Civil Works Future Direction

Presentation to
Federal Hydropower Strategic Planning Workshop

Steven L. Stockton, P.E.
Director of Civil Works
HQ, U.S. Army Corps of Engineers

13 May 2008

US Army Corps of Engineers ®

The Situation

- More people, and more of them choosing to live near water
- Increasing number of competitors for Federal dollars
- Less support for water resources, and Corps, in Congress
- Lack of public understanding of link between infrastructure, quality of life
- Sympathy for anti-infrastructure arguments
- Opponents employ more sophisticated techniques to block projects
- Unfriendly OMB

US Army Corps of Engineers ®

Water World Has Changed

2001
9/11

2004
Our Last Civil Works Strategic Plan

Population Migration

Global Warming

Water Conflicts Between States

Growing State Water Resources Capabilities

Aging Infrastructure

Growing Backlog CG, O&M

Sedimentation a Bigger Issue

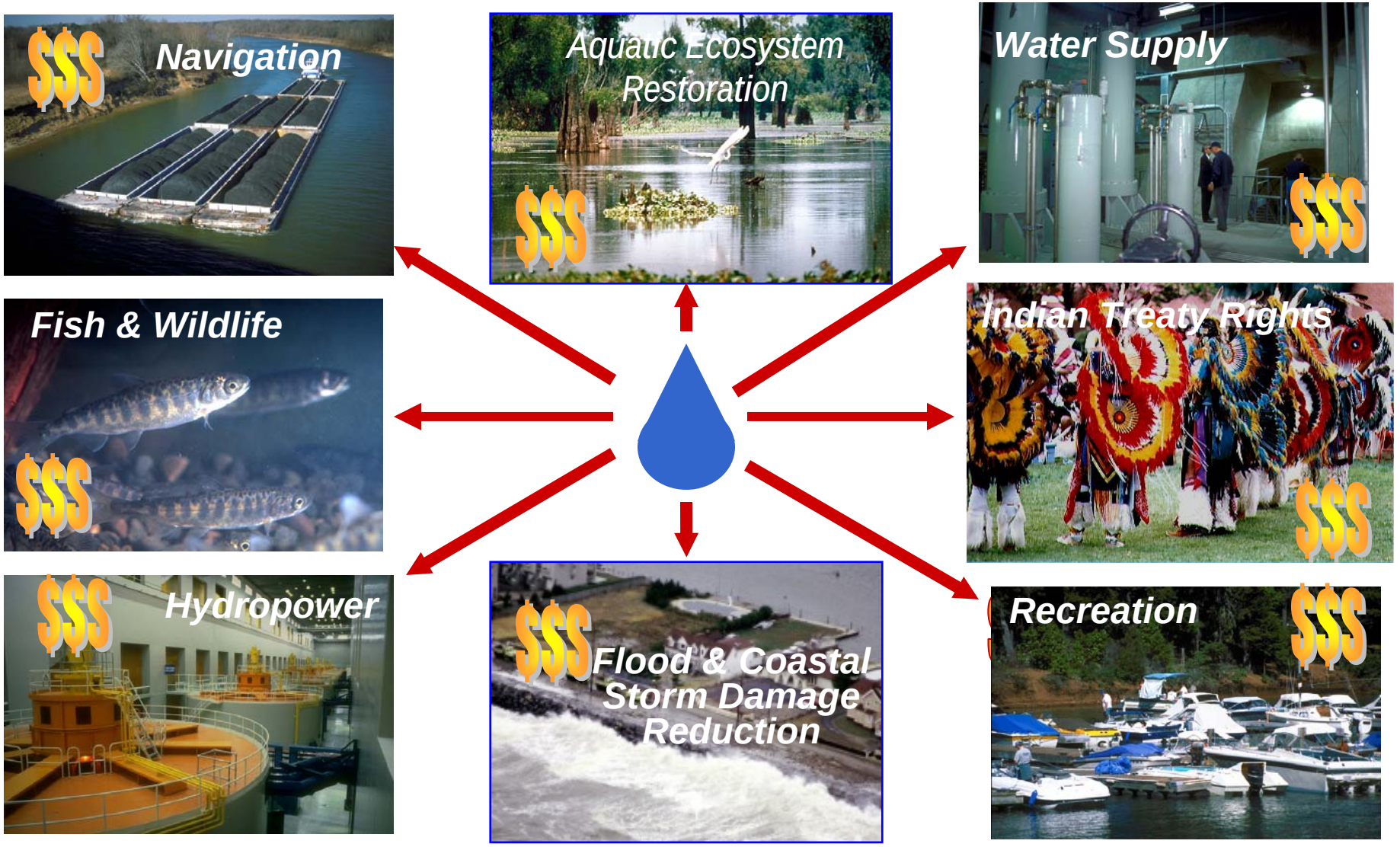
Declining Discretionary Funding

Droughts

Disappearing Wetlands & Coasts

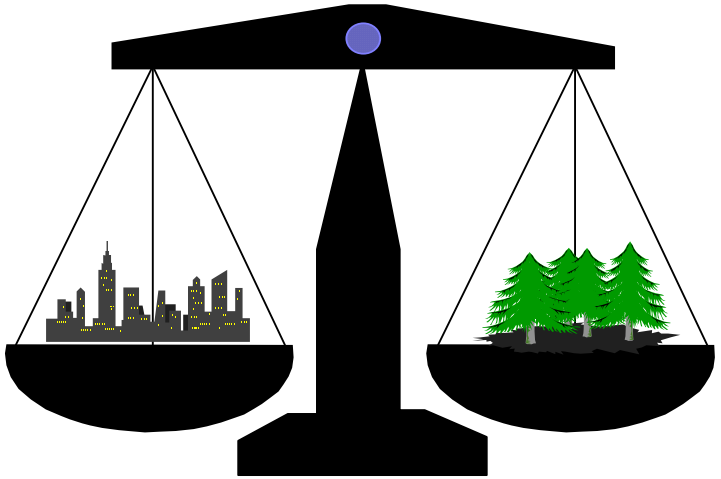
US Army Corps of Engineers ®

Challenge: Competing Uses



US Army Corps of Engineers ®

Challenge: Environmental Sustainability



Riverlands Demonstration Area at Mel Price Lock & Dam (L&D 26), Alton, IL

- Balance between economic development, environmental stewardship
- Water quality threatened on 8% of nation's rivers and streams
- Corps has authority and programs for ecosystem restoration.
  - South Florida
  - Louisiana Coastal Protection & Restoration

US Army Corps of Engineers ®

Challenge: Aging Water Resources Infrastructure

- Half of locks 50+ years old
- Investments in water resources infrastructure declining in real terms
- Result: more frequent closures for repairs, decreased performance & costly delays

