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# **USACE**

## **Asset Management Framework (AMF)**

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# Focus

- **Facts and Figures**
- **Goal of Asset Management**
  - **Definitions**
  - **Conceptual Models**
  - **Value**
    - **Budgeting**
    - **Sustainability**
    - **Building Business Cases**
- **Asset Management Framework**
  - **Decision Framework**
  - **Levels of Decision Making**
  - **Process Model**
- **AMF Cornerstones**
  - **Data Definition & Collection Standardization**
  - **Good Science/Engineering/Economics**
  - **Transparency**
- **Next Steps**
  - **Build on Existing Initiatives**
  - **Extend Tools**

## Asset Management Framework Team

- **Jose Sanchez**
- **Mark Hammond (Project Coordinator)**
- **Theodore A. Brown**
- **David P. Hale**
- **T. Randall Curlee**
- **Tim Smith**
- **Wesley Walker**
- **Richard Woolridge**
- **John R. Yeager**



# Asset Facts and Figures: Civil Works



## OWNED

“Short list”

43,000 Structures

285000 Tracts of land

12000 Buildings

Includes:

1000 Coastal Structures

600 Dams

2500 Recreational Areas

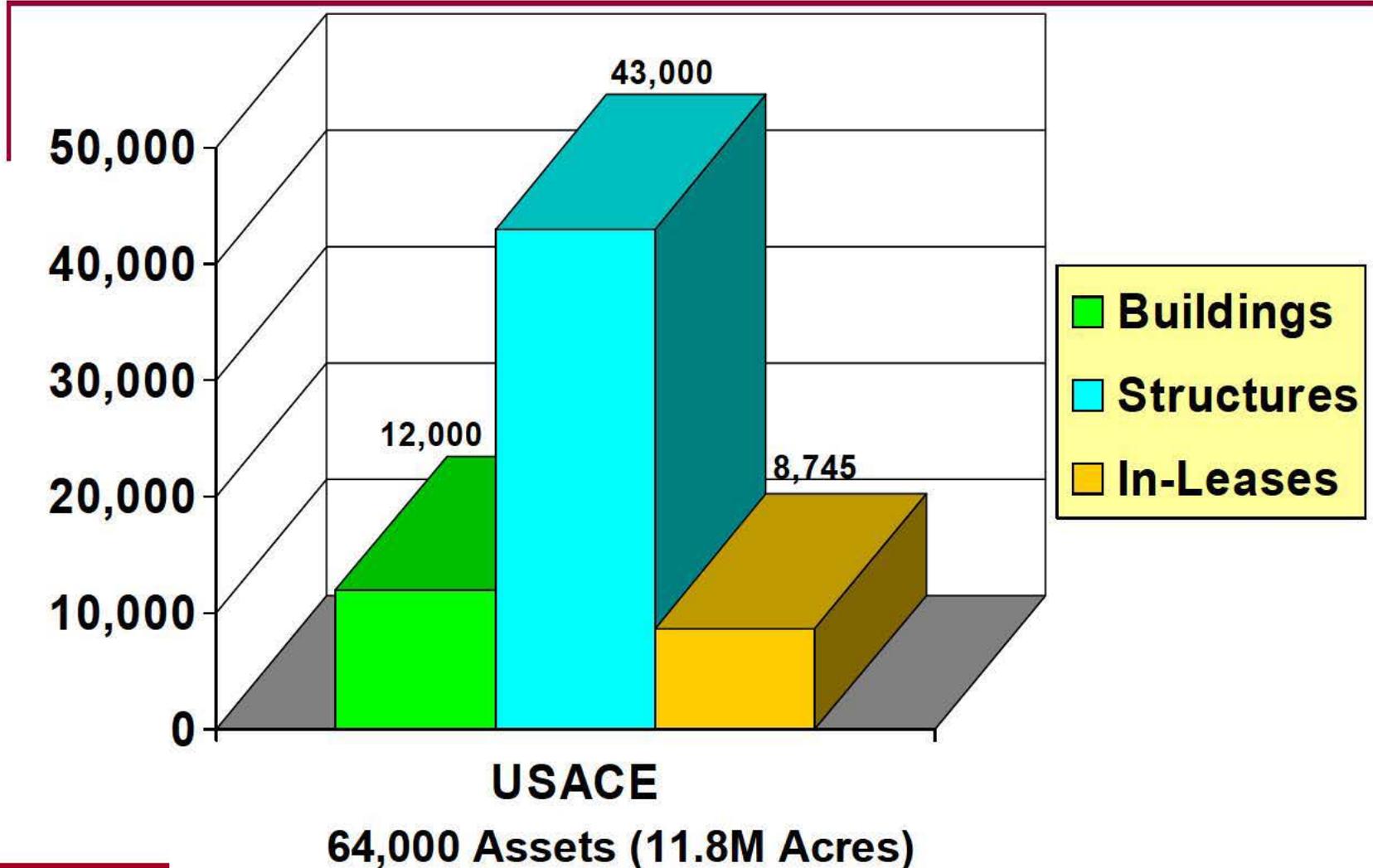
250 Locks

75 Hydropower

VALUE: \$200 BILLION+



# Facts and Figures: USACE Real Property Inventory



# Asset Management

## Why Now?

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**Lifecycle Infrastructure Management:**  
