

Preliminary Study

Moab vs Grand Junction Air Quality Comparison and Analysis

Bill Agee

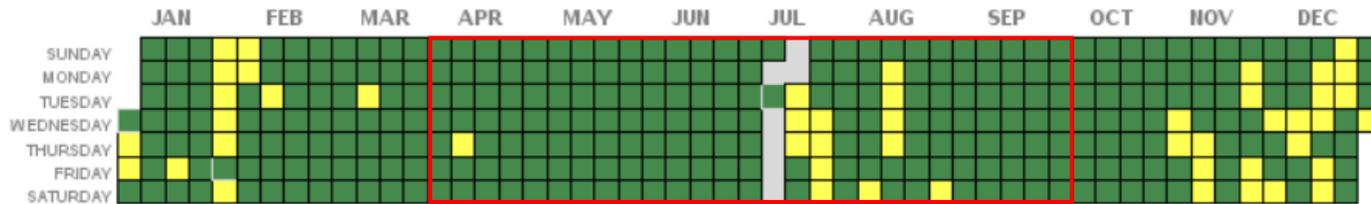
Jan 26, 2026

621 Millcreek Dr

Moab UT

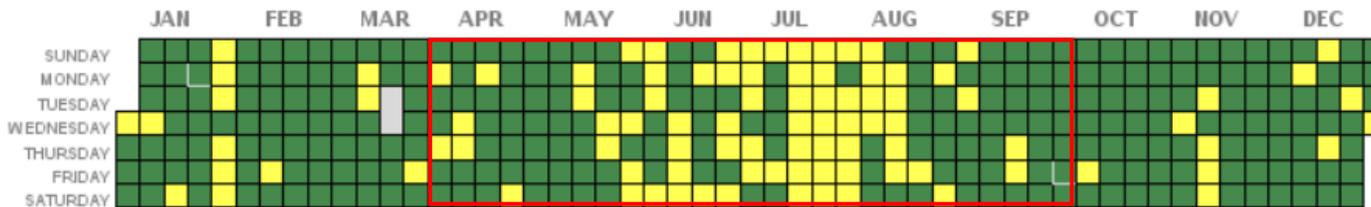
Air Quality PM2.5 – Moderate Days as an Indicator

Grand Junction CO

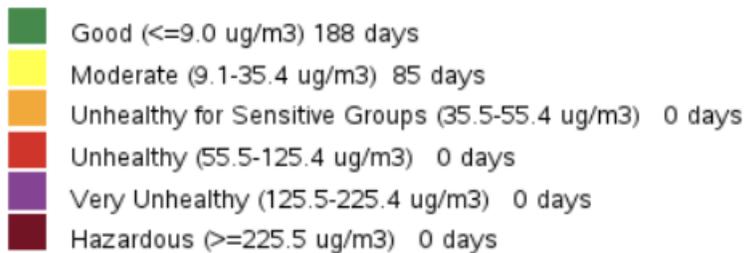


Moderate AQ
Annual - 50 Days
Tourist 6 mo – 17 Days

Moab UT



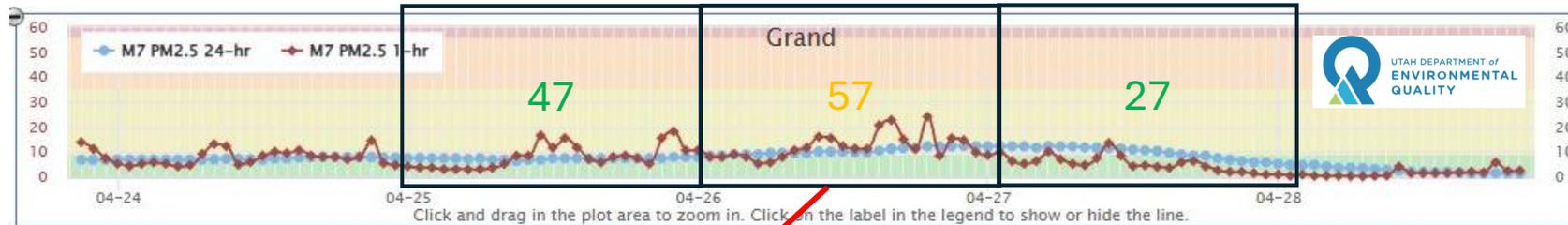
Moderate AQ
Annual – 96 Days
Tourist 6 mo – 62 Days



