

SOUTHERN UTE INDIAN TRIBE

AMBIENT MONITORING

2022

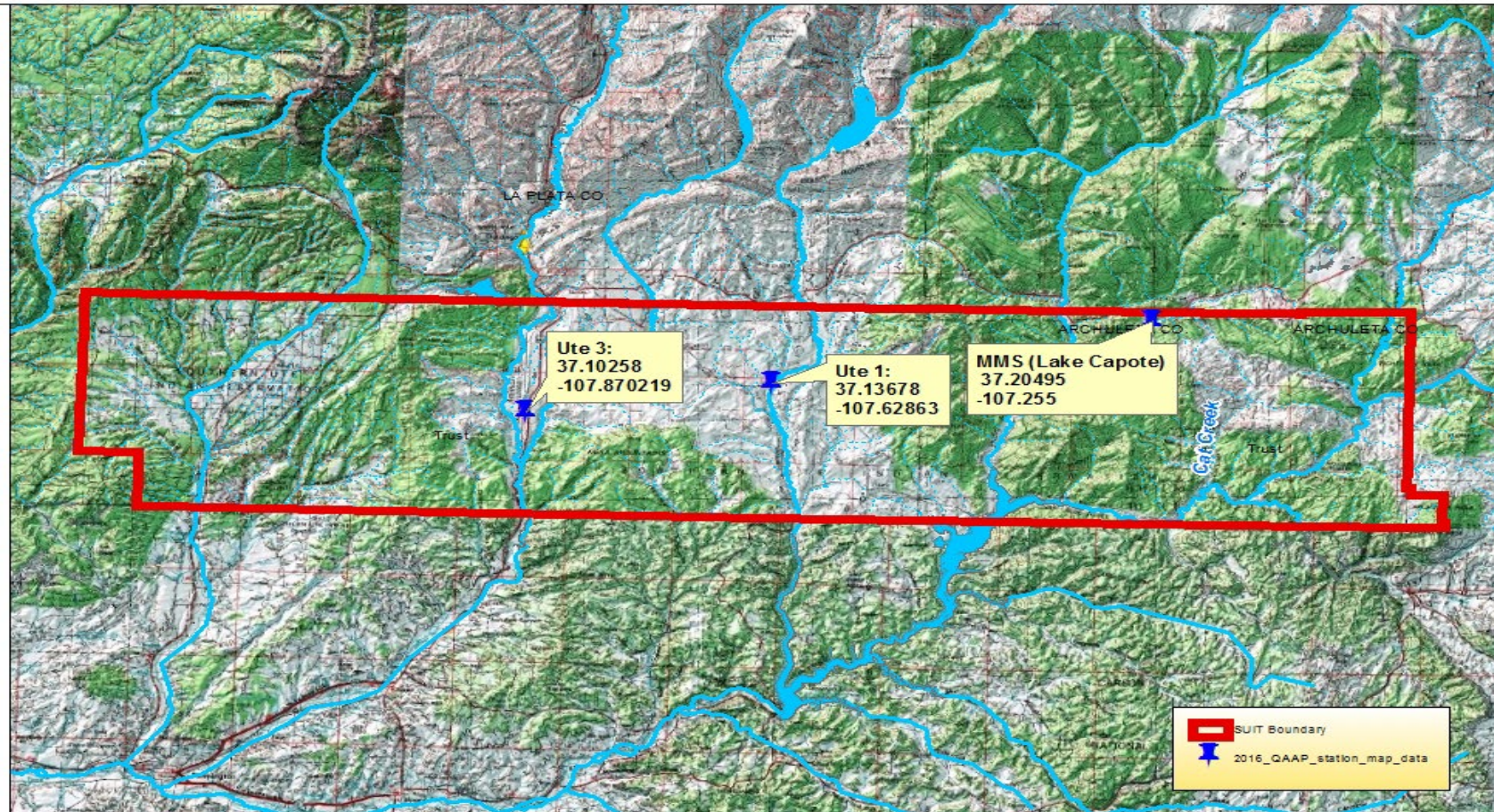
Jacob Henry, Air Quality Technician
John Volkerding, Air Quality Technical Manager

