APPENDIX C

MEDIA REPORTS AND TCEQ FORECAST DISCUSSIONS

EXCEPTIONAL EVENTS DEMONSTRATION FOR 2022, 2023, AND 2024 $PM_{2.5}$ EXCEEDANCES AT HARRISON, KLEBERG, AND TRAVIS COUNTIES

August 5, 2025

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
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APPENDIX C: MEDIA REPORTS AND TCEQ FORECAST DISCUSSIONS

C.1: GROUP 1- JUNE 14, 2022

Table C-1: TCEQ Forecast Discussion for June 14, 2022

Date	Site Name	Summary of Applicable Information
6/14/2022	Webberville	Overall, the density and coverage of the African dust is forecast to raise the daily $PM_{2.5}$ AQI to the middle of the "Moderate" range in parts of the Beaumont-Port Arthur, Brownsville-McAllen, Corpus Christi, Houston, and Victoria areas; to the lower to middle end of the "Moderate" range in parts of the Austin, Laredo, San Antonio, and Tyler-Longview areas; …

C.2: GROUP 2 – MARCH 1, 2023

Table C-2: TCEQ Air Quality Forecast Discussion for March 1, 2023

Date	Site Name	Summary of Applicable Information
03/01/2023	Webberville	Even with precipitation over North Central and East Texas associated with a stalled frontal boundary along the Texas/Oklahoma border, the coverage and density of the fine particulates are forecast to raise the overall daily $PM_{2.5}$ AQI to the lower to middle end of the "Moderate" range in parts of the Austin, Beaumont-Port Arthur, Brownsville-McAllen, Bryan-College Station, Corpus Christi, Houston, Laredo, San Antonio, and Victoria areas…

C.3: GROUP 3 - MAY 5, 2023

Table C-3: TCEQ Air Quality Forecast Discussion for May 5, 2023

Date	Site Name	Summary of Applicable Information
05/05/2023	Webberville	A very large area of thin to moderate density smoke from ongoing fire activity in Mexico and Central America was detected over portions of the Atlantic Ocean off the Southeast U.S. coast and then extending west and southwest through the Gulf Coastal States of the U.S. and into Texas. … The daily $PM_{2.5}$ AQI could reach the to the middle to upper end of the "Moderate" range for parts of the Brownsville-McAllen, Corpus Christi, Houston, Laredo, San Antonio, and Victoria areas and the lower to middle end of the "Moderate" range for parts of the Austin, Beaumont-Port Arthur, Bryan-College Station, Dallas-Fort Worth, Tyler-Longview, and Waco-Killeen areas.

