HERBERT HOOVER DIKE REHABILITATION PROGRAM MANAGEMENT

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Jacksonville District

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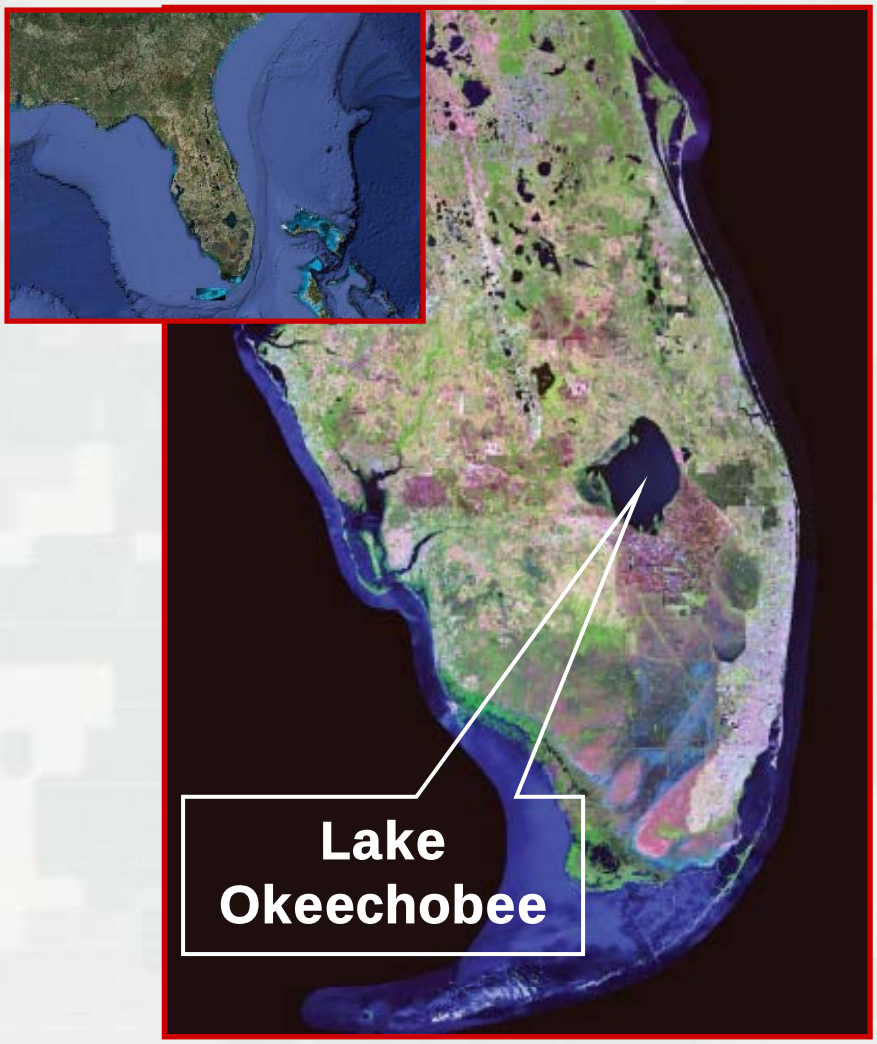
BUILDING STRONG®

Presentation Agenda

- Herbert Hoover Dike Project Background
- Adaptive Project Management
- Parallel Activities
- Funding Challenges

