This year’s National Tribal Forum on Air Quality, held in May in Battle Creek, MI, continued a sixteen-year history of excellence. The Forum also broke new ground, with close to 200 people (the largest NTF showing ever) attending the yearly gathering of tribal air quality professionals and those who support their work.

NTFAQ 2015 was held at Firekeepers Casino Hotel, a modern, spacious facility owned and operated by this year’s Forum host, the Nottawaseppi Huron Band of Potawatomi, whose Pine Creek Reservation lies just south of Battle Creek. Attendees expressed numerous compliments on the quality of their experience at Firekeepers and the graciousness of our host. The tribe provided a fine location and great generosity, supplying forum attendees with quality meals, a tour of the tribal community, and a performance by talented pow wow dancers and drummers who delighted the crowd with song and energy. We extend our heartfelt thanks to the tribe for their welcoming spirit and excellent treatment of our Forum guests.

NTFAQ 2015 brought together tribal air professionals representing a wide range of knowledge and experience, along with federal and state air-quality staff, private-industry representatives, members of academia and non-governmental organizations, and others. The attendee mix has always been one of the Forum’s great strengths, stimulating creative...
Greetings. As fall begins here in Flagstaff, I'm looking forward to the leaves changing and the crisp mornings.

I am happy to announce the National Tribal Forum on Air Quality (NTFAQ) committee has already started planning for NTFAQ 2016! Doesn’t it seem like the NTFAQ 2015 just ended? I want to congratulate over 200 of you who participated, to make NTFAQ 2015 the largest and one of the best Forums yet.

The planning committee has reviewed the proposals from prospective tribal co-hosts and has selected the top candidate: the Seneca Nation of Indians and Saint Regis Mohawk Tribe will co-host the 2016 NTFAQ in Buffalo, New York, home of the world-famous Niagara Falls. Congratulations!

If you’re interested in serving on the committee or need additional information on the Forum, please contact Lydia Scheer, here at ITEP. I am looking forward to next year and hope to see many of you there!

Last month was very difficult for many of our tribal nations who are fighting fires in the Northwest and California. And here in the Southwest, we are dealing with the Gold King Mine spill and its impacts. At ITEP, we stand committed to finding ways to help those affected by these catastrophes today and in the years to come. Our thoughts and prayers will continue to be with all of you.

I want tell all our brothers and sisters in Alaska that you all did an amazing job hosting President Obama! I have never seen him smile and laugh so much. Excellent job! I'm so thankful he highlighted climate change impacts that are affecting your families and communities. Climate change is the overarching issue impacting all of us, and I'm happy to announce our new partnership with the Bureau of Indian Affairs to develop five courses for the Climate Change Program in FY2016 and seven in FY2017. The curriculum development for these courses will be led by a Steering Committee that will be formed this fall. Please stay tuned for updates.

Lastly, again to those in Alaska, I want to send a big congratulations to all of you who fought for the renaming of the Denali mountains – The Great One. That news brought me so much joy I had to stop and just say, “thank you.” I had the tremendous privilege of visiting Denali National Park last summer and being there was...simply amazing.

Until next time, thank you.
In 2015 Virgil Masayesva Tribal Air Programs Excellence Awards, two tribal air professionals were selected for their extensive efforts to promote air-quality progress within the tribes for which they worked and across Indian country.

Dan Blair, former Air Program Director, Gila River Indian Community, AZ

When Dan Blair assumed his duties as air quality specialist (and recently retired as Air Quality Compliance and Enforcement Manager) for the yet-to-be-launched air program at the Gila River Indian Community in 1997, he realized he had some adjusting to do. Coming from his role as a Lead Air Pollution Investigator for Arizona’s Maricopa County (which borders the reservation), he was used to operating amid a fully staffed air department that included stack-testers, small- and major-source experts, numerous investigators, and a full support staff. At GRIC he was the air department—and that program was still in its planning stage.

Anyone who knows Dan understands this was a challenge.

Randy Ashley, Air Quality Program Manager, Confederated Salish and Kootenai Tribes, MT

A member of the tribal air community’s “old guard,” Air Quality Program Manager Randy Ashley is this year’s co-winner of the Virgil Masayesva Tribal Air Programs Excellence Award. Randy has been working to protect air quality over the Confederated Salish and Kootenai Reservation in west-central Montana since 1998. His efforts on behalf of the tribal air community extend nationwide.

