

# Additional Professional Services for the Cotton Belt Trail



Kevin Kokes

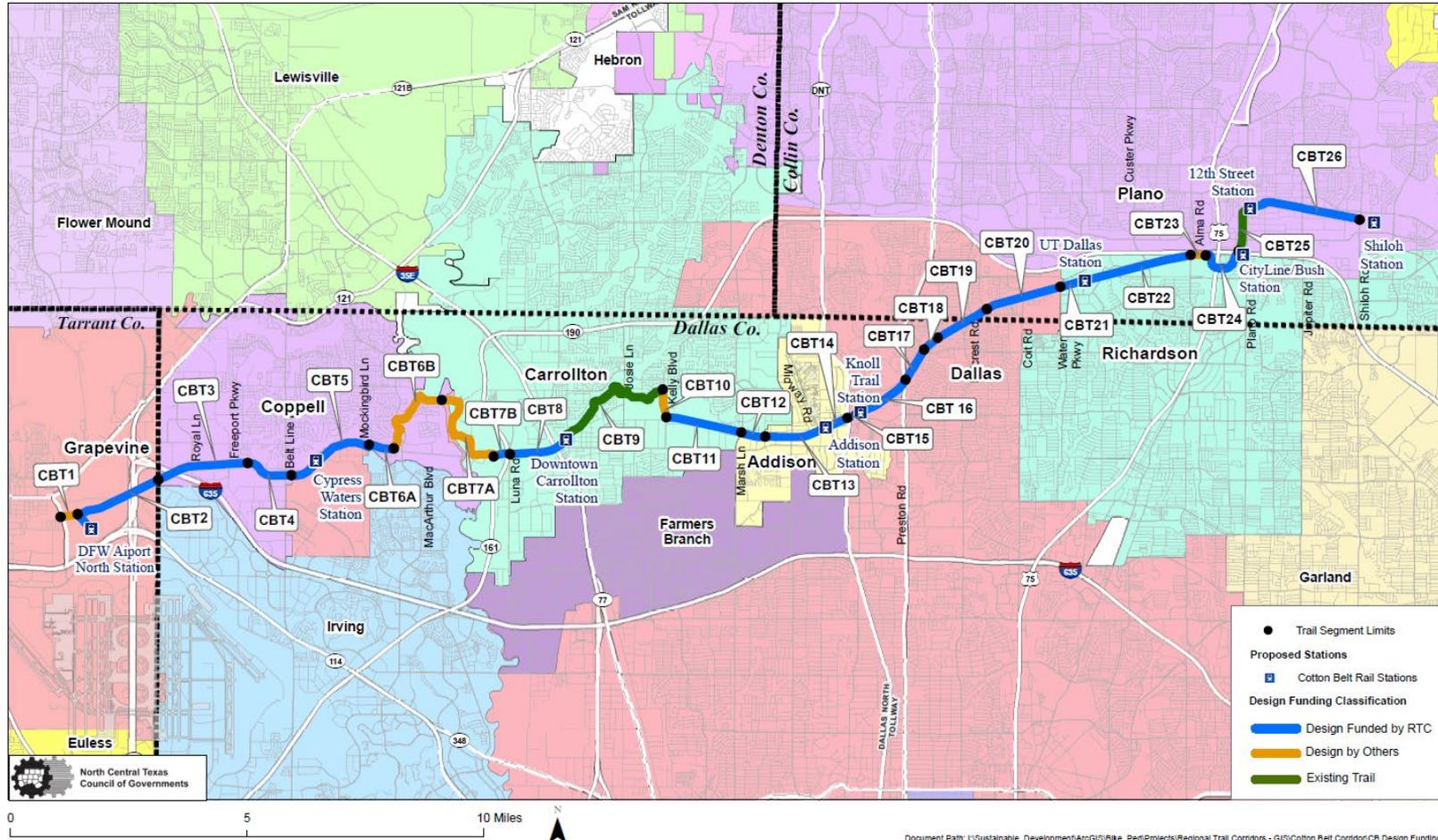
Surface Transportation Technical Committee

December 08, 2023



# History

Cotton Belt Regional Veloweb Trail: DFW Airport to Plano  
Trail Design Funding



- Regional priority
- Seven cities in three counties
- 24+ miles of trail
- Dallas Area Rapid Transit (DART) partnership to implement with the Silver Line Rail
- Engineering design currently underway

# Timeline

Date	
2018 (Oct)	RTC approved funding for design (\$8.2M) and construction of the Cotton Belt Trail “critical” sections (\$19.46M federal and \$1.81M local)
2020 (Sept)	RTC approved additional funding for design (\$8.2M to \$14.9M)
2020 (Nov)	Notice to Proceed Trail engineering design
2023	Phase 1 Construction Initiated (five critical bridges)
2023 (June)	USDOT RAISE Grant Award Announced (\$25M)
2023 (Oct)	TxDOT Transportation Alternatives Award Announced (\$25M)
2024 (spring)	Phase 2 Construction: Local Acquisition of Easements completed
2024 (spring / early summer)	Phase 2 Project Advertisement, Open Bid, Negotiate and Award Construction Contract
2024 (fall)	Phase 2 Begin Construction

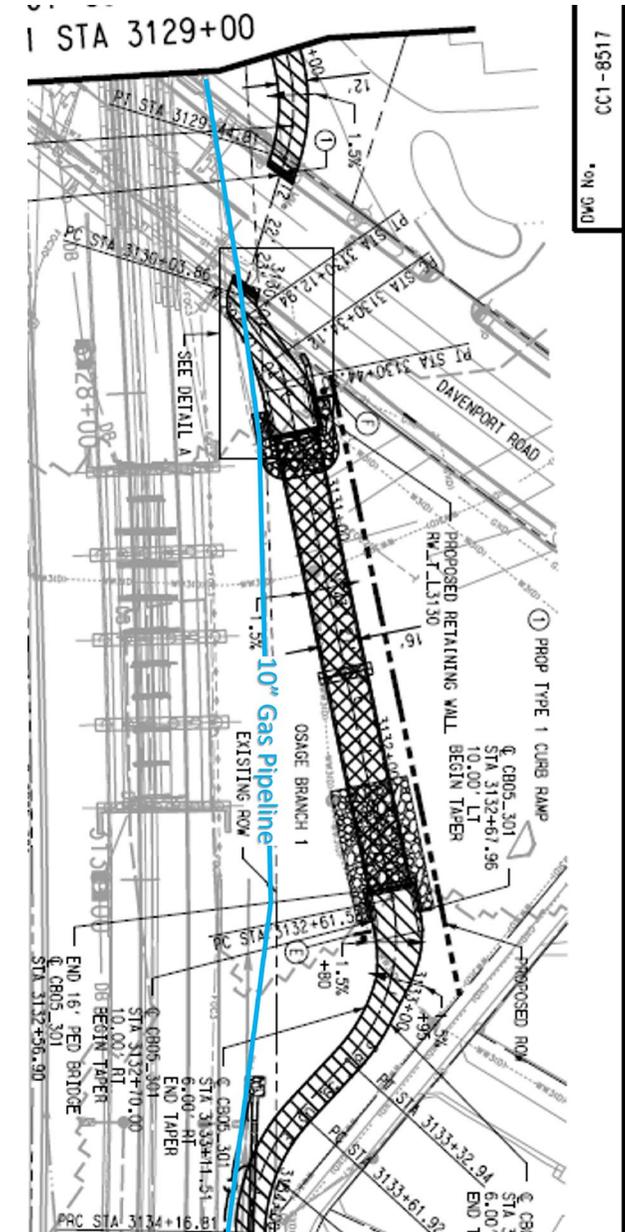
# Cotton Belt Regional Veloweb Trail

## Phase 2 Construction: Addison to Plano



# Design Challenges

- Silver Line Environmental Impact Statement identified constraints with the five percent alignment design
- Design process identified additional unanticipated constraints:
  - gas pipelines, overhead powerlines, valley storage/floodplain restrictions, drainage infrastructure, signalization requirements at roadways, rail signal equipment, easement surveys outside of DART right of way, and revisions resulting from local government staff feedback/requests
- Developed alternatives to address/avoid constraints



# Additional Professional Services

- Additional engineering design is needed to adequately complete the plans that will be issued for construction
- Staff requests up to \$4 Million of federal Congestion Mitigation and Air Quality Improvement Program funds for the additional professional design services
- Communication with DART and Local Government Partners regarding any unapproved changes in design is prohibited. Stricter approval process

# Requested Action

Recommend Regional Transportation Council Approval of:

- Up to \$4 Million of federal Congestion Mitigation and Air Quality Improvement Program funds with 800,000 Regional Transportation Development Credits for additional professional services.
- Administratively amending the TIP/STIP and other planning/administrative documents to incorporate these changes.

