

Ecological Restoration for the Central San Joaquin Valley



Productivity in the Central San Joaquin Valley came at the expense of its historic ecosystems

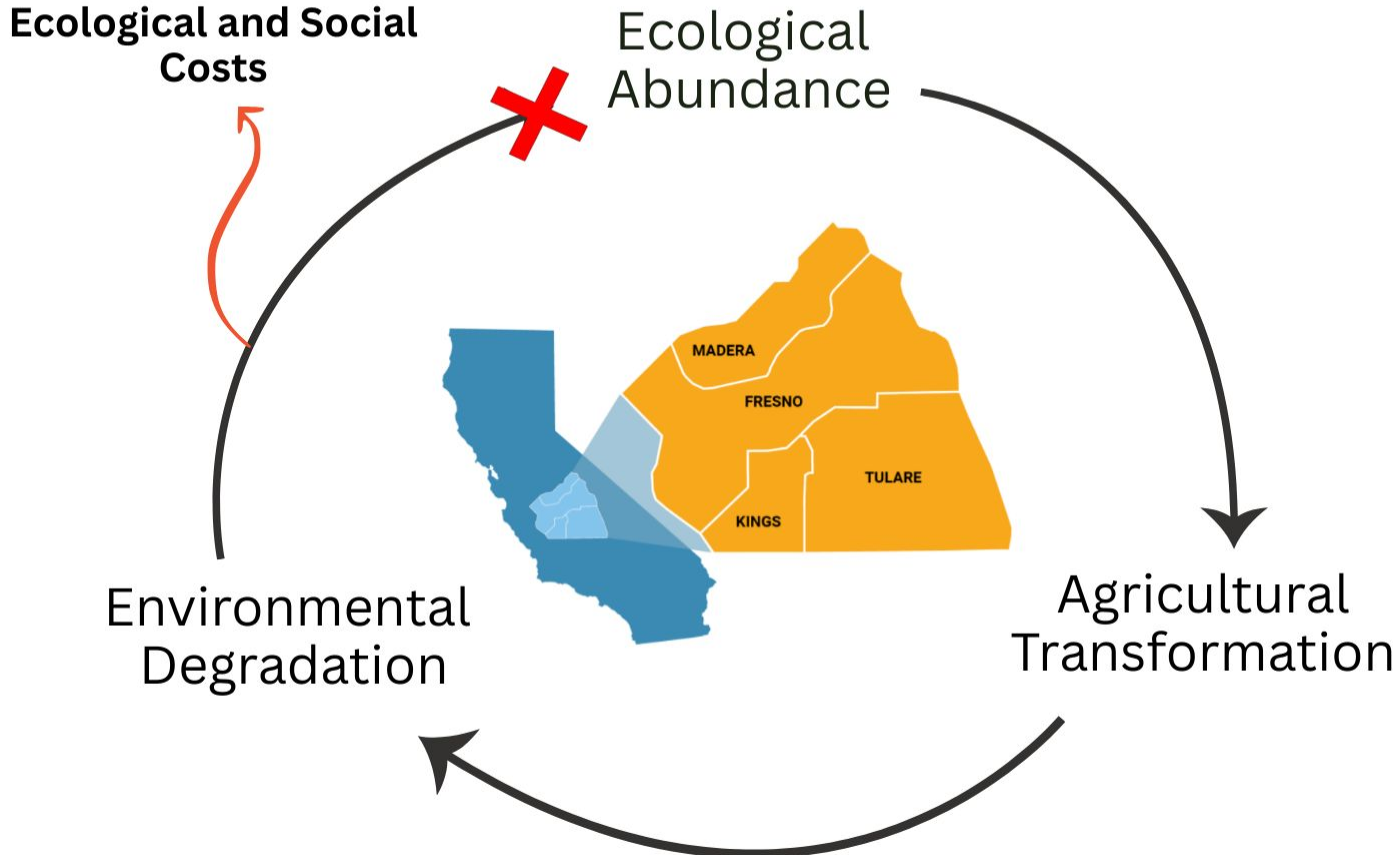


