



Navajo Nation EPA Air Quality Control Program

Air Monitoring



WHY DO WE MONITOR?

Navajo Nation Environmental Protection Agency Air Quality Control Program was developed to protect, preserve, and enhance the Navajo Nation air resources.

WHAT DO WE MONITOR?

- Particulate Matter (PM₁₀ and PM_{2.5})
- Sulfur Dioxide (SO₂)
- Nitrogen Dioxide (NO₂)
- Ozone (O₃)
- Hydrogen Sulfide (H₂S)

AIR MONITORS

- Federal Reference Method (FRM) PM_{2.5}
- Gaseous Analyzers
- Environmental Beta Attenuation Monitor (E-BAM)
- Meteorological Tower (MET)

WHAT IS MEASURED ON THE NAVAJO NATION

POLLUTANT	LEVEL	AVERAGING TIME	PRIMARY/SECONDARY
1. Carbon Monoxide	9 ppm (10 mg/m ³)	8-hour	primary
	35 ppm (40 mg/m ³)	1-hour	
2. Lead	0.15 µg/m ³	3 month	primary & secondary
3. Nitrogen Dioxide	53 ppb (100 µg/m ³)	Annual	primary & secondary
	100 ppb	1-hour	
4. Particulate Matter (PM ₁₀)	150 µg/m ³	24-hour	primary & secondary
	12 µg/m ³	Annual	
	15 µg/m ³	Annual	
5. Ozone	35 µg/m ³	24-hour	primary & secondary
	0.070 ppm	8-hour	
6. Sulfur Dioxide	75 ppb	1-hour	primary
	0.5 ppm	3-hour	



MET TOWER

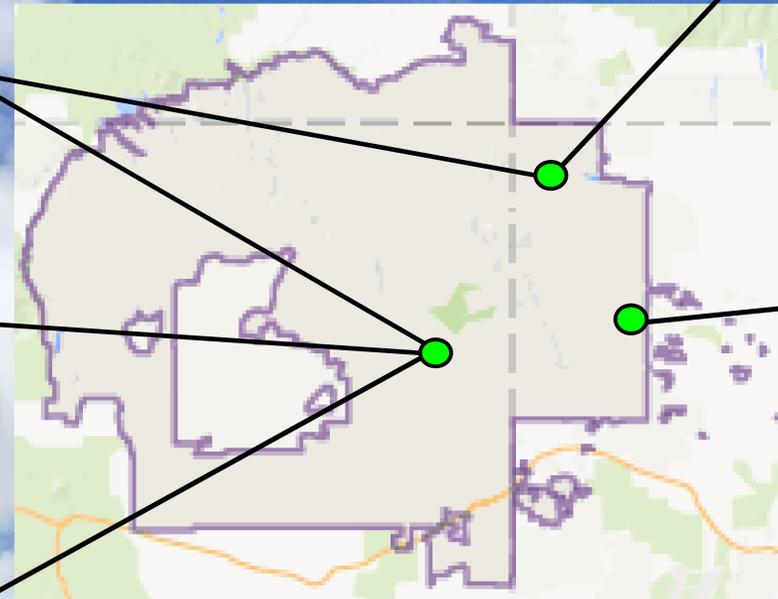


FRM PM_{2.5}



NAZLINI, AZ

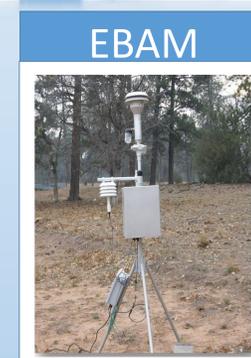
Ambient Air Monitoring Sites



SHIPROCK, NM



COUNSELOR, NM



EBAM

Air Quality Control Program & Operating Permit Program
 Navajo Route 112 North Bldg. 2427
 P.O. Box 529
 Fort Defiance, AZ 86504

Telephone: (928) 729-4246 Fax: (928) 729-4323
 Website: www.navajonationepa.org/airquality
 Email: airquality@navajo-nsn.gov

HOW ARE MONITORING SITES CHOSEN?

The Shiprock monitoring site was chosen based on population density and pollution sources. The Nazlini monitoring site represents background concentrations on the Navajo Nation. FRM PM_{2.5} monitors are collocated in Nazlini so duplicate sampling is observed to ensure data precision.

HEALTH EFFECTS

Possible Health Effects may include:

- Coughing and wheezing
- Dry throat
- Irritation of mucous membranes
- Headache
- Nausea
- Asthma

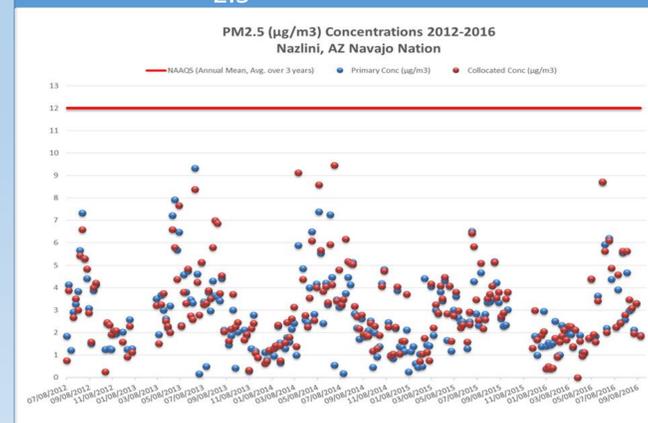
WHAT CAN THE PUBLIC DO?

- File an Open Burn complaint
- Request air monitoring in their community
- Request outreach and public education
- During natural disasters our program can set up portable EBAM monitors to monitor events.

AIR QUALITY INDEX

Air Quality Index (AQI) Values	Levels of Health Concern	Health Effects
0 to 50	Good	Little or no risk
51 to 100	Moderate	Acceptable quality
101 to 150	Unhealthy for Sensitive Groups	General Public not likely affected
151 to 200	Unhealthy	All may experience some effects
201 to 300	Very Unhealthy	All may experience more serious effects
301 to 500	Hazardous	Emergency conditions

NAZLINI, AZ PM_{2.5} Concentrations



SHIPROCK, NM Gaseous Pollutant Concentrations

