Welcome to the Native Voices newsletter!

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Tribal Program Highlight

Wildfire Smoke Preparation: A Community-Based, Science-Driven, and Health-Focused Tribal Pilot

By Gillian Mittelstaedt, Director, Tribal Healthy Homes Network

The summers of 2017 and 2018 were unlike any other for many tribal air programs, especially for those in Alaska and in the western United States. Week after week, wildfire smoke impacted daily life. While pow-wows, fishing and shellfish harvesting, family and cultural events continued, the media encouraged residents to limit their time outdoors. In social media and television news, people were warned of health risks from prolonged exposure to wildfire smoke. At the Tulalip Tribes, our Air and Indoor Environments Program developed its own localized, tribal-specific response.

Yet, we asked, “Were we equipped to address an air quality issue that had morphed into a major public health risk?” As a tribe on the edge of an urban/rural interface, prolonged wildfire smoke was new to us. To protect elders, children, and those at risk, we knew we had to develop stronger communication channels coupled with local, real-time data.

We began with more questions than answers. What new channels could we use to communicate during an air quality crisis? If we advised people to stay indoors, how would we know if the buildings were well-filtered? What were the smoke infiltration rates in our different buildings and what variables influenced indoor/outdoor particulate matter ratios? In communicating risk and protective actions, who would the Tulalip community be most likely to trust? To seek answers, we hired Darrien Benally, a tribal intern from the Navajo Nation, to conduct a community-wide survey and in-person interviews across multiple tribal departments. Our objective was to understand the perceptions, beliefs, and community response during smoke events. While collecting this data, we convened a team of community members, tribal health clinic staff, the tribe’s Occupational Health and Safety lead, a researcher from the University of Washington and Aileen Gagney, IAQ technical advisor for the Tulalip Tribes. The team then embarked on building a multi-pronged approach.

One of the first actions we took was to develop an air quality communications plan, designed to be activated during wildfires or smoke events. The plan serves to inform residents, using localized and multiple channels, of measures they can take to reduce exposure. To include the designation of a clean air shelter in the air quality response plan, we collaborated with Darrien Benally, a tribal intern from the Navajo Nation, to conduct a community-wide survey and in-person interviews across multiple tribal departments. Our objective was to understand the perceptions, beliefs, and community response during smoke events. While collecting this data, we convened a team of community members, tribal health clinic staff, the tribe’s Occupational Health and Safety lead, a researcher from the University of Washington and Aileen Gagney, IAQ technical advisor for the Tulalip Tribes. The team then embarked on building a multi-pronged approach.

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Time to Pause and Reflect

Across ITEP, we have been reflecting deeply on the array of issues currently facing our world, and on our place and our purpose in it. We find ourselves thinking more concertedly about where we are at, where we are going, and what is important for our journey to get there. As we consider how our efforts can continue to have meaning and value under this new shared reality, many of us are conducting a wholesale reassessment of how we can be better global citizens. We are taking the time to pause and reflect, to step back so that we can have a closer look.

Pausing to LISTEN to tribes to better understand the issues, needs, and concerns they now face.
Pausing to LEARN and seek new ways that we can enhance the services we provide.
Reflecting on how we SERVE tribes with access to relevant, useful information and support.
Reflecting on how we RESPECT tribes and their communities through our conscientious actions.

First and foremost, in order to protect the health and well-being of our staff and the tribal communities they serve, we are curtailing all in-person training events and gatherings until further notice. In the meantime, we will be revisiting our training development and delivery approaches, with a focus on improving and expanding our online materials and website resources. We are working diligently to facilitate student internships over the coming months that can utilize telework options when possible, and are continuing to look for ways to engage students in meaningful ways that prepare them for careers in the environmental field. We will be pausing the production and publication of this Native Voices newsletter while we examine different options for sharing information in a timely and relevant fashion. We are also exploring the types of information and resources our staff need to develop their skills and how best to support these efforts into the future.