Much of Randy’s work at CSKT revolves around two PM10 monitors on the reservation as well as a regional IMPROVE site focused primarily on regional haze. Beyond his duties with the tribes, Randy has had plenty on his plate over the years, managing local tasks while participating in an array of national and regional tribal air efforts. Among his “extra-curricular” activities: he is...
Upcoming AIAQTP Courses (FY16)

Clean Power Plan and Tribes          Oct. 20–22          Las Vegas, NV
IAQ in Tribal Communities           Nov. 17–19          Cherokee, NC
Mgmt. of Tribal Air Programs & Grants Nov. 17–20         Phoenix, AZ
AQ & IAQ in Alaska                   Dec. 8–11           Dillingham, AK
IAQ Diagnostic Tools                 Dec. 15–18         Las Vegas, NV
Introduction to Tribal Air Quality    Jan. 26–29       Flagstaff, AZ
Fundamentals of Air Monitoring       Feb. 9–11          Las Vegas, NV
Air Quality Computations             Feb.                  TBD

Dates and locations can change. For updates, visit: www4.nau.edu/itep/air/training_aq.asp

FORUM - from front page

thinking on tribal air issues and facilitating valuable networking opportunities.

Networking can be especially important for new air staff and those operating in bare-bones program environments, a situation common at many reservations. Providing a venue where attendees can share knowledge and practical experience—on how to operate a particular monitor, conduct an emissions inventory, deal with community members on touchy air-quality issues, and much more—has always been an important part of the Forum experience.

Speakers and presenters this year included tribal air staff, environmental activists, high-level EPA officials, and experts on air pollution’s health impacts. Each shared extensive knowledge and experience with the crowd and made themselves available for personal conversations and problem-solving.

Keynote speakers included activist-author Winona LaDuke (Anishanaabe) and Lee Sprague (Little River Band of Ottawa Indians), both respected fighters for tribal social and environmental justice. LaDuke spoke passionately on how to keep oneself engaged and strong while continuing the struggle for environmental progress;

see FORUM on page 5

Presenter Bob Gruenig conducts a breakout session that takes attendees through the process of submitting a comment letter to U.S. EPA.

U.S. EPA Tribal Air Contacts

To contact U.S. EPA’s Tribal Air support staff, visit the web at: www.epa.gov/air/tribal/coordinators.html

ITEP on the Web

From our home page you’ll find links to ITEP programs, info on upcoming events, training and support opportunities, and newsletters to keep you informed on our work in a variety of media. Visit us at: www.nau.edu/itep
she also injected a humorous note on a serious topic, screening a short film that chronicled Native activists riding into Washington D.C. on horseback last April and invading a Congressional meeting to insist that the Keystone pipeline project be killed.

Sprague, who has grappled with big-energy and other industry Goliaths for years on behalf of indigenous people worldwide, described impacts of climate change on tribal resources and emphasized the spiritual necessity of continuing to resist technological encroachment on indigenous cultures.

ITEP’s Forum partner, the National Tribal Air Association, provided audience members with a wide-ranging look at tribal air progress and challenges across the U.S., sharing information they’ve gathered in their work and in consultation with tribal air staff nationwide. That work also led to an update of the organization's formal yearly report on air challenges and successes in Indian country.

In addition to sharing their insights on tribal air in their respective regions, NTAA Executive Committee members, headed by committee Chair, Bill Thompson, presented EPA’s Janet McCabe with a copy of NTAA’s comprehensive document, The State of Tribal Air Report.

Ms. McCabe, who heads EPA’s Office of Air and Radiation, the EPA office most directly involved in federal air-quality regulatory initiatives, enforcement and support, has attended the past four NTFAQs, demonstrating her continuing interest in tribal air progress; her attendance also affirms the importance of tribes in the national effort to understand and
address air pollution on behalf of all U.S. communities. With each visit Ms. McCabe brings her unique insights on federal air quality regulatory efforts. We’re grateful to Asst. Administrator McCabe for making time each year in her busy schedule to attend the Forum.

With more than 20 breakout sessions (several of them presented by NTAA executive committee members), attendees explored a wide range of air-related topics, gaining the latest information on climate change, traditional knowledges, health impacts of air pollution, federal rule changes, issues around social justice and many other air-related topics.

