

# 2007 Ozone Season Summary

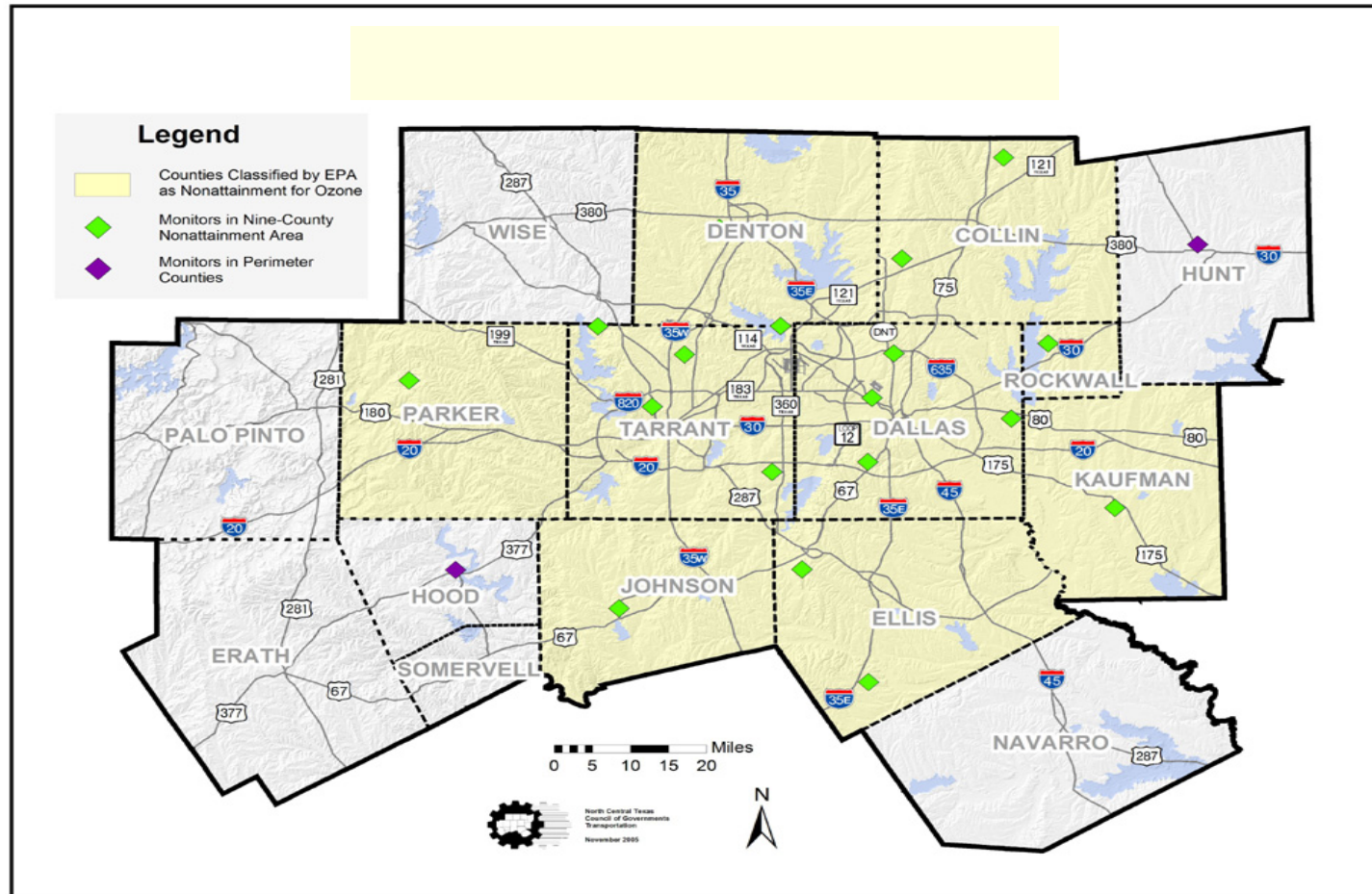
Presented to  
Transportation & Environment Committee  
January 14, 2008

# 2007 Ozone Season

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- 184 Days from May 1 through October 31
- 20 ozone monitors in region
- 8-hour Ozone Standard
  - Current Status: Non-attainment
  - Attainment is reached when the 3-year average of the annual 4th highest daily maximum ozone concentration at each monitor is less than 85 parts per billion (ppb)