Leaking spare miter gates, Upper Miss Lock 19

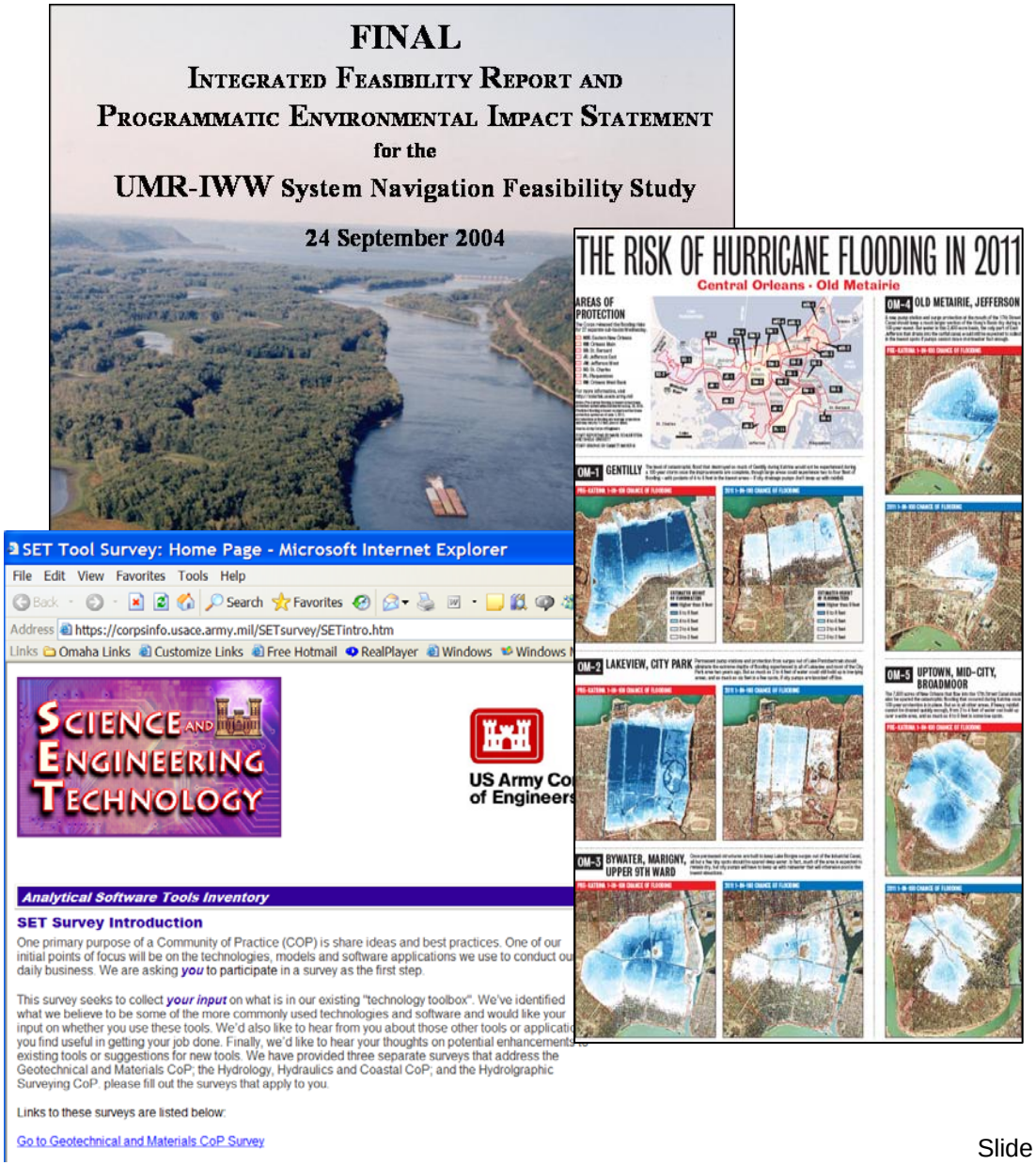
Crumbling lock wall, Lower Mon 3, opened in 1907

