By the late 90s, as tribal air professionals expanded their experience and began tackling increasingly complex air-management tasks—monitoring, meteorological station setups, data management and submittals—it became clear that ITEP’s mission to provide tribal air training through the ITEP’s American Indian Air Quality Training Program needed a technical boost.

That boost came in 2001 with the launch of the Tribal Air Monitoring Support (TAMS) Center. The TAMS Center provides a variety of technical assistance to tribal air pros, including classroom and online training, equipment loans, an information repository and expansive video library, and direct support through ITEP’s Professional Assistance (PA) program.

The PA program is the “next level” in TAMS’ support efforts, focusing on one-to-one interactions either in person or via remote communication. The program began as a generalized effort to offer both technical and non-technical support to tribes on air quality management. But ITEP staff soon realized that most PA requests centered on two needs: support on air monitoring and other hardware and on data management. TAMS Co-manager Chris Lee takes the lead on the PA program, which presently addresses a dozen or more formal tribal support projects each year, along with scores of more-brief assistance contacts by phone, email and other web-based links.

“PA requests vary quite a bit,” Chris says. “Some come in for help on setting up, running and troubleshooting equipment; on the hardware side, Glenn Gehring typically handles those. Others relate to data management, including quality assurance documentation, standard operating procedures, and more. We can provide immediate technical support, or help them identify where to get help, including contacts to equipment vendors.”

TAMS Co-Director and Professional Assistance Coordinator, Chris Lee, at the Grand Canyon in 2009.

ITEP Interns: Johna Boulafentis

Johna Boulafentis, a former ITEP intern and longtime Environmental Outreach Specialist with the Nez Perce Tribe (NPT) in Idaho, never seems to slow down. That was true in her undergraduate days, and more than a decade later she continues to seek out new learning experiences—and to provide them to others. Her various air-program duties at Nez Perce in summer include supervising student interns, assisting with air quality advisories and public outreach during wildfire smoke events, and helping register and monitor agricultural burns on 40,000 acres of farmland. Come see INTERN on page 4
Greetings from the San Francisco Peaks (Doko’o’osliid in my Diné language), where the leaves are turning and the fall chill fills the night. I had an incredible summer and hope you did as well.

First, I would like to thank many of you for making ITEP’s 25th Anniversary, a memorable event. We received many well wishes and we are very thankful for all your support. To recap our day on September 11, 2017, the ITEP team gathered for a workshop in which we discussed our past work, strategized on future efforts, and took a moment to acknowledge each other personally as colleagues and friends. In this time when all need support, the gathering fed our spirits and provided us with renewed motivation.

In the evening, we had a beautiful gathering with lots of old friends and a full auditorium of about 700 people to share our 25th year milestone and hear the inspiring words of Winona LaDuke. We thank all of you who attended, including the members of the Tribal Air Monitoring Support (TAMS) Steering Committee and the National Tribal Air Association (NTAA) Executive Committee, EPA leadership, friends and family. We’re grateful to our hero, Winona LaDuke, for her inspiring words, and to all of you for your invaluable support over the many years.

The rest of the week was filled with numerous productive meetings. The TAMS Steering Committee (SC) and NTAA’s Executive Committee (EC) met together and separately to discuss air policy and technical issues. Each group brings tremendous strength to the effort and their synergy will no doubt result in advantages to tribes working on air issues. We also held a meeting of the Tribal Climate Change Advisory Committee and ITEP’s American Indian Air Quality Program (AIAQTP) and Tribal Waste and Response Assistance Program teams. It was a great week of strategy development and collaboration.