# DFW 9-County Ozone Non-Attainment Area (NAA)

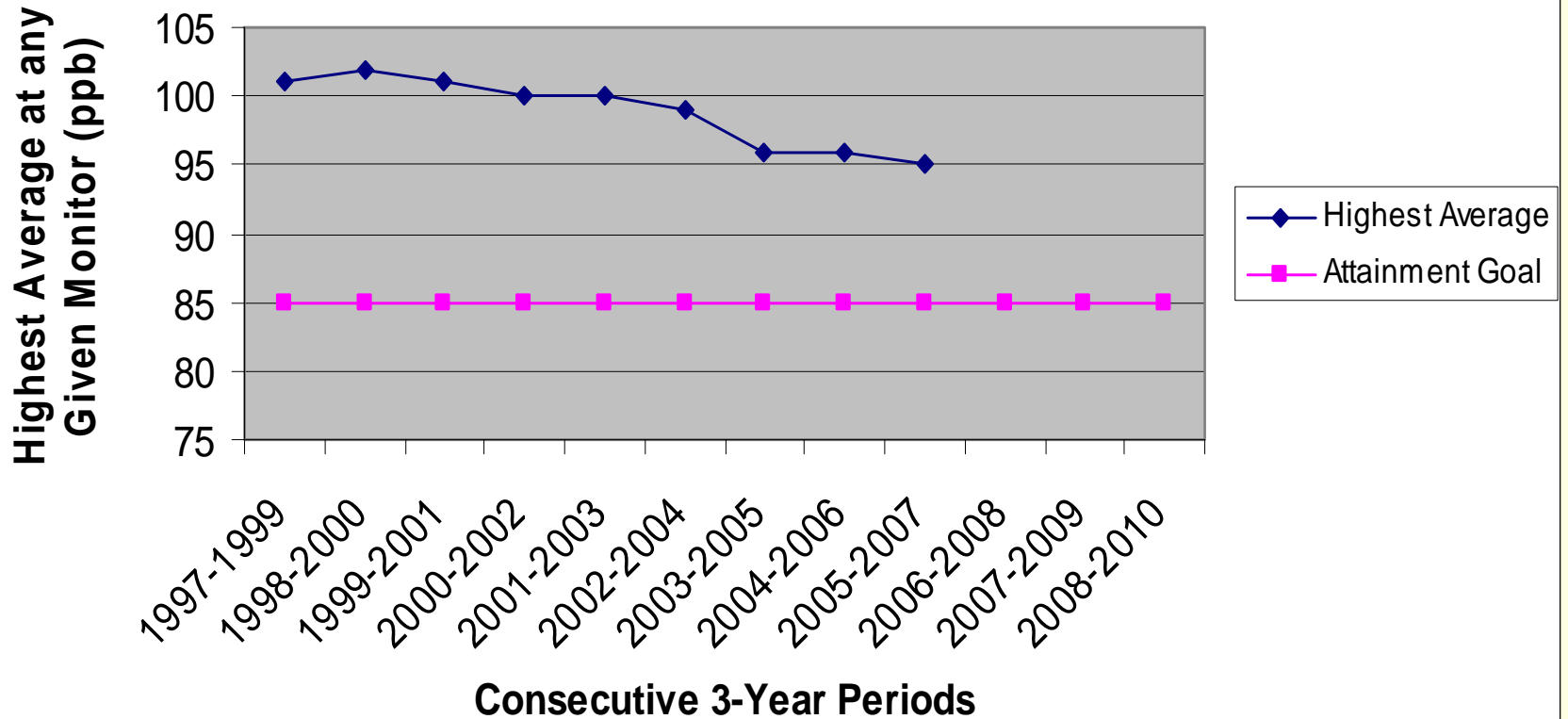


# 2007 Season NAA Results

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- The 4th highest daily maximum is 89 ppb occurring at sites located at Denton Airport and Grapevine
  - (2006: 100 ppb at Denton Airport)
- The 4th highest 3 year average (2005-07) is 95 ppb at a site located at Eagle Mountain Lake in Tarrant County
  - (2004-2006: 96 ppb at Eagle Mountain Lake)
- At least 11 monitoring sites have 3 year averages above the 85 ppb standard
  - (2006: at least 12 sites above standard)

## Historical Trend for 8-Hour Ozone Standard



\*Attainment Goal-According to the US EPA, attainment is reached when , at each monitor, the 3-year average of the annual 4<sup>th</sup> highest daily maximum 8-hour average ozone concentration is less than 85 ppb.

