Sonoma County Agricultural Preservation & Open Space District

- diverse multi-objective
- community vision: 1990
- re-authorized 2006 (76%)
- ¼ cent sales tax/leverage
- protection of 106,000 acres to date (easements/fee ownership)
- spatial scale: county to project
- temporal: now to forever
- data driven
## Multiple Climate Benefits of Conservation

<table>
<thead>
<tr>
<th>Action/Strategy</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Car</td>
<td>emissions, economic, health</td>
</tr>
<tr>
<td>Building Retrofit</td>
<td>emissions, economic</td>
</tr>
<tr>
<td>Public Transit</td>
<td>emissions, economic, health</td>
</tr>
<tr>
<td>Renewable Energy</td>
<td>emissions, economic, health</td>
</tr>
<tr>
<td>Land Conservation</td>
<td>emissions, economic, health, AND local food, biodiversity, water supply/quality, quality of life, disaster &amp; climate resiliency, scenic viewsheds, cultural, spiritual values</td>
</tr>
</tbody>
</table>
Data and Analyses (climate, etc)

- prioritize investments
- leverage our funding
- report to community
- align with state policy objectives
- support conservation actions by partners
- backcasting/forecasting
Climate Initiatives & Key Collaborators

• **Climate Action Through Conservation**
  – TNC, Regional Climate Protection Authority, Ctr for Climate Protection

• **LIDAR: Countywide Carbon Stocks & Sequestration**
  – NASA, USGS, Sonoma County Water Agency

• **Local Coastal Plan Update/Sea Level Rise**
  – PRMD, Stanford Natural Capital, Ocean Protection Council

• **Urban Footprint Scenario Planning**
  – Regional Climate Protection Authority, TNC

• **Adaptation Collaborations**
  – North Bay Climate Adaptation Initiative

• **Healthy Lands & Healthy Economies**
  – Santa Cruz & Santa Clara, Moore
Data On the Ground Outcomes

• scale: countywide to individual project

• examples:
  – urban edge: Santa Rosa Plain
  – easement structure
  – remote rural: Dry Creek Watershed, North Coast
Urban Growth Boundary (in white)

Urban District-protected land
Publicly protected land
Sonoma Land Trust
Concentration of Biodiversity elements
T&E species, intact habitat, wetlands

<table>
<thead>
<tr>
<th>High</th>
<th>Low</th>
</tr>
</thead>
</table>

Urban Growth Boundary (in white)
Carbon Stocks
Aboveground, soil, and dead and down stocks

High
Low
Carbon Stocks
Aboveground, soil, and dead and down stocks

High

Low
Groundwater Recharge Potential
CA Basin Characterization Model

Urban Growth Boundary (in white)
Easement Structure – Property Specific

- willing sellers – voluntary incentive based negotiation
- easement structure to enhance climate benefits
- ag viability protects climate benefits
Lake Sonoma Watershed Cooley Ranch Conservation Easement

Before Condition:
56 home sites

After Condition:
3 home sites

Natural Areas
Agricultural Areas
Riparian Protection
Tree Size
Groundwater Recharge

Regionally Significant Habitat Area
Habitat Linkage

Cooley Ranch Conservation Easement Regionally Significant Habitat Area
Habitat Linkage

Cooley Ranch
### Buckeye Forest

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Tonnes CO2e 1990</th>
<th>Tonnes CO2e 2010</th>
<th>Tonnes CO2e 2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buckeye Forest</td>
<td>7,719,722</td>
<td>8,685,577</td>
<td>9,491,862</td>
</tr>
<tr>
<td>Preservation Ranch</td>
<td>7,719,722</td>
<td>8,685,577</td>
<td>8,516,019</td>
</tr>
</tbody>
</table>

**PLUS:** sustainable forestry, water, biodiversity, recreation, grazing, avoided VMTs!
RESILIENT CARBON PALOOZA!!!