

Proposed National Levee Safety Program *Informational Webinar for Tribes*

March 11, 2011
2:00 – 3:30 pm Eastern Time



Presentation Overview

- U.S. Levee Situation
- The Perfect Storm
- Overview of Recommendations
- Actions in 2010
- Questions



Levee Situation in the U.S.



About Our Nation's Levees

California's State Engineer, William Hammond Hall, reportedly stated:

"...There are two kinds of levees, those that have failed and those that will fail."



Levees: A Long History



1600's – 1920's



Large Federal Projects: 1920s – 1960s

1928 Flood Control Act

- Established Federal Interest in Flood Control Structures
- Authorized Flood Control Projects on Mississippi River Drainage Basin and Sacramento River
- Other Flood Control Acts and projects to follow

Mississippi River Drainage Basin



The National Flood Insurance Program

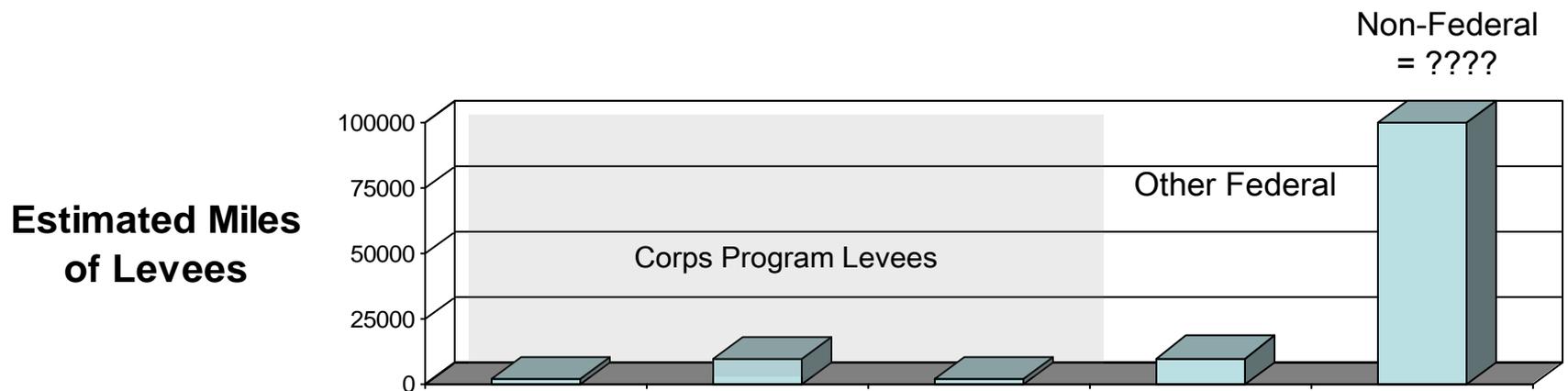
Unintended Consequences (1960's – present)

- ✓ 1968 Establishment of FEMA National Flood Insurance Program and selection of 100-year Flood Protection for Preferred Insurance Rates/ Development Limitations
- ✓ 1986 Water Resources Development Act Establishing Non-federal Cost Sharing for Federal Flood Control Projects
- ✓ Lack of Understanding about Flood Risks