# 2007 Season NAA Results

Compared with 2006

| Air Quality Index                             | 2007<br>Good Ozone<br>Days | 2007<br>High Ozone<br>Days | 2007<br>High Ozone<br>Forecast<br>Days | 2006<br>Good<br>Ozone Days | 2006<br>High Ozone<br>Days | 2006<br>High Ozone<br>Forecast<br>Days |
|---|----------------------------|----------------------------|--|----------------------------|----------------------------|--|
| GOOD<br>(green)                               | 103<br>(56%)               |                            |  | 84<br>(45.7%)              |                            |  |
| MODERATE<br>(yellow)                          | 71<br>(38.6%)              |                            |  | 69<br>(37.5%)              |                            |  |
| UNHEALTHY FOR<br>SENSITIVE GROUPS<br>(orange) |                            | 8<br>(4.3%)                | 18<br>(100%)                           |                            | 29<br>(15.8%)              | 34<br>(89.5%)                          |
| UNHEALTHY<br>(red)                            |                            | 2<br>(1.1%)                | 0                                      |                            | 2<br>(1.0%)                | 4<br>(10.5%)                           |
| VERY UNHEALTHY<br>(purple)                    |                            | 0                          | 0                                      |                            | 0                          | 0                                      |
| TOTAL (184 days)                              | 174<br>(94.6%)             | 10<br>(5.4%)               | 18                                     | 153<br>(83.2%)             | 31<br>(16.8%)              | 38                                     |

# 2007 Season NAA Results

- 174 good ozone days
- 10 high ozone days exceeded standard
  - 18 High Ozone Watch Days were forecast
  - August had most bad days and highest ozone

|              | Exceeded Standard | Day & Highest Ozone  |
|--------------|-------------------|----------------------|
| May          | 0                 |                      |
| June         | 0                 |                      |
| July         | 2                 | July 25; 99 ppb      |
| August       | 5                 | August 14; 121 ppb   |
| September    | 2                 | September 21; 93 ppb |
| October      | 1                 | October 4; 86 ppb    |
| <b>TOTAL</b> | <b>10</b>         |                      |

# Proposal to Revise the National Ozone Standard

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- EPA proposed to strengthen standard June 20, 2007
- Evidence indicates adverse effects occurs at levels below current standard, particularly in those with respiratory illnesses (primary-health)
- Evidence shows damage to vegetation, trees and crops; increased susceptibility to disease and reduced crop yields at lower levels of ozone (secondary)
- Revise primary and secondary standards:
  - Primary: propose range 70-75 ppb; consider range 60 ppb to current, 84 ppb
  - Secondary: (1) propose 3 month daily cumulative range 7 to 21 ppm-hours, or (2) same as primary standard
- EPA to issue final standard by March 12, 2008

# Proposal to Revise the National Ozone Standard

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## ■ Timeline:

- Signature, final rule: March 2008
- Effective date: June 2008
- State designations: June 2009
- Final designations: June 2010
- Effective date: 2010
- SIPs due: 2013
- Attainment dates: 2013-2030

# 2007 City Ozone Plan

- Promotes activities to reduce emissions of Nitrogen Oxides (NOx) and Volatile Organic Compounds (VOC)
- Affects all City Departments during six-month Ozone Season
- Guidelines are included for both Seasonal and Watch Day activities:
  - Hours of Work/Operations
    - Temporarily change hours of operations
    - Compressed work schedules
  - Employee commuting
    - Schedule meetings after 10:00 AM
    - Cancel non-essential vehicle trips or postpone to afternoon
    - Telework
    - Use of public transportation
      - Use a plan for carpools and public transportation traveling to and from workplace
      - Carpool to meetings
      - Encourage use of carpools and public transportation during lunch
  - Use of City vehicles and equipment
    - Defer gas/diesel vehicles use until after 10:00 AM
    - Refuel vehicles in late afternoon
    - Restrict maintenance/repair operations that require running vehicles or equipment before 10:00 AM
    - Prohibit idling city vehicles just to use air conditioner
    - Restrict use of small engines for City and contract crews before 10:00 AM
    - Restrict use of certain paints before 10:00 AM
  - Roadway Construction
    - Not allow or cause roadway construction lane closures before 10:00 AM

