

Citizens Environmental Committee

Recommendations on:

**Water Conservation
and
Green Building Standards**

February 19, 2008



Committee Members

- Michael Bobo, Chair
- Laura Hines Ackerman
- Roger Behgam
- Grace Darling
- Glen Dixon
- Terry Gratton
- Michelle Licater
- Roy Miliner
- Craig Savela



Committee Overview

- Formed in spring of 2006
- 10 members
- Charge from Mayor and Council covers a broad range of environmental issues
- FY 2006 topic – “Green Building” Standards
 - For new City buildings
 - To the extent attainable under budgetary constraints
- FY 2007 topic – Water Conservation and Efficiency



Water Conservation and Efficiency Recommendations

1. Consider a higher upper tier rate for residential water consumption.
2. Consider a resolution to decrease per-capita water consumption City-wide. Goals should be consistent with state guidelines.
3. Convert landscaping at City facilities to low-use, SmartYard features as soon as practical. Identify strategies to encourage and promote private landscaping conversions.



Water Conservation and Efficiency Recommendations (cont.)

4. Consider expanding the daily watering restrictions, currently banned from 10:00 a.m. to 6:00 p.m. Consider odd-even watering restrictions.
5. Strengthen enforcement efforts for all City ordinances and policies related to water conservation. No exemptions should be granted for churches, schools, or other non-profit entities.



Water Conservation and Efficiency Recommendations (cont.)

6. In partnership with UTA and ISDs, expand public education and outreach efforts to promote water conservation.
7. Explore opportunities to re-use wastewater from various sources for non-potable uses such as landscaping.



Water Conservation and Efficiency Recommendations (cont.)

8. In connection with low-use landscaping and the expanded use of native, drought-resistant plants, publicize and promote outdoor watering schedules that are appropriate for the D/FW region.
9. Work with homeowners associations (HOAs) to develop alternatives to HOA provisions that may impede water conservation, while preserving the attractiveness of residential neighborhoods.



Water Conservation and Efficiency Recommendations (cont.)

10. Consider ordinance/code revisions to:

- Reduce maximum turf coverage for new facilities
- Require state-licensed specialists for all irrigation system design and installation work
- Align the City's storm water and water conservation efforts
- Recommend percentages for permeable "hardscaping" and "softscaping"



Questions and Discussion on Water Conservation and Efficiency



Green Buildings

- Leadership in Energy and Environmental Design (LEED) Green Building Rating System
- Developed by the US Green Building Council
- LEED-NC is for “New Construction”



Green Building Recommendations

1. Consider evaluating building codes and related ordinances to revise those that may restrict green building design.
2. Green building standards should apply to occupied buildings.
3. An architectural firm's "green" experience should receive significant "weighting" when evaluating firms competing for City projects.



Green Building Recommendations

(cont.)

4. Elements of “design/build” should be incorporated to the extent possible.
5. Continue efforts to reduce operating costs and energy consumption in existing buildings when opportunities arise.
6. Consider crafting incentives for private developers to expand “green” construction throughout the City.



Green Building Recommendations

(cont.)

7. Proposals received on City building projects should include the costs to incorporate the 21 recommended LEED-NC points.
8. All new City buildings incorporate, at a minimum, the 21 recommended LEED-NC points.



LEED-NC Points

A total of 69 “points”, in six broad categories, are available for incorporating various sustainable design elements and features.

Ratings available from USGBC:

- 26 - 32 Points = Certified
- 33 - 38 Points = Silver
- 39 - 51 Points = Gold
- 52 - 69 Points = Platinum



LEED-NC Points (cont.)

CEC recommends all new City buildings incorporate, at a minimum, 21 points in the following six categories:

- Sustainable Sites
- Water Efficiency
- Energy and Atmosphere
- Materials and Resources
- Indoor Environmental Quality
- Innovation in Design



LEED-NC / Sustainable Sites

Prerequisite: Develop and implement a construction activity pollution prevention plan

1. Install bike racks and showers
2. Provide preferred parking for LEVs and fuel-efficient vehicles
3. Ensure that parking capacity does not exceed zoning requirements
4. Limit storm water run-off, decrease imperviousness
5. Incorporate reflective or vegetated roofing
6. Reduce light emissions from building



LEED-NC / Water Efficiency

7. Reduce by 50 percent the use of potable water for landscaping



LEED-NC / Energy & Atmosphere

Prerequisites:

- Verify that the building's energy systems are installed, calibrated and perform according to project requirements
 - Establish minimum energy efficiency level
 - Minimize use of refrigerant chemicals
8. Demonstrate increased energy efficiency over existing baseline by 10.5 percent
 9. Provide for ongoing verification of building energy efficiency



LEED-NC / Materials & Resources

Prerequisite: Provide a central location serving the building for recycling non-hazardous wastes

10. Divert 50% of construction waste from disposal
11. Divert 75% of construction waste from disposal
12. Use recycled materials equal to 10% of total costs in construction
13. Use recycled materials equal to 20% of total costs in construction
14. Use regional materials equal to 10% of material costs in construction



LEED-NC / Indoor Environ. Quality

Prerequisites:

- Establish minimum indoor air quality performance levels for ventilation systems
- Prohibit interior smoking, and prohibit exterior smoking within 25 feet (accomplished by the City's new smoking ordinance)

15. Provide for ongoing monitoring of air recirculation levels

16. Reduce air quality degradation during construction



LEED-NC / Indoor Environ. Quality

17. Complete interior air flush-out prior to occupancy
18. Ensure that adhesives, sealants and primers meet volatile organic compound (VOC) limits
19. Ensure that paints and coatings meet VOC limits
20. Ensure that carpet systems meet VOC limits
21. Demonstrate that established minimum levels of daylight illumination exist for 75% of office spaces



Questions and Discussion on Green Building Standards