**USACE Campaign Goal 3c- The Right Business Practices**

**Executive order 13327-Right-sizing inventory**

**Budget Performance Integration- Program Assessment**  
**Rating Tool-Right performance**



# Definition-- Asset Management:

- Is a risk-based decision-making process
- to allocate resources over time
- for the operation, maintenance, repair, rehabilitation, replacement, decommissioning, or transfer of assets
- in order to maximize underlying asset value realization



# Asset Value Realization

## ■ Maximize Net Benefits

- National and local economic, environmental, social, cultural, and other objectives

## ■ Maximize Performance

- Assets do what they are intended, or expected, to do
- Assets may be measured for more than one purpose

## ■ Manage Risk

- Risk = Consequence of something bad happening X Probability of that something happening

## ■ Manage Resource Utilization

- There is lots to do and not much to do it with



# Asset Management Facilitates Decisions

## ■ Decisions Type

- Investigation
- Development
- Sustainment/Preservation/Maintenance
- Recapitalization
- Decommissioning

## ■ Decision Basis

- Performance (Structural/Capacity)
- Consequence (Benefit/Risk)

## ■ Uses of Asst Management

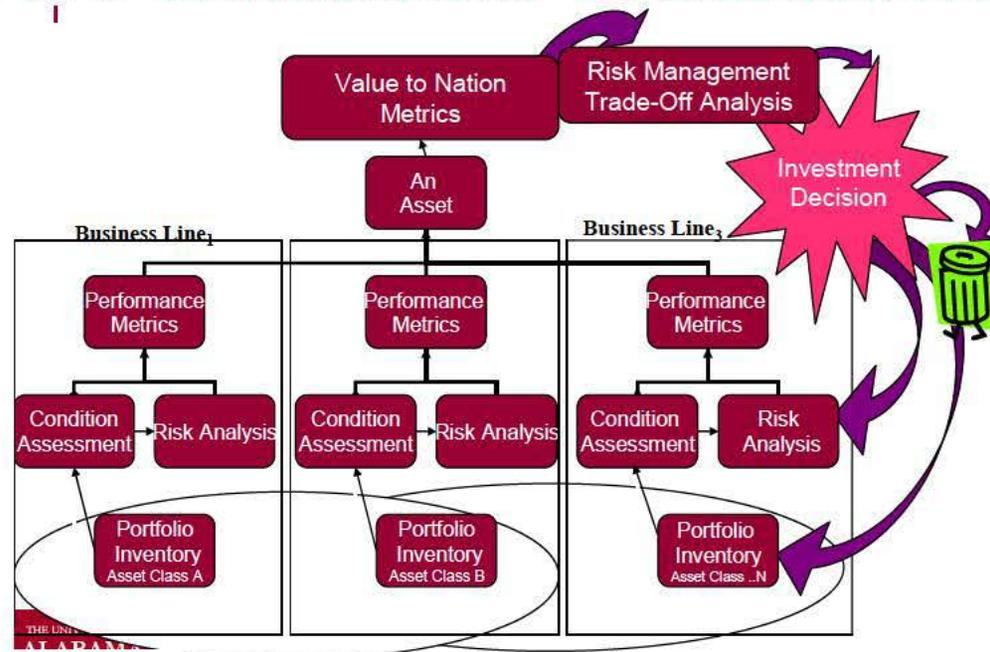
- Lifecycle Management/Sustainment
- Budget
- Risk Reduction
- Economic and Quality of Life Valuation and Generation

