HEALTH PROFESSIONAL DEVELOPMENT

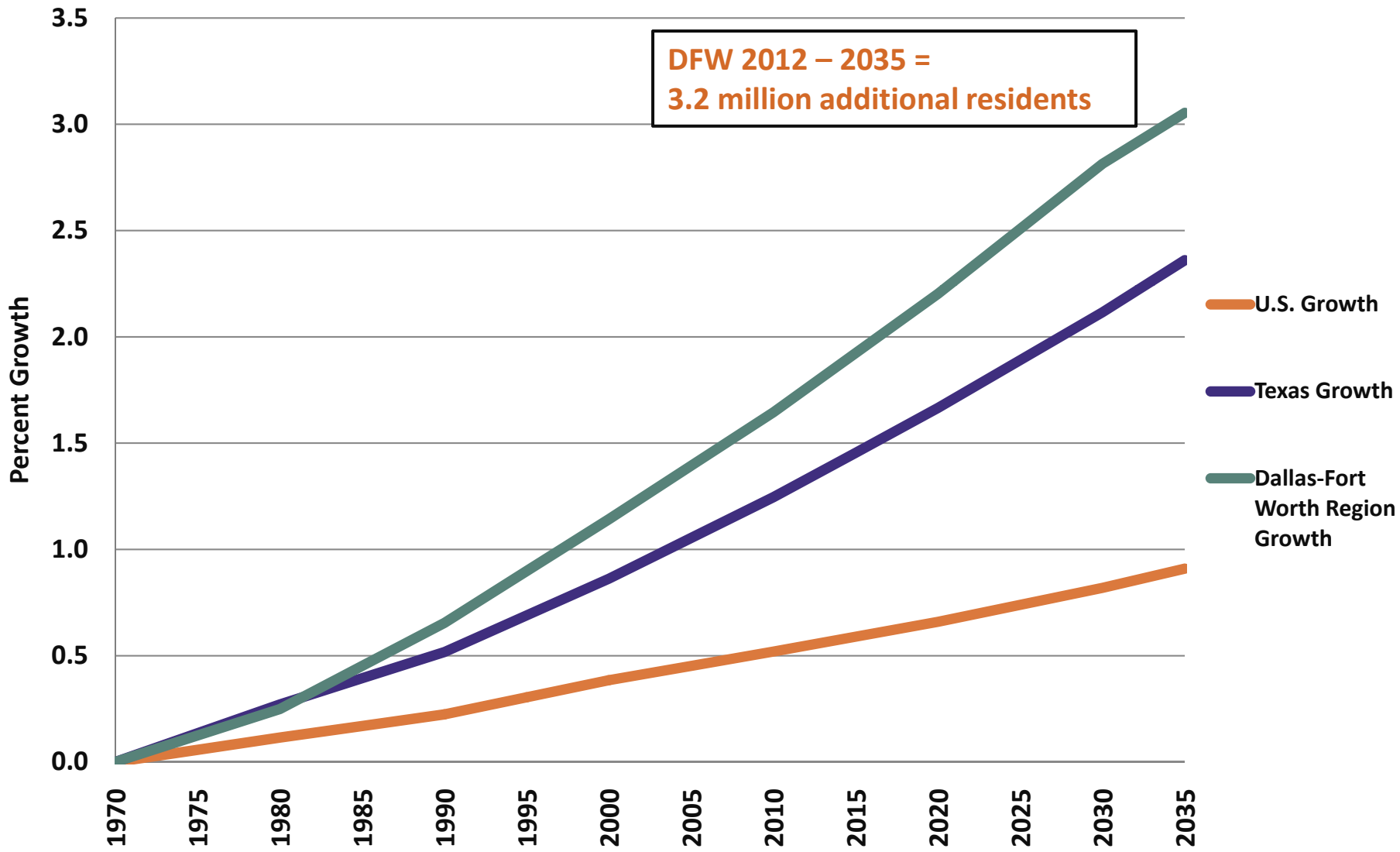
IMPACTS OF TRANSPORTATION AND AIR QUALITY ON PUBLIC HEALTH

Chris Klaus

North Central Texas Council of Governments

