



SHRP2 SOLUTIONS

STRATEGIC HIGHWAY RESEARCH PROGRAM

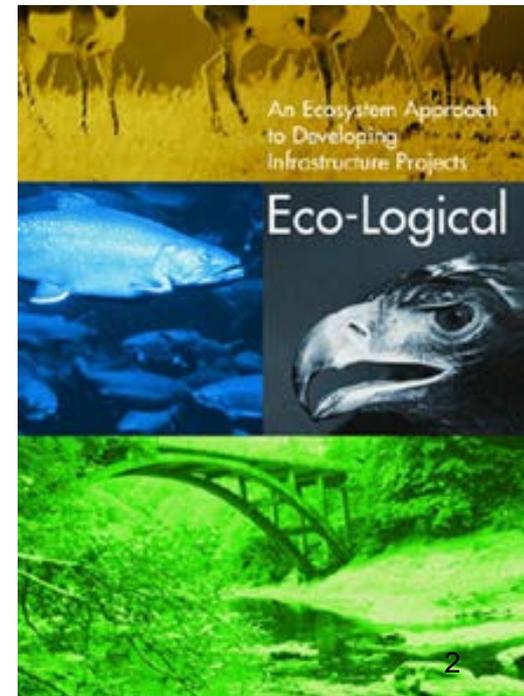
Success in Partnership and Planning Along Three Highway Corridors in California

October 20, 2013

Karla Sutliff, Project Delivery Deputy
Director and Chief Engineer,
Caltrans

Applying Eco-Logical to three corridors in California:

- Highway 37 – User Incentive
 - Stakeholder coordination
- Highway 89 - C21 Pilot
 - Mitigate wildlife mortality
- Highway 101 - C40 Pilot
 - Regional model evaluation



California SHRP2 Efforts





Promoting Stewardship Principles to Gain Consensus on a Vision
for Highway 37, California

HIGHWAY 37

[HTTP://HWY37.UCDAVIS.EDU](http://HWY37.UCDAVIS.EDU)