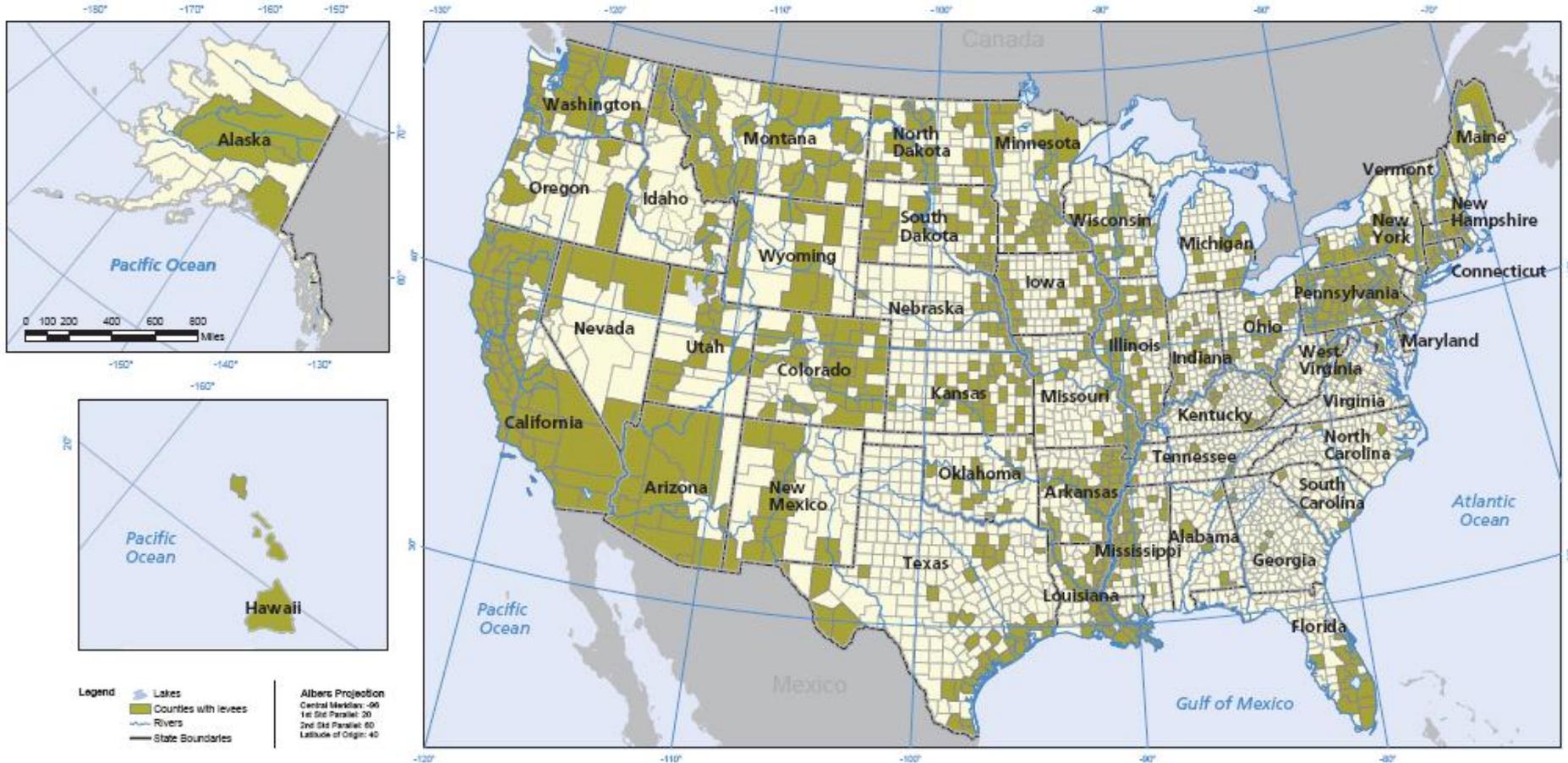
Led Communities and Public Agencies to Only Seek Up to 100-year Flood Protection