Image Source: USGS

Context Enables Better Restoration Decisions

Inform Guide Support



Mapping Change Reveals Where to Restore

Historic
Land Cover



Current
Land Cover



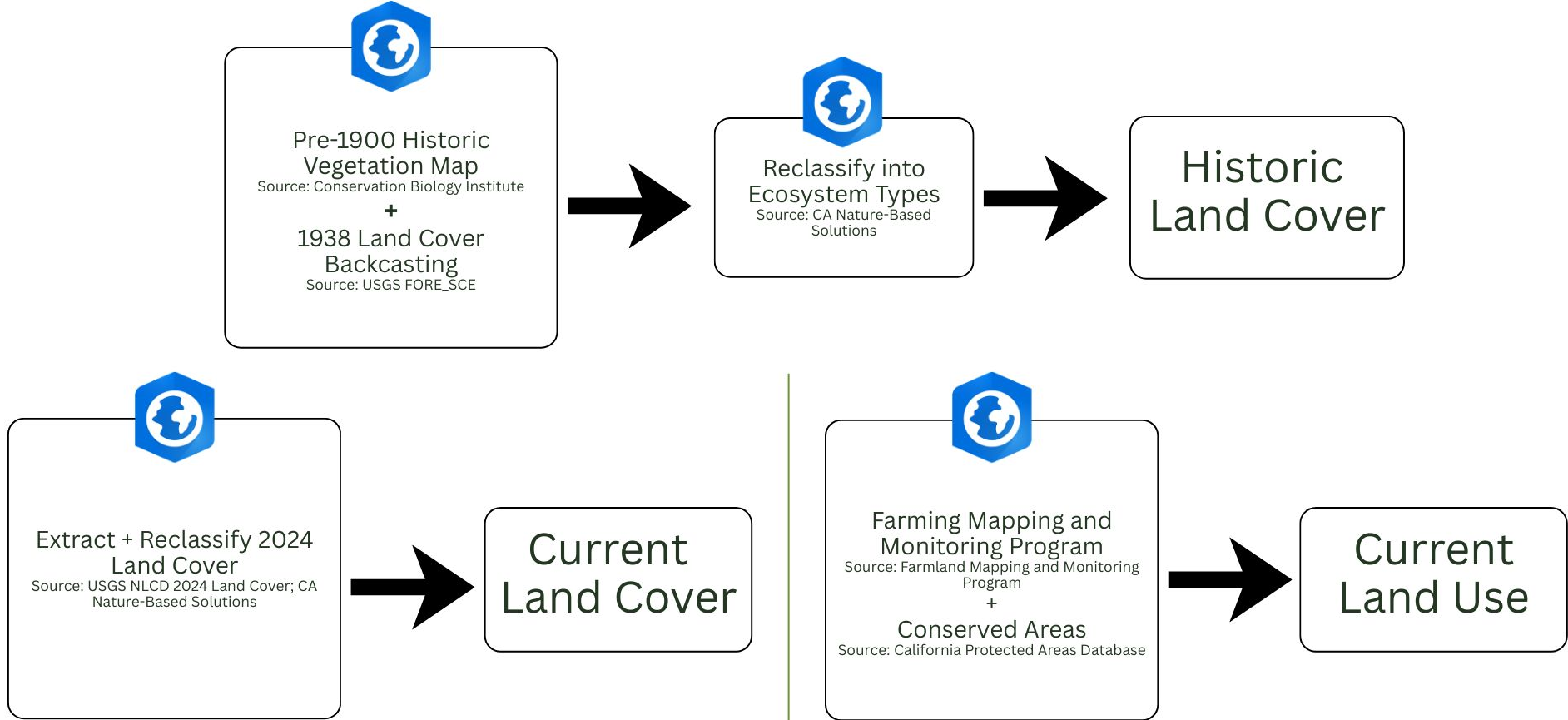
Current
Land Use



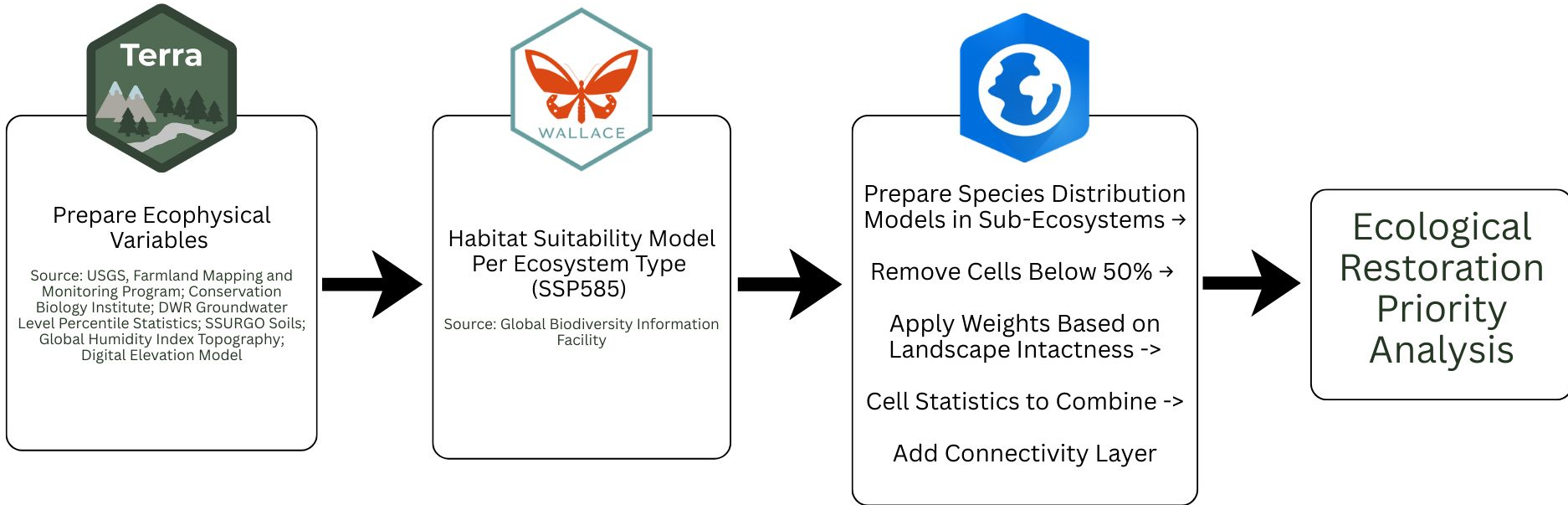
Restoration
Priority



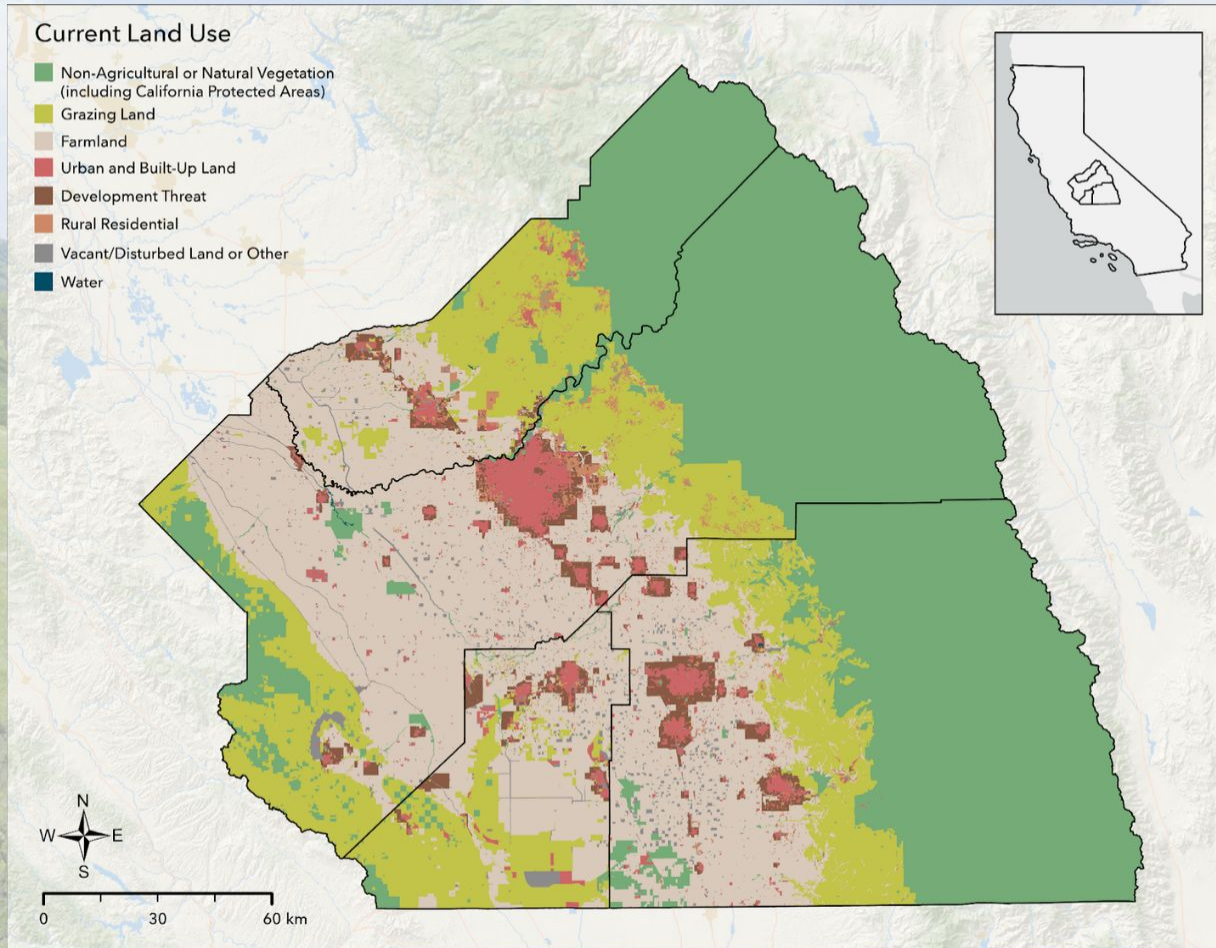
Spatial analysis visualizes historic