PM2.5 – Particulate Matter 2.5 microns
Source: U.S. EPA AirData <<https://www.epa.gov/air-data>>
Generated: October 6, 2025

Air Quality PM2.5 - 1 hr vs 24 hr weighting

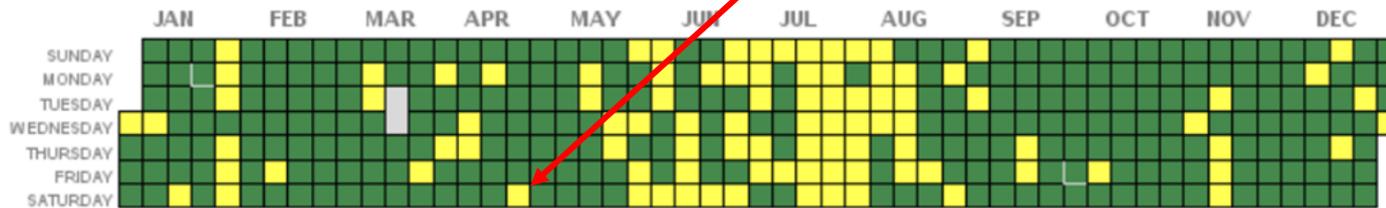
Moab April 24 – 28 (UDAQ)



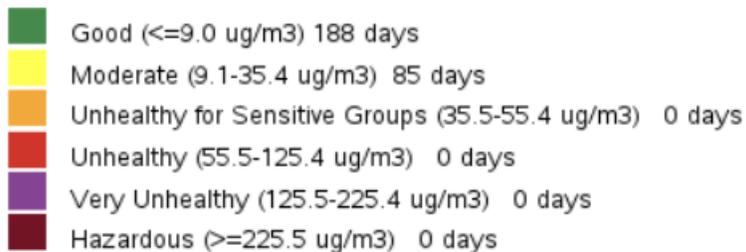
Moderate AQ = 50+ units
 1hr has many spikes
 24hr smooths out the spikes

Spikes = higher exposure
 Distorts exposure risks

Moab UT (EPA)



Moderate AQ
 Moab – 96 Days
 24 hr Weighting



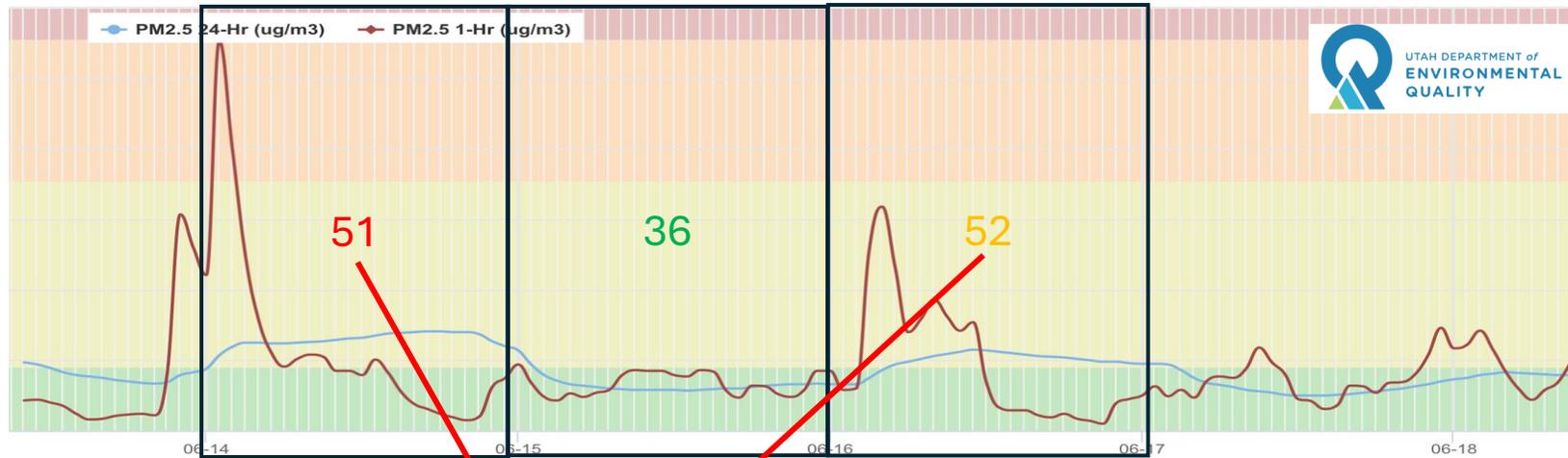
Gray outline indicates AirNow data source