2022 AMBIENT MONITORING

- Air monitoring stations:
 - **Ute 1** (Ignacio)
 - **Ute 3** (Bondad)
 - **Mobile Monitoring Station** (Lake Capote)
- Criteria pollutants measured:
 - Ozone
 - Nitrogen Dioxide
 - Carbon Monoxide (Ute 1 and 3)
 - Sulfur Dioxide (Lake Capote)
 - PM10 (Ute 1 & 3)
 - PM2.5 (Ute 1 & 3)
 - Methane/NMHC
- Meteorological conditions measured:
 - Wind speed and direction
 - Relative humidity
 - Ambient temperature
 - Pressure
 - Solar radiation
 - Precipitation (Ute 1 and 3)
 - Visibility (Ute 3)

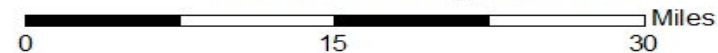


RESERVATION MONITORING SITE LOCATIONS



Chris Ellis
Air Quality Analyst
AQP / EPD
11/08/2017

Air Monitoring Stations



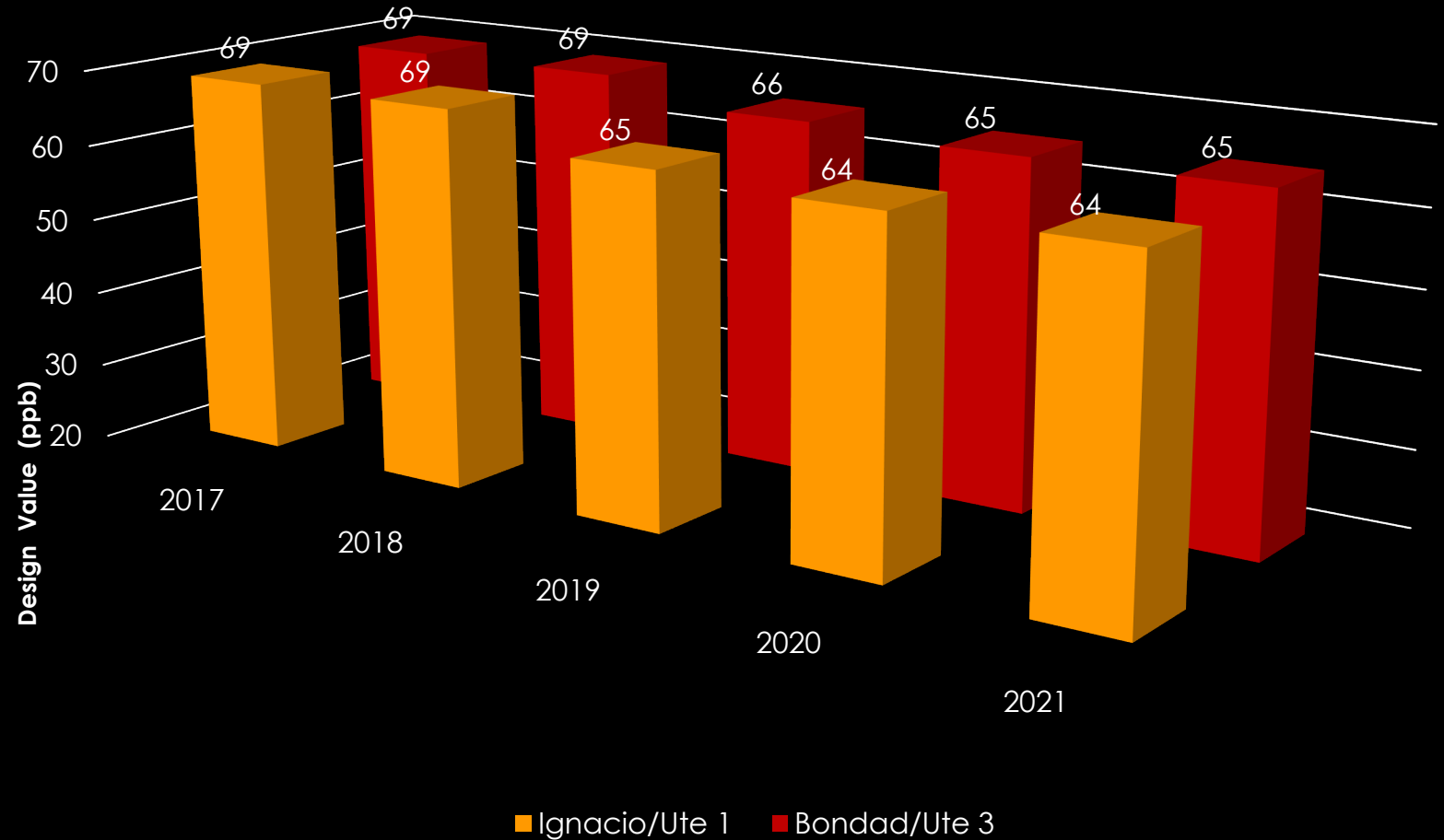
AMBIENT MONITORING 2017 – 2021

OZONE DESIGN VALUES

**National Ambient Air Quality Standard:
(NAAQS) O₃: 70 ppb**

Ozone Design Values (Fourth highest maximum averaged over a three-year period): Design Values are calculated for each air monitoring station within a county. The highest values reported by an air monitoring station in that county is the Design Value for that county.

Year	Year 1: 4 th Highest Max	Year 2: 4 th Highest Max	Year 3: 4 th Highest Max	Station
2017	69	71	69	Ute 1
2018	67	69	71	Ute 1
2019	61	67	69	Ute 1
2020	66	61	67	Ute 1
2021	66	66	61	Ute 1
2017	69	72	66	Ute 3
2018	67	69	72	Ute 3
2019	63	67	69	Ute 3
2020	65	63	67	Ute 3
2021	68	65	63	Ute 3