landscapes, current conditions, and current land use



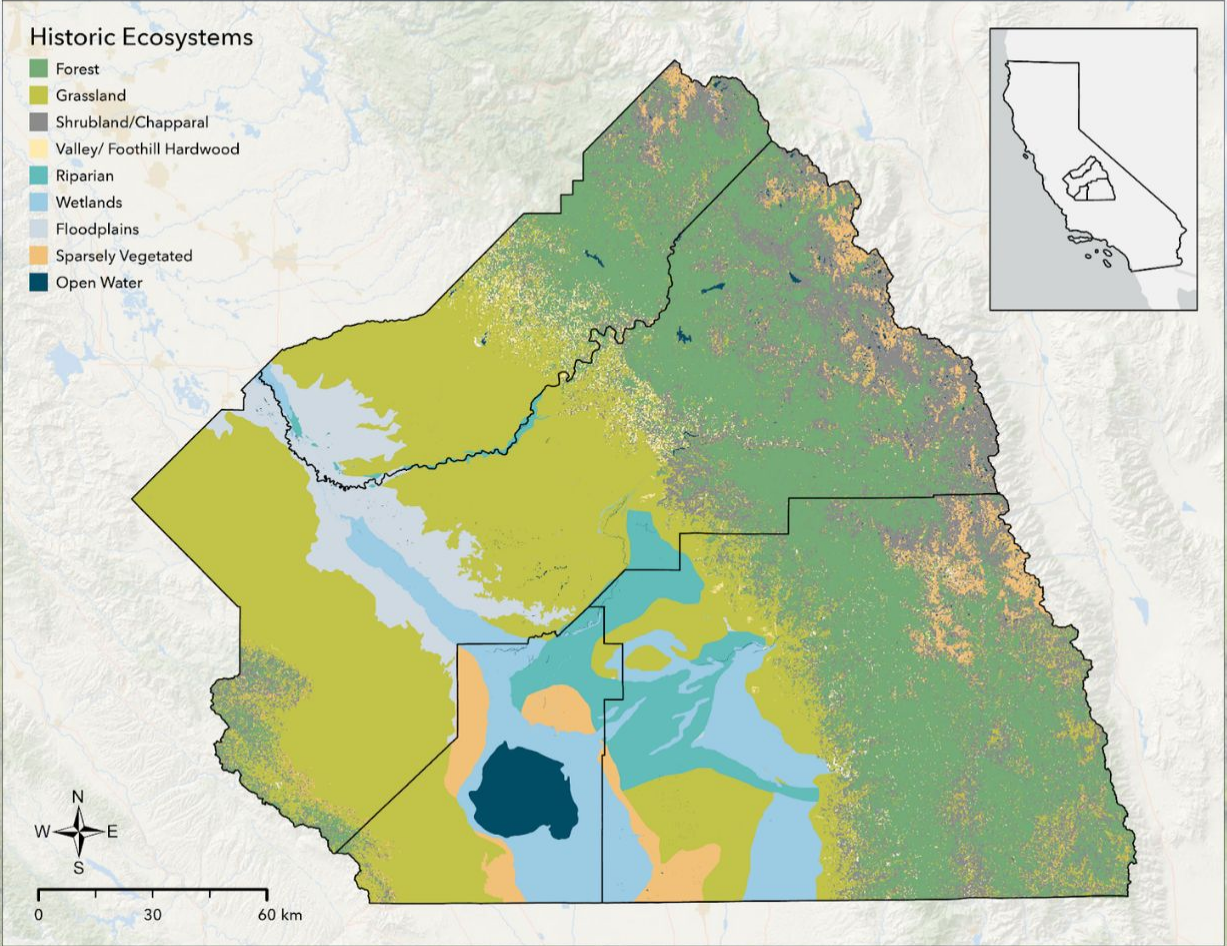
Habitat Suitability Modeling predicts habitats under the most severe climate change scenario (SSP585)