One discussion topic during the week was the VW Settlement. In the past year, NTAA EC and TAMS SC worked diligently to secure $55 million in funding from the VW Settlement for tribes. In this issue of Native Voices we provide a closer look at the tribal settlement and ITEP’s new program to assist tribes with Settlement-related issues. Congratulations and thank you to both groups for combining your strength and passion in this effort.

see DIRECTOR on page 12
ITEP’s 25th Anniversary

On Sept. 11, ITEP celebrated 25 years of service to tribes. Our anniversary event was held in Flagstaff, Arizona, in conjunction with the yearly Biennial Conference of Science & Management on the Colorado Plateau & Southwest Region. Some 700 participants shared our celebration, including tribal and government officials, university leadership, numerous old friends of ITEP, conference attendees and a general audience. Among the speakers: Bill Auberle, ITEP co-founder; Steve Page, EPA Director of the Office of Air Quality Planning and Standards; Rita Cheng, NAU President; and activist/author Winona LaDuke.

We’re proud and humbled to have supported the professional development of air quality staff representing more than 500 American Indian tribes over the past quarter century. We congratulate them for the great work they’ve done for their communities across the US, and we thank you for your support over the years.

Keynote speaker Winona LaDuke inspired the crowd with an impassioned talk on environmental struggle and keeping the faith.

ITEP co-founder Bill Auberle addressed the anniversary crowd, lauding the work of ITEP’s four directors over the years.

The ITEP team took the stage for a moment of recognition. Many have been with the institute for a decade or more.
## Upcoming ITEP-AIAQTP Courses for FY18

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<th>Course</th>
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<tr>
<td>AQ and IAQ in AK</td>
<td>Oct. 10–13</td>
<td>Nome, AK</td>
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<td>IAQ in Tribal Communities (Lower 48)</td>
<td>Nov. 6–8</td>
<td>Albuquerque, NM</td>
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<td>Treatment as a State</td>
<td>Nov. 14–16</td>
<td>TAMS, Las Vegas, NV</td>
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<td>Fundamentals of Air Monitoring (Lower 48)</td>
<td>Dec. 4–6</td>
<td>TAMS, Las Vegas, NV</td>
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<td>Introduction to Tribal Air Quality</td>
<td>Jan. 9–12</td>
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<tr>
<td>IAQ Diagnostic Tools</td>
<td>Feb. 6–9</td>
<td>TAMS, Las Vegas, NV</td>
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The course schedule can change. For updates, visit: http://www7.nau.edu/itep/main/Training/training_air

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**INTERN - from front page**

fall, agricultural burns wrap up, and residents begin burning across the Nez Perce Reservation, which also requires air quality permitting. Johna assists in the permitting process by getting the word out to the over 18,000 people living on the reservation. As needed she also assists with office’s air monitoring sites and Title V inspections.

During the school year, she works regularly with two school districts. Second-grade classes monitor trees around their school and link their growth rhythms to the changing climate through Project BudBurst, a national phenology project. With two middle-school classes she provides hands-on air quality and environmental health and science related lessons. During the spring, Johna also makes the rounds at school and community health fairs, STEM and Earth Day events and other gatherings, sharing information with community members on links between health and the quality of their air. She also teaches a number of adult classes that include the topics of green cleaning, energy efficiency, indoor air quality/healthy homes and local food preservation.

Most recently, partnering with NPT Housing Authority, she hosted a hands-on “How to Build a Firewood Shed” class. (One attendee won a shed, and two other sheds will go to tribal elders.) Throughout the year she...

*see INTERN on page 10*
data management and data analysis; those calls go to Melinda Ronca-Battista. Angelique Luedeker specializes in emissions inventory support, though she also supports other data needs. Tribes generally contact her for help as they work through EIs, often when they’re working with TEISS software (Tribal Emissions Inventory Software Solution), or when they need to review an emissions inventory. Mansel Nelson, who instructs on indoor air quality through ITEP’s American Indian Air Quality Training Program, occasionally provides PA support on IAQ, complementing the TAMS Center’s cadre of building scientists, who work with TAMS on a contractual basis.

