

NON-URBAN LEVEE EVALUATIONS

Central Valley Flood Management Planning Regional Forums

June 2009

California Department of Water Resources



Session Goals

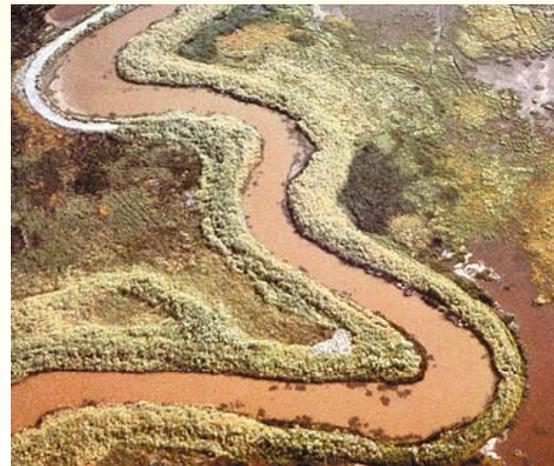
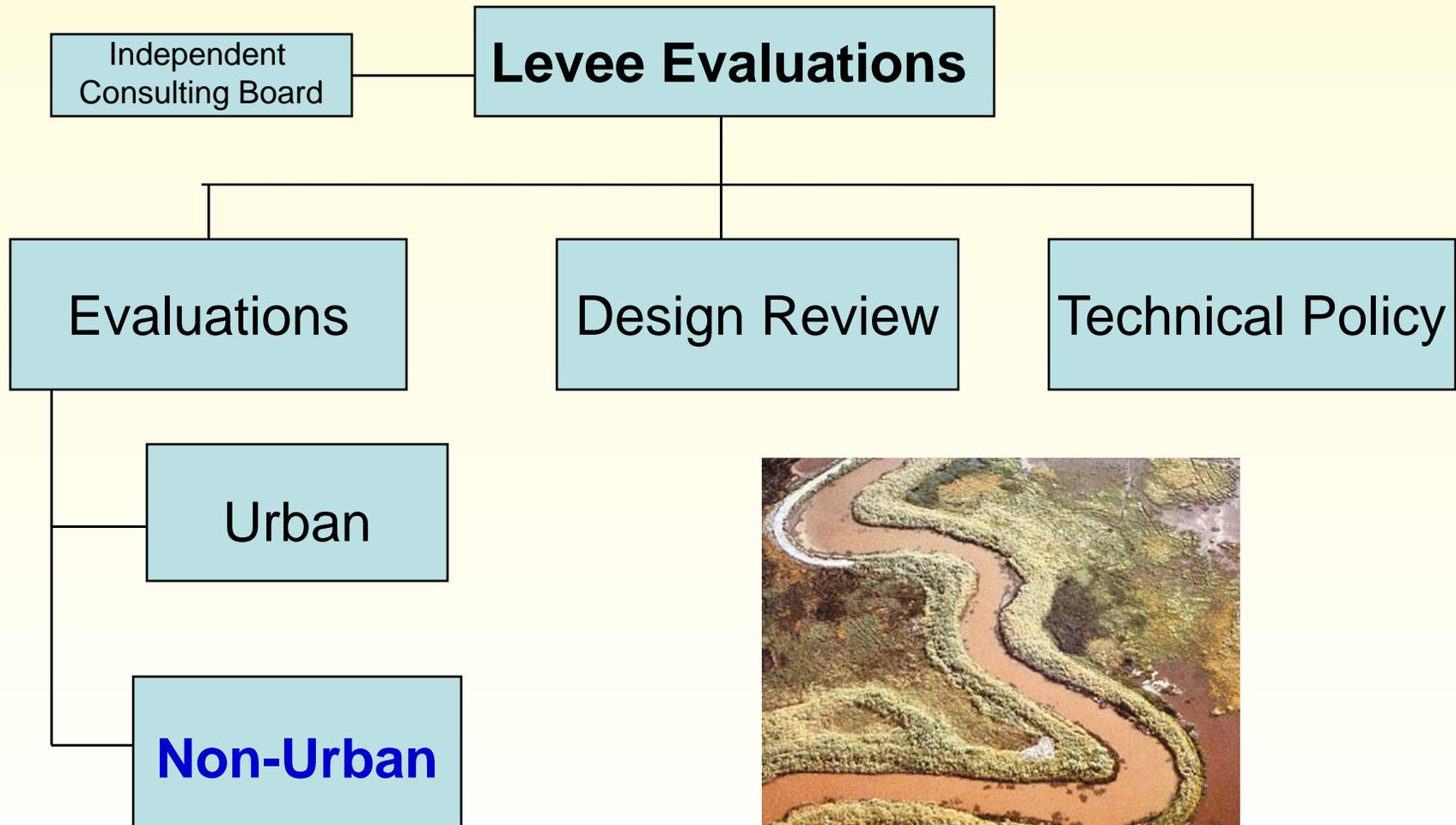
- Introduce Non-Urban Levee Evaluation Program
- Introduce proposal for non-urban levee physical exploration in Summer/Fall 2009
- Discuss your thoughts about our proposal