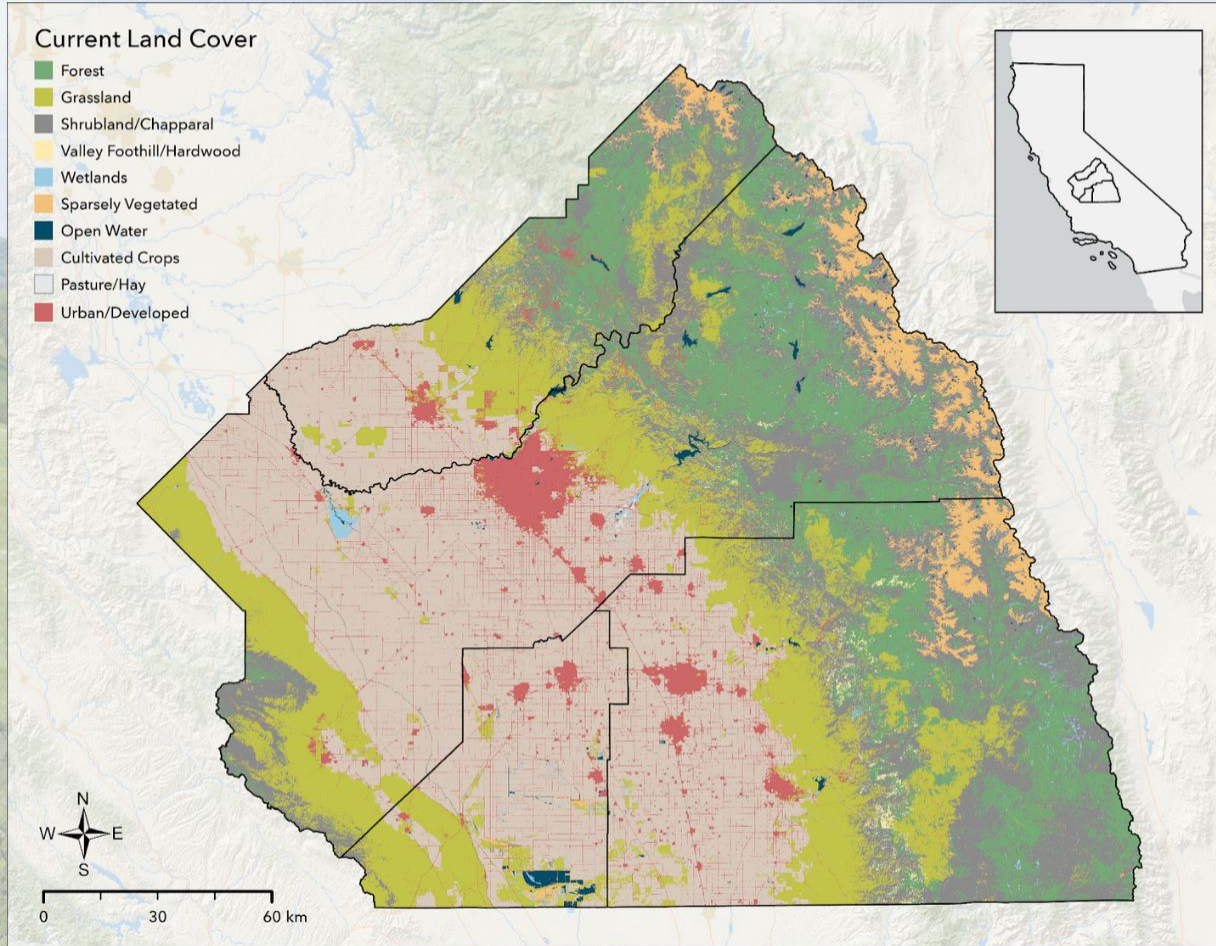
Current land uses reveal agricultural dominance and urban development



