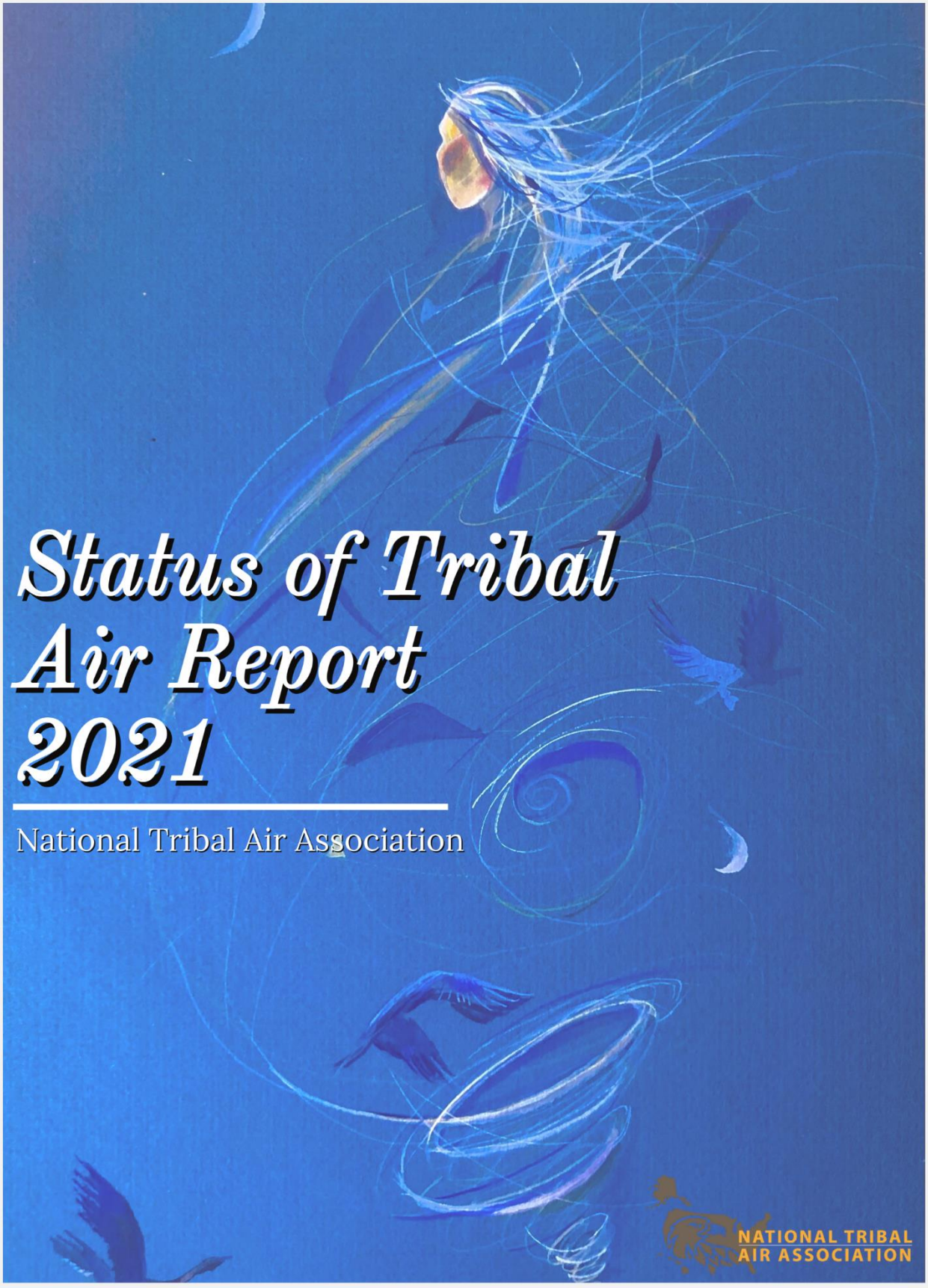

Status of Tribal Air Report 2021

National Tribal Air Association

NATIONAL TRIBAL AIR ASSOCIATION

Cover art by Dana Tiger entitled 'Wind'.

Dana Tiger is an award winning and internationally acclaimed artist. She is a member of the Muscogee (Creek) Nation and is of Seminole and Cherokee descent. Dana was just five years old when her father, legendary artist Jerome Tiger, passed away. She turned to his art as a way to know him and that engagement, coupled with the tutelage of her uncle, renowned painter Johnny Tiger Jr., who exposed Dana both to the richness of her culture and to the bounty of her family's artistic tradition.

Best known for her watercolors and acrylic paintings depicting the strength and determination of Native American women, Dana's paintings now hang in galleries, universities, Native American institutions, and state buildings nationwide.

In recognition of her accomplishments Dana was inducted into the Oklahoma Women's Hall of Fame in 2001. In 2002 Dana and her family founded Legacy Cultural Learning Community, a non-profit with the mission of nurturing creativity within Native youth via the celebration and sharing of tribal languages and culture through the arts.

www.tigerartgallery.com

The National Tribal Air Association is funded through a grant from the United States Environmental Protection Agency's Office of Air & Radiation (OAR)

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Tables and Figures

Acronyms

ACE	Affordable Clean Energy Rule
AI/AN	American Indian/Alaska Native
AICAF	American Indian Cancer Foundation
ALA	American Lung Association
AMoN	Ammonia Monitoring Network
ANTHC	Alaska Native Tribal Health Consortium
AQ	Air Quality
AQP	Air Quality Program
AQS	Air Quality System
ATSDR	Agency for Toxic Substances and Disease Registry
BACT	Best Available Control Technology
BIA	Bureau of Indian Affairs
BIPOC	Black, Indigenous, People of Color
BLR	Blue Lake Rancheria
CAA	Clean Air Act
CAAAC	Clean Air Act Advisory Committee
CARB	California Air Resources Board
CASTNET	Clean Air Status and Trends Network
COLA	Cost-of-Living Adjustment
COPD	Chronic Obstructive Pulmonary Disease
COVID	Corona Virus Disease
DERA	Diesel Emissions Reduction Act
DOJ	Department of Justice
EA	Environmental Assessment
EI	Emissions Inventory
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
EPD	Environmental Programs Department
FARR	Federal Air Rules for Reservations (for Region 10 only)
FIP	Federal Implementation Plan
FRM	Federal Reference Method
GAP	General Assistance Program
GHG	Greenhouse Gas
HAP	Hazardous Air Pollutant
HIA	Health Impact Assessment
HUD	Housing and Urban Development
HVAC	Heating, Ventilation, and Air Conditioning
IAQ	Indoor Air Quality
IAQWG	Indoor Air Quality Work Group
ICS	Incident Command System
IPCC	Intergovernmental Panel on Climate Change
ITEP	Institute for Tribal Environmental Professionals
KDHE	Kansas Department of Health and Environment
Moms	Moms Clean Air Force
MPCA	Minnesota Pollution Control Agency
MSWG	Mobile Sources Work Group

NAA	Non-attainment Area
NAAQS	National Ambient Air Quality Standards
NACAA	National Association of Clean Air Agencies
NADP	National Atmospheric Deposition Program
NATA	National Air Toxics Assessment
NAU	Northern Arizona University
NCA4	Fourth National Climate Assessment
NEI	National Emissions Inventory
NESHAP	National Emission Standards for Hazardous Air Pollutants
NGO	Non-Governmental Organization
NIHB	National Indian Health Board
NOAA	National Oceanic and Atmospheric Administration
NOFO	Notice of Funding Opportunity
NPS	National Park Service
NRAP	National Radon Action Plan
NSR	New Source Review
NSPS	New Source Performance Standards
NTAA	National Tribal Air Association
NTF	National Tribal Forum on Air Quality
NTFAQ	National Tribal Forum on Air Quality
NWS	National Weather Service
OAP	Office of Atmospheric Programs
OAQPS	Office of Air Planning and Standards
OAR	Office of Air and Radiation
OEJ	Office of Environmental Justice
OITA	Office of International and Tribal Affairs
ORIA	Office of Radiation and Indoor Air
OTAQ	Office of Transportation and Air Quality
OTS	OAR Tribal System
PBPN	Prairie Band Potawatomi Nation
PCB	Polychlorinated biphenyls
PM	Particulate matter
PPE	Personal Protective Equipment
PRK	Policy Response Kits
PSD	Prevention of Significant Deterioration
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
RTR	Risk and Technology Review
SAFE	Safer Affordable Fuel-Efficient
SEP	Supplemental Environmental Projects
SIRG	State Indoor Radon Grants
STAG	State and Tribal Assistance Grant
STAR	Status of Tribal Air Report
TAC	Tribal Advisory Council
TAMS	Tribal Air Monitoring Support Center
TAR	Tribal Authority Rule
THHN	Tribal Healthy Homes Network
TAS	Treatment in the Same Manner as a State