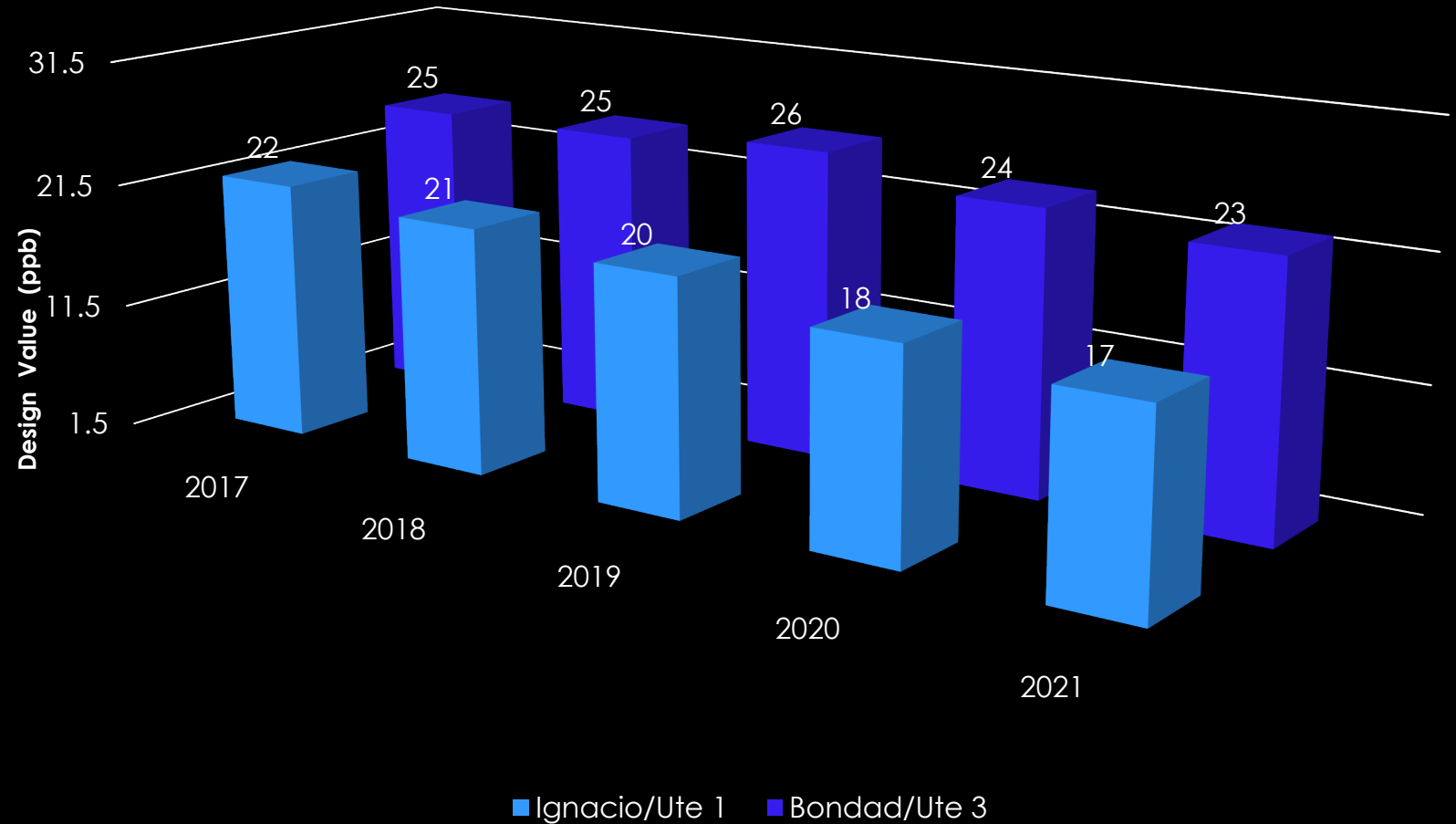
AMBIENT MONITORING 2017 – 2021

NITROGEN DIOXIDE DESIGN VALUES

**National Ambient Air Quality Standard:
(NAAQS) NO₂: 100 ppb**

NO₂ Design Values (Annual 98th percentile of daily 1-hour maximum averaged over a three-year period): Design Values are calculated for each air monitoring station within a county. The highest values reported by an air monitoring station in that county is the Design Value for that county.

Year	Year 1: 98th Percentile	Year 2: 98th Percentile	Year 3: 98th Percentile	Station
2017	22	22.6	22	Ute 1
2018	18.8	22	22.6	Ute 1
2019	20.3	18.8	22	Ute 1
2020	16	20.3	18.8	Ute 1
2021	16.1	16	20.3	Ute 1
2017	26.8	22	25	Ute 3
2018	25.7	26.8	25	Ute 3
2019	26.3	25.7	26.8	Ute 3
2020	20.7	26.3	25.7	Ute 3
2021	22.8	20.7	26.3	Ute 3

