

About Our Program

The Cherokee Nation Clean Air Program consists of an array of air pollution monitoring devices sited on tribal land. There are currently five continuous ambient air monitoring stations measuring criteria pollutant emissions and meteorological data. These sites are located at Tahlequah, Stilwell, Pryor, Roland and Newkirk. Data from each of the sites is uploaded to the EPA Air Quality System (AQS). Data from these sites is also uploaded to AIRNow in near-real-time; this information is used for reporting daily air quality.

Tahlequah

The Tahlequah site (AQS ID 40-021-9002) is located near the Cherokee Nation tribal headquarters. This station monitors for ozone and meteorological parameters. This station is also utilized for educational and environmental awareness for the local tribal schools and universities. The Tahlequah station has been in operation since 1998.

Stilwell (CASTNET & NCore)

This site is located on the grounds of the Dahlenegah School south of Stilwell, and is the largest site operated by the air program (AQS ID 40-001-9009). The CASTNET monitoring network measures concentrations of air pollutants involved in acidic deposition affecting regional ecosystems and rural ambient ozone levels. It is collocated with the rural NCore site, which is part of a national multi-pollutant network that integrates several advanced measurement systems for particles, pollutant gases and meteorology. A continuous Tekran speciated mercury analyzer is also in operation at the site. Other national monitoring programs at this location include the Mercury Deposition Network (MDN), Interagency Monitoring of Protected Visual Environments (IMPROVE), and the Ammonia Monitoring Network (AMoN). The Stilwell site was established in 2002.

Newkirk

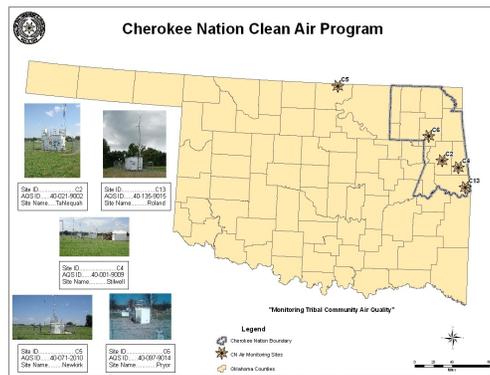
The Newkirk site (AQS ID 40-071-9010) is located on Cherokee Nation tribal lands near the old Chilocco School north of Newkirk, Oklahoma. This site has monitors for ozone and meteorological parameters. The Newkirk site was established in 2003.

Pryor

The Pryor site (AQS ID 40-097-9014) is located in the Cherokee Heights community near the city of Pryor in Mayes County. This site has an ozone analyzer and meteorological instruments; data from this station is utilized to monitor regional air pollution transport from nearby sources that might impact the tribal community.

Roland

The Roland site (AQS ID 40-135-9021) has monitors for ozone, NO_x, continuous PM_{2.5} and PM₁₀, and meteorological parameters, as well as a filter-based particulate monitor which is operated by the state of Arkansas Department of Environmental Quality. The site is located near the town of Roland, which is in the Fort Smith MSA; data collected from this site will benefit Cherokee citizens as well as provide valuable data for the Arkansas DEQ. The site was established in 2010.



Mobile Monitoring Station

The CNEP also operates a mobile monitoring station which consists of a 10 X 10 enclosed trailer equipped with PM_{2.5}, PM₁₀ and ozone continuous monitors, a portable Met One meteorological tower and an ESC 8832 datalogger. The station is set up at various tribal sites for an agreed interval; tribes need only provide phone and electrical service. The data collected is not used for regulatory purposes, but can be used by tribes to determine if further sampling is warranted. The data collected at the host sites is uploaded to the EPA Air Quality System (AQS) database, and is also submitted to AIRNow (<http://airnow.gov>).

Independent Auditing Services

Independent auditing services are provided by the air program on a quarterly basis for criteria pollutant gas instruments, PM samplers and meteorological equipment using certified equipment and standards. These services are provided at no cost to tribes. Audit reports will be provided to participating tribes within 30 days of audit completion.

Why is the data important?

The Cherokee Nation Clean Air Program submits its air quality data to the EPA Air Quality System (AQS) and AIRNow. The benefits of AQS reporting include bringing national attention to tribal participation in air issues and ensuring data meets an acceptable level of quality. The U.S. EPA, NOAA, NPS, tribal, state, and local agencies developed the AIRNow web site to provide the public with easy access to national air quality information. The site offers daily AQI forecasts as well as real-time AQI conditions for over 300 cities across the US, and the data is available to other environmental professionals as well as the public. Once the data has been submitted, there are several websites which provide useful data evaluation tools (please see the back of this brochure for some links).