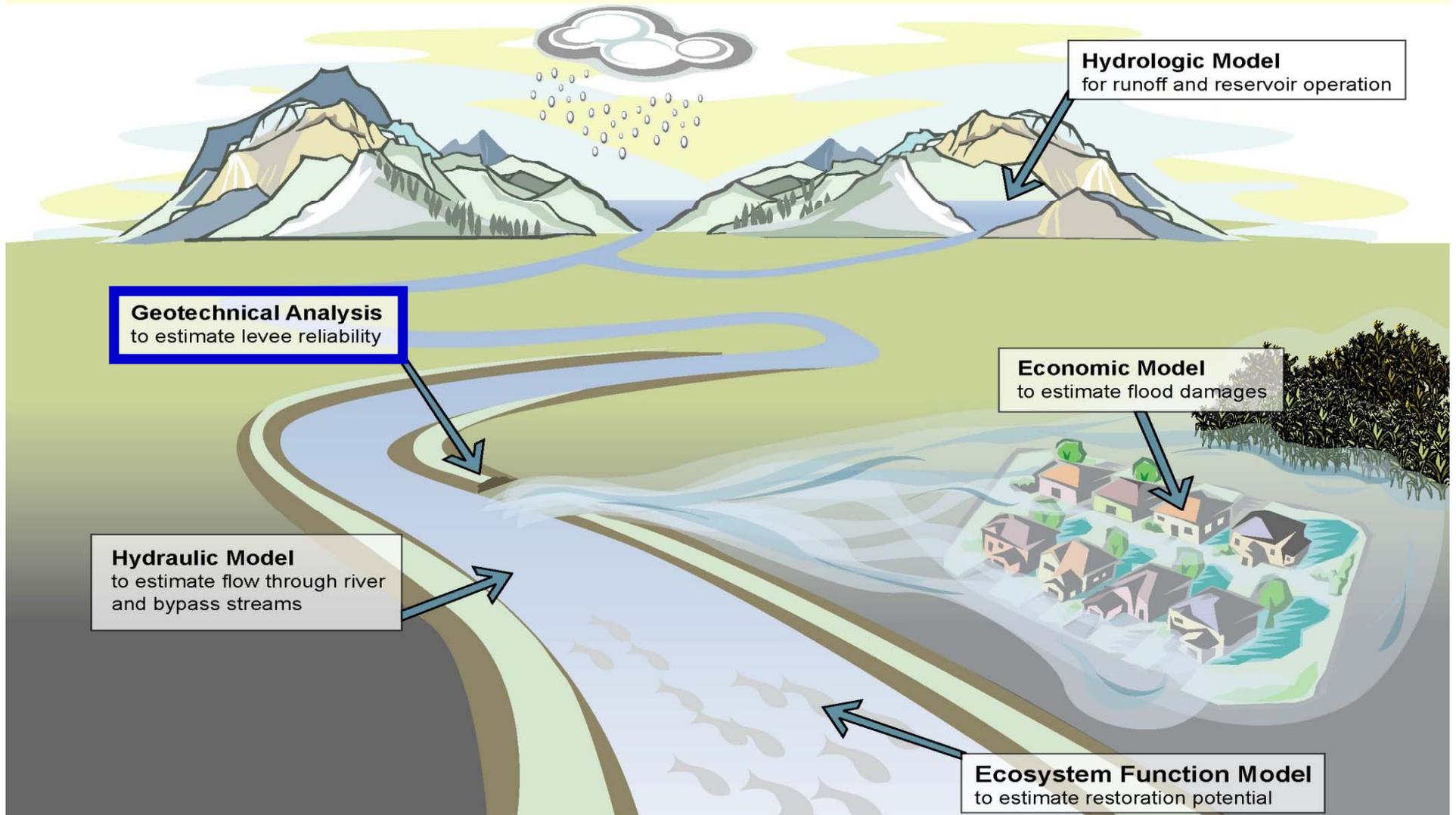
Context

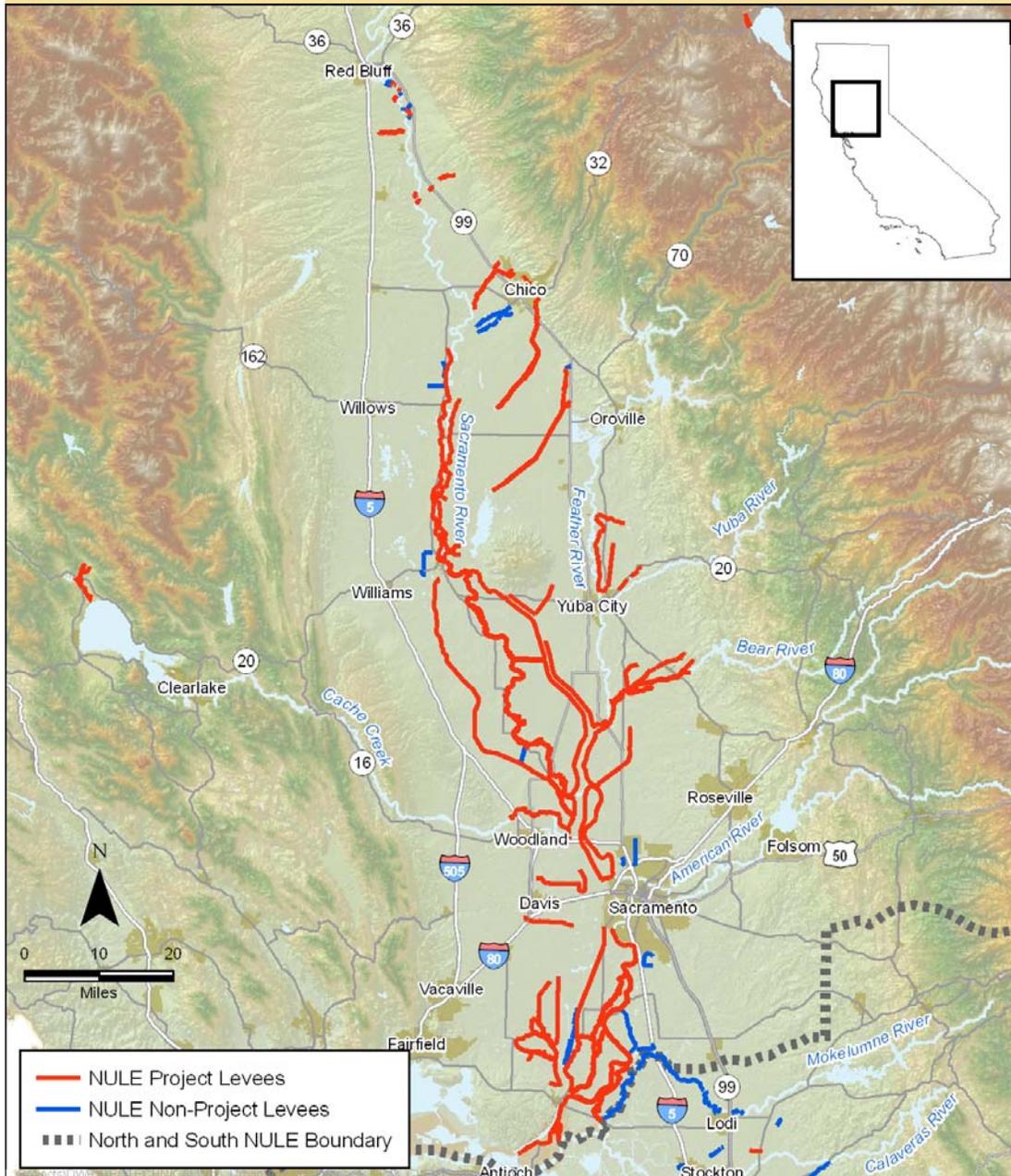
- Related to Urban Levee Evaluation Program
- Part of the larger FloodSAFE effort
- NULE Program designed to support
 - Central Valley Flood Management Planning Program
 - Central Valley Floodplain and Evaluation Program
 - Federal and local flood management programs
 - Identification of critical repair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