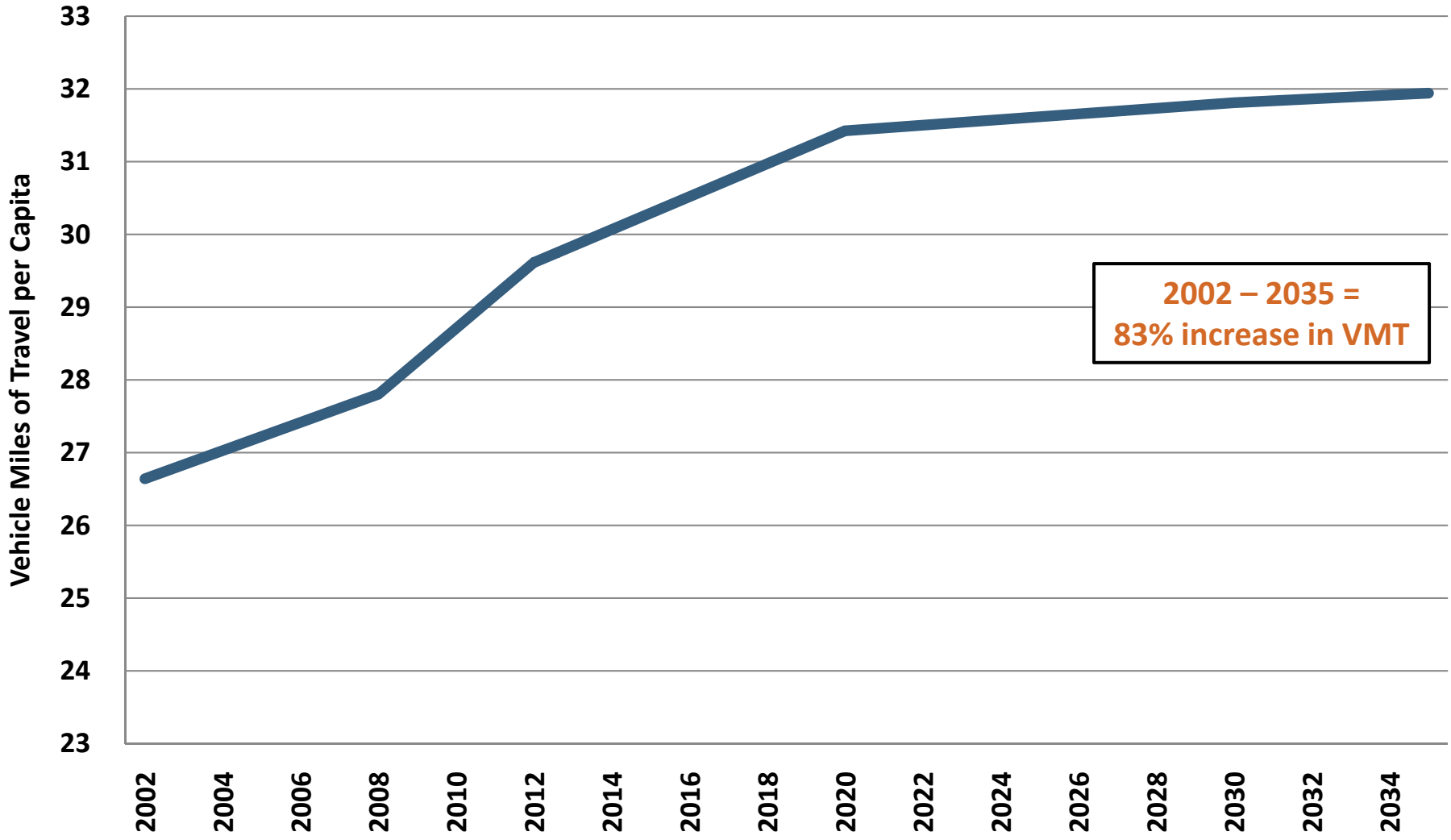
November 5, 2012

PERCENTAGE OF POPULATION GROWTH SINCE 1970



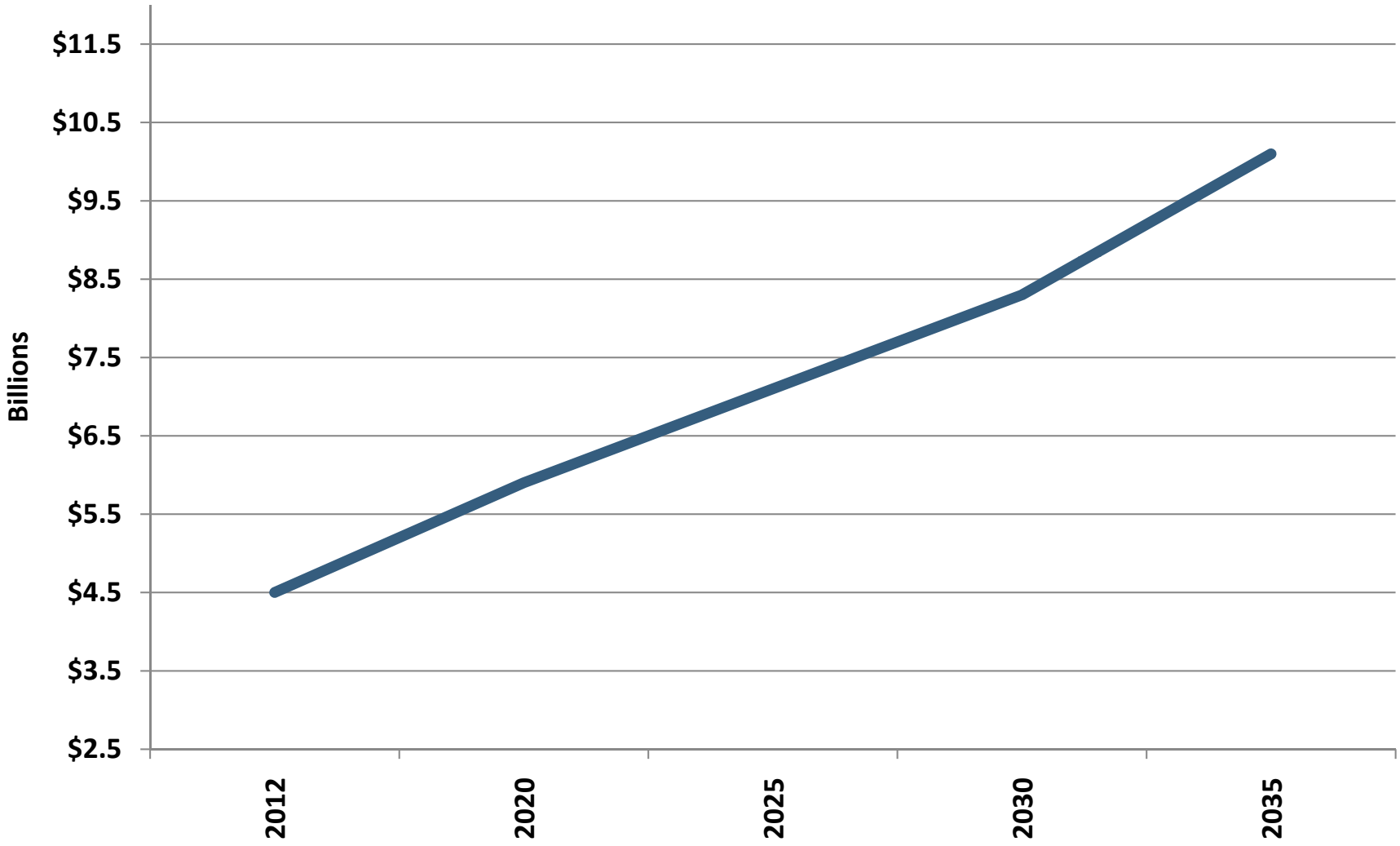
Source: Mobility 2035, The Metropolitan Transportation Plan for North Central Texas