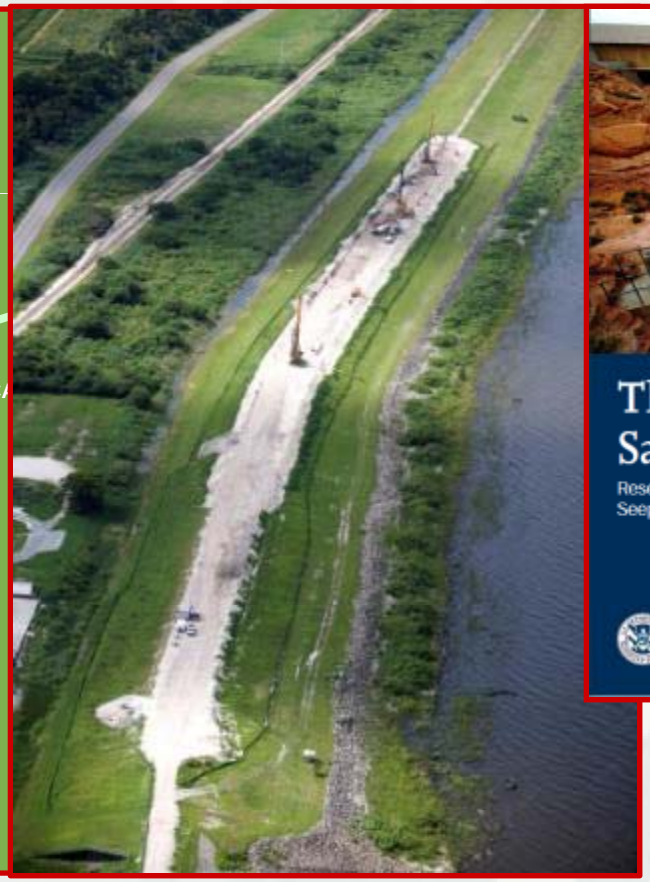
Orientation and location of Lake Okeechobee and Herbert Hoover Dike (HHD)

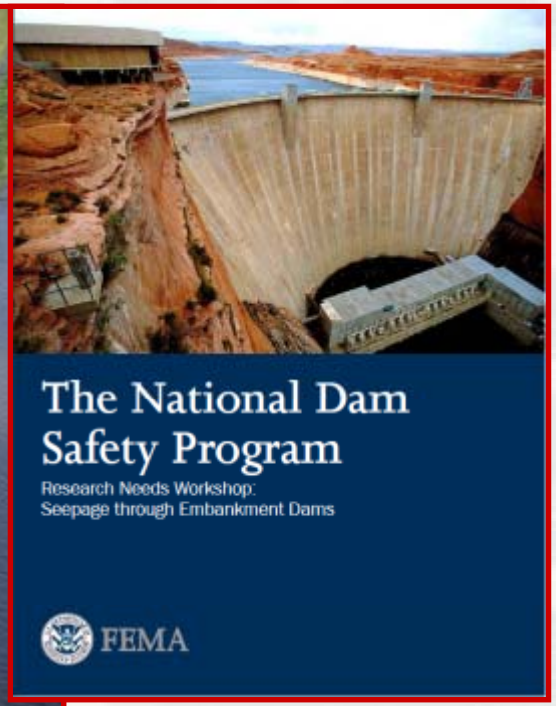


- Lake Okeechobee is 720 square-miles – twice the size of NYC
- Average water depth is 9 feet
- Water volume equal to 2.2 million Olympic-size pools
- Basin is 5,600 square-miles
- One foot of rain in the basin equates to a three to four-foot rise of the lake
- Lake can fill six times faster than water can be released

Purpose of the HHD Project

- Bring the Dike up to Dam Safety Requirements





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Previously Observed Problems