# 2007 City Ozone Plan Results

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- Single occupant vehicle commuting to and from the workplace reduced 13,232,724 miles
- Commuting emissions reduced
  - 15.6 tons NOx
  - 7.4 tons VOC
  - 166.7 tons Carbon Monoxide (CO)
  - 6840.1 tons Greenhouse Gases (CO<sub>2</sub>)
- Average of 1545 employees worked compressed schedules each month (16.7% of reduction)
- Average of 390 employees carpooled one or more days each month (8.2% of reduction)
- Average of 418 employees used DART one or more days each month (11.5% of reduction)
- Average of 111 employees Biked, Walked and Teleworked one or more days each month (1.4%)

# 2007 City Ozone Plan Results

for 6 month Ozone Season

- Overall, the City averaged 20.7% reduction in commuting miles and emissions from these activities and for days not working

- In addition:

- Average of 342 meetings were scheduled after 10:00 AM each month due to Ozone Season
- Average of 446 employees carpooled to those meetings each month
- Average of 721 gas/diesel vehicles were deferred for use until after 10:00 AM one or more days each month
- Average of 2,432 employees didn't drive during lunch one or more days each month (97.7% of additional activities)
- Average of 117 employees worked flexible hours one or more days each month to avoid commuting during RUSH hours

# 2007 City Ozone Plan Results

by Department

| Department       | 2007      | 2007             | 2007 | 2006 | 2005 | 2004 |
|------------------|-----------|------------------|------|------|------|------|
|                  | Miles     | Emissions (tons) | %*   | %*   | %*   | %*   |
| Aviation         | 220,684   | 117.2            | 29.4 | 32.6 | 33.5 | 16.2 |
| Business Dev     | 38,819    | 20.6             | 16.4 | 19.5 | 14.1 | -    |
| City Attorney    | 63,574    | 33.8             | 8.6  | -    | -    | -    |
| City Auditor     | 46,053    | 24.5             | 25.3 | 26.7 | 34.2 | -    |
| CMO              | 33,841    | 18.0             | 11.6 | -    | -    | -    |
| City Secretary   | 11,017    | 5.9              | 10.1 | -    | 22.5 | -    |
| Civil Service    | 18,582    | 9.9              | 17.8 | -    | 25.1 | -    |
| Code             | 378,684   | 201.2            | 22.4 | 12.3 | 4.3  | 3.6  |
| CIS              | 196,994   | 104.7            | 26.3 | 19.7 | 21.2 | -    |
| Convention       | 132,544   | 70.4             | 25.7 | 20.0 | 25.2 | -    |
| Courts           | 167,544   | 89.0             | 18.2 | 18.2 | 27.6 | 10.4 |
| Cultural Affairs | 90,327    | 48.0             | 28.4 | 27.1 | 18.0 | 32.3 |
| Dallas Fire      | 1,718,667 | 913.0            | 17.9 | 25.0 | 17.1 | 10.0 |
| Dev Services     | 208,925   | 111.0            | 15.5 | 15.4 | 15.3 | 3.1  |
| Economic Dev     | 94,227    | 50.1             | 44.7 | 16.3 | -    | -    |
| ERF              | 11,590    | 6.2              | 12.1 | -    | -    | -    |
| EHS              | 381,974   | 202.9            | 18.9 | 17.1 | 23.0 | 17.3 |

# 2007 City Ozone Plan Results

by Department

| Department    | 2007      | 2007             | 2007 | 2006 | 2005 | 2004 |
|---------------|-----------|------------------|------|------|------|------|
|               | Miles     | Emissions (tons) | %*   | %*   | %*   | %*   |
| EBS           | 484,449   | 257.4            | 24.4 | 16.7 | 14.3 | 12.2 |
| Financial Ser | 139,251   | 74.0             | 17.8 | -    | -    | 17.1 |
| Housing       | 202,429   | 107.5            | 59.5 | 25.3 | 25.8 | 20.6 |
| HR            | 71,340    | 37.9             | 17.0 | 30.6 | 24.5 | -    |
| Judiciary     | 31,307    | 16.6             | 20.1 | -    | -    | -    |
| Library       | 891,920   | 473.8            | 36.4 | 29.2 | 35.9 | 29.2 |
| OEM           | 3,325     | 1.8              | 9.5  | 6.7  | 18.5 | -    |
| OEQ           | 31,469    | 16.7             | 34.5 | 18.6 | 14.0 | -    |
| Parks         | 886,627   | 471.0            | 19.1 | 18.0 | 22.4 | 12.5 |
| Police        | 2,524,455 | 1341.1           | 13.6 | -    | 9.1  | 3.6  |
| Public Works  | 580,921   | 308.6            | 27.1 | 22.5 | 23.2 | 13.3 |
| Sanitation    | 732,552   | 389.2            | 29.9 | 22.1 | 17.5 | 8.3  |
| Streets       | 531,957   | 282.6            | 19.0 | 18.0 | -    | 22.3 |
| Water         | 2,259,923 | 1200.6           | 32.2 | 21.3 | 18.4 | 10.7 |
|               |           |                  |      |      |      |      |