PER CAPITA INCREASE VEHICLE MILES TRAVELED



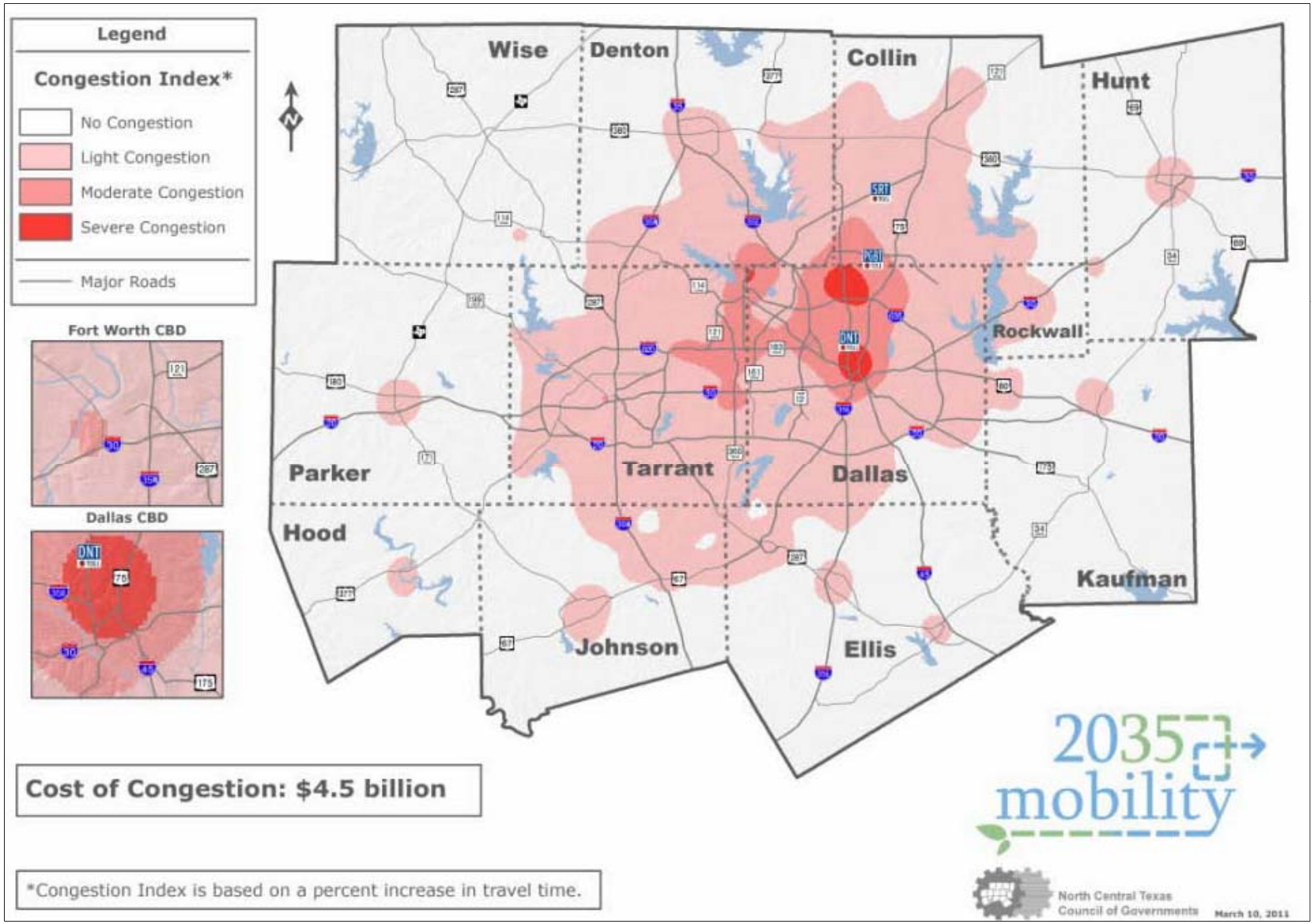
Source: Mobility 2035, The Metropolitan Transportation Plan for North Central Texas

REGIONAL INCREASE IN COST OF CONGESTION

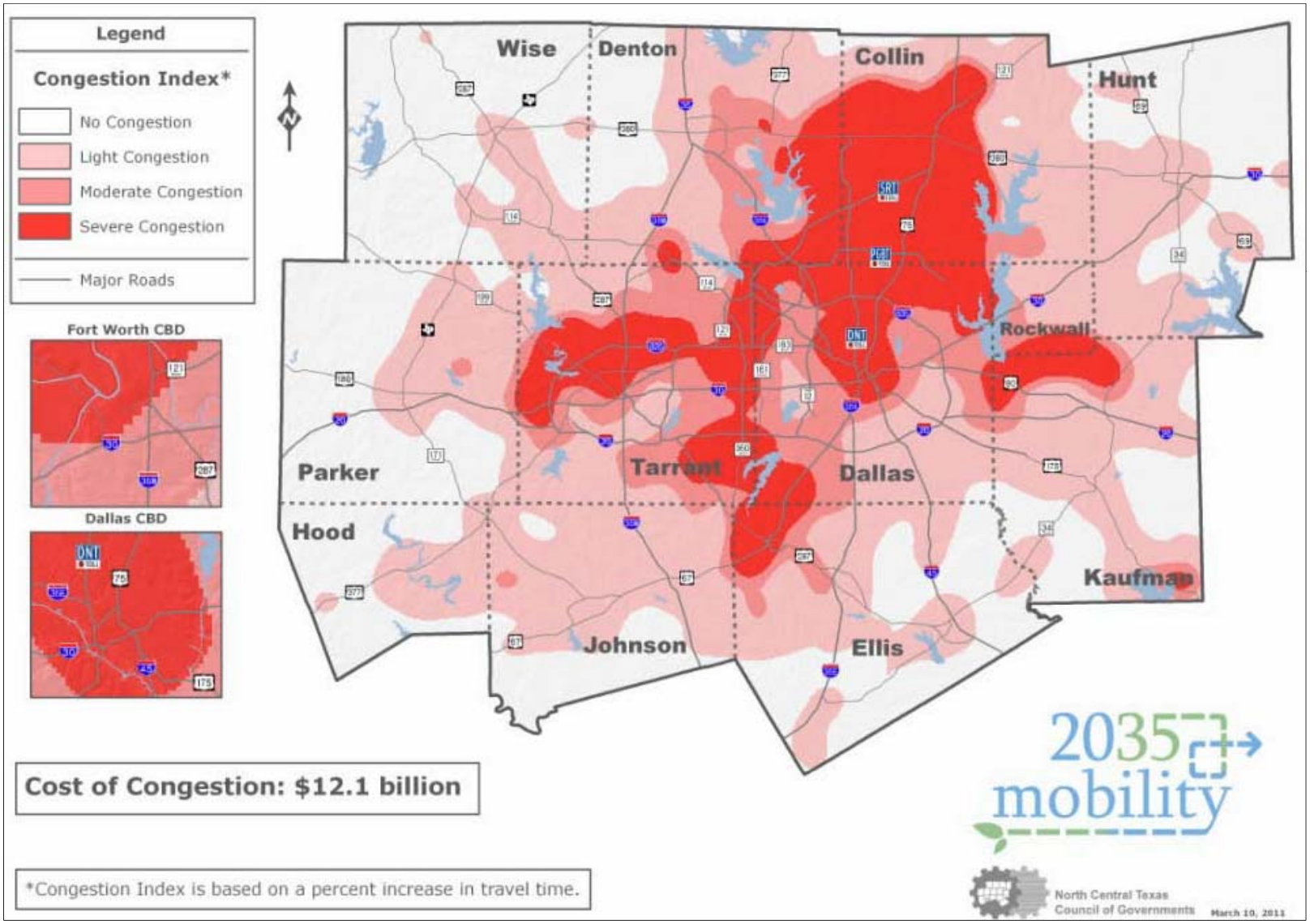


Source: Mobility 2035, The Metropolitan Transportation Plan for North Central Texas

