



NORTHERN ARIZONA UNIVERSITY

Institute for Tribal Environmental Professionals

One Tribe, One Earth

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Welcome to the Native Voices newsletter!

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Tell Us What You Think!

Now is your chance to provide your thoughts, suggestions, and general comments on the Native Voices Newsletter. [Complete the 6-question survey here.](#)

Tribal Program Highlight

Sisseton Wahpeton Oyate Office of Environmental Protection



Camille volunteering for the Fun Run water station at the 2019 National Tribal Forum on Air Quality.

"My job is to protect, preserve, and ensure clean and safe indoor air for my tribe." – Camille Quickbear

Camille Quickbear is the Clean Air 103 Coordinator for the Sisseton Wahpeton Oyate Office of Environmental Protection. The Sisseton Wahpeton Oyate is located on the Lake Traverse Reservation in the northeastern corner of South Dakota and has roughly 7,000 tribal members living on the reservation. Camille began her role as the Clean Air 103 Coordinator in September of 2015 and has loved bringing awareness of indoor air quality issues to the tribe. As part of her role, she inspects tribal homes for issues such as radon, mold, and asthma and performs radon testing and mold inspections. Additionally, she provides outreach education on asthma and informs tribal members on how to maintain healthy indoor air.

Camille has collected data on homes that test high in radon and homes that contain mold. She created a small database to track the information she collected and began to wonder how, and when, she could remediate the issues.

Then, she received an email from the Housing and Urban Development (HUD) program that contained information on a Healthy Homes Grant. The [HUD Healthy Homes Program](#) focuses on housing-related hazards and environmental health concerns including mold, lead, carbon monoxide, and radon, to name a few.

When Camille learned how the Healthy Homes Grant would allow remediation on tribal homes, she jumped at the chance to bring the grant to her tribe. She contacted the Tribal Chairman for permission to utilize a grant consultant, hired by the Sisseton Wahpeton Oyate. Then she contacted the tribal housing authority to inform them about the grant opportunity. With the help of the housing authority, she was able to submit the proposal and secure funding from the HUD Healthy Homes grant program. The grant began in the 2020 fiscal year and will operate for three years. Camille's program is excited to receive the grant and looks forward to implementing it this year.

Information on the Healthy Homes grant can be found at their [website](#) or at [Grants.gov](#).

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For more information:
[ITEP Training](#)

[Indoor Air Quality in Tribal Communities](#)

[ITEP Climate Change Program](#)

[National Tribal Air Association](#)

[ITEP Videos & Media](#)

American Indian Air Quality Training Program (AIAQTP) In-Person Trainings



Participants in the Air Quality in Alaska Native Villages course, December 2019. Photo credit: Mansel Nelson

Fall 2019 was a busy one for AIAQTP! The program had the honor of training and engaging with 43 participants in the following courses and locations:

- >> Management of Tribal Air Program and Grants -- Tulsa, Oklahoma
- >> Sensor Technology -- TAMS Center, Las Vegas, Nevada
- >> Air Quality in Alaska Native Villages -- Bethel, Alaska
- >> GIS and Air Quality -- TAMS Center, Las Vegas, Nevada

Participants in the courses engaged in small group activities, lectures, and discussions and acquired newfound knowledge in areas such as grant management, sensor technology, indoor air concerns, and geospatial information systems for air quality. As participants continue to progress through ITEP's air training courses, new friendships and bonds are created, adding to the nationwide network of tribal contacts.

Need a refresher in math?

The *Air Quality Computations* course, February 11-14, 2020 in Phoenix, Arizona may be your answer! This course is designed to help guide you through simple equations and algebraic concepts with the intent to introduce you to mathematical calculations used in evaluating air quality data. The course is a prerequisite to the Air Pollution Technology course. Start the New Year off right and tackle your math questions in this fun and supportive learning environment! Contact Christal Black at Christal.Black@nau.edu or see the link below to apply.

Courses beginning in February 2020 now have a new online application!

Visit www.nau.edu/airquality to view and complete upcoming applications.

