

# ANTHC Tribal Air Quality Program Subawards

The ANTHC Tribal Air Quality Program has provided funding to Tribes to carry out air quality projects in rural Tribal communities since 2011. Projects are encouraged to include creative ways to address air quality concerns. Typical air quality concerns in a community might be indoor air quality, solid waste burning, wood smoke, road dust, outdoor air pollution, etc. Subawardees work in partnership with the ANTHC Tribal Air Quality Program staff to complete the project and refine the work plan. This funding is provided by a US Environmental Protection Agency Clean Air Act 103 Grant.

## **2011**

**Aleknagik Traditional Council** – The purpose of this project was to evaluate indoor air quality of homes and buildings in Aleknagik and to educate residents on the importance of good air quality. Data was collected on carbon monoxide, carbon dioxide, humidity, temperature, and Particulate Matter 2.5 (PM2.5). The results of the project helped Aleknagik determine how to focus future efforts to improve indoor air quality in their community.

**Nunakauyak Traditional Council** – This project focused on addressing road dust in the community of Toksook Bay. Efforts began with community education on the health effects of road dust and what residents can do to reduce the amount of road dust. Using project funds, they were also able to purchase speed limit/yield signs and a water sprayer trailer.

**Pedro Bay Village Council** – The purpose of this project was to perform assessments of homes in Pedro Bay to gather data on what the biggest indoor air quality concerns are in the community. Home assessments included interviews, visual assessments, and photographs. Homeowner education was also provided during the assessments. This project helped the community of Pedro Bay determine what the next steps are to move forward with improving the indoor air quality of homes.

## **2012**

**Chignik Lagoon Village Council** – The purpose of this project was to improve indoor air quality in homes by installing carbon monoxide (CO) detectors. Chignik Lagoon was successful in passing a tribal ordinance that stated that it is mandatory to have a CO detector in each living level of every home. Through this project, 22 homes and 17 fishing vessels received CO detectors. Educational sessions on carbon monoxide gas were given to the students of Chignik Lagoon.

**Northway Village** – The purpose of this project was to improve indoor air quality for the residents of Northway. This was done by conducting baseline air monitoring inside homes, performing visual inspections, providing resident education, and completing home repairs.

**Seldovia Village Tribe** – The purpose of this project was to obtain baseline data for road dust using air monitoring equipment loaned from ANTHC. Education on the health effects of road dust and the monitoring results were provided to community residents.

## **2013**

**Village of Lower Kalskag** – The purpose of this project was to collect air quality data on road dust. The project also included household surveys to learn more about the air quality concerns of community residents. Education on the health effects of road dust was provided to school students.

**Native Village of Old Harbor** – The purpose of this project was to gather baseline data for road dust in Old Harbor as well as educate residents about the health effects of road dust and how road dust can be controlled.

**Seldovia Village Tribe** – The purpose of this project was to continue road dust monitoring in Seldovia. The Alaska Department of Environmental Conservation (ADEC) also supported Seldovia's air monitoring efforts by providing additional equipment. Two DustTrack II aerosol monitors, along with outdoor enclosures, were borrowed from ANTHC. Two high volume samplers were borrowed from ADEC. Seldovia compared the results from the two different monitors.

**Native Village of Tyonek** – The purpose of this project was to collect baseline air quality data prior to the start of mining in the Chuitna Coal Project. The Alaska Department of Environmental Conservation (ADEC) supported this project by providing monitoring equipment.

## **2014**

**Aleknagik Traditional Council** – The purpose of this project was to create a video on simple steps they can take to make their home a healthier home. The video can be viewed [here](#).

**Native Village of Eyak** – The purpose of this project was to perform indoor air quality assessments on homes, provide healthy homes toolkits to new mothers, and to complete home upgrades on a select number of houses.

**Qagan Tayagungin Tribe** – The purpose of this project was to conduct road dust monitoring in dusty areas of town to get an idea of whether or not the dust levels are concerning. The Tribe also took soil samples and sent them to a lab for testing to determine if there was anything harmful in the soil.

**Seldovia Village Tribe** – The purpose of this project was to continue road dust monitoring using two different types of equipment to compare the results and try to determine why there are inconsistencies.

**Yakutat Tlingit Tribe** – The purpose of this project was to assess air quality concentrations of fine particulate matter (PM<sub>2.5</sub>) at two locations in Yakutat before and after the installation and operation of two biomass boilers. This project also aimed to determine the source of smoke that is apparent near the school and subdivision in the winter months.

## **2015**

**Aleknagik Traditional Council** – The purpose of this project was to produce a video on how to maintain your heat recovery ventilation system (HRV) for Yupik elders or homeowners that need education on their systems. The video can be viewed [here](#).

