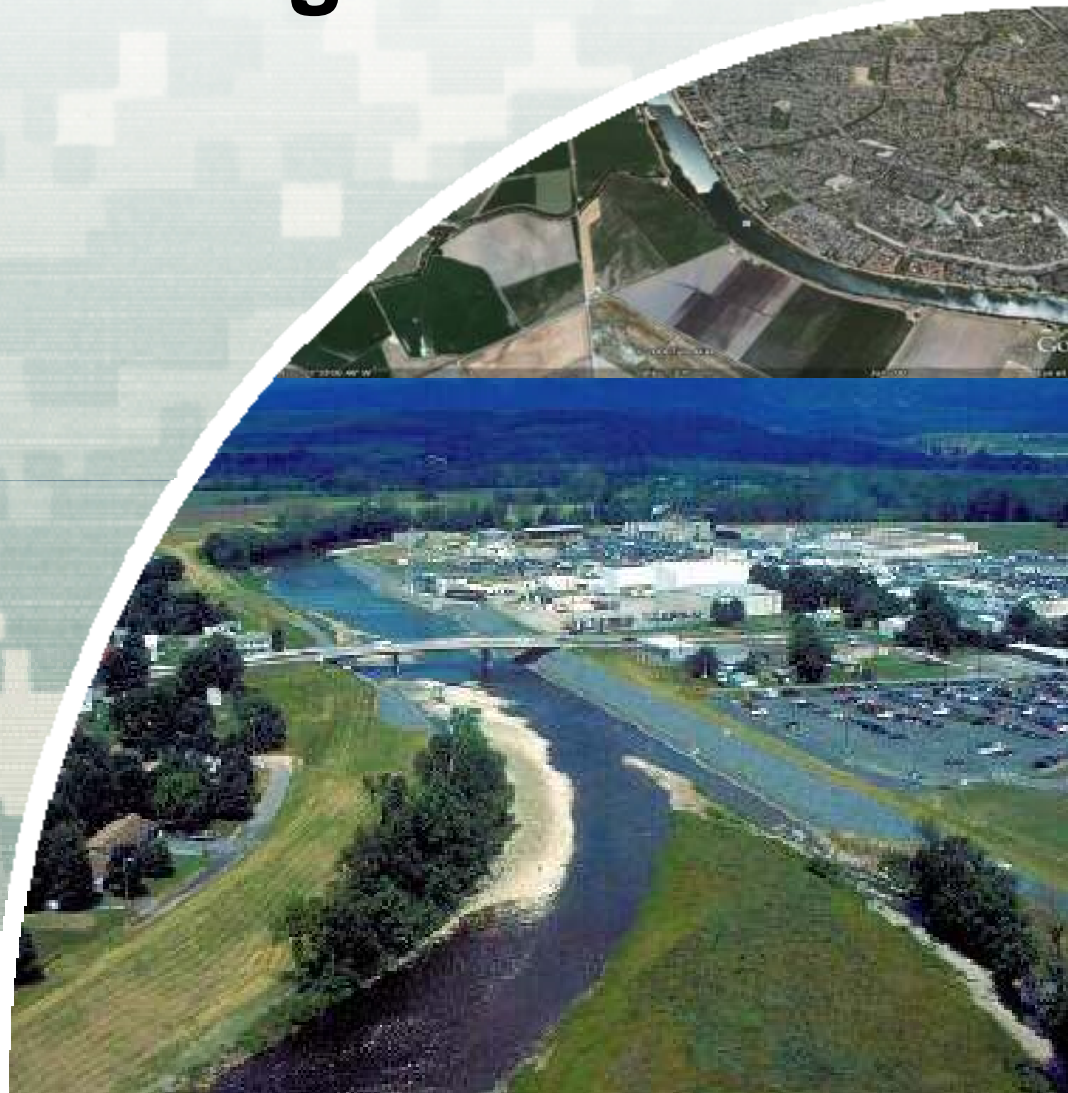


U.S. Updates: Climate Change, Monitoring, Assessment, Maintenance and Investigations

Edward J. Hecker

Chief, Office of Homeland Security and
Provost Marshal, Directorate of Civil
Works

June 15, 2010



Updates

- Climate Change
- Risk MAP
- Watershed Investment Decision Tool
- Flood Risk Management Collaboration Initiatives



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Climate Change: Bottom Line Up Front

