METROPOLITAN PLANNING ORGANIZATION
ROLES AND RESPONSIBILITIES
IN AIR QUALITY

2018 TxDOT Environmental Conference
September 11, 2018

Chris Klaus
Senior Program Manager
What is an MPO?

MPO Federal Requirements

Involvement in Air Quality Planning Activities

Implementation of Emission Reduction Activities (Management & Operations)

Looking Forward
YOUR FRIENDLY NEIGHBORHOOD MPO

Policy Board of a Regional Organization Carrying Out the Metropolitan Transportation Planning Process

Required to Represent Localities in all Urbanized Areas (UZAs) with Populations Over 50,000, as Determined by the US Census

25 MPO’s in Texas
Metropolitan Transportation Plan (MTP)
Multi-Modal Long Range Planning Document
Outlook of at Least 20 Years into the Future
Minimal 4-Year Update Cycle

Transportation Improvement Program (TIP)
Staged, Multi-Year Program of Projects Approved for Funding
Updated Every 2 Years
Regional Component of the State Transportation Improvement Program

Congestion Management Process (CMP)
Assesses Alternative System and Demand Management Strategies
Region-wide or Corridor-Level Basis
Required in Metro Areas of Over 200,000 (Transportation Management Areas)

Unified Planning Work Program (UPWP)
Outlines Transportation and Air Quality Planning Activities
Developed Every 2 Years

Transportation Air Quality Conformity
Required in Areas Designated Nonattainment
INVOLVEMENT IN AIR QUALITY PLANNING

Rules, Regulations, and Guidance
- Transportation Conformity Rules/Requirements (CAA)
- Nonattainment Designation Implementation Rules
- Emission Estimation Models (MOVES) and Procedures (MOSERS)

Legislature/Local Municipalities
- Ability to Shape Future Planning and Funding

Emissions Inventories
- Results go into developing Motor Vehicle Emissions Budgets (MVEB) in the State Implementation Plan (SIP)
- Many Local Assumptions that go into Vehicle Emissions Model
- State Responsible for the SIP

Transportation Conformity
- In Nonattainment Areas, Required Prior to Project Implementation
- Ties Emissions from Regional Projects to MVEB in the SIP
- MPO = Local Determination, USDOT = Federal Determination

Essential for MPO to stay informed and be involved in elements of air quality, to ensure successful transportation conformity
Transportation Planning Funds – TxDOT
Congestion Mitigation and Air Quality (CMAQ) Program – FHWA
Surface Transportation Block Grant Program – FHWA
Diesel Emissions Reduction Act Funding – EPA
Clean Cities Coalition – DOE
Low-Income Vehicle Repair Assistance, Retrofit, and Accelerated Vehicle Retirement Program – TCEQ
Local Initiative Projects – TCEQ
Draft Volkswagen Beneficiary Mitigation Plan – TCEQ
TERP, FTA, SECO, P3, PACE, Funding Swaps, etc.

https://www.nctcog.org/aqfunding
FRAMEWORK TO SUCCESS

3 “E”s

Engineer

Develop Initiative

Educate

Outreach Audience on Initiative

Enforce

Make Sure Initiative is Being Implemented
DFW EMISSIONS SOURCES

2017 Oxides of Nitrogen (NO$_X$)

- Total NO$_X$ = 296.73 tons per day (tpd)

**Source:** TCEQ, *2017 Dallas-Fort Worth 8-hour Ozone Attainment Demonstration State Implementation Plan*
HEAVY-DUTY DIESEL VEHICLE
AGE DISTRIBUTION

DFW 10-County Nonattainment Region (Greater than 26,000 Gross Vehicle Weight Rating)

- 2011 & Newer: 38%
- 2007 & Older: 43%
- 2008 - 2010: 19%

1Based on 2014 Texas Department of Motor Vehicles registration data
SEVEN AIR QUALITY EMPHASIS AREAS

Mobile Sources

- Vehicle Miles Traveled (VMT)
- Energy and Fuel Use
- Cold Starts
- Hard Accelerations
- High Emitting Vehicles and Equipment
- Low Speeds
- Idling
- High Emitting Vehicles and Equipment
Silo-Busting Across Topics and Teams

Water (Blue)  Environment (Green)  Transportation Infrastructure (Grey)
Program Goals

Regional Clearinghouse of Energy Efficiency, Water Conservation, and Transportation Resources.

Resources

“One-stop-shop" For a Comprehensive Inventory of Programs, Tools, Case Studies, Funding, and Other Resources

www.conservenorthtexas.org
Program Goals

- Reduce Solar Soft Costs
- Adopt Solar-Friendly Processes and Policies
- Designate Communities

NCTCOG Role

- Hosted Trainings
- Shared Regional Best Practices
- Conducted Technical Review of Community Documents and Policies

6 of 10 SolSmart-Designated Communities are in North Texas!!!

<table>
<thead>
<tr>
<th>Texas’ SolSmart-Designated Communities</th>
<th>BRONZE</th>
<th>SILVER</th>
<th>GOLD</th>
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<tr>
<td>Denton</td>
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<td>San Antonio</td>
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Program Goals

Promote Adoption & Use of Electric Vehicles (EVs)
Encourage Strategic Infrastructure Development

NCTCOG Resources

EV Fact Sheets & Regional Data
EV Incentive Information
Presentations at Community Meetings
Annual National Drive Electric Week Event
NEXT: Template Code/Ordinance Recommendations

www.dfwcleanocities.org/evnt
Program Goals

Provide a Comprehensive Air Quality Resource and Regional Message
Leverage Resources and Collaborate with Regional Partners
Increase Public Awareness about Air Quality and Clean Air Choices

NCTCOG Resources

Comprehensive Website including Current Ozone Conditions
Clean Air Corner Blog and Ozone Action Day Alerts
Template Outreach/Education Materials

www.airnorthtexas.org
SAMPLE OF AIR QUALITY INITIATIVES
This Air Quality Handbook presents the current status of regional air quality and a summary of the work undertaken by the North Central Texas Council of Governments as the metropolitan planning organization and its partners to reduce air pollution and help the region meet federal air quality standards.

Exhibit 1: North Central Texas Nonattainment Area and Ozone Monitoring Sites

[Map of North Central Texas showing nonattainment areas and ozone monitoring sites]
LOOKING FORWARD

Base Technical Decisions on Sound Analysis
Future Is Uncertain
High Risk = High Reward
Maintain Transparency
Monitor (Real World) vs. Model (Simulation)
Plan Long Term
Prepare for Unintended Consequences
Proactive vs. Reactive
Support Consistency
Technical vs. Policy Support
Utilize Surrounding Resources
MEASURES OF SUCCESS

*2018 design value data current as of 07/1/2018
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www.nctcog.org/airquality