## ■ Stakeholders/Participants

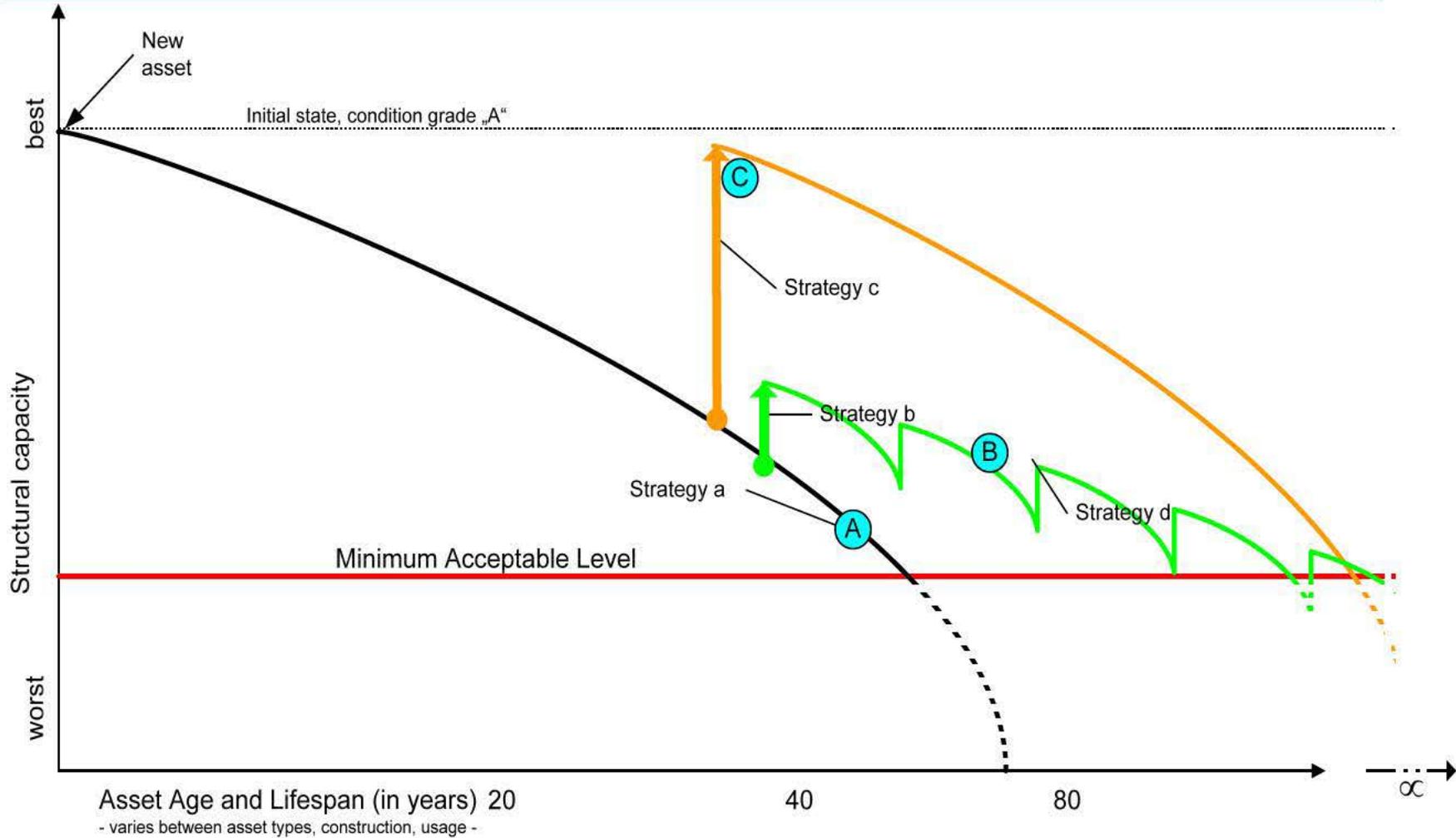
- OMB / Congress
- Corps Leadership
- Business Lines
- Division / District Leaders
- Public/Users