Upcoming AIAQTP In-Person Trainings

Course Title	Dates	Location	Course Level
Introduction to Tribal Air Quality	Jan. 14-17	Flagstaff, AZ	1
Indoor Air Quality Diagnostic Tools	Jan. 28-31	TAMS Center, Las Vegas, NV	2
Air Quality Computations	Feb. 11-14	Phoenix, AZ	2
Fundamentals of Air Monitoring	Feb. 25-27	TAMS Center, Las Vegas, NV	2
Indoor Air Quality in Alaska Native Villages (mini-course)	Mar. 2-3	Dillingham, AK	1
Indoor Air Quality Diagnostic Tools (Alaska)	Mar. 4-6	Dillingham, AK	2
Air Pollution Technology	Mar. 10-13	Flagstaff, AZ	2

* Stay tuned at www.nau.edu/airquality for updates*

Did you know...

The *Introduction to Tribal Air Quality*, *Air Quality Computations*, and *Air Pollution Technology* trainings are part of AIAQTP's foundational courses. They are prerequisites to subsequent, more advanced courses and build upon concepts, and are an excellent way to get introduced to other professionals working to support tribes in air quality management.

Online Training Opportunities

The following self-paced, online courses are currently available through ITEP:

- > *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 **
- > *Tribal Data Toolbox Version 3.1**
- > *Partnerships and Community Outreach** - next schedule coming soon!*
- > *Tribal Strategic Planning ** - next schedule coming soon!*

*Requires instructor approval.

**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.

Visit www.nau.edu/itep/elearning for details or email professional@nau.edu with questions.

2020 National Tribal Forum on Air Quality

ITEP and the National Tribal Air Association (NTAA) are pleased to announce the 2020 National Tribal Forum on Air Quality (NTFAQ)! Hosted by the Muscogee (Creek) Nation, the NTFAQ will be held May 27-29, 2020 in Tulsa, Oklahoma!

After conducting a string of continually successful conferences over the past 20 years, ITEP and the NTAA are looking forward to bringing you another great event. We are always interested in your ideas, input, and involvement as we plan the event, and they are essential to helping us create a meaningful experience for everyone. If you are interested in contributing, or simply have a suggestion or question for the planning team, please do not hesitate to reach out to us.

We are actively looking for sponsors, presenters, panelists, trainers, and exhibitors to share their experiences and expertise in air quality to help us expand tribes' knowledge and capacity through meaningful interactive and informational engagement. We will be developing the foundation for the event's agenda by using the requests for presentations received as inspiration—if you or others you recommend are interested in leading informative discussions or sharing updates on exciting projects, or have other ideas for helping us accomplish our goal please submit your ideas to our event organizers as soon as possible!

Visit the [NTFAQ website](#) for additional details, which will be updated as information develops.

Tribal Healthy Homes Network (THHN) launches new Tribal Indoor Air Funding Directory

Find your next funding opportunity with the THHN Directory! Search for criteria such as the type of indoor air contaminant, region, and applicant eligibility. For more information, visit tribalindoorairfunding.org.

Tribal Air Monitoring Support (TAMS) Center

Call for Nominations: The TAMS Center is accepting nominations for the Virgil Masayesva Tribal Air Programs Excellence Award, and for three (3) positions on the TAMS Steering Committee. These positions will open in 2020. ***The nomination deadline for both areas is February 28, 2020.***



Virgil Masayesva Tribal Air Programs Excellence Award: Virgil Masayesva was the Director of the Institute for Tribal Environmental Professionals at Northern Arizona University from its inception until his passing in 2005. Virgil is commemorated for his leadership, dedication, innovation, and commitment to the support of tribal air programs; their creation, development, advancement and ultimate success in promoting tribal sovereignty, tribal culture, and tribal environmental protection. The Virgil Masayesva Tribal Air Programs Excellence Award was developed to recognize and perpetuate continuing contributions to that legacy.

Tribal environmental professionals, tribal programs, and environmental professionals in consortia, universities, or other areas who have excelled in air quality protection efforts in Indian country are eligible for the award. (EPA, TAMS and ITEP staff are ineligible for this award.) The [Virgil Masayesva Award Nomination Form](#) is available online.