Work Breakdown



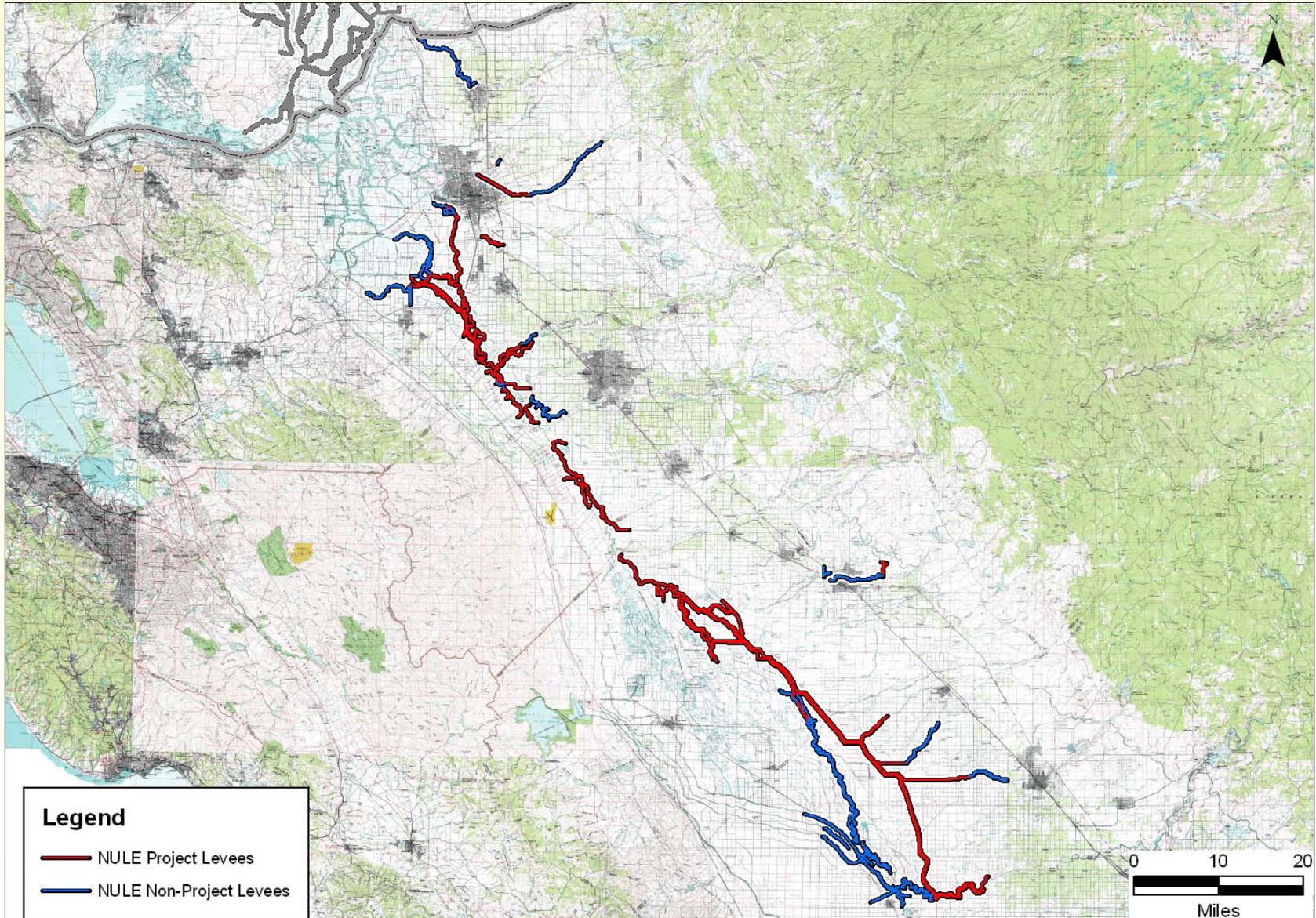
NULE Supports System Analysis





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

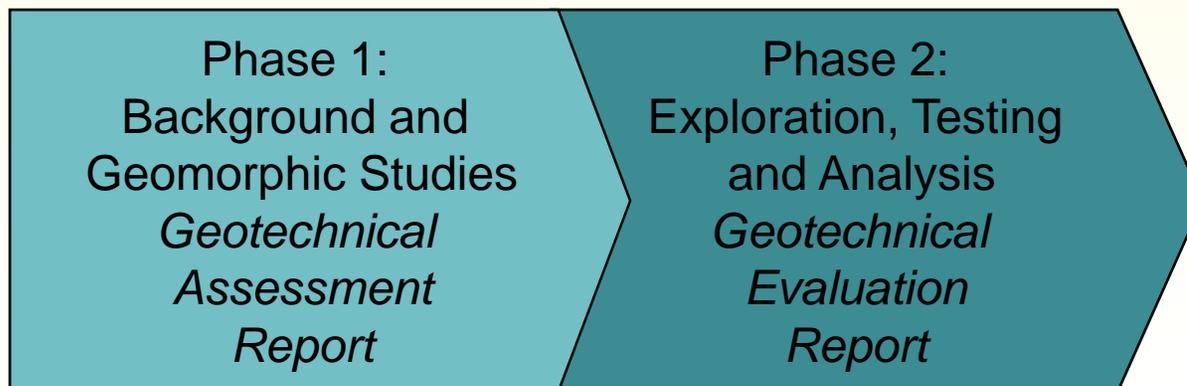
North study area



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 2011: Geotechnical Assessment Report
 - April 2010 : Remedial alternatives and cost estimates
 - Phase 2
 - August 2011: Geotechnical Evaluation Report