C.4: GROUP 4 – DECEMBER 31 AND JANUARY 1, 2023

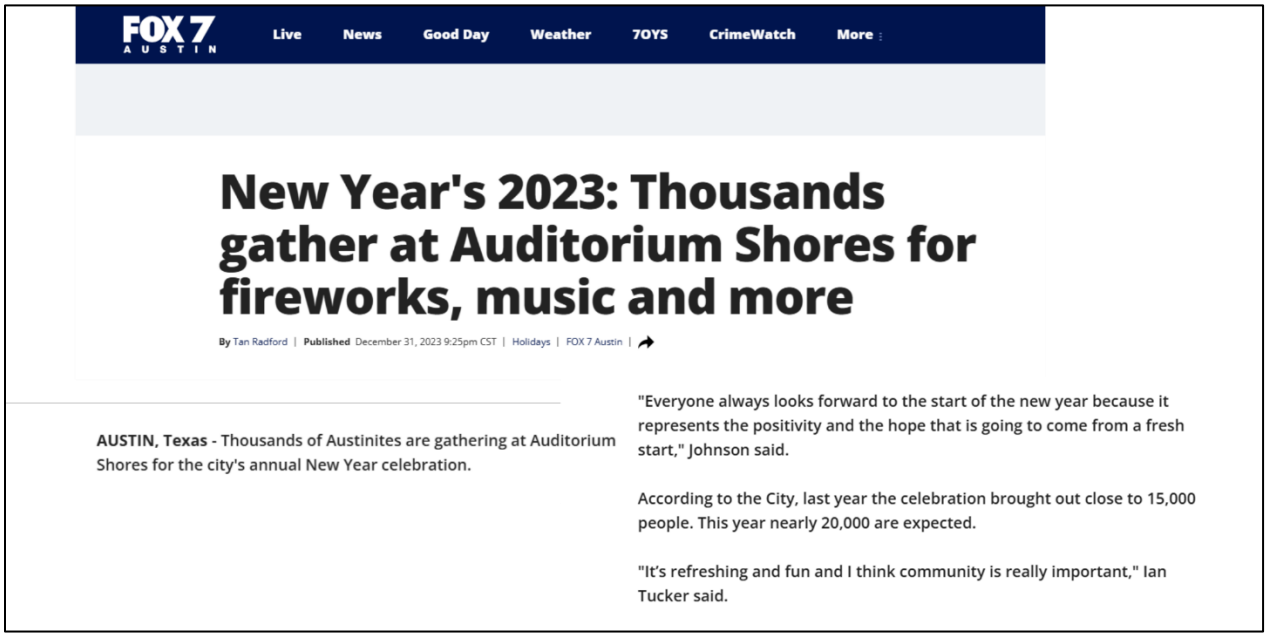

Figure C-1: FOX 7 Austin (KTBC). "New Year's 2023: Thousands gather at Auditorium Shores for fireworks, music and more" Article

C.5: GROUP 5 – FEBRUARY 27, 2024

Table C-4: TCEQ Air Quality Forecast Discussion for February 27, 2024

Date	Site Name	Summary of Applicable Information
2/27/2024	Webberville	… large areas of moderate to even dense smoke attributed to heavy seasonal fire activity from western/central Texas, Oklahoma, Arkansas, and into the southeastern U.S. …

C.6: GROUP 6 – APRIL 1, 2024

Table C-5: TCEQ Air Quality Forecast Discussion for April 1, 2024

Date	Site Name	Summary of Applicable Information
04/01/2024	Webberville and National Seashore	Moderate to high density residual smoke is being transported northward from a large number of seasonal burning activities across central-southern Mexico, the Yucatan Peninsula, and Central America ahead of a cold frontal boundary over the eastern two-thirds of Texas … … Additionally, light to moderate morning winds and elevated relative humidity levels are contributing to the increase of fine particulate $PM_{2.5}$ levels over the eastern two-thirds of the state as well. The overall daily $PM_{2.5}$ AQI is forecast to reach the lower end of the "Unhealthy for Sensitive Groups" range in parts of the Brownsville-McAllen and Corpus Christi areas; the middle to upper end of the "Moderate" range in parts of the Austin, Bryan-College

Date	Site Name	Summary of Applicable Information
		Station, Houston, Laredo, San Antonio, Victoria, and Waco-Killeen areas …

C.7: GROUP 7 – APRIL 4 THROUGH APRIL 6, 2024

Table C-6: TCEQ Air Quality Forecast Discussion for April 4 through April 6, 2024

Date	Site Name	Summary of Applicable Information
4/4/2024	Karnack	Seasonal burning activities across the state are producing very light residual smoke and slightly elevating fine particulate levels. Combined with urban fine particulate background aerosols also contributing towards elevating $PM_{2.5}$ concentrations …
4/5/2024	Karnack	Light surface winds along with limited vertical mixing influenced by the aforementioned high-pressure system, expected to keep urban fine particulate aerosols near the surface, combined with light amounts of residual smoke from seasonal burning activities across the state may raise the daily $PM_{2.5}$ AQI…

C.8: GROUP 8 – APRIL 17 AND 18, 2024

Table C-7: TCEQ Air Quality Forecast Discussion for April 17 and 18, 2024

Date	Monitor	Summary of Applicable Information
04/17/2024	Webberville	Southerly winds will continue advecting moisture and elevated relative humidity levels out of the Gulf and moderate to high density residual smoke from seasonal fire activities throughout central-southern Mexico, Central America, as well as the Yucatan Peninsula over the eastern two-thirds of Texas …
04/18/2024	Webberville	… Southerly winds are continuing to transport elevated relative humidity levels out of the Gulf as well as moderate to high density residual smoke from ongoing seasonal burning activities throughout central-southern Mexico, Central America, as well as the Yucatan Peninsula over most of the state with the exception of far West Texas and the Texas Panhandle. …

C.9: GROUP 9 – APRIL 26 THROUGH 28, 2024

Table C-8: TCEQ Air Quality Forecast Discussions for April 26 through April 28, 2024

