



AGENDA

**WORKSHOP/MEETING
OF THE
BOARD OF DIRECTORS**

**WEDNESDAY, JUNE 5, 2019
10:00 A.M.**

**INLAND EMPIRE UTILITIES AGENCY*
AGENCY HEADQUARTERS
BOARD ROOM
6075 KIMBALL AVENUE
CHINO, CALIFORNIA 91708**

**CALL TO ORDER
OF THE INLAND EMPIRE UTILITIES AGENCY BOARD OF DIRECTORS
WORKSHOP/MEETING**

FLAG SALUTE

PUBLIC COMMENT

Members of the public may address the Board on any item that is within the jurisdiction of the Board; however, no action may be taken on any item not appearing on the agenda unless the action is otherwise authorized by Subdivision (b) of Section 54954.2 of the Government Code. Those persons wishing to address the Board on any matter, whether or not it appears on the agenda, are requested to complete and submit to the Board Secretary a "Request to Speak" form which is available on the table in the Board Room. Comments will be limited to three minutes per speaker. Thank you.

ADDITIONS TO THE AGENDA

In accordance with Section 54954.2 of the Government Code (Brown Act), additions to the agenda require two-thirds vote of the legislative body, or, if less than two-thirds of the members are present, a unanimous vote of those members present, that there is a need to take immediate action and that the need for action came to the attention of the local agency subsequent to the agenda being posted.

1. WORKSHOP

A. ASSET MANAGEMENT PROGRAM UPDATE (POWERPOINT)

2. VIDEO PRESENTATION

A. SANTA ANA RIVER WATERMASTER VIDEO

3. CLOSED SESSION

A. PURSUANT TO GOVERNMENT CODE SECTION 54956.9(d)4
CONFERENCE WITH LEGAL COUNSEL - ANTICIPATED LITIGATION,
INITIATION OF LITIGATION

One Case

4. ADJOURN

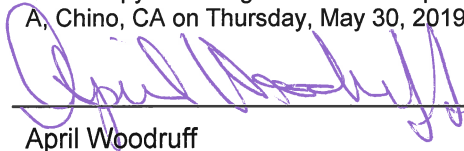
*A Municipal Water District

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Board Secretary (909) 993-1736, 48 hours prior to the scheduled meeting so that the Agency can make reasonable arrangements.

Proofed by: 

Declaration of Posting

I, April Woodruff, Board Secretary of the Inland Empire Utilities Agency*, A Municipal Water District, hereby certify that a copy of this agenda has been posted by 5:30 p.m. at the Agency's main office, 6075 Kimball Avenue, Building A, Chino, CA on Thursday, May 30, 2019.



April Woodruff

**WORKSHOP
ITEM**

1A

Asset Management Program Update



Agenda

1. Recap
2. Assessment Preliminary Outcomes
3. Implementation Outcomes
4. Next Steps
5. Questions
6. Additional Information: Assessment Key Findings, Recommendations, and Initiatives



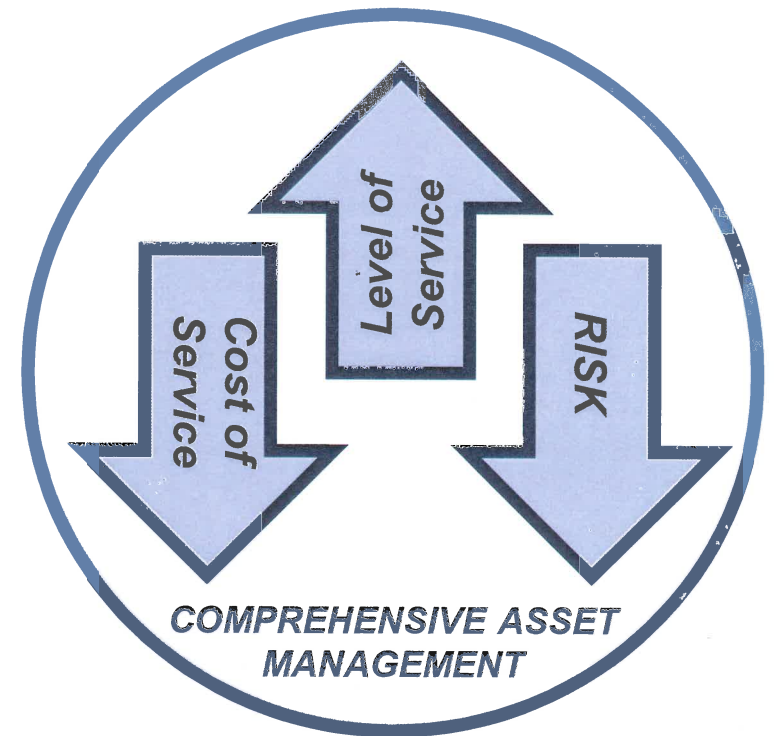
Recap

What is Asset Management (AM)?

Definition

Asset Management is an integrated set of processes that minimize the lifecycle costs of owning, operating, and maintaining assets, at an acceptable level of risk, while continuously delivering established levels of service now and for the future.