The event’s ongoing “EcoCafe” is a one-stop venue for information-gathering and sharing on a variety of environmental topics. Staffed by representatives from government, tribal, education and private industry, EcoCafé tables and booths provide resources on topics that include air monitoring technology, EPA and nongovernmental programs, ecosystem management, vendor products, internship opportunities, and much more.

The Nottawaseppi Tribe provided attendees with a quality Forum experience. A highlight of their hosting generosity was a spectacular Great Lakes-style “mini pow wow” they organized, entertaining the crowd during a tasty supper the tribe prepared for Forum attendees. Guest musicians Southern Straight Drum pounded out the rhythm as seasoned professional dancers demonstrated “Great Lakes-style” dancing. The tribe also organized a bus tour of their nearby Pine Creek Reservation. The tour showcased the Nottawaseppi Tribe’s progressive social service and sustainable-energy programs—the former including housing, medical, and transportation support for tribal members, the latter centering on solar arrays that power the tribe’s community center and hotel-casino hot water system.

Thanks to all of those who planned, conducted and attended this year’s event. We hope you had a great time and benefited from NTFAQ activities and educational opportunities.

Planning for our next National Tribal Forum on Air Quality is already underway. We’ll provide more information on NTFAQ 2016 in upcoming issues of Native Voices and on our website, at www.nau.edu/itep.
he relished. In typical fashion, he dove into the job with energy and dedication. The Gila River Indian Community is home to more than 50 industrial facilities, and at the time regulations were few. Part of his early work involved developing a needs assessment, an emissions inventory, and a scoping document to determine the shape of GRIC’s regulatory program. That led to GRIC developing a Tribal Implementation Plan and obtaining Treatment as a State status—both of which Dan counts as major accomplishments during his eighteen years with the tribe.

The tribe’s TIP would take twelve years to shepherd through the federal gauntlet, breaking extensive new ground along the way in the complex regulatory relationship between tribes, states, EPA and nearby localities.

In addition to helping shape one of the nation’s largest tribal air programs, another of Dan’s noteworthy achievements was helping to move GRIC out of non-attainment status for ozone and CO and into “unclassifiable/attainment” status, reflecting a fairer standard of treatment for a tribe located on the edge of the nation’s sixth largest city.

Dan recently retired from his air work, right around the time he was nominated to share in this year’s Virgil Masayesva Tribal Air Programs Excellence Awards. The honor was a fitting culmination to Dan’s work both for GRIC and for tribes nationwide. His service, in addition to helping create and expand GRIC’s dynamic air program, has included years of mentoring other tribal air staff as well as instructing for a number of ITEP air-quality classroom courses. Among the awards he’s received during his tribal-air tenure, he shared in the GRIC Dept. of Environmental Quality’s 2008 EPA Tribal Air Excellence Award.

But winning the Virgil Masayesva Award, he says, is his proudest accomplishment: “It’s an absolute honor to receive this award. Virgil was my golf buddy; he was my friend. Of all the awards I’ve ever wanted to get, this is the best for me, because it’s personal.”

Randy Ashley, from page 3

Randy attended Montana State University, majoring in Electrical and Electronic Engineer Technology. He previously worked for the tribes as a juvenile probation officer, electronics specialist, hotshot (firefighting) crew member, and as a contractor helping to establish internet connectivity for several regional tribes.

He emphasizes the value of networking to build expertise. In his early days, he says, the tribal air community was tight-knit and highly engaged—a situation he hopes remains the rule. “People were very dedicated. We would go to a conference and talk shop all day, then when it was over we would meet somewhere and talk more shop. We were in constant communication and were really well networked.”

He notes that he was among those on the National Tribal Forum planning committee in recent years who successfully pushed to increase the Forum’s emphasis on networking sessions. “That’s so valuable. When I got stuck I’d call someone. For me, usually it was Dan Blair. I could have called anyone in the group. But often my first thought when I had a problem would be, ‘Dan has an answer for this.’ Everyone needs to find themselves a Dan Blair. I’ll miss Dan now that he’s retired. I’d call him, but I don’t want to interrupt his fishing.”