Concrete deterioration at Chickamauga could result in lock failure

US Army Corps of Engineers ®

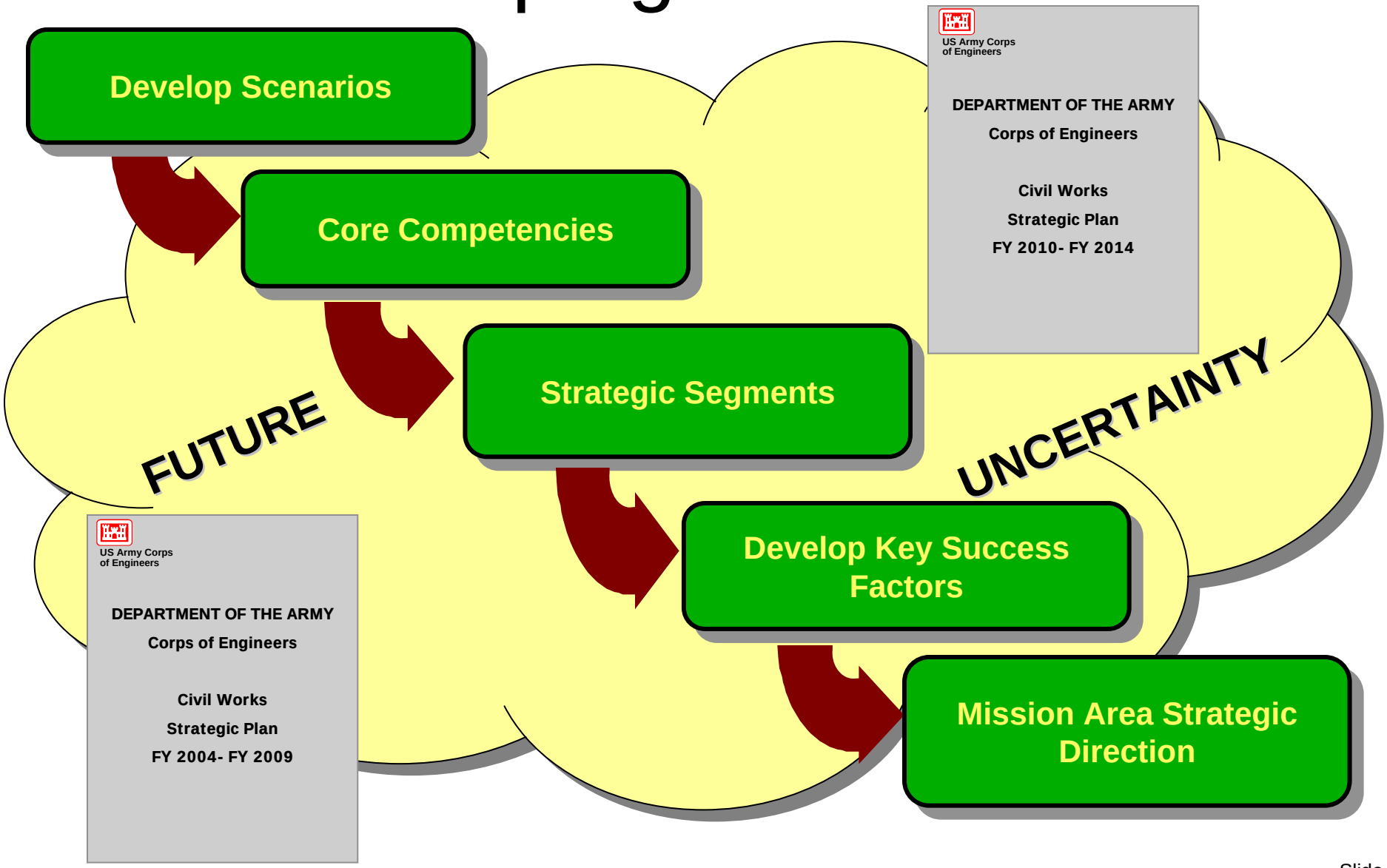
USACE's Actions for Change

- Comprehensive systems approach
- Risk-informed decision making
- Communication of risk to the public
- Professional and technical expertise



US Army Corps of Engineers ®

CW Strategic Planning: Shaping the Future

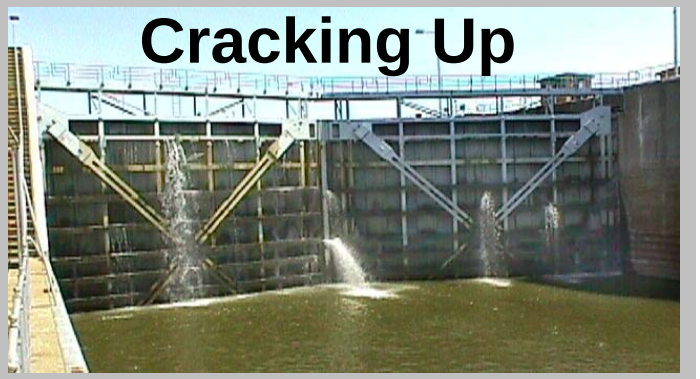


US Army Corps of Engineers ®

Civil Works Scenarios:

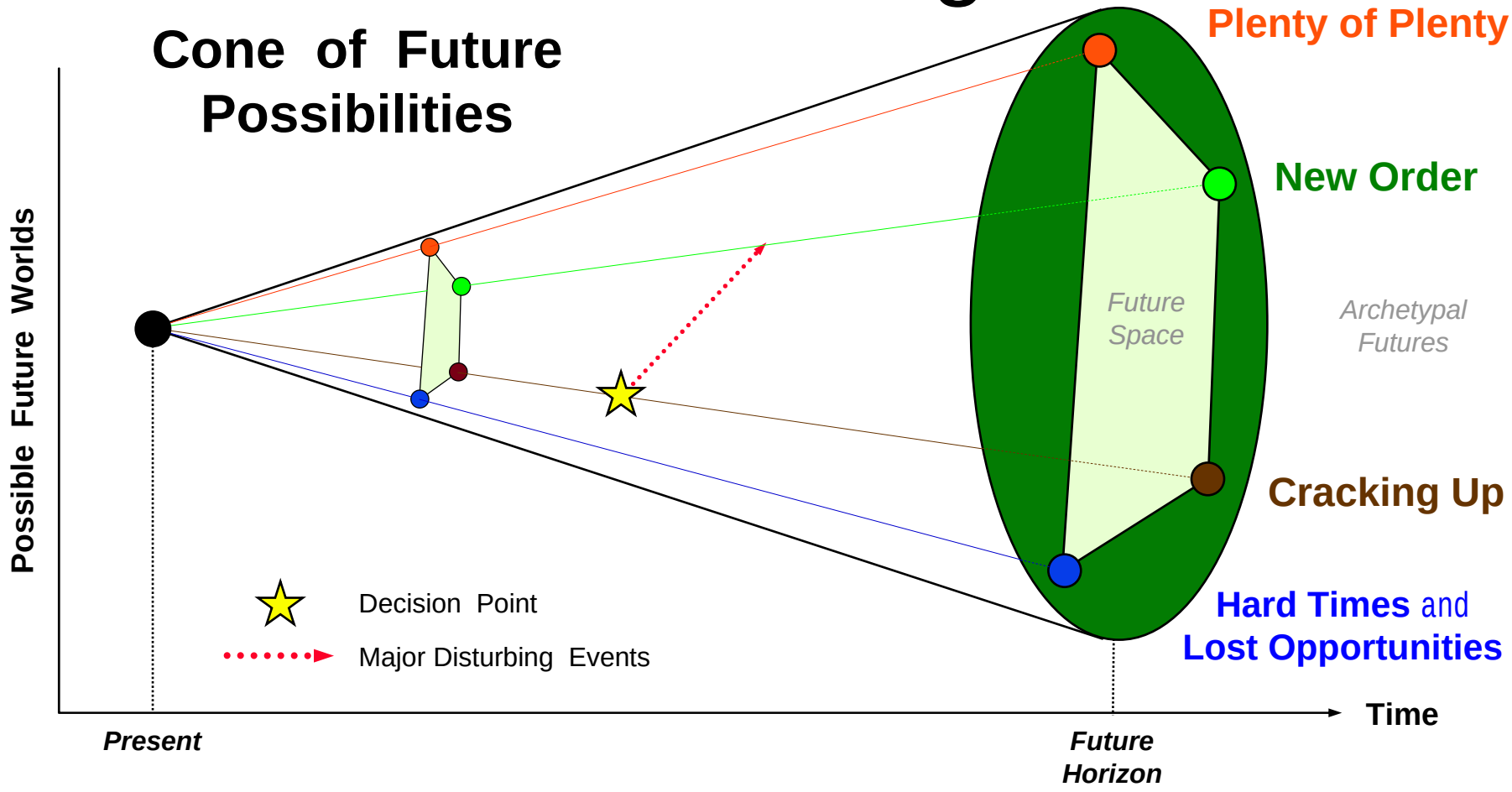
Some Possible Futures for Water Resources

U4 Is water infrastructure adequate to satisfy multiple social demands in 2035?

U10 What will be the frequency and effect of disasters on U.S. environment and population by the year 2035?	Infrastructure fully satisfies social demands	Infrastructure is inadequate for demands
Low frequency and severity	**Plenty of Plenty** 	**Cracking Up** 
High frequency and severity	**New Order** 	**Hard Times and Lost Opportunities** 