- **Budget:**
 - Phase 1: \$20M
 - Phase 2: \$75M

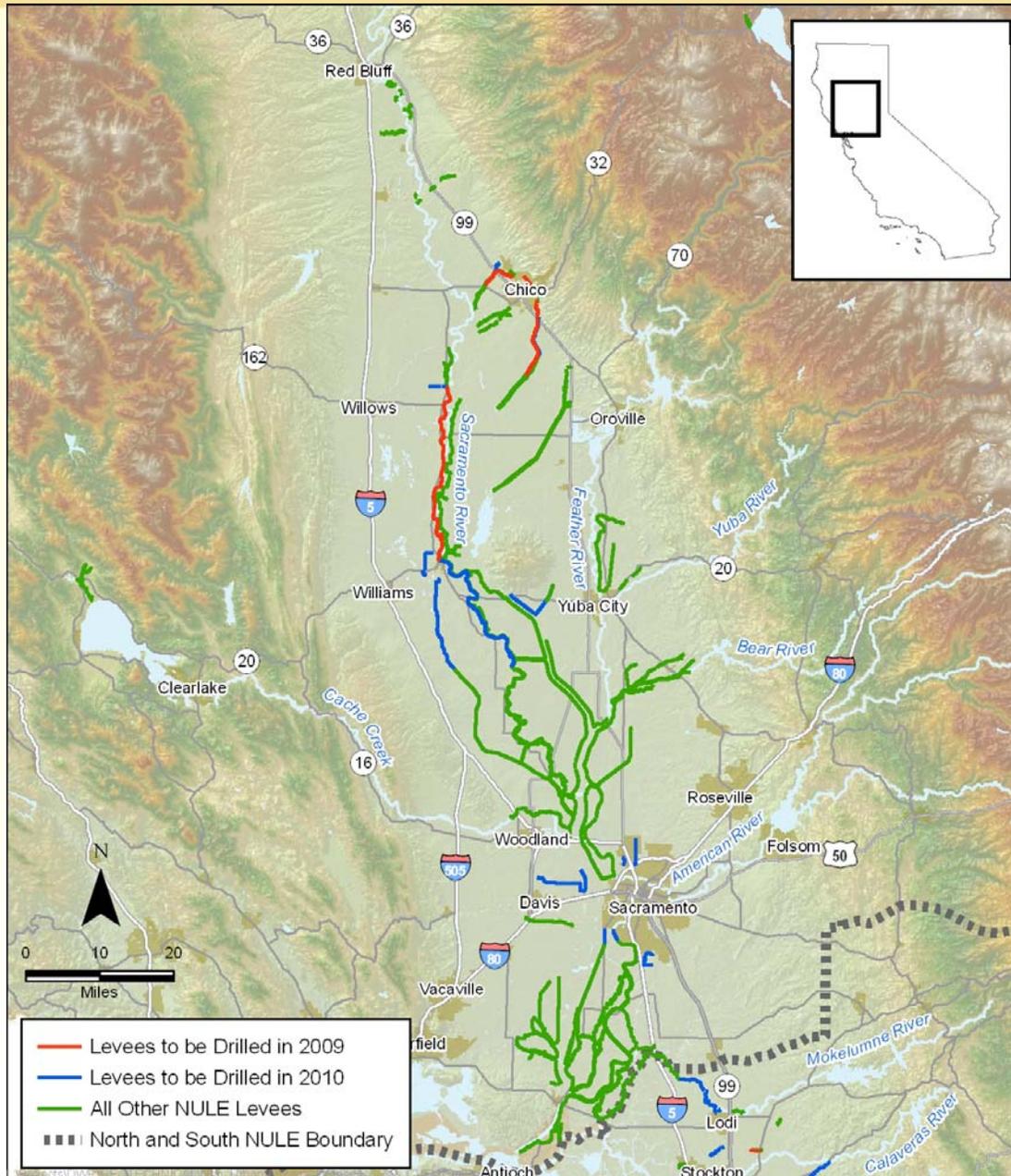
Proposal for 2009 Exploration

- 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

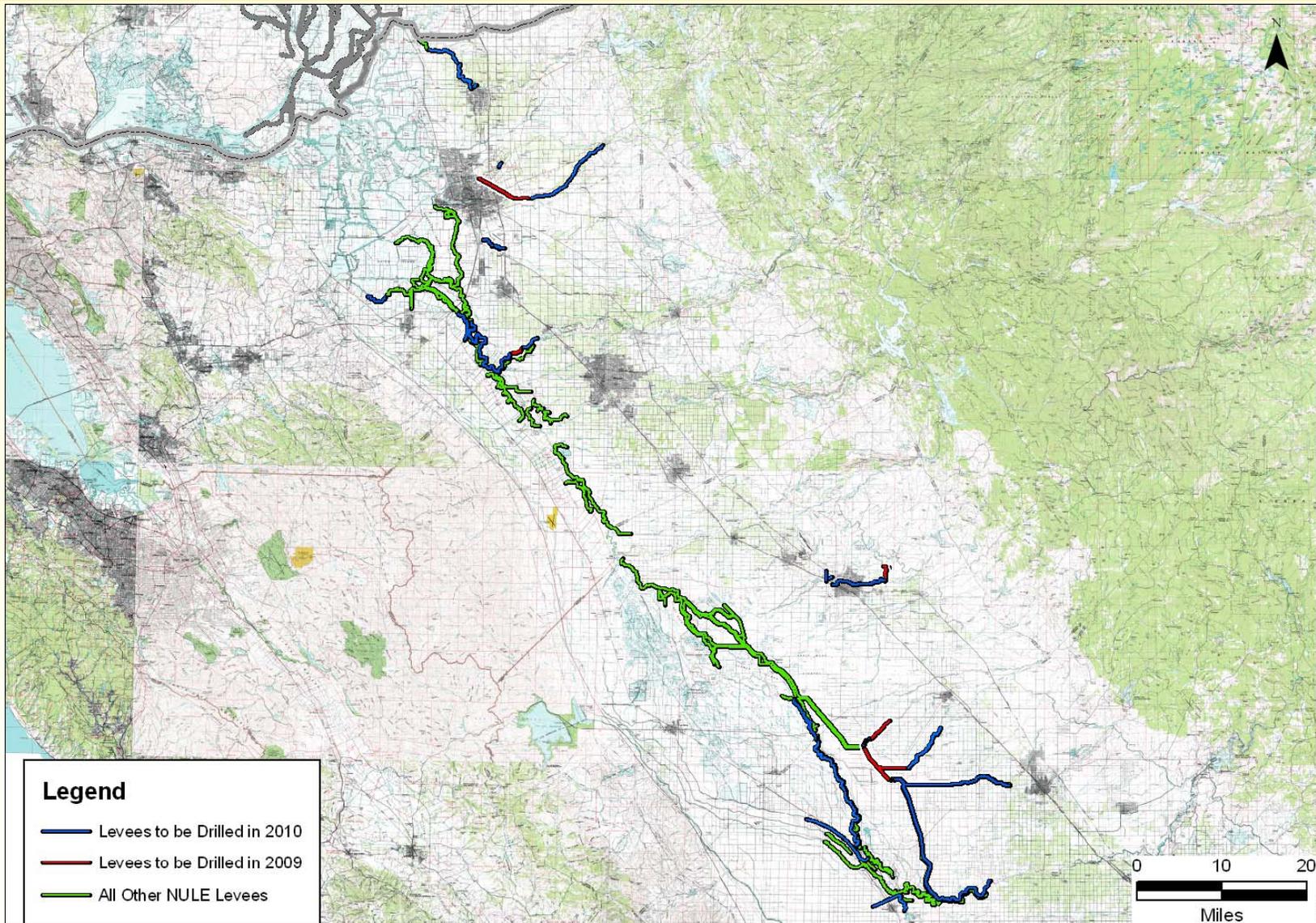
- Remaining project and non-project levees that protect greater than 1,000 people
- Crest and toe borings where necessary
- Work through CVFMP program to identify additional locations, such as
 - Levees that protect critical infrastructure
 - Levees with critical damage sites
 - Small and legacy communities

FloodSAFE CALIFORNIA



Northern levees
planned for
exploration in 2009
and 2010

FloodSAFE CALIFORNIA



Southern levees planned for exploration in 2009 and 2010

Questions?