# Contact Us



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# **Safety Program Implementation of Innovative Ideas to Reduce Youth Fatalities Due to Motor Vehicle Crashes**

**Surface Transportation Technical Committee**

**Natalie Bettger  
Senior Program Manager  
December 8, 2023**

# \$50 Million Regional Transportation Council Safety Program (DFW Region) FY 24-26

Category	Final	
Speed Enforcement <sup>1</sup>	\$7 Million	
Speed Education <sup>2</sup>	\$2 Million	
Bicycle/Ped Education <sup>2</sup>	\$2 Million	
Bicycle/Ped Engineering <sup>3</sup>	\$10 Million	
Freeway Operations Engineering and Intercity Connections <sup>3</sup>	\$25 Million	
Other	\$4 Million	+4 Million
<b>Totals</b>	<b>\$50 Million</b>	

<sup>1</sup> Increased Law Enforcement Presence

<sup>2</sup> Enhance Existing Education Campaigns – Drive Aware N. Texas and Look Out Texans

<sup>3</sup> Identify through Roadway Safety Audit and Regional Safety Plans

# What are we missing?

In Texas:

12 percent Licensed Drivers under 25 and  
account for 19 percent of fatalities in motor vehicle crashes.

# Call for Partners for Youth Innovative Ideas

Colleges, Universities and School Districts

Mental Health Experts

Law Enforcement

Driver Education Curriculum Developers

Social Media / Gaming Industry

# Action Requesting

Recommend RTC approval of

- Allocate \$4M in Regional Toll Revenue to focus on ways to reduce the youth fatality rate associated with motor vehicle crashes in the Dallas-Fort Worth Region.
- Amending the Transportation Improvement Program (TIP)/Statewide Transportation Improvement Program (STIP) and updating any administrative and/or planning documents as needed to incorporate the project funding

# NCTCOG Safety Program Contacts

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**IMPROVING COMMUNICATION AND PARTNERSHIP  
BETWEEN THE  
REGIONAL TRANSPORTATION COUNCIL (RTC)  
AND THE  
TEXAS TRANSPORTATION COMMISSION (TTC)**

**50 Years of Success**

**October 31, 2023**

# NCTCOG REGIONAL PERSPECTIVE

## Population

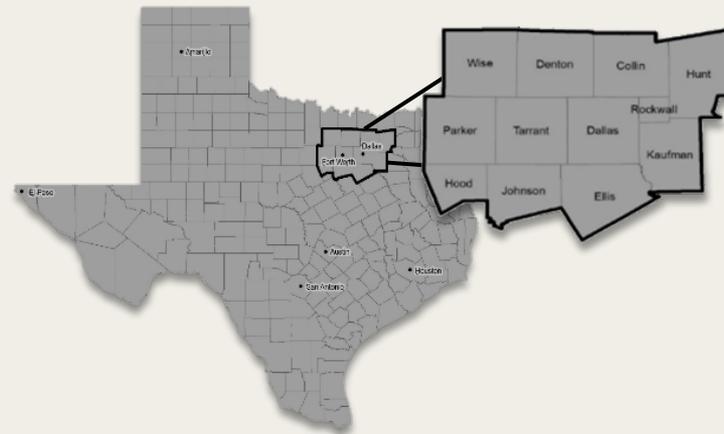
- 2023: 8.2 Million
- 2045: 11.2 Million
- 4<sup>th</sup> Largest Metropolitan Area by Population
- 1 Million Added Every 7 Years

## Area

- 12 Counties
- 9,441 Square Miles
- 2<sup>nd</sup> Largest Metropolitan Planning Area by Land Area

## Lane Miles

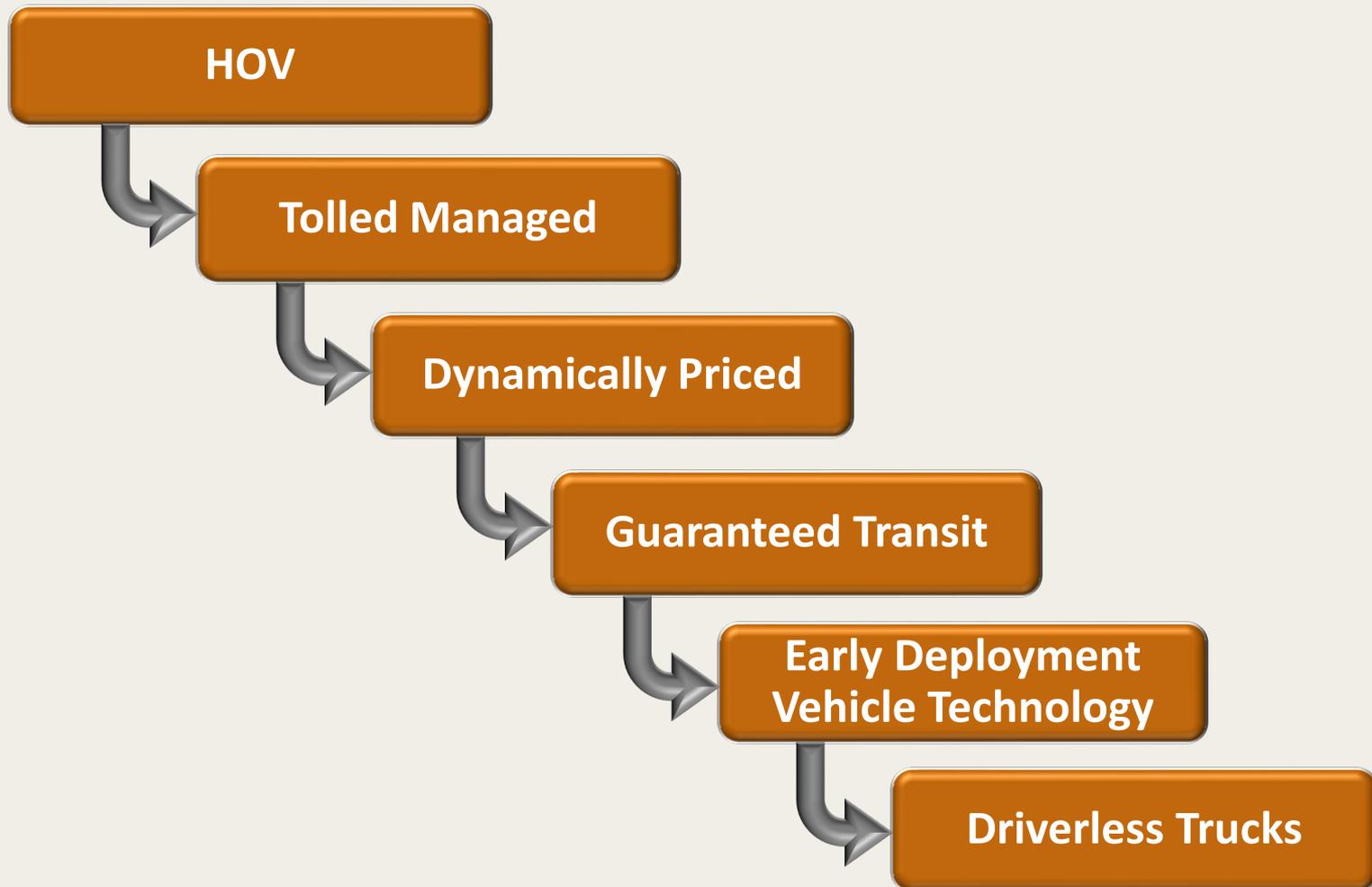
- Freeways: 4,788 in 2020/ 6,098 by 2045
- Priced Facilities: 1,205 in 2020 / 1,826 by 2045



