



Texas Commission on Environmental Quality

August 5, 2025

Summary of 2022 Exceptional Event Demonstration for Fine Particulate Matter at Atascosa, Hidalgo, Nueces, 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_{2.5}), 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_{2.5}

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 4th, etc., can be considered exceptional events. In 2022, air quality in Atascosa, Hidalgo, Nueces, Tarrant, and Webb Counties were impacted by PM_{2.5} 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
May 5, 2022	Webb	Smoke from fires in Mexico/Central America
May 8, 2022	Atascosa and Webb	Smoke from fires in Mexico/Central America
May 9, 2022	Tarrant and Webb	Smoke from fires in Mexico/Central America
May 20, 2022	Atascosa, Tarrant, and Webb	Smoke from fires in Mexico/Central America
May 21, 2022	Atascosa and Webb	Smoke from fires in Mexico/Central America
June 12, 2022	Hidalgo and Nueces	Dust from Saharan desert
June 13, 2022	Atascosa, Hidalgo, Tarrant, and Webb	Dust from Saharan desert
June 14, 2022	Atascosa, Tarrant, and Travis	Dust from Saharan desert
June 15, 2022	Hidalgo	Dust from Saharan desert
June 16, 2022	Atascosa, Hidalgo, Nueces, Tarrant, and Webb	Dust from Saharan desert
June 17, 2022	Hidalgo and Tarrant	Dust from Saharan desert

Date	Location (County)	Type of Event
July 16, 2022	Hidalgo and Webb	Dust from Saharan desert
July 17, 2022	Atascosa, Hidalgo, Tarrant, and Webb	Dust from Saharan desert
July 18, 2022	Tarrant	Dust from Saharan desert
October 3, 2022	Tarrant	Smoke from prescribed fires in U.S.

Due to these exceptional events, the levels of PM_{2.5} 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 2022 at Atascosa, Hidalgo, Nueces, Tarrant, and Webb Counties show that the measured PM_{2.5} 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 the 2022 days at Atascosa, Hidalgo, Nueces, Tarrant, and Webb Counties, the PM_{2.5} concentrations on the referenced dates would not be considered when EPA determines whether the affected counties met the PM_{2.5} health-based standard.