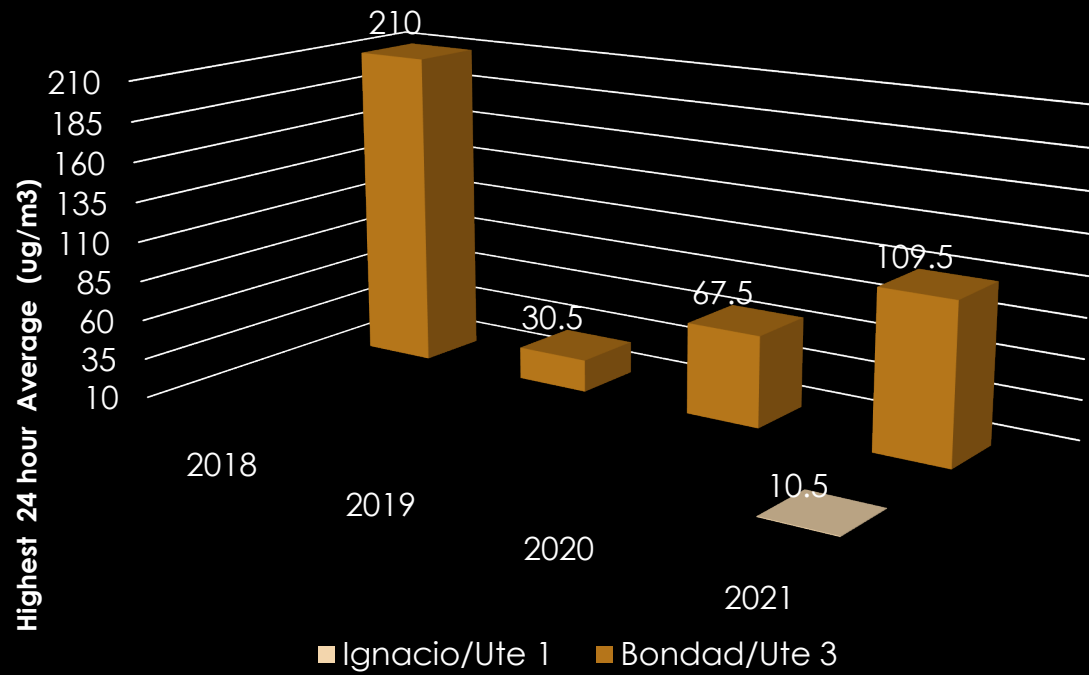


AMBIENT MONITORING 2018 – 2021

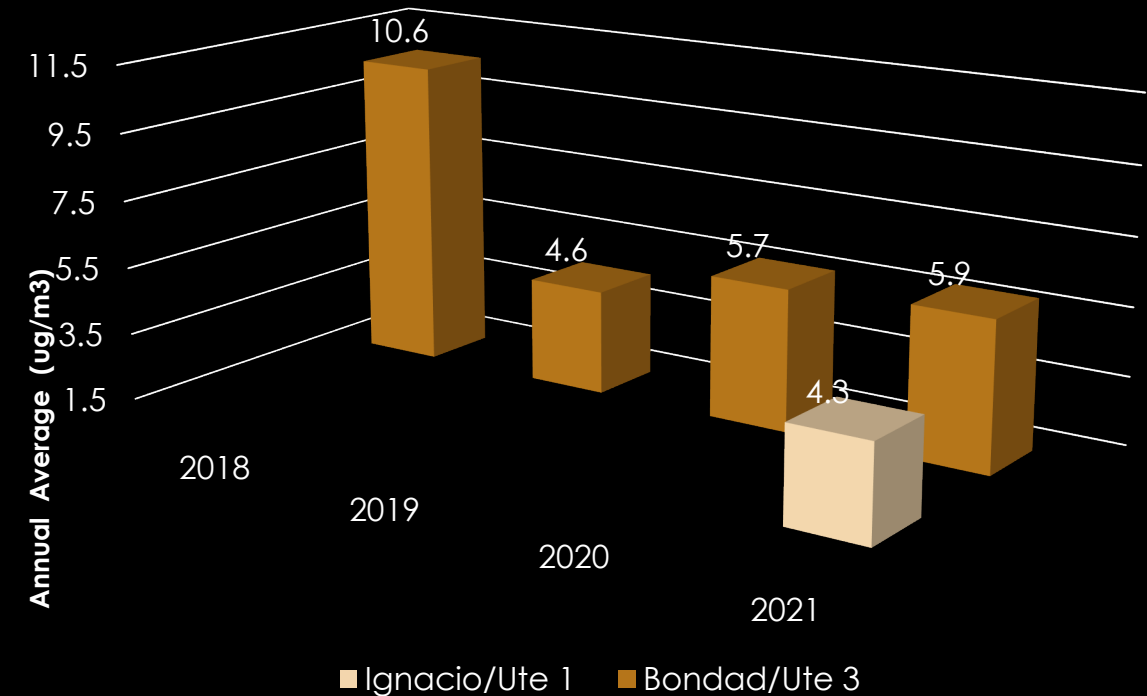
PM-10 ANNUAL AVERAGE VALUES

National Ambient Air Quality Standard:
(NAAQS) PM10 150 $\mu\text{g}/\text{m}^3$ 24 hour average
not to exceed more than once per year on
three-year average

- The higher values in 2018 are from the 416 Fire
- Monitor installed at Ute 1 in 2021