TEISS	Tribal Emissions Inventory Software Solution
TIP	Tribal Implementation Plan
TEK	Traditional Ecological Knowledges
UMUT	Ute Mountain Ute Tribe
USGCRP	U.S. Global Change Research Program
VW	Volkswagen
WSWG	Wood Smoke Work Group

1 Executive Summary

1.1 Welcome from the NTAA Chairwoman

On behalf of the National Tribal Air Association's (NTAA) Executive Committee, I am pleased to present the 2021 Status of Tribal Air Report (STAR). As the newly appointed NTAA Chairwoman and the Primary Representative of EPA's Region 10 Tribal Caucus on the NTAA's Executive Committee, I am committed to empowering Tribes to protect and enhance air quality for everyone.

Since the publication of the 2020 STAR, Tribes have experienced many challenges. Most difficult was COVID-19 and its devastating impacts across Tribal nations and BIPOC (Black, Indigenous, People of Color) communities. As more became known about the virus, NTAA partnered with EPA agencies and NGOs to provide three informational webinars on how to safely reopen Tribal offices and how to promote healthy indoor air quality environments.

Other threats to Tribal air programs were also seen. Some of the worst wildfires in history took place in 2020 which created thick, dense smoke that impacted southern California cities and communities as well as other parts of the country. Alaska is also dealing with increased wildfires in their region as well. Support for Alaskan communities is very much needed with over 40% of federally recognized Tribes residing in Alaska, often in remote locations and experiencing significant impacts from both air quality and climate change (see *Section 2: Areas of Concern, Emerging Wildfire Threats*).

Furthermore, Tribes are and have been dealing with the lack of proper infrastructure that includes inadequate broadband services, poor and aging air monitoring equipment and, in some states, power outages due to extreme weather conditions. These issues are likely to increase with climate change.

Since the Biden/Harris Administration took office, Environmental Justice (EJ) is a top priority for the EPA as they continue to work with Tribal entities. Environmental Justice, as explained by the Office of Environmental Justice, is the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. It is not about people of color just having a seat at the table, but rather about making decisions on policies that have direct impacts on the land, air, water, and people. As we continue to move forward as the National Tribal Air Association, our main priority will always be the protection of health for the environment and Tribal peoples. The NTAA encourages the Biden/Harris Administration to consult with Tribes and the best available science.

With incoming staffers, it is imperative that EPA maintain and fill key positions where institutional knowledge and the importance of Tribal air programs are understood to effectively work with Tribes. Funding for Tribal air programs has long been a limiting factor, and despite the modest increase for FY2021, Tribal air programs or Tribes that seek to develop

air programs continue to have unmet needs (*see Appendix A: NTAA Tribal Air Quality Budget Analysis,* for an in-depth report and recommendations). In February 2021, the NTAA sought Request for Proposals (RFPs) to conduct a national needs assessment of all federally recognized Tribes to ascertain the budgetary and programmatic needs of the Tribes related to the management of air quality programs.

Federally recognized Tribes rely nearly exclusively on federal funds to develop and sustain air quality management programs; however, federal funding for Tribal air programs has been stagnant or declining for nearly 20 years. There are many Tribes that wish to develop air quality programs to improve public health for their communities, but federal grants for new Tribal air programs are difficult to achieve due to the stagnant nature of federal Clean Air Act funding. Once finalized, the Baseline Needs Assessment (BNA) will be shared with the National Tribal Caucus and other Tribal leaders that work with federal agencies like the EPA.

Despite limited funding and the many obstacles, Tribes continue to protect air quality for their people, airsheds, and non-human relatives. Tribes have been practicing resiliency for thousands of years and will continue to persevere. The NTAA is here, in part, to support that perseverance. Membership continues to grow immensely: this year three Tribes have joined the NTAA, bringing the total number of Member Tribes to 153. As the second largest, national Tribal membership-based organization, this significant growth in membership over the past five years demonstrates the important role the NTAA plays in supporting Tribes, Tribal air quality programs, and air quality policy analysis. Thanks to the dedicated service from Member Tribes, the Executive Committee, and staff, in January 2021 the NTAA was awarded EPA's Clean Air Excellence Award in State/Local/Tribal Policy. The award recognizes and honors the outstanding innovative efforts by Tribes to help make progress in achieving cleaner air.


Clean Air Excellence Award

The U.S. Environmental Protection Agency recognizes

National Tribal Air Association (NTAA)

and the NTAA Executive Committee, NTAA Policy Advisory Committee and Northern Arizona University's Institute for Tribal Environmental Professionals for outstanding, innovative efforts in improving air quality through state/tribal/local air quality policy innovations. This exceptional achievement demonstrates a true commitment to obtaining cleaner air and protecting the environment.

We wish you continued success in achieving environmental excellence.

Andrew R. Wheeler
Administrator

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

January 12, 2021
Date

Figure 1 NTAA received the 2020 EPA Clean Air Excellence Award

The NTAA achieves its mission through hosting work groups (currently: Mobile Sources, Indoor Air Quality, and Wood Smoke, *see Section 2.8.2 and Section 2.8.3 for updates from those work groups*) that serve to inform Tribes of relevant policies and related air quality concerns; maintaining excellent communication and outreach to Tribes so they are aware of resources,

information, and opportunities; and preparing Policy Resource Kits on federal policies that have the potential to impact Tribal air quality and/or Tribes' ability to maintain healthy air.

Through all the uncertainty and budgetary struggles, the NTAA has remained a consistent and reliable cornerstone on which Tribes know they can place their trust. The 2021 STAR aims to not only demonstrate the excellent work of Tribes across the country, but to advocate for increased investment by the federal government in Tribal air programs.

Sincerely,

Carol A. Kriebs
Chairwoman
National Tribal Air Association's
Executive Committee

1.2 Introduction

The Status of Tribal Air Report (STAR) is an annual report by the National Tribal Air Association (NTAA) to provide a national overview of Tribal air quality programs for the current administration. The 2021 STAR presents recommendations for EPA, a budget analysis, the importance of Tribal air quality programs for public health, and the focus areas of Tribal air quality programs across the nation.

The National Tribal Air Association

The NTAA is a Tribal membership organization currently with 153 Member Tribes whose mission is to advance air quality management policies and programs consistent with the needs, interests, and unique legal status of federally recognized Tribes. The NTAA's membership grows yearly; to learn more about the NTAA and to become a member, please visit www.NTAATribalAir.org.

Additionally, the NTAA serves as a communication liaison and information conduit between Tribes, EPA, and other federal agencies. The NTAA exists to assist Tribes in air quality policy work while respecting and supporting Tribal sovereignty and the Tribes' rights to a government-to-government relationship with the federal government.

All federally recognized Tribes are eligible to become member Tribes of the NTAA. Tools, such as the policy resource kits, developed by the NTAA are available online for download and are readily accessible by members of the public. These PRK's include template letters for Tribes to respond to EPA rulemakings and proposals as well as relevant fact sheets to print and distribute.

The NTAA's Goals:

To advocate for and advance the development of Tribal air policy for the protection of environmental, cultural, and economic interests at all levels of government (Tribal, federal, state, local, and international).

To promote the development, funding, and capacity building of Tribal air management programs.

To promote and facilitate air quality policy and technical information that may include research, scientific and/or medical studies.

