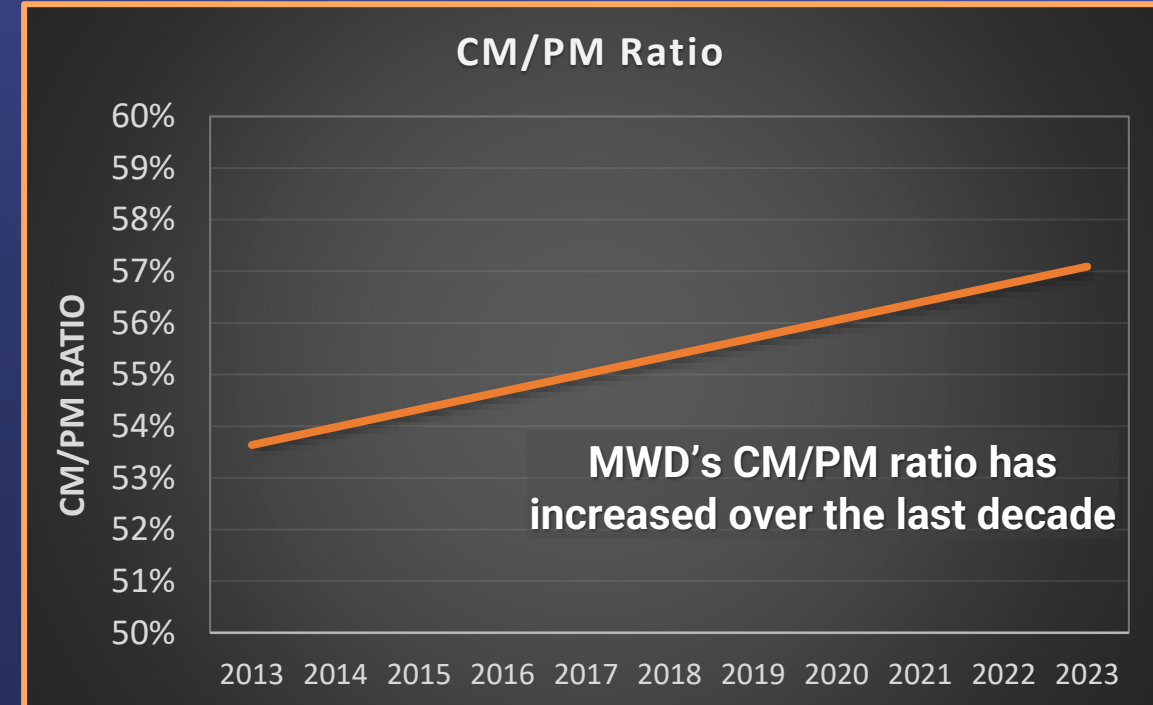
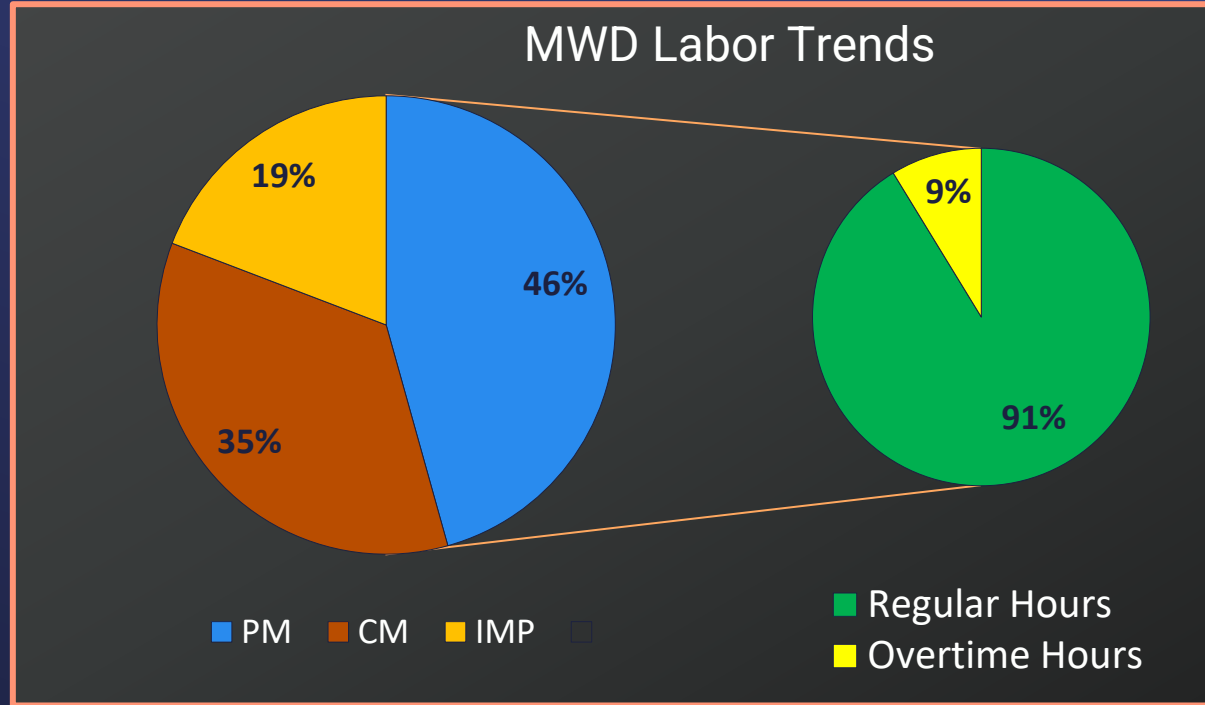
Following 80/20 Rule