Chris adds, “Occasionally myself or Farshid Farsi (TAMS-EPA Co-Manager) gets a request from a tribe contemplating a Treatment as a State project or looking at a permit proposal. Through our past experience working with tribes, we can often assist on those kinds of projects.”

PA requests come to TAMS through formal requests (www7.nau.edu/itep/main/tams/Services/ProAsst). They’re reviewed at weekly TAMS meetings, where staff considers the kinds of support they might be able to offer and whether it’s feasible. “A lot of times a project assistance request might be someone asking for a monitor through the equipment loan program,” Chris says. “But there’s a whole process that people sometimes don’t understand: EPA requires planning, Quality Assurance Project Plans, SOPs, that whole piece. So it helps that we look at requests internally and then report back to the tribe, especially if something they’ve requested might be more involved than they might have thought. The Equipment Loan program is not considered PA, but if there’s training involved, that will probably turn into a PA project.”

Sometimes a need is best addressed through ITEP training or a mode other than one-on-one support. “If someone wants to understand an EI better,” Chris offers as an example, “we might direct them toward our online EI courses. Sometimes a video in our library might have the information they need. Sometimes it goes in the opposite way. For example, our Fundamentals of Air Monitoring course teaches tribal air pros the basics of being a site operator, but it doesn’t go into too much detail—it’s really a snapshot of different types of monitoring, particulate, ozone, other gaseous pollutants. It really opens the eyes of people who lack experience; they realize it’s more than just turning on a piece of equipment. And when we do these courses, sometimes they drive the need for a tribal professional to request PA after the course.”

Indoor air quality, he says, “is getting a lot of attention right now, tribal techs wanting more information on the use of diagnostic tools for indoor home assessments. I think a lot of tribes want to move in that direction. Our IAQ courses are great for that; they lay out the process and include assessment forms and other tools they need. And IAQ Diagnostics provides basics on using technical assessment tools.” Once an air tech completes that training and the field work begins, a PA support visit or remote assistance effort might be the final piece a tech needs to achieve self-sufficiency—and sometimes to gain the skills to train others to do the same work.

The PA program, Chris says, is an important part of the total air-management support structure that ITEP provides, a polishing touch that can help take tribal air staff to the next level of expertise. “We’re somewhat limited in staff,” he notes, “and I’m sure we could do more. But we’re responsive to tribal needs, and we will continue to work toward getting tribes the support they need when they need it.”

**THE PA CREW**

**Melinda Ronca-Battista—Data Expert/Librarian**

“I’ll get an email or a phone call asking for help with something,” says ITEP/TAMS Research Associate Melinda Ronca-Battista, describing her process for responding to Professional Assistance requests. “It could be an emissions inventory, a Quality Assurance Project Plan, or it could be data analysis, a person saying, ‘I really want to understand this data. Is it different from last year...?’ That’s pretty much the range of what I do, though that covers a lot of ground.”

Melinda is one of the PA program’s two data management experts. She’s passionate about her work—with little prompting she’ll tell you, “I love working with data!”

see PA on page 6
During her 17 years with ITEP, Melinda has traveled far and wide to assist tribal air pros with their data needs. But mostly gone are the days when she would drive for hours to sit down with a tribal tech at an air program office to work through a data issue; the web has largely changed that. “I often work through issues with people on the phone or email,” she says. “A lot of times we’re using web tools like GoToMeeting so I can see their computer screen. And I just walk them through it.”

Although air-program basics have hardly changed since she joined ITEP—new techs still come into air programs needing basic support even as seasoned staff tackle ever-more-complex data challenges—she says air program demands have evolved in other ways. “For one thing, people have accrued more data, maybe five or more years’ worth, so they have more questions. They see there might be a trend and wonder if it’s statistically significant. There’s more work now on long-term analysis, and there are also more tools online now that offer more ways of looking at other peoples’ data—many tribal techs can now compare data from a nearby site, for example, which gives them additional evidence that perhaps a high value on a certain day is valid.” Another change she’s seen: “EPA used to only want parameter data, pollution concentrations or whatever, but now they want more information—parameter values as well as associated quality control values, and the results of flow checks, and information on audits.