- Climate change impacts are most effectively dealt with on regional to local basis using nationally consistent, comprehensive approaches
- Though knowledge is incomplete, it is sufficient to begin adaptation measures
- We are developing methods to establish priorities and begin implementation



Responses to Climate Change Program

- Develop national consistent, regionally sensitive adaptation strategies for climate change
- Undertake regional vulnerability assessments
- Identify representative pilot projects by type and region

<http://www.iwr.usace.army.mil/climatechange/index.cfm>



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Interagency Climate Change Adaptation Working Groups

- CEQ interim progress report (March 2010)
 - ▶ Adaptation principles
 - ▶ Six-step flexible framework for adaptation
- Four agencies piloting CEQ framework
 - ▶ Corps: 4 pilots (multipurpose reservoir, beach renourishment, ecosystem restoration, planning study)
- Two additional pilots by Corps to address:
 - ▶ Understanding how the climate is changing
 - ▶ Application to Mission and Operations



Climate Change and Water Working Group

- Participation from six federal agencies
- Working to identify and fill knowledge gaps
- Two reports:
 - ▶ *“Addressing Climate Change in Long-Term Water Resources Planning and Management: User Needs for Improving Tools and Information”*
 - Report by Corps of Engineers and Bureau of Reclamation
 - Publication anticipated Fall 2010
 - ▶ *“Use of Weather and Climate Forecasts in Federal Water Resources Management: Current Capabilities, Required Capabilities, and Gaps” (internal/external review underway)*
 - Report by Corps of Engineers and Bureau of Reclamation
 - Internal/external review currently underway



Exploring Further Progress

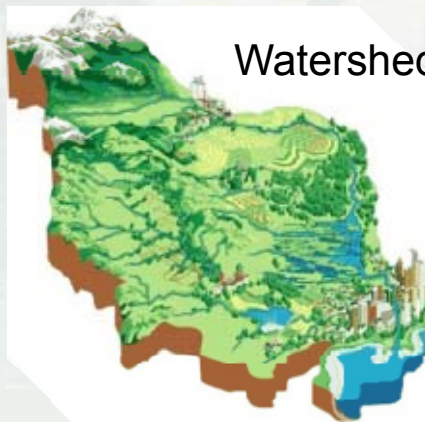
- Two Workshops:
 - ▶ Nonstationarity, Hydrologic Frequency Analysis, and Water Management (Boulder, CO; Jan. 2010)
 - ▶ Assessing a Portfolio of Approaches for Producing Climate Change Information to Support Adaptation Decisions (Aug. 2010)
- Statistical downscaling to obtain fine-resolution data for assessing short-term operations, especially flood space effects (with recognized increased uncertainty)



Risk MAP (Mapping, Assessment, Planning)

What and How

Through collaboration with State, Local, and Tribal entities, Risk MAP will deliver quality data that increases public awareness and leads to action that reduces risk to life and property