*Doing the **right projects**, at the **right cost**, at the **right time**.*

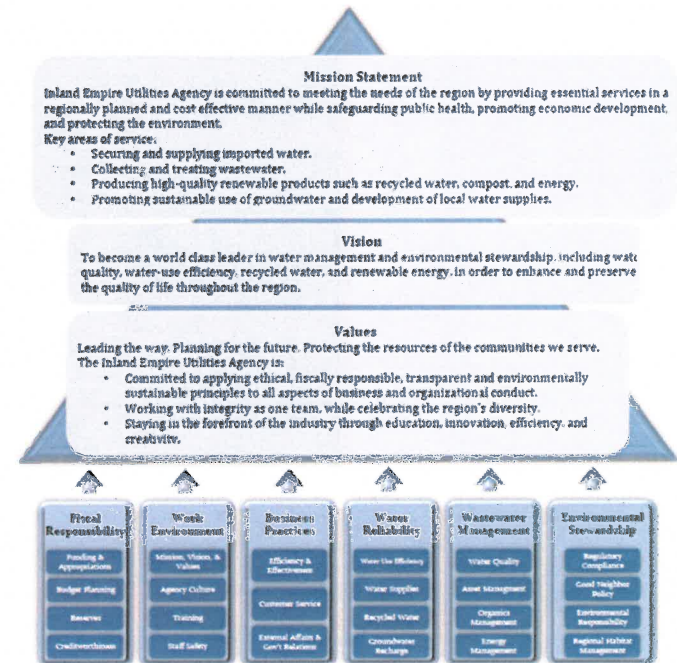


Effective Asset Management Consistent with IEUA's Business Goals

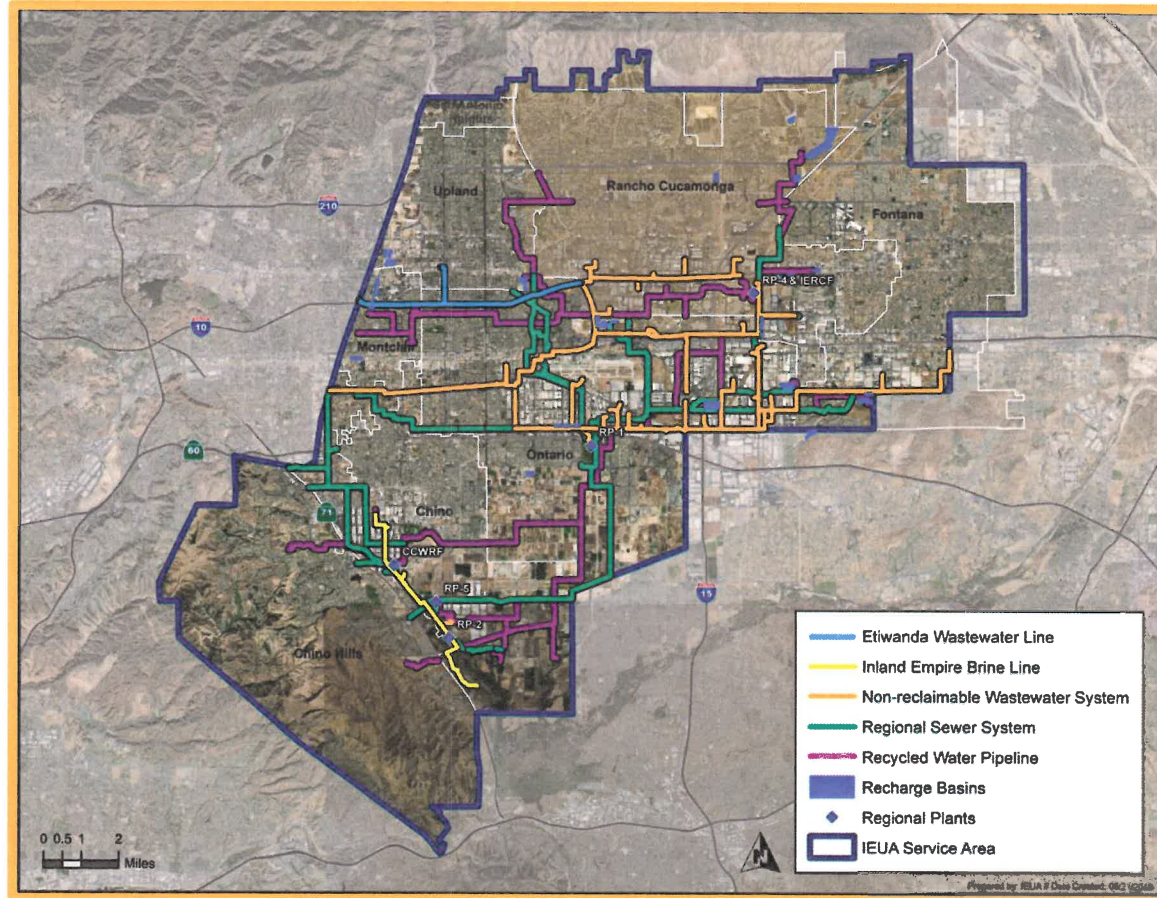
- Fund operations and capital investments... (Fiscal Responsibility)
- Plan for multi-year budgets and rate requirements... (Fiscal Responsibility)
- Apply best industry practices in all processes... (Business Practices)
- Ensure that Agency systems are planned, constructed, and managed... (Wastewater Management)

Business Goals

For any organization to remain relevant and effective, its ability to adapt and prepare for change is essential. As illustrated below, the six identified IEUA Business Goals encompass key objectives which must be continually evaluated and derived into work plans to ensure that current and future needs of the Agency and region are acted upon. The IEUA Business Goals were adopted by the IEUA Board of Directors on December 21, 2016.



