# BENEFICIAL USE HURDLES: USACE PERSPECTIVE

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# Beneficial Use of Dredged Material

# Program Vision

Chief of Engineers 70% Beneficial Use Practices by the year 2030 Target

**Dredge Material is a valuable resource**

- Increased dredging investments create beneficial use of dredge material management opportunities
- Benefits the ecosystem, economy, and can effectively and efficiently deliver the USACE mission.

**There are opportunities to expand beneficial use within the Federal Standard**

- Operational strategy should inherently include beneficial use placement options.
- If material is needed to implement a project, beneficial use from dredging operations should be considered as an option in the planning and execution strategy.

**Partner collaboration is key to our success**

- Innovative pursuit, both internally and externally, with partners and stakeholders will:
  - Maximize available solutions, strategies, and tools
  - Develop and apply new approaches and technologies

**National Policy for Beneficial Use of Dredged Material**

Congressionally established by section 125 of WRDA 2020 in doing so, Congress has underscored the importance of the Beneficial Use of Dredged Material Program

***Dredged material is valued as a resource not to be wasted but used for benefits to the ecosystem, economy, and project delivery***

Address key obstacles to execution

Identify, develop, and share beneficial use practices

Collaborate on innovative financing

Identify Key Contributors

Unify Enterprise Purpose

Foster Strong Partnerships

Deliver the Mission

Over the next 3-5 years, the Corps will expand the beneficial use of dredged material program. Achieving this vision will require all of us to be innovative and work alongside our partners, both internally and externally, to ensure we are finding the best use of sediments derived from our Navigation mission.

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# What are some hurdles?

- Paradigm Shift
- Defining and Tracking Success
- Overcoming Cost Perceptions
- Large Scale BU Implementation

# Paradigm Shift

*"I have been managing this project just fine for 20 years"*

- Requires additional coordination with stakeholders, state and federal agencies, and industry
- Additional monitoring and testing considerations
- Change in construction methods
- No new feasibility studies or authorizations are needed

It's not easy but it is worth it!