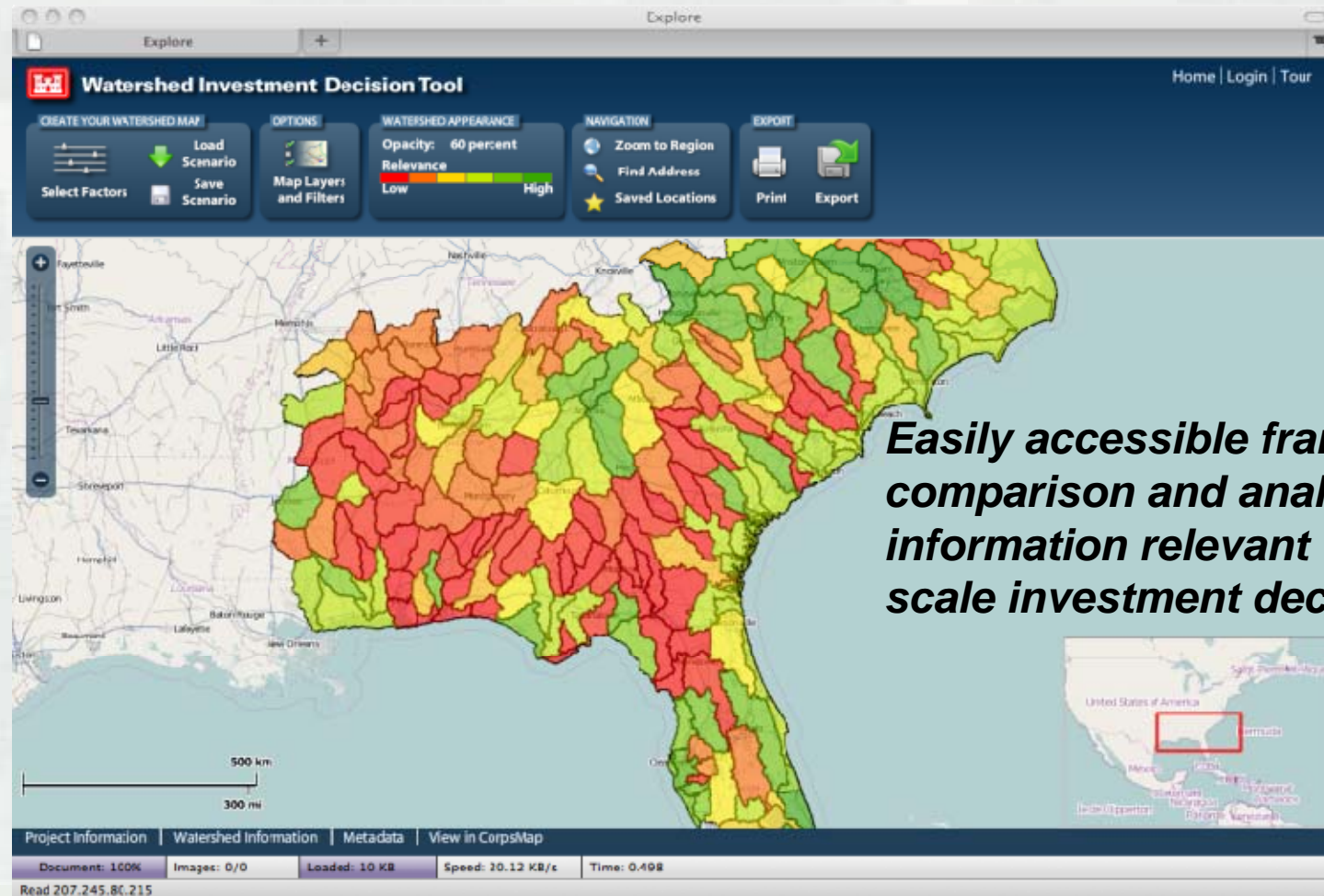
Watershed Approach



Science Based



Watershed Investment Decision Tool



Easily accessible framework for comparison and analysis of information relevant to watershed-scale investment decisions



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Watershed Investment Decision Tool



- Builds on existing data sets, models, tools
- Accommodates numerous decision criteria and indicators
- Accounts for different types or levels of decisions
- Supports tradeoff analysis across competing investments
- Displays complex information to a wide range of users
- Promotes public/private sector integration and synchronization
- Visualizes impacts of budget authorization and appropriation decisions