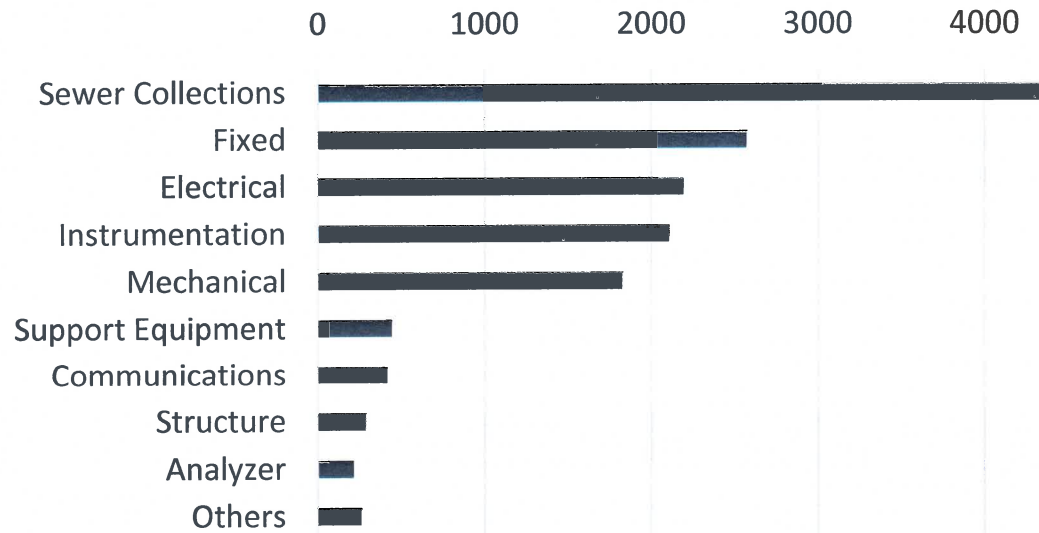
IEUA Service Area



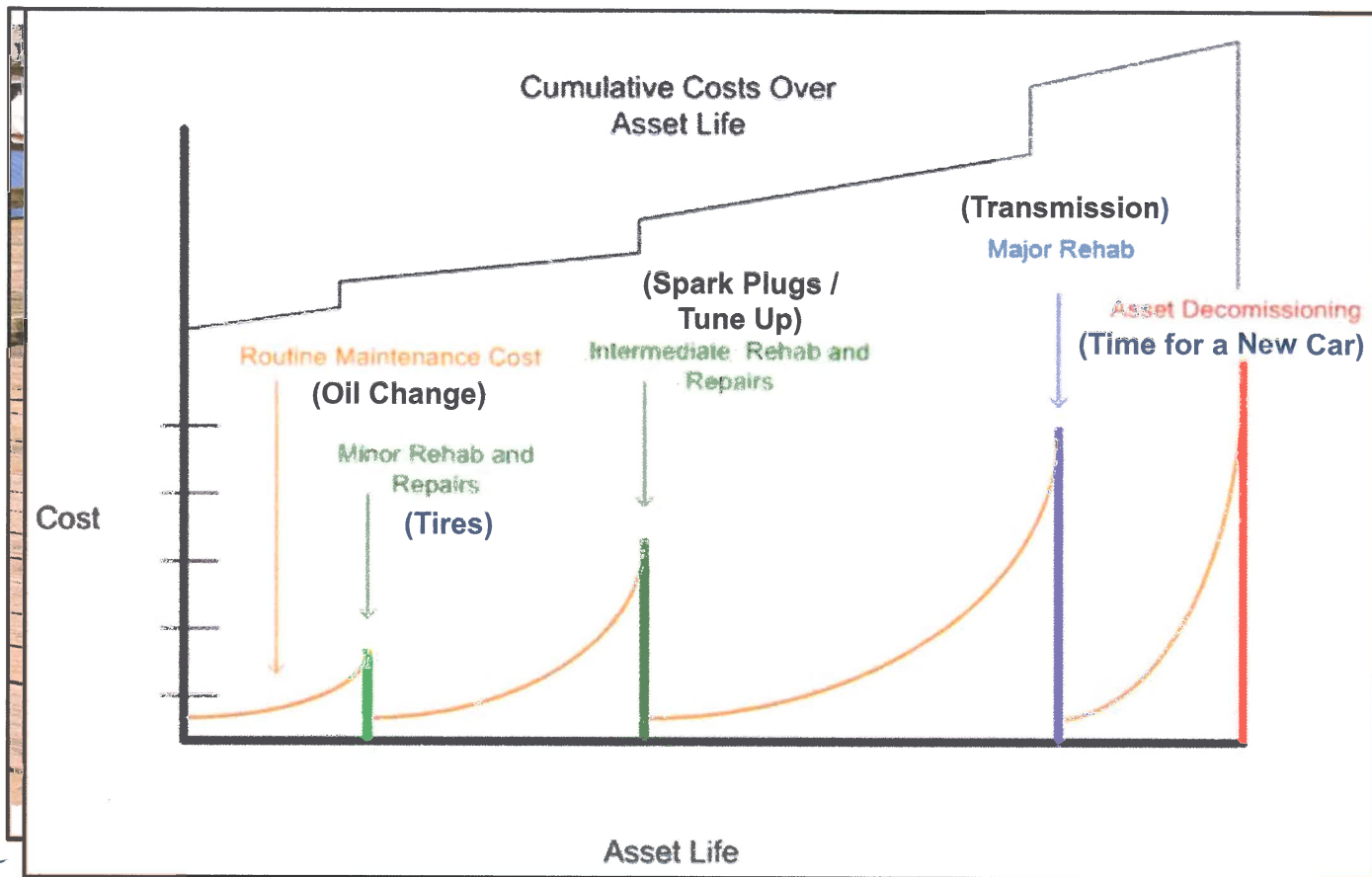
Assets by the Numbers

**Six Treatment Plants + One Composting Facility + 19 Groundwater Recharge Sites
2 Sewage Collection Systems + 277 miles of pipelines**

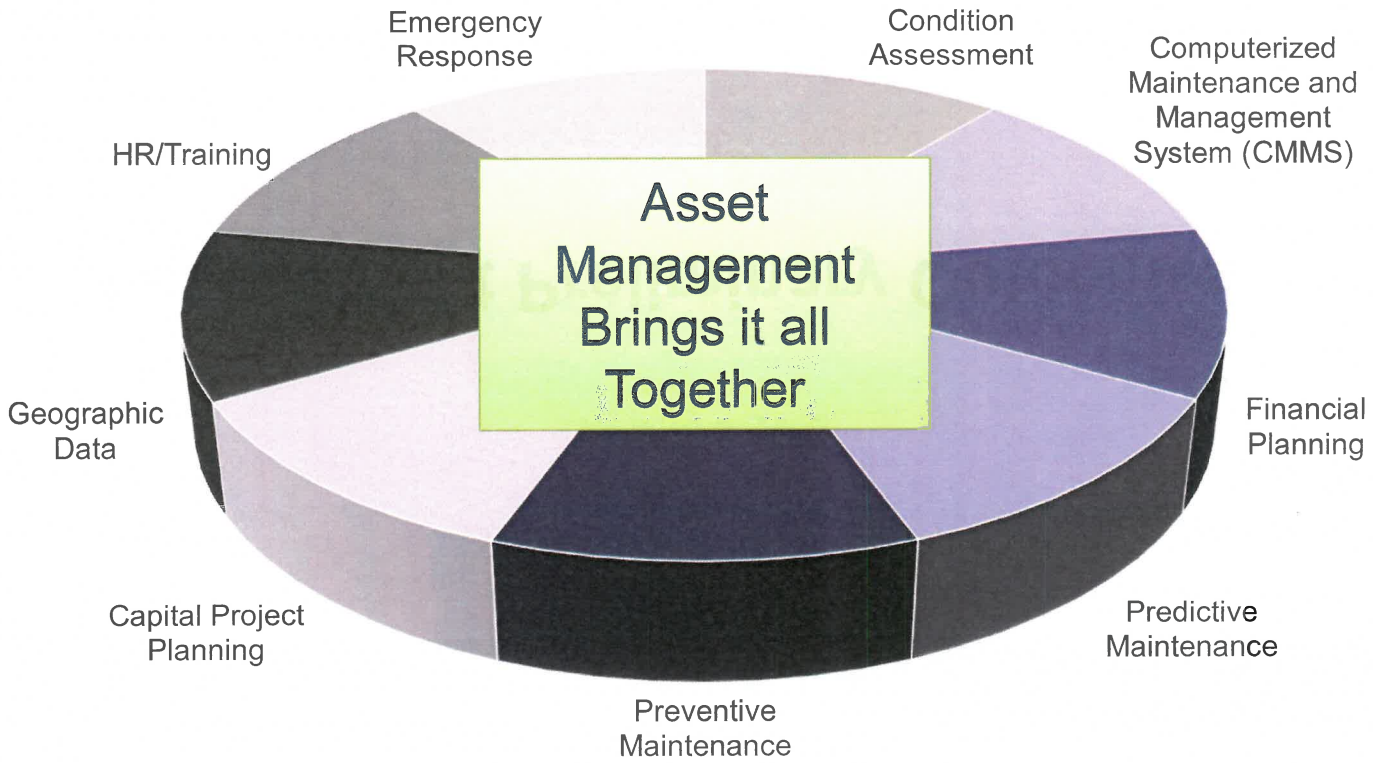
Equipment Count by Category
(Total: 14,721)