We are seeking knowledge and we are learning as we go. We are stumbling sometimes, too, as we grapple with how to navigate the onslaught of new information and the various ways of going about our work. Like so many others, our usual approaches and tactics are not always able to offer adequate solutions, and the support systems we have relied upon are simply not functioning the way they used to. But we are moving forward as best as we can, trying to provide the level of support that tribes have come to expect from us.

We remain committed and ready to serve, and we are not only looking inwardly to reflect, but outwardly for guidance, expertise, and insight. Respectfully, we are waiting, listening for your wisdom.

As we continue to learn from each other on this journey and as we navigate the knowns and unknowns, we will work together to chart a path for the changing needs of the future.
American Indian Air Quality Training Program
Due to the Coronavirus pandemic, the AIAQTP in-person courses have been postponed for the health and safety of our communities. This quarter, the team worked on a plan for online content delivery. The first Indoor Air Quality (IAQ) online cohort, which began on June 8th, is currently in session until July 24, 2020.

This entry-level course is designed to provide an understanding of common IAQ problems in tribal homes and schools. The course includes an overview of indoor air pollutants and their health effects, and tips for solving IAQ problems. Instruction includes recorded videos, reading material, and live discussion groups. The cohort will convene one live webinar followed by discussion groups every two weeks, for a total of 3, with supplementary learning activities completed on the participant’s own time. Participants are required to complete group discussions, activities, and assignments to receive a certificate of completion. There are approximately 7-9 hours of work per week.

Topics include:
- Indoor air concerns in tribal communities
- Overview of building science
- Mold and its health effects
- IAQ pollutants and cancer
- IAQ and asthma
- Radon
- COVID-19
- Hazardous materials in homes and schools
- Combustion products
- Instruments for assessing IAQ
- Outreach: prevention of IAQ problems
- Collaboration and resources

To view and complete upcoming course applications, visit http://www7.nau.edu/itep/main/Training/training_air.

Webinar Series: Managing Road Dust, Introduction to Tribal AQ Programs
AIAQTP is offering two webinar series beginning in June and July 2020. The first webinar series addresses road dust and consists of four webinars, designed to help tribal environmental and transportation staff to manage road dust, resulting in improved air quality.

Presenters from US Environmental Protection Agency, University of Alaska, Alaska Department Environmental Conservation, Alaska Native Tribal Health Consortium and the Institute for Tribal Environmental Professionals will provide information to help tribal environmental and transportation staff create community partnerships to: 1) assess current roads, 2) develop community education messages leading to behavioral changes, 3) develop plans to improve road design, 4) consider appropriate use of dust suppressants, 5) continue with air quality assessments, 6) create a dust management plan and 7) identify potential funding sources. Participants will also be introduced to a variety of online resources to help with planning for road dust management.

The second webinar series is an Introduction to Tribal Air Quality Programs. It consists of five webinars and is designed to introduce participants to Tribal Air Quality Programs. The first webinar will be delivered in late July.

Presenters from the US Environmental Protection Agency, Native American Tribes and the Institute for Tribal Environmental Professionals will provide information about how tribes are implementing the Clean Air Act, grants, data assessment, data management, outreach and education within their
air quality programs. Participants will also be introduced to resources to develop and implement an air quality program.

To view and completed and upcoming webinars, visit http://www7.nau.edu/itep/main/training/Webinars_airSchedule.

Online Training Opportunities
Our current selection of online courses span topics related to the basics of air quality, managing data, and developing emissions inventories. Most of the information is free and available at the click of a button; while they are generally self-paced, some involve direct engagement with instructors and other students.

The following online courses are currently available; email professional@nau.edu with questions or suggestions.

- Residential Building Science Review
- Building Performance: Improving Indoor Air Quality in Cold Climates
- Quality Assurance Fundamentals / Quality Assurance Project Plan (QAPP) Series
- Radon Fundamentals
- Emissions Inventory Fundamentals / Advanced (requires ITEP approval)
- Tribal Data Toolbox Version 3.1 (requires ITEP approval)
- Partnerships and Community Outreach** - Fall 2020 schedule coming soon!
- Tribal Strategic Planning ** - Fall 2020 schedule coming soon!