2012 PEAK-PERIOD CONGESTION LEVELS



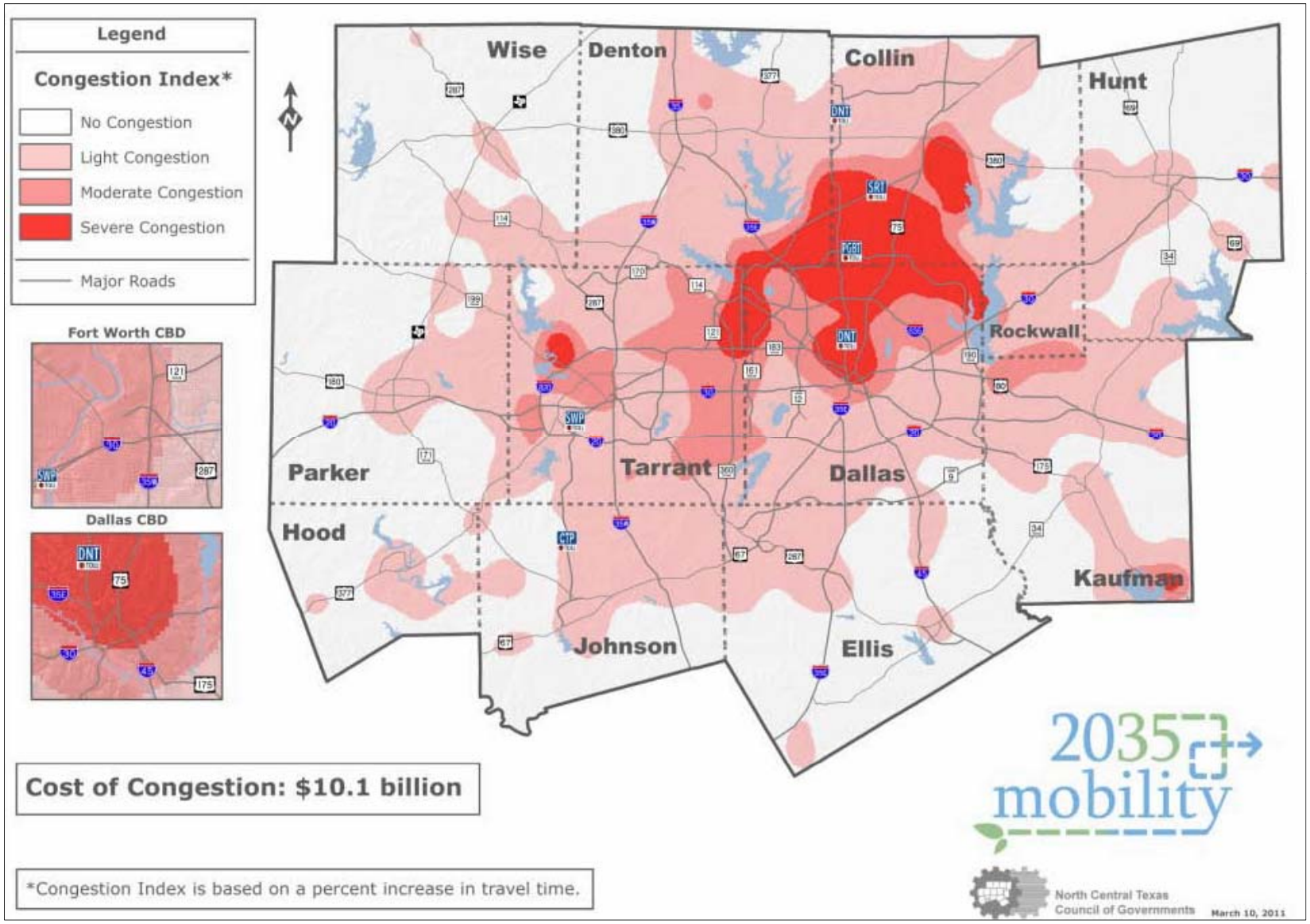
2035 PEAK-PERIOD CONGESTION LEVELS WITHOUT PLANNED IMPROVEMENTS



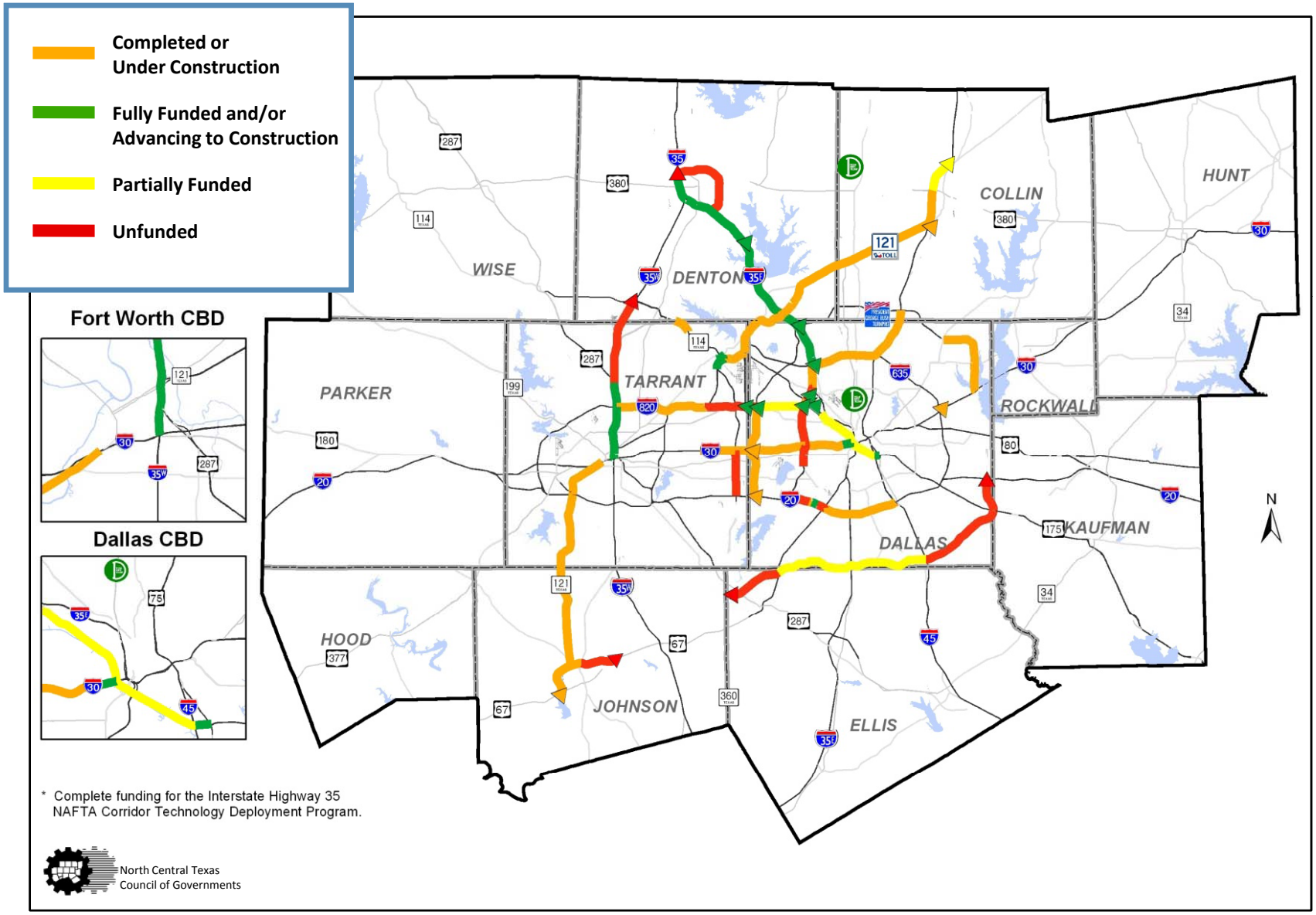
MUTLI MODAL TRANSPORTATION PLAN

2035 mobility

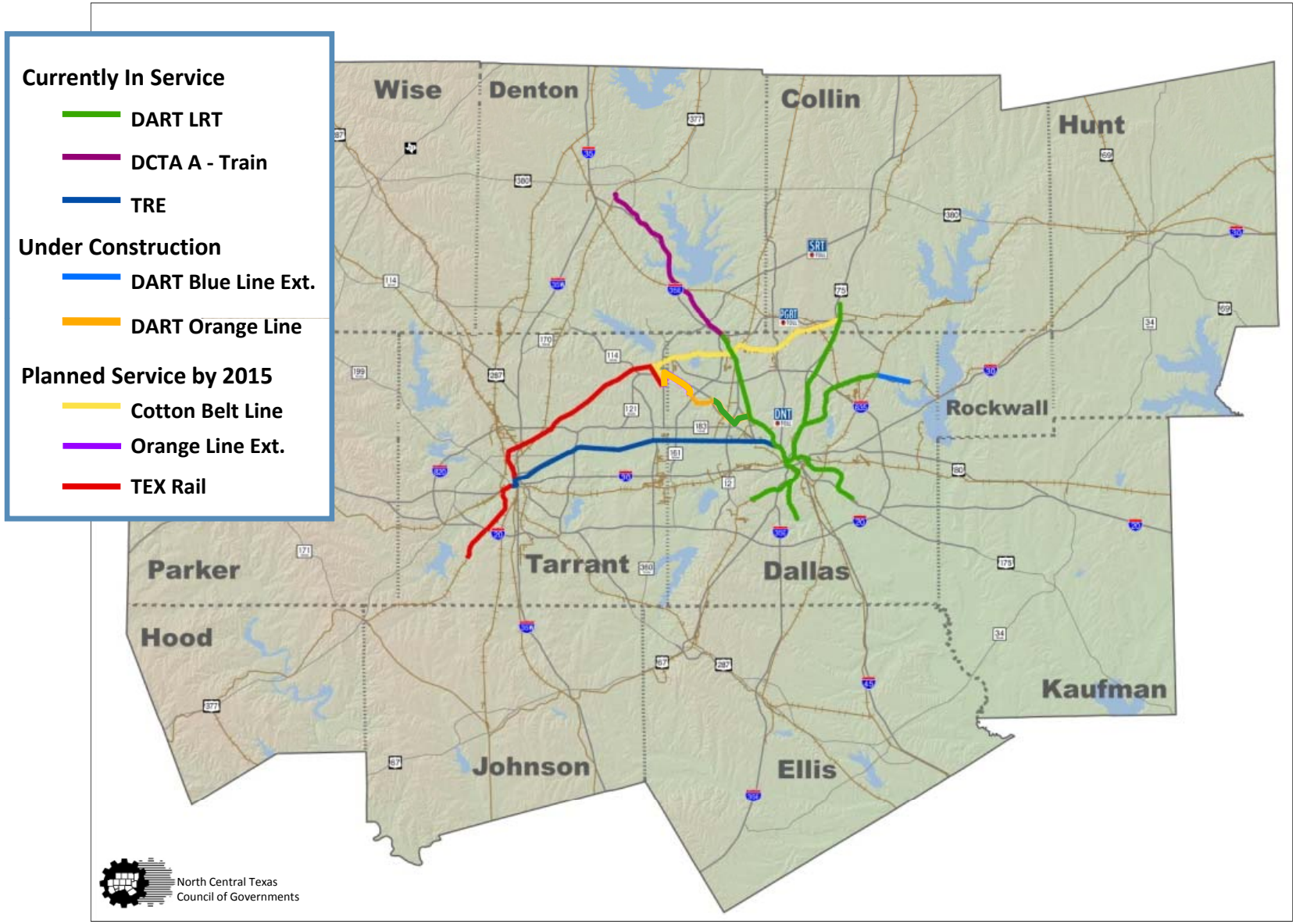
2035 PEAK-PERIOD CONGESTION LEVELS WITH PLANNED IMPROVEMENTS