5

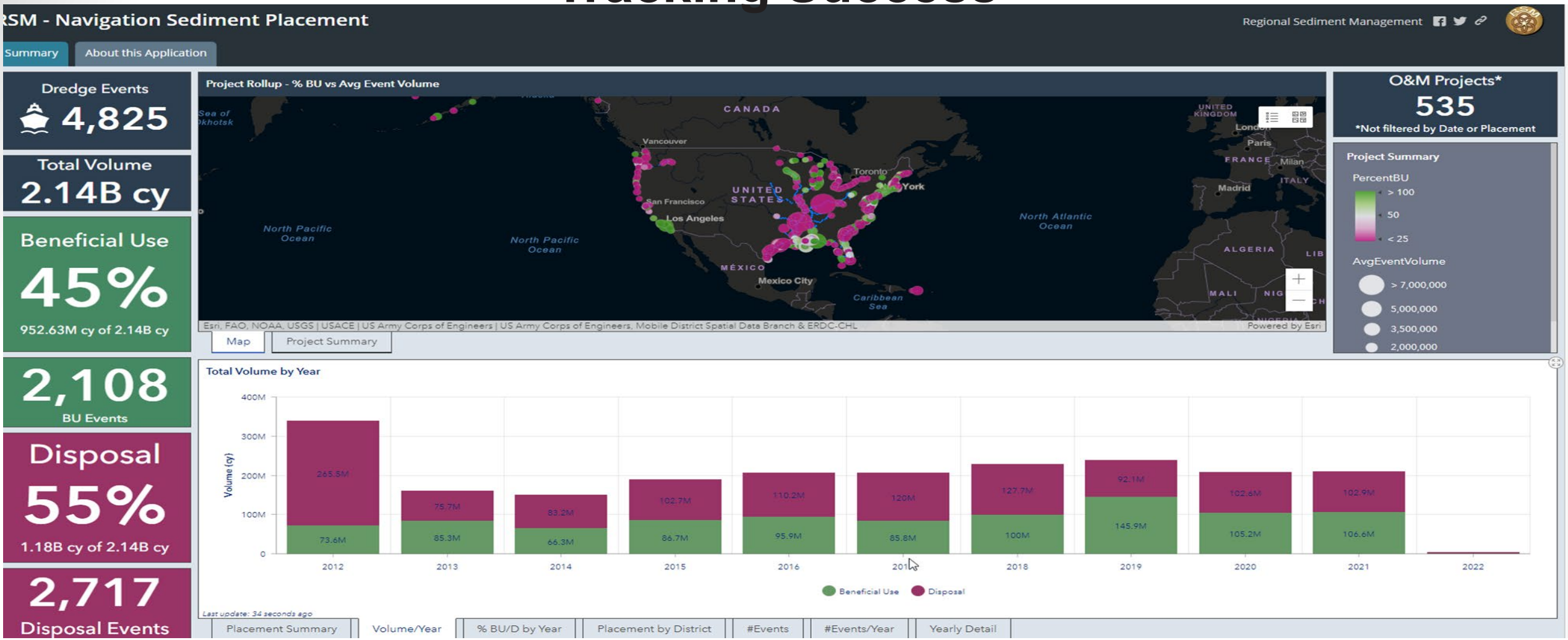
# Defining Beneficial Use

Authorized Beneficial Uses:

- Land creation
- Land improvement
- Berm creation
- Shore protection
- Replacement fill
- Beach nourishment
- Capping
- Construction materials
- Aquaculture
- Topsoil
- Wildlife habitats
- Fisheries improvement
- Wetland restoration
- Others

Beneficial uses are defined as “productive and positive uses of dredged material, which cover broad use categories ranging from fish and wildlife habitat development, to human recreation, to industrial/commercial uses” (Engineer Manual 1110-2-5025, 2015).

# Tracking Success




USACE tracks dredging data through the Dredge Information System and uses the Regional Sediment Management (RSM) viewer to track and analyze disposal of dredged material across the enterprise. (https://arcg.is/1SG8b4)

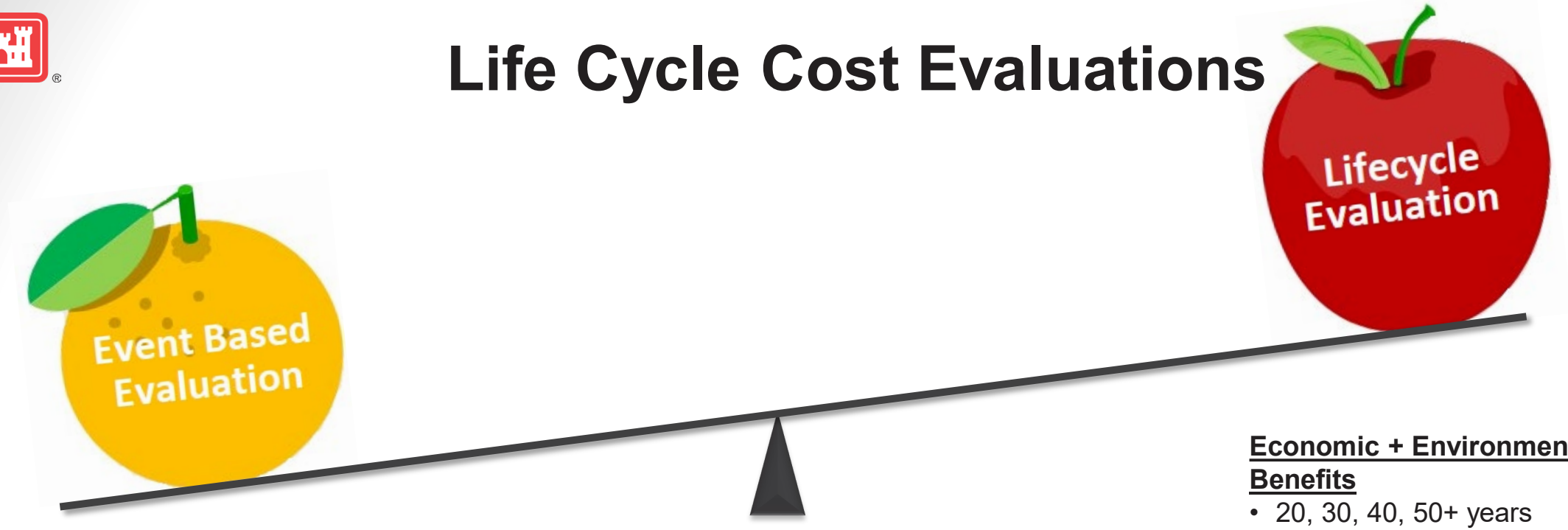
Note: Graphic shows actual 2012-2021 data from across the enterprise