To advance the recognition and acceptance of Tribal sovereign authority by conducting effective communication with and outreach to state, local, federal, and international agencies, and to the public; and

To encourage and support appropriate consultation of state, local, federal, and international agencies with all Tribal governments in accordance with Tribal structures and policies.

NTAA Executive Committee

	Primary Representatives	Alternate Representatives
Region 1	Bill Thompson Penobscot Nation	Marvin Cling Passamaquoddy Tribe
Region 2	Angela Benedict Saint Regis Mohawk Tribe	Steven Smith Shinnecock Nation
Region 3	Seat Vacant	Seat Vacant
Region 4	Scott Hansen, NTAA Treasurer Catawba Indian Nation	Tiffany Lozada Poarch Band of Creek Indians
Region 5	Brandy Toft, NTAA Vice Chair Leech Lake Band of Ojibwe	Joy Wiecks Fond du Lac Band of Lake Superior Chippewa
Region 6	Craig Kreman, NTAA Secretary Quapaw Nation	Seat Vacant
Region 7	Billie Toledo Prairie Band Potawatomi Nation	Allison Gienapp Ponca Tribe of Nebraska
Region 8	Randy Ashley Confederated Salish & Kootenai Tribes	Linda Weeks Reddoor Fort Peck Assiniboine-Sioux Tribes
Region 9	Wilfred J. Nabahe Colorado River Indian Tribes	Seat Vacant
Region 10	Carol Kriebs, NTAA Chairwoman Kootenai Tribe of Idaho	Lucas Bair Spokane Tribe
Alaska	Ann Wyatt Klawock Cooperative Association	Maranda Hamme Craig Tribal Association

Table 1 NTAA Executive Committee Members

1.3 Summary of Recommendations

Tribes and Tribal air programs have specific priorities related to each of the programmatic areas in the Office of Air and Radiation, as well as non-programmatic priorities. These priorities are outlined in 3 Regional Descriptions, Program Focus Areas, Successes & Challenges, and illustrated by the stories submitted from Tribes across the country. The following list is intended to serve as a summary of recommendations for decision makers and those working with Tribal air programs.

1. **Uphold Tribal Sovereignty**: Federal and state agencies need to demonstrate their commitment to Tribal sovereignty through:
    - Appropriately allocating funding for Tribal Air Quality Programs.
    - Engaging proactively in government-to-government consultation with Tribal Nations.
    - Upholding Trust Responsibility by developing and implementing air programs that are responsive to the individual needs of Tribes; and
    - Responding to Tribal requests and recommendations in a timely manner.

2. **Increase funding for Tribal air quality programs:** Despite the previous Administration's stark budget cuts and lack of support for Tribal air priorities and programs, the NTAA is optimistic that the Biden Administration will quickly shift this direction and demonstrate stronger support for Tribal air programs, including support for voluntary programs that address IAQ and climate change. Already, the Biden Administration's passage of the American Rescue Plan in February 2021 allocated $100 million to EPA to support Clean Air Act funding. While at the time of this printing it is unclear how much of these funds will be directed to Tribes, NTAA requested a specific Tribal set-aside for these funds. No matter what specific actions are taken, the long legacy of stagnant funding for Tribal air programs needs to change and NTAA has provided the recommendations in this document to assist in correcting this problem.

In the NTAA's FY2021 budget analysis, the NTAA is proposing two alternative budget amounts, both using the FY1996 baseline appropriation of $11 million. The first is $18.3 million, which would keep the appropriation on par with the FY1996 appropriation, but accounts for inflation; the second is an increase to $31.8 million to account for increased health care costs since the baseline year. By way of comparison, the FY2021 appropriation is $12.35 million. Other important, but difficult to quantify, items such as new and expanding programs and monitoring infrastructure, should also be considered when EPA funds Tribal air programs. In depth funding recommendations can be found in *Appendix A: NTAA Tribal Air Quality Budget Analysis* and the following is a summary of funding priority areas for Tribal air quality programs:

- Retain qualified staff and pay a competitive wage.
- Replace and repair aging monitoring infrastructure.
- Address wildfire air quality impacts *(see Recommendation 5, below)*.

- Restore funding for existing established Tribal Air Quality Programs to a minimum of the highest historical funding levels.
- Provide funding for Tribes seeking to establish an air program of their own.
- Create new funding streams targeted at addressing critical needs such as indoor air quality, climate change mitigation and adaptation, and wildfire smoke management; and
- Provide new funding to Tribes to keep pace with the increased amount of work in permitting new sources and to review permits issued by states and EPA.

3. **Greater support for Alaska**: Alaska Native Tribes and Villages represent over 40% of federally recognized Tribes in the U.S., and due to their geographic location, they bear significant burdens caused by air pollution and climate change. They require increased funding and assistance for air programs and climate change adaptation planning. Specific recommendations include:
    - Identify funding for Tribes to implement "Clean Air Shelters" (clinics, schools, etc.) during wildfires or extreme road dust events. Having funding for this would decrease the evacuation levels and provide a safe place for all residents if needed in the event of unhealthy air quality.
    - Provide Tribal Air Equipment Toolkits and training (handheld PM monitors, gas detectors, carbon dioxide & humidity monitors, wall moisture meters, etc.). Many Alaskan Tribes are concerned about indoor air quality and could obtain loaned equipment from the Tribal Air Monitoring Support (TAMS) Center and the Alaska Native Tribal Health Consortium (ANTHC) as they are available. However, if equipment is owned by the Tribe, these toolkits would assist them in addressing issues year-round and consistently over time.
    - Increase funding for more Alaska-specific climate adaptation trainings. Currently there are trainings on this topic, but not many are designed specifically for Alaskan's specific needs and conditions.

4. **Facilitate partnerships**: Partnerships between Tribes, states, EPA and other established air quality entities should be encouraged and funded, especially in the areas of ambient air monitoring, analysis, co-regulation of the NAAQS and other regulated pollutants, and IAQ assessments and remediation. So much more can be accomplished by networking and leveraging resources.

5. **Greater support for emerging wildfire threats:** As noted in both the 2019 and 2020 editions of the STAR, wildfires are increasing in frequency and intensity, leading to ambient and indoor air pollution, and emergency management responses such as evacuations. Tribal needs span from air monitoring to health care, and from smoke exposure to assistance with emergency management. Increased funding, staffing, and training are all essential components to maintain human health in the face of this immediate concern.

1.4 Summary of the Budget Analysis

Since the promulgation of the Tribal Authority Rule (TAR) in 1998, which made it possible for Tribes to actively participate in the management of their air resources, Tribes have made great strides in taking on the challenges of managing their air quality. Over the last 23 years, Tribal air programs have expanded the areas in which they participate, while at the same time funding has become stagnant and program costs have increased.

Tribes see a great need to continue to increase the amount of activity taking place in their air programs, commensurate with the increasing need for protecting air quality. For example, wildfire smoke levels have increased substantially over the past several years, leading to a double impact on Tribal spending as Tribes need to be able to purchase air quality monitors in order to have the data available to protect the health of their citizens, and because additional staff time is needed to operate these monitors and to inform Tribal government administrations, Tribal members, and Emergency Management Services and Incident Command personnel about pollutant levels. This issue is so vital to the future of Tribal air programs that a separate section of the 2021 STAR includes a section to address it (see *Section Emerging Wildfire Threats*).

With a new administration in office, Tribes have been invited to participate in discussions on how the nation should move forward in implementing clean air policies. Many policies and guidance actions from the last administration are under review and new paths forward will be developed. This is an important opportunity for Tribes to contribute to initiatives on the local, state, regional, and national level. However, this type of work takes time and resources, including training and travel funds (when it is safe to travel again) so that Tribal representatives can interact with their counterparts. In the spirit of participation in planning the nation's path forward, regarding air quality, the NTAA recently submitted letters of recommendation to EPA officials suggesting that funds from the American Rescue Plan of 2021, passed by Congress on March 11, 2021, could benefit Tribal air quality through one-time projects, such as replacing outdated monitors or creating wildfire or emergency release response plans.