Randy continues to draw on his colleagues for ideas and assistance, he says, though these days his networking community is made up of a smaller—though well seasoned—group of fellow air pros.

He offers his views on the evolution of the tribal air community: “There’s so much more expertise out there now. Look at this conference [this interview took place at the NTFAQ]…all these really sharp people in the field.” He says despite flat funding for tribal air over the past decade, the community continues to do “exceptional work.”

Randy says winning the Virgil Masayesva Award represents one of his proudest achievements, though he describes his reaction when he learned he’d won the award with his typical modesty: “I never expected to win this. I think about all the other people who are more deserving, and I find it hard to be put in their place. I’m honored to be a co-recipient with Dan Blair. I think the world of Dan.”

Randy downplays his long list of accomplishments in similar fashion: “I never really thought about how much there was to do. I never had time to think about it. I just went out and did it.”
They came to Flagstaff, AZ, to participate in the latest presentation of ITEP’s flagship Introduction to Tribal Air Quality classroom course. Training took place at the Native American Cultural Center on the campus of Northern Arizona University, where ITEP is based. Attendees came from as far as Alaska and Wisconsin to attend this introductory course in air management.

For nearly two decades, Intro has been a mainstay in our air program classroom offerings. The course was first presented in March of 1994, the first in what would become dozens of training courses developed over the years by the American Indian Air Quality Training Program. ITEP’s Curriculum Coordinator, Pat Ellsworth, has served as its lead instructor for every iteration of the course (see article on page 9).

In the early 1990s, when many tribes first began developing air programs, the Intro course was instrumental in helping tribal air techs begin the process of building their expertise on air quality, a capacity that has expanded dramatically over the last two decades. These days it’s tough to find an experienced tribal air staffer who hasn’t taken the course (though some get their basic air training through EPA, state, and other sources, or through practical experience).

Intro is generally taught in its standard, four-day format, though occasionally it has been abbreviated and taught in “hybrid” forms along with other topics, such as Intro/Air Quality Computations. The basic air course for Alaska Natives is very similar to the “lower 48 version,” but it also addresses some of the unique challenges that remote Alaskan tribes face, such as woodstove heating during extended, hyper-cold winters, extensive use of diesel-fueled snowmachines, and the burning of trash in barrels due to the difficulty of transporting refuse out of remote Alaskan communities.

Whatever its form, the Intro course helps familiarize participants with an array of air-quality fundamentals. Topics include basics of air pollution, chemistry, monitoring, air-program development, federal pollutant classifications, indoor air, health impacts, climate science, and more. The material is presented through a mix of lectures and hands-on experience.

The diversity of material covered makes the course particularly effective in getting people up to speed on their work, regardless of their particular air-related tasks. Phillip Mee, for example, works as a mold and indoor-air specialist for the Sac and Fox Nation in Oklahoma. Though he focuses almost solely on indoor air issues and is a certified mold inspector, Mee picked up a few new ideas at the course relating to his work, including the importance of burning dry as opposed to wet wood in stoves to reduce indoor pollution. “That was something I didn’t really know,” he says.

And Mee adds that, although his area of speciality was
Basics of ITEP’s Basic Air Course: A Conversation with Pat Ellsworth

Pat Ellsworth has been the lead instructor for all of ITEP’s Introduction to Tribal Air Quality classroom training courses. Here she discusses some of the basics of our most basic air-quality training course:

How long have you been involved in teaching Introduction to Tribal Air Quality?
I taught the first Intro course in March of 1994, and I’ve taught all of them since—about thirty times. I really enjoy teaching folks who are new to air quality, and seeing some of the light bulbs light up. I also like the fact that Intro has some lab activities in it, which is a part of my background. And people really enjoy those activities.

Who should consider taking this course?
Our target audience is people who are new to air quality and who also don’t have a lot of background in science and engineering. If a person does have a science background, we will still give them the option to attend the course. Some people say, ‘Well, I got my science degree 15 years ago,’ and there’s a lot they don’t remember. So that person is fine to attend the course.

If someone has a strong background in science or engineering that’s fairly recent, often they will choose to skip this course and enter into Level 2 training [an “intermediate level that includes courses such as Air Pollution Technology and Air Pollution and Ecosystems].

