COUNTY OF LOS ANGELES
A joint effort by Department of Regional Planning and Department of Public Works
In examining the costs and benefits of Green Building, we note that there are two types of cost associated with building and maintaining a development.

- Upfront
- Lifetime
When examining the long-term costs and benefits of Green Building, it is also important to look at these various aspects:

- Maintenance costs
- Utilities costs
- Environmental impacts
- Total economic impact
Why include a Green Building program in our County Code at this time?

- Conserve energy and water
- Reduce carbon emissions and footprint
- Comply with AB 32 (2006)
- Incorporate Green Building program into the General Plan and Zoning Ordinance Updates
The built environment has a profound impact on our natural environment, economy, health, and productivity. In the United States alone, buildings account for:

- **65%** of electricity consumption,
- **36%** of energy use,
- **30%** of greenhouse gas emissions,
- **30%** of raw materials use,
- **30%** of waste output (136 million tons annually), and
- **12%** of potable water consumption.

The County’s Commitment to Green

- Maintaining 70% open space within non-urban hillside management areas.
- Updating the General Plan to address climate change and incorporate green building concepts.
- Recycling 50% of construction and demolition debris.
- Conditioning Green Building practices for certain projects.
- Water-efficient landscaping.
- Supporting Transit Oriented Development through the granting of density bonuses.
- Tree planting within subdivisions.
- 2% landscaping of commercial parking lots.
- Encouraging clustered development within subdivisions.
Purpose:

The goal of this ordinance is to minimize negative environmental and human health impacts as caused by construction, maintenance and operation of buildings.

By incorporating green measures into development practices, we can increase public health, save energy and water and maintain longer lasting and safer buildings.
## Recommendations For Green Building Standards
### Nonresidential and Residential Construction

<table>
<thead>
<tr>
<th>TITLE 22 (ZONING)</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Large nonresidential or mixed use buildings ≥ 25,000 square feet of gross floor area</td>
<td>LEED Checklist</td>
<td>LEED - Certified</td>
<td>LEED - Silver</td>
<td>LEED - Silver</td>
</tr>
<tr>
<td>2. Tenant improvement ≥ 25,000 square feet of gross floor area which requires a building permit as determined by the Department of Public Works</td>
<td>LEED Checklist</td>
<td>LEED – Certified</td>
<td>LEED – Silver</td>
<td>LEED - Silver</td>
</tr>
<tr>
<td>3. Remodels, additions or alterations to an existing building where the area of work is ≥ 10,000 gross square feet</td>
<td>LEED Checklist</td>
<td>LEED – Certified</td>
<td>LEED – Silver</td>
<td>LEED - Silver</td>
</tr>
<tr>
<td>4. Mid-Size nonresidential or mixed use Buildings ≥ 10,000 to 25,000 square feet of gross floor area</td>
<td>Voluntary</td>
<td>LEED Checklist</td>
<td>LEED Checklist</td>
<td>LEED Checklist</td>
</tr>
<tr>
<td>5. Tenant improvement ≥ 10,000 to 25,000 square feet of gross floor area which requires a building permit as determined by the Department of Public Works</td>
<td>Voluntary</td>
<td>LEED Checklist</td>
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<td>LEED Checklist</td>
</tr>
<tr>
<td>6. Large nonresidential or mixed use buildings Nonresidential or mixed use projects that include a building ≥ 75 feet in height of new construction</td>
<td>LEED Checklist</td>
<td>LEED - Silver</td>
<td>LEED - Silver</td>
<td>LEED - Silver</td>
</tr>
<tr>
<td>7. Residential I: ≤ four residential units including single-family residences, two-family or three-family residences, and apartments</td>
<td>Voluntary</td>
<td>Voluntary</td>
<td>GPR</td>
<td>GPR</td>
</tr>
</tbody>
</table>
## Recommendations For Green Building Standards
### Nonresidential and Residential Construction

<table>
<thead>
<tr>
<th>TITLE 21 (SUBDIVISION)</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Residential II: two to, and including four residential units with a parcel map</td>
<td>Voluntary</td>
<td>Voluntary</td>
<td>GPR</td>
</tr>
<tr>
<td>9</td>
<td>Residential III: ≥ five to 50 residential units</td>
<td>Voluntary</td>
<td>GPR</td>
<td>GPR</td>
</tr>
<tr>
<td>10</td>
<td>Residential IV: ≥ 51 Residential units</td>
<td>Voluntary</td>
<td>GPR with additional measures for sustainable communities</td>
<td>GPR with additional measures for sustainable communities</td>
</tr>
</tbody>
</table>
Type of Standards:

- Leadership in Energy and Environmental Design (LEED) – U.S. Green Building Council
- GreenPoint Rated – Build It Green
- California Green Builder – The Building Industry Institute
- County’s own standards (will take time)
Northwest Innovation Center
45 Eureka Street
Pasadena
LEED-Gold Certified

Designed and Built by a multidisciplinary team led by J.L. Moseley Company
Purpose:

Low Impact Development (LID) is an approach to site design and development that manages stormwater and other urban runoff.