MAJOR ROADWAY PROJECTS

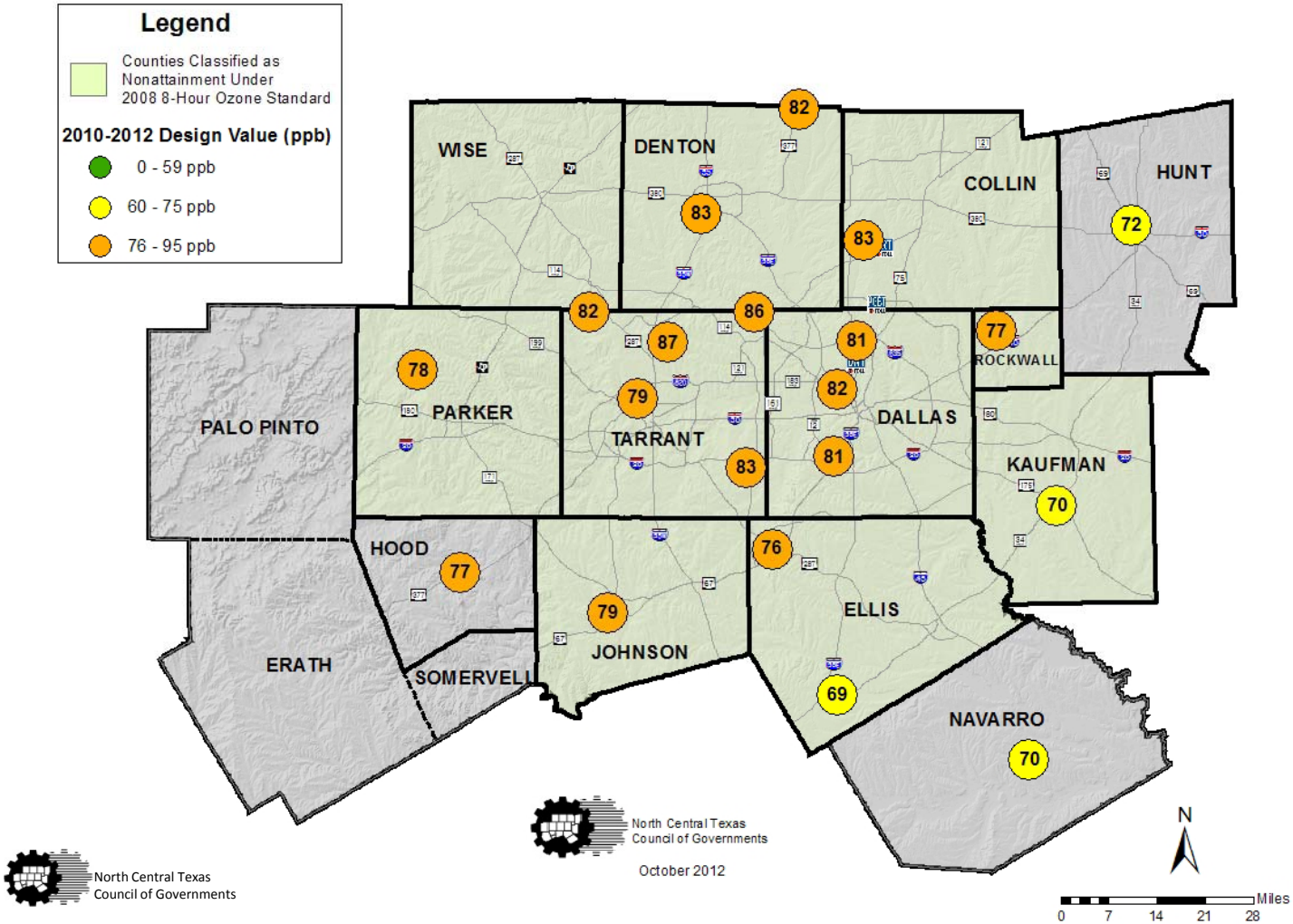


REGIONAL RAIL SYSTEM IMPLEMENTATION



8-HOUR OZONE DESIGN VALUES

2012 Ozone Nonattainment Status



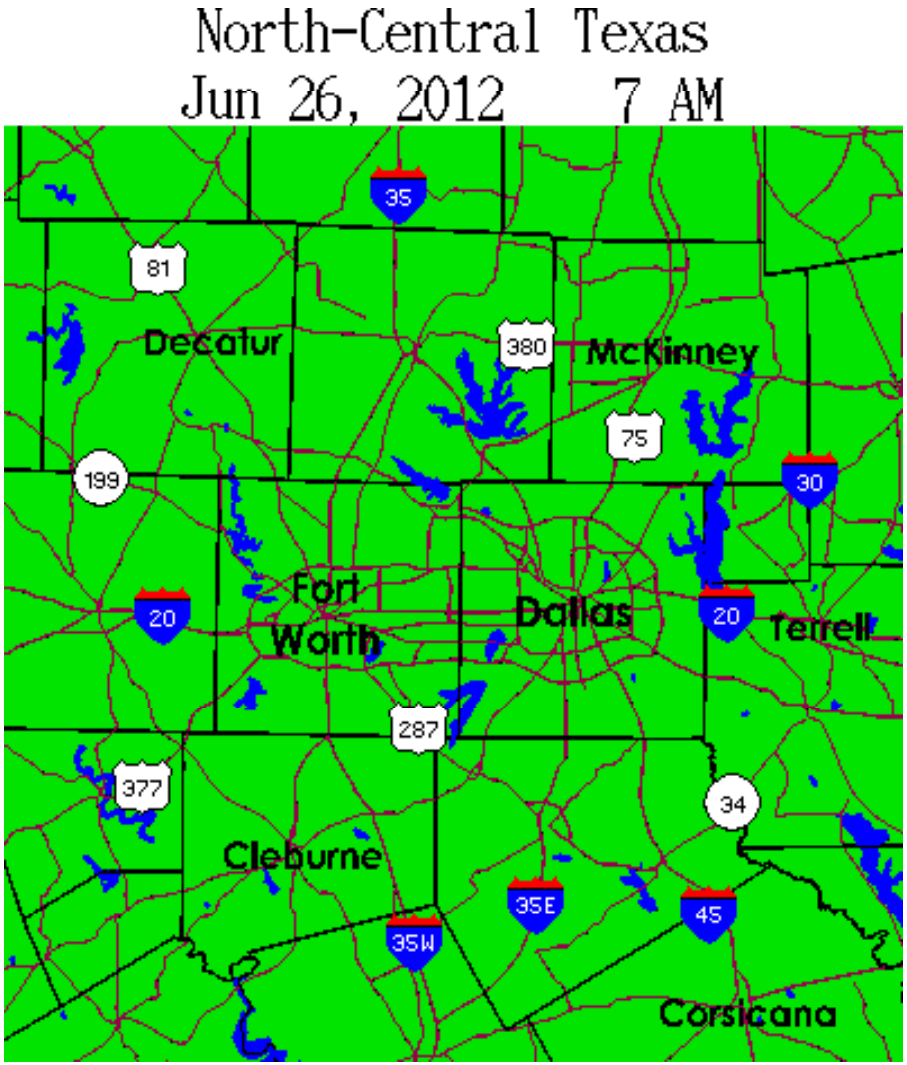
Colors represent Air Quality Index Breakpoints Under 2008 Standard

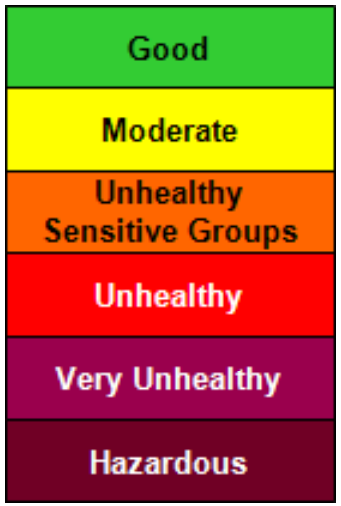
According to the U.S. EPA National Ambient Air Quality Standards, attainment is reached when, at each monitor, the three-year average of the annual fourth-highest daily maximum 8-hour average ozone concentration is less than or equal to 75 parts per billion (ppb).