Program Development

Over the past several years, Tribal air programs have experienced the following indicators of success and setback:

- The Treatment as a State (TAS) statute authorizes Tribes to manage programs under the CAA, including regulatory development, reviewing authority for Title V permits, the opportunity for PSD Redesignation of Reservation lands, air quality monitoring, etc. Between FY2012 and FY2021, the number of Tribes with non-regulatory TAS status increased from 34 to 61, and the number with regulatory TAS increased from 7 to 11 in FY2020, before declining to 10 in FY2021.

- The number of Tribes currently operating air monitors, monitoring for criteria pollutants, hazardous air pollutants, and other pollutants under the National Atmospheric Deposition Program (NADP), has grown from 81 in FY2012 to 88 in FY2020, but declined to 85 in 2021.
- The number of Tribes with completed Emissions Inventories (EIs) ranged from 74 in FY2012 to a peak of 86 in 2015 but decreased to 74 in 2021.
- The number of Tribes with §103 grants has increased steadily from 25 in FY2012 to 47 in FY2021.
- The number of Tribes with §105 grants has increased from 25 in FY2012 to 47 in FY2021.
- 29 Tribes applied for, and 26 Tribes were determined eligible for, Volkswagen Settlement funds in the first round, which distributed approximately $6 million in funding. The second round dispersed $15.5 million to 45 Tribes. The third round dispersed $16.5 million to 58 Tribes. A fourth round has been announced, and will disperse $18.1 million, with a due date of August 30, 2021. These funds can be used in limited applications to replace certain old diesel engines with updated technology. However, not all applications may be useful to all Tribes.
- Since the DERA program began in 2009, 43 Tribes have received a total of $13.7 million in funds to replace older diesel engines or vehicles that release high levels of harmful pollutants with cleaner options.

Although many needs exist for increased funding for Tribal air programs (such as programmatic inclusion of indoor air quality and climate change, and the growing impacts from wildfires), the NTAA has developed two funding scenarios for EPA to consider that are limited to addressing the two issues of inflation (Solution 1) and increased health care costs (Solution 2). Both solutions use the FY1996 appropriation as a baseline.

Baseline FY1996 appropriation	Solution 1: FY2021 (inflationary adjustment)	Solution 2: FY2021 (health care costs adjustment)
$11 million	$18.3 million	$31.8 million

1.5 Summary of Air Quality Impacts on Tribal Health

The primary motivation for Tribal involvement in supporting cleaner air quality initiatives is the protection of the health of our citizens and overall environment. Multiple studies have demonstrated the impacts of pollutants on human respiration, reproduction, endocrine systems, and much more. In 2020, the NTAA published an update to *A White Paper Detailing the Science and Connections Between Air Pollution, Tribes, and Public Health* to assist Tribes in understanding and utilizing the latest scientific evidence to protect their people. Information from the White Paper shows that pollutants can have even stronger impacts on our health

than was previously understood. For instance, while epidemiologists have long known that pollutants such as ozone, nitrogen oxides, sulfur oxides, and particulate matter can have detrimental impacts on our respiratory and cardiovascular systems, new research links these pollutants to cognitive problems and mental health issues. The links between diabetes and pollution have been strengthened in recent years as well. While the reproductive impacts of some pollutants (such as toxics and diesel particulates) have been studied in the past, emerging links between preterm delivery, low birth weight, and infertility have been shown to exist. Most recently, a connection between increased air pollution levels and morbidity from COVID-19 has been demonstrated.

Moreover, study after study shows that the health of American Indian/Alaska Natives (AI/AN) is disproportionately impacted by air pollution. AI/AN adults and children alike have higher rates of asthma, and AI/AN adults suffer from higher rates of diabetes, heart disease, and chronic obstructive pulmonary disorder than do people of non-AI/AN descent.

Wildfires are an increasing concern to air quality in Indian Country. As the climate changes, hotter temperatures and dryer conditions lead to catastrophic wildfires on and near Tribal lands. In recent years, Tribes have struggled with growing costs to prepare for, defend against, and clean up following catastrophic wildfires that impact public health, cause environmental damage, and strain Tribal budgets. Wildfires burden Tribes with additional and often unplanned costs to monitor air quality, update Tribal leadership regularly, conduct public outreach, assess environmental mitigation, and conduct clean-up operations. These financial impacts are on top of the health impacts suffered due to high levels of smoke inundation into the effected communities.

Indoor air quality, hazardous air pollutants, mobile sources, and climate change all contribute to air quality health concerns for Tribal people. Common indoor pollutants include allergens, radon, particulate matter, second-hand smoke, carbon monoxide, and excessive moisture, which in many cases leads to mold growth. These are linked to a wide variety of health impacts that may cause symptoms immediately or years later. Hazardous air pollutants (including benzene, asbestos, mercury, and lead compounds) can be of particular concern for Tribes who may be more exposed due to subsistence and traditional life ways. Mobile sources of air pollution, particularly from diesel exhaust, are of significant concern to Tribal communities who often rely on old or "legacy" fleets of diesel vehicles and equipment that produce high levels of air pollutants. Climate change and air quality protection are inextricably linked; climate change threatens Tribal lifestyles by decreasing food security, endangering culturally significant flora and fauna, and forcing them towards extinction, increasing the risk of extreme weather events, and endangering public health in general.

1.6 Summary of Regional and National Program Focus Areas, Successes, & Challenges

The top priority for all Tribal Air Programs is to protect human health and the environment. The 2021 STAR includes the *Program Focus Areas, Successes, & Challenges* of Tribal Air Programs

on both a Regional and a National level. While there are many crossovers between Regional and National program focus areas, it is important to note that Regional differences do exist, as do differences among individual Tribes within any given Region.

The Regional Descriptions, Program Focus Areas, Successes & Challenges section includes a brief description of each EPA Region plus Alaska, as well as the specific areas that the NTAA EC Representatives from that Region identified as the top focus areas for Tribes in their respective Regions. The regional program focus areas are then followed by at least one Tribal story, illustrating the successes and/or challenges they have experienced in the last year in addressing these issues in their air programs.

The National Tribal Air Quality Program Focus Areas in the 2021 STAR are divided into the following eight topic areas:

- Ambient Air
- Indoor Air Quality and Healthy Homes
- Hazardous Air Pollutants
- Mobile Sources
- Climate Change
- Emergency Management
- Funding
- Consultation, Sovereignty, Collaboration, and Partnerships

The program focus areas for each topic area have significant overlap, particularly regarding the importance of upholding the 1984 Indian Policy, maintaining strong regulations, improving monitoring capacity, and increasing funding.

This year marked a challenging time in modern history with the onset of the novel coronavirus and its continued, devastating effects on Tribal communities. Many Tribal air programs and Tribal offices were furloughed to protect the wellbeing of staff and Tribal members. However, as offices are reopening the greatest, overarching priority for Tribes' air quality programs is to protect both human and environmental health. Tribes are excellent regulators and co-regulators of air quality. However, Tribes are faced with many challenges in the implementation of their air quality programs and projects, some of which are unique to Tribes and some of which are like other regulatory entities.

Pursuant to the 1984 Indian Policy, EPA must take Tribal interests into consideration whenever policy or environmental management decisions are proposed that affect Indian Country. To reaffirm that policy, the Biden Administration recognizes that American Indian and Alaska Native Tribal Nations are sovereign governments recognized under the Constitution of the United States, treaties, statutes, Executive Orders, and court decisions. It is a priority of their Administration to make respect for Tribal sovereignty and self-governance, commitment to fulfilling Federal trust and treaty responsibilities to Tribal Nations, and regular, meaningful, and robust consultation with Tribal Nations cornerstones of Federal Indian policy.

The United States has made solemn promises to Tribal Nations for more than two centuries. Honoring those commitments is particularly vital now, as our Nation faces crises

related to health, the economy, racial justice, and climate change—all of which disproportionately harm Native Americans. History demonstrates that we best serve Native American people when Tribal governments are empowered to lead their communities, and when Federal officials speak with and listen to Tribal leaders in formulating Federal policy that affects Tribal Nations.