What can people expect to walk away with after attending an Intro course?
This course is laying the groundwork. No one who is new to air quality can walk out of an Intro course and start an air program; it’s the beginning of their training and their capacity-building. In the Intro course we touch on many aspects of air quality, including indoor air and climate change. We don’t go deeply into anything; this is really a survey of what air quality involves. I think it gives people a broad overview of the whole field of air quality work. And they might find aspects that are particularly interesting and relevant to their tribal situation.

How do you choose locations for the training?
Because Intro has a lab component, we are somewhat constrained about where we can take it. We’ve taught the course at a number of places besides NAU, but typically those were locations where we had access to a lab. So that’s part of the constraint. Our tightening budget is a factor, too.

What has changed over time in terms of the material attendees learn in the course?
The instructional approach that we developed for the Intro course would become a model for most of our other ITEP courses, including the tribal focus we try to take, use of tribal instructors whenever possible, and the mix of lecture and hands-on learning activities. The basic structure of the course is pretty much as it’s been all along, but we continually update our presentations and activities to reflect new scientific research and new regulations from EPA. We’ve added IAQ and climate change to the curriculum. The original Intro course dealt strictly with ambient [outdoor] air. Then we started realizing over the years how important indoor air is, and we felt like we needed to put that into the course.

What do participants do in the lab portion of Intro training?
We try to give people an experiential sense of what pH is. And then we make the connection between that and the air pollutants that cause acid rain. Also, one of the things that is important in this work is calibration. Some people have done that before, but for others it’s a new concept. There are so many aspects of environmental work where instruments need to be calibrated, so we calibrate our pH meters as an introduction to that skill.

How often is the course offered?
In the early years it was taught twice a year. Over the last few years we’ve stretched that out a little, so rather than putting six months between each offering we’re now putting about nine or 10 months between offerings, partly due to budget constraints and also because of a slight drop in demand in recent years—though the course is always in demand, especially for new hires.

Will you continue to serve as the lead instructor for this course?
I have never gotten tired of teaching Intro.
March 2015 Gallup Poll revealed that over 99% of climate scientists now agree that climate change is real and human-caused. Many scientists believe the threat is growing more severe, with more-frequent and stronger storm events, extended drought conditions and other impacts either caused or aggravated by global warming. The U.S. military has already determined that climate change represents a danger to the nation’s security, and many cities and counties have begun developing strategies to adapt to its effects.

Year to year the warming of the planet, with all its complex local and regional impacts, damages the health, cultures and economies of people worldwide. As President Obama recently demonstrated during a September trip to our northernmost state, Alaska Natives are among the world’s hardest hit. Tribes suffer particularly serious impacts from the changing climate due to their geographic location and their close connections to the land and water.

And so the difficult question arises: What can tribes do to minimize the negative impacts of climate change?

That’s the topic of a classroom course that Sue Wotkyns, ITEP’s Climate Change Program Manager, has taken on the road over the past five years. In June, accompanied by experts in climate, ecosystems and adaptation, she presented the course at the Bishop Paiute Reservation in central California.

Nestled in a valley between the towering White and Sierra Nevada mountains, the 875-acre Bishop Paiute Reservation is home to one of the smallest tribes in the U.S. Despite its diminutive size, the Bishop Paiute Tribe is working diligently to maintain its traditional cultural practices. That effort includes training its youngest members on the Paiute language and cultivating traditional plants and their seeds for food and medicine. Climate change threatens to become one of their biggest obstacles in that effort as it stresses native plants and impacts their economy by contributing to drought and adding disruptive temperature rise to a once-stable ecosystem. Given their willingness to confront the climate challenge head-on despite the challenges, Bishop made a fine host for ITEP’s most-recent Climate Change Adaptation Planning course.

The three-day training drew members from the host tribe and from Native communities throughout the western U.S. Nearly two dozen people attended the course, which took place at the Bishop Paiute Cultural Center. The facility and its grounds house meeting and education space, a museum of Paiute culture, and a traditional garden/seed banking plot and sustainable-energy demo projects on the grounds.

A tour of the grounds and the tribe’s sustainability projects was a highlight of the course.