Challenges for Highway 37

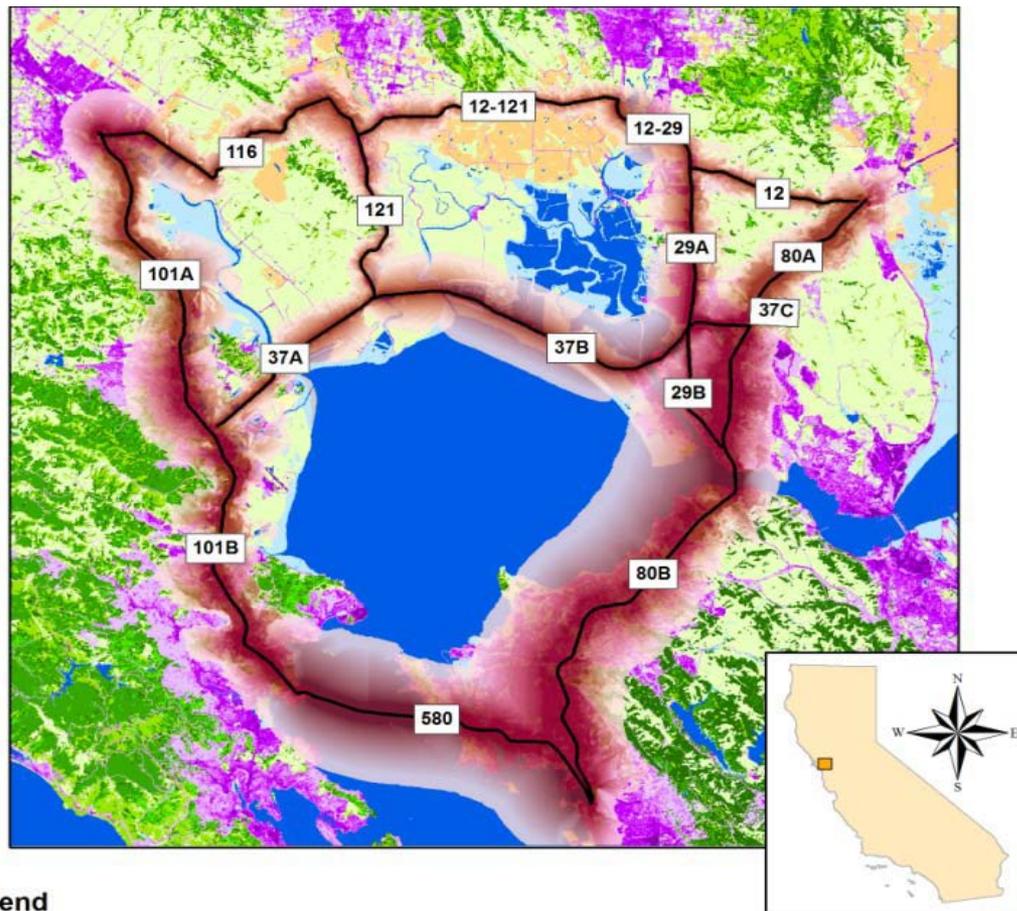


Approach for Highway 37



Data Findings

Land Cover Type	Impacted Area (Ha)
Lacustrine	1042
Annual Grass	465
Coastal Oak Woodland	26
Urban	681
Saline Emergent Wetland	915
Fresh Emergent Wetland	568
Blue Oak Woodland	12
Barren	131
Cropland	1394



Legend

Open Water	Barren Land	Grasslands
Developed: Open Space	Deciduous Forest	Pasture / Hay
Developed: Low	Evergreen Forest	Cultivated Crops
Developed: Medium	Mixed Forest	Woody Wetlands
Developed: High	Dwarf Scrub	Herbaceous Wetlands



Overall Benefits



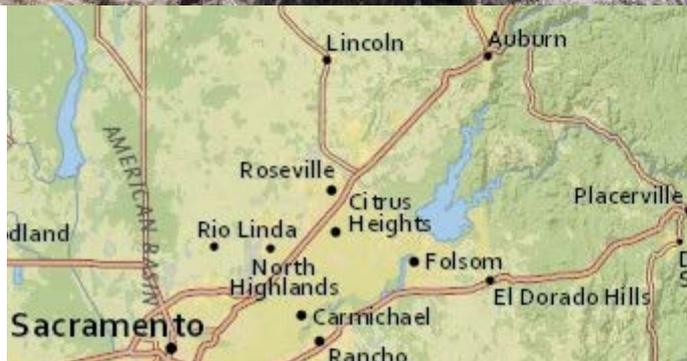
- Build collaborative partnerships and vision for SR 37 that meets multiple goals.
- Create framework for integrated planning and decisions in the corridor.
- Establish potential ecological and transportation actions that could be proposed for SR 37.
- Working in collaboration with resources agencies, test value of impacts, avoidance and mitigation.
- Develop foundation for model analysis agreements among infrastructure and resources agencies.



Generating Success for Wildlife Beyond the Right of Way: Planning for Cost Effective Mitigation along California's Highway 89

HIGHWAY 89

A Partnership Approach: Wildlife Mortality along Highway 89



SHRP2 Eco-Logical: User Incentive Recipient

- Supports the stakeholder outreach for the project, through the development of the Highway 89 Stewardship Team
- Objective to reduce vehicle collisions and preserve wildlife movement corridors through
 - Education
 - Research
 - Identify Mitigation Recommendations



Partnership Benefits





Agency Benefits



- ‘Working beyond the right-of way’.
- Anticipate if mitigation is needed, where an appropriate expenditure of mitigation funds would best serve the resources impacted .
- Demonstrating a process by which the mitigation strategy was determined.
- Unique partnership allows for flexibility in solutions for wildlife movement that extend beyond the DOT right of way.



Cross-testing transferability of national mitigation planning tools with California's Regional Advance Mitigation Planning (RAMP) framework on a new pilot region (450 miles of US 101)

HIGHWAY 101



SHRP 2 Project

C40 - A

- Develop an integrated, geospatial ecological screening tool
 - Conduct user-needs assessment
 - Work with C40-B team to test the new product

C40 - B

- Demonstrate workability and value of geospatial tools and data in early stages of long-range transportation planning
- Test the transferability of regional methods by performing the analysis on a new pilot study area.