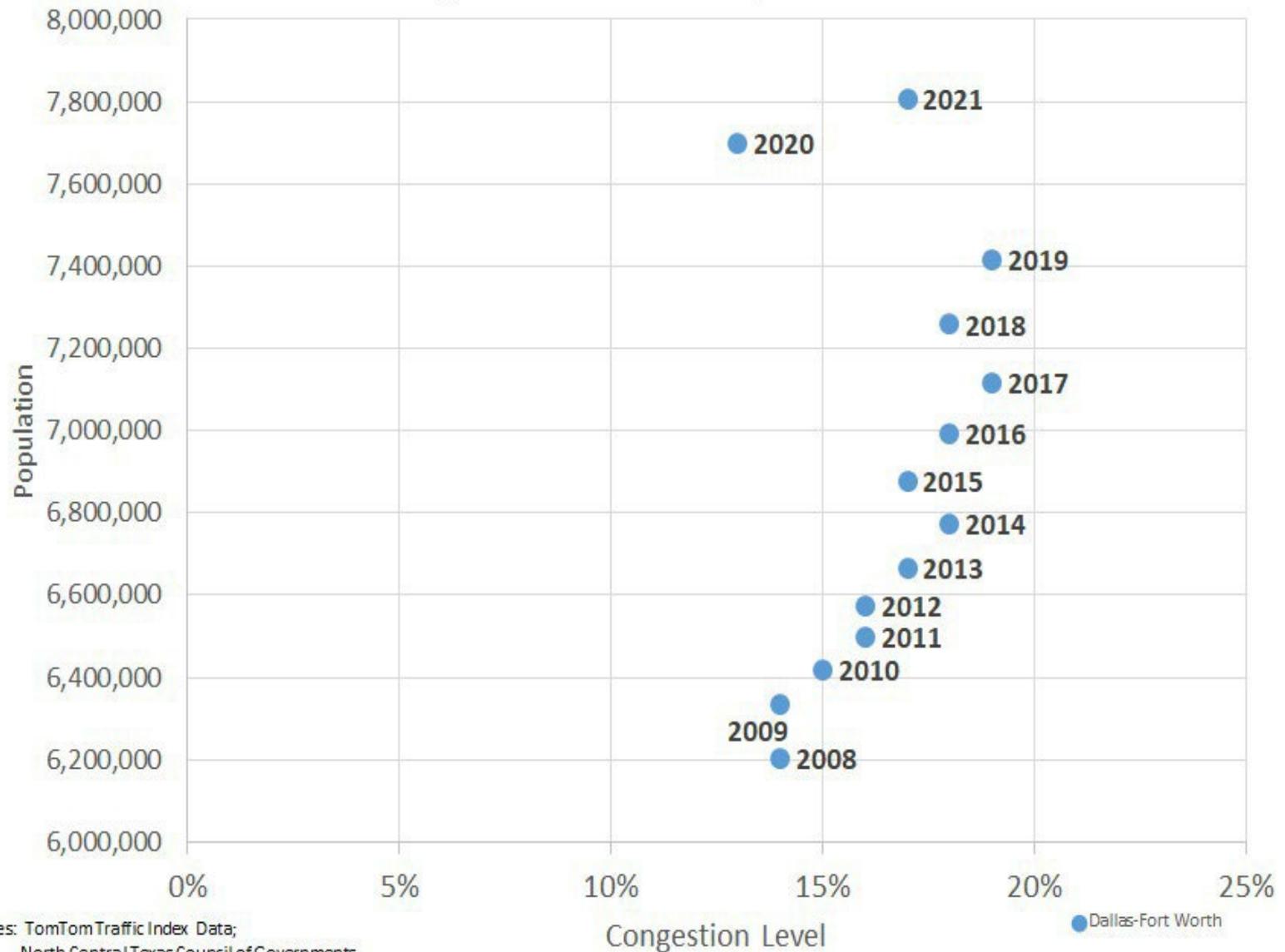
## Economy

- Home to 22 Fortune 500 Firms
- Projected to be ranked 14<sup>th</sup> globally in metro GDP
- Represents 30% of State's Economy

# MANAGED LANES EVOLUTION

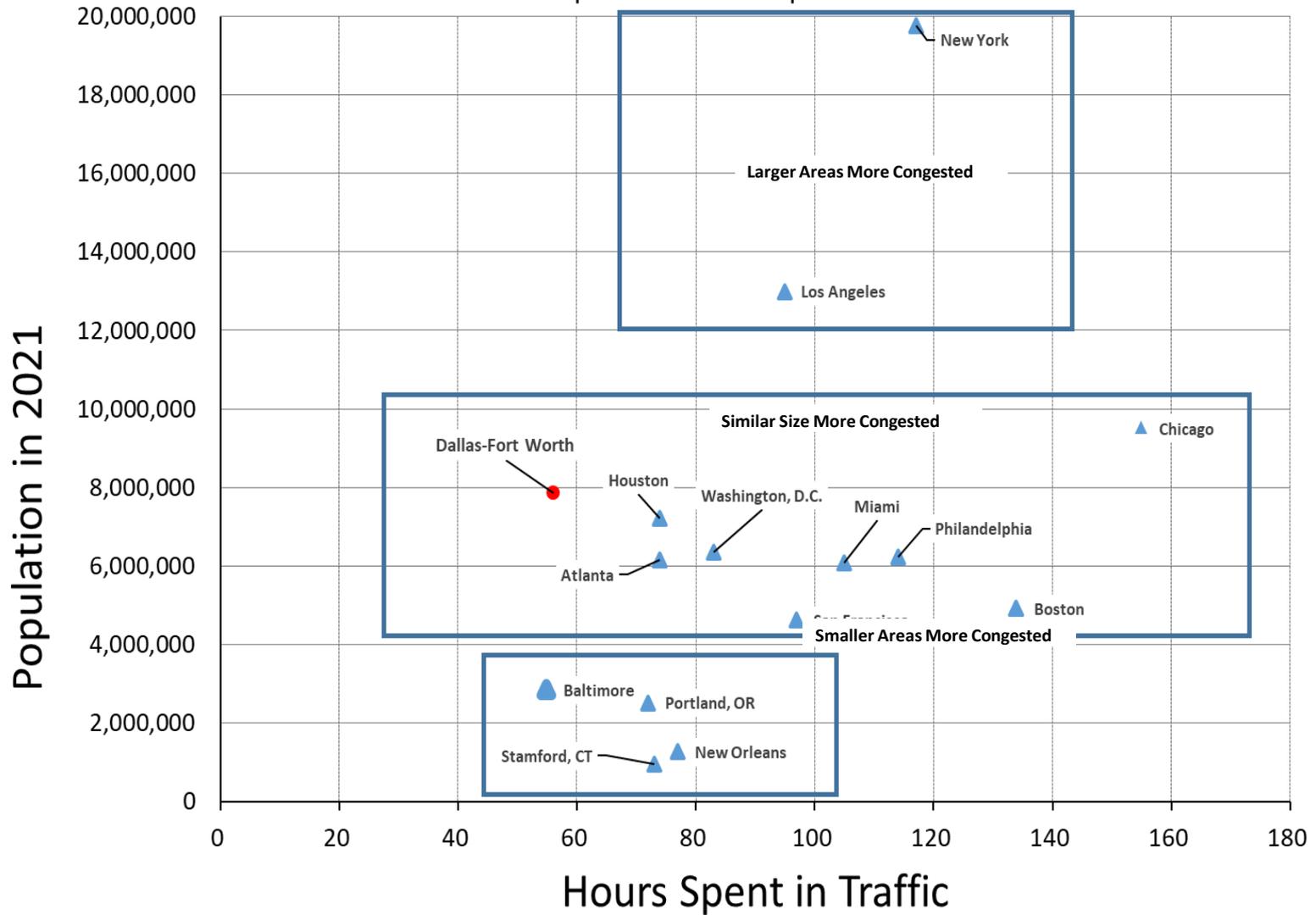


## Dallas-Fort Worth Congestion Levels and Population



Sources: TomTom Traffic Index Data;  
North Central Texas Council of Governments

# 15 Most Congested Regions Comparison of Hours Spent in Traffic and Population of Metropolitan Areas



# TxDOT MINUTE ORDER #109370: TEXAS METROPOLITAN MOBILITY PLAN (AUGUST 28, 2003)

“It is therefore ordered that the commission accepts this report and encourages partnerships with local entities in the eight metropolitan areas to implement the long range mobility plan.”

“...enabling a philosophical change in the way we as a state will attack congestion.”

“...will increase local control and decision-making authority.”

“...recommends that TxDOT shift from funding projects one at a time to a regional distribution of a predictable amount of funding.”

“...the plan makes it explicit that the distributed TxDOT funds would not be reduced for those areas that develop gap funding initiatives.”