We Need to Manage Full Asset Lifecycle



Comprehensive Asset Management



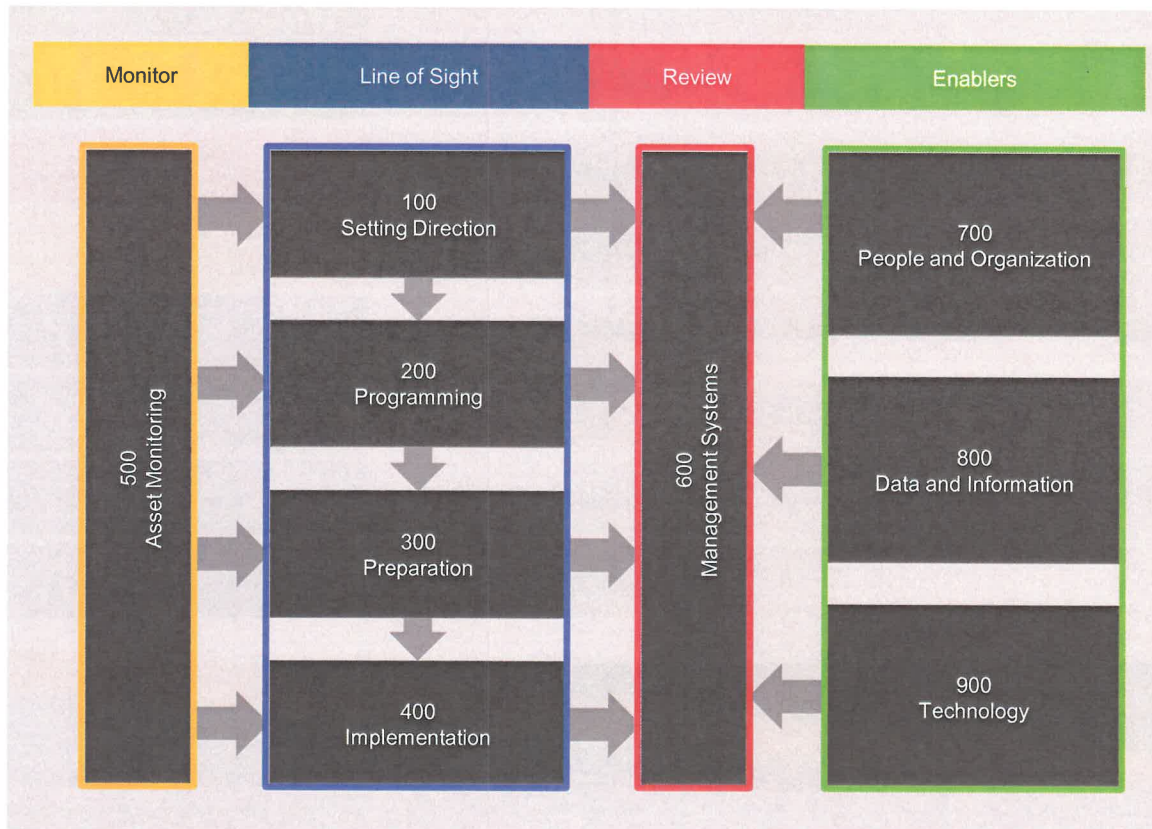


Assessment Preliminary Outcomes

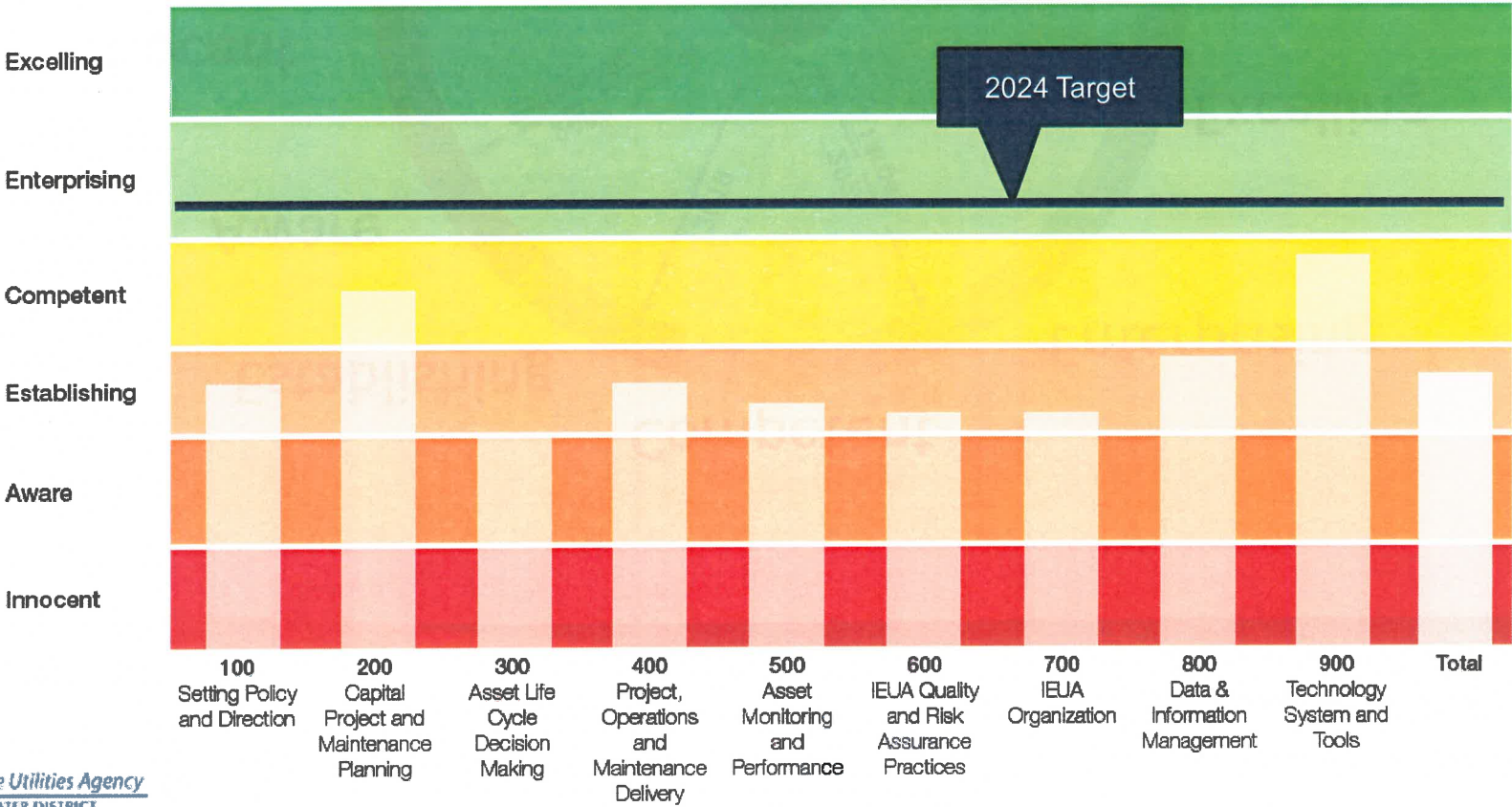
Category Assessment

100	• Setting Policy and Direction
200	• Capital Project and Maintenance Planning
300	• Asset Life Cycle Decision Making
400	• Project, Operations and Maintenance Delivery