She says newer online tools, such as exchange networks, have also changed the nature of data management. “The way exchange grants often work is the contractor and the tribe may partner and get a year to develop a piece of software. But part of the grant says there will be no training. So it’s, ‘Here’s your ‘black-box’ database and your datalogger,’ and then the contractor is gone... In a way the exchange is good, but it can also make the work harder. Eventually the technology will be great, but in the short-term...having to deal with added layers of technology makes things a little more complicated.”

Melinda believes newcomers to air-data work often come to the job with built-in advantages that are rare for older hands: “Someone who’s in their 20s grew up with computers and data, and they grew up with the internet. The old paradigm was classroom courses, but now people expect to find things on the web. And they want to know specific things: ‘How do I change the screw on this part? How do I sort this file by date,’ something really specific. That’s what we’re aiming for now, to provide people with what they need when they need it, and not a lot more to confuse them.”

Even the timeframe for one-to-one support has changed over the years, she believes. “These days I find myself doing something with someone, then I might not hear from them, then six months later we pick up where we left off. It’s much more long-term, ongoing work.”

“I don’t do any in-person courses anymore,” she says. “The kind of information we provided in classroom courses on data management and emissions inventories is too much to process in a few days; it just doesn’t work.” A decade ago Melinda embarked on a project designed to get data-oriented information out to the greatest number of people possible: a video library to address an ever-expanding range of data-related tasks. The video library serves as an important complement to both PA projects and online coursework. To find information on a variety of data-related challenges, people can often get what they need by viewing a series of TAMS videos, a single video, or even a portion of a video. “We don’t try to make people experts right off the bat. It’s more like, ‘This is what you need to do right now, and then you’ll remember how to do it. Then we’ll go on, because the next step is even harder. And eventually you build a skill base.”

She reflects on how her own PA experience has evolved over the 17 years she’s been with ITEP. “For me, it’s happened in at least two ways: My understanding of what is reasonable, what EPA wants, has improved, in terms of things like summary statistics and quarterly reports, and specific things like uploading data into AQS. I’ve also learned what’s useful to tribal air professionals. A lot of times that’s a video. But sometimes that’s not enough because the video picks up at a point they haven’t reached yet. So maybe their data is kind of ‘dirty’ and they can’t just copy-paste it into a spreadsheet in the way it’s presented in the video—first it has to have headers changed, info at the top removed, etc. So that becomes a PA relationship—we’ll work through the problem together.”

In addition to the one-on-one support Melinda provides, she also sees her role these days as a sort of data librarian. “Over the years I’ve worked with so many tribes, states and counties, and they’ve shared so many documents that we

see PA on p. 7
now have a library of material that tribes can use as examples—QC forms, monthly particulate matter flowrate checks, etc. We also have the video library, and we deliver courses through ScholarLMS, where you can find, for example, every step in doing an EI, with examples for sawmills, gravel pits... we have instructor-led courses, just a lot of information sources. We also have a repository of information (http://datatools.tamscenter.com) that will eventually be turned to an ORCA (Online Resource Center Access) site where people can go to the TAMS website, enter a key word and actually download a document.”

Along with resources she’s gathered from disparate program sources, these days she is also finding additional resources through her interactions with the individual techs she supports. “Tribal air pros are just phenomenal,” she says. “Many are so overworked, and yet they do such fantastic work. And these days I’m also trying to capture some of that.” As an example, she describes her recent work with Pamela Atcitty with the Morongo Band of Mission Indians in southern California. “She’s got a database of her SOPs,” Melinda says, “with really good hints and tips on what she’s created. It’s so phenomenal that I really want to get that out for other tribes. So I recorded it.”