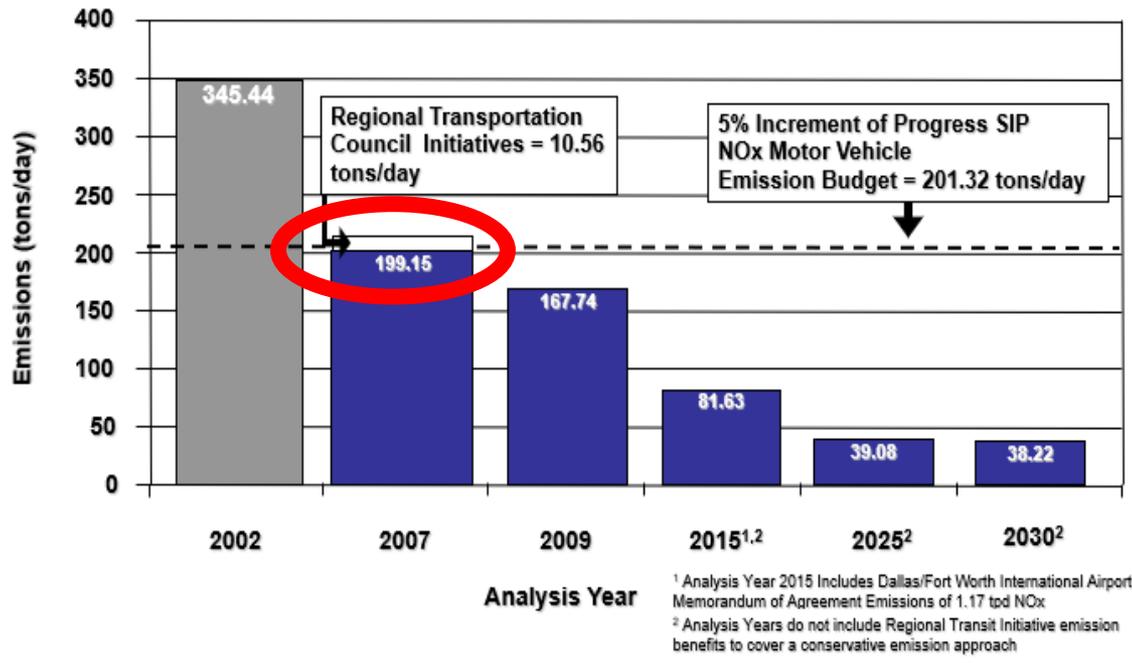
Commissioner Ric Williamson: “The more you choose local sources of funds, whether that’s local taxes or local tolls, the more money will be invested in your community; you will not be penalized for being aggressive with local funding.”



- Citizens of region paying tolls for 52 years
- Now, State moving away from formula allocation
- Fairness to residents is lost

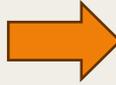
# IMPORTANCE OF REGIONAL AIR QUALITY/ MANAGEMENT AND OPERATIONS PROJECTS

EMISSIONS OF NITROGEN OXIDES (NO<sub>x</sub>)



- Air Quality Conformity test results must be below EPA's Motor Vehicle Emission Budget (MVEB).
- Previous Regional Transportation Council Initiatives (air quality projects and programs) have allowed region to pass Conformity.
- When the MVEB is reset next year, these programs can help tip the scales if regional Conformity is uncertain.

# NTTA/TxDOT STATE INFRASTRUCTURE BANK (SIB) LOAN PARTNERSHIP

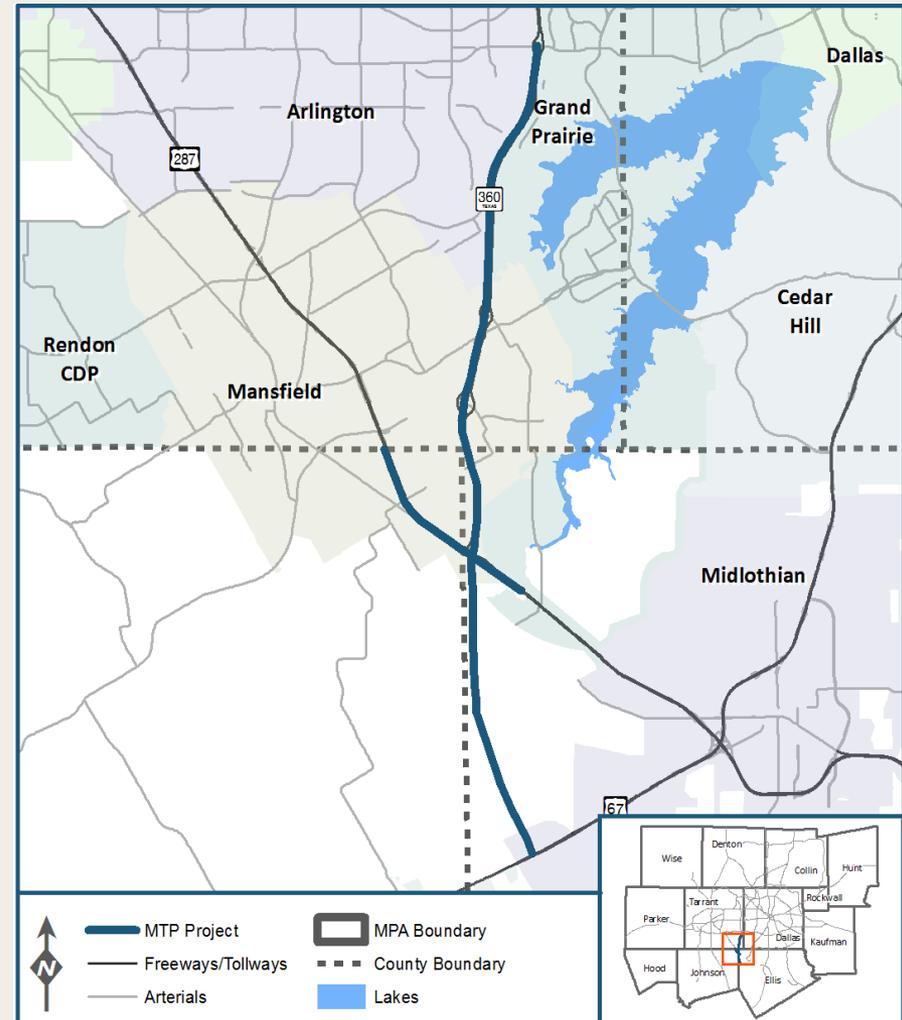
- In 2012, TxDOT requested assistance from the RTC to replenish the SIB by “purchasing” an NTTA SIB loan
  - NTTA originally took out the loan to finance construction of the President George Bush Turnpike (PGBT)
  - In October 2012, the RTC agreed to assist TxDOT and assumed the NTTA SIB loan using \$138 million in Regional Toll Revenue (RTR) funds
  - The RTC helped TxDOT by recapitalizing the SIB for future use on other projects across the State
- 
- In 2023, TxDOT staff indicated that the RTC is not “spending” RTR funds fast enough
  - TxDOT forgets partnerships that led to “build up” of funds

# SH 360 PUBLIC SECTOR PARTNERSHIP

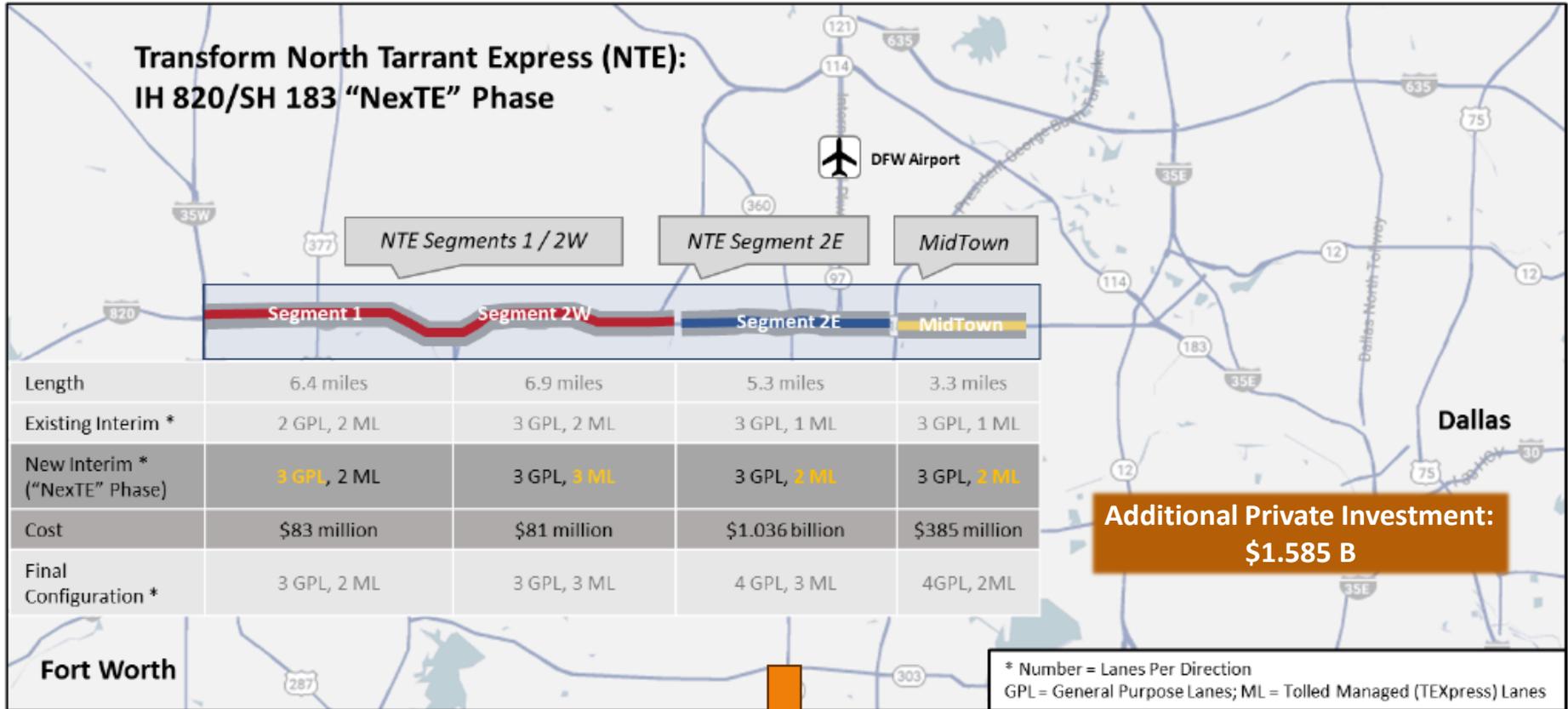
- \$330 Million Design-Build Project
- TxDOT: Construct the project & advance funding
- NTTA: Maintain & operate the facility
- RTC: In 2013, provided a financial backstop to cover the debt service plus operations & maintenance if facility underperformed.
  - In May 2021, the backstop was determined to no longer be needed.