Instructors for the three-day course included Dave Pierce of the Scripps Institution of Oceanography at the University of California-San Diego; Stefan Sommer, Director of the Colorado Plateau Biodiversity Center at Northern Arizona University; Seth Moore, a wildlife biologist and researcher with the Grand Portage Band of Lake Superior Chippewa in Minnesota; Tamara Wall of the Western Regional Climate Center, and Sue Wotkyns, manager of ITEP’s Climate Change program. The Bishop Paiute Tribe also provided support from their environmental staff and regional U.S. Forest Service partners.

The first day of the course featured a talking circle in which participants voiced their thoughts and feelings on climate change,
touched on only lightly during the Intro course, “I do need to focus more on outdoor air, because what’s going on outdoors will come indoors, where it gets trapped and maybe can’t escape. And that can get pretty bad.”

One aspect of Intro training that sets it apart from state and other nontribal air courses is its emphasis on tribal cultural needs and values, and Mee found that focus to be of value as well. Whenever possible, tribal instructors are a part of the trainer mix, and significant time is given to the cultural side of air quality management, emphasizing, for example, the importance of clean air to the health of traditional plants and animals. Attendees also explore culturally relevant ways to, for example, communicate air-quality information to tribal members.

Although the Chemehuevi Indian Tribe (which borders Lake Havasu along the Colorado River on the California side) doesn’t yet have an air program, Environmental Asst. Amanda Sansoucie attended the Intro course “to get a feel for how we might implement a program.”

She says air quality isn’t too bad at the Chemehuevi Reservation, and for now the tribe is more focused on solid waste and water issues. But she says her environmental director, Steve Escobar, is interested in looking into starting an air program for several reasons.

One of those reasons, Sansoucie admits, “is because I’ve been hounding him about a lot of the air traffic we have above the reservation—we never had nearly as much in years past. They leave chemtrails, and I’m concerned about air toxics.” She says dust can also be an issue for the tribal community, especially during the community’s yearly “Poker Run” in which off-road vehicles race about the reservation. Chemehuevi is also hit periodically by heavy smoke pollution when southern California suffers another in its yearly cycle of wildfires.

Sansoucie says the Intro course was valuable to her in

James Payne is one of a cadre of experienced tribal air pros who have helped to teach the Intro course over the years.

Tribal Solar Working Group Explores Clean Energy Options for Tribal Communities

Arizona’s 22 tribes are unique entities, but one of their commonalities is access to abundant sunshine. Finding ways to tap into that clean, free source of energy has been the aim of a series of gatherings sponsored by ITEP’s Tribal Clean Energy Resource Center.

From November 2014 through June 2015, TERC sponsored a series of Tribal Solar Working Group events at tribal and other locations in Arizona and Nevada.

The gatherings were designed to inform and educate tribal members on the feasibility, technology, and application of solar energy for their communities. Tribal members, as well as private, public and nonprofit energy experts, lent their expertise to examine solar generation from micro-scale, single-home uses to the largest solar-energy generating station in the U.S. The events were typically structured with one day in the classroom, where experts reviewed solar project development from every angle—technical side, environmental impacts, funding, public outreach, and more. The second day featured a field trip to solar facilities large and small.

Discussions are underway to continue the solar workshops. Stay tuned for more information on the Tribal Solar Working Group program.

More than 60 attendees attended a working group meeting in Phoenix, AZ.

Leupp Family Farm manager, Tyrone Thompson, describes the solar-water-pumping operation on the Navajo Nation farm co-op.

Group members at Solana, the nation’s largest solar facility.

Steve Arras of the STAR School explains the master controls for the school’s off-grid energy system.
beginning with an introduction to climate-change impacts, emphasizing conditions in the Great Basin region but extending to other parts of the country. The first speaker, Dr. Dave Pierce of the Scripps Institute at the University of California San Diego, presented a compilation of up-to-date climate data and noted the difficulty in relaying some of that data to the average person. Although the vast majority of climate scientists agree on the reality and cause of global warming, he told the class, only about 50% of citizens accept the science. He suggested the problem is largely due to a drumbeat of counter-factual information promulgated by the “denier media,” along with the need many have to agree with the accepted views of their social group.

Regardless of political pressures to deny or downplay the issue, the facts are unequivocal. The planet has been warming pretty much without a pause since the 1880s. Variable weather patterns began with an introduction to climate-change impacts, including their fears regarding the scale of the problem and some of the sticky political issues that must be navigated when communicating climate change information to others. By the end of the session, some level of consensus was formed: each of us must do what we can for our own communities. In doing so, that effort might extend to the larger world around us.