Sinkholes

Heaves

Piping

Saturated Toe

Complex System

5 gated outlets

5 gated inlets

33 primary & secondary culverts

9 navigation locks

9 pump stations

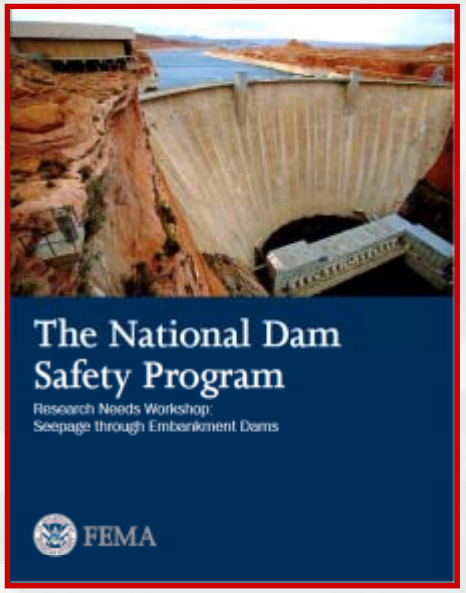
No overflow capacity

Findings and Solutions

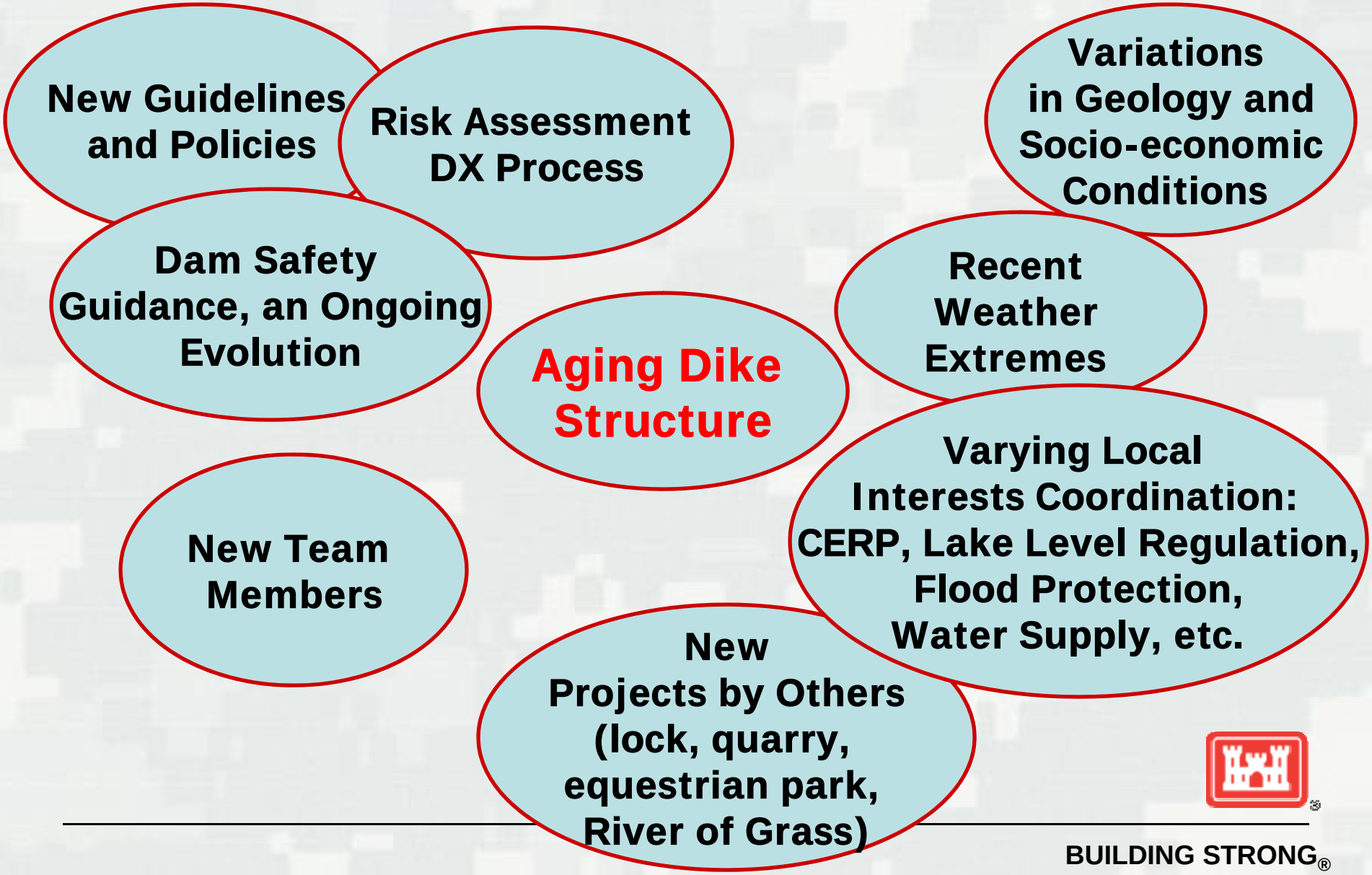
- 1990s Corps studies initiated by evidence of damage to the HHD
- 2000 Congress approves Corps proposal for fix; analysis and design begins
- 2005 Corps starts construction

