ADAPTING TO CLIMATE CHANGE IN CHULA VISTA

EPA Webcast: Climate Impacts & Risk Communication
Brendan Reed, Environmental Resource Mgr.
Climate Adaptation Planning with...

NO MONEY

NO EXPERIENCE
OUTLINE

• In the beginning…
  CV statistics
  Past climate work

• Impacts, vulnerabilities, & risk … oh my!
  Focus areas
  Planning phases
  Planning matrix

• I wish that someone had told me…
  Lessons learned
CHULA VISTA STATISTICS
• 231,000 population
• Diverse landscapes
• Future growth → 85,000 residents & 27,000 homes
EARLY CLIMATE WORK

• ICLEI Charter Member (1994)

• Original CO$_2$ Reduction Plan (1996)

• Climate Change Working Group
  Mitigation actions (2007)
  Adaptation planning (2010)
CURRENT CLIMATE MITIGATION STRATEGIES

Alternative Transportation

Efficiency & Solar Retrofits

Green Buildings & Smart Growth
CLIMATE ADAPTATION PLANNING PROCESS

- 7 focus areas
- Guiding principles

Example
Require all new coastal development to assess vulnerability to sea level rise.

Example
Ensure public health system is prepared for more frequent heat waves & public is educated on consequences of excess heat.

Example
Expand efforts to encourage low water use in home landscaping.
CLIMATE ADAPTATION PLANNING PROCESS
• 3 planning phases
• Initial criteria
• Don’t duplicate/contradict current mitigation work!

1. Information Gathering
   • Guest presenters
   • Best available data
   • Public forum

2. Risk Analysis & Measures Evaluation
   • Climate Adaptation Planning Matrices
   • Risk = likely x consequence
   • Local researchers
   • Initial criteria

3. Strategies Selection
   • Commission meetings
   • Council presentation


**CLIMATE ADAPTATION PLANNING PROCESS**

- Planning matrix for each focus area

### Chula Vista Climate Change Impacts & Adaptation Options

**ENERGY**

<table>
<thead>
<tr>
<th>IMPACT TO SAN DIEGO REGION</th>
<th>VULNERABILITY</th>
<th>RISK*</th>
<th>ADAPTATION OPTIONS</th>
<th>CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pressure on Local Systems &amp; Services</td>
<td></td>
<td></td>
<td>City Jurisdiction?</td>
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<tr>
<td>A</td>
<td>Higher peak demand and transmission inefficiencies in summertime (when cooling needs are greatest) make stable and adequate supplies increasingly challenging</td>
<td>HIGH</td>
<td>Adopt a building energy rating and disclosure program</td>
<td>YES</td>
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<td>Require LEED or equivalent standards for residential, commercial, industrial projects to increase energy efficiency</td>
<td>YES</td>
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<td>Promote on-site generation or energy storage (including thermal) to offset peak energy needs</td>
<td>YES</td>
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<td>Establish a building retrofit program to reduce energy consumption during periods of peak demand</td>
<td>YES</td>
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<td>Implement time-of-use or peak demand energy pricing (SDG&amp;E already does for commercial and industrial customers)</td>
<td>NO</td>
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<td></td>
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<td>Enroll all municipal facilities in demand response programs (if applicable)</td>
<td>YES</td>
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<td>Identify emergency centers as priorities for onsite renewable energy sources to reduce susceptibility to lapses in the conventional energy supply</td>
<td>YES</td>
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<td>Update emergency response plans to account for increased potential for black outs in summertime</td>
<td>YES</td>
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<tr>
<td>B</td>
<td>Increasingly expensive energy costs expose vulnerable populations to expend higher proportion of income on energy</td>
<td>MEDIUM</td>
<td>Develop outreach and incentives appropriate for energy efficiency/renewable energy upgrades in the rental market where there are split incentives for property-owner and electricity rate payer (renter)</td>
<td>YES</td>
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<td>Target outreach of existing efficiency upgrade programs and incentives to low-income neighborhoods and small businesses</td>
<td>YES</td>
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<td></td>
<td>Target urban heat island mitigation programs in low-income neighborhoods, who have proportionately harder time cooling homes</td>
<td>YES</td>
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</tbody>
</table>

*RISK = Likelihood of an Impact X Consequence of the Impact; each factor scored from 1 to 5 and overall risk was categorized as “Low” (1-7 total score), “Medium” (8-15 total score), and “High” (16-25 total score).
CLIMATE ADAPTATION RECOMMENDATIONS
• Some strategies are also mitigation measures

Cool Paving & Roofs
Shade Trees
Water Reuse
LESSONS LEARNED

- Engage stakeholders (try an open house format!)
- Stress preparedness/lower risk & co-benefits
- Avoid analysis paralysis
- Focus on area of influence & actionable items
- Integrate into existing plans & programs
Just Do It...