

Menu Item for Conducting *Air Quality Monitoring*

TRIBAL AIR WORK PLAN OBJECTIVE: To identify, through collection of quality-assured monitoring data, the nature and level of air pollution on a reservation or in a tribal community over a particular period of time.

Background: *Air Quality Monitoring* is undertaken to establish a baseline of air quality data, as well as to collect targeted data when air pollution may be adversely impacting the reservation community. Either a *Basic Air Quality Assessment* or an *Emissions Inventory* (See Menu Items for each) can provide preliminary information from which it can be determined whether and what type of additional air quality data would best assist in managing air pollution concerns.

Funding Mechanism: This objective and supporting activities may qualify for EPA financial support through the grant authority of either the Indian General Assistance Program (IGAP) or Clean Air Act §103 to the extent the activities involve assessment or baseline monitoring. They may qualify for funding under Clean Air Act §105 if they involve air quality management-related work. Contact your nearest Regional EPA Tribal or Program Office for further information.

ACTIVITIES / TASKS: The following *tasks* or *activities* are options for a grant applicant to consider in developing a work plan that includes air monitoring. Adapting these needs to respond to those of a specific reservation or tribal community is encouraged, taking into consideration for what purpose the monitoring data will be used. EPA Regional Offices are available to provide technical advice on what a particular tribe may require to adequately support their proposed workplan activities. A *timeline* is then created by estimating the dates by which each task, and sub-task, will be completed in order to accomplish the objective by the planned date.

- Need and Type of Monitoring Data Identification: Identify most appropriate type of monitoring data to collect; Learn what other monitoring is being conducted by surrounding jurisdictions and what the data shows. Through information from basic air quality assessment activities, evaluate the possible options for additional air quality data that could assist the tribe in managing its air quality or assisting other jurisdictions in managing air quality.
 - Mini-vol or high-vol Particulate Matter (PM) monitors are best for initial PM monitoring
 - PM 10 or 2.5: either continuous or filter-based Federal Referenced Monitors (FRMs)
 - Meteorological data needs
- Other criteria pollutants or hazardous air pollutants (HAPs)
- Training: Obtain training on topics related to Quality Assurance Project Plans (QAPPs) and appropriate monitoring.
- QAPP and Siting: Prepare a QAPP for the type of monitoring determined with EPA assistance that will provide air quality data useful to the tribe, the air shed, or region. QAPP will provide basis for siting the monitor(s) and procedures to be followed to ensure quality of data collected.
- Saturation Study: Conduct a saturation study with mini-vol monitors to determine the existence and location of zones of elevated air pollution.
- FRM PM Monitor: Based upon the QAPP and EPA-approved siting, install and operate the filter-based monitor for appropriate period of time. As data is collected, provide written analysis of what the data indicates about air pollution levels.

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Activities and Tasks cont.

- Continuous Monitoring for PM: Based upon types of sources identified on the reservation, continuous monitoring may be used to provide ongoing information about sources that produce peaks in air pollution, such as agricultural burning or forestry burning. Data can be provided on a real time basis to reservation communities for decisions about residential burning, or health concerns. Linking to a tribal web page is an optional way of disseminating the data.
- Meteorological Stations: When appropriate and based on an EPA-approved QAPP, install and operate a met station in conjunction with monitoring equipment to provide additional information about the sources of air pollution or to help assist in forestry or agriculture smoke management plans.
- Other Monitoring: When appropriate conduct other criteria pollutant or HAPS monitoring subject to EPA-approved QAPP.
- Provide AQ Data to EPA: The quality assured data should be uploaded into the EPA AQS system or provided to EPA in other applicable format on a quarterly basis.
- Baseline Data: Once a baseline is established for the air pollution levels, assess need for ongoing monitoring in a written report.
- Interim Reports of Air Quality Data: Provide EPA and Tribe information on what levels of air pollution the monitors show on a regular basis.

WORK PLAN RESULTS: Results from EPA grant funded activities (also known as “deliverables”) are characterized as either *outputs* or *outcomes*. Both are important means of documenting grant accomplishments. For explanation of *outputs* and *outcomes* see the Menu Item for *Air Quality Administration Infrastructure*.

Possible Outputs: [These are examples of *outputs* for this objective; there may be others]

- Quality assured data provided to EPA and, as appropriate, uploaded into the AQS database.
- A report analyzing the air quality data for EPA and the Tribe, providing information such as how the data compares to NAAQS limits, identification of the impacts of particular sources on or off the reservation.

Possible Outcomes: [These are examples of *outcomes* for this objective; there may be others]

Expressed as a result of an individual Tribal grant:

- Air quality within the Tribe’s jurisdiction is accurately characterized, and its condition and threats to its condition, are understood by the Tribe, EPA and others.

Expressed as a measure of overall Tribal program performance:

- Increase in the percentage of reservations (or communities in Indian country) with potential air quality problems that have been assessed or monitored.
- Increase in the number of tribes operating particular types of monitors on their reservations where potentially impacted by the pollutant and providing the data to AQS.
- Increase in reports on how tribes have used assessment or monitoring data to better manage their air quality.
- Increase in the percentage of reservations for which air quality levels for particular NAAQS pollutants have been determined through monitoring, modeling, or other assessment activities.

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FY 2006 NATIONAL EPA PERFORMANCE MEASURE(S):

The following will be used to measure EPA's progress in this area during fiscal year 2006.

- Number of Tribes that operating ambient monitors and submitting quality-assured valid data to EPA's Air Quality System database.