1.7 Executive Summary Conclusion

The COVID-19 Pandemic brought new challenges to us all this past year. Despite these challenges, Tribes remain strong co-regulators of air quality to protect human health and the environment. The 2021 STAR provides a complete record of this important work done by Tribes to ensure our most basic need is met: To breathe clean air. It is with pleasure that the NTAA presents the 2021 STAR. It is the great hope of all who contributed to the 2021 STAR that the value of Tribal air quality programs is fully recognized, and that Tribal air quality program priorities are elevated within the EPA. As the 2021 STAR demonstrates, recognition of a Tribe's sovereignty, adequate consultation with Tribes, and adequate funding for air programs will provide all Americans with cleaner air to breathe and a better world for future generations.

2 NTAA Briefing for the Current Administration on Tribal Air Quality Programs

The NTAA has prepared this 2021 STAR to brief the current federal administration on the status of Tribal air quality programs and to help familiarize the administration with the priorities, challenges, and successes of Tribal air quality programs that play an important and crucial role in protecting public health.

The NTAA was founded in 2002 with a grant from the U.S. Environmental Protection Agency Office of Air and Radiation, and continues to work with Tribes, states, and federal agencies to facilitate Tribal air quality programs and protect air quality in Indian Country. Tribes are effective co-regulators of air quality and possess unique environmental knowledge that makes them important partners for agencies working to address pollution and climate change.

Statistics of American Indian Tribes and Alaska Natives

- 574 Federally recognized Tribes and Alaskan Natives with a population of approximately 1.9 million American Indian and Alaskan Natives
- Trust lands represent approximately 56.2 million acres
- 61 Tribes have non-regulatory "Treatment as State" (TAS) status under the Clean Air Act (CAA) and 10 have regulatory TAS (up from 60 and down from 11, respectively, in 2020)
- 85 Tribes operate air monitoring sites

- There are 400 identified major sources on reservations
- 15 Tribes are implementing regulatory or permit programs in Indian country (7 TIPs, 2 Title V programs, and 6 with delegation of the Federal Air Rules for Reservations, or FARR)
- 6 Tribes have completed Class I designations

2.1 Tribal Consultation and Sovereignty

Tribal sovereignty is the inherent right of American Indians and Alaska Natives to self-governance and regulation of internal affairs. The U.S. Constitution recognizes this inherent right existed long before the arrival of Europeans on the continent. As such, Tribes are rightful stewards of air quality within Tribal lands and can regulate air quality as needed to protect human health and the environment.

Since 1984, the EPA's policy of working with Tribes has been based on close coordination and respect for Tribal self-determination and sovereignty. Consistent with EPA's Policy for the Administration of Environmental Programs on Indian Reservations signed in 1984 by President Reagan and reaffirmed by every Administration since that time, this policy directs EPA to work in close coordination with the Tribes and respect Tribal self-determination and sovereignty. Specifically, the EPA's Policy for the Administration of Environmental Programs on Indian Reservations is as follows:

> *In carrying out our responsibilities on Indian reservations, the fundamental objective of the Environmental Protection Agency is to protect human health and the environment. The keynote of this effort will be to give special consideration to Tribal interests in making Agency policy, and to insure the close involvement of Tribal Governments in making decisions and managing environmental programs affecting reservation lands.*

This policy has remained the cornerstone of the EPA's approach to working with Indian Tribes and Tribal governments, and it was reiterated in the EPA's 2014 update to its consultation policy. Additionally, Executive Order 13175 was established in 2000, reaffirming the federal government's obligation to uphold Tribal sovereignty, and charging all federal agencies to engage in "regular, meaningful, and robust consultation with Tribal officials,"[1] in all matters with Tribal implications. The NTAA strongly supports these policies and seeks to ensure that the EPA continues to consult with Indian Tribes on the many decisions that affect reservation lands, including CAA regulations, permitting and enforcement, environmental justice, and program funding.

[1] https://www.federalregister.gov/documents/2000/11/09/00-29003/consultation-and-coordination-with-indian-Tribal-governments

On January 26, 2021, President Biden released a Memorandum on Tribal Consultation and Strengthening Nation-to-Nation Relationships, reaffirming the critical importance of Executive Order 13175. The Memorandum opens with the following paragraph:

> *American Indian and Alaska Native Tribal Nations are sovereign governments recognized under the Constitution of the United States, treaties, statutes, Executive Orders, and court decisions. It is a priority of my Administration to make respect for Tribal sovereignty and self-governance, commitment to fulfilling Federal trust and treaty responsibilities to Tribal Nations, and regular, meaningful, and robust consultation with Tribal Nations cornerstones of Federal Indian policy. The United States has made solemn promises to Tribal Nations for more than two centuries. Honoring those commitments is particularly vital now, as our Nation faces crises related to health, the economy, racial justice, and climate change — all of which disproportionately harm Native Americans. History demonstrates that we best serve Native American people when Tribal governments are empowered to lead their communities, and when Federal officials speak with and listen to Tribal leaders in formulating Federal policy that affects Tribal Nations.*

The Clean Air Act Amendments & the Tribal Authority Rule

The Clean Air Act (CAA) Amendments §301(d) of 1990 included direction to EPA to specify sections of the CAA where Tribes could have authority over air resources in a manner similar to a state (Treatment as a State, or TAS). Under these Amendments and through an application process, Tribes can choose which sections of the CAA they would like to implement this authority and receive long term funding.

The Tribal Authority Rule (TAR) outlines the application process for Tribes to follow to acquire TAS status. Currently, 10 Tribes have Regulatory TAS under the CAA and 61 Tribes have Non-Regulatory TAS under the CAA. The NTAA has been making efforts to support Tribes that have TAS under the Clean Water Act in acquiring TAS under the CAA, as this supports Tribal exertion of their sovereignty. The NTAA encourages the EPA to demonstrate its commitment to Tribal sovereignty, self-determination, and self-governance by supporting Tribes in gaining control over their air programs rather than requiring the implementation of certain types of programs. The EPA should be helping Tribe's access tools to protect air quality in the way they choose, rather than prescribing how Tribes should do so.

Since EPA is the air quality regulatory authority on Tribal lands when Tribes are unable to implement air quality programs themselves, we request that the EPA engage proactively in government-to-government consultation to uphold their trust responsibility, ease the path for Tribes in acquiring TAS if they choose to do so, develop, and implement air programs that are responsive to the needs of individual Tribes, and respond to Tribal requests and recommendations in a timely manner.

2.2 Partnerships

Air pollution does not respect Tribal boundaries and Tribes must work with partners to maintain air quality both on and off Tribal lands. Tribes are excellent co-regulators of air quality and the NTAA values the partnerships that have been built over the years. Effective partnerships with non-governmental organizations as well as federal, state, and local agencies help Tribes share air quality data, tools, and best practices. It is easier to achieve the collective goal of protecting human and environmental health by working together.

Specifically, NTAA works regularly with air quality agencies and organizations to advance air quality:

- While NTAA seeks partnerships across the country to advance air quality, NTAA's origins and continuing effectiveness as the nation's strongest voice for Tribal Air Programs are based on the long-term partnership with EPA's Office of Air and Radiation (OAR) and the many offices within OAR. NTAA's partnership with OAR empowers Tribes with regular and clear communication with EPA's leadership and rule writers. For example, NTAA hosts monthly "Air Policy Update Calls" that provide Tribes with regular updates on EPA's latest policy actions and resources for Tribes. The partnership between NTAA and EPA's OAR continues to provide a strong foundation for NTAA's other partnership and ongoing work.

- NTAA's leadership consults regularly with experts from the American Lung Association (ALA) to better understand air quality policy trends and share comments on EPA's proposed actions. The ALA also serves with the NTAA on the National Radon Workgroup to advance the National Radon Action Plan to save lives from deadly indoor air pollution from the radioactive gas radon.

- In late 2020, NTAA initiated a partnership with the Moms Clean Air Force (Moms) to provide a national audience on a joint NTAA/Moms fact sheet to inform the public about air pollution, including COVID-19 and its impacts to Indigenous communities. It is known that Indigenous communities are disproportionately impacted by pipelines, mines, waste incinerators, and other polluting industries that poison the air and water. The motivation behind the fact sheet was to highlight these issues and help inform Tribal governments on how to comment on policy decisions and exert their inherent sovereign rights. The fact sheet is also a starting point for future projects between NTAA and Moms, including hosting informational webinars and producing additional policy analysis tools. The fact sheet is available to read and/or to download on both the NTAA and Moms websites.

