Success in Partnership and Planning Along Three Highway Corridors in California

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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
Challenges for Highway 37
Approach for Highway 37
## Data Findings

<table>
<thead>
<tr>
<th>Land Cover Type</th>
<th>Impacted Area (Ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lacustrine</td>
<td>1042</td>
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<tr>
<td>Annual Grass</td>
<td>465</td>
</tr>
<tr>
<td>Coastal Oak Woodland</td>
<td>26</td>
</tr>
<tr>
<td>Urban</td>
<td>681</td>
</tr>
<tr>
<td>Saline Emergent Wetland</td>
<td>915</td>
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<tr>
<td>Fresh Emergent Wetland</td>
<td>568</td>
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<tr>
<td>Blue Oak Woodland</td>
<td>12</td>
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<tr>
<td>Barren</td>
<td>131</td>
</tr>
<tr>
<td>Cropland</td>
<td>1394</td>
</tr>
</tbody>
</table>

![Map of land cover types]
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
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
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)
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
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
## Methods

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

### Identify Pilot Area

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Calculate Project Footprints</td>
</tr>
<tr>
<td>Calculate Regional Ecological/Agricultural Impacts</td>
</tr>
<tr>
<td>Apply Mitigation Ratios</td>
</tr>
<tr>
<td>Calculate Mitigation Needs</td>
</tr>
</tbody>
</table>
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