“We’ve created a lot of built-in efficiency,” she says [an accomplishment that could come in handy as EPA budget pressures increase]. There’s now so much material we have that tribes can access. I’ve got almost too much stuff—modules for this, for that. But where does it all fit? So for the information to be available, as in a library, the organizing work has to be done. And that’s probably mostly what I’ll be doing until I retire....”

Glenn Gehring—Hardware Hands-On
When I caught up with Glenn Gehring for this article he was at the Leech Lake Tribe in MN, helping the air staff set up a MetOne BAM1020 particulate monitor—another on a long list of monitoring systems that, through his experience and willingness to spend quality time with manuals and experts, he knows inside and out. His work at Leech Lake involved supporting the tribe’s air staff on how to assemble, run, maintain, and troubleshoot the equipment.

Soon after, he was scheduled to visit the Little Sioux Reservation, also in MN, for his next PA project. There his goal would be to assist the staff—newcomers to air management—in setting up and managing two Federal Reference Method particulate monitors they recently acquired. “We’ll be going over how the monitors work,” he said, “siting, how to make sure they’re giving good data, the way they need to process the sample filters, those kinds of things. The staff there is totally new to this, so it’ll be system overload for them, I’m sure. But they’ll have my phone number.”

For the past 15 years Glenn has traveled throughout the nation offering his hardware expertise to tribes far and wide. “I do a little of everything,” he says of his PA work. “Sometimes there’s a new staff person who needs to understand the equipment, or someone who’s been around for a while has a new piece of equipment to set up. Sometimes it’s troubleshooting. Recently, an air guy asked me to visit his program because he thought I might be able to explain the technical stuff better than he could. Often, I’m just interpreting the language in the manual to a language techs can understand. The concepts they understand, but the language in the manual doesn’t always express those concepts in a way that’s easily comprehended.”

Glenn’s PA routine begins with a direct contact, a call to Chris Lee at the TAMS Center, or to someone else in the tribal air community who refers them to TAMS. “When we get an application,” he says, “I look first to see if I have the technical knowledge to offer effective assistance. Once I let Chris know that I’m familiar with the equipment, he looks at a couple of other things: whether the job fits the TAMS mission and if we have the funds for the job. Once Chris approves the PA request, I contact the tribe and work out arrangements on timing.”

His work sometimes begins well before a trip, when he spends time analyzing the area’s pollutant concentrations and existing monitoring networks to see what coverage gaps might exist. If a tribe wants to commence with monitoring but needs more input on how best to do it, he reviews the kinds of hardware they’ll need to accomplish their goal. “I provide information on types of equipment for their

Glenn at the TAMS Center in Las Vegas, Nevada in 2007, with some of his little friends.
In September 19th, 2017, Honorable Judge Charles Breyer signed a $14.7 billion dollar Volkswagen Settlement (the corporation was caught installing emission “cheats” on some of their vehicles). The judge ordered a $55 million setaside to establish a trust for all 567 tribes, and he selected Wilmington Trust to be the trustee. The $55 million tribal setaside will be allocated for the next 10 years. At the request of the National Tribal Air Association (NTAA) Executive Committee and Tribal Air Monitoring Support (TAMS) Center Steering Committee, the judge named ITEP as tribal technical advisor to assist tribes in becoming trust beneficiaries.

To access a share of the $55 million, a tribe must qualify as a trust beneficiary by developing an Environmental Mitigation Plan (EMP) and budget. ITEP will assist tribes in developing their EMP, and Wilmington Trust will determine if the tribe is qualified. There are a series of key dates, including the Trust Effective Date (TED), that implement the settlement.

**Key dates for the VW Settlement**

- October 2, 2017 - Trust Effective Date (TED)
- November 1, 2017 - States required to submit EMP
- January 1, 2017 - Tribes required to submit EMP (for 1st year)
- September 1 - every year, tribes allowed to submit EMP

ITEP is currently working with the trustee to develop a plan to provide technical assistance. ITEP will also organize the formation of a Tribal Advisory Council to foster communication between the trustee and the tribes. Both the plan and advisory council are required to be in place by December 1, 2017.