Watershed Investment Decision Tool

Home | Login | Tour

CREATE YOUR WATERSHED MAP



Select Factors



Load Scenario



Save Scenario

OPTIONS



Map Layers and Filters

WATERSHED APPEARANCE

Opacity: 40 percent

Relevance

Low High

NAVIGATION



Zoom to Region



Find Address



Saved Locations

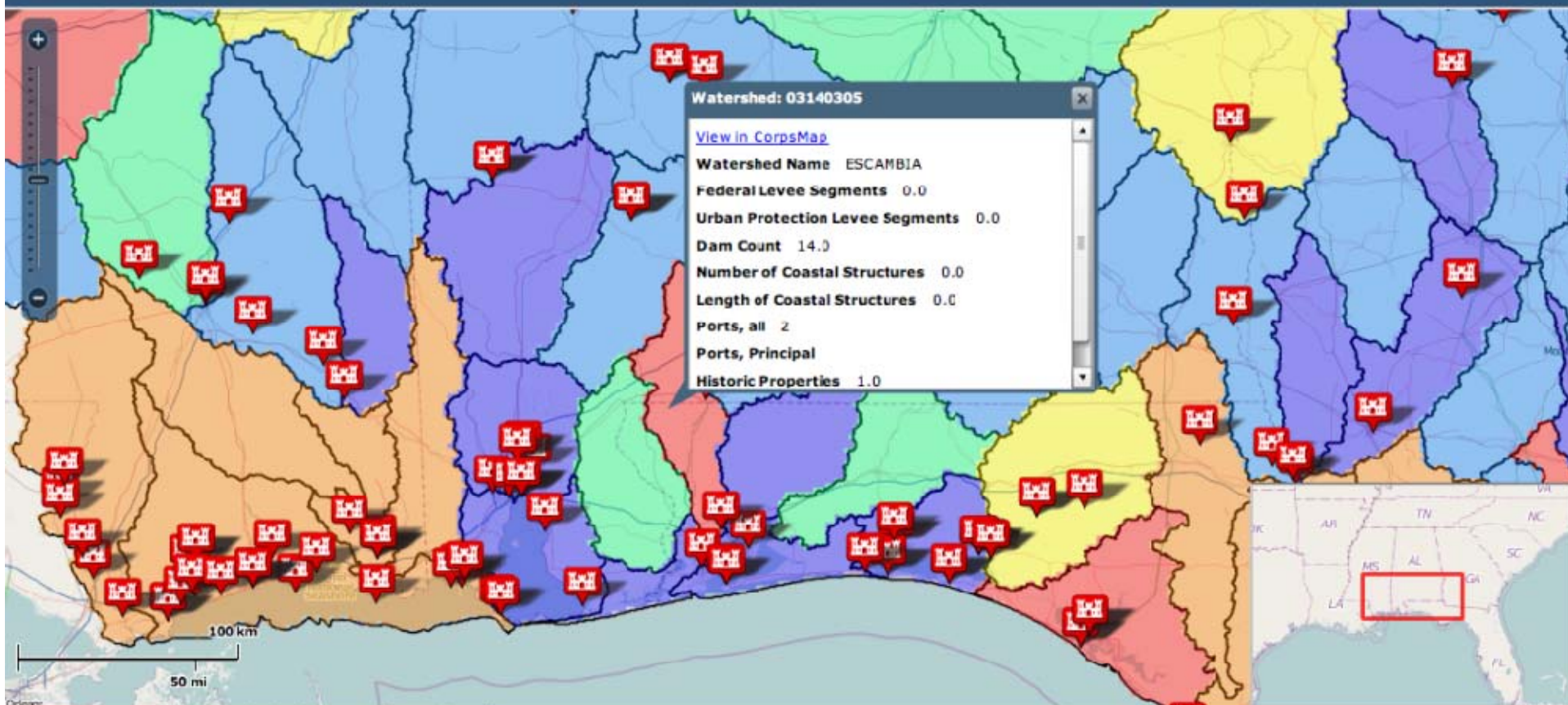
EXPORT



Print



Export



Project Information | Watershed Information | Metadata | View in CorpsMap

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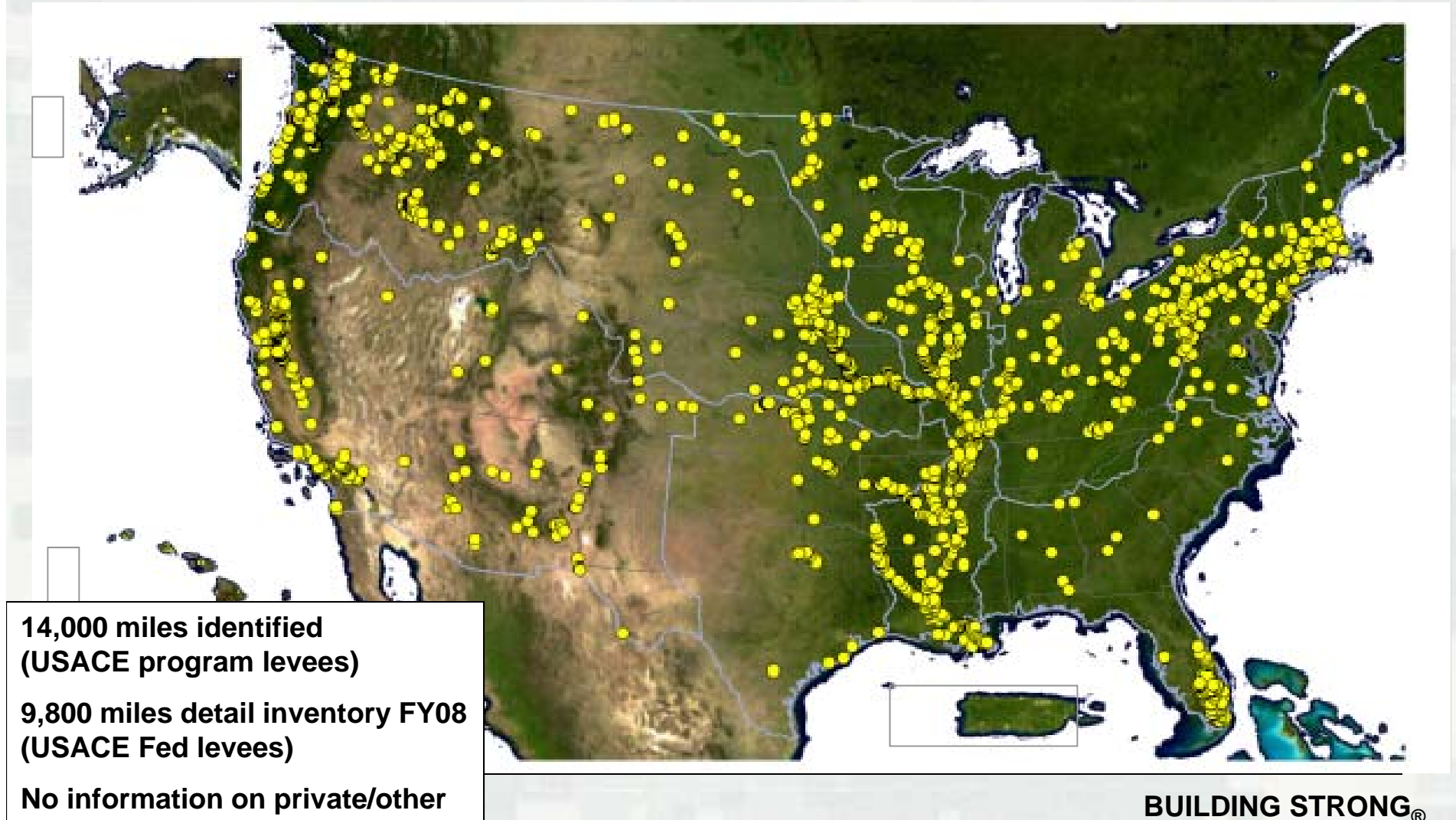
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National Flood Risk Management Program