500	• Asset Monitoring and Performance
600	• IEUA Quality and Risk Assurance Practices
700	• IEUA Organization
800	• Data and Information Management
900	• Technology/Systems and Tools

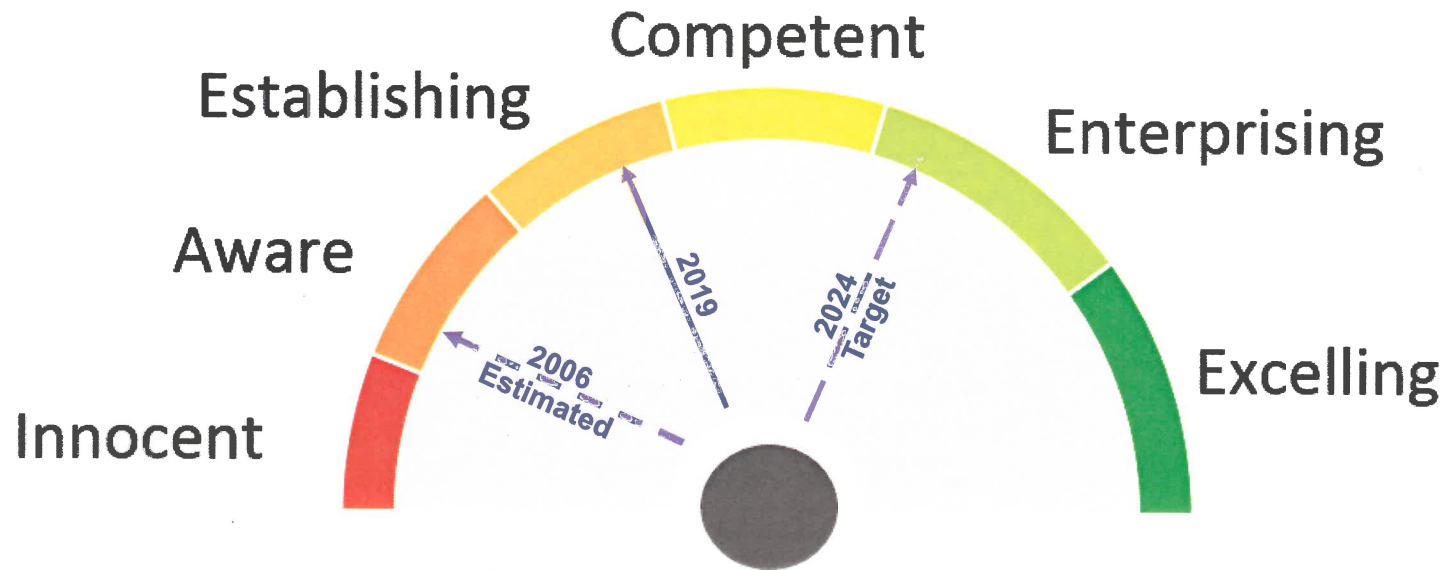
Components Gap Analysis



Category Average Scores



Asset Management Progress





Expected Implementation Outcomes

What it can do...