ITEP wishes to thank the NTAA Executive Committee, TAMS Steering Committee and NTAA VW Settlement Work Group members, all of whom contributed to finalizing this historic settlement! More information and a new Tribal VW Settlement website will be established soon to assist tribes in developing their EMP and budgets. Current information and access to court documents and other helpful resources can be found at:

**NTAA’s VW Settlement Work Group webpage**

www7.nau.edu/itep/main/ntaa/Resources/Volkswagen/

For additional information on the VW cheating scandal and Settlement, visit:

www.epa.gov/enforcement/volkswagen-clean-air-act-civil-settlement
task—first, do they want regulatory or informational?—letting them know which analyzers would work. I don’t make recommendations; I provide them with advantages and disadvantages of the various equipment, including what I know about the manufacturers, what kind of documentation and tech support they provide. Some have good documentation, so you can figure out problems and fix them yourself; others don’t. And sometimes there’s just one option.”

“Other times,” he says, “techs have existing monitors they need support on. And sometimes they might have equipment that’s all but obsolete and they can’t even get parts for it anymore.” In each case, he considers the needs and strives to provide the best assistance and advice he can muster. Sometimes he picks up where contractors leave off. His practice has always been to provide basic instruction and then encourage techs to do as much of the work themselves as possible. "One big difference between TAMS and many contractors: Our goal is strictly to help tribes become self-sufficient so they can do the job themselves.”

**Angelique Luedeker—Emissions Inventories & More**

“I provide technical assistance on emissions inventories as well as assistance with ambient air monitoring data management,” Angelique says. “Oftentimes, this includes providing assistance with software programs such as TEISS (Tribal Emissions Inventory Software Solution, for emissions inventories) and the Tribal Data Toolbox (for air monitoring data management). The assistance is provided via email, phone, and/or through online meetings. I estimate about 60% of my work is responding to requests for assistance; the other 40% goes to other tasks, including maintaining and updating the Tribal Data Toolbox.”

Since the beginning of 2017, Angelique has responded to assistance requests from approximately 25 tribal air professional. As this article was in progress she was working with four assistance requests.

In her 15 years with ITEP she has provided EI assistance to more than 100 tribes.

“The most common question I get,” she says, “is how to go about putting together an emissions inventory. In most cases, I refer the individual to our online EI Fundamentals training. Although the course was originally designed and offered as a live online training—in other words, we had live weekly webinars, which took place a few months ago—individuals still have the option of completing the training in a self-paced fashion anytime. The difference between the live offering and the self-paced version is that recorded videos take the place of live webinars and there is not a timeline for completing the homework exercises. But Melinda and I are still available to provide assistance and review homework exercises as the participant works through the training at their own pace.”

Angelique’s PA assistance is often tied to the online training courses, and much of her work is really a hybrid of “PA” support and TAMS technical-course support. “After completing the second training in the series, EI Advanced,” she says, “the participant has started to work on a Level 2 or 3 EI [for their tribe]. We expect them to continue to ask questions as they work on their EI. The online videos are excellent refreshers for those who have completed the training but might have taken a break from working on their EI. Additionally, the videos take the place of the live webinars for participants completing the training in a self-paced fashion.”

She also supports tribal air staff with ambient air data tasks, using the Tribal Data Toolbox. “Since one of the functionalities of the Tribal Data Toolbox is exporting data in the AQS format, I also provide assistance with submitting data to AQS.”

Angelique wants tribal techs to know she’s always available to support their data-related work. “If you need assistance with EIs, TEISS, Tribal Data Toolbox, or Air Quality System,” she says, “I’m only a phone call or email away.”
reaches over 1,000 children and adults with air quality and health information.