- The National Association of Clean Air Agencies (NACAA) continues to regularly partner with the NTAA to help build strong working relationships between states and Tribes. Early in 2021, the NTAA was invited to present on a NACAA virtual meeting with state

air quality agencies across the country. NTAA leadership regularly meets with NACAA leadership to coordinate air quality policy analysis on EPA actions.

- The NTAA expanded a partnership recently with the National Indian Health Board (NIHB). The NTAA and the NIHB reciprocally presented on each other's national webinars. NIHB speakers provided great information on NTAA's webinar series on COVID considerations for re-opening public spaces and NTAA leadership provided a summary of Tribal Air Quality Programs on a NIHB webinar.

The NTAA continues to seek out partnerships while maintaining existing relationships. For example, as EPA's primary partner on Tribal air quality policy, the NTAA works with EPA's Office of Air and Radiation as well as other offices, including EPA's Office of Environmental Justice (OEJ). Recently, NTAA leadership was invited to present on an EPA national webinar on Tribal Partnerships. The partnership between the NTAA and the EPA continues to be an important example for others, as pointed out by OEJ Director, Matt Tejada who stated,

> *Not just partnerships but true collaborative partnerships are a cornerstone of all that we do within EPA's Environmental Justice program. Nowhere is this more visible and necessary than in our collaborative partnerships with federally recognized Tribes, including through the EPA Tribal Partnership Groups, such as the National Tribal Air Association, to provide environmental and public health protection in Tribal communities and in other areas of interest to Tribes. The EPA Policy on Environmental Justice for Working with Federally Recognized and Indigenous Peoples contains various principles for how the Agency seeks to work collaboratively with both federally recognized Tribes and all indigenous peoples to effectively address the range of environmental justice issues and concerns raised by and faced by Tribes and indigenous communities. The only way we have success at addressing EJ challenges in Tribal lands is through partnering with Tribes, on a government-to-government basis, to implement solutions centered on the community's needs.*

Tribes and the CAAAC *by Gillian Mittelstaedt, Executive Director, Tribal Healthy Homes Network (THHN)*

As sovereign nations, Tribal governments play a critical role in improving the nation's air quality. In addition to managing their own air quality programs, Tribes advise the U.S. EPA on air quality policy and implementation issues related to the Clean Air Act (CAA). A central forum where Tribes advise EPA is through representation on the Clean Air Act Advisory Committee (CAAAC).

CAAAC is a senior-level policy committee that advises EPA on issues related to implementing the CAA Amendments of 1990. Tribal representatives attend CAAAC meetings (normally in DC) twice a year, advise the agency on Tribal air quality priorities, and participate on CAAAC workgroups. In 2020, EPA issued a directive for the formation of a CAA 50th Anniversary Workgroup, with the task of reporting on CAA successes,

opportunities, and future challenges. One of the Tribal CAAAC representatives, Gillian Mittelstaedt, was appointed Co-Chair of the anniversary report, which will help ensure that Tribal perspectives are integrated across the report. Gillian is currently working with the NTAA and individual Tribes to obtain input on Tribal success and challenges, from greenhouse gas emissions to exceptional events due to wildfires to new monitoring technologies and adequacy of Tribal funding. A draft report is anticipated for presentation in late spring 2021.

CAAAC plays another role in helping advance Tribal air quality, through its annual recognition of innovative air quality programs. The CAA Excellence Awards honor outstanding nominees, in one of six categories. In 2020, NTAA was honored in the "State/Tribal/Local Air Quality Policy" category, for its tireless work in advancing Tribal air quality management policies and programs. Previous Tribal awardees include:

- **2019:** Confederated Tribes of the Colville Reservation (Community Action category)
- **2016:** Southern Ute Indian Tribe Air Quality Program (Regulatory/Policy Innovations category)
- **2015:** Alaska Native Tribal Health Consortium Environmental Health Consultation Team (Gregg Cooke Visionary Program category)
- **2014:** Tribal Healthy Homes Northwest (Education/Outreach category)
- **2011:** Spokane Tribal Air Quality Program and KYRS Thin Air Community Radio (Education/Outreach category)
- **2008:** Nez Perce Tribe Environmental Restoration and Waste Management Division (Regulatory/Policy Innovations category)
- **2007:** Gila River Indian Community Department of Environmental Quality Air Quality Program Team (Transportation Efficiency Innovations category)
- **2006:** Cherokee Nation Environmental Programs (Community Action category)
- **2004:** Indian Nations Council of Governments (Education/Outreach category) and Mohegan Environmental Protection Department (Regulatory/Policy Innovations category)
- **2003:** Centralina Council of Governments and the Catawba Regional Council of Governments (Community Action category)
- **2001:** Institute for Tribal Environmental Professionals' American Indian Air Quality Training Program (Education/Outreach category)

2.3 Tribal Air Monitoring Support Center

The Tribal Air Monitoring Support (TAMS) Center was formed in 2000 through a cooperative agreement between the U.S. EPA and the Northern Arizona University (NAU) Institute for Tribal Environmental Professionals (ITEP). The mission of the TAMS Center is to develop Tribal capacity to assess, understand, and prevent environmental impacts that adversely affect

health, culture, and natural resources. The TAMS Center is the first technical training center designed specifically to meet the needs of Tribes involved in air quality management and offers an array of training and support services to Tribal air professionals. The TAMS Steering Committee is the Tribal advisory group that provides guidance on the services offered by the TAMS Center. The Steering Committee consists of Tribal program voting members and ex-officio members representing EPA offices, the Northern Arizona University Institute for Tribal Environmental Professionals and other Tribal support organizations. As of March 2021, the voting members of the TAMS Steering Committee are:

- **Tennille Denetdeel** – TAMS SC Chair (21-24) – Navajo Nation
- **Vallen Cook** – TAMS SC Vice-Chair (21-23) - Grand Portage Band of Chippewa
- **Carma Huseby** (21-23) – Leech Lake Band of Ojibwe
- **Lori Howell** (20-23) – Shoshone Bannock Tribe
- **Camille Quickbear** (20-22) – Sisseton Wahpeton Oyate'
- **Mike Natchees** (21-23) – Ute Tribe
- **Tanda Roberts** (20-23) – Pyramid Lake Paiute Tribe

TAMS Steering Committee Activity in 2020-2021

In 2020, the COVID pandemic significantly affected everyone. Many of the Tribes immediately responded by having Tribal staff working remotely. The TAMS Steering Committee was concerned that there may be areas in which Tribes would have difficulties continuing the air quality programs and projects due to infrastructure issues faced by many Tribes. Being able to maintain adequate quality assurance checks or being able to submit reports by specific deadlines could be issues that would be good to ensure the agency is cognizant of and willing to work with Tribes on addressing. The TAMS Center staff continued to aid remotely by using various online platforms to provide that one-on-one assistance, and the TAMS Center subcommittee is continuing discussions to identify further concerns.

In response to concerns shared with the TAMS Steering Committee about changes occurring with technical support for the EPA Air Quality System (AQS) database, a letter was sent to the OAQPS Director Paul Tsirigotis. The OAQPS responded by meeting with the TAMS Steering Committee to address the concerns. In addition to ongoing bimonthly Tribal AQS User calls that were already occurring, the OAQPS AQS support staff will also participate in a webinar on the AQS with the TAMS staff.