SHRP 2 101 Pilot

**C-40 A Ecological
Screening Tool**

**Regional Advance
Mitigation Planning Tools**

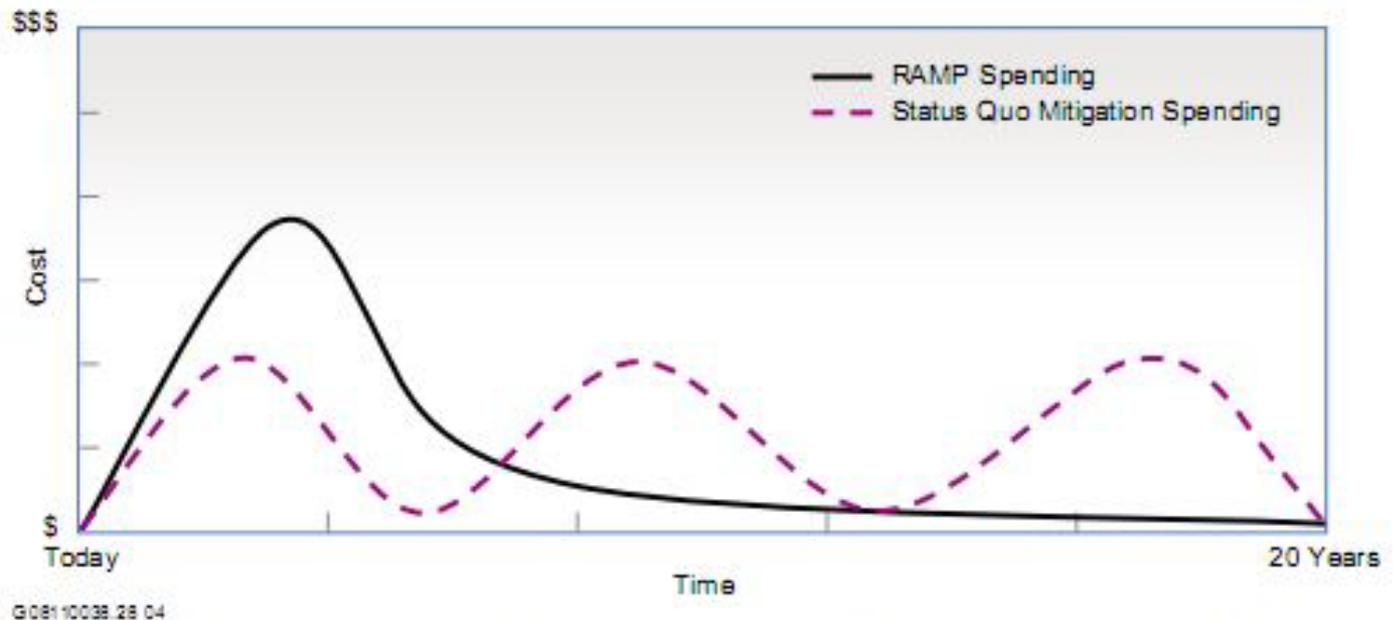


C40 - B Pilot

SHRP2: A California Assessment Methodology

Regional Advance Mitigation Planning (RAMP)

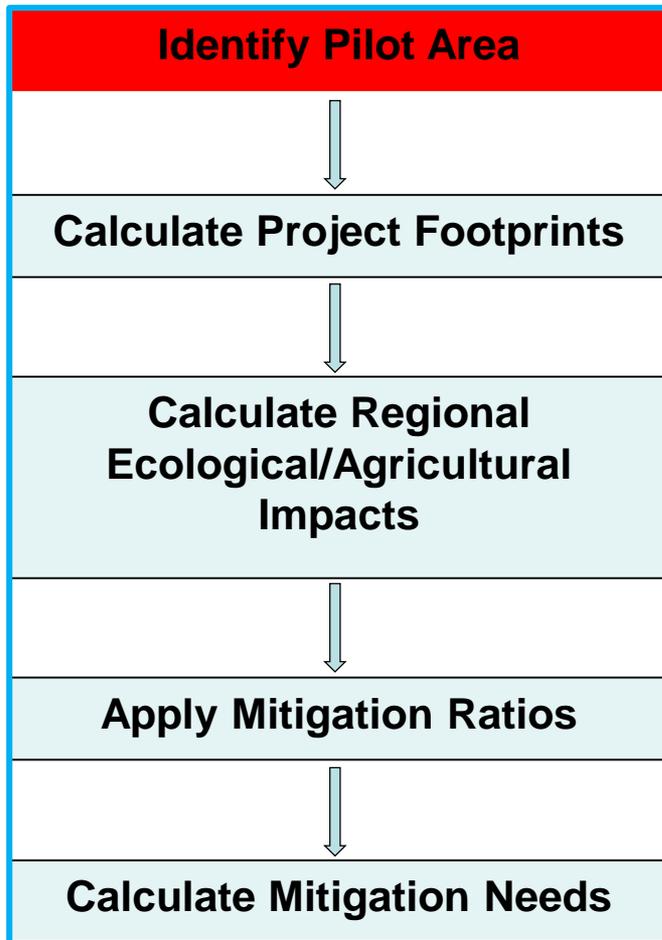
- Caltrans and Dept. of Water Resources = Infrastructure Agency Leads
- Estimate the mitigation needs early in the timeline
- Consider the environmental impacts of several infrastructure projects
- Benefits



