

# U.S. Case Studies: Coping

**Edward J. Hecker**

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

4-Lateral Exploration of Risk-Informed  
Flood Management Approaches

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# Case Study 1: Gulf Coast

- Hurricane Katrina
  - ▶ Highest recorded wave and surge conditions
  - ▶ Multiple storm damage reduction projects
  - ▶ Impacts:
    - 200 miles of damaged levees
    - 1800 deaths
    - \$30B property loss
    - \$200B indirect loss
    - Flood depths >15 feet







# Case Study 1: Gulf Coast

- Repair the damages, making what was there before whole again.
- By 1 June 2011, strengthen and improve the system and provide level of risk reduction capable of withstanding the effects of a storm having a 1% chance of occurring each year.
- Current funding level \$14.3 B (fully funded).
- Study and recommend solutions to provide higher levels of protection; restore and protect coastal wetlands.



# Case Study 1: Gulf Coast

- Buy-outs of people from flooded areas
- Addressing social considerations in preparation and planning
- Considering effects of environment on reducing flood risks, and of flood risks on the environment
- Coordination





# Case Study 2: Sacramento and San Joaquin Rivers



- 3 hydrologic regions
- 450 miles long, 50 miles wide
- Highly productive agricultural area
- Important ecosystem
- Home to 4.4 million people