Proactive Maintenance = Preventative, Predictive, and Condition Monitoring

Metropolitan's Labor & Maintenance Trends

Increasing Repairs & Replacements



Asset Management Program

Optimizing Maintenance Management

Criticality = impact of failure

Why do we need a criticality assessment?



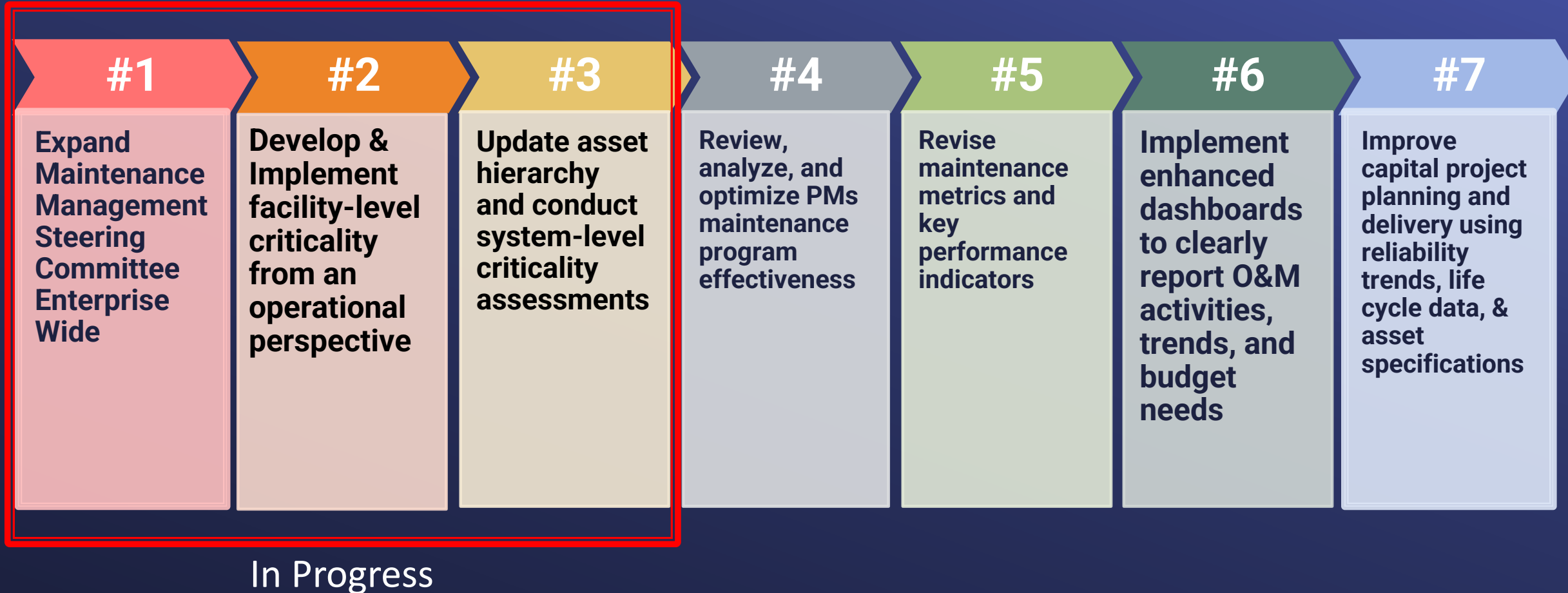
Determine impact of a facility, system, or an asset failure

Prioritize CIP and O&M resources effectively

Rank facilities against each other

Asset Management Program

Maintenance Management Improvements



Asset Management Program

Summary & Next Steps

- Staff continues to partner closely internally as well as outside organizations
- Focused on implementing improvements in O&M
- TAMP in development for meters, pipelines, fleet assets, and distribution areas
- Ongoing CIP focus areas
 - Building Information Modeling (BIM)
 - Asset and life cycle data collection in construction contracts

CRA Tunnel Cleaning



Red Mountain HEP Rehabilitation