**Chickaloon Village Traditional Council** – The purpose of this project was to test indoor air quality in Tribal buildings and homes and develop healthy solutions to improve air quality. This project also provided indoor air quality tool kits to residents as well as a great deal of outreach and education.

**Ruby Tribal Council** – The purpose of this project was to measure the effectiveness of carbon monoxide (CO) education and training efforts on community residents by the use of pre and post questionnaires. Funds from this project were also used to purchase CO detectors for Tribal residents.

**Seldovia Village Tribe** – The purpose of this project was to 1) continue to collect particulate matter data from road dust with an emphasis on particle size, 2) compare particulate matter 10 (PM<sub>10</sub>) data between DustTrak aerosol monitors, and 3) determine road dust composition through soil sampling.

## **2016**

**Aleknagik Traditional Council** – The purpose of this project was to create a video describing simple steps you can take to reduce exposure to wildfire smoke in rural Alaska. The video can be viewed [here](#).

**Craig Tribal Association** – The purpose of this project was to collect baseline data on radon in Tribal homes in Craig. The project also provided education and outreach to residents explaining what radon is, how it can affect your health, and steps that can be taken to remediate.

**Klawock Cooperative Association** – The purpose of this project was to distribute healthy homes toolkits to Tribal residents and educate them on steps they can take to improve the air inside their homes. This project measured the effectiveness of healthy homes education through pre- and post-outreach assessments.

**Seldovia Village Tribe** – The purpose of this project was to help Seldovia share the knowledge they have gained with other Tribes. This project allowed Seldovia to provide technical assistance to other Tribal communities working on road dust projects and to present at conferences.

**Skagway Traditional Council** – The purpose of this project was to measure levels of carbon monoxide, carbon dioxide, relative humidity, and particulate matter in 10 homes in Skagway and to inform residents about the health concerns of the target pollutants. Each participating home received a report summarizing the monitoring results and actions they can take to improve their indoor air quality.

## **2017**

**Hoonah Indian Association** – The purpose of this project was to monitor particulate matter 2.5 (PM2.5) and carbon monoxide (CO) inside homes and document underlying drivers of indoor air quality issues. Participating homes received a brochure explaining the data collected from their homes and how they may improve their indoor air quality. Results of this study showed that stoves greater than 20 years old had significantly higher emissions of PM2.5 than houses with stoves less than 20 years old.

**Nanwalek IRA Council** – The purpose of this project was to collect baseline data on particulate matter from road dust. An outreach program was developed to inform residents about the health concerns of road dust and what they can do to minimize the dust that is kicked up into the air.

**Wrangell Cooperative Association** – The purpose of this project was to help people burn wood cleanly and efficiently. This project gathered baseline data to get a general idea of outdoor particulate matter 2.5 (PM2.5) levels.

**Yakutat Tlingit Tribe** – The purpose of this project was to gather information from community members on their wood use practices through an assessment. Data from the assessments were used to determine appropriate next steps to improve outdoor air quality and to educate community members on clean wood burning practices.

## **2018**

**Craig Tribal Association** – The purpose of this project is to continue collecting baseline data for radon in Tribal homes in Craig. Project staff will educate Tribal members on radon by distributing EPA's "A Citizen's Guide to Radon" pamphlet. Steps to remediate radon inside the home will be discussed with residents residing in homes with high levels of radon.

**Klawock Cooperative Association** – The purpose of this project is to provide education and tools for residents battling bed bug infestations. Education will focus on using an integrated pest management approach to battling the bed bugs and the dangers associated with pesticide misuse.

**Native Village of Nuiqsut** – Recent weatherization assessments suggest many heating systems in Nuiqsut have abnormally high levels of carbon monoxide (CO). The purpose of this project is to place CO detectors in each household and gather data on peak ambient exposure levels in those households after a winter heating season has passed. Data collected will be compiled into a report to be shared with the community and other stakeholders.

**Nunakauyak Traditional Council** – The purpose of this project is to conduct healthy homes assessments to learn what the biggest indoor air quality concerns are and what outreach steps should be taken to address these concerns. Along with other locally donated items, Air Matters Toolkits will also be raffled out for participating residents.

**Seldovia Village Tribe** – The purpose of this project is to collect baseline data on radon levels in homes in Seldovia. Project staff will also carry out a public education campaign, sharing what they learn about radon levels in the Seldovia area and how people can mitigate radon in their homes.

**Native Village of Teller** – The purpose of this project is to address local air quality concerns through an Air Quality Awareness campaign and air quality assessments/surveys. This project will increase awareness and educate the community and youth on air quality challenges common in rural Alaska. As a community they will identify local challenges and determine strategies they can implement to reduce air pollution in Teller.