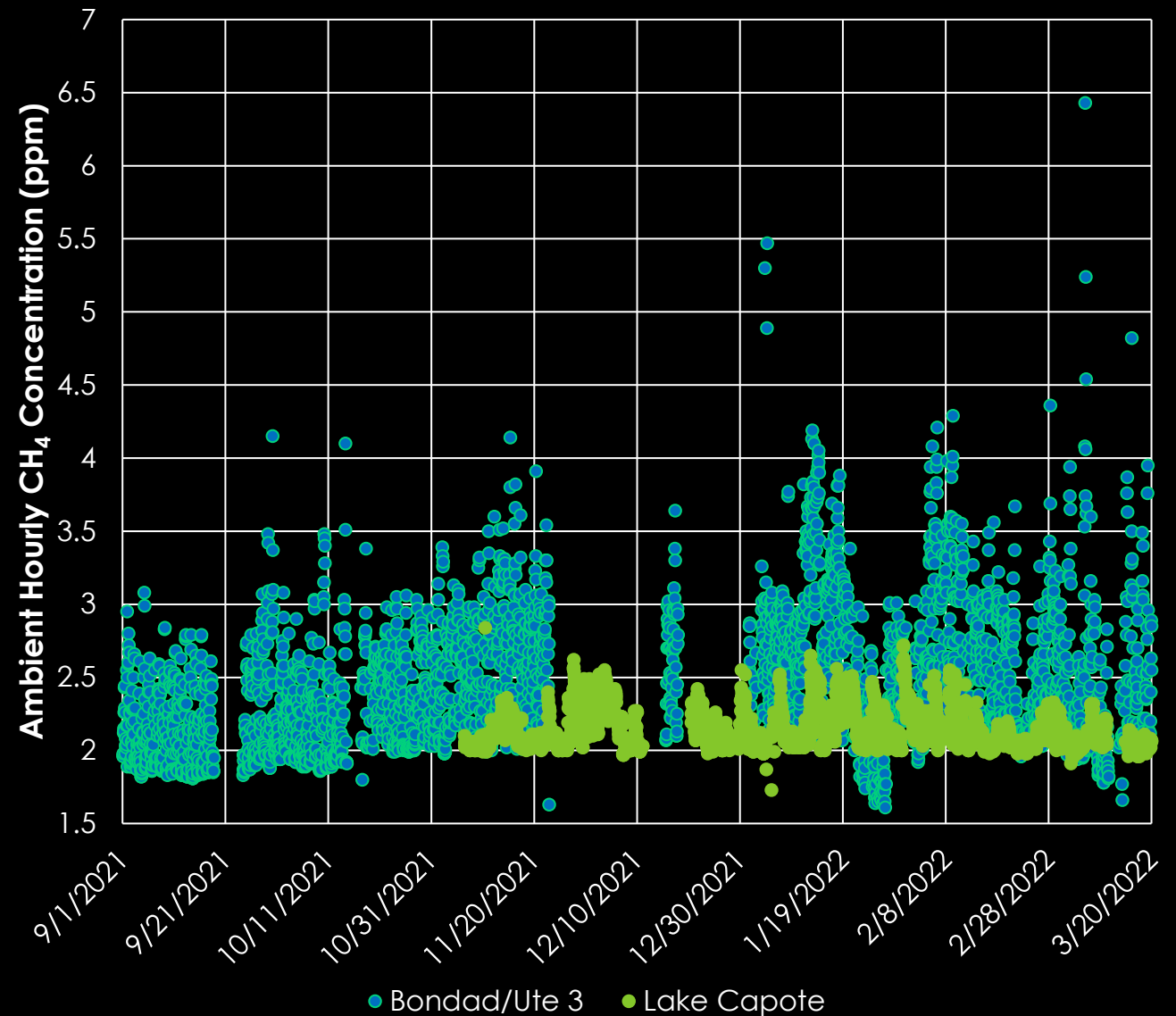


National Ambient Air Quality Standard:
(NAAQS) PM2.5 12 $\mu\text{g}/\text{m}^3$ Annual mean,
averaged over three-year period



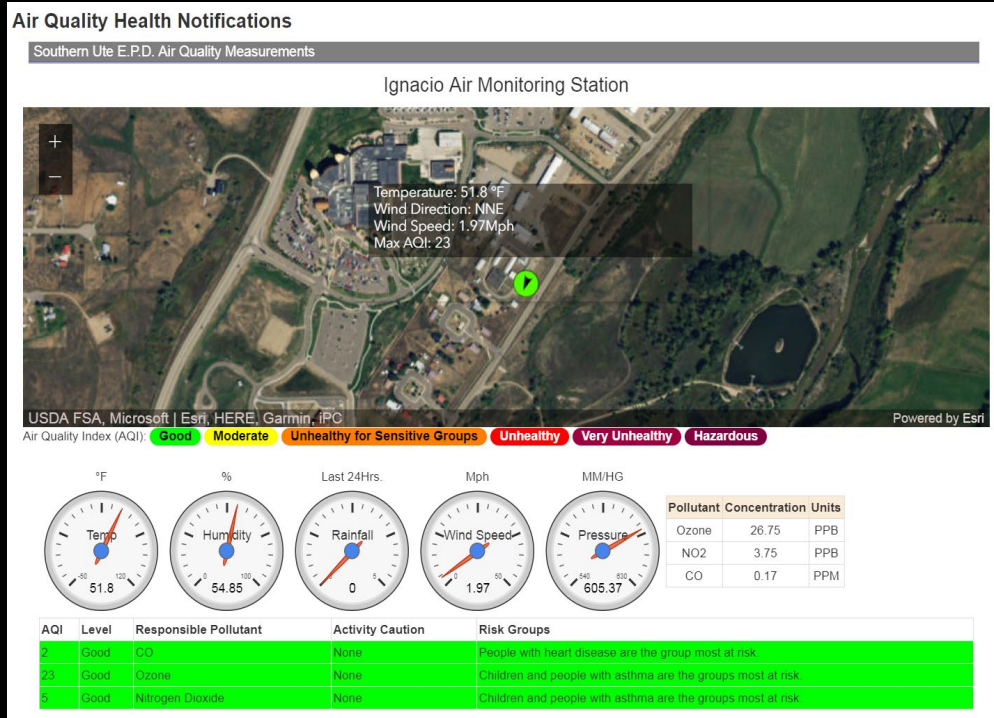
AMBIENT METHANE MONITORING UPDATE

- **Ambient methane is measured at two locations:**
 - Ute 3 air monitoring Station
 - Lake Capote air monitoring station.
- Ambient concentrations at both stations are measured using Thermo Scientific methane and non-methane gas analyzers.
- Average Methane concentrations measured:
 - **Bondad:** 2.4 ppm
 - **Lake Capote:** 2.1 ppm



SOUTHERN UTE INDIAN RESERVATION REAL-TIME AQI AND WEATHER RESOURCES

Southern Ute Air Monitoring web page



US EPA's AirNow Web page: <https://www.airnow.gov/>