## ■ Bottom-line: Asset Management is Systematic

- Prioritization and Resource Allocation

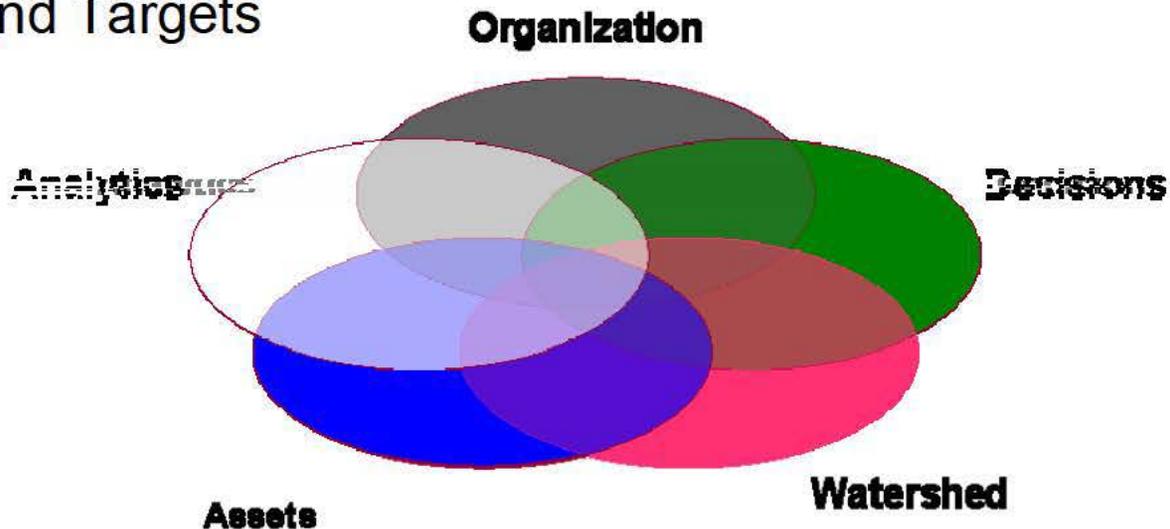


# Asset Management Strategies

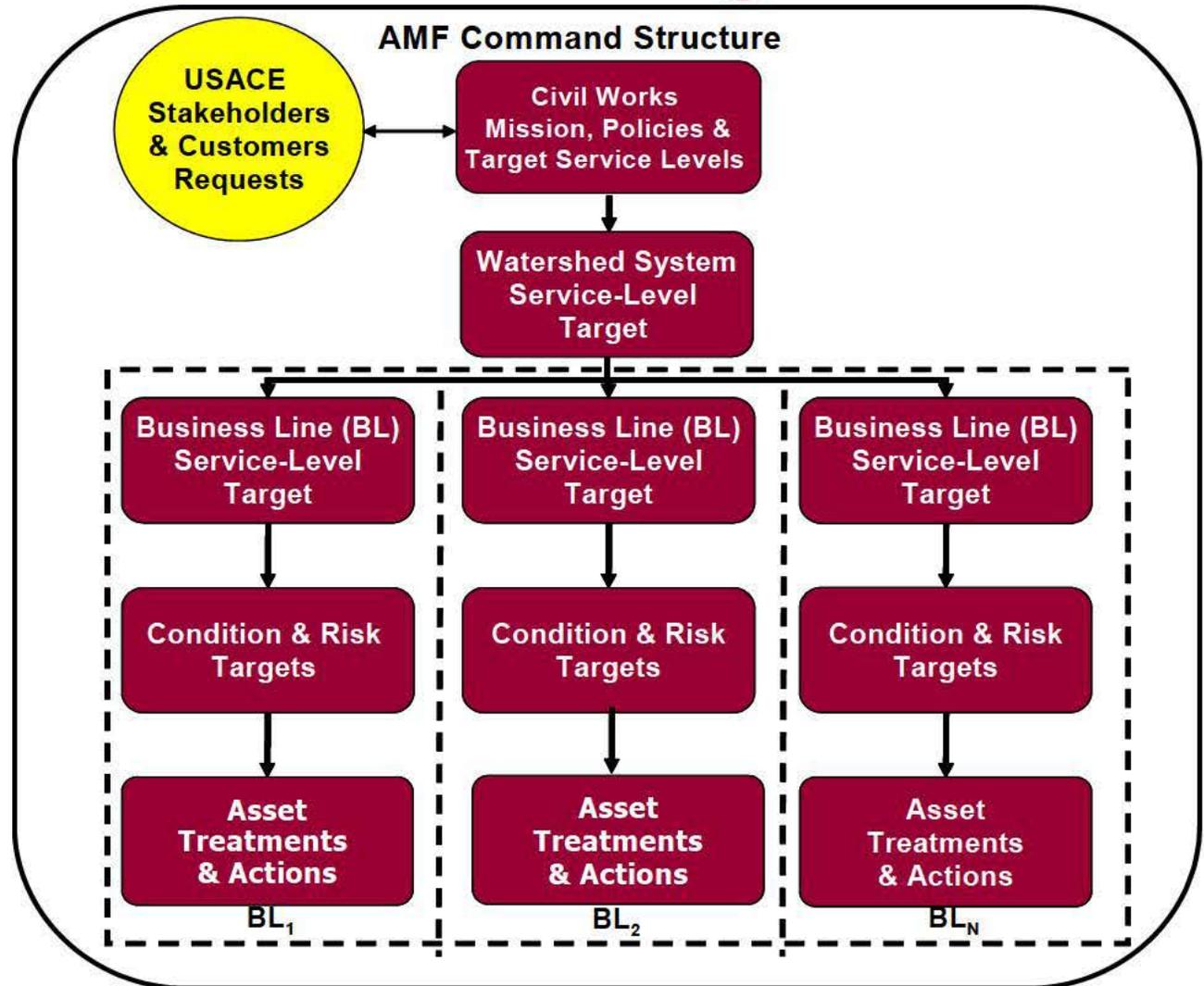


