

# NON-URBAN LEVEE EVALUATIONS

## Central Valley Flood Management Planning Regional Forums June 2009

California Department of Water Resources



## Session Goals

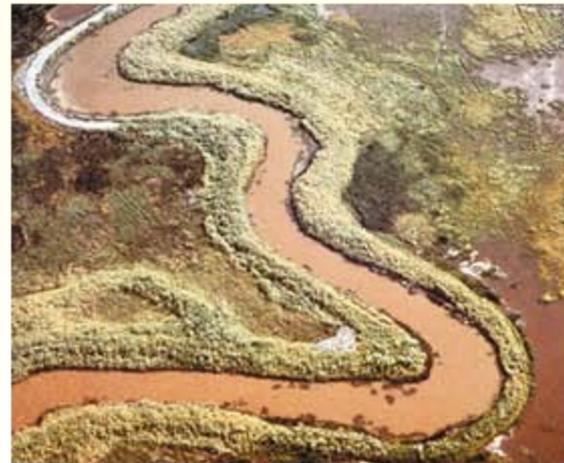
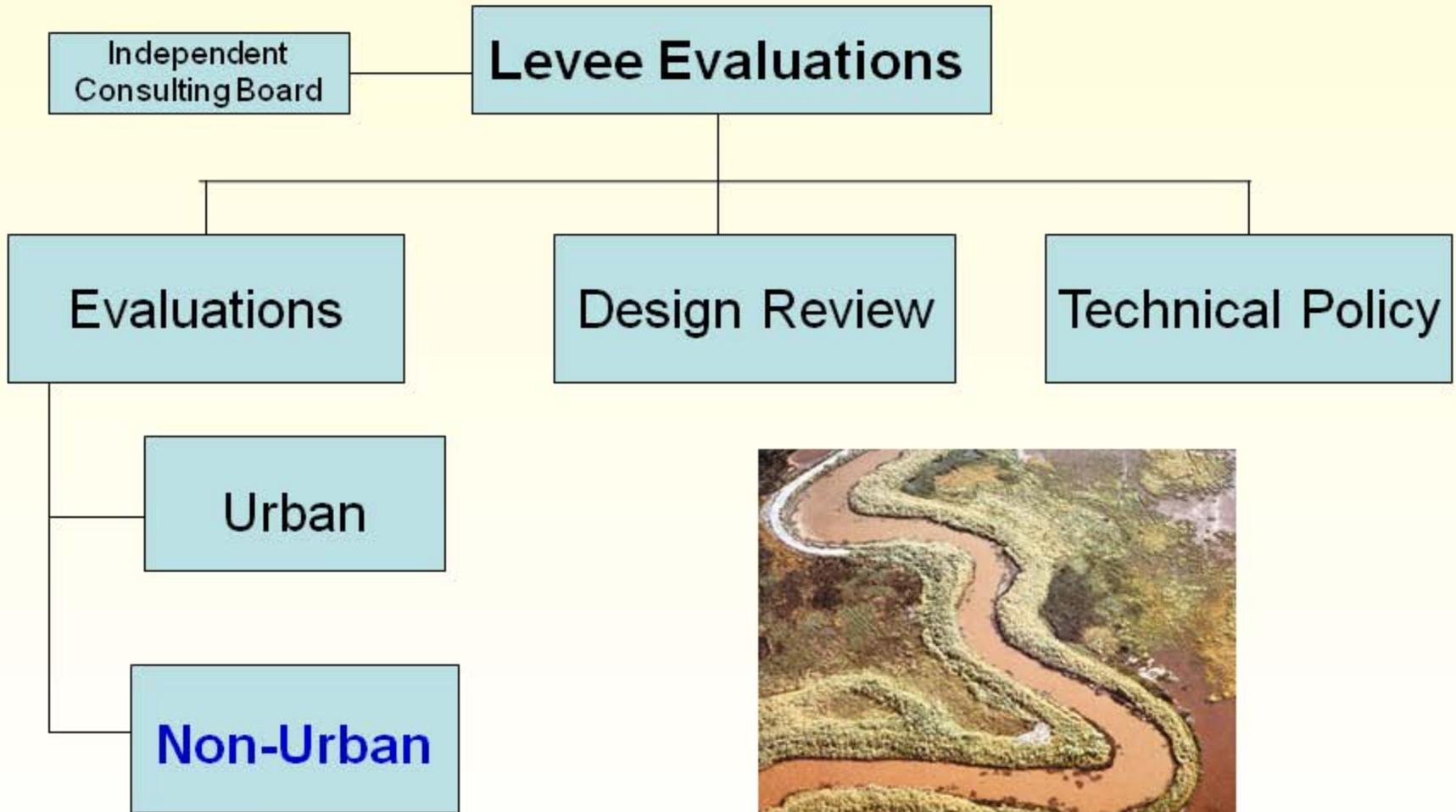
- Introduce Non-Urban Levee Evaluation Program
- Introduce proposal for non-urban levee physical exploration in Summer/Fall 2009
- Discuss your thoughts about our proposal