Levees Are Abundant and Integral to Communities

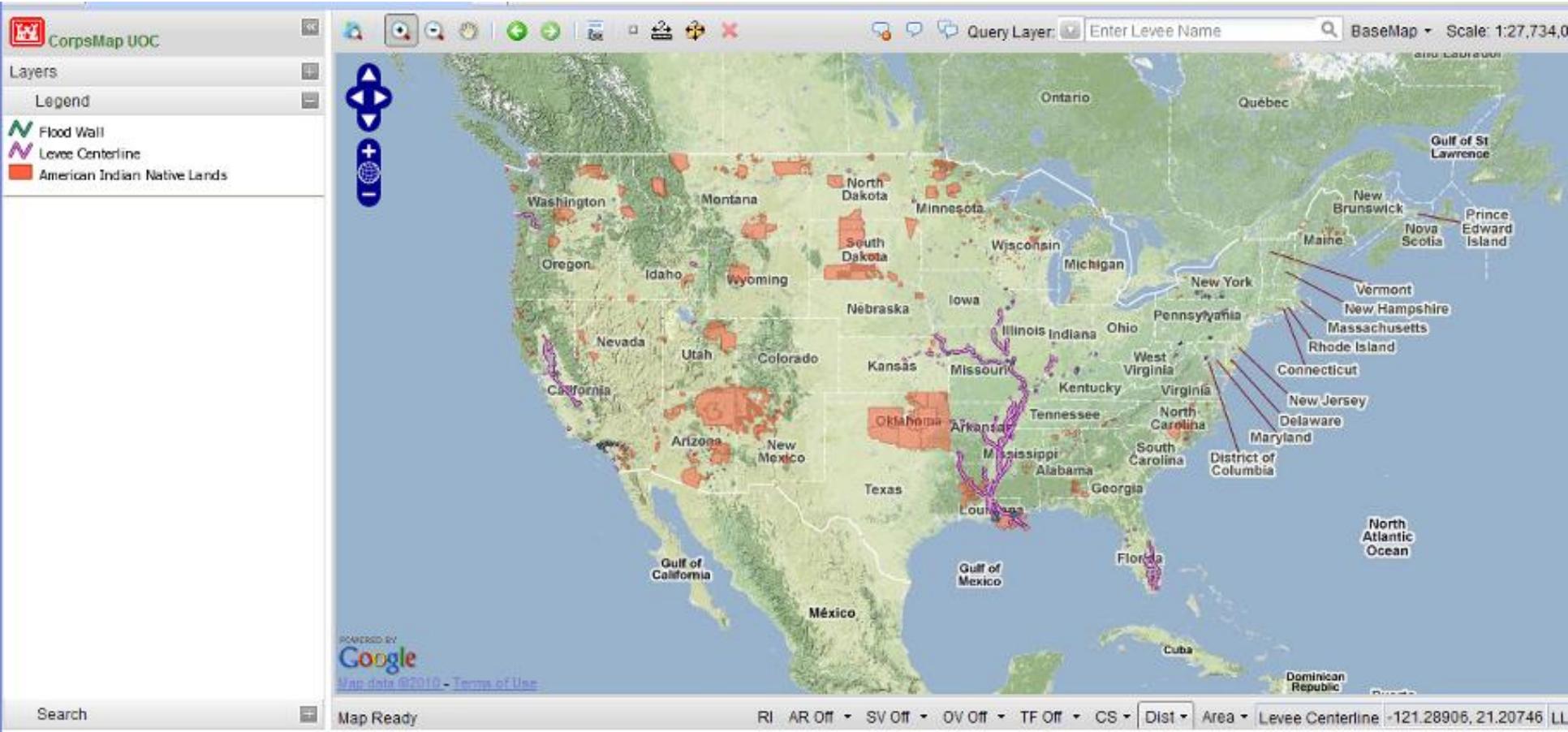
- Levees are critical for the protection of people, property and other critical infrastructure.
- We do not know how many miles of levees there are, their location or their condition



Counties Where Levees Are Found



Levees & Tribal Lands



Dry Creek Rancheria with Leveed Areas



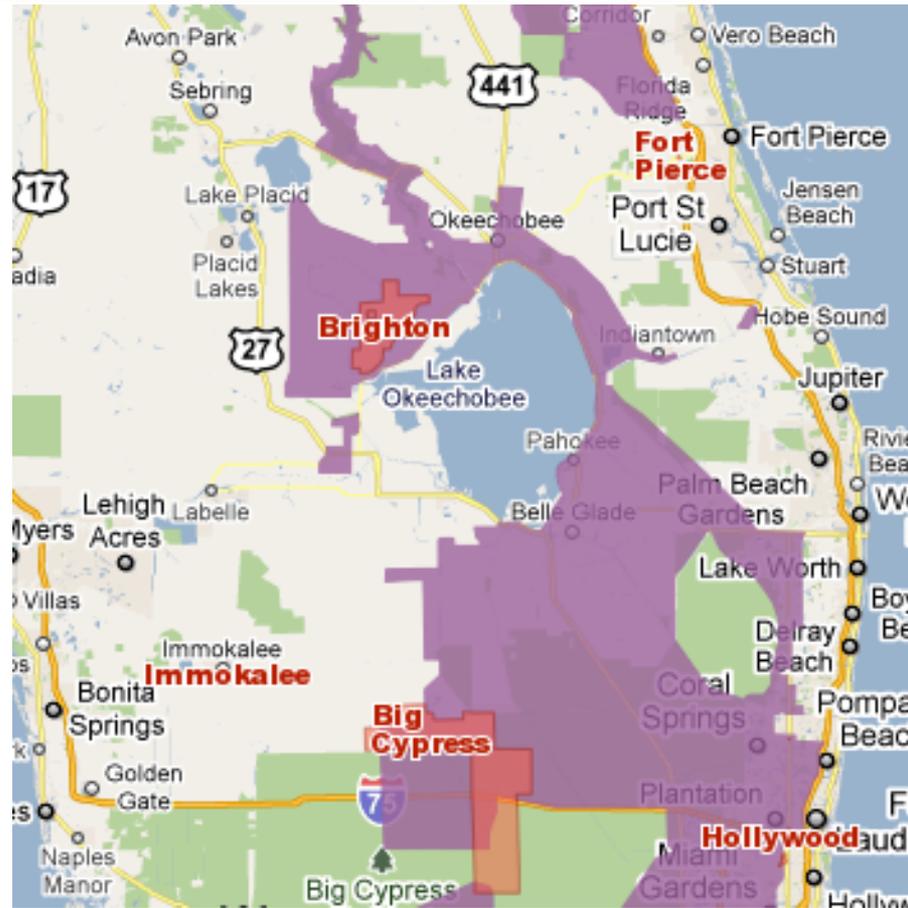
Levee Data Source: Levee Protected Areas from National Levee Database

