

AGENDA

Air Quality Health Monitoring Task Force
Meeting
Friday, May 29, 2020
9:30 – 11:30 a.m.

For Audio:
Conference Line: 1-800-250-3900
Participant Pin: 442318#

Access WebEx via the Following Link:

<https://nctcog.webex.com/webappng/sites/nctcog/meeting/download/f09a848437e24b88898d9664c6594297?siteurl=nctcog&MTID=m719838c13e561809ad4cddf367fe2574>

Our Objective

To bring together a group of government representatives, health officials, academic representatives, and air quality experts to evaluate data that may indicate a need for additional air quality improvement strategies to address concerns over localized air pollution, with a focus on transportation sources.

1. Welcome and IntroductionsNCTCOG
2. Project Update from University of Texas Arlington.....Dr. Stephen Mattingly & Team
3. Near-Road Monitoring.....NCTCOG
4. October 19, 2017.....NCTCOG
5. Effects of COVID-19 on Transportation and Related Health Impacts.....NCTCOG
6. Other Updates.....All
 - Whitepaper - Air Quality and Emissions Impact on Health.....Abhijit Basu
- Miscellaneous
 - Discussion Topics/Presentations for Upcoming Task Force Meetings
 - Potential Communication/Collaboration Platform for Task Force Members (Microsoft Teams Capabilities)
 - **Next Meeting:** Friday, August 21, from 9:30 – 11:30 a.m.

AQ Health Monitoring Task Force – Meeting Notes

Friday May 29, 2020

9:30am – 11:30am

Meeting Attendees	
Name	Organization
Kevin Overton	City of Dallas
Pharr Andrews	City of Dallas
Katherine Barnett	City of Denton
JT Douglas	City of Denton
Emily Asbury	City of Irving
Mendie White	City of Lewisville
Yarcus Lewis	City of Plano
Stephen Mattingly	UT Arlington
Erin Moore	Dallas County
Barry Lachman	Parkland Community Health Plan
Abhijit Basu	SmartEx
Zoe Bolack	DFW Airport
Heather Bertero	DSHS
Anthony Williams	City of Fort Worth
Jaesik Choi	UT Arlington
Kate Hyun	UT Arlington
Lu Liang	University of North Texas
Katy Evans	City of Farmers Branch
Kathy Fonville	City of Mesquite
Sandra Hernandez	City of Fort Worth
Maia Draper	Environmental Defense Fund (EDF)
Grace Tee Lewis	Environmental Defense Fund (EDF)
Charlie Gagen	American Lung Association
Lori Clark	NCTCOG
Chris Klaus	NCTCOG
Vivek Thimmavajjhala	NCTCOG
Nicholas Vanhaasen	NCTCOG
Jenny Narvaez	NCTCOG
Kate Zielke	NCTCOG
Laura Davila	NCTCOG
Dorothy Gilliam	NCTCOG

Discussion

Air Quality Monitoring Strategies and Modeling of Chronic Health Risks Related to Traffic-Related Air Pollution

Dr. Mattingly - UTA

- There are existing low-cost air quality sensors and sensor networks in the U.S.
 - EPA has assessed some of these low-cost networks
 - Community based research is focusing on low income regions and the potential for them to be at a higher risk for air pollution

- [EPA Village Green Project](#)
 - This community-based activity demonstrated the capabilities of new real-time monitoring technology for residents and citizen scientists to learn about local air quality.
 - The goal of the project was to provide the public and communities with information about their local air quality and engage communities in air pollution awareness.
 - Project wrapped up in 2019
 - Focused on 8 locations throughout the U.S.
 - Shows real-time monitoring technology to measure PM2.5 and O3
- Information on a variety of low-cost sensors was shared with the group from different community and university lead programs

Near-Road Monitoring

Nick VanHaasen - NCTCOG

- Traffic patterns influence near-road air pollution levels that the types of pollutants present
- NCTCOG Region NO2 Near-Road Monitors
 - Dallas LBJ Freeway
 - 1-hr Design Value (DV) 2015-2017: 44ppb
 - 1-hr DV 2016-2018: 43ppb
 - Fort Worth California Parkway
 - 1-hr DV 2016-2018: 43ppb
- NCTCOG Region PM2.5 Near-Road Monitor
 - Fort Worth California Parkway (deployed March 2015)
 - 2016 - 2018 Annual Design Value ($\mu\text{g}/\text{m}^3$): $8.6 \mu\text{g}/\text{m}^3$
 - Increase in regional PM 2.5 from February to March 2020
 - Steady decline in regional PM 2.5 from March to May 2020
- TCEQ Air Monitoring Site: <https://www.tceq.texas.gov/airquality/monops/air-mon>