Date	Monitor	Summary of Applicable Information
04/26/2024	Webberville	Higher density smoke and/or aerosols are forecast to gradually advect across most of the eastern two thirds of Texas as seasonal burnings and industrial activity rages on in southern Mexico, Central America, and the Bay of Campeche. With copious amounts of moisture likely across

Date	Monitor	Summary of Applicable Information
		most of the areas affected areas, elevated fine particulate matter concentrations are likely to become widespread.
04/27/2024	Webberville	The cold front will gradually lift northward as the trough moves out of the area, meaning southerly winds will continue to transport moisture and smoke/aerosols into the eastern two thirds of the state. High relative humidity juxtaposed with persistent light to moderate density smoke could keep fine particulate matter elevated in most areas, however higher density smoke is forecast to affect the Deep South and coastal bend. … The daily $PM_{2.5}$ AQI could remain in the lower end of the "Unhealthy for Sensitive Groups" range in parts of the Brownsville-McAllen and Corpus Christi areas, the middle to upper end of the "Moderate" range in parts of the Austin, Houston, Laredo, San Antonio, and Victoria areas.
04/27/2024	National Seashore	The cold front will gradually lift northward as the trough moves out of the area, meaning southerly winds will continue to transport moisture and smoke/aerosols into the eastern two thirds of the state. High relative humidity juxtaposed with persistent light to moderate density smoke could keep fine particulate matter elevated in most areas, however higher density smoke is forecast to affect the Deep South and coastal bend. … The daily $PM_{2.5}$ AQI could remain in the lower end of the "Unhealthy for Sensitive Groups" range in parts of the Brownsville-McAllen and Corpus Christi areas…
04/28/2024	National Seashore	The aforementioned front will slowly traverse eastward Sunday as moisture remains abundant in the eastern half of Texas. While advection of light to moderate residual smoke out of Mexico will likely continue, breezy winds and scattered showers/thunderstorms in the Central, North Central and Northeast regions could provide pollutant dispersion, possibly keeping $PM_{2.5}$ concentrations somewhat tempered at times. Additionally, model guidance continues to suggest the Deep South and portions of the coastal bend could see higher density smoke compared to the rest of the affected areas.

C.10: GROUP 10 – MAY 7 THROUGH MAY 10, 2024

Table C-9: TCEQ Air Quality Forecast Discussions for May 7 through May10, 2024

Date	Monitor	Summary of Applicable Information
5/7/2024	Webberville	Moderate density smoke was seen over eastern and southern Mexico as well as the eastern gulf. The smoke was also seen extending north into the central U.S., where it likely mingled with smoke produced from the fire activity

Date	Monitor	Summary of Applicable Information
		throughout the southern U.S. The smoke extended through Texas and Oklahoma. Light to moderate winds could increase urban haze in the more populated areas, and combined with high relative humidity will likely keep elevated fine particulate matter widespread.
5/8/2024	North Hills	With residual smoke forecast to remain widespread, combining with large amounts of moisture could keep fine particulate concentrations elevated in most of the affected regions.
5/9/2024	Webberville, National Seashore	Southerly winds ahead of the front will continue advecting residual smoke and high relative humidity into the eastern half of Texas, but northerly winds behind the front will assist in pushing the highest smoke and humidity levels farther south toward the South Central, Deep South, and coastal regions. The daily $PM_{2.5}$ AQI is forecast to increase into the middle to upper end of the "Moderate" range in parts of the Austin, Beaumont-Port Arthur, Brownsville-McAllen, Bryan-College Station, Corpus Christi, Houston, Laredo, San Antonio, and Victoria areas …
5/10/2024	National Seashore	Relative humidity levels will quickly retreat toward the gulf; however, model guidance suggests the residual smoke that has been affecting the state the last several days will advect more slowly. Fine particulate matter will remain elevated in some areas but will likely be mostly isolated to the southern and coastal areas.

C.11: GROUP 11 – MAY 16, 2024

Table C-10: TCEQ Air Quality Forecast Discussions for May 16, 2024

Date	Monitor	Summary of Applicable Information
5/16/2024	National Seashore	Slightly elevated urban fine particulate levels associated with light winds and limited vertical mixing could be enough to raise the daily $PM_{2.5}$ AQI to the lower end of the "Moderate" range in parts of the Austin, Beaumont-Port Arthur, Brownsville-McAllen, Dallas-Fort Worth, El Paso, Houston, and San Antonio areas and to the upper end of the "Good" range (perhaps with an isolated low "Moderate") for the majority of the Bryan-College Station, Corpus Christi, Laredo, Tyler-Longview, Victoria, and Waco-Killeen areas.