LID goals:

- Treat stormwater and other urban runoff
- Promote groundwater recharge through on-site infiltration
- Maintain and enhance natural resources systems while reducing infrastructure costs.
Recommendations:

1. Work with public agencies to identify the most effective LID development standards for private development and public roads.

2. Amend the county code to broaden requirements for landscaping parking lots to include a greater number of trees and explore the feasibility of landscaping building rooftops.
## Recommendations:

3. Review and consider LID requirements for other jurisdictions.

<table>
<thead>
<tr>
<th>Municipality</th>
<th>LID Type</th>
<th>LID Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Lacey, WA</td>
<td>Uniform</td>
<td>Zero percent effective drainage discharge</td>
</tr>
<tr>
<td>County of Ventura, CA</td>
<td>Uniform</td>
<td>Reduce effective impervious area to 5% of total project</td>
</tr>
<tr>
<td>City of Santa Monica, CA</td>
<td>Uniform</td>
<td>Reduce expected runoff by a minimum of 20%</td>
</tr>
<tr>
<td>City of Seattle, WA</td>
<td>Tiered (Size)</td>
<td><strong>Tier 1</strong> - Any development (residential/commercial) over 750 square feet/building permit - max 0.2 cubic ft/sec discharge rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Tier 2</strong> - Development over 9,000 square feet - max 0.15 cubic ft/sec discharge rate, additional restrictions - natural drainage systems to be maintained, etc</td>
</tr>
<tr>
<td>Truckee Meadows, NV (City of Reno and Sparks Metropolitan Area ) (Draft)</td>
<td>Tiered (Use)</td>
<td><strong>Tier 1</strong> - Projects over one acre - reduce runoff peaks and volumes to pre-developed levels and incorporate design features that will address water quality.</td>
</tr>
<tr>
<td></td>
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<td><strong>Tier 2</strong> - Projects that include constructed open channels and local or regional detention basins for flood management</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Tier 3</strong> – Projects that include industrial, commercial or civic facilities</td>
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<td></td>
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<td><strong>Tier 4</strong> – Projects located within or directly adjacent to environmentally sensitive areas</td>
</tr>
</tbody>
</table>
Types of Standards:

- Green roofs
- Vegetated filtration swales
- Filtration strips
- Permeable paving
- Retention ponds - micro and macro watershed
- Cisterns/rain barrels
- Rain gardens
Types of Low Impact Development

- Green Roof
- Retention ponds
- Porous Pavement and Infiltration Planters
- Swale
Rain Gardens
The Audubon Center at Debs Park in Los Angeles
A self-sustained nature park with Green Building, Native Landscaping and LID technology

Park site designed by Esherick, Homsey, Dodge & Davis and Campbell & Campbell
The Audubon Center at Debs Park
Los Angeles
LID technology throughout the park
DROUGHT-TOLERANT AND NATIVE LANDSCAPING STANDARDS

Purpose:

The Drought-tolerant and Native Landscaping ordinance establishes guidelines for plant material, planting techniques and maintenance of landscaped areas for the purpose of conserving water.
DROUGHT-TOLERANT AND NATIVE LANDSCAPING STANDARDS

Recommendations:

• Require that a minimum percentage of plants be climatically appropriate for the area.

• Limit the percentage of turf permitted in a landscaped area.

• Require plant positioning that allows for efficient watering.

• Position trees so that they shade sidewalk, patios and driveways.

• Require the installation of both indoor and outdoor water meters to monitor use in large developments.
DROUGHT-TOLERANT AND NATIVE LANDSCAPING STANDARDS

Type of Standards:

A. County-approved plant list by geographic zones
   - Percentage required of total landscaped area
   - Native species vs. climatically appropriate species

B. Turf Minimums
   - % of total landscaped area;
   - % of lot size; or
   - Set size limit in square footage
Drought-Tolerant and Native Landscaping Scenes - Homes, Sidewalks, Public Places
A few examples of Drought-Tolerant and Native Plants naturally found in Los Angeles County

California Wild Rose  Purple Needle Grass  Buckbrush  False indigo  Desert Larkspur

Desert Marigold  Heerman’s Lotus  Claret Cup Cactus  Prettyface Triplet Lily
Leadership in Energy and Environmental Design
United States Green Building Council
www.usgbc.org

GreenPoint Rated Program
Build It Green
www.builditgreen.org

California Green Builder
The Building Industry Institute
www.cagreenbuilder.org

American Society of Landscape Architects
www.asla.org
Contact:

Ordinance Studies
Department of Regional Planning
320 W. Temple Street 13th Floor
Los Angeles, CA 90012
(213) 974-6432
E-mail: zoup@planning.lacounty.gov
Website: http://planning.co.la.ca.us/spGreenBuildingProgram.htm
Questions for Discussion…

Any other questions?

Your comments and feedback are welcome!