# AMF Integrates

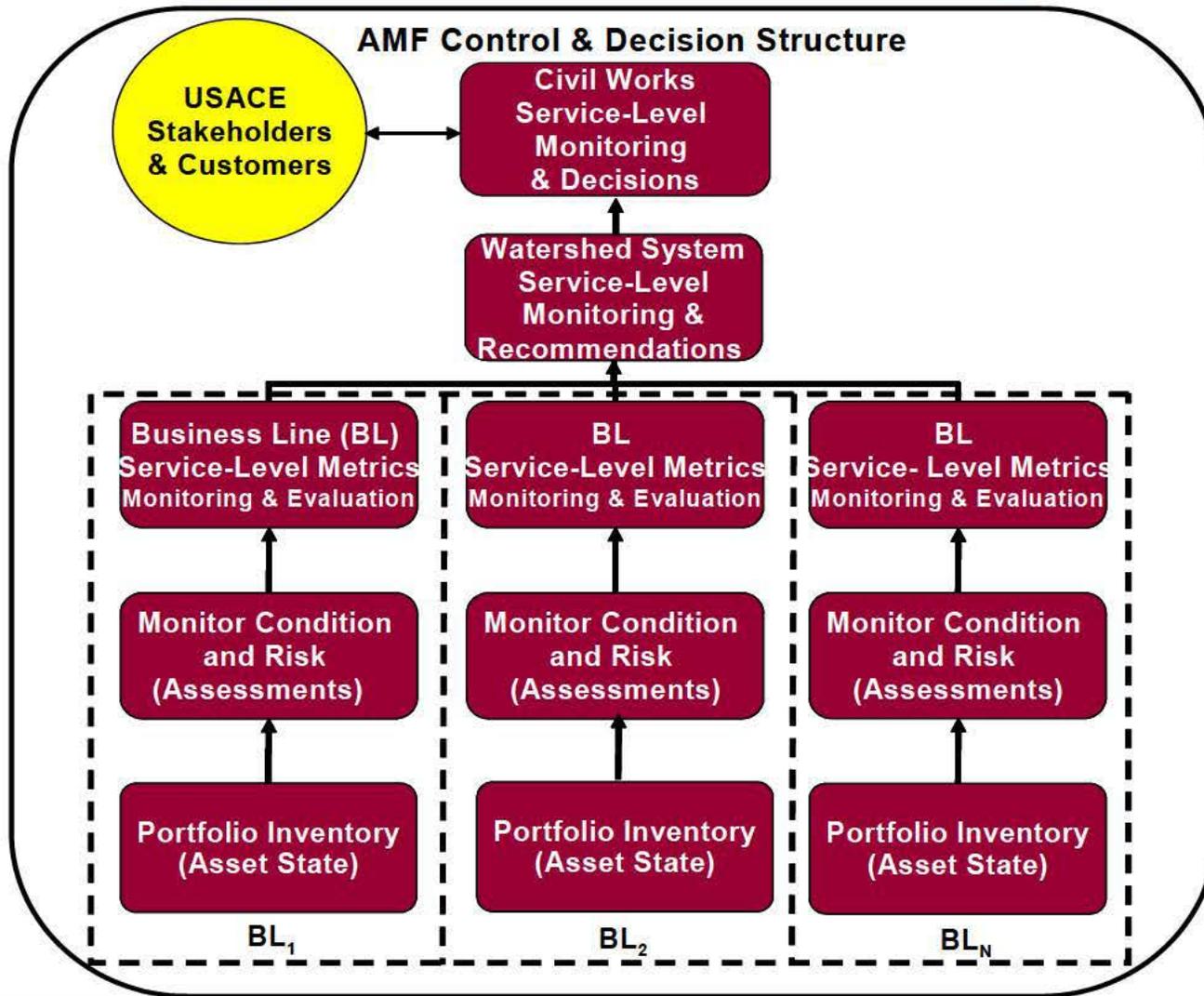
- ❑ Organization – Headquarters, Business Lines, Districts and Divisions
- ❑ Watersheds – Hierarchy of River Systems including Tributaries and Harbors and all their Features
- ❑ Assets – Hierarchy of Assets from the Systems to Facilities, Structures, Components and Watershed Features
- ❑ Decisions – Strategies and Choices
- ❑ Analytics – Metrics and Targets



