Critical Questions

• What are the relevant land use-related policy responses?
• How do these policies stack up against others?
• How much emissions reduction potential might land use-related policies have?
• How cost effective are these policies?
Critical Questions

• How widespread is their implementation?
• Barriers to implementation?
• Strategies to overcome?
Western State Climate Action Plans

Identified policies with a land use planning/local decision making dimension from multiple sectors:

- Transportation and Land Use
- Green and Energy Efficient Building Practices
- Energy planning
- Forestry and Wildfire Planning
- Local Agriculture and Open Space Preservation
- Water Use Efficiency
State Climate Action Plans
As of 2007

Map from Center for Climate Strategies, www.climatestrategies.us
Analysis of State Climate Action Plans

• 2004 – Utah
• 2006 – Arizona, California, New Mexico
• 2007 – Colorado, Montana, Utah, Washington
What are the relevant land use-related policy responses?

- Green building – municipal, industrial, commercial, residential
- Energy efficiency in municipal, industrial, commercial, or residential buildings
- Compact building design
- Reduction in VMT (through walkable communities, mixed use, high density development)
- Increase in mass transit
- Transit-oriented development
What are the relevant land use-related policy responses?

- Alternative energy – distributed generation within urban areas
- Open space conservation
- Urban forestry
- Wild land – urban interface fire management (building or zoning regulations)
- Comprehensive drought planning
- Water efficiency measures
How much impact might land use-related policies have?

<table>
<thead>
<tr>
<th>State</th>
<th>AZ</th>
<th>CA</th>
<th>MT</th>
<th>NM</th>
<th>WA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Climate Action Policies</td>
<td>35</td>
<td>39</td>
<td>48</td>
<td>64</td>
<td>58</td>
</tr>
<tr>
<td>Total Potential GHG Emissions (MMTCO2e)</td>
<td>645.3</td>
<td>138.5</td>
<td>125.5</td>
<td>322.9</td>
<td>104.6</td>
</tr>
<tr>
<td>Total Land Use Planning-Related Policies</td>
<td>11</td>
<td>8</td>
<td>10</td>
<td>19</td>
<td>13</td>
</tr>
<tr>
<td>Percentage of Total GHG Reductions Possible from Land Use Planning-Related Policies</td>
<td>19.9%</td>
<td>18.3%</td>
<td>10.2%</td>
<td>17.5%</td>
<td>24.7%</td>
</tr>
</tbody>
</table>
Percent of Total Emissions Reductions Possible from Land Use-Related Policies

- Arizona: 20% reduction
  - 80% total emissions
- California: 18% reduction
  - 82% total emissions
- Montana: 10% reduction
  - 90% total emissions
- New Mexico: 18% reduction
  - 82% total emissions
- Washington: 25% reduction
  - 75% total emissions
Average Cost Effectiveness and Greenhouse Gas Reduction Potential of Land Use-Related Policies in Western State Climate Action Plans

- Support for combined heat and power
- Support for distributed and other renewables
- Transportation and Land Use Policies
- Support local farming/buy local
- Preserve open space/agricultural land
- Green Building/Energy Efficiency
- Urban forestry
- Residential forest planning/management
- Forestland protection from development

- Average Cost Effectiveness ($/tCO2e)
- Average GHG Reductions (MMtCO2e) Total 2007–2020
8 - Smart Growth Bundle of Options
9 - "Beyond Code" Building Design Incentives and Programs for Smart Growth
12 - Distributed Generation/Combined Heat and Power
13 - Reduce Barriers to Renewables and Clean Distributed Generation
14 - Building Standards/Codes for Smart Growth
17 - Distributed Generation/Renewable Energy Applications
18 - Direct Renewable Energy Support (including Tax Credits and Incentives, R&D, and siting/zoning)
28 - Forestland Protection from Developed Uses
31 - Reduce Conversion of Farm and Rangelands to Developed Uses
35 - Programs to Support Local Farming/Buy Local
8 - Smart Growth Bundle of Options
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Barriers to Local Action in the West

Signatories to U.S. Mayor's Climate Change Agreement as of Feb. 1, 2008.
http://usmayors.org/climateprotection/ClimateChange.asp
ICLEI Cities and Counties in the Intermountain West as of 12/07/07

- Ada County, ID
- Boise, ID
- Arvada, CO
- Aspen, CO
- Boulder, CO
- Bozeman, MT
- Carbondale, CO
- Denver, CO
- Golden, CO
- Gunnison County, CO
- Hailey, ID
- La Plata, CO
- Las Vegas, NV
- Manitou Springs, CO
- Missoula, MT
- Moscow, ID
- Park City, UT
- Phoenix, AZ
- Riverside, CA
- Salt Lake City, UT
- Salt Lake County, UT
- Sandpoint, ID
- Santa Fe, NM
- Spokane, WA
- Spokane County, WA
- Taos, NM
- Jackson County, WY
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• Why is local action for climate change not as widespread in the Intermountain West as in other regions?

• What barriers might land use planners and other decision makers confront?

• How can these barriers best be overcome?

• Same or different barriers as with other land use policies?

• Does climate change offer new opportunities for removing these barriers?