Source: Utah Department of Air Quality

Source: U.S. EPA AirData <<https://www.epa.gov/air-data>>

Generated: January 26, 2026

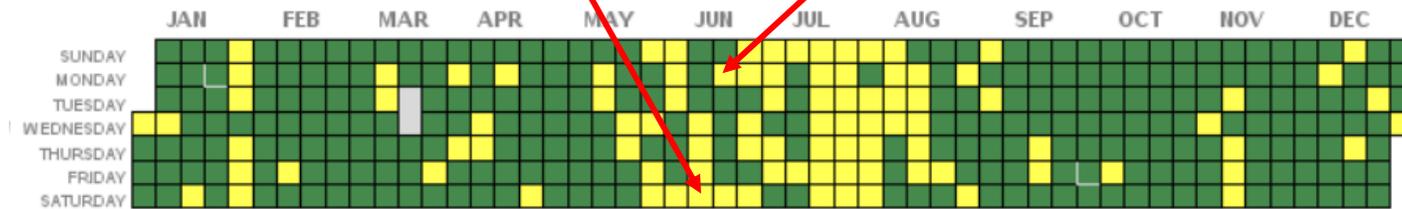
Air Quality PM2.5 - Moab April 24 - 28



June 14th = 51 Units
spikes are unhealthy levels

June 16th = 52 Units
spikes are moderate levels

AQ smoothing conceals high exposure levels
Higher exposure should be concerning



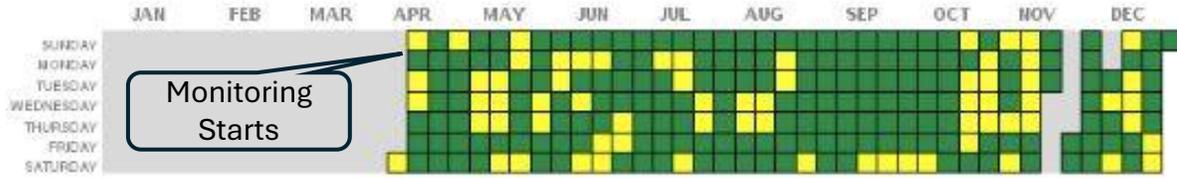
□ gray outline indicates AirNow data source

- Good (≤ 9.0 ug/m³) 188 days
- Moderate (9.1-35.4 ug/m³) 85 days
- Unhealthy for Sensitive Groups (35.5-55.4 ug/m³) 0 days
- Unhealthy (55.5-125.4 ug/m³) 0 days
- Very Unhealthy (125.5-225.4 ug/m³) 0 days
- Hazardous (≥ 225.5 ug/m³) 0 days

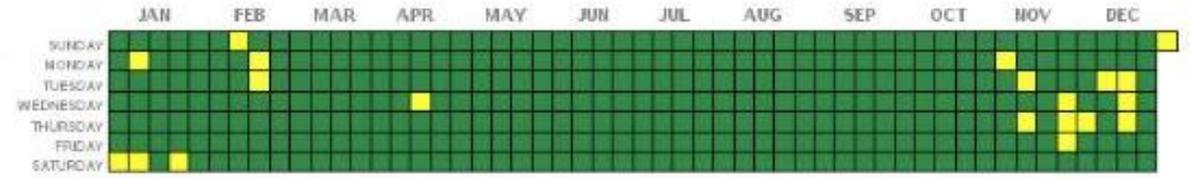
This method of reporting underrepresents exposure risks