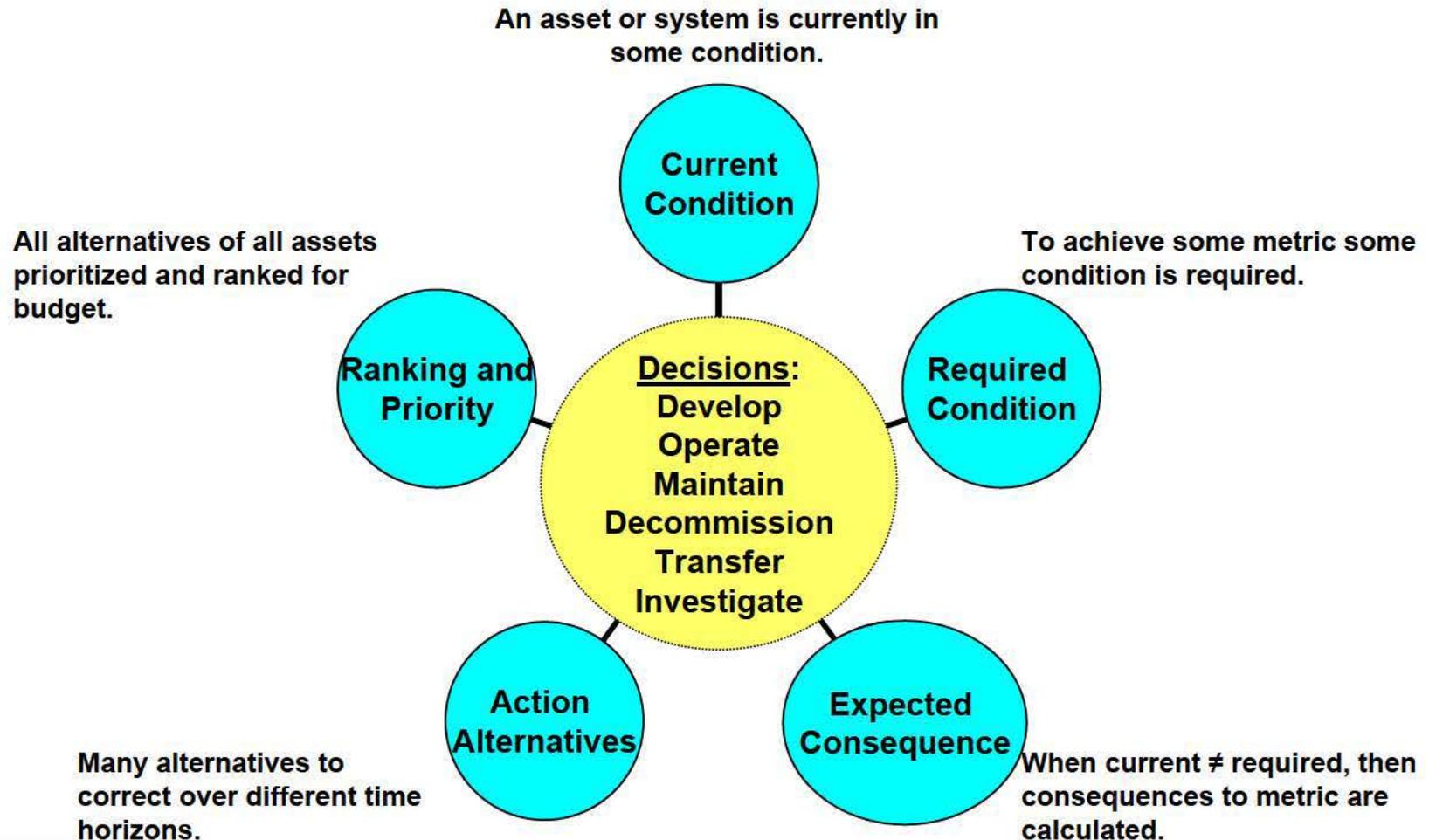
# AMF Use – Goal Setting



# AMF Use - Monitoring



# AMF Factor Interactions



# Asset Management Framework Properties

- **Context-Specific Recommendation (Decision) Support Tool that enables:**
  - Sustainment strategies driven and supported by Benefits and Consequences
  - Benefits and Consequences are Analytics Supported
  - Aligned Budget Process and AMF
  - Extensible AMF approach driven by Results
- **System Focused providing Roll-Up Reporting and Drill-Down Analysis**
- **Comparability Across Districts, Divisions, Business Lines**



# AMF Cornerstones

- **Data Definition and Collection Standardization**
- **Good Engineering/Science/Economics  
(Probabilistic/Deterministic/Temporal)  
For Metrics and Decision Support**
- **Standard Repeatable Processes**
- **Transparency in Metrics and Decisions**