Source: NCTCOG Transportation Dept

REGIONAL OZONE CONCENTRATIONS

Maximum Daily 8-Hour Average Was 110 ppb*

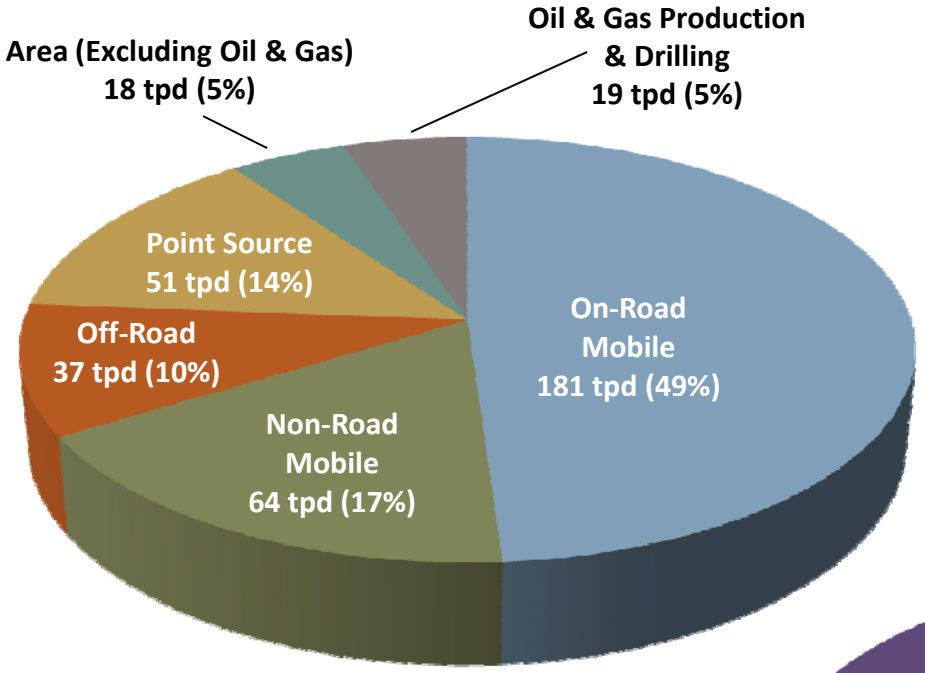




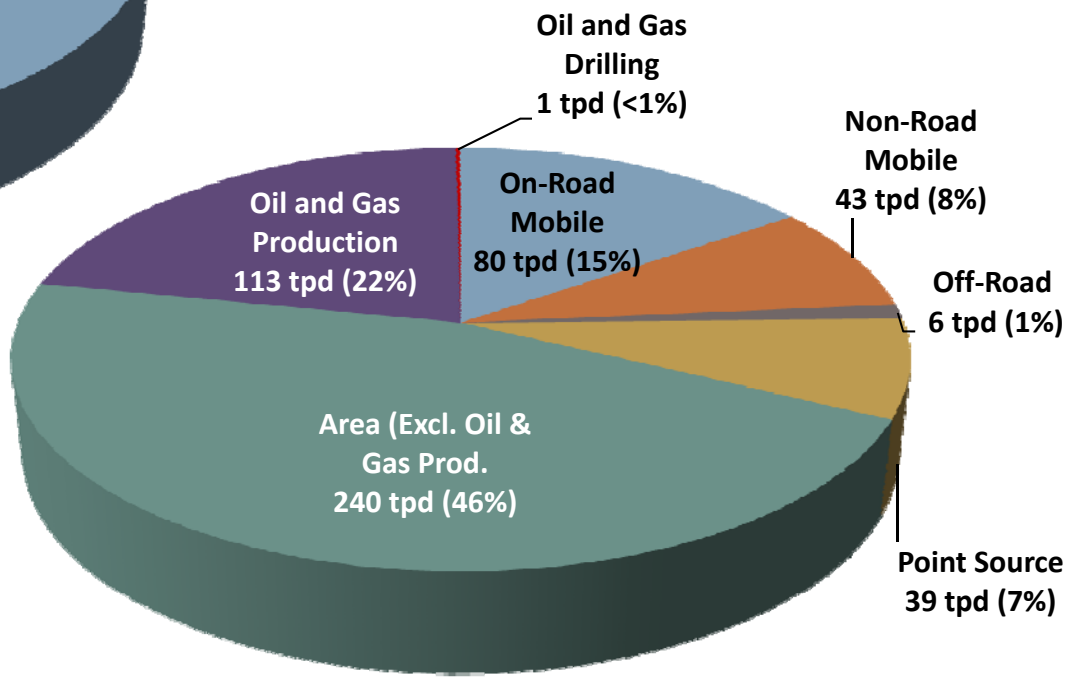
*Current as of September 7, 2012

Source: TCEQ, www.tceq.state.tx.us/cgi-bin/compliance/monops/ozone_animation.pl

2012 ESTIMATED EMISSIONS INVENTORIES



Total NO_X = 370 tons per day (tpd)