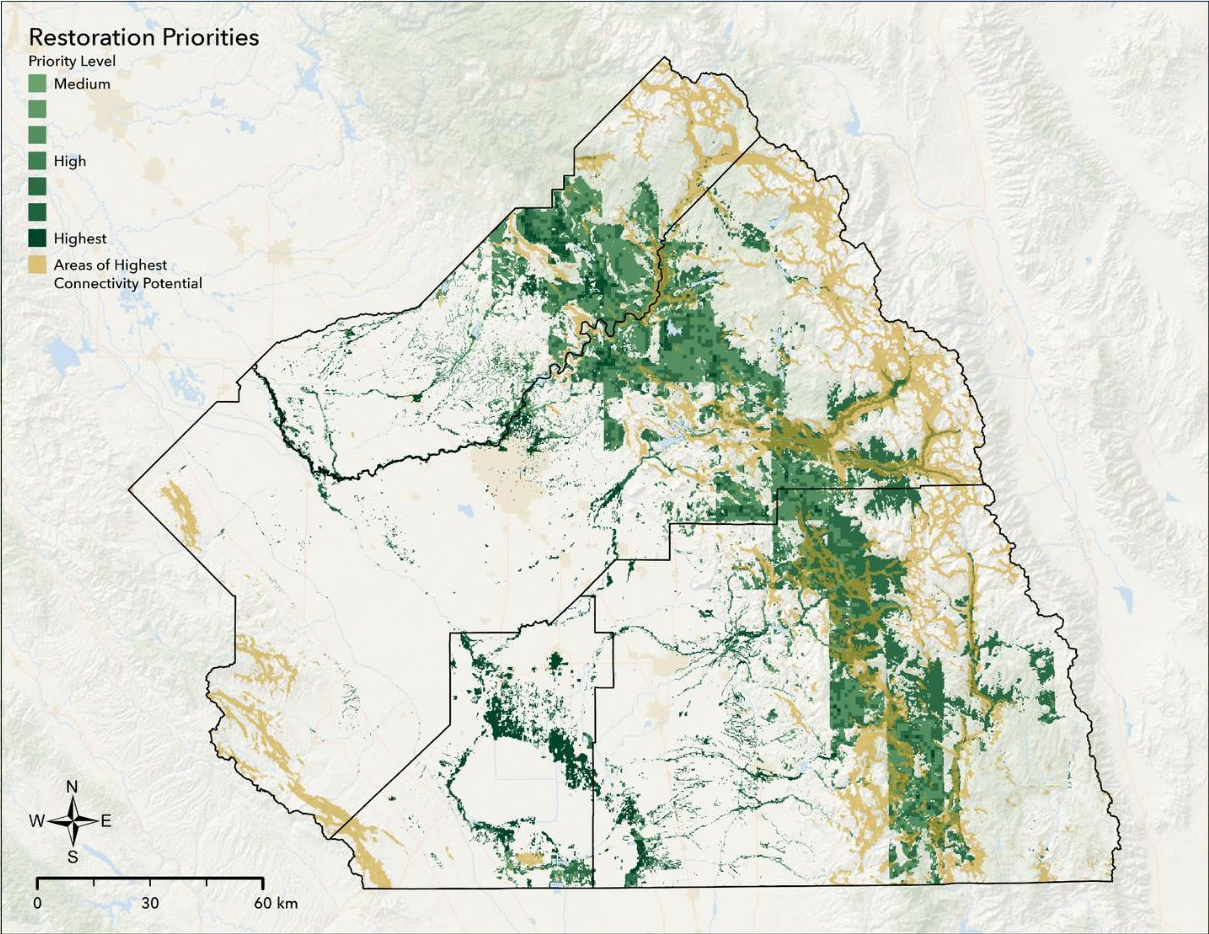
Pre-colonial landscapes reflect structurally diverse ecosystems