U.S. Army Corps of Engineers (USACE) Program Levees



Silver Jackets

- Intergovernmental partnerships at the state level
 - Implements coordinated solutions to State flood risk management priorities
 - Coordinate and leverage available resources and information between agencies
 - Facilitate state level life-cycle planning to reduce flood risks



SILVER JACKETS PROGRAM STATUS



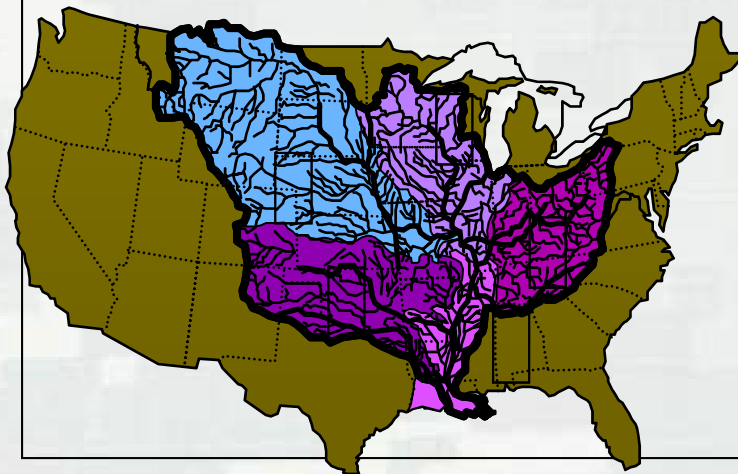
Legend

- Active Intergovernmental Flood Risk Management Team
- * Fully Signed Team Charter
- Discussions to Develop Team Ongoing

May 04, 2010

Upper Midwest Regional Partnership

Interagency Levee Task Force



- Formed after 2008 midwest flood
- Include federal and state members
- Objectives and procedures established by charter
- Operated for one year
- Focused on coordinating FDR systems recovery

Transition

Regional Flood Risk Management Team

- Regional Federal & State partnership
- Team objectives established by charter
- A facilitated collaborative, comprehensive regional approach to flood risk management and recovery
- Facilitate regional communication and information sharing
- Develop & recommend comprehensive intergovernmental regional flood risk management strategies



Federal Interagency Floodplain Management Task Force

11 Water Oriented Agencies

Meet quarterly to align and unify federal floodplain and risk management programs and issues

Re-instituted September 2009

Developing five-year work plan

Conducting public listening sessions

Drafting updated Executive Order governing floodplain management



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Questions?



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