Regional Planning in the Sacramento Region
SACOG Region

2.3 million people
6 Counties, 22 Cities
15% Urban / 85% Rural
Blueprint 2050

- 230,000 Acres Urbanized

Key to the maps:
- red: areas of existing development
- purple: areas of future development
- green: green areas (e.g., open space, parks, wetlands, vernal pools, stream corridors, hardwood stands)
- light tan: agriculture and other undeveloped lands
2012 Land Use-Transportation Plan

For every 1,000 new residents:

1988-2005

333 acres

2008-2035

42 acres
Rural-Urban Connections Strategy
Enhancing Rural Economic Viability and Environmental Sustainability
RUCS Objectives

- Enhance **rural** economic viability and environmental sustainability
- Identify challenges and opportunities
- Test agricultural market changes, policies and economic development strategies
- Determine transportation and other infrastructure needs
For every food dollar, 16¢ goes to Ag

Existing Infrastructure
New Tools for Understanding Agricultural Viability
Scenario Analysis Tool: Farmer’s Economic Pro Forma

**Purpose:** Understand agricultural viability by using "what if" scenarios:

- Market changes
- Cropping patterns
- Farm practices
- *Planning that supports agriculture*

**Example:** Changing alfalfa rotation to dried plums improved economic return
2,000 ac. of Alfalfa
Alfalfa Converted to Dried Plums
<table>
<thead>
<tr>
<th>SCENARIOS</th>
<th>AG ACRES</th>
<th>AG VALUE</th>
<th>AG COST</th>
<th>AG RETURN</th>
<th>AG PCT RETURN</th>
<th>AG WATER ACRE / FEET</th>
<th>AG LABOR FTE</th>
<th>AG TRUCK TRIPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASE CASE</td>
<td>562,360.4</td>
<td>$708,969,323</td>
<td>$567,227,952</td>
<td>$141,741,471</td>
<td>25.0%</td>
<td>995,064</td>
<td>2,677.1</td>
<td>112,912</td>
</tr>
<tr>
<td>ALAFLFA TO PRUNE</td>
<td>562,360.4</td>
<td>$711,029,876</td>
<td>$568,792,417</td>
<td>$142,237,459</td>
<td>25.0%</td>
<td>994,567</td>
<td>2,686.9</td>
<td>112,865</td>
</tr>
</tbody>
</table>

**Value:** + $2M  
**Return:** + $500,000  
**Water:** -500 ac-ft  
**Labor:** + 10 workers  
**Trucks:** - 47 trips

What’s the impact on the region?
Would you start a farm today?
Yolo County ROI
0% Establishment Costs
Yolo County ROI
10% Establishment Costs
Yolo County ROI
30% Establishment Costs
Yolo County ROI
40% Establishment Costs
Yolo County ROI
60% Establishment Costs
Econometric Model

Crop Type: Tomato Rotation
Scenario: Fuel Prices Double
Understanding the Regional Food Economy
Production and Consumption

- Consumption: 2.2 million tons
- Production: 3.4 million tons
- 2% Regionally Produced
Regional Food Systems

Growers → Rural Aggregation (Processing) → Regional Food Hub (Processing) → (Local) Market
Food System Analysis

Production
- Crop Map
- Landscape Types
- Viability Indicators/Pro Forma
  - Yield type and amount
  - Market prices/revenue
  - Cost of production
  - Return
- Farmer Training & Land Connecting

Infrastructure
- Roads
- Distribution
- Processing
- (Cold) Storage

Consumption
- Education & Marketing
- New Markets
- Amount & Type
- Land Needs

Pro Forma Tool & Business Plan
Farmland Needs for Regional Consumption

Acres needed* (excluding meat and dairy production)

*Based on the USDA recommended diet

- 10% Local: 44,000
- 20% Local: 88,000
- 30% Local: 132,000
- 40% Local: 176,000
- 50% Local: 220,000
Markets and Revenue

Farm Net Revenue

- 20 Acre:
  - Institution/Conventional Wholesaler: $300,000
  - High-End Wholesaler: $175,000
  - Direct: Farmers Market/CSA: $100,000

- 60 Acre:
  - Institution/Conventional Wholesaler: $100,000
  - High-End Wholesaler: $40,000
  - Direct: Farmers Market/CSA: $4,000

Percentage breakdown:

- 20 Acre: 100%
- 60 Acre: 50%
• Larger volume for larger customers
• Use existing distributors?

• Diversify products
• Serve customers that need food processed
• Use existing processing?

→ Pro Forma & Feasibility Analysis
→ Marketing and labeling as “local”
Food Banks as Food Hubs

- Viable strategy for starting a local food system?
- Leverage existing assets and operations
- Serve food bank clients, wholesale, retail
- Larger food banks help smaller food banks procure fresh produces from region
Food Desert Study
Communities that cannot walk, bike or take transit for 15 minutes and access a food outlet.
Diet Survey

What fruits, vegetables, dairy, grain and meat do people in the SACOG region consume?