Tribal Land Source: American Indian and Alaska Native Data from US Census Bureau 2000

 Indian Land

 Potential Consequence Area

Seminole Lands with Leveed Areas



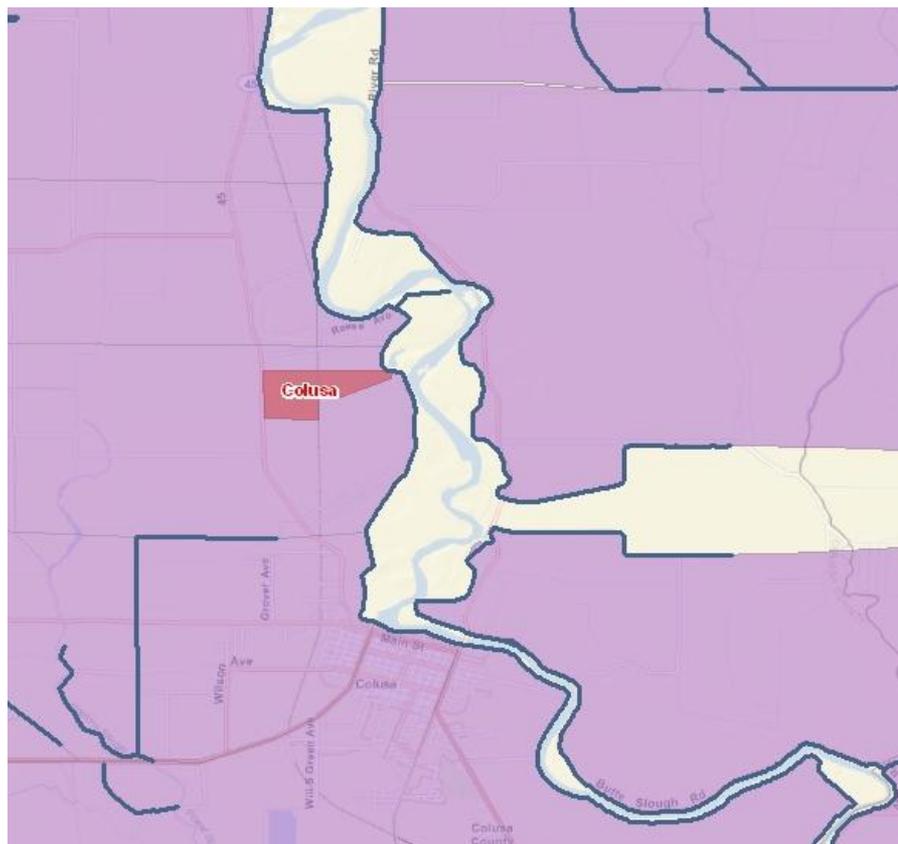
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Indian Land

Potential Consequence Area

Colusa Indian Community with Leveed Areas



Levee Data Source: Levee Protected Areas from National Levee Database

Tribal Land Source: American Indian and Alaska Native Data from US Census Bureau 2000

Indian Land

Potential Consequence Area

No National Levee Safety Standards

- Many levees were designed for one purpose now serving another
- There are no national levee construction, maintenance, or inspection standards
- Levees are an integral part of a flood risk reduction system – but most have not been built that way

Levees are Part of a System





The Perfect Storm



Unknown Risk and Consequences

- Levees reduce flood risk – they don't eliminate it
- We do not have an accurate picture of residual flood risk
 - Average age of levees is 50 years
 - Total Risk Impacts are changing and unknown: Climate Change, Infrastructure Degradation, Increasing Population Growth

