THE EL CERRITO CLIMATE ACTION PLAN

El Cerrito’s Carbon Footprint
Environmental Quality Committee
September 28, 2010
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BACKGROUND

Council Resolutions
• Joining the Conference of U.S. Mayors Climate Protection Agreement (2006-61)
• Endorsement of State’s AB 32 Goals (2006-93)
• Accepting Baseline Inventory & Development of a Climate Action Plan (2008-33)
• Reiterate Support for AB 32 in the wake of Prop 23

Funding and Partnerships
• BAAQMD Climate Protection Grant
• EPA Climate Showcase Communities
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Timeline

○ Coming Milestones
  - City Council: Progress Update – Sept 20
  - EQC Meeting: GHG Inventory, AB 32 Targets - Sept 28
  - Community Workshop(s): Input on Reduction Measures – Beginning late Oct
  - EQC: Progress Update – Nov 9
  - Close the Climate Action Survey - December
  - City Council: Quantification Results & Setting a Reduction Target – Jan 2011
  - Draft Plan: Begin Circulating Draft Plan – Feb/ March 2011
  - CEQA: Initial Study and Neg Dec – March/ April
  - Community Meeting(s) on Draft Plan – March/ April
  - City Council: Study Session & Consideration to Adopt – Summer 2011
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STATE AND REGIONAL CONTEXT

- Developing the CAP as statewide and regional approaches to Climate Change rapidly change

- AB 32, California’s Global Warming Solutions Act
  - Scoping Plan recommends 15% local govt reduction goal
  - California Green Building Standards, effective Jan 1, 2011
  - Mandatory commercial/ multi-family recycling effective 2012

- SB 375 Sustainable Communities Strategy
  - MTC Draft Regional VMT Targets
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PURPOSE & SCOPE

Purpose
- To provide a roadmap for pursuing community-wide and municipal reductions in Green House Gas (GHG) emissions
- To inspire municipal and community climate protection
- To provide the option to use the CAP in streamlining GHG analysis for developments undergoing CEQA review

Scope
- GHGs from Municipal Operations
- GHGs from Community-Wide
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OBJECTIVES

Plan Objectives

- **Where we are:** To conduct an inventory of baseline GHGs (2005) and forecast growth
- **Where we want to be:** To assist the City Council and community in determining realistic, yet ambitious reduction targets
- **How we get there:** To provide an analysis of existing and potential policies, programs, and projects that will reduce GHGs
  - To determine how much these measures will contribute toward potential reduction targets
  - To outline implementation actions
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REDUCTION TARGETS

- **Reduction Targets**
  - AB 32 recommends local government reduction target
  - 15% below “current” (2005 is good baseline) by 2020

- **Planning Horizons**
  - Consistent with AB 32 and the Sustainable Community Strategy
  - Baseline: 2005
  - 1st Target Year: 2020
  - 2nd Target Date: 2035
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INVENTORY vs. CARBON FOOTPRINT

- **What’s Counted in the Inventory**
  - Activities over which local government has some type of influence
  - Activities that are reliably measured over time

- **What’s Not Counted**
  - Consumer Goods: Upstream Emissions
  - Food: Upstream Emissions
  - Air Travel
  - Travel beyond Contra Costa County
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BASELINE INVENTORY

- **Annual VMT** – Highway Performance Monitoring System
- **KWh & Therms** from all PG&E accounts
- **Embodied energy (kWh/gal)** of water/waste water from EBMUD, Stege
- **Tons of solid waste** sent to landfills

El Cerrito Community GHG Emissions (2005 Baseline Inventory)

- **Transportation** 51.0%
- **Commercial Energy Use** 15.2%
- **Residential Energy Use** 28.4%
- **Water Use & Treatment** 0.4%
- **Landfill Waste** 6.0%
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BASELINE DETAIL

1. Auto Traffic (Local Streets) 25.3%
2. Residential Natural Gas 20.1%
3. Auto Traffic (% of County Hwys) 16.5%
4. Commercial Electricity 11.7%

- Water Use & Treatment 0.4%
- Commercial Natural Gas 3.5%
- Waste in Landfill 5.0%
- Residential Electricity 8.3%