TAMS Steering Committee Members: The Tribal Air Monitoring Support (TAMS) Center is currently accepting nominations for **three (3)** positions on the [TAMS Steering Committee](#). TAMS Steering Committee members serve three-year staggered terms. Each of these position's term will serve from **October 1, 2020, to September 30, 2023**. If you would like to nominate a potential candidate, please submit the [TAMS Steering Committee Nomination Form](#) online. Self-nominations are accepted. Nominee resumes are not required but are highly encouraged. An authorization letter or correspondence from an appropriate elected official(s) or the nominee's supervisor will be required for Steering Committee membership.

Any person engaged in tribal environmental-quality issues may nominate. Nominees must be affiliated with a federally recognized tribe or intertribal group and must be engaged in tribal environmental quality issues. Voting members of the TAMS Steering Committee will select individuals from the pool of nominees to fill the open seats. The intent of the Steering Committee is to provide broad and regional representation, such representation is one consideration for member selection.

For additional information on the TAMS SC and the TAMS Center, visit the [TAMS website](#) or call 702-784-8263.

Quality Review and Exchange System for Tribes (QREST) Project: In the June 2019 Native Voices issue, the QREST project was introduced. Since then, the QREST project continues to progress. The QREST is open-source cloud software that will help tribes:

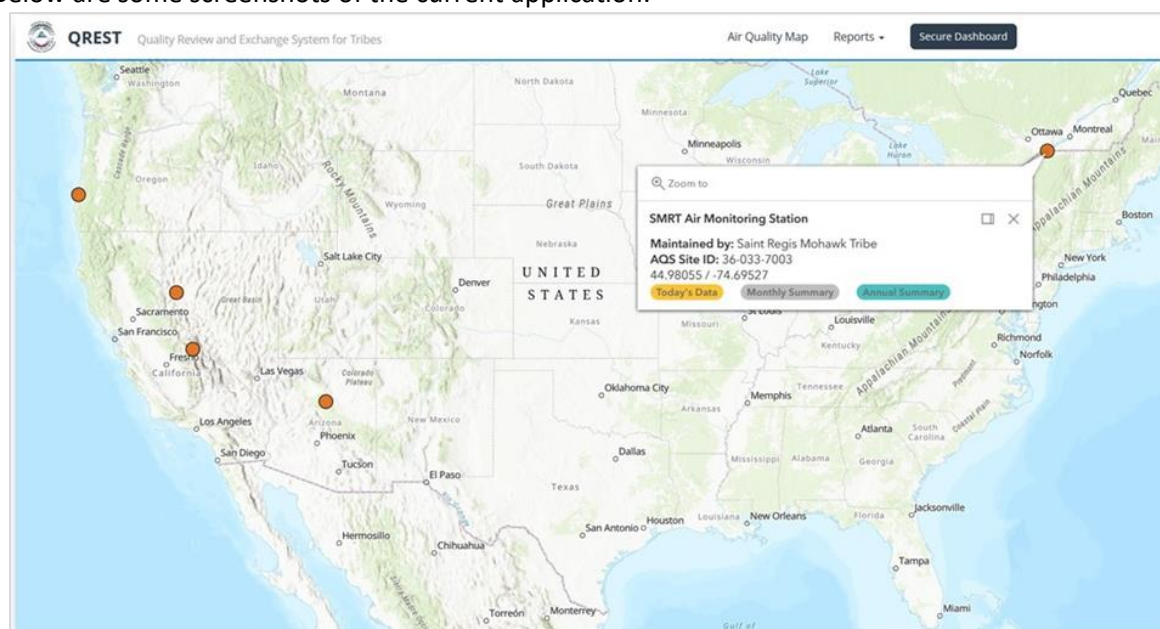
- Use up-to-date reference data from EPA
- Integrate with tribal data loggers to automatically retrieve air monitoring data
- Support manual upload of data logger files in lieu of automated data integration
- Automatically flag data using the 3 factors of the initial data review;
- Analyze, interpret and present data, using preformatted report and chart templates to aggregate and plot validated data, create reports, and summary statistics;
- Fulfill independent quality assurance for regulatory and legally-defensible data by providing a structure of separation between data gatherer and final data validation, as required by CFR and all quality system requirements (ISO);
- Push data to the Exchange Network [and EPA's Air Quality Subsystem (AQS) and the EPA's AirNow website].