Case Studies

- Case Study 1 - Orange County Sanitation District
 - Savings: Up to \$70M since 2012
- Case Study 2 – Seattle Public Utilities
 - Savings: \$16M/year; approximately \$100M over ten years
- Case Study 3 – Washington Suburban Sanitation Commissioners
 - Savings: Initially \$50M in deferred projects; \$100M over ten years

What it means to IEUA

- Forward planning of Repair and Rehabilitation (R&R)
 - Rate Stabilization
 - Risk Based Project Prioritization
 - Better Defined Budgeting for R&R Projects
- Overall Cost Reduction
 - Useful life of Equipment will be Extended
 - Life Cycle Equipment Selection (lower operation costs)
 - Spending Maintenance Effort Where it Matters Most

3 Rs! - **R**ight Projects, **R**ight Time, **R**ight Cost

How it Works

- San Bernardino Lift Station
 - High Risk Facility
 - Past Sewage Spill
 - \$20M pipeline planned
- Criticality Analysis
 - Reviewed All Equipment Maintenance and Failure Records
 - Small Adjustments to Maintenance and Spare Parts Management
 - Eliminated the Need for the Project





Next Steps

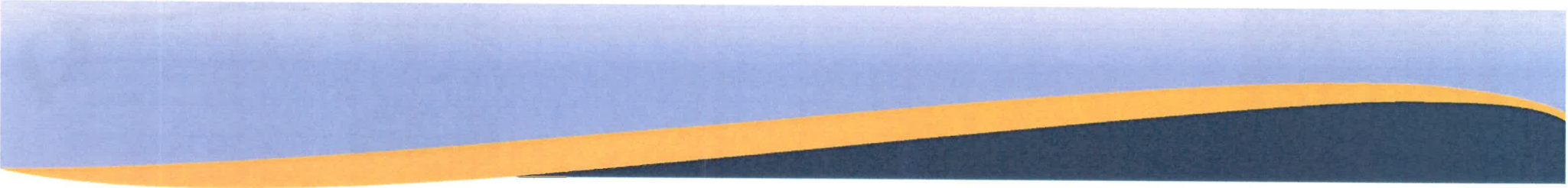
Next Steps

- Finalize Assessment Findings and Recommendations
- Plan to Achieve Enterprising by 2024
- Develop Asset Management Staffing and Resource Needs
- Early Wins/Initiatives
 - Begin Criticality Analysis on Remainder of IEUA Assets
 - Computerized Maintenance Management System Improvements



QUESTIONS





**Additional Information:
Assessment Key Findings,
Recommendations, and Initiatives**

100 - Setting Policy and Direction

Range: 25-43%, Average: 32%

Strengths

- Strong Foundation in Place

Opportunities/ Recommendations

- Develop AM Policy
- Implement Governance Model
- Begin Integration of AM Objectives

Initiatives

- Develop AM Policy
- Executive Approval
- Develop Departmental AM Objectives

200 – Capital Project and Maintenance Planning

IEUA Score - Range: 36-48%, Average: 44%

Strengths

- Good understanding on effective / residual asset life based on condition / age / industry standards
- Life cycle costs evaluated for major projects and expenditures

Opportunities/ Recommendations

- Consistency across databases
- Define critical assets
- Develop formal risk management program
- Establish budgeting consistency amongst staff budgeting of projects during the initial planning of projects

Initiatives

- Develop and implement Standards to capture Asset Data around the asset life cycle
- Further develop and refine the options analysis and business case evaluation process for decision making
- Redesign Planning Workflows to be based on formal risk management and robust cost estimating

300 - Asset Life Cycle Decision Making

IEUA Score - Range: 24-29%, Average: 27%

Strengths

- Work in progress on Asset Management elements at IEUA
- Asset Management Ready Specifications being developed for RP-5 and collection system
- Business Case Evaluations (BCEs) performed for large projects and initiatives

Opportunities/ Recommendations

- Develop consistency in maintenance maturity (use of time based, predictive, proactive, run to failure – is inconsistent)
- Link O&M strategies to Level of Service (LoS), currently done but not consistent
- Establish formal maintenance management policy or strategy
- Develop process for preparing comprehensive Asset Management Plans (asset inventory, level of service, condition, risk, life cycle strategies, and funding strategies)

Initiatives

- Establish effective master plans to drive lifecycle decision making (**R**ight activities, at the **R**ight time, & **R**ight cost)
- Develop and rollout an O&M Master Plan
- Develop the formal Renewal/Replacement Plans based on a standard risk management framework
- Develop comprehensive Asset Management Plans at the asset class level
- Execute lifecycle strategies as per the Asset Management Plan and evaluate the effectiveness of the Asset Management Plan recommendations

400 – Project, Operations and Maintenance Delivery

IEUA Score - Range: 21-49%, Average: 34%

Strengths

- Good engagement of O&M with Finance/BIS
- Project management capability has been developed and documented
- Good collaboration between engineering and O&M in capital projects

Opportunities/ Recommendations

- Dedicated engineering staff to address O&M Rehabilitation & Replacement projects
- Apply asset criticality to prioritize work
- Establish consistency for the optimization of project managers across IEUA
- Establish a consistent process for demolition planning and costing

Initiatives

- Implement advanced practices for Operations, Maintenance, and Engineering to execute the Master Plans
- Implement digital engineering techniques (e.g. BIM/3D, digital twins), especially for significant projects
- Implement advanced planning and scheduling practices based on asset criticality
- Implement advanced maintenance practices
- Develop and implement a formal process for disposal of assets and update all relevant databases