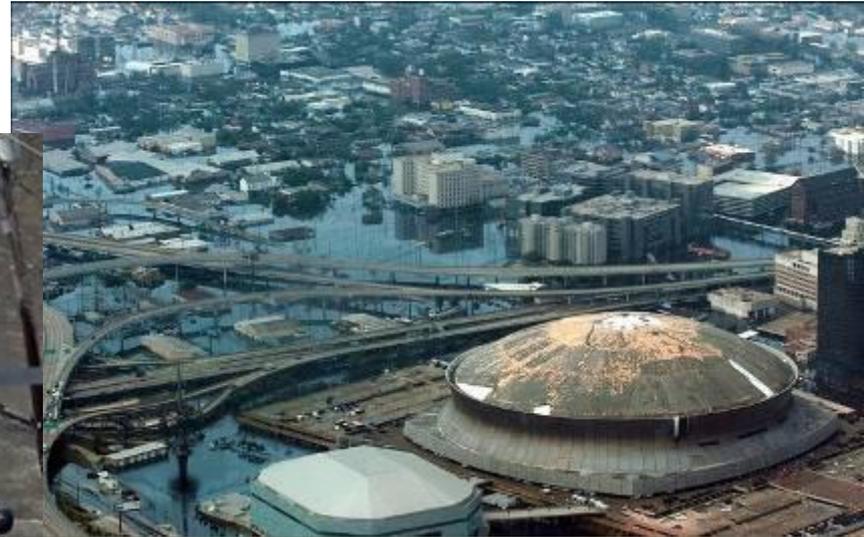
Unheeded Wake Up Calls

- 1993 Midwest Floods
- 1997 California Central Valley



Missouri River, 1993

Wake-Up Call We Couldn't Ignore - Katrina



Impacts Continue – Hurricane Gustav Impacts in Houma Community 2008



National Committee on Levee Safety

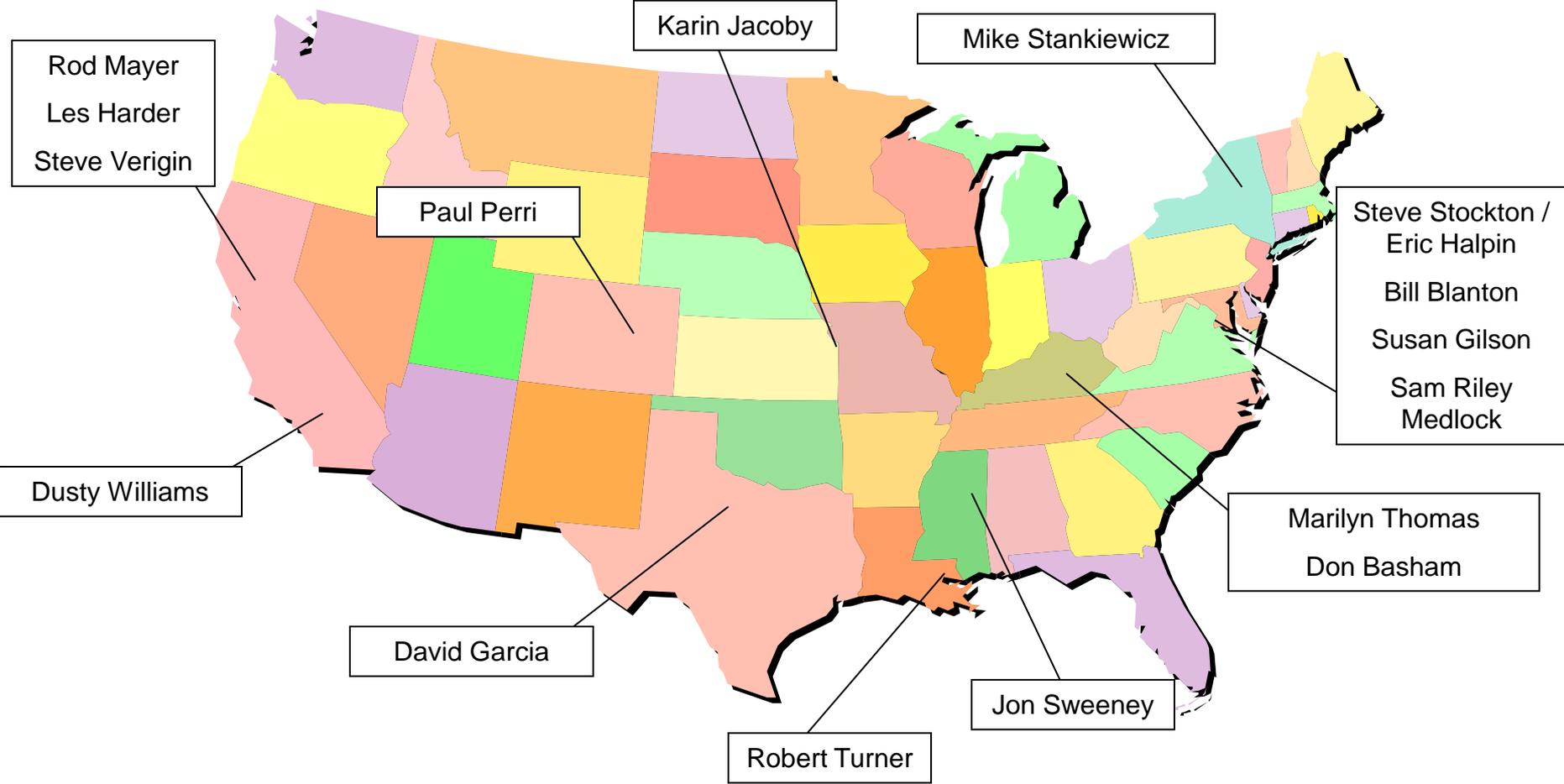
“The committee shall develop recommendations for a National Levee Safety Program, including a strategic plan for implementation of the program.”