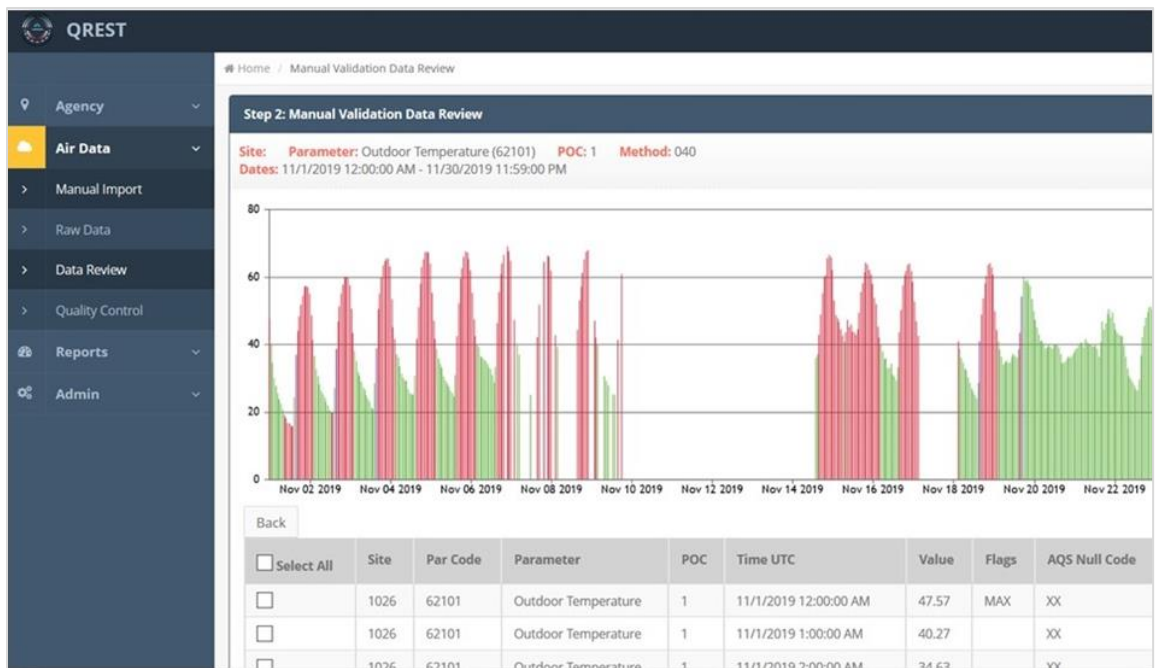
The project is split into four phases, as identified below, and is currently in Phase 2: Data Logger Integration, Quality Control. A fourth tribe has recently connected to QREST and is able to stream data into the application. We continue to welcome tribes who are interested in participating in providing input on the project to make it a more comprehensive tool that readily responds to tribal program needs.

QREST Development Phases:

<i>Implementation Phase</i>	<i>Design Document Status</i>
Phase 1: Security/Agency/Site/Monitor	Completed
Phase 2: Data Logger Integration, QC	In progress
Phase 3: QA Review / AQS Submission / AirNow	--
Phase 4: Public Website	--

Below are some screenshots of the current application:





Contact Chris Lee at Christopher.lee@nau.edu for additional information on the QREST Project.

Environmental Education Outreach Program (EEOP)

Summer 2020 Internships – Interested in being a host site? The Institute for Tribal Environmental Professionals – Environmental Education Outreach Program (EEOP) is seeking air quality focused offices and programs to host a college student for an 8-week summer internship. Tribal environmental offices, Environmental Protection Agency (EPA) offices, and other tribal environmental organizations are encouraged to apply. If your organization is interested in hosting an ITEP intern, please submit an online application by January 17, 2020. For more details please visit the [internship website](#) or contact Mansel at mansel.nelson@nau.edu or 928-523-1275.

Interested in applying? The internship program provides a stipend and allowances for housing and travel. Native American College students are encouraged to complete the first step of the process by registering via the [internship website](#). Applications are due February 28, 2020. The Host site information will be posted to the website by January 24, 2020, and applicants may select which hosts will receive their applications.

For more details please visit nau.edu/itepinterns or contact Mansel at mansel.nelson@nau.edu or 928-523-1275.