The training course attendee Pah-Tu Pitt, who works for the Confederated Tribes of the Warm Springs Reservation as an Environmental Specialist and Education Coordinator, says climate-linked problems that the tribes face are perceived to be many, including a decrease in snowpack and stream flows, more bugs and weeds, an increase in wildfires, and a shorter season for gathering traditional plants.

The good news, she says, is that the tribal climate change workgroup with which she’s associated has found that “we actually have a lot of good conservation efforts to work with. We have an integrated resource management plan, so a lot of the work we do will plug into that. It’s already provided a lot of good guidance, and it was signed off by the tribal leadership and is something the people say they really want. The way tribes have to work with the dominant market system, we can lose track of what’s important. But we really have a strong base to work with, and that’s really exciting.”

Dr. Seth Moore, who heads the Biology and Conservation departments for the Grand Portage Band of Huron Indians in Minnesota, conducts research on moose populations in and around the Grand Portage Reservation. He presented on that research, demonstrating ways in which careful science can be employed to determine climate impacts and help create adaptive strategies to help preserve natural resources of value to tribal cultures and economies.
INTRO - from page 11

Amanda Sansoucie, a member of the Chemehuevi Indian Tribe, says the course included a valuable mix of classroom lectures and experiential learning.

Amanda Sansoucie (center), a member of the Chemehuevi Indian Tribe, says the course included a valuable mix of classroom lectures and experiential learning.

Intro students take part in an exercise to explore the safety of household cleaning agents and other home products.

CLIMATE - from page 11

Course attendees also explored approaches to community outreach and education and learned more about ecological restoration efforts in which tribes and nontribal communities are engaged.

Field trips in and around the Bishop Paiute Reservation included an outing to the nearby Sierras and walking tours of the Bishop Paiute Tribe’s sustainability and traditional food programs (led by attendee/Bishop environmental director Bryanna Vaughan). The outings provided attendees with a look at efforts by the Bishop Tribe’s sustainability programs, including a traditional-plant garden, native plant cultivation around the reservation, and a Paiute-language program in which Bishop children learn the names and uses of traditional plants.

A field trip into the Sierra Nevada Range west of Bishop offered attendees a wider glimpse of ecosystem stresses that the U.S. Forest Service and partners, including the tribe, are addressing.

That effort includes monitoring key species and using the data to develop adaptation strategies.

The course ended with a second talking circle, during which attendees discussed what they’d learned and explored how they might carry their new knowledge back to their communities. Several attendees said that, despite the magnitude of the climate challenge, they would leave the course with fresh resolve to engage a problem that is big, but also too big to ignore.

ITEP’s indoor-air specialist, Mansel Nelson, shares his expertise with attendee Jasmine Maligaya.

As part of Bishop’s language program, tribal youth draw pictures of plants and animals important to the tribe and learn their Paiute names.
Lee Sprague and Tomoe Natori pause for a photo.

Dr. Janice Nolen of the American Lung Association describes health impacts of cigarette smoke and other air pollutants.

Farshid Farsi (L) and Mehrdad Khatibi (center) robe EPA’s Jed Harrison.

The Nottawaseppi Tribe’s hotel-casino complex provided a comfortable Forum experience.

EcoCafe participants browse information booths and chat with colleagues.

TAMS Center Co-Director Farshid Farsi on station at the TAMS booth.

Winona LaDuke (center) with Ann Marie Chischilly (L) and Ondrea Barber.

A smile from Sr. Indian Program Manager, Pat Childers.

Longtime colleagues Natalene Cummings and Dan Blair share a Forum moment.

Forum-goers gather at an EcoCafe booth.

ITEP’s Andy Bessler (L) greets a Forum attendee at the NTAA’s EcoCafe booth.

ITEP’s Christy Nations presents a raffle prize to attendee Eugenia Quintana.

The Nottawaseppi Boyz open and close this year’s NTFAQ with moving rhythms and songs.

Tomoe Natori, with the Ute Mtn. Tribe’s Environmental Program, describe oil-and-gas impacts on the tribe’s ecosystem and communities.

Lee Sprague grabs a selfie with EPA’s Janet McCabe.