Urban Heat Island Reduction for Los Angeles County

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC HEALTH

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Health Protection Bureau
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• Higher average temperatures
• More episodes of extreme heat
  – Inland and mountain areas most affected
Heat predictions for Los Angeles

Current and projected temperature extremes for Los Angeles
Average annual days exceeding 95 degrees F

<table>
<thead>
<tr>
<th>Location</th>
<th>Current</th>
<th>2041-2060 ensemble projection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baldwin Hills</td>
<td>0.5</td>
<td>2</td>
</tr>
<tr>
<td>Downtown LA</td>
<td>6</td>
<td>23</td>
</tr>
<tr>
<td>Eagle Rock</td>
<td>13</td>
<td>42</td>
</tr>
<tr>
<td>El Sereno</td>
<td>13</td>
<td>41</td>
</tr>
<tr>
<td>Hollywood</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Porter Ranch</td>
<td>2</td>
<td>55</td>
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<tr>
<td>San Pedro</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>Studio City</td>
<td>14</td>
<td>38</td>
</tr>
<tr>
<td>Sunland</td>
<td>2</td>
<td>36</td>
</tr>
<tr>
<td>Sylmar</td>
<td>0.1</td>
<td>0.6</td>
</tr>
<tr>
<td>Venice</td>
<td>0.1</td>
<td>2</td>
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<tr>
<td>Watts</td>
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<tr>
<td>Westwood</td>
<td>1</td>
<td>36</td>
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<tr>
<td>Woodland Hills</td>
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<td>71</td>
</tr>
</tbody>
</table>

Source: UCLA LARC study, 2012; chart based on the mean/average projected by the 18 climate models

Source: UCLA “Climate Change in the Los Angeles Region” Project
Public health impacts of heat

- Heat worsens air quality
  - More creation of ground-level ozone
  - More temperature inversions
  - Wildfires

**Smog sticks around**
Pollution can get trapped in a basin when high pressure prevents air from moving.

Sources: Times reporting and Google Earth

Jon Schleuss / @latimesgraphics
Extreme Heat – Possible Interventions

• Urban heat island reduction
• Cooling centers + other emergency response
• Air conditioning + energy efficiency
Impervious surfaces

Source: U.S. Geological Survey

Source: California Department of Public Health and the Public Health Institute
Park-poor areas with low income

Source: The City Project, at http://www.mapjustice.org/losangeles

Assembly District Number

- Less than 3 acres parkland per 1000 people and Below $47,331 Median Household Income
- Less than 3 acres parkland per 1000 people and Above $47,331 Median Household Income
- More than 3 acres parkland per 1000 people and Below $47,331 Median Household Income
- More than 3 acres parkland per 1000 people and Above $47,331 Median Household Income
- Zero Population

More People of Color than State Average
State Average = 53.3%

All parks and open space are used to calculate acres of parkland per 1000 people, including forest service, bureau of land management and large state and regional parks.
Why work on the Urban Heat Island?

- Saves lives
- Improves air quality
- Lowers energy consumption
- Creates comfortable environments for exercise and play outside
Why work on the Urban Heat Island?

- Addresses equity issues
- Features long-term solutions
- Benefits whole communities and future generations
• County of Los Angeles developing an Urban Heat Island Reduction Plan
  – County Climate Committee comprised of Public Health, Public Works, Regional Planning, Parks and Recreation, Fire, Beaches and Harbors, Internal Services
UHI Plan Components

- Trees
- Cool roofs
- Cool and permeable pavements
Thank you!

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