- Auto Traffic (San Pablo Ave) 9.2%
- Residential Natural Gas 20.1%
- Commercial Natural Gas 3.5%
- Commercial Electricity 11.7%
- Waste in Landfill 5.0%
- Residential Electricity 8.3%
<table>
<thead>
<tr>
<th>End Use (2005)</th>
<th>Total Units</th>
<th>Unit</th>
<th>Service Population (SP)</th>
<th>Total Costs</th>
<th>Units / SP</th>
<th>Total Tons CO2e</th>
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</thead>
<tbody>
<tr>
<td><strong>Energy Use</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Residential Electricity</td>
<td>48,148,911</td>
<td>kWh</td>
<td>Resident</td>
<td>$ 7,703,826</td>
<td>2,071.46</td>
<td>12,114.21</td>
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<td>Residential Natural Gas</td>
<td>5,043,720</td>
<td>therms</td>
<td>Resident</td>
<td>$ 6,657,710</td>
<td>216.99</td>
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<tr>
<td>Commercial Electricity</td>
<td>61,106,994</td>
<td>kWh</td>
<td>Employee</td>
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<td>14,549.28</td>
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<td>Direct Access Electricity</td>
<td>7,158,730</td>
<td>kWh</td>
<td>Employee</td>
<td>not known</td>
<td>1,431,746.00</td>
<td>1,804.00</td>
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<tr>
<td>Commercial Natural Gas</td>
<td>877,203</td>
<td>therms</td>
<td>Employee</td>
<td>$ 1,157,908</td>
<td>208.86</td>
<td>5,151.97</td>
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<td><strong>Energy Subtotal</strong></td>
<td></td>
<td></td>
<td></td>
<td>$ 25,296,563</td>
<td>64,005.46</td>
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<tr>
<td><strong>Water Use</strong></td>
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<tr>
<td>Water Consumed</td>
<td>945,043,396</td>
<td>gallons</td>
<td>Resident, Employee</td>
<td>$ 3,800,000</td>
<td>34,435.34</td>
<td>276.79</td>
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<td>Wastewater Treated</td>
<td>708,782,547</td>
<td>gallons</td>
<td>Resident, Employee</td>
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<td>25,826.50</td>
<td>378.38</td>
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<td><strong>Water Subtotal</strong></td>
<td>1,653,825,943</td>
<td>gallons</td>
<td></td>
<td>$ 3,800,000</td>
<td></td>
<td>655.18</td>
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<td><strong>Transportation</strong></td>
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<tr>
<td>Auto Traffic (Local Streets)</td>
<td>57,892,650</td>
<td>VMT</td>
<td>Resident, Employee</td>
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<td>2,109.48</td>
<td>37,143.00</td>
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<td>Auto Traffic (San Pablo Ave)</td>
<td>20,305,753</td>
<td>VMT</td>
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<td>739.90</td>
<td>13,482.00</td>
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<tr>
<td>Auto Traffic (% of County Highways)</td>
<td>36,454,614</td>
<td>VMT</td>
<td>Resident, Employee</td>
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<td>1,328.33</td>
<td>24,200.00</td>
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<td><strong>Transportation Subtotal</strong></td>
<td>114,653,017</td>
<td>VMT</td>
<td></td>
<td>$ 14,675,600</td>
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<td>74,825.00</td>
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<td><strong>Waste</strong></td>
<td></td>
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<td></td>
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<td>Solid Waste to Landfill</td>
<td>29,558,000</td>
<td>lbs</td>
<td>Resident, Employee</td>
<td>$ 5,500,000</td>
<td>1,077.03</td>
<td>7,302.31</td>
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<td><strong>Totals</strong></td>
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<td></td>
<td></td>
<td>$ 78,368,726</td>
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<td>146,613.24</td>
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### Carbon Footprint vs. Baseline Inventory

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<tr>
<th>Household</th>
<th>Footprint</th>
<th>Inventory</th>
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<tbody>
<tr>
<td>Transportation</td>
<td>11.02</td>
<td>7.12</td>
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<tr>
<td>Avg MPG and VMT</td>
<td>0.28</td>
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<tr>
<td>Public Transportation</td>
<td>4.96</td>
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<tr>
<td><strong>Household Energy</strong></td>
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<tr>
<td>Electricity</td>
<td>1.11</td>
<td>1.11</td>
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<tr>
<td>Natural Gas</td>
<td>2.75</td>
<td>2.75</td>
</tr>
<tr>
<td>Water/ Sewage</td>
<td>0.06</td>
<td>0.06</td>
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<tr>
<td><strong>Consumption</strong></td>
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<tr>
<td>Food</td>
<td>6.50</td>
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<tr>
<td>Goods and Services</td>
<td>18.19</td>
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<tr>
<td><strong>Total</strong></td>
<td>44.88</td>
<td>11.05</td>
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</table>

**Carbon Footprint CO\(_2\)e / Capita**

- **El Cerrito**
  - 19.5 tons/person
  - 2.3 people/hhd

- **California**
  - 23 tons/person
  - 2.9 people/hhd
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CARBON FOOTPRINT

Carbon Footprint of
Average El Cerrito Household

- Goods and Services: 40.5%
- Food: 14.5%
- Air Travel: 11.1%
- Public Transportation: 0.6%
- Avg MPG and VMT: 24.6%
- Electricity: 2.5%
- Natural Gas: 6.1%
- Water/ Sewage: 0.1%

From CoolClimate Calculator
http://coolclimate.berkeley.edu/
Using El Cerrito data
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EMISSION SCENARIOS 2005 -2035

GHG Emissions Scenarios
2005-2035

- Business-As-Usual Scenario
- California State Initiatives Scenario Reduction
- Reduction Target (15% below 2005)
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EMISSION SCENARIOS 2005 -2035

<table>
<thead>
<tr>
<th>Year</th>
<th>BAU Scenario</th>
<th>Emissions after CA State Initiatives</th>
<th>15% Reduction Target</th>
<th>Tons to Reduce after State Initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>146,613</td>
<td>146,613</td>
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<tr>
<td>2020</td>
<td>166,471</td>
<td>154,304</td>
<td>124,621</td>
<td>29,682</td>
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<td>2035</td>
<td>192,225</td>
<td>180,058</td>
<td>102,629</td>
<td>77,429</td>
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</tbody>
</table>

- 2020 reductions equal to all residential natural gas use in 2005
- 2035 reductions equal to all 2005 transportation emissions
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Questions/ Comments?