500 - Asset Monitoring and Performance

IEUA Score - Range: 31-36%, Average: 33%

Strengths

- SAP is being used to manage mechanical assets
- Root cause analysis is being done selectively to reduce future occurrences of incidence (through O&M programs)
- Asset performance monitoring is effective for regulatory compliance

Opportunities/ Recommendations

- Implement SAP to track asset criticality, condition, performance, and update/add critical assets (e.g. electrical assets)
- Extend root cause failure analysis technique to all critical assets
- Develop level of service framework (service level outcomes, O&M program outputs, and asset inputs)
- For the work order process, implement proper coding, formalized assessment, correction, and close out requirements
- Implement Incident Management Tool for Safety and include reporting of near misses

Initiatives

- Develop a LOS Framework to track and report on asset performance (e.g. capacity, condition) and failures on critical assets
- Develop inspection and condition assessment (CA) protocols with standards by asset class and implement the program across all asset classes by asset criticality

600 - IEUA Quality and Risk Assurance Practices

IEUA Score - Range: 22-48%, Average: 32%

Strengths

- Formal processes in place to meet and comply with legal and regulatory requirements

Opportunities/ Recommendations

- Eliminate Manual duplication of CCTV data into various databases
- Currently no asset management process flow diagrams, work flows, or assurance processes in place
- No formal risk management program exists
- Informal approach to continuous improvement initiatives and asset failure investigations
- No alignment of tag numbering between Operations and Maintenance and Finance (SAP)

Initiatives

- Development and implement an overall asset management quality assurance process and an enterprise risk management framework to guide ongoing business effectiveness at the IEUA
- Refine detailed business continuity planning leveraging the IEUA corporate risk framework based on major threats to levels of service
- Develop a common IEUA Risk Management Framework and use to support Capital Planning and Preventive Maintenance
- Develop best in class continuous improvement (e.g. root cause analysis) on critical assets (Laserfiche to capture and share this knowledge)

700 - Agency Organization

IEUA Score - Range: 25-46%, Average: 32%

Strengths

- Management and staff are committed to ongoing culture change in line with new and emerging business needs
- Good teamwork and collaboration amongst departments
- Training is being delivered for compliance with operator certifications and career development
- Effective use of external resources to supplement IEUA staff workload

Opportunities/ Recommendations

- Implement a Human Resources (HR) Master Plan to support business continuity and future growth
- Implement an asset management staffing and resources (e.g. roles and responsibilities)
- Change informal technical training for staff development to a well documented and tracked feature (training is tracked through Excel or on paper)
- “North and South areas” use different resourcing strategies for service delivery, develop strategy that builds on both areas (as applicable), and creates consistency
- Deploy HR module in SAP to support asset management practices (work scheduling)

Initiatives

- Develop and implement an asset management staffing and resource plan and overall HR Master Plan to ensure succession planning, business continuity and adequacy of resources
- Formalize and match people resource requirements to asset management lifecycle needs (capital and operational) – as the number of assets and service requirements increase
- Develop a formal training plan to deliver appropriate skills and competencies to effectively execute lifecycle strategies

800 – Data and Information Management

IEUA Score - Range: 38-40%, Average: 39%

Strengths

- Good data and information in place for capital project delivery supported by SAP and Primavera

Opportunities/ Recommendations

- Implement improvements to address the capture and management of asset data and information resulting from the following:
 - Data is being collected in silos across IEUA
 - Accessibility of data is challenging – varied collection locations
 - Lack of developed specification sheets to collect data/information when assets are being renewed / acquired
 - Labor costs are not tracked in SAP at the asset level

Initiatives

- Enhance capture and management of asset data and information to support decision making
 - Develop an Asset Knowledge Management Strategy/Plan
 - Develop and implement a plan for capture of asset knowledge to close data gaps using the top down and bottom up approach, asset criticality and Asset Management Ready Specifications
 - Develop and implement asset management performance dashboards across IEUA leveraging SAP analytics, business intelligence, and dash boarding tools

900 – Technology System and Tools

IEUA Score - Range: 42-70%, Average: 55%

Strengths

- Very good Enterprise Information Systems are in place to support IEUA business processes
- ISS has its own warehouse and tracking of assets
- SAP has mirroring redundancy and reliability and there is full accessibility for staff
- Staff are provided with adequate computer hardware to perform their duties

Opportunities/ Recommendations

- Deploy SAP modules including: HR, Scheduling, Mobile etc.
- Provide Wi-Fi connectivity to WWTPs, currently limited to offices
- Improve/integrate GIS and SAP (e.g. work orders cannot be pushed from GIS to SAP)
- Improve inventory management to support O&M practices

Initiatives

- Tailor existing and acquire new technology/systems and tools to support business processes and asset management best practices
- Establish data management standards and an enabling integration architecture to support asset, sensors, reporting, and continuous improvement
- Continue to collect/clean-up data/information in SAP
- Select and implement an Enterprise Decision Support System initiative to support asset management planning
- Ongoing refinement to the project management portal to support best in class project management practices