ITEP Education and Outreach

Nearly eighteen years ago, ITEP's Environmental Education Outreach Program (EEOP) Project Director, Mansel Nelson, facilitated a graduate student's move to Northern Arizona University in Flagstaff, Arizona. The student, Tommy Rock, focused on Uranium mining and impacts to communities on the Navajo Nation. He grew up in a small community on the Navajo reservation where he saw firsthand the effects of uranium mining on his relatives. Navajo lands were mined for uranium from 1944 to 1986, leaving more than 500 abandoned uranium mine sites and elevated levels of radiation in homes and drinking water sources. Over the past 30 years, several federal agencies have been working on addressing the environmental legacy left by the mining operations.

After completing his master's degree, Tommy worked as a research scientist with the University of New Mexico and as an Environmental Specialist with the Navajo Nation Environmental Protection Agency. A few years ago, he returned to NAU to complete a doctorate degree in Earth Science and Environmental Sustainability. Throughout the past 18 years, Dr. Rock has focused on a number of projects to help Navajo communities concerned about environmental and health impacts of past uranium mining.



Top: Dr. Rock shows community members on the Navajo Nation how scientists gather soil samples to investigate Uranium contamination.

Left: Dr. Rock taking water samples during the Gold King Mine spill in the Four Corners Region.

Dr. Rock continues to share his knowledge in various venues. Recently, he returned to the NAU campus to participate in an event co-sponsored by ITEP and the Sierra Club's Grand Canyon Chapter. The event shared information to NAU students about uranium and the impacts of uranium mining in the Four Corners region. Dr. Rock and Mansel co-presented on how uranium mining can impact water resources.

Radon in Alaska: Testing and More Testing

By Art Nash, Energy Specialist and Alaska State Indoor Radon Grant, Cooperative Extension Service at the University of Alaska, Fairbanks

Over the last year, radon testing has been a hot topic in Alaska. This fall the Alaska Indoor Radon Grant outreach staff finished up an ongoing project looking to expand radon testing throughout the state. Historically, radon tests have only been conducted in a few of the larger communities and, consequently, we have not had a clear picture of where radon risks existed within Alaska. The University of Alaska, Fairbanks took on a major outreach effort to increase testing across our state. This included social media posts, tabling at fairs and conferences, and outreach through healthy homes networks.

This effort led to increased radon testing across the state. In addition to using approximately 800 short-term charcoal-based test kits, we were also able to broaden testing throughout the state using an E-Perm radon tester. The E-perm device measures radon by tracking voltage discharge on a small disk. They do not need to be sent back to a laboratory out of state, which facilitates radon testing in remote tribal communities. The primary advantage of this testing system is the much more flexible timeline and that it won't "time out" while in the mail to an outside lab. This technological advancement allowed us to test in remote tribal communities that had *never* had any radon testing before. Consequently, we identified several



homes in remote communities that were above the action level (i.e. "positive" tests) and helped residents to identify mitigation strategies.

While we were in the midst of this push for increased radon testing, disaster struck...

Just over 1 year ago we (Leif Albertson, Mansel Nelson of ITEP and myself) had just wrapped up a series of radon and healthy homes presentations at a large conference with the Indian General Assistance Program (IGAP) leaders in Anchorage, Alaska. The next morning we had quite the shaker: a 7.1 magnitude earthquake! Over the following weeks, we received many calls from individuals in the surrounding area asking about home integrity, well-water safety, and unsurprisingly, radon risks.

One of the often-overlooked implications of a major seismic event, such as the Anchorage earthquake, is that the shaking can cause physical damage to both bedrock and building structures, putting homes at risk for radon. Based on national building standards, we felt it was important to inform the public that radon testing was advised, whether or not the home has been previously tested. Following the quake, the State Indoor Radon Grant (SIRG) program, which we work with, started a public information campaign to encourage radon testing.

In addition to our efforts at the University, the State of Alaska had a team of four people to provide information and distribute short- and long-term radon test kits. Collaborations included working directly with a cancer-survivor state senator to get the message out to test to her constituents, working with various state departments and also assisting another radon state manager who had just gone through an earthquake in his area – on the other side of the country (Georgia).

Following this event and our sustained advocacy, the State of Alaska's earthquake management plan was modified to include the National Building Standards recommendation for retesting. Consequently, we have codifying language to automatically recommend retesting for radon as part of our emergency disaster protocol.