# Cost Perceptions

*“If I add beneficial use it will be more expensive.”*

- Evaluate life cycle costs vs individual contract costs
- Evaluate costs across mission sets of Navigation, Flood Risk, Environmental Restoration
- Evaluate project reliability and construction cycles
- Opportunities to offset costs from other interested stakeholders

# Life Cycle Cost Evaluations




**Direct** Pre, During, Post Dredging Costs
- Dredging
- Dredge Material Management
- Transport
- In-house Engineering
- Planning
- Contract Management and Oversight

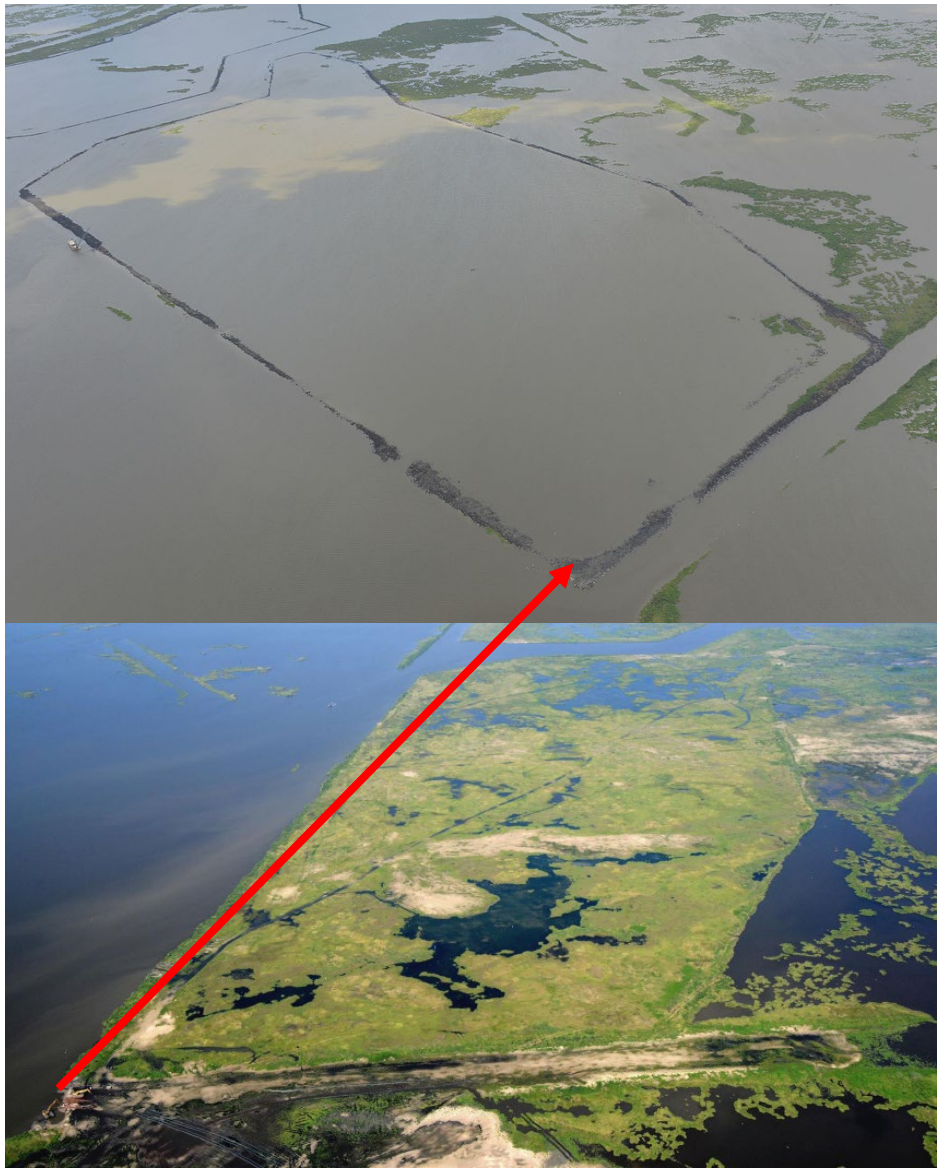
**Benefits**
- 20-yrs
- Few environmental benefits
- Extending FRM Cycle
- Previously established (not adding benefits)

