



# Green Dallas

## *...building a greener city*

**Kris Sweckard**

*Managing Director, City of Dallas Office of  
Environmental Quality*

What do you know about Dallas?



# What do you know about Dallas?



2011 Super Bowl



2010  
NBA All-Star Game

2014 NCAA Final Four



...or maybe this is what you know!



What do you know about Dallas?

Environmental Leader?



# Dallas, Texas



8<sup>th</sup> largest metro area in the U.S.

Dallas-Fort Worth - 6,359,758

2<sup>nd</sup> largest city in Texas

Dallas 1,279,910 people

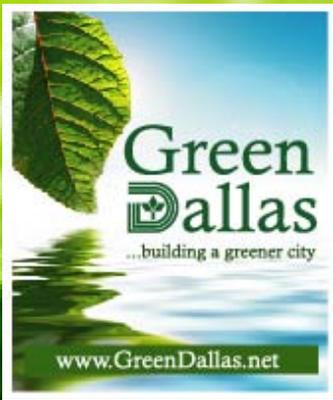
- Approximately 13,000 Employees
- 28 departments with wide-ranging missions
- 800+ buildings
- 55 “Industrial” Facilities
  - 2 Waste Water Treatment Plants
  - 3 Water Treatment Plants
  - Landfill and Transfer Stations
  - Airports
  - Zoo
  - 6 Major Service Centers



**= Thousands of  
Environmental Requirements!**



**City of Dallas**



# Benefits for cities to “Go Green”

- Health and sustainability of environment
- Health of economy
- Health of people





# Business Goes Green

**Companies want green:**

- green space (parks and natural resources)
- clean air
- green buildings

**Business = Jobs = \$\$**

**Healthy environment = healthier people (employees)**

**Being green makes good business sense.**



# Green Dallas

**Creative.**

**Innovative.**

**Environmentally-  
responsible.**





# Environmental Management System

- Implement an International Organization for Standardization (ISO) 14001:2004 based EMS
- Focus of EMS is to reduce the City's impact on the environment
  - Compliance is a portion of the EMS
  - So is going beyond compliance
- 11 departments
- 11,000 employees
- June 2008  
First U.S. city to achieve ISO 14001:2004 certification for broad scale operations





# Green Dallas

- What began as a Web site has expanded into a full community campaign
- Initiative is aimed at environmental responsibility and encourages both public and private sector involvement
- Launched GreenDallas.net as part of our commitment to environmental responsibility.
- This comprehensive site is dedicated solely to environmental issues.
- Information on:
  - City of Dallas programs, initiatives, accomplishments
  - What residents can do to 'build a greener Dallas'





**So what are we doing?**



# Driving Green

**1980's – Began converting to propane and dual-fuel (CNG and gasoline).**

**1992 – Dallas purchased first alternative fueled vehicle.**

**2002 - Dallas is first city in Texas to use biodiesel (B20).**

**2009 – Dallas has largest green fleet in Texas and one of the largest in U.S.**

**2,006 total green vehicles:**

**1,097 CNG (Compressed Natural Gas)**

**150 Hybrid (Electric and gasoline)**

**759 Biodiesel with additives**

**“Alternative Fueled City Fleets” list – Dallas ranks No. 5 out of the 50 largest cities in the nation. (source: SustainLane)**



# Clear the Air

- 70% of D-FW region's harmful NOx (nitrogen oxide) emissions come from mobile sources, like vehicles, lawn equipment, construction equipment, airplanes, etc.
- Cleaner mobile sources = cleaner North Texas air
- Dallas clean air ordinances
  - Clean construction
  - Green cement policy
  - Anti-idling ordinance



• No one wants to see the air they're breathing!



# Air & Energy





# Air & Energy





# Green Dallas & Green Power

- Out of all U.S. cities, Dallas was the No. 1 purchaser of clean, renewable power
- 40% of Dallas' total energy purchase
- Nearly 334 million kilowatt-hours (kWh)