## Outcomes:

- 50/50 Revenue Sharing between TxDOT/RTC and NTTA starting in 2050 (can be deferred to 2053 if NTTA builds other improvements first)
- Advanced completion of project by many years (open to traffic May 2018)



# NORTH TARRANT EXPRESS



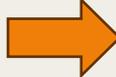
- Aids implementation of an existing P3 agreement
- Will lower tolls on related managed lane facilities
- Will reduce congestion on related main lanes
- Leverages \$1.5 billion in private sector revenues

**TxDOT action  
pending since  
2020**

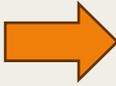
# FY 2020 CMAQ LAPSE

- April 12, 2021 – TxDOT notified NCTCOG that \$23,940,109 of federal CMAQ funding had lapsed at the end of FY2020
  - FY 2020 year end documentation from TxDOT showed a FY2020 carryover balance of \$16,414,535 federal (with \$8 million already slotted for projects)
    - This means we lost more money in the lapse than TxDOT had previously communicated was available
    - And, \$8 million was already pre-approved by our federal partners for use; TxDOT did not request to use them in time
  - Our historical understanding was that TxDOT spent the oldest funding first on a “first in, first out” basis
  - TxDOT stopped this practice at some point, not realizing the ramifications
- 
- The mistake made in the previous lapse could still happen under new CMAQ/STBG rule
  - Using lapsed funds as a justification for CMAQ/STBG rule change is inaccurate

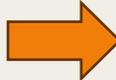
# UTP PROCESS

- If want Category 12 funds in DFW region, need 50/50 contribution of Category 2 funds. Same does not apply to Category 12 funds placed on major projects in Austin and Houston.
- DFW region is growing by 1 million every 7 years, and is therefore, absorbing the growth, but revenues are going to other areas of the State 
- MPOs have to submit projects 3 months before allocations are known and 6 months before TTC project selections are known
- Not consistent across the State
- Regional decisions must be made with incomplete information
- Once information is received, regions have to make final decisions with great haste

# 2024 UTP TRADES

- TxDOT District staff was instructed to develop a partnership deal with the DFW MPO
  - After consulting with the MPO, TxDOT proposed to trade Category 12 and Category 2 funds on projects to advance IH 30 Canyon project
  - Draft Category 12 funds would go to the region
  - After the trade deal points were settled, existing Category 12 funds on US 380 were removed
- 
- Draft Category 12 funds changed
  - Resulted in a net loss of Category 12 funds on US 380
  - US 380 is both an urban and rural/intercity route

# PROPOSED CMAQ/STBG/CATEGORY 2 FUNDING RULE CHANGES

- DFW region has implemented 10 Year Milestone Policy and annual project tracking each fiscal year, plus many innovative funding trades to expedite obligation of CMAQ and STBG funds
  - DFW region has helped with the August Redistribution since 2018, helping TxDOT gain obligation authority from other states
  - DFW MPO and TxDOT District have maintained great working relationships throughout our history, which has allowed us to expedite the funding and implementation of projects over decades
  - In late 2022, the RTC committed \$50 million in federal funding to a Regional Safety Program & partnering with the TxDOT Safety Taskforce to help #EndTheStreak
- 
- Creating institutional barriers to implementation via rulemaking
  - TxDOT agreements take excessively long, which delays implementation of needed projects (e.g., Regional 511 Agreement/need 6-year contract)
  - Some agreements take 2 years



# TxDOT State Infrastructure Bank

Presented by Dallas Teston, TxDOT, SIB Program Lead



# Interest rate update





## Interest Rate

- Rate set at the time of application
- Fixed rate through the life of the loan
- Municipal Market Data index (MMD)
- 2 main factors
  - Credit Rating
  - Term of the loan



*Market Rate Indications as of November 22, 2023.  
Rates change weekly, shown for illustrative purposes only.*



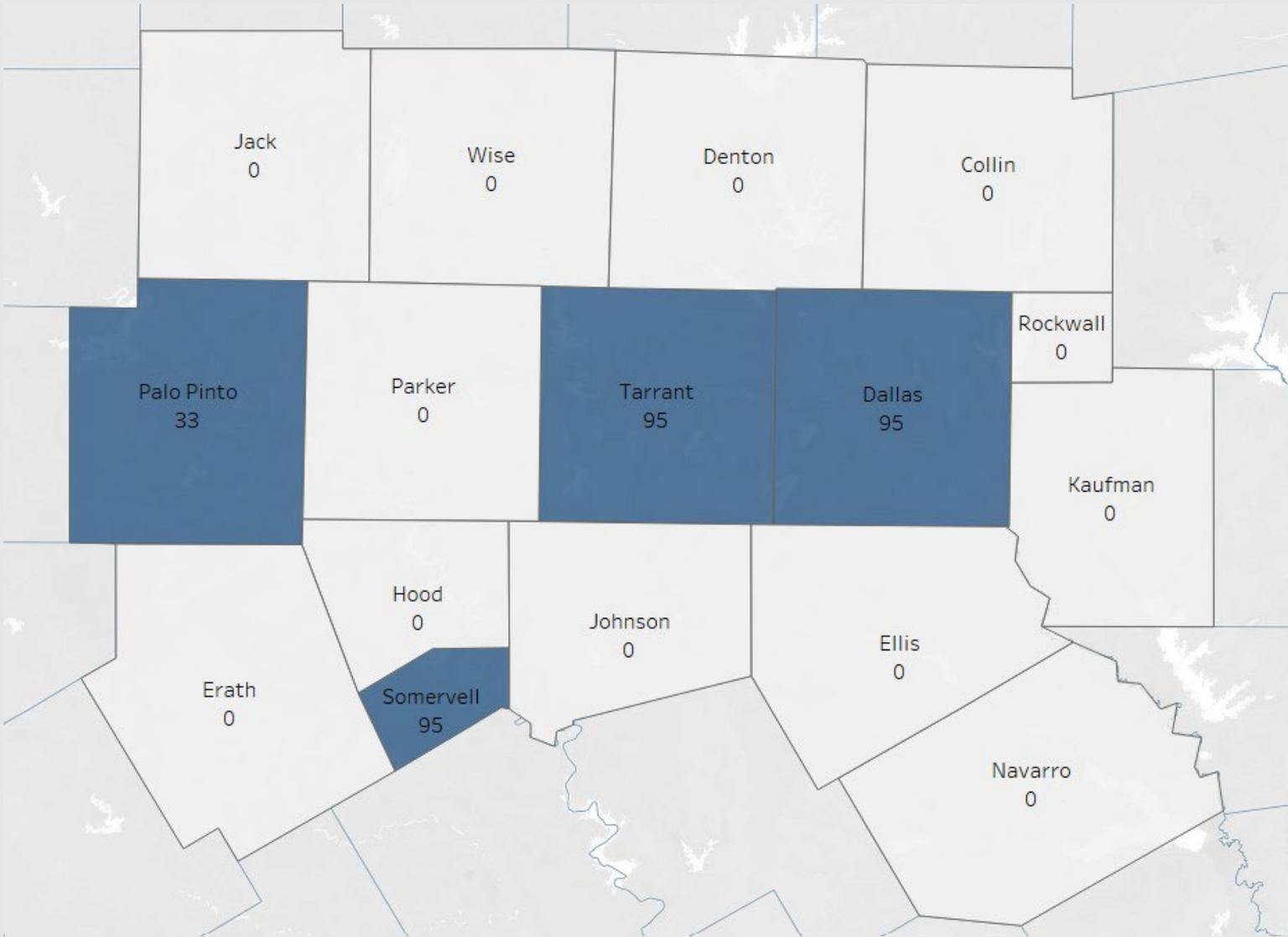
## New SIB rating scale

Rating	1-10 Years	11+ Years
AAA	AAA	AAA
AA	AAA +5 bps	AAA +10 bps
A	AAA +10 bps	AAA +20 bps
BAA	AAA +15 bps	AAA +30 bps
BBB-/Not Rated	AAA +20 bps	AAA +40 bps