# Case Study 2: Sacramento and San Joaquin Rivers

**FloodSAFE California:** A multi-faceted program to improve public safety through integrated flood management.

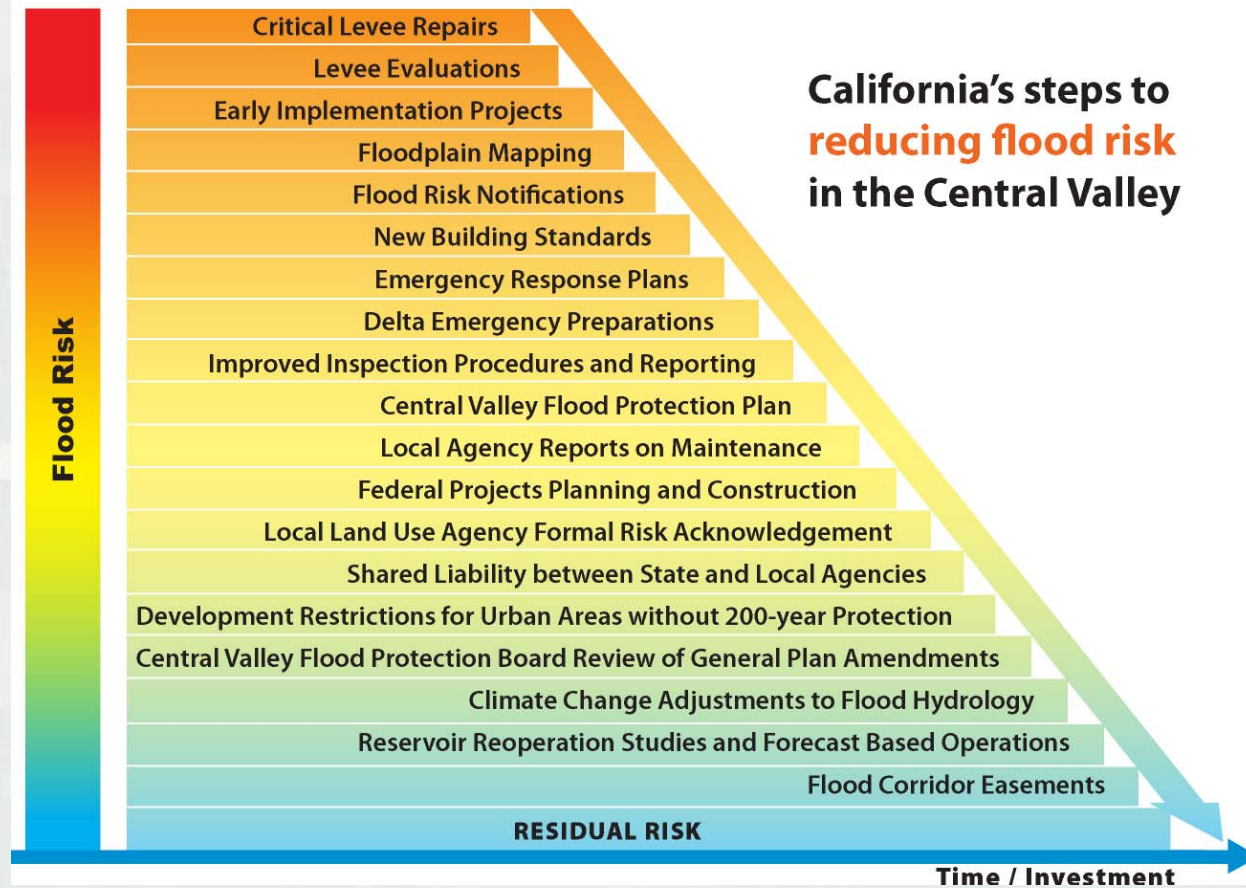


- Statewide Program
- 5 Major Goals
- \$5 B in funding provided
- Big focus on State-federal system in Central Valley and Delta
- ~10 year effort



# Case Study 2: Sacramento and San Joaquin Rivers

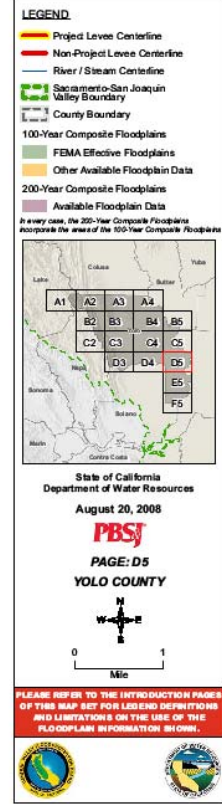
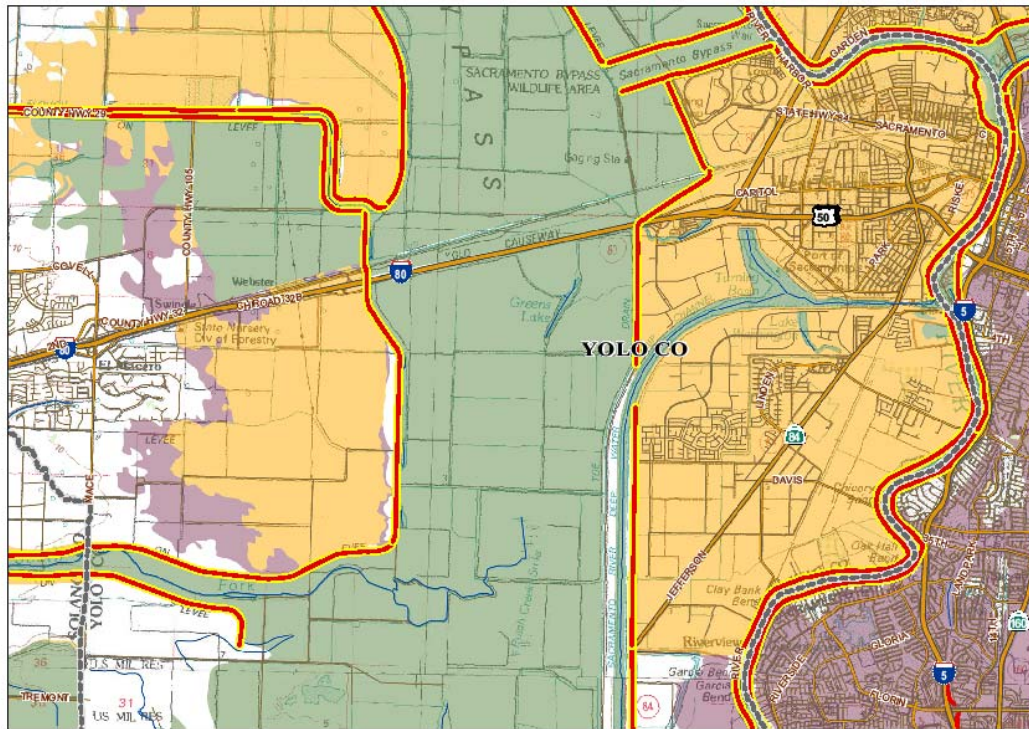
## FloodSAFE: Investing to Reduce Risk





# Case Study 2: Sacramento and San Joaquin Rivers

## Preliminary 100- and 200-Year Floodplains Based Upon Best Available Data



# National Flood Risk Management Program

**Vision:** To lead collaborative, comprehensive and sustainable national flood risk management to improve public safety and reduce flood damages to our country.

**Mission:** To integrate and synchronize the ongoing, diverse flood risk management projects, programs and authorities of the US Army Corps of Engineers with counterpart projects, programs and authorities of FEMA, other Federal agencies, state organizations and regional and local agencies.