In addition to occasional indoor air quality (IAQ) assessments of tribal buildings, her job also includes two collaborative IAQ-health-related projects. As winter approaches she’s gearing up for the Elders’ Air Woodstove project, a partnership with the tribe’s health clinic (Nimiipuu Health), Forestry and Fire Management, the University of Montana, and Navajo Nation. By 2019, over sixty tribal elder homes will receive indoor air quality information, wood stove thermometers, moisture meters, air filtration units, and locally focused digital stories emphasizing Nez Perce cultural connections to wood burning. This upcoming year along with Nimiipuu Health, she will complete their IAQ assessment study of and outreach to 25 tribal asthmatic children homes and four schools through the University of Tulsa’s “From Home to School” project.

Over the years, Johna has given generously of her skills to the greater tribal air community by presenting at ITEP’s National Tribal Forum on Air Quality, most often on indoor air quality. She’s a strong supporter of the forum’s mission to provide professional growth and networking opportunities for tribal air staff throughout the nation. She’s even had her ITEP interns attend and present at the conference.

Old Habits

Johna’s energy and enthusiasm have hardly waned since she attended Dickinson College in Carlisle, Pennsylvania, in the early 2000s, majoring in cultural anthropology. During her undergraduate years she constantly sought extracurricular opportunities to engage with people and expand her knowledge and cultural connections. That included a semester abroad in West Africa, and participation in the school’s Alternative Spring Break program, which brought her to the Tohono O’odham Nation in southern Arizona. For two years running, she spent a week each spring with the tribe assisting with their community gardens, building fences and conducting tribal-youth activities.

As her undergrad work came to a close, she says, “I was looking for something to do and found a posting on a random email list for an ITEP internship. I saw this opportunity and thought, ‘Wow, when will something like this ever happen again?’ I applied, was accepted, and I was placed for ten weeks with the Nez Perce Tribe in Idaho.”

Her travels had taken her far and wide, but she’d never been to the Northwest US. She was immediately charmed by the people and the region’s beauty. The Nez Perce internship introduced her for the first time to the air quality field. “It was a year before the Federal Air Rules for Indian Reservations (FARR) was released. They were looking for an intern to gather information about burn ordinances, burn rules of other cities and counties within reservation boundaries. They also had me helping with outreach and education with youth, at summer camps and other activities.”

She says she was “totally excited about the opportunity to connect with other people. I always like meeting and working with people of all ages. I think I would have probably ended up in the environmental field eventually—I had done some education camps during college, and I’ve always been pro-Mother Earth. Air quality was never really on my radar, but it definitely informed my career. I just built in my passion for connecting with others and trying to find solutions to issues, working collaboratively, whatever the project. And I loved working with the Nez Perce Tribe.” Leaving after the internship, she says, was a bittersweet experience.

Full Circle

As it turns out, she didn’t have to miss Nez Perce for long. Less than a year after her 2004 internship, the tribe hired her into their natural resources department. She’s been there ever since.

Air quality was still relatively new to her when she signed on, and she was eager to learn. “I was looking at some ITEP training manuals that my coworkers had,” she recalls of her early days on the job. “That material clued me in to Treatment as a State, the Tribal Authority Rule and other policy topics about tribes and the Clean Air Act. So far I’ve attended nine ITEP air courses. Some have taught me more about outreach, and I got IAQ training, got refreshed on...
math—just lots of the skills you need to work for a tribal air quality office.”

She’s since added a Master’s in Conservation Biology to her expanding resume. Her graduate work at Miami University in Ohio involved a “hybrid program” (half in person, half remotely) geared toward teachers and other environmental educators. “Basically,” she says, “we did programs that benefited our community on a conservation issue. I was also able to travel to other countries—I went to Belize, the Peruvian Amazon and Guyana.”

That latest round of education and international experience has provided Johna with fresh ideas and approaches in the aspect of her work she finds most appealing: connecting with others. “That’s what I really enjoy about my job now, opportunities to connect with people—an individual, a community, a university person, someone from a tribal, state or federal agency.”