US Army Corps of Engineers ®

Scenario-Based Strategic Planning

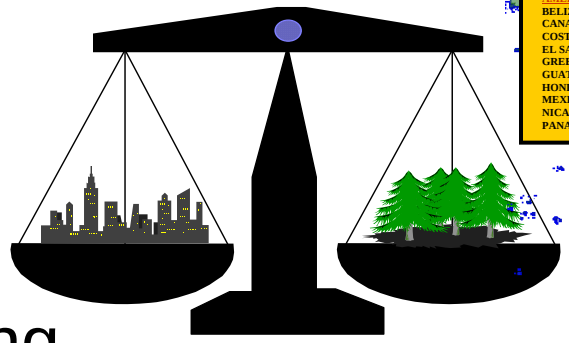


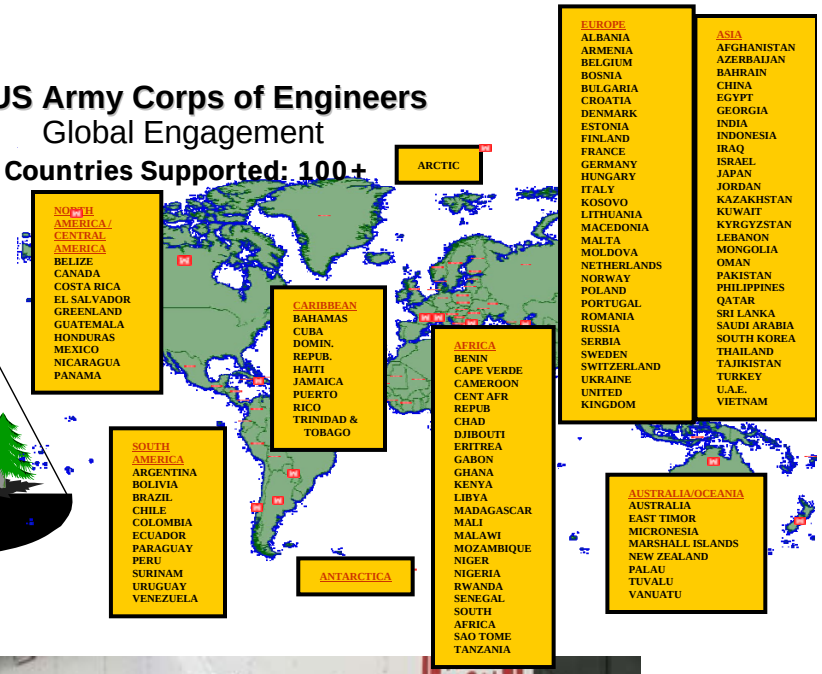
Scenarios do <u>not</u> cover all eventualities, but discover the boundary zone of the future outcomes and expand management's thinking horizon.

US Army Corps of Engineers ®

Core Competencies

- Integrator
- National/global perspective
- Balancer
- Systems thinking
- Diverse technical/scientific workforce
- Marshall capabilities
- Integrated delivery

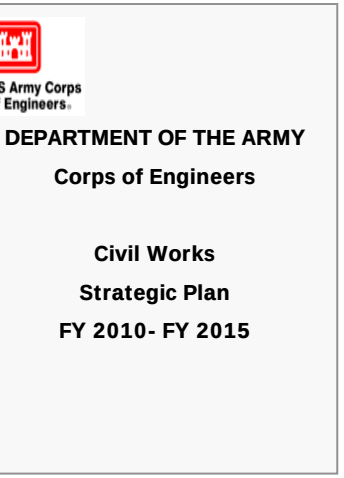




US Army Corps of Engineers ®

Emerging Strategic Requirements

- Broader systems approaches
- Consideration of interacting technical, human, organizational & social factors
- Risk-based decision support tools & skills
- Much broader coalitions & collaboration
- Increased public-private partnerships
- Anticipatory engineering



US Army Corps of Engineers ®

Our New Thinking

Focus	From	To
• Success =	• Projects	• Comprehensive Plans
• Criteria	• NED benefits 1st	• Balance NED, RED, EQ, OSE benefits
• Work	• Stay in functional lane	• Seek horizontal integration
• Knowledge	• Knowledge is power	• Share knowledge
• Style	• Follow SOPs as recipes	• Think creatively, consider risks, think systems
• Money	• Save Federal $	• Leverage resources
• Life cycle	• Plan and build	• Plan, fund & monitor life cycle

US Army Corps of Engineers ®

The Next Civil Works Strategic Plan

- Flows from USACE Campaign Plan
- Scenario-based planning effort
- Position CW for success in an uncertain future
- Forecast skills & capabilities needed out to 2035
- Align vertical teams' standard performance goals
- Set strategies for developing needed capabilities

US Army Corps of Engineers ®

USACE Campaign Plan

Building Tomorrow, Today

Vision: A GREAT engineering force of highly disciplined people working with our partners through disciplined thought and action to deliver innovative and sustainable solutions to the Nation's engineering challenges.