**Direct** Costs **+ Incidental** Pre, During, Post Dredging Costs
- Site selection
- Permitting
- Placement Site Construction
- Maintenance
- Monitoring & Reporting
- Surveying
- Dike Raising
- Offloading
- Real Estate
- Species Management
- Mitigation

**Economic + Environmental + Social Benefits**
- 20, 30, 40, 50+ years
- Extending FRM nourishment cycle, relocation, buyout, elevation, flood proofing
- Coastal Resiliency *behind the BU
- Habitat Value (quantity*quality = $)
- Regional Economics
- …
- Wild cards
  - Environmental Justice
  - Carbon Sequestration
  - Life Safety
  - Public and Stakeholder Objectives
  - Watershed Approaches

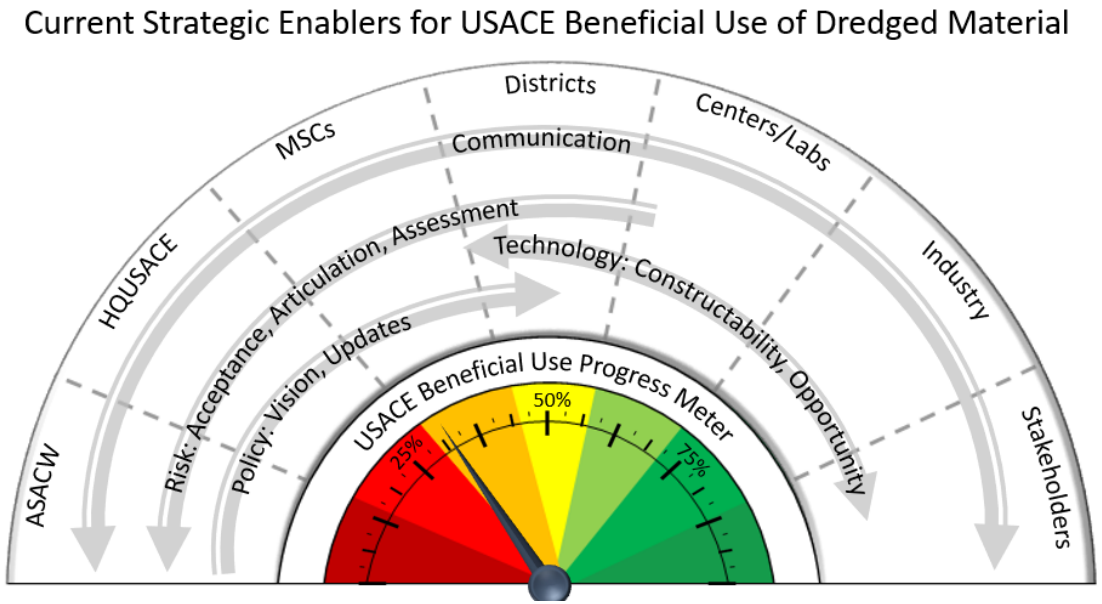
# Large Scale BU Implementation

- Corps dredges approx. 270 MCY annually
- Move from Pilots to Production
- New State and Federal permits
- May require states to relook at their existing laws and policies



# How do we move the needle?

- Communication – with industry and stakeholders to align all the BU stars
- Policy –
  - Need a singular written national policy to use as leverage and allow creativity
  - Other policy issues is that existing policy is unknown, antiquated, and/or conflicting (RE, contracting, interpretation of environmental regs)
- Understanding and Identifyingg Risk –
  - Assessment
  - Articulate
  - Acceptance
- Investment in Technology –
  - Constructability – can we build it? (thin layer placement, marshes, reefs, etc.)
  - Opportunities: connecting sources to placements (tools/models to help us), quantifying benefits (apples and oranges), etc.



# QUESTIONS?