Calculate consumption rates for different socio-demographic groups

Estimate demand and potential markets for regionally produced food
Forest Management
**Timber Harvest Levels, El Dorado, Placer & Yuba Counties, 1990-2008 (million board-feet).**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>National Forest</td>
<td>Private</td>
<td>National Forest</td>
<td>Private</td>
<td>National Forest</td>
<td>Private</td>
<td>National Forest</td>
<td>Private</td>
</tr>
<tr>
<td>El Dorado</td>
<td>157</td>
<td>169</td>
<td>14</td>
<td>112</td>
<td>59</td>
<td>48</td>
<td>6</td>
<td>39</td>
</tr>
<tr>
<td>Placer</td>
<td>32</td>
<td>143</td>
<td>8</td>
<td>46</td>
<td>6</td>
<td>27</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>Yuba</td>
<td>7</td>
<td>19</td>
<td>3</td>
<td>24</td>
<td>17</td>
<td>30</td>
<td>Less than 1</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>196</td>
<td>331</td>
<td>25</td>
<td>182</td>
<td>82</td>
<td>105</td>
<td>14</td>
<td>65</td>
</tr>
</tbody>
</table>
Forest Management Innovations

1. **Promote Collaboration**
   - Local and regional efforts
   - Certification collaboratives

2. **Ecosystem Services Payments**
   - Establish protocols
   - Compensation for sustainable management
   - Conservation easements

3. **Maintain/Re-establish Infrastructure**
   - CHIPS
   - Training centers
   - Stewardship contracting
   - Proper siting of biomass collection
Land Use
Reducing Conflict

Rural
- Spray
- Dust
- Noise
- Odor

Urban
- Traffic
- Pets
- Invasive Plants
- Vandalism/Theft
Rural-Urban Interface:

Percent likelihood of fallowing:

All Farms

Hard Edge

Soft Edge

8%  33%  41%
Innovations at the Edge and Beyond

Infill & Redevelopment

Rural-Urban Edge
- Buffers
- Ag Parks
- Right-to-Farm
- Policy Boundaries
- City-County Agreements

Supporting Ag Viability Beyond the Edge
- City-County Agreements
- Voter Initiatives
- Supportive Zoning
- Open Space Plans
- Easements, TDRs, etc.
Environmental Services

- Habitat
- Groundwater recharge
- Water Resources
- Carbon Sequestration
- Flood control
- Air Quality:
  - Urban land **70X** more GHG than ag land
- *Working Landscapes!*
Rural Communities Fiscal Model
Fiscal Impacts Model

**Purpose:** Help small rural communities make growth decisions that are fiscally sustainable

**Challenges:**

- Growth of any kind sometimes looks like economic progress
- Needed infrastructure investments to fix existing problems sometimes contribute to this problem

**Example:** Better balanced land uses more fiscally viable than housing subdivision
Infrastructure
BROADBAND

FOUNDATION FOR ECONOMIC GROWTH AND OPPORTUNITY

RURAL WIRELESS BROADBAND

NEW AGRICULTURE TECHNOLOGY

PRODUCTION | WATER | ENERGY

ENVIRONMENT | FOOD SAFETY

RURAL TELE-HEALTH / TELE-MEDICINE

DISTANCE LEARNING

TRANSPORTATION & LOGISTICS

PUBLIC SAFETY

DIRECT MARKET ACCESS TO GLOBAL MARKETS

Robert Tse USDA RD CA
Transportation
Rural Transportation

Challenges

- Urbanizing rural roads
- Conflicts/accidents
- Farm worker transport
- Road standards
- Maintenance
- Rural Mobility
Rural Traffic Profile

Average Weekday Traffic Distribution

Vehicles Per Hour

Midnight
1AM
2AM
3AM
4AM
5AM
6AM
7AM
8AM
9AM
10AM
11AM
Noon
1PM
2PM
3PM
4PM
5PM
6PM
7PM
8PM
9PM
10PM
11PM

NB-All Veh.  SB-All Veh.
NB-Hvy.Truck  SB-Hvy.Truck
Urban or Rural?

Average Weekday Traffic Distribution

Vehicles Per Hour

Midnight 1AM 2AM 3AM 4AM 5AM 6AM 7AM 8AM 9AM 10AM 11AM Noon 1PM 2PM 3PM 4PM 5PM 6PM 7PM 8PM 9PM 10PM 11PM

EB-All Veh. WB-All Veh.
EB-Hvy.Truck WB-Hvy.Truck
Urban Rural/Edge Travel: Existing Conditions

44% of fatal collisions vs. 13% of population

<table>
<thead>
<tr>
<th>% of Population</th>
<th>% of Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>Rural</td>
</tr>
<tr>
<td>Population</td>
<td>DUI</td>
</tr>
<tr>
<td>87%</td>
<td>63%</td>
</tr>
<tr>
<td>13%</td>
<td>37%</td>
</tr>
</tbody>
</table>
Expanded Mobility: Existing Conditions

- Unsafe & unreliable transportation for ag workers
- Agricultural worker transportation program (AWTP)
Farm to Market Routes
Agritourism
Rural Road Maintenance

<table>
<thead>
<tr>
<th></th>
<th>Road Miles</th>
<th>Population</th>
<th>Road Miles/Person</th>
<th>Percent Road Miles</th>
<th>Percent Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>8,777</td>
<td>1,781,419</td>
<td>0.0049</td>
<td>52%</td>
<td>87%</td>
</tr>
<tr>
<td>Rural</td>
<td>8,258</td>
<td>275,824</td>
<td>0.0299</td>
<td>48%</td>
<td>13%</td>
</tr>
<tr>
<td>Total</td>
<td>17,035</td>
<td>2,057,243</td>
<td>0.0083</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rural communities at a disadvantage in finding funds to maintain roadways

→ SACOG Rural Funding Guide
Regulations

- Production
- Infrastructure
- Types of regulations
- Cost of regulations
- Permit Streamlining / Regulatory Relief