Air Quality PM2.5 – 2023, 2024 & 2025 Moab vs Grand Junction

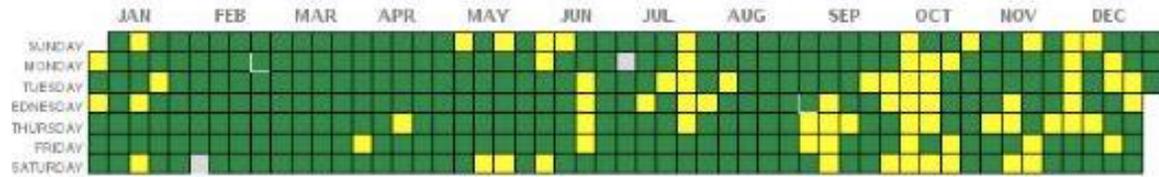
Moab 2023



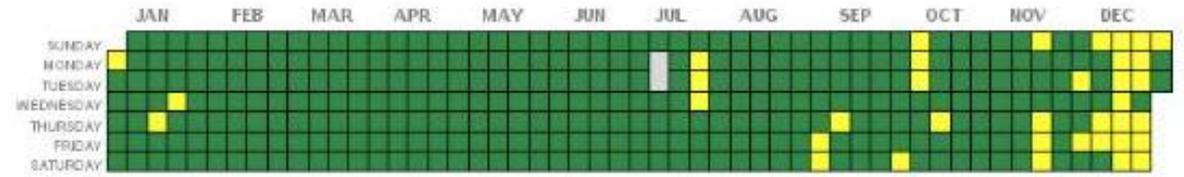
Grand Junction 2023



Moab 2024

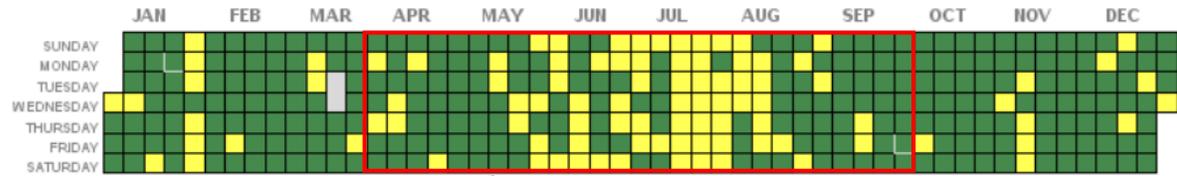


Grand Junction 2024



gray outline indicates AirNow data source

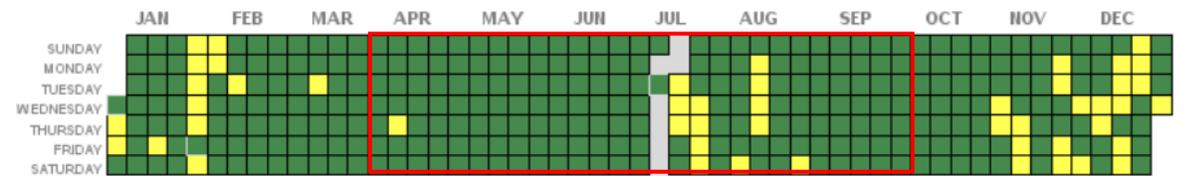
Moab 2025



Heavy Tourist Mos – 62 days

gray outline indicates AirNow data source

Grand Junction 2025



Heavy Tourist Mos – 17 days

gray outline indicates AirNow data source

Locations: Air Quality Monitoring Stations

Moab Air Quality Monitoring Station



Source: Utah Department of Air Quality



Grand Junction Air Quality Monitoring Station



Source: Colorado Department of Air Quality



General Observations

- Moab's air quality is poorer than Grand Junction (April 2023 – Dec 2025)
 - Based on the number of “moderate” air quality days (258 vs 100 days) per EPA data (33 mos)
 - PM 2.5 is fine inhalable particles, with diameters that are generally 2.5 micrometers and smaller
 - PM 2.5 particles are pollutants emitted from power plants, industries, automobiles (including OHVs)
- PM2.5 are harmful
 - Microscopic solids or liquid droplets that can be inhaled and cause serious health problems
 - Particles less than 10 micrometers in diameter can get deep into your lungs and some may enter your bloodstream
 - Particles less than 2.5 micrometers in diameter, also known as fine particles or PM_{2.5}, pose the greatest risk to health
- What is the difference
 - Grand Junction Population = 70,000 (10x Moab)
 - GJ monitoring station is in a more congested area
 - OHV traffic is a significant component of Millcreek
- Why are we concerned
 - This is a multi-year trend 2023, 2024 & 2025
 - Tourist season (April-Sept) expose residents to ultra high levels of PM 2.5
 - Moderate levels of Air Quality understate the impact to residents (see spikes)
 - Residential areas are being exposed to unhealthy levels of vehicle generated pollutants
 - This is should be considered a public health matter that requires immediate remedies and deeper study