Texas A&M University at Kingsville

Corpus Christi Airshed Quality Monitoring

Project Description:

Texas A&M University at Kingsville ("TAMUK") shall establish three air quality monitoring stations within four facilities of the San Patricio Municipal Water District. The stations will consist of ambient air quality monitoring instruments, meteorological instruments, and ancillary equipment. The primary objective of these new monitoring stations is to provide continuous information on air quality. This includes generating data on background concentrations, pollutant transport from outside the Airshed, and pollutant transport from the industrial district during the periods of predominant southeast to northwest wind patterns. The monitoring sites will be located at the Odem Raw Water Station, the Taft Texana Blending Station, and the San Patricio Municipal Water District Main Office. These new sites will be in addition to the already existing site located at the Aransas Pass Treatment Plant, for a total of four sites. SEP Funds will be used to pay for the instruments, installation, and maintenance and/ot operation of the instruments, data validation, software license, and web server costs related solely to this project.

Instrumentation: TAMUK shall provide each site with one ozone monitor and one weather station capable of measuring wind direction and speed as well as ambient temperature. One of the sites must also have a monitor for oxides of nitrogen. TAMUK has a memorandum of understanding with the San Patricio Municipal Water District in which the water district agrees to provide: 1) external areas for installing the weather stations and instruments' enclosures; 2) locations for the air sampling intakes in the external walls or roofs at the sites; and 3) small areas in each sites' building for the monitoring instrument racks when necessary. TAMUK has already developed the site at the Aransas Pass Treatment Plant.

Operation and Maintenance: TAMUK shall manage the project with two faculty members, one research associate, and environmental engineering graduate students, which will compose the core team associated with the air quality monitoring effort. Instruments will be calibrated before deployment, and on the frequency established in the TCEQ-approved Quality Assurance Project Plan ("QAPP"). TAMUK shall submit a detailed work plan and QAPP in EPA QA-R5 format to the TCEQ for approval prior to any sample collection, but no later than sixty days after the Effective Date of this Agreement. Any environmental laboratory data submitted to TCEQ must be produced by a laboratory accredited by TCEQ according to Title 30 Texas Administrative Code, Chapter 25 (relating to Environmental Testing Laboratory Accreditation and Certification), Subchapters A and B, as amended.

Data Management: TAMUK's sites are intended for continuous air quality monitoring. TAMUK shall bring data obtained from the monitors directly into the TCEQ air monitoring site information system using wireless modems at TAMUK's cost and such data must be made available to the public via the TCEQ website as soon as possible upon availability. TAMUK shall coordinate these tasks with TCEQ. The data displayed on the TCEQ website will be subject to change pending final validation by TAMUK. TAMUK shall provide contact information to the TCEQ to be posted on the TCEQ website - the contact person must be able to answer questions (during normal business hours) regarding data quality from the measurements obtained from TAMUK's air quality monitoring sites.

Environmental Benefits:

The SEP will provide a discernible environmental benefit by providing the community with more knowledge of pollutant concentrations and potential sources of air pollutants entering or exiting the Corpus Christi area airshed. This data can also be used by other parties interested in the air quality in the Corpus Christi area. The formation and transport of ozone

is complex, and a better understanding of the sources of precursors and long-range transport are necessary to generate good scientific information for decision-making purposes. Well-located monitoring stations provide valuable information for these purposes.

County:

This project may receive contributions from the following:

Aransas, Nueces, and San Patricio

AIR Shed:

214 Corpus Christi - Victoria

Minimum Contribution:

$10,000