**Fee-based courses.

These online courses contain assignments, quizzes, videos, examples, downloadable spreadsheets, and other resources. While they are self-paced, each course provides the opportunity for individual interaction with subject matter experts. For a list of all available course, visit the online course catalog.

National Tribal Air Association Releases 2020 Status of Tribal Air Report
The Status of Tribal Air Report (STAR), prepared by the National Tribal Air Association (NTAA), discusses the important steps tribes are taking to address their air pollution and public health concerns, and presents budgetary and other analyses of relevant data to inform national and local leaders with recommendations on how to improve air quality for tribal communities.

The NTAA’s STAR is an annual publication intended to provide an understanding of the impact and significance of tribal air programs. Tribal needs, priorities, and recommendations are also outlined using personal narratives from tribal staff sharing their air quality efforts. NTAA staff compiled diverse stories from around Indian Country that demonstrate the successes and challenges of tribal air programs, and highlight the key priorities and concerns identified by tribes nationwide. NTAA staff prepared the Report and its accompanying appendices into a nearly 150-page document and developed a webinar presentation to help readers navigate the information. The 2020 STAR, along with past reports and other air quality policy resources for tribes, can be found at www.ntaatribalair.org.

EPA Celebrates 50 Years
Fifty years ago this December, the US Environmental Protection Agency (EPA) was created by President Richard Nixon in an effort to better address concerns about the impacts of toxic pollution in the air, water, and soil on the health and well-being of this nation’s citizens and the natural environment we rely upon for our survival. Throughout 2020, the US EPA will be recalling the impact of its history working to protect human health and the environment, sharing the results of past and current efforts, and looking ahead to a stronger future. This month, EPA@50 is turning the spotlight on celebrating partnerships, in particular those that have been forged with the tribal nations and neighboring countries that share environmental management responsibilities with the EPA. For more information check out: https://www.epa.gov/50/celebrating-partnerships.
Tribal Air Monitoring Support (TAMS) Center
Professional Assistance (PA) Support to Shoshone-Bannock Tribes of ID, Air Quality Department and Washoe Indian Tribe of NV & CA, Environmental Protection Department

Since the start of the COVID-19 pandemic, Michael King (TAMS Center Technology Specialist III), continues to provide on-site technical support using mobile phone cameras and web-based video conferencing tools such as Zoom and GoToMeeting. He recently completed a remote Professional Assistance (PA) with the Shoshone-Bannock Tribe’s Air Quality Department. He assisted Keith Moore, Air Quality Technician, with conducting both basic and advanced leak checks and voltage tests to isolate a leak and identify a faulty flow sensor within their Met One Instruments, Inc. Beta Attenuation Mass Monitor 1020 (BAM-1020). The BAM-1020 is equipped with a Very Sharp Cut Cyclone (VSCC) separator to measure fine particulate matter (PM2.5) mass concentrations continuously.

Michael is also currently working with both Coralee Ditman and John Warpeha, Environmental Protection Department (EPD) staff with the Washoe Indian Tribe of Nevada and California. Utilizing both Zoom and GoToMeeting, he was able to provide step-by-step instructions on the installation and operation of a Met One Instrument, BAM-1022 fine particulate monitor. In addition, he provided EPD staff with an overview of federal (Quality Assurance/Quality Control) PM2.5 monitoring requirements and guided instruction on how to conduct BAM-1022 temperature, pressure, and flow rate verifications and calibrations. This PA is on-going and awaiting the installation of an electrical meter at the air monitoring site location to complete a 72-hour zero background test. In order to meet EPA requirements for federal equivalency, all PM2.5 BAM units must undergo a 72-hour zero background test when first deployed and annually thereafter. Each BAM has a programmable background value (BKGD) to compensate for site-specific characteristics such as grounding, radon, or radio-frequency interference.

Michael King is available to provide technical assistance with installation, operation, and troubleshooting of air monitoring and meteorological equipment. Please contact Christopher Lee, TAMS-ITEP Co-Director, at Christopher.Lee@nau.edu or call 702-784-8278 for further information on the TAMS Center professional assistance (PA) services.