# Green Dallas & Green Power

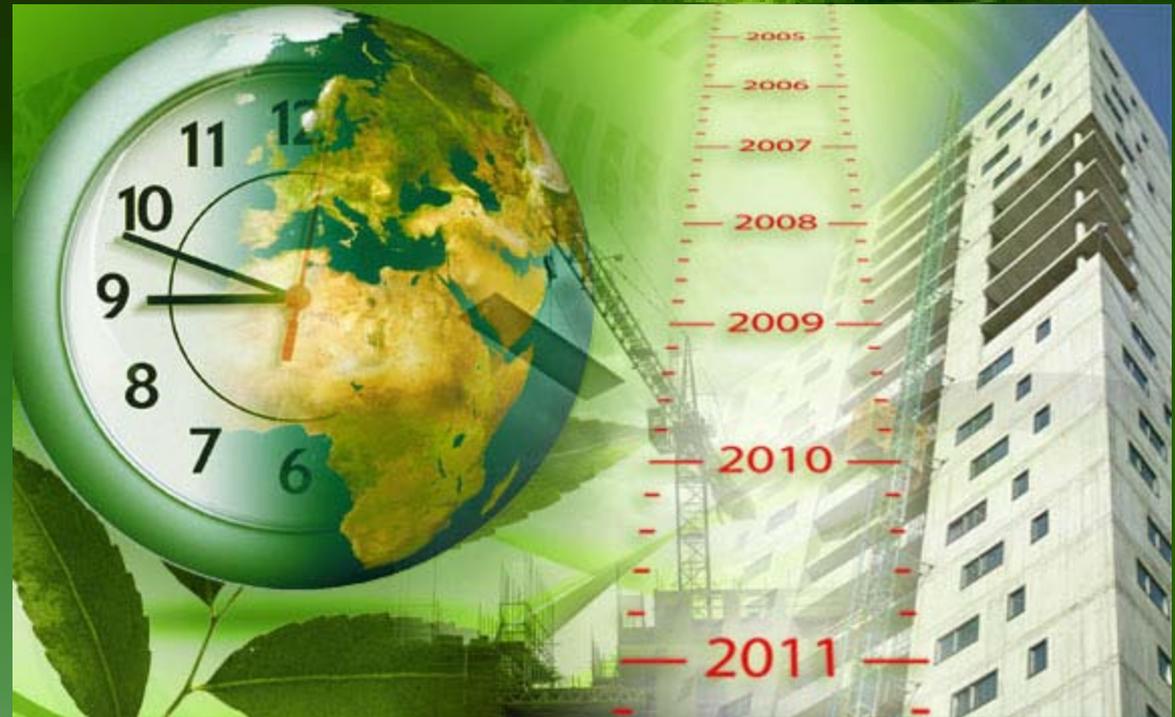
- Out of all U.S. cities, Dallas was (*at the time*) the No. 1 purchaser of clean, renewable power. (*Currently No. 2*)
- 40% of Dallas' total energy purchase
- Nearly 334 million kilowatt-hours (kWh)





# Challenges for Cities

- Funding
- Sheer number of facilities
- Age of facilities
- Historical designation and retrofits





# Saving & Making Energy

## Saving Energy:

- Overall energy usage - 5% reduction per year over the past five years.
- City Hall energy reductions:
  - 5,790,165 kWh
  - 3,730.3 tons of CO2 reduction





# Saving & Making Energy

## **Making Energy:**

### **McCommas Bluff Landfill**

- 994.7 million cubic feet of methane captured at McCommas Bluff Landfill
- Enough to heat approximately 25,000 homes for an entire year

### **Wastewater Treatment Plants**

- Recover and utilize the energy contained within the biogas
- 20 year lease agreement
- Approximately 1.5 million cubic feet of biogas per day
- Produce approximately 30,000,000 kWh per year
- Adds 30,000,000 kWh to our green purchase quantity



# Building Green in Dallas

- All building phases: design, transportation of materials, construction, and operation, consume more energy than any other part of the economy.
- **LARGEST CONTRIBUTOR** to climate change/greenhouse gas emissions in the country.
- Green Building Program = greenhouse gas emissions reductions





# Building Green in Dallas

## DALLAS GREEN BUILDING POLICIES

1. City-owned buildings
2. Privately-owned buildings

### City-owned buildings (Policy adopted Jan. 2003)

New City facilities over 10,000 square feet must be designed and built to meet—at minimum—the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Silver standard.

### Dallas Green Building Accomplishments

- Jack Evans Police Headquarters
  - EPA's Phoenix Award
- 5 LEED Gold - 8 LEED Silver – 2 LEED Certified
- Completed approx. 20 green facilities
  - Total of 38 at various stages of design, construction and certification





# Building Green in Dallas

## Privately-owned buildings

**(Policy adopted April 2008)**

Dallas is among the first major U.S. cities to pass comprehensive building standards for both residential and commercial construction.

Task Force included homebuilders, developers, “enviros” and City staff.