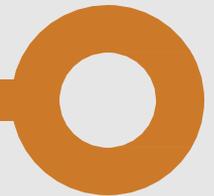
# EDC update







# Interest rate example





## How it works

AAA rate (Based on requested term)

Rate spread (Based on credit rating)

EDC Reduction (Based on FY 2024 list)

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**Final Rate**

AAA rate %

+ Rate spread

(EDC reduction)

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**Final rate %**



How it works

AAA rate (15 years)

3.45%

Rate spread (A Rating)

+ .20

EDC Reduction (Dallas County)

(.95)

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**Final Rate**

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**2.70%**



# SIB background





## SIB Loans



- Low-cost transportation financing.
- Revolving fund - All repayments go back into the SIB.
- Non-federal dollars.

### **Eligible Projects**

- Eligible under federal highway programs.
  - Must be functionally classified above a rural minor collector.
  - Must be in the STIP.
- On or off-system roadways can be eligible.
- Generally, projects eligible under Title 23.
  - Local Match
  - Transportation Alternative



**LEGEND**

- Orange** – On-System Roadways
- Green** – Minor Arterial
- Purple** – Major Collector
- Yellow** – Minor Collector





## Low Cost of Borrowing

- \$0 loan application
- \$0 closing costs
- \$0 loan handling
- Form of agreement
  - Direct loan agreement (authorized in TTC §222.0745)
  - Certificate of obligation
  - Bonds



Contact information:

**Dallas Teston**

**512-463-9958**

**Dallas.Teston@txdot.gov**

TXDOT.gov and search “State Infrastructure Bank”

- SIB Application
- General program information
  - Informational flyers
  - Sample resolutions for the local entity



# End of Ozone Season Recap

Surface Transportation Technical Committee  
December 8, 2023

Chris Klaus



# Emission Monitoring

## National Ambient Air Quality Standards (Criteria Pollutants)

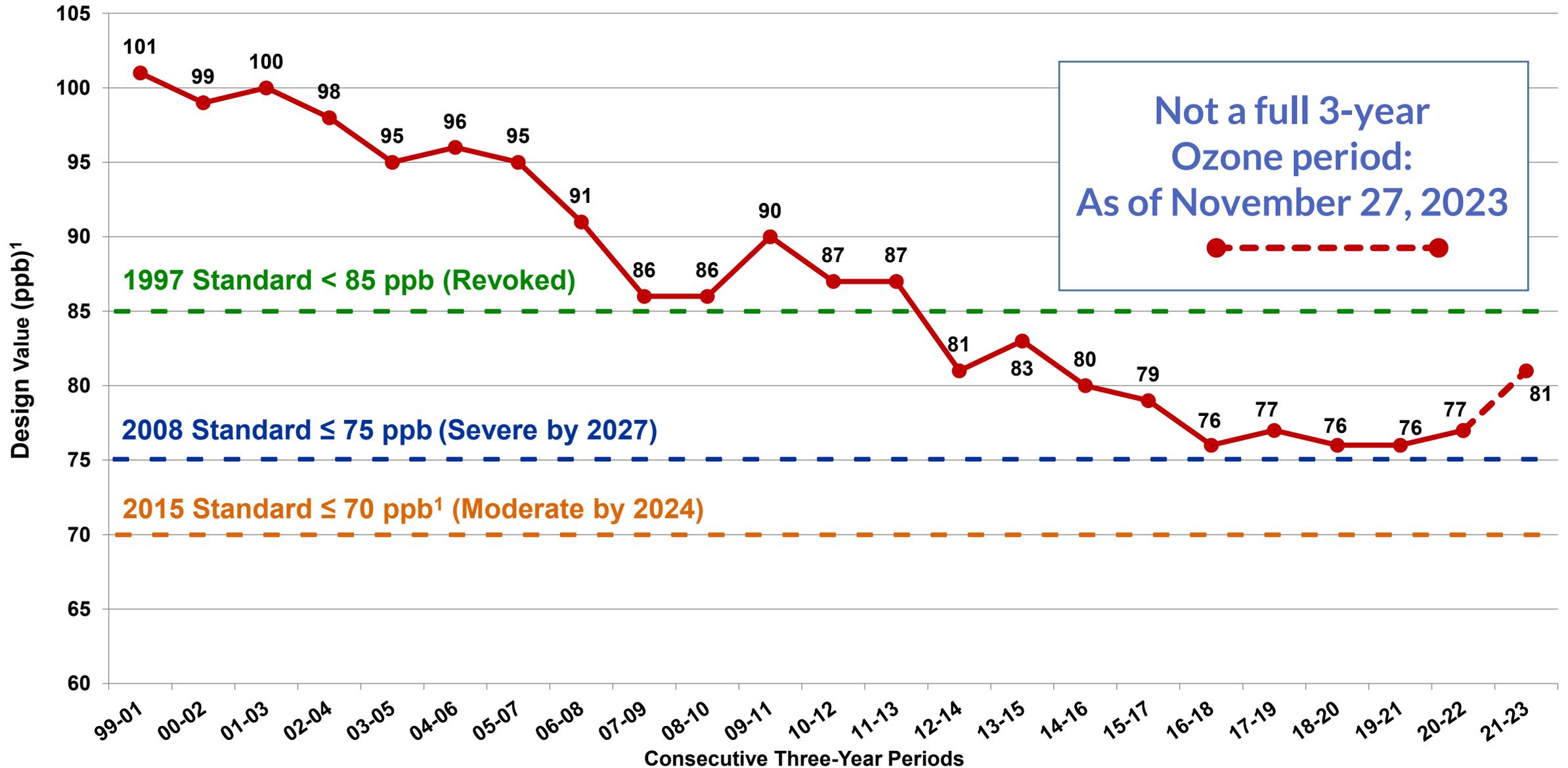
	<u>Attainment</u>	<u>Nonattainment</u>
<b>Ozone</b>		
<b>Lead</b>		
<b>Carbon Monoxide</b>		
<b>Nitrogen Dioxide</b>		
<b>Particulate Matter</b>		
<b>Sulfur Dioxide</b>		Partial Nonattainment In Navarro County Due to Aggregate Plant