C.12: GROUP 12 – MAY 19 THROUGH MAY 28, 2024

Table C-11: TCEQ Air Quality Forecast Discussions for May 19 through May 28, 2024

Date	Monitor	Summary of Applicable Information
5/19/2024	National Seashore	The combination of elevated relative humidity levels and urban fine particulate background aerosols, associated with light winds and continental haze, are forecast to continue

Date	Monitor	Summary of Applicable Information
		contributing towards elevating $PM_{2.5}$ concentrations, mainly for the eastern two-thirds of the state.
5/20/2024	National Seashore	Light to moderate residual smoke from a combination of widespread seasonal burning activities throughout central-southern Mexico, the Yucatan Peninsula, and Central America along with aerosols from industrial sources in Mexico as well as gas flaring activities in the southwest gulf are expanding across the state with the exception of far West Texas and the Texas Panhandle with the heaviest density smoke over deep South Texas, the lower Rio Grande Valley region, and the lower coastline of Texas.
5/21/2024	National Seashore, Webberville	Moderate density residual smoke from a combination of widespread seasonal burning activities throughout central-southern Mexico, the Yucatan Peninsula, and Central America along with aerosols from industrial sources in Mexico as well as gas flaring activities in the southwest gulf is beginning to filter across South Central Texas, Southeast Texas, North Central Texas, the upper Rio Grande Valley, and possibly reach portions of the Big Bend region as well as the Permian Basin.
5/22/2024	Webberville	More moderate density residual smoke is still expected to continue filtering over deep South Texas and the lower Texas coastline this afternoon and continue lingering over the entire state with the exception of the Texas Panhandle and far West Texas. Elevated relative humidity levels will continue contributing towards elevating $PM_{2.5}$ concentrations, mainly for the eastern two-thirds of the state.
5/23/2024	National Seashore, Webberville	More moderate to higher density residual smoke from a combination of the widespread seasonal burning activities throughout central-southern Mexico, the Yucatan Peninsula, and Central America along with aerosols from industrial sources in Mexico as well as gas flaring activities in the southwest gulf is expected to begin filtering over deep South Texas, the lower coastline of Texas, and the lower Rio Grande Valley with the moderate density smoke continuing to linger over the rest of the state with the exception of far West Texas.
5/24/2024	National Seashore, Webberville	Higher density residual smoke from widespread seasonal burning activities throughout central-southern Mexico, the Yucatan Peninsula, and Central America along with aerosols from industrial sources in Mexico are beginning to filter over deep South Texas and the lower coastal bend of Texas. Moderate density smoke is expanding over the South Central, Southwest, North Central, and Southeast Texas as well as the Big Bend region with lighter density smoke over Northeast Texas.

Date	Monitor	Summary of Applicable Information
5/25/2024	National Seashore, Webberville	The moderate to higher density residual smoke from the widespread seasonal burning activities throughout central-southern Mexico, the Yucatan Peninsula, and Central America along with aerosols from industrial sources in Mexico are expected to continue filtering over deep South Texas and the lower coastal bend of Texas while expanding over the lower Rio Grande Valley, South Central as well as North Central Texas…
5/26/2024	National Seashore, Webberville	Model guidance suggests that the hazy conditions associated with the moderate density residual smoke from the widespread seasonal burning activities throughout central-southern Mexico, the Yucatan Peninsula, and Central America along with aerosols from industrial sources in Mexico will continue to filter and linger over the majority of the state…
5/27/2024	National Seashore	Elevated relative humidity levels; however, are expected to continue contributing towards elevating $PM_{2.5}$ concentrations for the eastern two-thirds of the state. The overall daily $PM_{2.5}$ AQI is forecast to reach the lower end of the "Unhealthy for Sensitive Groups" range in parts of the Brownsville-McAllen area, particularly over South Padre Island; the middle to upper end of the "Moderate" range in parts of the Austin, Corpus Christi, Laredo, San Antonio, and Victoria areas …
5/28/2024	National Seashore	A large area of medium to heavy density residual smoke associated with widespread seasonal burning activities throughout central-southern Mexico, the Yucatan Peninsula, and Central America along with aerosols from industrial sources in Mexico combined with elevated relative humidity levels over the entirety of the state, with the exception of far West Texas, are forecast to be enough to raise the overall daily $PM_{2.5}$ AQI to the lower to middle end of the "Unhealthy for Sensitive Groups" range in parts of the Brownsville-McAllen area, particularly over South Padre Island as well as parts of the Austin, Corpus Christi, and San Antonio areas …