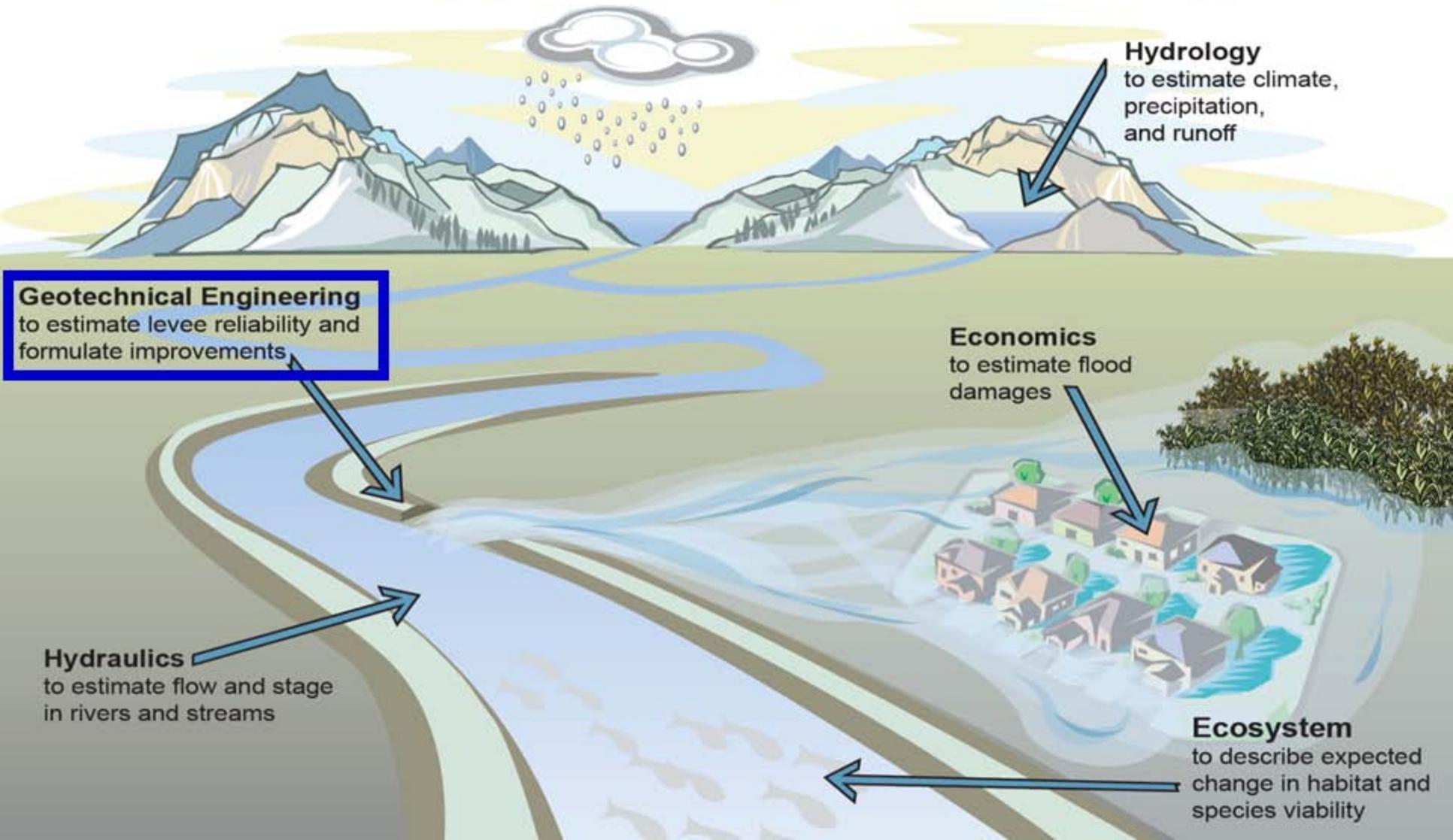
## Context

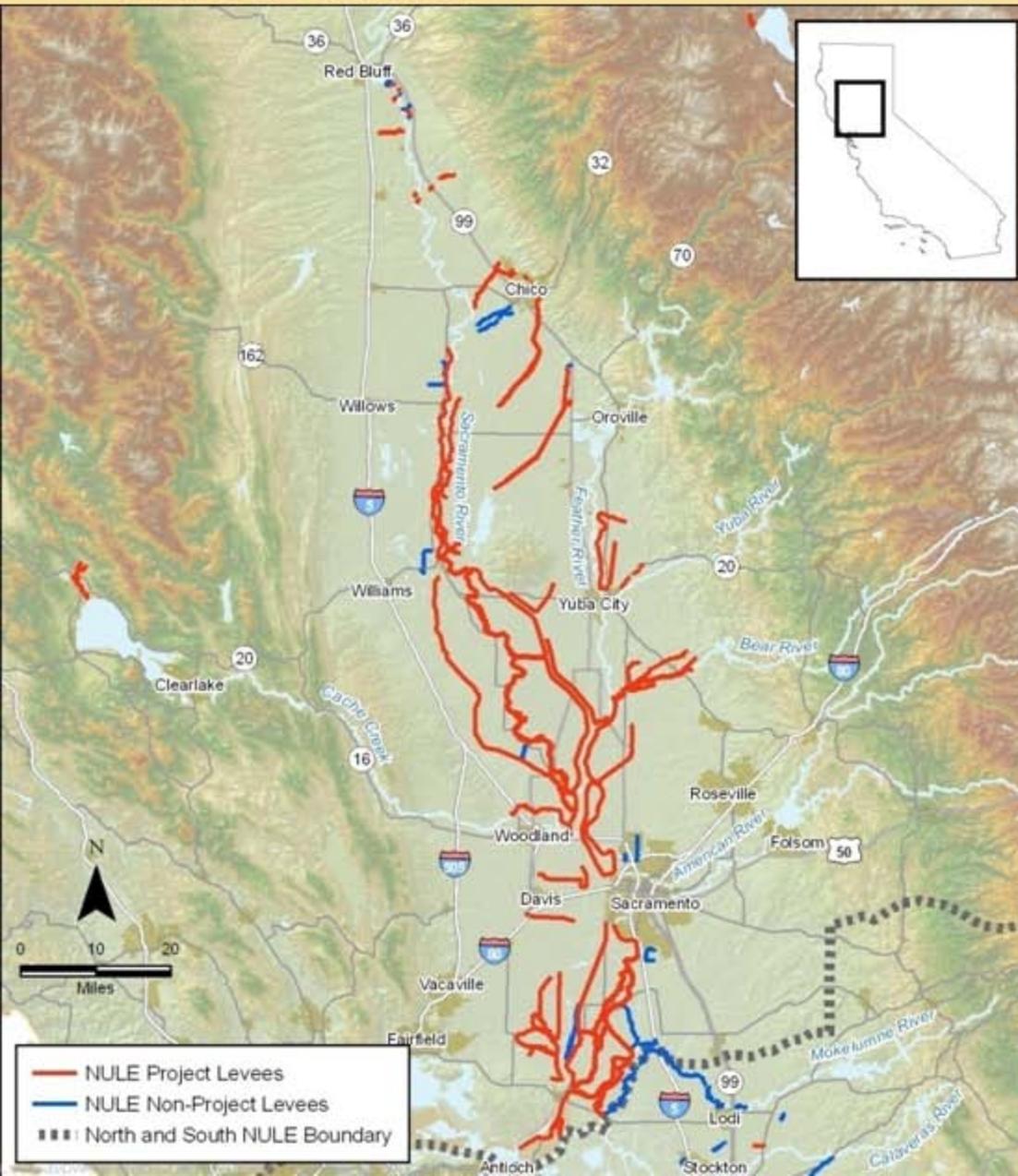
- Related to Urban Levee Evaluation Program
- Part of the larger FloodSAFE effort
- NULE Program designed to support
  - Central Valley Flood Management Planning Program
  - Central Valley Floodplain and Evaluation Program
  - Federal and local flood management programs
  - Identification of critical repair sites