Current landscapes reflect extensive ecosystem modifications



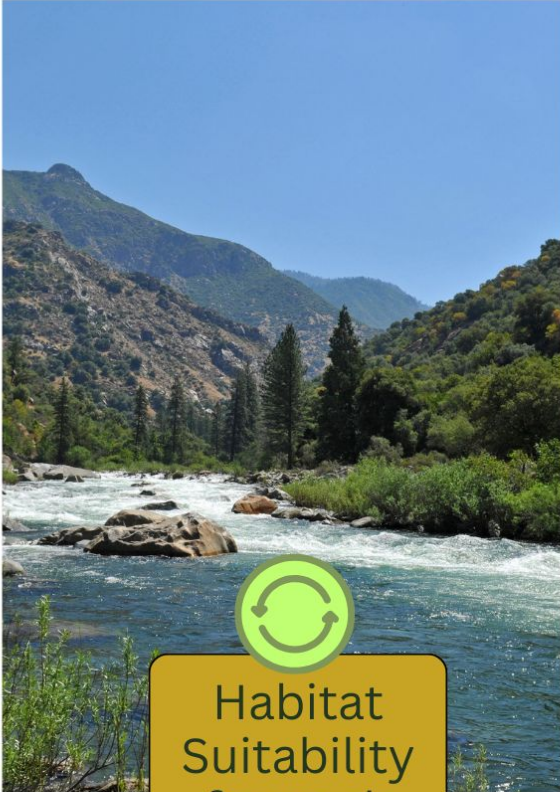
Habitat Suitability results show some quality habitat for Valley/Foothill Hardwood ecosystems in the region under future climate predictions



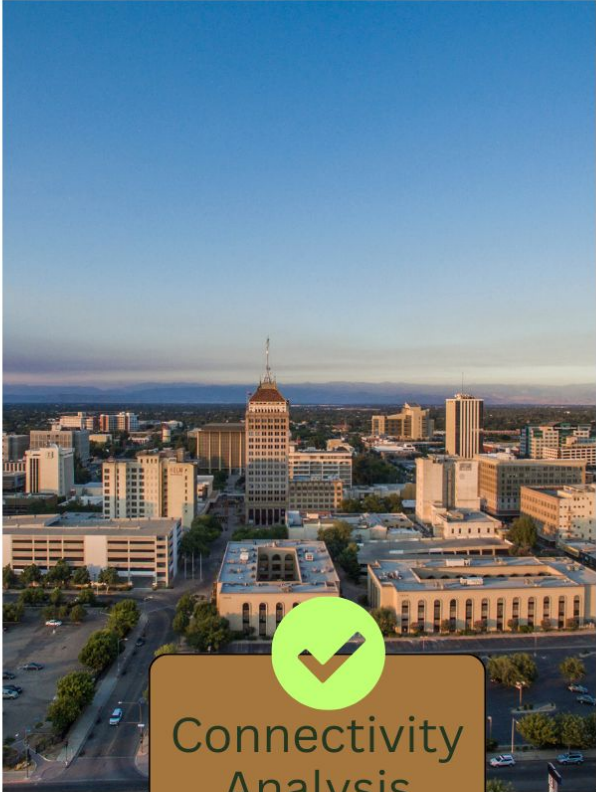
Preliminary results reveal restoration opportunities, with further analysis in progress