Mission: Provide vital public engineering services in peace and war to strengthen our Nation's security, energize the economy, and reduce risks from disasters

Goal 1. Deliver USACE support to combat, stability and disaster operations through forward deployed and reachback capabilities
Goal Champions: CERD-ZB & CECW-NWD

Obj. 1a. Revolutionize USACE capabilities, responsiveness, and readiness for all deployments
Champions: CECW-NWD & CEMP-O

Obj. 1b. Prepare Theater Engineer Commands to support Combatant Commanders throughout the spectrum of conflict
Champion: CEMP-O

Obj. 1c. Establish human resources and Family support programs that promote readiness and quality of life
Champion: CEHR-ZA

Obj. 1d. Institutionalize USACE capabilities in interagency policy and doctrine
Champion: CERD-ZB

US Army Corps of Engineers ®

Goal 2. Deliver enduring and essential water resource solutions through collaboration with partners and stakeholders
Goal Champion: CECW-ZB

Obj. 2a. Deliver integrated, sustainable, water resources solutions
Champion: CECW-MVD

Obj. 2b. Implement collaborative approaches to effectively solve water resource problems
Champion: CEMVD-PD

Obj. 2c. Implement streamlined and transparent regulatory processes to sustain aquatic resources
Champion: CECW-CO

Obj. 2d. Enable Gulf Coast recovery
Champion: CEMVD-TFH

Goal 3. Deliver innovative, resilient, sustainable solutions to the armed forces and the Nation
Goal Champion: CEMP-ZB

Obj. 3a. Deliver sustainable infrastructure via consistent & effective military construction & real estate support to customers
Champions: CEMP-I, CECW-SAD, & CEMP-SPD

Obj. 3b. Improve resilience and lifecycle investment in critical infrastructure
Champions: CECW-NWD, CESI-ZA

Obj. 3c. Deliver reliable infrastructure using a risk-informed asset management strategy
Champions: CECW-LRD, CEMP-SPD

Obj. 3d. Develop and apply innovative approaches to delivering quality infrastructure
Champions: CERD-ZB, CECW-SAD

Goal 4. Build and cultivate a competent, disciplined, and resilient team equipped to deliver high quality solutions
Goal Champions: CEHR-ZA, CECE-SAD

Obj. 4a. Identify, develop, maintain, and strengthen technical competencies
Champion: CECW-SAD

Obj. 4b. Communicate strategically and transparently
Champions: CEPA, CECI-ZA

Obj. 4c. Standardize business processes
Champion: CERM-ZA

Obj. 4d. Establish tools and systems that enable our leaders and team members to achieve their full potential
Champion: CEHR-ZA

US Army Corps of Engineers ®

Hydropower Workshop Objectives

- **Continue to build a unified Hydropower Community**
- **Revisit high priority strategic initiatives from the 2005 workshop.**
- **Develop a Hydropower Infrastructure Modernization & Optimization Initiative**
- **Review issues and policy relative to hydropower impacts from reallocation of storage**
- **Develop a communications strategy to raise awareness and understanding**

US Army Corps of Engineers ®

How We Can All Contribute?

- **USACE Leadership:**
  - Develop vision, goals, objectives in an open, collaborative way
  - Be “Thought Leaders” Lead the discussion to create the solutions.
  - Implement the Strategic Plan
- **Administration:**
  - Listen
  - “Walk the performance-based budget talk.”
- **Stakeholders:**
  - Contribute to vision, Goals, Objectives, Metrics
  - Participate in Full Cost Pricing solutions
  - Communicate!
    - Adopt the Vision to be the desired future state of water resources development
    - Create national desire for a water resources infrastructure that will serve this Nation’s economic, quality of [all] life and defense needs, today and into the future.
    - Support the budget/financing that enables the vision

US Army Corps
of Engineers ®

Deep Thoughts

- ***There is no shortage of energy, only a shortage of cheap, renewable, environmentally sustainable energy.***
- ***Hydropower is one of those sources and needs to be a major component of a national energy policy.***
- ***Energy Security = National Security***

The Future of America's Infrastructure

- **Now is the time to act**
- **National impact is significant**
- **The great thing about the future is we can change it!**