Leif and I were able to share these experiences this past fall at an International Atomic Energy Agency meeting, and share ideas on what might happen to radon exposure as the permafrost melts in many of our communities. Methane is a concern as the ground thaws, but what of previously trapped radon as more villages build basements and other tight foundations in what largely have been airy log homes? We are continuing to keep an eye out on this and other dynamic developments with radon – the one contaminant where dilution can be the solution to the pollution!

For more information, contact Art Nash at alnashjr@alaska.edu, 907-474-6366, or visit www.uaf.edu/ces.

NOTE: The E-perm radon measurement devices were featured in the [September 2019 NV issue](#). Visit the TAMS article on their loan program.

Pat Ellsworth's Fond Farewell to ITEP



No one officially "retires" from ITEP, as Dr. Patricia Ellsworth has learned. After ending a full-time position with ITEP in early 2019, Pat (as we all know her) returned part-time to the American Indian Air Quality Training Program. She continued her work as Curriculum Coordinator and offered her irreplaceable knowledge and feedback to the air program. As we begin the new year however, Pat will conclude her ITEP adventure after dedicating almost three decades to AIAQTP.

After years of working with tribes in the environmental world she has learned that although she is a great organizer and teacher, most importantly, she is a learner.

Pat will tremendously miss the ITEP staff, the tribal instructors, course participants, and the EPA collaborators, but is looking forward to spending time with her 8 grandchildren, especially outdoors! She also hopes to assist her daughter, a conservation biologist, as an occasional field assistant. As a resident of Flagstaff,



Pat would like to learn more about native plants and birds in the area. She may find time to do volunteer work as well. (For ITEP perhaps? Just kidding, Pat!) From all of us in the ITEP family, we wish you the best!

"Remember how important your work is for the health and sovereignty of the tribes. Thank you for your kindness to me over the years and for all that you have taught me. It's been a good ride!" – Pat Ellsworth

See Ann Marie's editorial below for additional words of appreciation.

From the Executive Director...



Happy new year and happy new decade! Where were you 10 years ago? I was still working with the Gila River Indian Community as a Water Rights attorney. I can't believe I am starting my ninth year here at ITEP. Time flies! As we move into the next decade, I take time to acknowledge where I've been and reassess those goals that I've put on the back burner and develop new ones. My friends and I develop and share a picture collage poster to visualize our goals. My personal goal for the year: to become a better gardener! This is my way of reconnecting with my heritage and ancestors. And, I've already signed up for a Master Gardener class. I have this motto: "Once a decision is made, the rest is logistics." So, best wishes to you in this new year and new decade and the goals you've set for yourself and your programs.

That brings me to what we are doing here at ITEP. We are in the middle of a strategic planning process. As ITEP starts its 28th year of operation and service to Tribes, it's essential to any program, to take a good hard look at what has worked, what needs work, and what new goals and strategies need to be developed as priorities and needs around you change. As many of you know, this process is long and at times tedious, but in the end, we will be stronger and better suited to support all of you in Indian country.



ITEP Staff celebrating Christy Nations and Pat Ellsworth at their retirement luncheon, January 2019.

In other news here at ITEP, many of you know that Christy Nations and Pat Ellsworth retired this past year. Both Christy and Pat were instrumental in the development, and successful implementation of ITEP's American Indian Air Quality Tribal Program (AIAQTP). Many of you were able to honor them at the 2019 National Tribal Forum on Air Quality (NTFAQ). At a more recent celebration here in Flagstaff, we shared stories, plenty of laughs and shed some tears as we said farewell and THANK YOU to Pat and Christy. Over the years, Pat and Christy have shared with me many stories about ITEP, our former directors, staff, and participants, which has helped me to set the tone for my leadership. They are ITEP's matriarchs. We thank them and honor them for the work they have done throughout Indian country. Countless tribal professionals are better environmental stewards of their communities because of the work these ladies did over the past three decades. May we all be inspired to leave an incredible legacy as Pat and Christy.

Upcoming Events:

>> **January is National Radon Action Month.** Visit the [EPA website](#) for more information, which includes [outreach resources](#) for community radon 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 open on Monday, February 3, 2020, and will close on Monday, August 3, 2020.** For more information, visit the [FCC Rural Tribal Window website](#).

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