Quality Review and Exchange System for Tribes (QREST) Update

The development of the QREST application continues. A tribal focus group has assisted its development and are currently streaming data into the system. Training resources will be developed as completion of the application nears. The general timeframe of having training resources available is in Spring of 2021. Pending the ongoing situation with the COVID-19 Pandemic, an in-person training is tentatively planned for the 2021 NTFAQ. The QREST is an open-source, cloud-based data management application that will facilitate data review and validation between tribes, allowing them to meet the degree of separation requirements for quality assurance review specified in the Code of Federal Regulations (CFR).

For further information on the QREST project, please contact Melinda Ronca-Battista at Melinda.Ronca-Battista@nau.edu.

EPA TAMS Co-Director Position Update

In preparation for the December 2020 retirement of Farshid Farsi, TAMS-EPA Co-Director, the National Center for Radiation Field Operation (NCRFO) has begun the process of searching for the next person to step into the TAMS-EPA Co-Director position. The NCRFO is hoping to bring the new person on board by the summer or early fall to work with Farshid to learn his duties and responsibilities. This effort is to facilitate the process of allowing the new Co-Director to quickly and comfortably begin providing support to the tribes.

For further information on the search for a new TAMS-EPA Co-Director, please call (702) 784-8263 or email the Co-Directors at Christopher.Lee@nau.edu or Farshid.Farsi@epa.gov.
TAMS Steering Committee (SC)
The TAMS SC convened monthly calls in April, May, and June 2020. An update of the discussions and initiatives are provided below:

- TAMS 20-Year Anniversary: A SC subcommittee is planning a TAMS 20-Year Anniversary Celebration that will occur at the TAMS Virgil Masayesva Environmental Learning Center in Las Vegas, Nevada. The TAMS Center is located at the USEPA National Center for Radiation Field Operations. The subcommittee developed a draft agenda for the event which would tentatively occur during the 2021 TAMS Spring Meeting. Planning is ongoing as safety for all those attending is paramount.
- Flag Program Poster Contest: The SC is considering developing a poster contest with EPA’s Office of Air Quality Planning and Standards (OAQPS) for a Flag Program. Flag programs are a great way for tribal programs to engage their communities by promoting awareness of tribal air quality.
- On May 31, the TAMS Center closed a call for nominations for an open seat on the TAMS SC. Tanda Roberts, from the Pyramid Lake Paiute Tribe, was selected to fill the open seat.

Meeting notes are available on the TAMS Steering Committee website. For further information on the TAMS Center services, please call (702) 784-8263 or email the Co-Directors at Christopher.Lee@nau.edu or Farshid.Farsi@epa.gov.

Local Flagstaff Non-profit Helps to Supply Handwashing Stations to Navajo and Hopi Communities

Soaring rates of COVID-19 and lack of access to running water put Native communities at high risk. Navajo Nation has one of the highest COVID-19 infection rates in the country, per-capita. One of the best preventative measures for stopping the spread of COVID-19 and staying healthy is through proper handwashing. Yet, for many families living on the Navajo and Hopi Nations, doing so on a regular basis is a tremendous challenge due to the lack of running water in their homes. It is estimated that roughly 40% of Navajo homes lack running water, and a sizeable portion of Hopi homes, as well.

Red Feather, a local non-profit operating from a small office in Flagstaff, AZ is mobilizing efforts to build hundreds of handwashing stations for Navajo and Hopi families.

Recently ITEP staffers Andy Bessler, Kelsey Morales, and Mehrdad Khatibi spent their Saturday working with other volunteers and Red Feather staff to build over 25 portable handwashing stations.

Joe Seidenberg, Executive Director of Red Feather: “Our ability to meet the growing demand for help alone is limited, which is why we are deploying strategies such as recruiting a broad network of volunteers and training tribal community groups to build the systems themselves. We will persist until there are no more requests or funding support has ended.”