**Giving Back**

For nearly a decade, her personal connections have included ITEP summer interns, whom she supervises. During their eight-week stay, she says, “We focus primarily on education and outreach, with lots of public speaking. Some students are extroverted to begin with; others are exploring their extrovertedness... Some people are really shy, and we work to keep them involved. [Participating in outreach projects] sometimes can be a transforming event for them; by the end of the internship they’re able to get in front of a group of people and present.”

Nez Perce internships focus on folding a student’s field of study or interest into their summer AQ experience, with past interns exploring diabetes, anti-idling, chemistry, outdoor burning, and climate change. The internships, she says, “are pretty rigorous, in the sense that they work weekly with Boys and Girls Clubs, do presentations at summer camps, work with area library programs and in summer schools, reaching out and doing some education. They also get involved in our monitoring work. We have three stationary PM2.5 monitors and met sites and two E-sampler sites that operate from July through October, and CASTNET and AMoN sites. We’ve also participated in local air toxics studies. My coworker, Mary Fauci oversees the air monitoring, and some years we’ve had interns take on primary sampling. So in eight weeks they really get up and running.”

Just as her internship was an important time for her, she seeks to provide interns with similar experiences. “Mentoring was important to me as an intern,” she says, “and I try to make it a priority for them. I try to introduce them, take them around to meet people, tribal and nontribal, so they can know more about the people who were born here and those who have long connections here. The internship is important, but I think it’s also important that they have good experiences all around. I really try to help connect them with a tribal family; internships can be pretty lonely for some people, so those connections can be really important.”

Johna says she and the tribe have been fortunate with the interns they’ve hosted yearly for the past decade. “I really appreciate them for their creativity, the new ideas they bring, and their excitement about working with youth. It’s great introducing someone to the air quality field. Even if it’s only for eight weeks and they never work in the field again, they have that experience—which most people don’t have—for the rest of their lives.”

She says most interns seem to value their time at Nez Perce, both for the internship work they do and for the overall experience. “Many never knew Idaho could be so beautiful. And if they’ve never been exposed to fishing culture before, it’s a really neat thing to see. And most interns leave here really liking salmon.”

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*A day at the office for Johna Boulafentis.*
always looking to find efficiencies in the work we do. One way we’re looking to extend our tribal support is by recording more of our courses for self-paced viewing by tribal air staff. We are adding many other new videos and webinars to our growing archive of online and other resources. Please visit our website for more information. If you have other ideas on how we can expand our air-management resource archives, please let us know.

On a more personal note, this summer I was invited by Pennsylvania State University to deliver a presentation on “Visualizing Futures using Indigenous Knowledge Systems” at the Resilience Alliance conference in Stockholm, Sweden. Our panel included several presentations highlighting both ITEP’s Climate Change & Tribes program and the work of the Menominee Nation’s Sustainable Development Institute. The focus of the presentations was on how virtual reality and communication systems can be used as a tool to bridge knowledge systems. If you are interested in learning more about sustainability issues, please visit http://resilience2017.org.

On my travels, I met two incredible indigenous women, Melanie Goodchild, PhD (Anishinaabe) from northern Ontario, and Erika Zárate (Quechua) from Columbia. Their work and spirits inspire me – thank you.

I am very grateful every day for the work I am doing along with my team here at ITEP. Our commitment to fulfill the visions of both the late Virgil Masayesva and Cal Seciwa are ever present as we plan and strategize for the future. We are grateful to all of you who have been an integral part of ITEP’s vision, and we look forward to continued service. Thank you.

The TAMS Steering Committee and the National Tribal Air Association Executive Committee met on Sept. 11 to share ideas on policy and technical issues and strategize on behalf of tribes.

Left to right: Ann Marie Chischilly, Dr. Melanie Goodchild (Anishinaabe), and Columbian (Quechua) Erika Zárate.