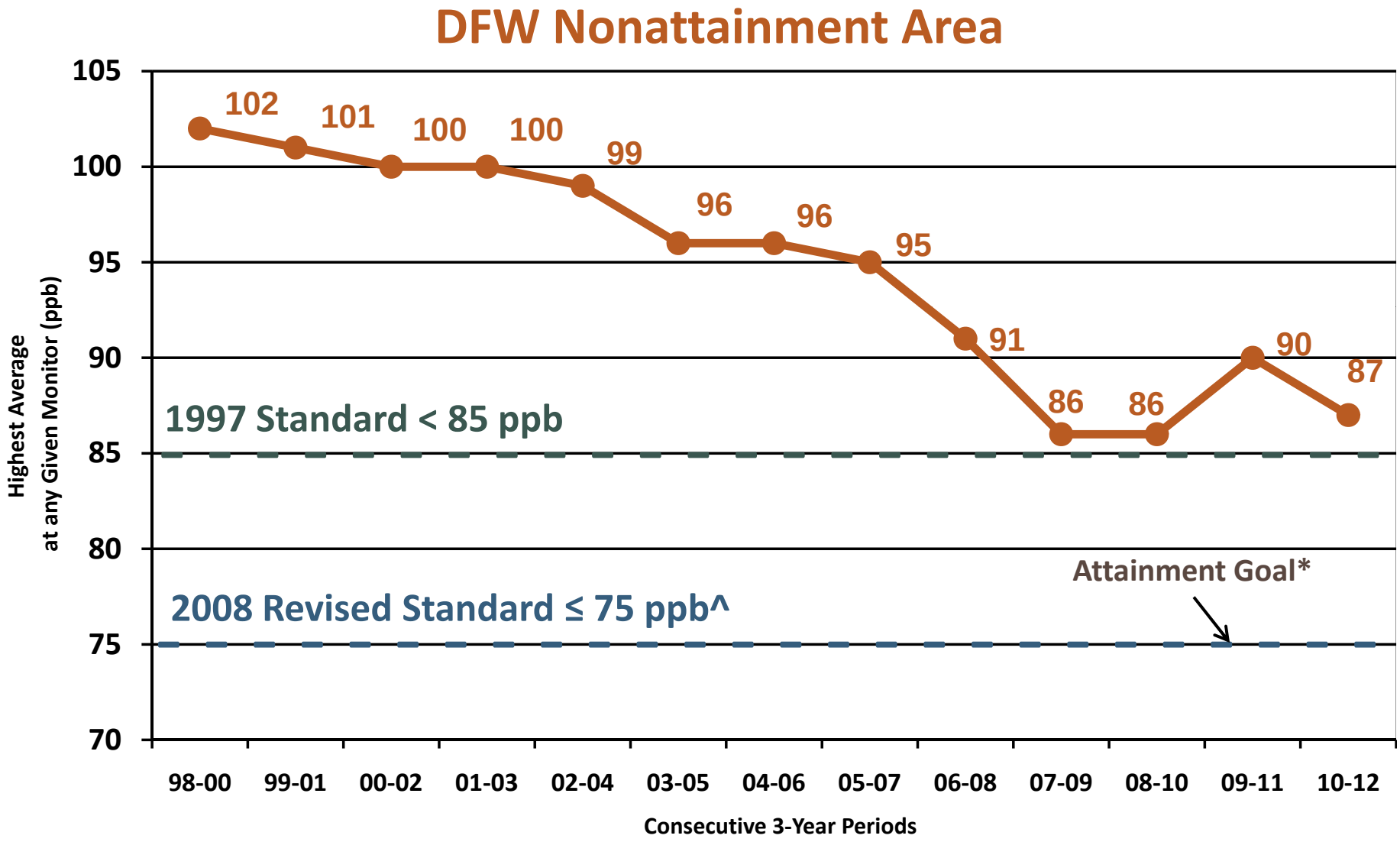


Total VOC= 522 tons per day (tpd)

NO_X = Nitrogen Oxides
VOC = Volatile Organic Compounds

Source: Texas Commission on Environmental Quality

8-HOUR OZONE HISTORICAL TRENDS



^Attainment Goal - According to the US EPA National Ambient Air Quality Standards, attainment is reached when, at each monitor, the three-year average of the annual fourth-highest daily maximum 8-hour average ozone concentration is equal to or less than 75 parts per billion (ppb).

Current as of 11/01/2012

Source: NCTCOG Transportation Dept

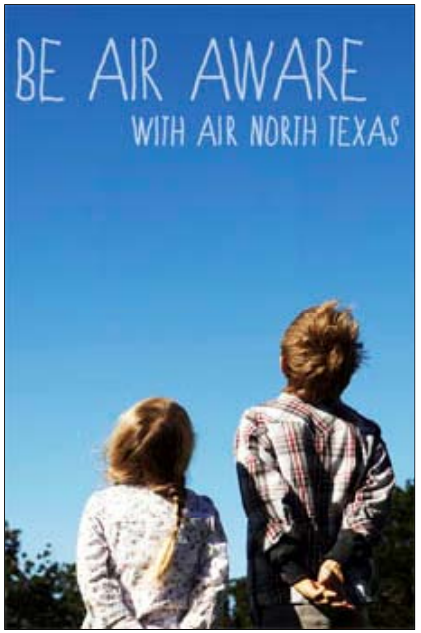
HEALTH IMPACTS

Effects of Breathing Ground Level Ozone

- Increase in Asthma Attacks
- Coughing, Wheezing
- Throat Irritation
- Pain, Burning or Discomfort When Taking a Deep Breath
- Chest Tightening
- Shortness of Breath
- Inflammation of the Lung Lining
- Premature Death

air northtexas

go green. breathe clean.



AQI
AIR QUALITY INDEX

Source: http://www.airnorthtexas.org/facts.asp

TRANSPORTATION AND AIR QUALITY PROGRAMS

air northtexas
go green. breathe clean.

WARNING
5 MINUTE IDLE LIMIT
BUSES – MAXIMUM 30 MINUTES
STATE CODE 30 TAC 114.512
www.EngineOffNorthTexas.org

NORTH TEXAS CLEAN AIR COALITION

ForWard
fort worth area rail development

DalTrans
Texas Department of Transportation

Dallas-Fort Worth CLEAN CITIES

RSVP
REGIONAL SMOKING VEHICLE PROGRAM
Don't Choke, Call #SMOKE

TransVISION

nct clean school bus
north.central.texas.clean.school.bus.program

HOV LANE
Diamonds are a driver's best friend.
A guide to DART's HOV lane system

Access North Texas
Access to...information

evnt
Electric Vehicles North Texas

FREIGHT NORTH TEXAS

tryparkingit.com

2035 mobility

Regional Emissions Enforcement Program

AirCheckTexas

TERP
TEXAS EMISSIONS REDUCTION PLAN
A PROGRAM OF THE TCEQ

North Central Texas
General Aviation and Heliport System Plan

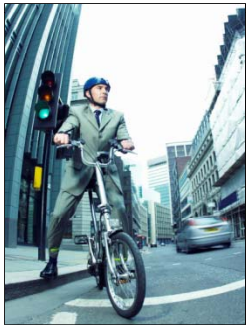
SmartWay Transport Partnership
U.S. ENVIRONMENTAL PROTECTION AGENCY

Drive a Clean Machine

NORTH TEXAS GREEN & GO
CLEAN TAXI PARTNERSHIP

STRATEGIES FOR IMPROVING AIR QUALITY

Work from Home
Carpool
Bring Lunch to Work or
Carpool to Lunch
Bicycle or Walk
Avoid Idling, Including During Start Up
Drive the Most Fuel-Efficient Vehicle When Driving is Necessary
Maintain Consistent Driving Speed; Avoid Quick Accelerations
and Hard Braking
Conserve Water to Conserve Electricity
Postpone Mowing to a Day Without an Air Pollution Watch or Warning
Limit Use of Recreational Vehicles
Avoid Outdoor Burning, Including Grilling and Burning Trash
Conserve Electricity
Turn Off Lights and Computers When Not in Use
Unplug Chargers When Not in Use
Increase Thermostat Setting by Two Degrees or More
Consider Purchasing an Alterative Fuel Vehicle (Electric , Hybrid, CNG)



QUESTIONS?

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www.airnorthtexas.org **www.nctcog.org/ozone**