



*Texas Commission on Environmental Quality*

August 5, 2025

# Summary of 2023 Exceptional Event Demonstration for Fine Particulate Matter at Atascosa, Hidalgo, Tarrant, and Webb Counties

## Background on Particulate Matter

The U.S. Environmental Protection Agency (EPA) sets health-based standards for the amount of very small particles, also known as particulate matter, allowed in the air. Fine particulate matter is made up of particles that are 2.5 micrometers and smaller (PM<sub>2.5</sub>), much smaller than the width of a human hair. Breathing air with high levels of particulate matter can cause health problems.

## Exceptional Events Caused Elevated Concentrations of PM<sub>2.5</sub>

Exceptional events are unusual or naturally occurring events that affect air quality and are not reasonably controllable or preventable. States can request that EPA not consider air quality data affected by an exceptional event when determining if an area met an air quality health standard. EPA has stated that events that affect air quality such as wildfires, prescribed fires, high winds blowing dust, dust from the Saharan Desert, fireworks to celebrate days such as July 4<sup>th</sup>, etc., can be considered exceptional events. In 2023, air quality in Atascosa, Hidalgo, Tarrant, and Webb Counties were impacted by PM<sub>2.5</sub> exceptional events on multiple dates. Below is a list of locations, dates, and the type of exceptional event that the Texas Commission on Environmental Quality (TCEQ) identified as affecting air quality.

| Date              | Location (County)           | Type of Event                              |
|-------------------|-----------------------------|--|
| January 2-3, 2023 | Hidalgo                     | Smoke from fires in Mexico/Central America |
| February 26, 2023 | Tarrant                     | High winds blowing dust                    |
| February 27, 2023 | Tarrant                     | Smoke from fires in Mexico/Central America |
| March 1-2, 2023   | Hidalgo                     | Smoke from fires in Mexico/Central America |
| March 27, 2023    | Hidalgo                     | Smoke from fires in Mexico/Central America |
| April 4, 2023     | Hidalgo                     | Smoke from fires in Mexico/Central America |
| April 15, 2023    | Hidalgo                     | Smoke from fires in Mexico/Central America |
| May 5, 2023       | Hidalgo and Webb            | Smoke from fires in Mexico/Central America |
| May 6, 2023       | Atascosa, Hidalgo, and Webb | Smoke from fires in Mexico/Central America |
| May 11, 2023      | Hidalgo                     | Smoke from fires in Mexico/Central America |
| May 12, 2023      | Hidalgo, Tarrant, and Webb  | Smoke from fires in Mexico/Central America |
| June 14-15, 2023  | Tarrant                     | Smoke from fires in Mexico/Central America |

| Date             | Location (County) | Type of Event                              |
|------------------|-------------------|--|
| June 15-16, 2023 | Webb              | Smoke from fires in Mexico/Central America |
| July 15-16, 2023 | Hidalgo           | Dust from Saharan desert                   |
| July 26-27, 2023 | Hidalgo           | Dust from Saharan desert                   |

Due to these exceptional events, the levels of PM<sub>2.5</sub> at monitors within these counties were not reasonably controllable or preventable. TCEQ plans to submit an exceptional event demonstration to EPA to exclude monitor data from these days.

### Analyses to Support the Demonstration

Analyses of data related to the proposed exceptional events from 2023 at Atascosa, Hidalgo, Tarrant, and Webb Counties show that the measured PM<sub>2.5</sub> concentrations:

- were not reasonably controllable or preventable,
- were associated with natural events or human activity unlikely to recur at a particular location, and
- exceeded normal historical fluctuations.

### EPA Decides Whether Standards Were Met

If EPA agrees with the demonstration for 2023 days at Atascosa, Hidalgo, Tarrant, and Webb Counties, the PM<sub>2.5</sub> concentrations on the referenced dates would not be considered when EPA determines whether the affected counties met the PM<sub>2.5</sub> health-based standard.