- Multidisciplinary: Engineering, Law, Public Administration, Business, etc.
 - Diversity of Interests: Primarily non-federal composition, supported by USACE and FEMA
 - Reaching Beyond the Committee: External Review of Recommendations and planned Stakeholder Involvement
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Tribal Involvement in Committee Efforts

- Tribes and Nations solicited to provide representatives for the Committee
 - Unable to commit resources needed for full involvement given significant level of effort anticipated
- Tribal representatives participated in technical review team
 - Confederated Salish & Kootenai Tribes, Flathead Indian Reservation, Montana
 - Seminole Indian Tribe of Florida
- New call for tribal representatives to join the Committee

Representatives from Across the Country



Vision for Levee Safety in the U.S.

An involved public and reliable levee systems working as part of an integrated approach to protect people and property from floods.

Working Themes

- Focus on *existing* levees
- Shared responsibility from individuals and government requirement for success
- Levee safety is part of a larger flood risk management context
- Education and communication are key to success

Review of Recommendations



Recommendations for a National Levee Safety Program



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graph TD; A[National Levee Safety Program] --- B[Comprehensive and Consistent National Leadership]; A --- C[Strong Levee Safety Programs in all states and tribal areas]; A --- D[Aligned Federal Programs];
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**National
Levee Safety
Program**

**Comprehensive
and
Consistent
National
Leadership**

**Strong Levee
Safety Programs
in all states and
tribal areas**

**Aligned
Federal
Programs**

Recommendation Highlights

- National Levee Safety Program governance and state levee safety programs
- Creating a national inventory of levees
- Environmental protection & levee safety
- The National Levee Rehabilitation, Improvement, and Flood Mitigation Fund
- Require risk-based flood insurance
- Liability concerns related to levees

Establish a National Levee Safety Commission & State Programs

- Effective governance of the Program
 - Ability to act independently from any single agency
 - Provide national leadership
 - Include expertise in organization, engineering, environment, grant making, communications
 - Mechanism to align federal programs
- Organizational Structure
 - New agency with functional/operational responsibility for NLSP
 - Commission of state and local government to advise and direct
- Standing Advisory Committees
- State Programs Are Crucial
- Tribal Programs will also be important for having a complete National Levee Safety Program

Expand and Maintain the National Levee Database

- Current State: an uncertain number, an uncertain condition
- Develop a comprehensive national inventory of levees and maintain a comprehensive National Levee Database
- USACE to perform one-time inspection of all levees in the U.S. regardless of ownership
- Corps to expand current inventory of levees to:
 - include all levees nationwide,
 - perform one-time inspection of inventoried levees, and
 - with 100% Federal funding.
- Corps to expand current levee database to include performance data and additional levees identified in inventory

Harmonize Environmental & Safety Concerns

- **Establish an interdisciplinary Standing Advisory Committee that would:**
 - Direct Research and Development efforts to enhance compatibility of Operations & Maintenance practices with environment
 - Work toward national solutions to environmental and public safety challenges and decisions
 - Encourage State Levee Safety Programs to coordinate with natural resource interests

Require Flood Insurance and Mapping Behind Levees

- Require flood insurance for all structures behind levees.
- Premiums should be ***risk-based*** to incentivize risk reduction activities and reliable levees.
- Recommend FEMA include on FIRMS/DFIRMS consequence areas behind levees (AL or XL zones) improve risk understanding.
- FEMA website should include 200 & 500 yr.