On September 1, 2020, the EPA Office of Mission Support – Environmental Information opened a comment period seeking input on the updated DRAFT Environmental Information Quality Systems Policy and Procedure to help guide implementation of the Agency's Quality Program. The agency expressed that it was critical that federally recognized Indian Tribes provide comment as many Tribes have extramural agreements in place that are shaped by this Policy and Procedure. Specifically, comments were being sought on the processes and procedures for Quality Assurance Project Plan requirements. The TAMS Steering Committee submitted a letter requesting a 90-day extension of the comment period to February 4,

2021. EPA responded that the comment period was already extended once, thus the request from the TAMS Steering Committee could not be granted and was closed on November 6, 2020. The TAMS Center Technical Needs Assessment questionnaire was finalized by the TAMS Steering Committee and was sent to Tribes starting in December 2020. The needs assessment is an effort for the TAMS Center to stay up to date with the current and future support needs of Tribes nationwide. The TAMS Center will continue to take input until the end of April 2021. The TAMS Center will then review the data and share a report with the Tribes on the data received and how the TAMS Center will respond to the information received by the fall of 2021.

Virgil Masayesva Tribal Air Programs Excellence Award

In 2007, the Tribal Air Monitoring Support (TAMS) Center Steering Committee chose to establish an award that formally recognizes the tremendous work put forth by Tribal program staff on their air quality projects and programs. The award was named the Virgil Masayesva Tribal Air Programs Excellence Award after the co-founder and former director of the Institute for Tribal Environmental Professionals (ITEP).

Virgil Masayesva was a member of Hopi Tribe and a decorated Vietnam Veteran. In his role as special assistant to NAU president Eugene Hughes, he co-founded ITEP in 1992 with a vision of strengthening Tribal sovereignty by helping Tribes build environmental management capacity and capability. The award is presented in any one of three categories: Technical Excellence, Policy Development, and/or Tribal Program Development. The award recipient is recognized and presented a commemorative plaque at the Virgil Masayesva Award Ceremony held at the annual National Tribal Forum on Air Quality.

At the 2021 Spring TAMS Steering Committee meeting, the TAMS Steering Committee voting members selected Frank Spurgeon, La Jolla Band of Luiseno Indians, to receive the Virgil Masayesva Tribal Air Programs Excellence Award for 2021. Frank has been working with Tribal air programs since 2007 and has been instrumental in the successful establishment of air monitoring stations for the Pala Band of Mission Indians and the La Jolla Band of Luiseno Indians. In addition, he has assisted other Tribes in the southern California region in establishing and operating air monitoring stations. Congratulations to Frank Spurgeon (pictured right)!

Frank Spurgeon, La Jolla Band of Luiseno Indians, received the Virgil Masayesva Tribal Air Programs Excellence Award for 2021.

List of award recipients from 2007 through 2021:

Award Recipients (2007-2021)	Year

Roxanne Ellingson, Walker River Paiute, and Southern Ute Tribe Air Quality Program	2007
Dwayne Beavers, Cherokee Nation, and Nez Perce Tribe Air Quality Program	2008
Forest County Potawatomi Air Quality Program/Jeff Crawford, FCPC Attorney General	2009
Dr. Toni Richards, Bishop Paiute Tribe	2010
Joy Wiecks, Fond du Lac Band of Lake Superior Chippewa and Navajo Nation Radon Program	2011
Brandy Toft, Leech Lake Band of Ojibwe	2012
Syndi Smallwood, Pechanga Band of Luiseno Indians	2013
Delbert Altaha, White Mountain Apache Tribe	2014
Dan Blair, Gila River Indian Community, and Randy Ashley, Confederated Salish and Kootenai	2015
Angela Benedict, Saint Regis Mohawk, and Rosalie Kalistook, Orutsararmuit Native Council	2016
Jason Walker, NW Band of Shoshone, and Northern Cheyenne Tribe Air Quality Program	2017
Morongo Band of Mission Indians Tribal Air Quality Program	2018
Gillian Gawne-Mittelstaedt, Tribal Healthy Homes Network	2019
Bill Thompson, Penobscot Nation	2020
Frank Spurgeon, La Jolla Band of Luiseno Indians	2021

2.4 Funding and Resources

The EPA provides approximately $11.8 million in funding to Indian Tribes under the Clean Air Act Sections 103 and 105 for air quality programs (see *Table 2* below). Indian Tribes have limited revenue sources, so many either do not have an air quality program or rely solely on EPA funds, which are crucial to Indian Tribes' ability to operate and maintain air quality programs on Tribal lands. As more and more Tribes seek to establish air quality programs, this funding level becomes even less sufficient. While this year's funding for air quality programs reflects the first increase in the last five years, there are also more federally recognized Tribes than in the past, and air quality programs have seen an overall reduction since 2012. The NTAA has consistently supported increased funding for Tribal air quality programs, specifically to:

- Restore funding to at least the highest historical funding levels.
- Provide funding for Tribes seeking to establish an air program of their own.
- Create new funding streams targeted at addressing critical needs such as indoor air quality, and climate change mitigation and adaptation.
- Provide new funding to keep pace with increased new source permitting activity.
- Provide funding to replace and repair aging air monitoring infrastructure.

Tribes that are initiating new air programs, and nearly all the Tribes/Native Villages in Alaska, rely solely on the Indian Environmental General Assistance Program (GAP) funding, which has also been relatively stagnant over the last 10 years. To cover all their environmental programs with GAP funding forces tough choices for Tribal governments as to which of the worst challenges will be addressed. NTAA strongly supports an increase in GAP base funding. Please see Appendix A: NTAA Air Quality Budget Analysis for additional details on funding required to adequately operate Tribal air quality programs.

State and Tribal Assistance Grant (STAG) Allocations for Fiscal Years 2012-2021

Region	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
1	$.657	$.614	$.623	$.622	$.594	$.576	$.566	$.554	$.621	$.642
2	$.440	$.424	$.425	$.418	$.403	$.394	$.389	$.380	$.368	$.368
3									$.077	$.085
4	$.331	$.312	$.317	$.313	$.316	$.327	$.328	$.322	$.317	$.321
5	$1.264	$1.146	$1.179	$1.226	$1.229	$1.233	$1.284	$1.294	$1.282	$1.340
6	$1.305	$1.174	$1.176	$1.181	$1.141	$1.137	$1.109	$1.075	$1.172	$1.237
7	$.465	$.434	$.500	$.525	$.535	$.535	$.575	$.605	$.563	$.549
8	$2.110	$2.002	$2.096	$2.070	$2.001	$1.976	$1.889	$1.834	$1.889	$2.011
9	$3.260	$2.934	$2.975	$2.885	$2.967	$2.917	$2.869	$2.844	$2.879	$2.942
10*	$2.657	$2.421	$2.467	$2.444	$2.464	$2.450	$2.468	$2.442	$2.599	$2.859
Total	**$12.5**	**$11.5**	**$11.8**	**$11.7**	**$11.7**	**$11.5**	**$11.5**	**$11.4**	**$11.8**	**$12.4**

All amounts are in millions of dollars. * Includes Alaska

Table 2 State and Tribal Assistance Grant Allocations for Fiscal Years 2012-2021

As an EPA Partnership organization, NTAA also encourages and facilitates partnerships between Tribes, the EPA, and other air quality entities, including state and local governments. Funding and technical resources from the EPA – especially for monitoring, analysis, co-regulation, and IAQ testing and remediation – are critical to supporting these efforts.

Tribes who are seeking additional programmatic funding should note that the EPA is issuing multi-purpose Tribal assistance grants (MPGs) for use in high priority activities that involve implementation tasks under federal environmental regulations. Eligible Tribes include those who have TAS status and Tribes who are approved to operate regulatory programs though certain non-TAS approval provisions. In 2020, EPA offered $19.5 million to eligible Tribes. These funds could be added to a new or existing Performance Partnership grant (PPG) or could be awarded as a stand-alone grant. The EPA has a list of Tribes and their eligible programs. No Tribal match is required.

Grant awards data from show that five grants have been awarded to three different Tribes in Region 1. Individual grant amounts ranged from roughly $20,000 to $40,000 each. In Region 5, one grant has been awarded, in the amount of $28,000. In Region 10, eight Tribes receive MPGs for air quality activities.

Implementation activities could include planning, development, operation, research, investigations, experiments, monitoring, assessment, training, surveys, inspections, compliance assistance, enforcement, process improvement, education and outreach, technical support, and maintenance issues found with the eligible programs. Additionally, MPG funds have been used to replace old air monitors and conduct woodstove changeouts. Joint efforts with EPA may also be covered, such as streamlining and other E-Enterprise programs.