If you would like to help support Red Feather please check out https://donorbox.org/handwashing-stations-for-navajo-and-hopi-communities for more details. And if you would like to build your own handwashing station, step-by-step instructions are provided on the following YouTube channel at: https://www.youtube.com/watch?v=zSe27aHez8c&t=779s.
Environmental Education Outreach Program (EEOP)
COVID-19 Update: Returning to Work and School, by Mansel Nelson, EEOP Project Director

As the COVID-19 pandemic continues, tribal communities consider returning to work and school. The Centers for Disease Control and Prevention has provided broad guidelines for opening office buildings and schools. However, local planning is essential for implementing the CDC guidelines and protecting tribal members.

As I have consulted with tribal staff around the nation, many still seem to think (toxic) cleaning chemicals are necessary to protect against the SARS-CoV-2, the novel coronavirus that causes COVID-19. Soap and water are often enough to control exposure to the virus via surfaces. Quoting from the CDC guidelines: “Normal routine cleaning with soap and water removes germs and dirt from surfaces. It lowers the risk of spreading COVID-19 infection” (see URL 1 below or here). If additional disinfection is desired, there are several EPA approved disinfectants that kill the virus with less risk for humans. The Environmental Working Group (EWG) identified 16 products from the EPA antimicrobial list that are safer to use in your home and office (see URL 2 below or here). I have also heard about tribes completing a “deep cleaning” prior to occupying the building. A building that has been vacant for weeks or months is much lower risk for SARS-CoV-2 exposure because humans are the vector carrying the virus. The time to do enhanced cleaning is after the building is occupied. However, a building that has been closed for weeks or even months may have other hazards such as mold or accumulation of air pollutants. An unoccupied building should be inspected for hazards and well-ventilated prior to occupancy.

One key guideline in the CDC guidance is a reminder to coordinate all efforts with your local public health authorities (see URL 3 below or here). Although the CDC and other organizations publish guidelines, the decisions and procedures must be developed locally, responding to the local situation. To guide discussions and decisions, I recommend tribal staff consider the Hierarchy of Controls as published by the National Institute for Occupational Safety and Health (NIOSH), (see URL 4 below or here). Recent discussions revolve around the role of Personal Protective Equipment (PPE), but if you consider the Hierarchy of Controls, you will recognize that there are other protective steps to consider. In fact, PPE is at the bottom of the hierarchy and probably the least effective for reducing the spread of the virus. With COVID, people (specifically infected people) are the vector. The most effective way to control the COVID hazard is to keep infected people out of the building.

Tribal staff should also review ventilation in the building and carefully consider how to improve the operation and maintenance of the system. For example, one recommendation is to install better filters into the heating, ventilation, and air conditioning (HVAC) system. However, if you install filters that create high resistance to air flow, you may create more problems. All changes in the operation of the HVAC should keep in mind the limitations and design of the system. The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) provided extensive guidance on operation and maintenance of HVAC systems (see URL 5 below or here). In cases where the tribe has funding, they may want to consider installing new HVAC systems in order to provide better protection for their staff. Several vendors may claim their systems will reduce the risk of exposure to SARS-CoV-2, but as outlined in the ASHRAE guidance documents, these systems have not been proven to reduce COVID risk. Quoting from the ASHARE guidance document, “…there is only significant evidence of health benefits for porous media particle filtration systems”.

Hierarchy of Controls

https://www.cdc.gov/niosh/topics/hierarchy/default.html
There is still much to learn about COVID, but there are also many organizations working on providing guidelines to help reduce the risk of exposure to the virus. We recommend that everyone continue to watch for updates, since the science regarding COVID-19 is still evolving. If you have questions about the information in this article, contact mansel.nelson@nau.edu.

References:
4. https://www.cdc.gov/niosh/topics/hierarchy/default.html: This website describes the CDC Hierarchy of Controls and how to apply it to occupational hazards.
5. https://www.ashrae.com/File%20Library/About/Position%20Documents/Filtration-and-Air-Cleaning-PD.PDF: This guide discusses various methods of air cleaning that you may want to consider in combination with your HVAC system to reduce the risk of COVID.

From the Executive Director…

Yáát’ééh, hello and greetings from ITEP. I hope you all are doing well, enjoying the summer, and have adjusted (as best you can) to our new way of life. Many of us here at ITEP are working from home. Working remotely has become a way of life, and we are fortunate to have the option to do so, until it is safe for us to return to the office. But we are doing our best to stay connected – with Zoom meetings etc., and we hope that you are too.