## Monitoring and Increased Regulations

### Greenhouse Gas Emissions (i.e., Carbon Dioxide)



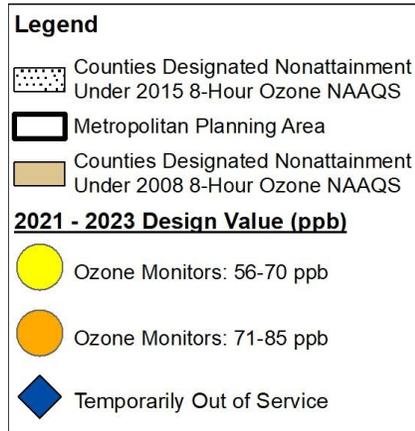
# Ozone Design Value Trends



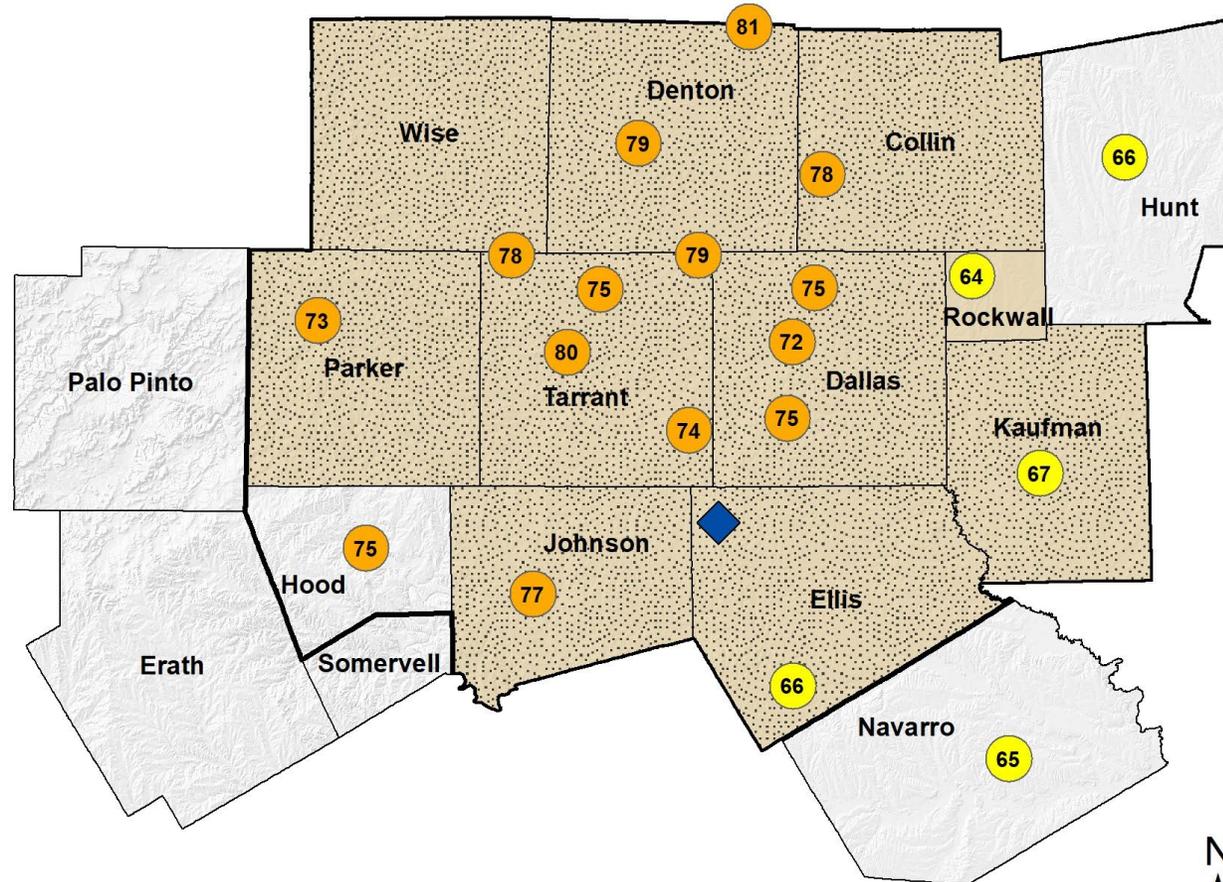
<sup>1</sup>Attainment Goal - According to the US EPA National Ambient Air Quality Standards, attainment is reached when, at each monitor, the *Design Value* (three-year average of the annual fourth-highest daily maximum eight-hour average ozone concentration) is equal to or less than 70 parts per billion (ppb).

# Monitor Locations with Associated Fourth Highest Value

As of November 27, 2023



Colors represent Air Quality Index Breakpoints

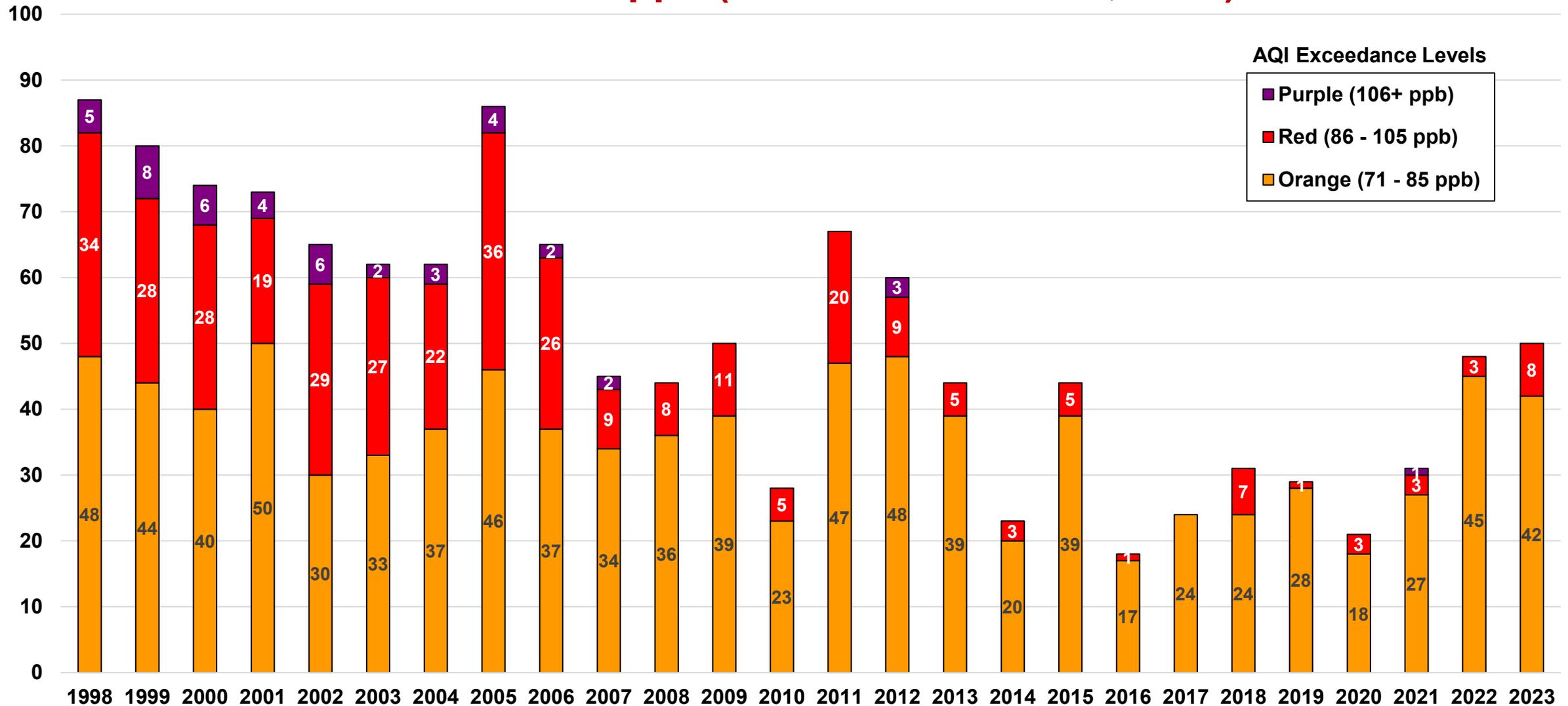


Prevailing Wind Direction During Summer Ozone Season



# 8-Hour Ozone National Ambient Air Quality Standards - Exceedance Trends

Based on  $\leq 70$  ppb (As of November 27, 2023)



## AQI Exceedance Levels

- Purple (106+ ppb)
- Red (86 - 105 ppb)
- Orange (71 - 85 ppb)

Exceedance Level indicates daily maximum eight-hour average ozone concentration.  
Exceedance Levels are based on Air Quality Index (AQI) thresholds established by the EPA for the revised ozone standard of 70 ppb.