\* % reduction within the department

# 2008 City Ozone Plan Measurement

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- Mid-year 2007; OEQ & EHS purchased a Web-based Software System (“Dallas GreenRide”)
- System consultant is currently designing web pages for data input & reports specific to City of Dallas requirements
- Early 2008; Final product review and evaluation by OEQ, EHS and others
- Early 2008; Promote “Dallas GreenRide” to City employees in anticipation of 2008 Ozone Season
- May 1, 2008; Replace existing Ozone Season data gathering and reporting process with “Dallas GreenRide” Program

# ‘Dallas GreenRide’

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- Similar to website currently in use by North Central Texas Council of Government’s Commute Solutions; “[www.tryparkingit.com](http://www.tryparkingit.com)”
- Individually, City employees set up personal profiles and provide carpool matching information
- Employees log alternative commutes and other emission reduction activities
- Employees are able to ‘track’ their emissions ‘savings’ individually
- “Dallas GreenRide” administrative section tracks and reports activity, commuting miles reductions and emissions reductions citywide

# 'Dallas GreenRide'

## My Page: Profile and Carpool Matching

GreenRide | My Page

<http://www.cityofdallas.greenride.com/en-US/user/mypage.aspx>




Home > My Page

### WELCOME TO YOUR GREENRIDE PERSONAL INFORMATION PAGE

[Edit My Account](#)


You can immediately see your list of potential matches and keep a log of your carpool miles by choosing the links below. You can also edit your profile information by using the buttons to the right.

 Before searching for matches please complete your profile. Items that need your attention are labeled to the right.



|                       |  |
|-----------------------|--|
| <b>Name:</b>          | Nicole Cooper  |
| <b>Email Address:</b> | <a href="mailto:nicole.cooper@dallascityhall.com">nicole.cooper@dallascityhall.com</a> |
| <b>Matchable:</b>     | Active/Matchable   |

|                       |   |   |
|-----------------------|---|---|
| <b>Start Address:</b> |  | <input type="button" value="Edit"/>  |
|-----------------------|---|---|

|                             |   |   |
|-----------------------------|---|---|
| <b>Destination Address:</b> |  | <input type="button" value="Edit"/>  |
|-----------------------------|---|---|

# 'Dallas GreenRide'

## Admin: Activity Summary

GreenRide | Activity Summary

http://www.cityofdallas.greenride.com/admin/reports/activity.aspx



### Administration - Activity Summary

From:

To:

Report Date Range: Thursday, November 01, 2007 - Friday, November 30, 2007

### User Activity

|                       |         |
|-----------------------|---------|
| <b>Total Users:</b>   | 8 users |
| <b>Users Added:</b>   | 8       |
| <b>Users Deleted:</b> | 0       |

# 'Dallas GreenRide'

Admin: Commute Tracker

GreenRide | CommuteTracker http://www.cityofdallas.greenride.com/admin/reports/commutetracker.aspx

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HOME SUPPORT MY PAGE **ADMINISTRATION** LOGOUT

**Administration > CommuteTracker**

From:  

To:  

[Get Report](#) 

The totals below are based on CommuteTracker data entered by users between **11/1/2007** and **11/30/2007**.

**CommuteTracker Totals**

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**Total Trips Reduced:** 0 trips

**Total Miles Saved:** 0 miles

**Gallons of Fuel Saved:** 0 gallons

**Total Emissions Reduced:** 0 lbs

1 of 3 12/5/2007 10:37 AM

# 'Dallas GreenRide'

## Admin: Emission Reductions

GreenRide | Emission Reductions

http://www.cityofdallas.greenride.com/admin/reports/emissions.aspx



### Administration > Emission Reductions

From:  

To:  



Report Date Range: Thursday, November 01, 2007 - Friday, November 30, 2007

### General Statistics

|  |
|--|
| <b>Day Range:</b> 30 days                              |
| <b>Registered Users:</b> 8 users                       |
| <b>Average Commute Distance:</b> 14.34 miles (one-way) |