More Recent Developments

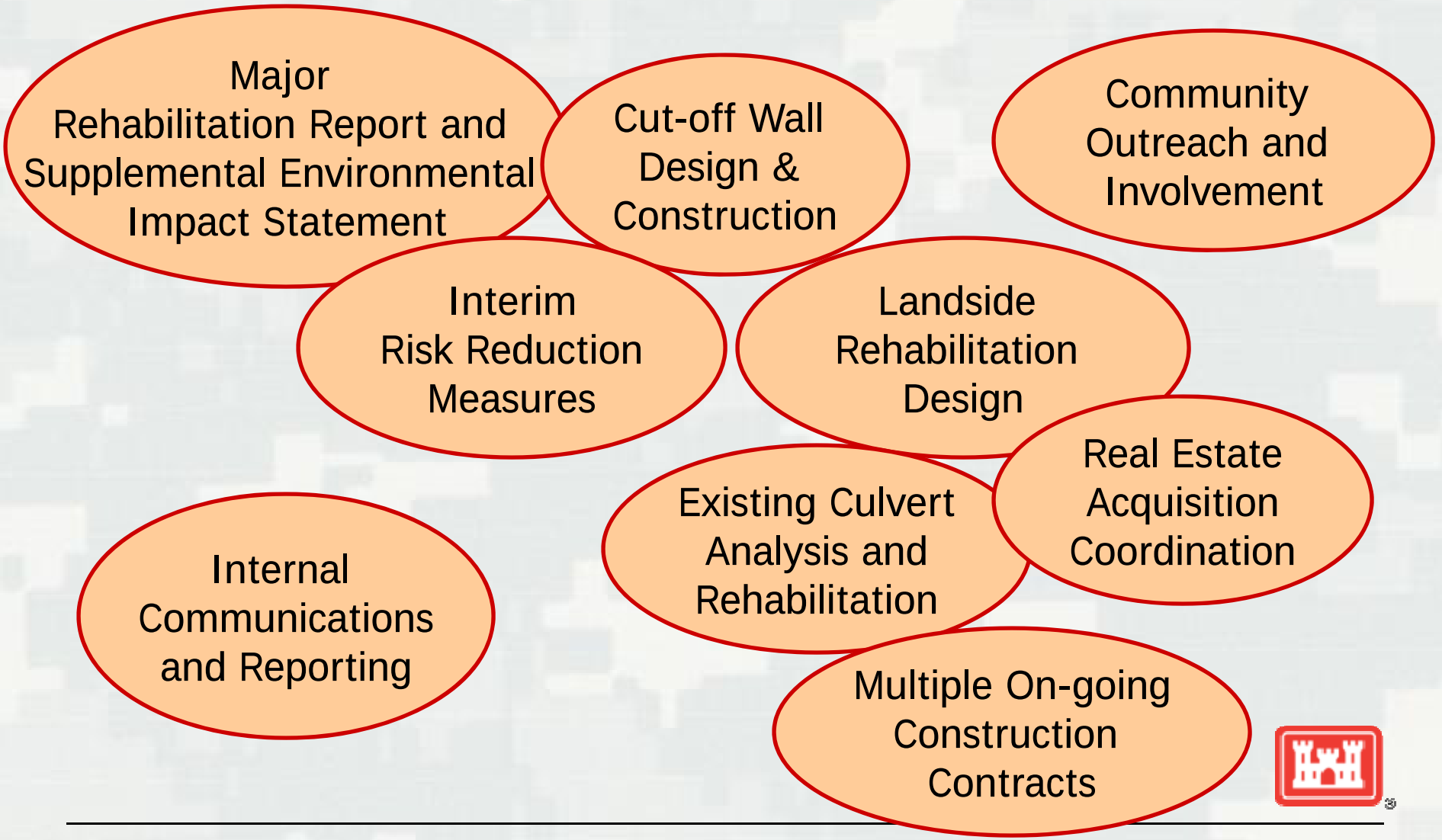
- Hurricane Katrina strikes in 2005
- Corps overhauls procedures for managing dams and levees (ongoing)
- Corps sponsors HHD repair evaluation with state and independent experts
- Consensus reached on a modified fix concept