## Phase I began October 2009 with focus on:

- Energy efficiency
- Water conservation
- Reducing heat island effect through cool roofs

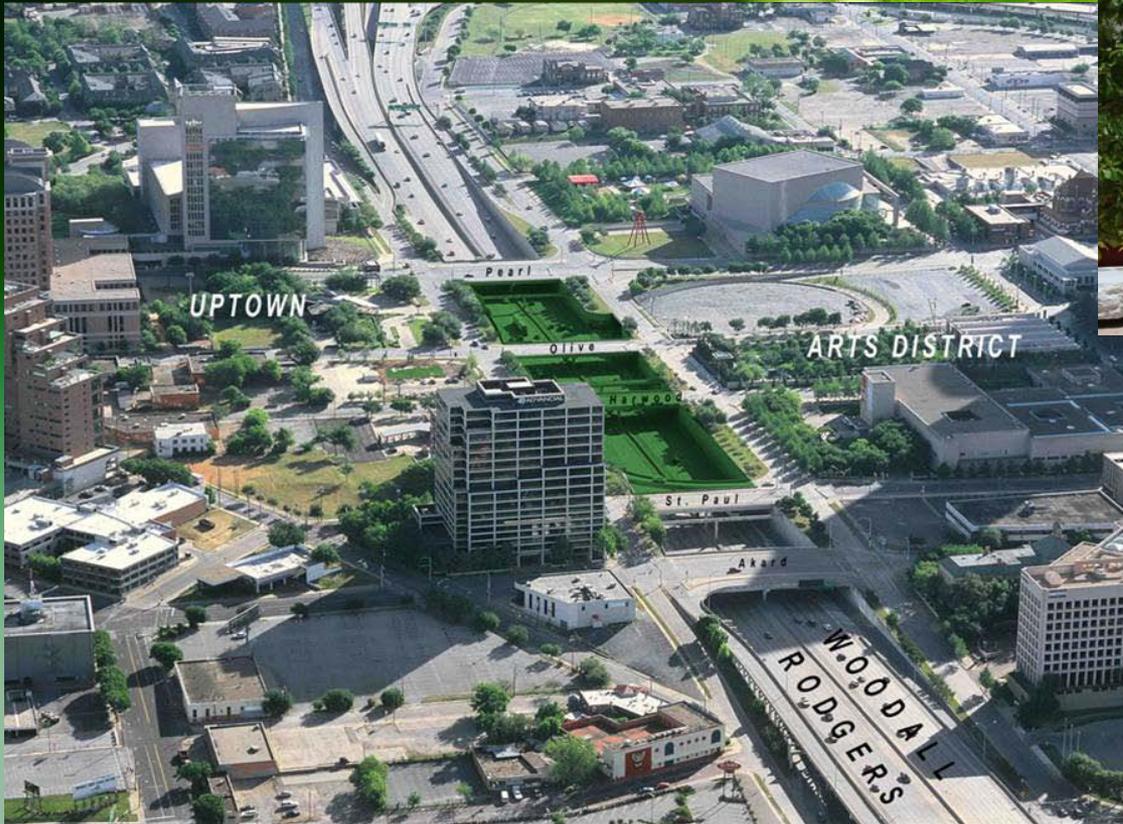
## Phase II begins October 2011:

Comprehensive green building standard for all new construction





# Green Space





# It's Green To Save Blue (Water)

## Conservation

- Dramatically increased efforts to promote water conservation
- Five-Year Strategic Plan on Water Conservation
- 83 Billion gallons of water saved!

## Long Range Planning

- Successfully met Dallas' needs since the 1950s
- Secured 100% of Dallas' water needs through year 2035
- Reasonably assured 80% of water needs through 2060

**WATER FACT:**  
Since 1822, at least one drought has hit somewhere in Texas every decade.





# National Recognition

**Dallas is first pilot city for EPA's Sustainable Skylines Initiative**

*"Dallas has been a leader among cities and now stands ready to be a model for the rest of the nation."*

—Richard E. Greene,  
EPA Regional Administrator *(at time of pilot)*





# National Recognition

## EPA Praises Dallas' Environmental Management System

*"Dallas continues to raise the bar when it comes to environmental stewardship. Not only has it taken a program that delivers real results for the environment and made it a fundamental part of how it operates, but it is also serving as a model for how other cities can do the same."*

--Larry Starfield, EPA Acting Regional Administrator (2008)

July 2009 and July 2010

- Named to **Top 15 Smarter Cities** list by Natural Resources Defense Council





# “Zoo Poo” (Turning Waste-to-Energy)



## City of Dallas Waste-to-Energy Project:

- Focuses on overcoming technical, economic and environmental constraints in utilizing biomass for energy production.

### Benefits:

- Reduce the amount of manure and waste disposed in landfills;
- Offset annual electric and natural gas costs.



# For More Information...

City of Dallas environmental web site:

[www.GreenDallas.net](http://www.GreenDallas.net)