C.13: GROUP 13 – JUNE 3 THROUGH JUNE 6, 2024

Table C-12: TCEQ Air Quality Forecast Discussions for June 3, through June 6, 2024

Date	Monitor	Summary of Applicable Information
6/3/2024	National Seashore	Residual smoke from widespread seasonal burning activities throughout central-southern Mexico, the Yucatan Peninsula, and Central America along with industrial sources in Mexico, at least light patches have extended over most of the state…

Date	Monitor	Summary of Applicable Information
		… In addition to elevated relative humidity levels over the eastern two-thirds of the state and some slightly increased Urban fine particulate background levels associated with lighter winds for some areas, the overall daily $PM_{2.5}$ AQI is forecast to rise to the lower to middle of the "Unhealthy for Sensitive Groups" range in parts of the Brownsville-McAllen (particularly over South Padre Island area) and Corpus Christi areas …
6/4/2024	National Seashore, Webberville	The coverage of the residual smoke from widespread seasonal burning activities throughout central-southern Mexico, the Yucatan Peninsula, and Central America along with industrial sources in Mexico remains over a large portion of the eastern two thirds but has somewhat retreated from the Panhandle and Permian Basin. … the overall daily $PM_{2.5}$ AQI is forecast to rise to the lower to middle of the "Unhealthy for Sensitive Groups" range in parts of the Brownsville-McAllen and Corpus Christi areas; to the upper end of the "Moderate" range (or possibly higher) in parts of the Austin, Laredo, San Antonio, and Victoria areas …
6/5/2024	National Seashore	Depending on the burning activity in Mexico and Central America, surface winds will likely continue to transport light to moderate density smoke northward with at least light patches affecting most parts of the state. … The daily $PM_{2.5}$ AQI is forecast to reach the lower end of the "Unhealthy" range in parts of the Brownsville-McAllen (particularly over South Padre Island area) and Corpus Christi areas….
6/6/2024	National Seashore	Model guidance suggests Numerous smoke plumes related to agricultural burning were observed across much of Mexico and adjacent Central America. This smoke combined with a large amount of remnant smoke, as well as aerosols from a variety of sources, created a large mass of light to moderate density smoke covering much of Mexico, the south-central United States, and gulf. Additionally, light to moderate winds could also contribute urban fine particulate matter in the North, Central, and Southeast regions.

C.14: GROUP 14 – JULY 30 THROUGH AUGUST 1, 2024

Table C-13: TCEQ Air Quality Forecast Discussions for July 30 through August 1,2024

Date	Monitor	Summary of Applicable Information
7/30/2024	National Seashore	The lighter to moderate density portion of a heavily dense plume of Saharan dust will continue spreading inland through Texas, possibly impacting spots at varying intensities generally along and east of a line from Laredo to

Date	Monitor	Summary of Applicable Information
		just south of Dallas, with the highest concentrations remaining along the southern Texas coastline and out over the western gulf.
7/31/2024	National Seashore, Webberville	The higher density portion of the Saharan dust plume has begun to move on shore along the southern and southeast coast and is forecast to gradually advect farther north and west into the state, as significantly increased impacts become more ubiquitous particularly in the eastern half of Texas. Hourly concentrations could begin spiking into the "Unhealthy" range in the deep South (especially over South Padre Island) and into the "Unhealthy for Sensitive Groups" range in the South Central, Southeast, and coastal bend regions. With widespread haze expected, the daily $PM_{2.5}$ AQI is forecast to reach the middle of the "Unhealthy for Sensitive Groups" range in parts of the Brownsville-McAllen, Corpus Christi, and Laredo areas, the lower end of the "Unhealthy for Sensitive Groups" range in parts of the Austin, Houston, and San Antonio areas …
8/1/2024	Webberville	The plume of Saharan dust is expected to further dissipate in the eastern two thirds of the state while spreading farther westward into the western third.