**Desired Outcome:** Achieve overall flood risk reduction to the nation.



# Partnerships

- Intergovernmental Flood Risk Management Committee
- Interagency Levee Task Force
- Silver Jackets





# National Dam Safety Program

## Corps' Dam Safety **Portfolio Risk Management Process**

Risk Informed Priorities for Permanent Risk Reduction

Tolerable Risk Guidelines

Interim Risk Reduction Measures

Issue Evaluation Studies

Dam Safety Modification Reports

Periodic Inspections/Periodic

Assessments/Asset Management

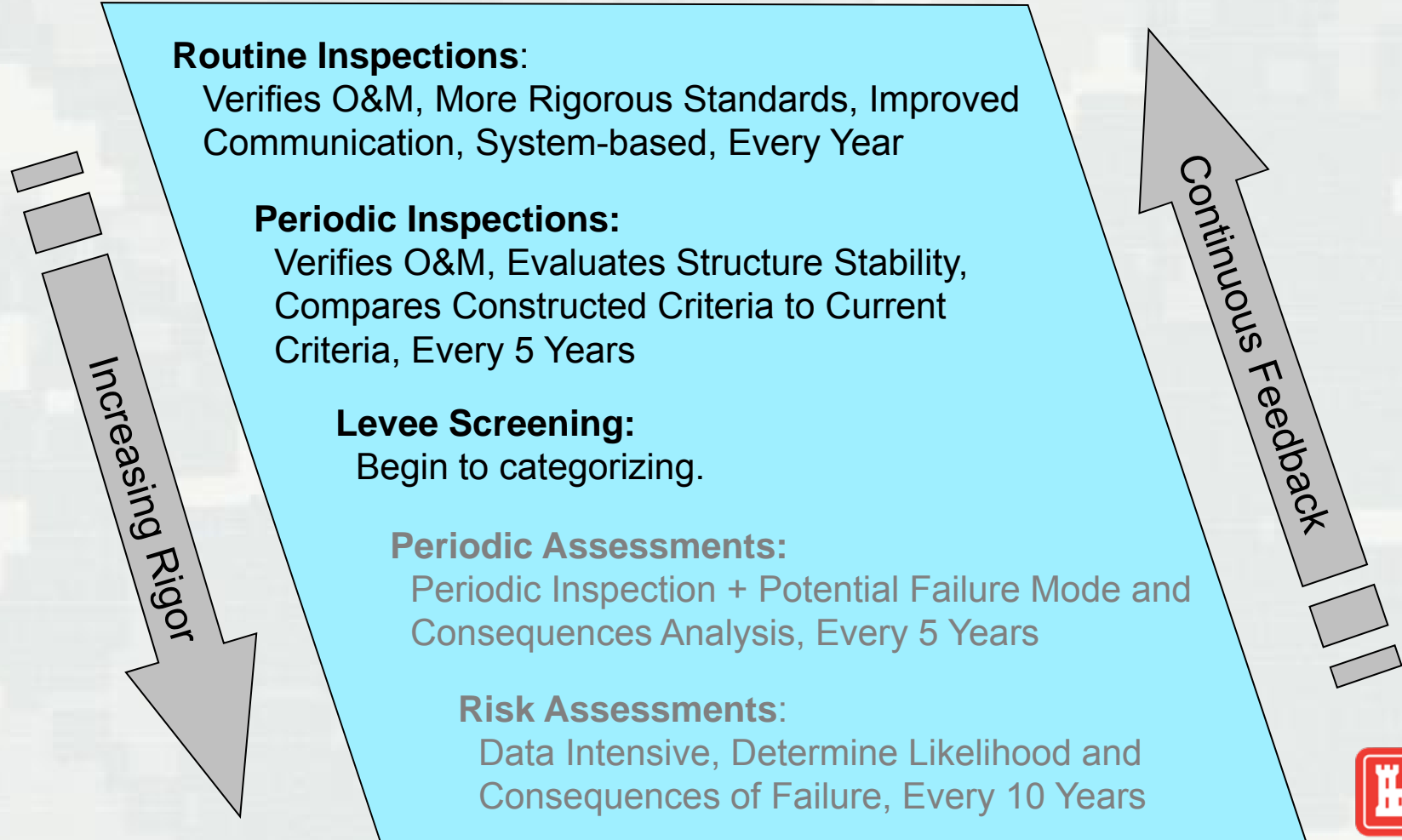


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# National Levee Safety Program

**Mission:** Assess integrity and viability of levees, recommend actions to assure levee systems do not present unacceptable risks to public, property, environment.



# Questions?



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