# Work Breakdown



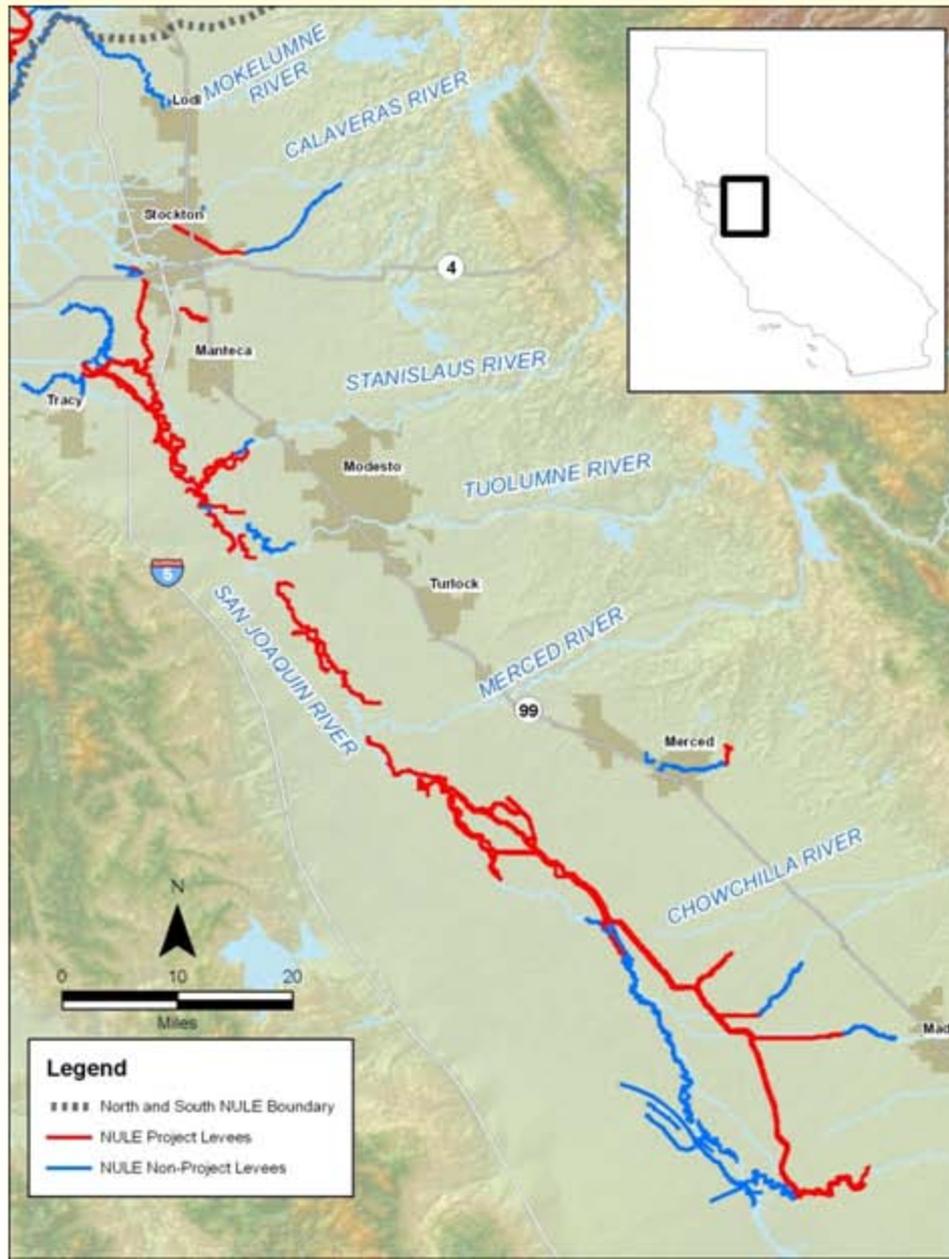
# NULE Supports System Analysis





***NULE includes all non-urban project levees and associated non-project levees***

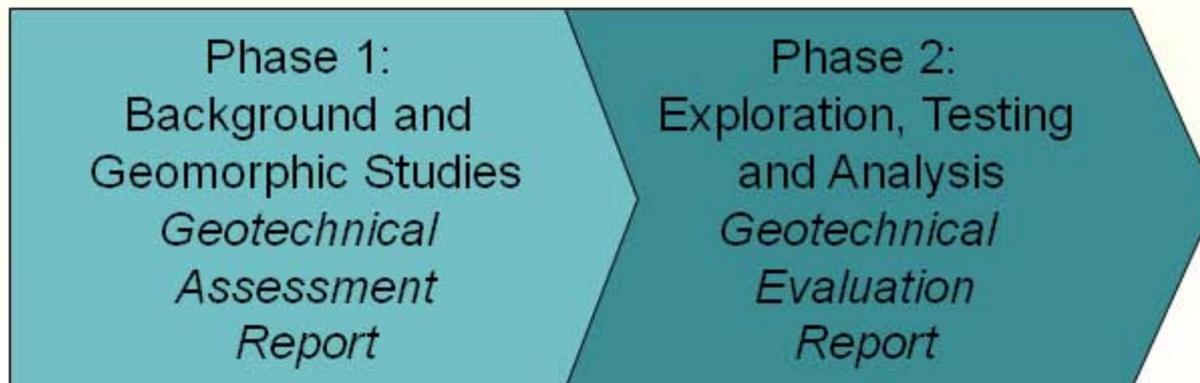
North study area



South study area

# Phased Implementation

- Phase 1 - Background data collection, geomorphology, preliminary categorization
- Phase 2 – Strategic physical exploration and evaluations based on Phase 1 results



## Phase 1 Evaluation

- Assess levees with respect to design water surface elevations
- Categorize levee segments as:
  - Deficient
  - No obvious deficiencies
  - Insufficient information
- Prepare preliminary remedial alternatives and cost estimates



## Phase 2 Evaluation

- Exploration
  - 2009 and 2010
  - Targeting levees protecting populations of 1,000 or greater
- Testing
- Analysis
  - Design water surface elevation
  - Top of levee
- Update remedial alternatives and cost estimates



# Technical Activities



- Research, inspections, interviews
- Simplified risk assessment
- Geomorphology
- Surveying
- Geophysics
- Exploration
- Testing
- Analyses
- Problem Identification
- Remedial alternatives and costs