Currently, all of ITEP’s courses and conferences have either been postponed or moved into virtual formats to help protect our staff and all of you from the spread of the COVID-19 virus. When will we be able to have trainings and conferences in-person again? We are not sure. It could be quite some time. It is not our first choice, as we would like to see and work with all of you in person, but for the foreseeable future conducting our trainings and events online will be the safest way to gather and learn from each other.

Two of ITEP’s conferences this fall, the Tribal Lands and Environment Forum: A Virtual Gathering and the National Tribal and Indigenous Climate Change – Tribal Resilience for Seven Generations, will be offered virtually. The teams are working diligently with their conference planning and advisory committees to make these events interactive, educational, and rich with cultural components and information. We hope you will join us from the comfort of your home or office for these two exciting events.

As many of you know, ITEP has been diligently developing and offering online training modules for some time now. But the COVID-19 pandemic has forced all of us to kick our online training development efforts into overdrive. Some of our programs will not be able to make the jump to an online format quite as quickly as others. This transition takes time, resources, and great deal of coordination and evaluation – and I am asking for your patience as we work through this process. Also, if you have recommendations, feedback, or want to share the challenges you face with conducting online trainings, I would appreciate hearing from you. Here’s my email: Ann-Marie.Chischilly@nau.edu.

On a personal note, this month I was tested for COVID-19 and the results thankfully were negative. Nothing more than a summer cold. That entire process however was extremely stressful because I have family here in my house and I had to isolate myself for several days waiting for my results. I understand the fear and burden that many families are dealing with throughout the country. However, we all have seen and heard how the pandemic is disproportionately impacting native communities, such as Navajo Nation and others. The lack of access to running water, an extra bedroom/bathroom in the house to self-quarantine, extra funding to buy medicine or go to hospital, extra funding saved if the family bread winner is ill... I could go on and on. There are so many socio-economic and cultural issues that increase our vulnerability to this virus. One thing I learned from my experience is that it helps to be prepared and have a PLAN. This link provides some practical tips and information from the CDC on how to protect yourself and your family. I’m not wishing ill will on
anyone, but want you to be extra careful and ready should anything happen. My faith and my family helped me through that difficult week, and I just want you all to know, my prayers are with all of you.

It is also with great sadness we share the news of Carol Seumptewa’s passing. As one of the original staff hired to support the newly established Institute for Tribal Environmental Professionals (ITEP) in 1992, Carol steadfastly worked behind the scenes in various administrative support roles for ITEP until her retirement in 2014.

On May 14, 2020, Carol passed away from complications of COVID-19. She is survived by her loving children and grandchildren, to whom she was first and foremost a nurturing caregiver, and for her, they were the essence of her being.

Carol will be missed by her ITEP family not only for her years of dedication, but for her caring presence and her biting sense of humor. Her legacy will be felt for generations to come throughout Indian country.

Take care brothers and sisters and be safe. We will get through these difficult times together. Ahéhee’ – Thank you.

**Upcoming Events**

**> 2.5 GHz Rural Tribal Window.** This window is a unique opportunity for Tribes in rural areas to directly access unassigned spectrum over their Tribal lands, subject to buildout requirements. The 2.5 GHz band is suitable for both mobile coverage and fixed point-to-point uses and is currently used to provide broadband service by legacy educational licensees and commercial providers that lease the spectrum. The **Rural Tribal Priority Window will close on Monday, August 3, 2020.** For more information, visit the [FCC Rural Tribal Window website](https://www.fcc.gov/tribal-window).

**> 2020 Tribal Lands & Environment Forum (TLEF).** Virtual, August 17-20, 2020. Visit the [conference website for more information and registration](https://www7.nau.edu/itep/main/listserv/).

**> 2020 National Tribal & Indigenous Climate Conference (NTICC).** Virtual, August 31-September 3, 2020. Visit the [conference website for more information and registration](https://www7.nau.edu/itep/main/listserv/).

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