Source: TCEQ, [http://www.tceq.state.tx.us/cgi-bin/compliance/monops/8hr\\_monthly.pl](http://www.tceq.state.tx.us/cgi-bin/compliance/monops/8hr_monthly.pl)  
ppb = parts per billion NAAQS = National Ambient Air Quality Standards

# Timeline and Milestones

## 2008 Ozone Standard ( $\leq 75$ ppb)

Attainment Date:  
No later than **July 20, 2027**

*Attainment will be based on  
2024-2026 Ozone Monitor Data*

\*Severe designation = Section  
185 fees if unable to reach  
attainment

## EPA Ozone Classifications

Marginal  
(3 years to attain)

Moderate  
(6 years to attain)

Serious  
(9 years to attain)

Severe  
(15/17 years to attain)

Extreme  
(20 years to attain)

## 2015 Ozone Standard ( $\leq 70$ ppb)

Attainment Date:  
No later than **August 3, 2024**

*Attainment will be based on  
2021-2023 Ozone Monitor Data*

Preliminary Ozone Season  
Monitor Value = 81ppb

Governor submitted voluntary  
reclassification to EPA (10-12-2023)

TCEQ indicated assistance need  
for emission reduction strategies



# 2023 Ozone Season (as of November 27, 2023)

Top 10 Monitors	4 <sup>th</sup> Highest Value for Season			Ozone Season Monitor Value -2023	State Air Quality Plan Model Value -2023
	2021	2022	2023		
Pilot Point	85	77	81	81	71
Fort Worth Northwest	76	80	84	80	70
Grapevine Fairway	75	78	84	79	72
Denton Airport South	81	78	78	79	70
Frisco	81	73	82	78	73
Eagle Mountain	76	77	81	78	72
Cleburne Airport	75	82	75	77	72
Keller	74	72	80	75	71
Dallas Executive	70	77	79	75	68

# NO<sub>x</sub> and VOC Emissions Apportionment

DFW 10-County Nonattainment Area Nitrogen Oxides (NO <sub>x</sub> ) (tons/day)						
Sources	Analysis Years				% Change from 2006 to 2023	% Change from 2023 to 2026
	2006	2017	2023	2026		
On-Road Mobile	284.27	130.77	72.30	60.20	-75%	-17%
Non-Road Mobile	98.06	45.54	34.38	32.03	-65%	-7%
Off-Road Mobile	32.92	25.24	23.59	24.59	-28%	4%
Point (All sources)	57.55	54.80	42.34	42.00	-26%	-1%
Oil & Gas (Production & Drill Rigs)	80.07	13.87	3.61	1.86	-95%	-48%
Area	29.02	26.55	31.33	32.17	8%	3%
<b>Total</b>	<b>581.89</b>	<b>296.77</b>	<b>207.55</b>	<b>192.85</b>	<b>-64%</b>	<b>-7%</b>
DFW 10-County Nonattainment Area Volatile Organic Compounds (VOC) (tons/day)						
Sources	Analysis Years				% Change from 2006 to 2023	% Change from 2023 to 2026
	2006	2017	2023	2026		
On-Road Mobile	116.50	64.91	38.74	33.27	-67%	-14%
Non-Road Mobile	64.69	34.01	42.68	44.12	-34%	3%
Off-Road Mobile	5.74	3.66	4.60	4.86	-20%	6%
Point (All sources)	50.44	47.38	23.53	23.56	-53%	0%
Oil & Gas (Production & Drill Rigs)	44.88	32.18	24.72	11.80	-45%	-52%
Area	290.46	236.70	265.77	275.73	-9%	4%
<b>Total</b>	<b>572.71</b>	<b>418.84</b>	<b>400.04</b>	<b>393.34</b>	<b>-30%</b>	<b>-2%</b>

# Air Quality 2.0 - Path Forward

**Diesel Engines**

**Idling**

**Tampering**

**Locomotives**

**Construction Equipment**

**Vehicle Inspection Fraud**

**Vehicle Miles Traveled**

**Low Speeds**

**Hard Accelerations**

**Cold Starts**

**Photochemical Modeling**

**State and National Transport**

**Weather/Meteorology/High Temperatures**

**Coal Power Plants**

**Politics**

**Energy Consumption**



# Sample of Mobile Source Air Quality Initiatives



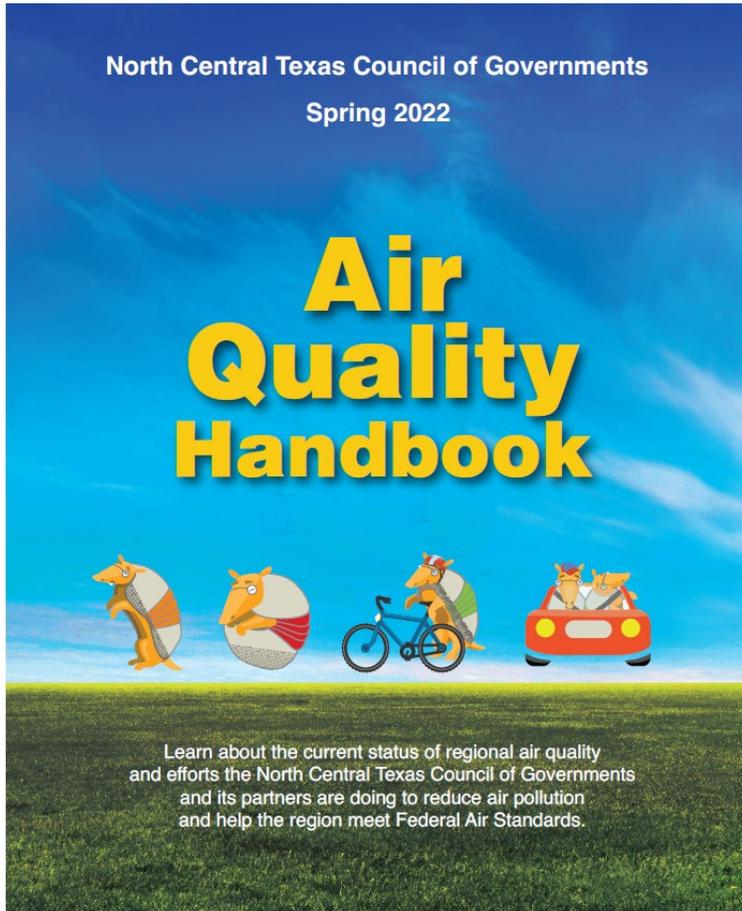
Rideshare. Record. Reward.



# Air Quality Handbook

## Multilingual

### English



[https://nctcog.org/nctcg/media/Transportation/DocsMaps/Quality/Air/AQ2022printer\\_Spring.pdf](https://nctcog.org/nctcg/media/Transportation/DocsMaps/Quality/Air/AQ2022printer_Spring.pdf)

### Spanish



<https://www.nctcog.org/nctcg/media/Transportation/DocsMaps/Quality/Air/AQ2022SPANISH.pdf>

### Vietnamese



<https://www.nctcog.org/getmedia/787b9fe9-94d9-4d76-9701-020876a06e61/AQHbkViet.pdf>

# For More Information

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<https://www.nctcog.org/trans/quality/air/ozone>





NCTCOG PRESENTATION

# Advancing Transportation Technologies and Innovative Program

Surface Transportation Technical Committee  
12.08.2023

Natalie Bettger  
Senior Program Manager

# Advanced Transportation Technology and Innovation (ATTAIN) Program

- Continuation of Advanced Transportation and Congestion Management Technologies Deployment (ATCMTD) program
- \$120M ((\$60 million for FY 2023 and \$60 million for FY 2024). Rural Set-Aside of 20%.
- 5-10 awards up to \$12M apiece
- 20 percent local match required
- NOFO issued 11/24/23
- Applications due: 02/02/24



# ATTAIN Technologies

- Technologies to improve emergency evacuation and responses
- Integrated corridor management systems
- Electronic pricing, toll collection, and payment systems
- Technology for HOV toll lanes, cordon pricing, or congestion pricing
- Integration of transportation service payment systems
- Advanced mobility access, like shared-use mobility applications and systems to support services for elderly and disabled individuals
- Retrofitting dedicated short-range communications (DSRC) as part of pilot programs to cellular vehicle-to-everything (C-V2X) technology
- Integration of ITS with Smart Grid or other charging systems



# ATTAIN Program Goals

- Reduced fatalities and injuries and increased safety
- Reduced traffic delays/improved travel time reliability
- Reduced emissions
- Optimized multimodal system performance
- Improved access to transportation alternatives
- Integration of payment systems
- Integrated multimodal transportation information
- Transportation-related cost savings



# Administration's Priorities

- Safety
- Climate Change and Sustainability
- Equity
- Workforce Development, Job Quality, and Wealth Creation



# DOT Focus Areas

- State of Good Repair
- Integration of intelligent transportation system with Smart Grid and other energy distribution and charging systems.
- Advance Public Transportation Systems
- Freight (or Port) Community Systems
- ROUTES Initiative
- Complete Trip Program
- Data Availability



# 2023 ATTAIN Opportunity Request for Partners

## Applications to leverage Digital Roads to:

- Harness Data, Technology and Connectivity
- Enable Safer Trips
- Deliver Efficient and Faster Transportation
- Enhance Customer Service
- Integrate with Regional TSMO Data Hub

Issued 11/06/23

Applications due: 12/08/23



# Schedule

12/08/23: STTC Briefing / Information

12/14/23: RTC Briefing / Information

01/11/24: RTC Action

01/25/24: NCTCOG Executive Board Action

01/26/24: STTC Endorse RTC Action

NCTCOG letters of support requests due: 01/22/2024

Contact: [Nicholas Allen](#)



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