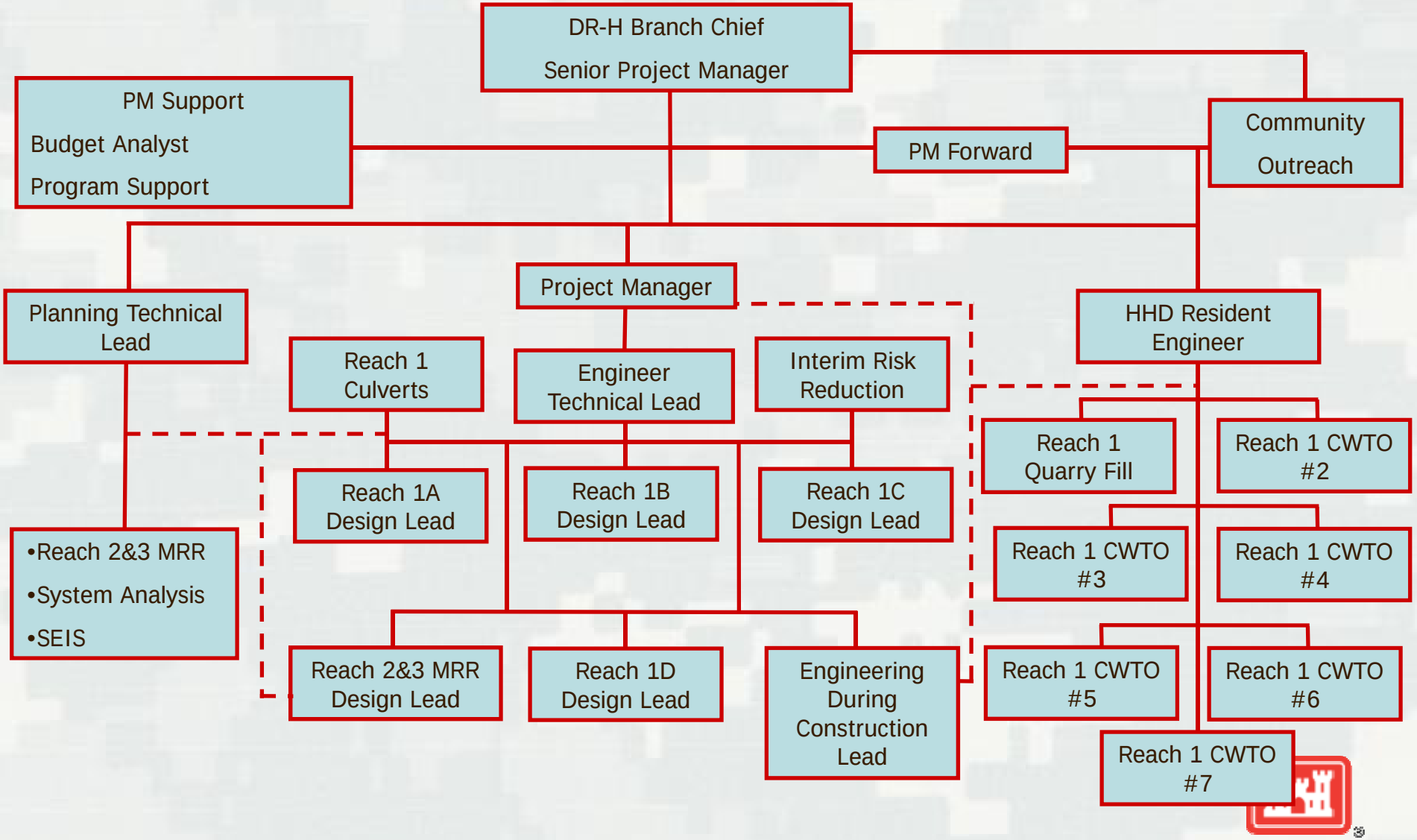
Adaptive Project Management



Parallel Phases and Activities

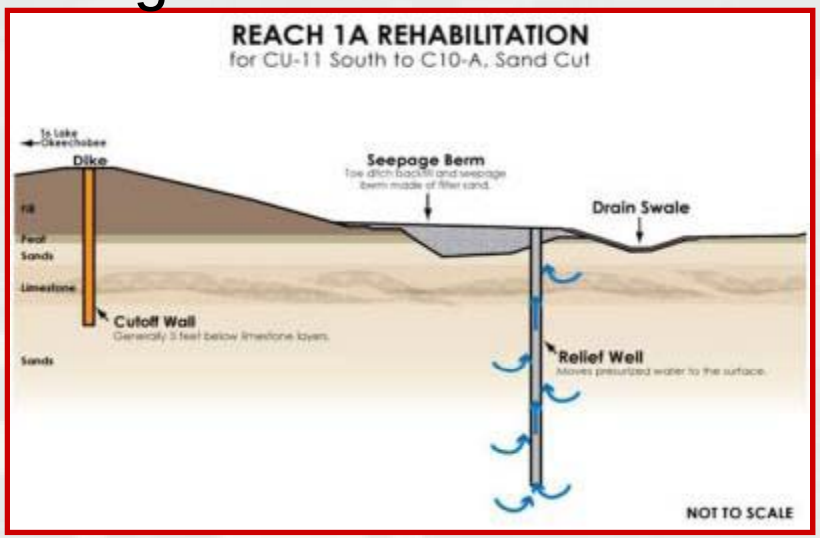


Herbert Hoover Dike - Organization Structure



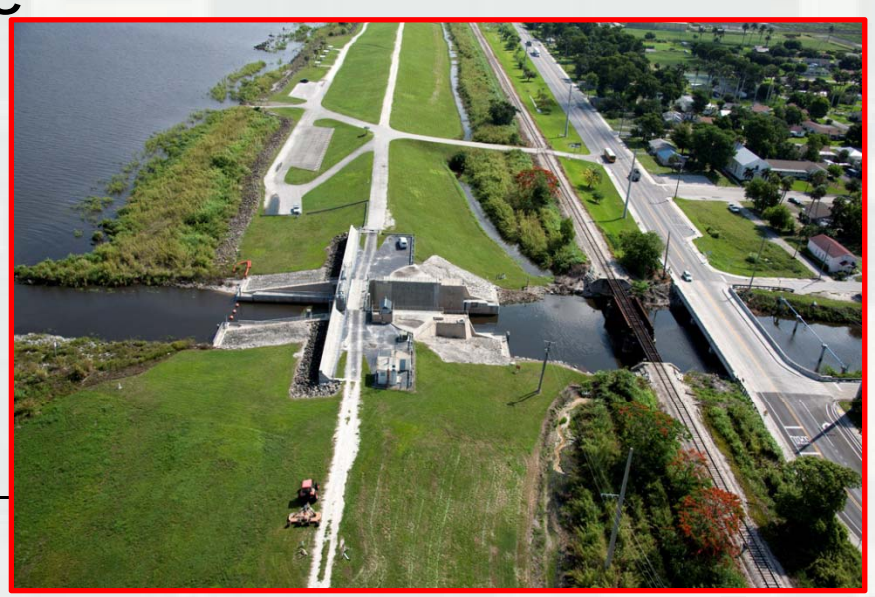
Landside Design Criteria

- Geotechnical engineering design is the initial criterion for analysis
- Each design is ranked based on reliability, resiliency and redundancy
- Other factors in the determining design solution -
  - Initial cost
  - Operations and maintenance
  - Community resources
  - Visual and human interest
  - Flora and fauna
  - Social factors – impacts to local communities
  - Land use



Environmental and Public Involvement Processes

- Public meeting during review of Environmental Impact Statement (EIS)
  - Design process description
  - Design alternatives
  - Recommended alternative
- Public comment is encouraged
- Final EIS and Record of Decision



Interim Risk Reduction Measures

- New lower lake regulation schedule
- Increased inspection frequency
- Emergency management
- Immediate actions

Tree removal and filling the landside ditch

Interaction with local communities and drainage districts

- Interaction with communities and Counties around Lake Okeechobee
  - ► Local initiatives that may conflict with HHD rehabilitation
  - ► Local concerns (noise, employment, economic benefits)
  - ► Building and maintaining trust
- Local drainage districts
  - ► Historic usage
  - ► Data gathering/collection
  - ► Obtaining data
  - ► Incorporating current conditions (permitted usage) into design solutions

Funding Challenges

Lessons Learned

- What works
  - Competent staff and strong PM support
  - Accountability
  - Early identification of resource needs
  - Culture of identifying problems AND solutions
  - Continuous and organized communication
  - A healthy budget
- What we need to improve
  - Communication
  - Garnering support from Corps-wide programs
  - Ability to resolve scarcity of resources

Questions?

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