Methods
Validation



Habitat
Suitability
for each
Ecosystem

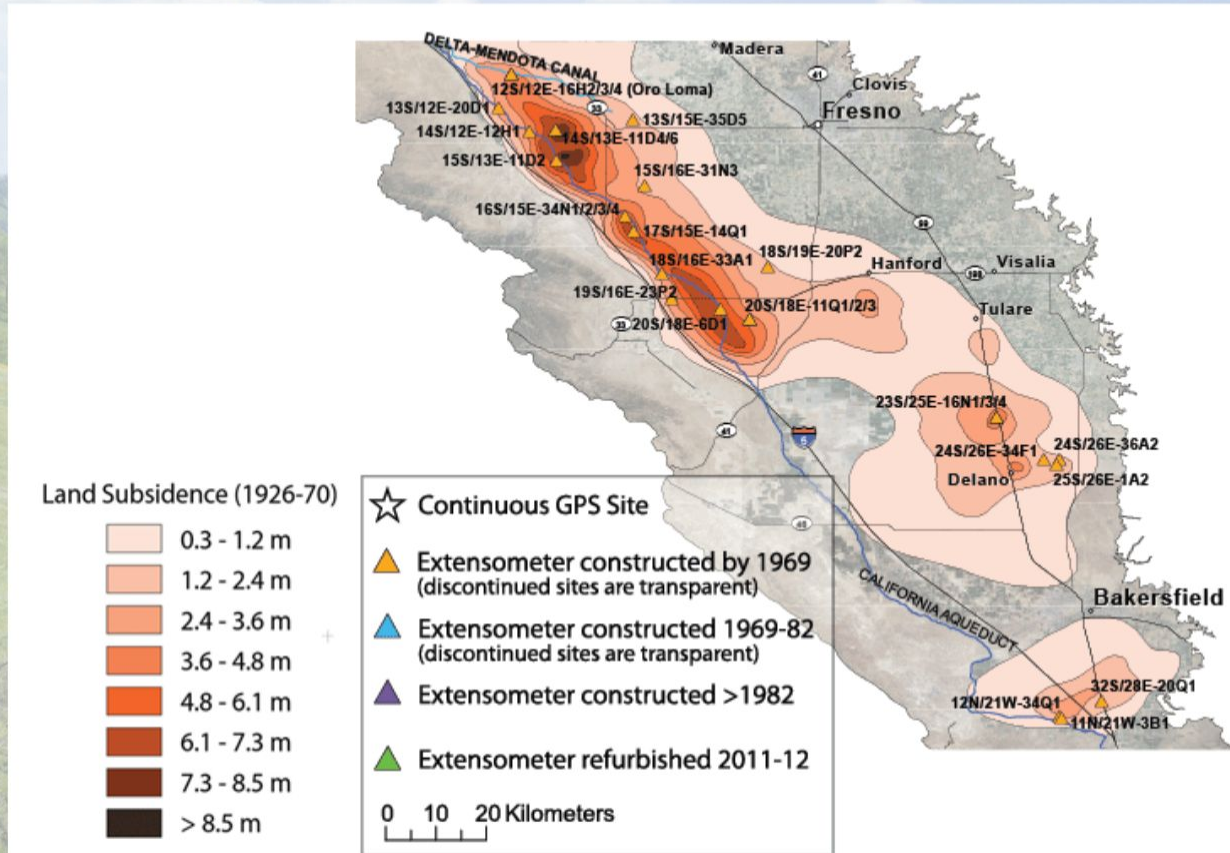


Connectivity
Analysis

Thank you!



Land subsidence has occurred throughout the central valley due to groundwater consumption for agriculture.



Projecting SGMA-driven agricultural fallowing that identifies conservation and land repurposing opportunities