# Schedule and Budget

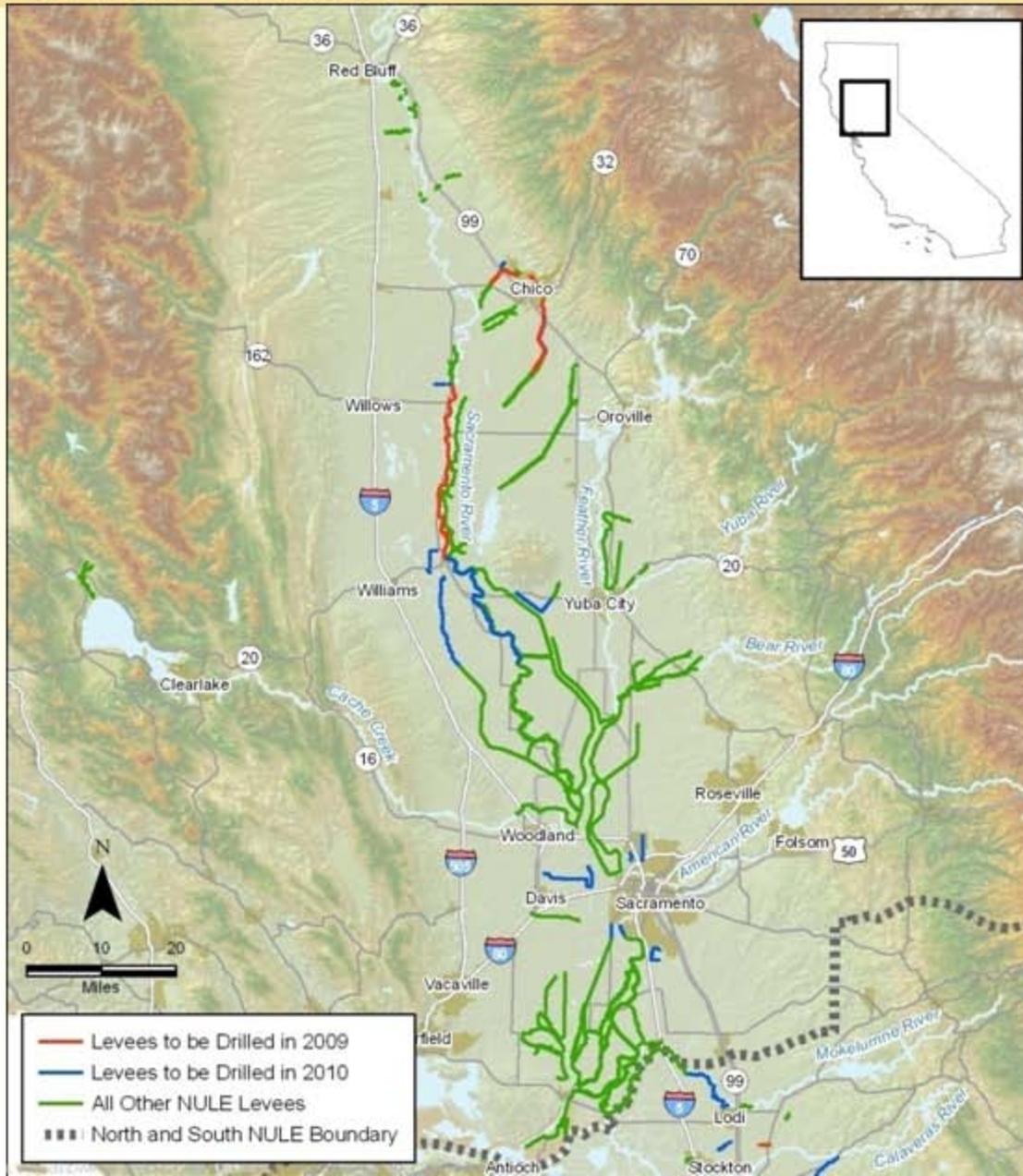
- **Schedule:**
  - Phase 1
    - November 2009: Draft Geotechnical Assessment Report (GAR)
    - April 2010: Final GAR including remedial alternatives and cost estimates
  - Phase 2
    - August 2011: Geotechnical Evaluation Report
  
- **Budget:**
  - Phase 1: \$20M
  - Phase 2: \$75M

## Proposal for 2009 Exploration

- Non-urban project levees that protect communities of 5,000 people or more
- Crest exploration only
- Seek input from local experts for exploration locations for 2009 season by early August 2009
- Begin exploration by late August 2009

## Proposal for 2010 Exploration

- Remaining project and non-project levees that protect greater than 1,000 people
- Crest and toe borings where necessary
- Work through CVFMP program to identify additional locations, such as
  - Levees that protect critical infrastructure
  - Levees with critical damage sites
  - Small and legacy communities



Northern levees planned for exploration in 2009 and 2010

Southern levees planned  
for exploration in 2009  
and 2010

**Questions?**