Understand and Address Liability Concerns Related to Levees

- Liability concerns may impede development of strong state levee safety programs, levee accreditation, performance liability
- Legal situation is unclear
- Asked Congress to direct the Congressional Research Service to research current state of law:
 - Damages due to levee failure or overtopping
 - Liability concerns related to data certification for NFIP
 - Changing engineering, legal insurance practices
- Public policy implications

Actions in 2010 and 2011



Activities Under Current Authorities

- Expanding the National Levee Database
 - Study to align federal programs with (with the Federal Interagency Floodplain Management Task Force)
 - FEMA efforts to “rethink” the NFIP
 - Developing standards via the International Levee Handbook
 - Developing Tolerable Risk Guidelines
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Sharing Recommendations with Congress

- Identified specific areas where legislation was needed to move recommendations forward
- Nonfederal members of the Committee developed draft legislative framework & shared with Congressional staff
- Continue to work to revise and respond to Congressional inquiry

Congressional Feedback

- Cost of program difficult in economic times
 - Feasibility of Independent Commission
 - Anticipated public reactions?
 - Explore combining with National Dam Safety Program
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Getting the Word Out

- Developing detailed issue papers
 - Updating NCLS web site
 - Developed a stakeholder involvement plan
 - Working together with FEMA to coordinate levee safety awareness messages
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Solicit Further Input

- Conducting regional workshops
- Targeted input from particular interests
 - States, environmental organizations, highways, etc.
- Tribal engagement process
- Coordinate messages and further recommendations with interested groups

Past Stakeholder Meetings

- Binghamton, NY (18 May 2010)
- Kansas City, MO (29 July 2010)
- Ohio Valley: KY, OH, IN (11 August 2010)
- Dallas, TX (6 October 2010)
- Sacramento, CA (26 October 2010) – Tribal Session
- Sacramento, CA (27 October 2010)
- Portland, OR (9 November 2010)
- Augusta, GA (9 December 2010)
- Boise, ID (10 February 2011)

What We Are Hearing from Stakeholder Meetings

- Supportive of recommendations. Levee safety is a problem that is getting worse
- Debate about where levee safety ends and flood risk management (overall) starts.
- Continue awareness/education efforts
 - Many still unaware of risk
 - Confused about existing NFIP
 - Focus more efforts on non-federal levees
- National inventory and inspection seen as good baseline steps.

What We Are Hearing (cont'd)

- Expect push back on insurance recommendation from constituents
- Need further detail and input from states and tribes
- Be clearer on recommendations regarding new vs. existing levees
- Representation on Commission must be broad
 - Federal agencies to ensure alignment
 - Non-federal levee owners and operators

What We Are Hearing From Tribes

- There is a range of different types of Native American communities – different concerns, different resources, different legal status – demands flexible approaches
- Tribes may have significant cultural interests and impacts related to activities on and around leveed areas
- Tribes may want to identify general areas of interest or concern in the NLD
- Levees often serve to separate tribes from important cultural/natural resources
- Tribes follow geographic lines, not county lines – need for a “national program”

What We Are Hearing From Tribes (cont'd)

- There is a strong connection between dams and levees – both control water flows and have similar impacts
- Those most at risk are often least able to pay for insurance and levee safety measures – costs should be shared across communities in a levee system
- The Committee should move forward with developing standards so that projects that were getting started could have the benefit of building to these new standards
- Concern about pesticide use on the water side of levees because runoff goes directly into rivers and waterways
- The Committee should look closely at whether or not levees are needed and where they are placed

Cost and Benefits of a NLSP

- Ongoing activities to quantify economic costs and benefits.
- Estimate future costs/damages with and without the program.
- Program costs v. disaster relief costs

Thank You

www.leveesafety.org

Questions?