An Anticipated Benefit of RAMP would be Reduced Cost Over Time for Mitigation

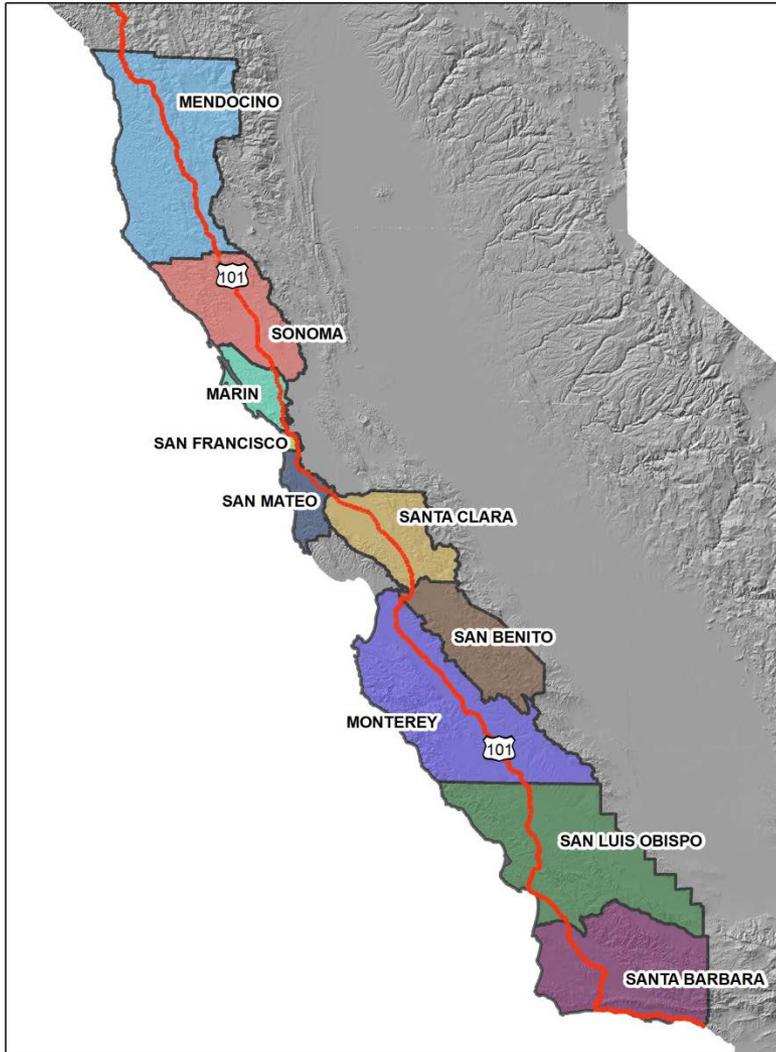
Exhibit 1-1

Methods



- 2 sets of data needed
 - Transportation projects
 - Resource data
- UCD in process of outreach to 4 different districts

Pilot Area – 450 miles of Highway 101



- District 1: North Coast
 - Aquatic impacts
 - Bridge retrofits
- District 4: Bay Area
 - Highly urbanized
 - Impacts to personal property, farmland
- District 5: Central Coast
 - Oak woodlands, grasslands, farmland
 - Habitat corridors

Conclusion



Photo by Danel W Bachman