# Next Steps- Leverage Current Corps Initiatives

FY07 USACE Risk/Performance/Budget Metrics Program/Initiative/Study

Program/Initiative/Study	POC	Phone
National Asset Management Program	Jose Sanchez (ERDC)	202-761-4657
X Asset Management Framework (AMF)	Mark Hammond (LRH)	304-399-6928
X LRD Asset Management Plan for O&M	Jim Fisher (LRP)	412-395-7601
Dam Safety Program	Eric Halpin (HQ)	202-761-7775
X sPRA Dams	Andy Harkness (LRP)	412-395-7230
X PRA Dam Methodology	Andy Harkness (LRP)	412-395-7230
X PRA Levee Methodology	Andy Harkness (LRP)	412-395-7230
EC Budget Program	George Lea (HQ)	202-761-4155
X Navigation Business Line Budget EC	Jim Walker (HQ)	202-761-8648
LRD Five Year Development Plan (FYDP)	Bill Harder (LRD)	513-684-6525
X GLLOPM	Jon Brown (LRB)	716-879-4430
Flood and Storm Damage Reduction Budget EC	Bill Chapman (LRD)	513-684-3014
X Ecosystem Restoration Budget EC	Renny Sherman (HQ)	202-761-7771
X Environment Stewardship Budget EC	Denise White	202-761-4704
Hydropower Budget EC	Kamau Sadiki (HQ)	202-761-4889
X Recreation Budget EC	Pep Persio (HQ)	202-761-0036
X Water Supply Budget EC	Ted Hillyer (IWR)	703-428-6140
X OMBIL	David Lichy (NWR)	703-428-9052
Risk Based Studies	Tom Waters (HQ)	202-761-0115
X Louisiana Coastal Protection Restoration (LACPR)	Edmond Russo (ERDC)	601-634-2067
X Mississippi Coastal Improvements Program (MsCIP)	Susan Rees (SAM)	251-694-4141
X Interagency Evaluation Performance Taskforce (IPET)	Jeremy Stevenson (LRH)	304-399-6948
X LRD ORMSS SIP	Jane Ruhl (LRL)	502-315-6862
Upper Ohio Feasibility Study	Kevin Logan (LRP)	412-395-7309
X Critical Infrastructure Security Program	Yazmin Seda-Sanabria (HQ)	202-761-4667
Non-Corps Initiatives		
National Asset Database	Timothy Huddleston (DHS)	
National Infrastructure Protection Plan, Dams Sector-Specific Plan	Enrique E. Matheu (DHS)	703-605-1213
Risk Analysis and Management for Critical Asset Protection Module for Dams, Navigation Locks, and Levees (RAMCAP-DAMS)	Enrique E. Matheu (DHS)	703-605-1213

X denotes fact sheet is completed



# Next Steps- Extend/Refine AMF Tools to Align Benefits with Investment Strategies



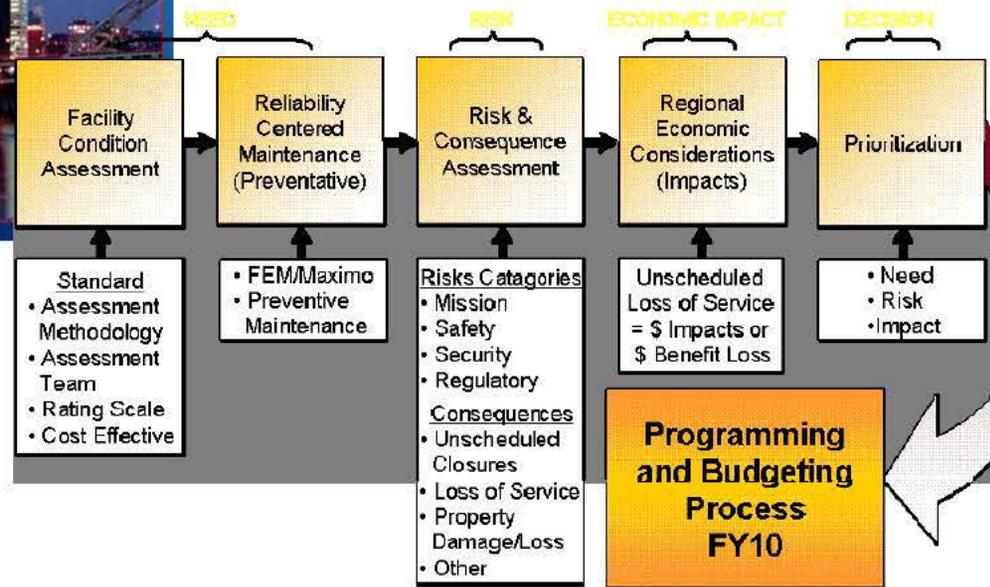
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## Asset Management for O&M



### Background - Asset Management Process Development



# Questions