October 19, 2017

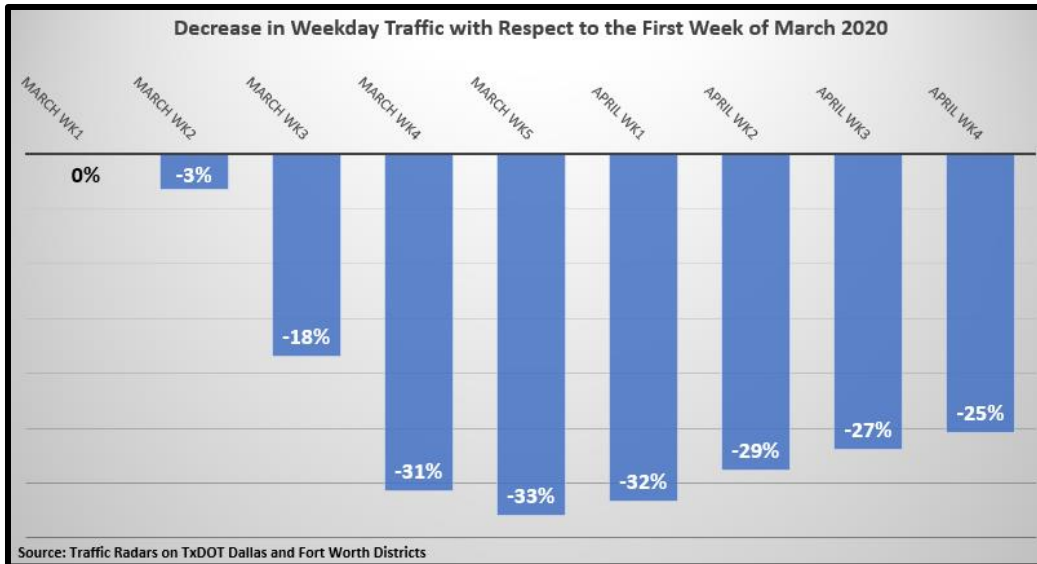
Vivek Thimmavajjhala - NCTCOG

- On October 19, 2017, a haze was observed over the DFW metroplex (primarily in the Arlington, Grand Prairie and Mansfield areas)
- Upon observation, there was a spike of PM 2.5 and the Ozone concentration level for that day was high
- A PM alert was issued by the Air North Texas campaign via email
- The event was not classified as an exceptional event in accordance with EPA's definition of exceptional event
- NCTCOG is trying to determine the correlation between the pollutant levels and available health data (i.e. Asthma and pharmacy visit data) for this event
 - Hospital data sets are publicly available, and these datasets are easier to access than trying to submit a data request through the Texas Department of State Health Services (DSHS).

Effects of COVID-19 on Transportation and Related Health Impacts

Chris Klaus - NCTCOG

- Total 2020 Nitrogen Oxides (NOx) = 234.75 tons per day in North Texas. Of the total emissions 38% are a result of on-road mobile sources (i.e. light-, medium- and heavy-duty vehicles)
- Freeway Volumes During COVID-19:



- The average speeds on major roadways in the region was observed during the first week of March 2020 to the last week of April 2020. Upon comparing the first week of March, to the last week of April, there was an observed increase in the vehicular speed on freeways and major roads in the region, meaning there was less congestion on the road and that the normal flow of traffic was at higher speeds than usual.
- As of the end of May 2020, our region experienced one “red exceedance” day for ozone, NCTCOG is continuing to review this. Despite the one “red exceedance”, our region is observing a reduction in the frequency of exceedance days.

Health and Social Equity Impact Quantification - Whitepaper: Syndromic Surveillance

Abhijit Basu - Smartex

- Whitepaper Objective: Link existing air quality data to direct human exposure with associated health outcomes
 - Challenges include:
 - Access to representative air quality data
 - Access to health/syndromic/care data
 - Limitations of air quality professionals to work with health data sets and vice versa
 - Importance and Benefits include:
 - Better understand air quality
 - Development of readily actionable air quality and health correlated information
 - Quantification and forecast the health and social equity impact
 - Better surveillance for local intervention against outbreaks
 - Accuracy and cross syndrome applicability
 - Connects city and county governments with health care entities
- Soliciting interest for potential involvement in research funding opportunity from the Health Effects Institute, “[RFA 20-1B Air Pollution, COVID-19, and Human Health](#)”

Group Discussion & Potential Action Items

- Question was posed about whether the operation cost data in Dr. Mattingly presentation included calibration frequency or other maintenance issues
 - Dr. Mattingly to follow up and include further information in a future presentation.

- The group indicated that there is an inverse relationship between monitor sensitivity and need for calibration frequency – the more sensitive the monitor, the more frequent calibration is needed. In addition, the more polluted the air, the more frequently calibration/maintenance is needed (similar to a filter getting clogged more frequently).
- A question was raised as to whether a comprehensive inventory of all regional monitors exists. Group not aware of such a resource that includes both regulatory and non-regulatory monitors.
 - NCTCOG will inquire with local governments to inventory and develop website resource.
- NCTCOG raised need for health data to accompany air monitor data. Group discussed various potential data sources, including DFW Hospital Council, Parkland, or Department of State Health services.
 - NCTCOG to follow up with Dr. Lachman about availability of regional data.

Mark your calendars for the next meeting date:

Date: Friday, August 21

Time: 9:30 – 11:30 a.m.

Location: Remote (Webex)