Please note that MPG awards cannot be used to fund compliance activities of any source or facility to meet federal or Tribal requirements, including compliance monitoring or stack testing.

2.5 Assessing, Permitting, and Regulation

Air Quality assessments, including emissions inventory development and monitoring, and managing air quality regulation on and near Tribal lands, is necessary to protect the public health of Tribal members. Tribal communities are more vulnerable to air pollution impacts, and experience higher than average rates of diabetes, heart disease, and childhood asthma. In addition, Tribal communities are at higher risk of exposure to mercury, uranium, and other air toxics due to traditional lifeways, particularly subsistence practices.

Tribes strive to be effective co-regulators of air quality, working alongside federal, state, and local agencies to assess, monitor, and manage regional air quality. EPA plays a crucial role as the primary air quality regulatory authority on Tribal lands working directly with Tribes to protect and manage air quality where Tribes have not assumed authority, including permitting and regulatory activities on Tribal lands. Tribes should be playing a larger role in the oversight

of permitting and regulatory activities off Tribal lands where Tribal land and the health of Tribal communities are at risk and where Tribes retain hunting, fishing, and gathering rights.

Some Tribes have delegated air programs pursuant to the Tribal Authority Rule (TAR) under the CAA, which delegates authority to Tribes to administer and enforce the CAA on Tribal lands, including implementing Federal Implementation Plans (FIPs). Under the TAS eligibility determination, Tribes may regulate sources through Tribal Implementation Plans (TIPs), or through delegation of Federal rules and programs for many aspects of the CAA. Tribes may also develop or take delegation of permit programs for minor and major sources on their lands under Title I and Title V of the CAA. In addition, Tribes manage and operate voluntary programs such as the Diesel Emissions Reduction Act (DERA), radon testing and mitigation, indoor air quality, and others, to form a comprehensive suite of programs to protect public health in Tribal communities.

Assessing Air Quality

Ambient air is comprised mostly of nitrogen, oxygen, and other gases as well as a whole host of criteria[i] and hazardous air pollutants that vary in concentration as a function of proximity to air pollution sources, geographic location, and weather patterns. These pollutants are produced by many sources, including industry, forest fires, agriculture, and transportation. While many different methods of analysis are already being used to understand and reduce air pollution, additional methods are available that could help shed new light on managing air resources.

Air quality assessments, including the monitoring of air quality, are a critical component of evaluating the public health and cultural resources on Tribal lands. Air pollutants are not bound by borders and many Tribes are forced to live with air pollutants that they played no role in creating. Further, many Tribes are unfairly burdened with air pollution resulting from dirty industrial sources such as mining or power generation projects within or near their borders.

Tribal air quality programs play an integral role in assessing and managing air quality in Indian country. In partnership with the EPA, Tribal air quality programs can identify and monitor air pollution problems and effectively focus site-specific mitigation efforts to reduce pollution and improve health and engage in enforcement activities against polluters when necessary.

Monitoring

Several Tribal air quality programs are engaged in national efforts to assess air quality, including the monitoring of air quality, which is helping them to understand air pollution trends and mitigate the health impacts of these trends locally and nationally. The Clean Air Status and Trends Network, or CASTNET, is a national monitoring network established to assess spatial and temporal trends in atmospheric concentrations and deposition. Data from CASTNET are used to link changes in emissions to improvements in air quality and ecological endpoints.[ii] Specifically, CASTNET measures ambient air concentrations of sulfur and nitrogen species and rural ozone concentrations.[iii]

Tribes play an important role in the CASTNET network with seven monitoring sites located on the lands of the following Tribes: Cherokee Nation in Oklahoma; Alabama-Coushatta Tribe in Texas; Santee Sioux Nation in Nebraska; Kickapoo Tribe of Indians of the Kickapoo Reservation in Kansas; Red Lake Band of Chippewa Indians in Minnesota; Nez Perce Tribe in Idaho; and the Confederated Tribes of the Umatilla Indian Reservation in Washington.[iv] CASTNET, Tribes, and other monitoring organizations submit regulatory data to EPA's Air Quality System (AQS). This system is used to query data for regulatory and research purposes, and houses most of the data collected by Tribes. Air Data (https://www.epa.gov/outdoor-air-quality-data) is a website where Tribes and the public can locate monitors in their area and track trends over time.

In addition to AQS, CASTNET, Tribes, and other monitoring agencies submit near real-time data to AirNow-Tech. AirNow-Tech is a password-protected website for air quality data management analysis and decision support. AriNow-Tech is primarily used by the federal, state, Tribal, and local air quality organizations that provide data and forecasts to AirNow, as well as researchers and other air data users. It allows users to:

- Access monitoring site data, information, and polling status
- Analyze current and past air quality events and episodes
- Submit and analyze air quality forecasts
- Configure EnviroFlash email services for public dissemination of air quality forecasts
- View meteorological and air quality data
- Generate data reports
- Create GIS-based maps with air quality and meteorological conditions
- Sign up for the AirNow Notifier listserv

Data submitted to AirNow Tech are used to display air quality information in the public facing AirNow system, developed in 1998 by EPA, the National Oceanic and Atmospheric Administration (NOAA), National Park Service (NPS), Tribal, state and local agencies. AirNow provides the public with easy access to more real time national air quality information.[v] The AirNow Air Quality Index informs the public about the existing air quality and the associated health effects of concern; and through a system of numbers and colors, helps people understand what actions that they can take in order to protect their health.[vi] Twenty-nine Tribal partners in thirteen states are actively engaged in AirNow including the Leech Lake Band of Ojibwe, the Lone Pine Paiute-Shoshone Tribe, and the Quapaw Nation.[vii] More Tribes want and need to be involved in monitoring (e.g., CASTNET) and reporting air quality information to the public (e.g., through AirNow), but can only do so if they acquire additional federal funding support.

Most Tribes are small, isolated, and have limited budgets. As such, federal assistance for Tribal air quality programs is critical to their operation. As shown in the NTAA budget analysis *(see Appendix A)*, funding levels have decreased since 2012, causing stagnation of Tribal air

program growth. These programs have continued to achieve more with less, particularly in how they have been able to paint a fuller picture of the nation's air quality through their monitoring efforts and moving to control and regulate air quality in their areas. However, current funding levels threaten the sustainability of these achievements. For example, as monitoring equipment and infrastructure ages and breaks down, Tribal air quality programs are unable to continue operations with the same levels of success and data Quality Assurance/Quality Control (QA/QC). Additional funding is necessary to establish new and maintain current Tribal air quality programs, to build capacity, and to grow these programs in the future to contribute to a national strategy for achieving cleaner air.

Air Emissions Inventories and Tribes

An air emissions inventory (EI) can cover a broad range of activities. An EI can range from a simple summary of sources of air pollution on or near a reservation or Tribal community, to a comprehensive accounting of the exact amount and location of air pollution impacting the Tribe.

An EI is often the first step in a Tribe's air quality program planning. If a Tribe recognizes that they have an air quality problem, they may choose to start an air quality program to figure out how to address it. For example, an air quality problem may be discovered by finding that large numbers of Tribal residents are experiencing respiratory problems, or by noticing that haze seems to be blocking the view of a distant mountain range or butte much more frequently than in the past. If the cause of air pollution is obvious, such as a big power plant or metropolitan area nearby, a Tribe may start their air quality program by monitoring the concentrations of air pollutants on their reservation. If the cause or sources of air pollution are not obvious, an EI is a good place for a Tribe to start exploring what the sources of air pollution are and from where they are coming.

EIs are an excellent air quality management tool. Once a Tribe knows how much air pollution is produced on their lands and how much is produced by nearby sources, they can make informed decisions about how new sources of air pollution will affect them and establish an emissions baseline. If a new business or development is being proposed on Tribal lands, the Tribe can ask for estimates of how much air pollution the new development would produce to determine how the new source will influence overall air quality. For new sources being proposed outside, but near to, the Tribal lands, the Tribe will be able to comment on how pollution from the new source will affect their air quality.

It is important to understand that there are different ways to report air emissions estimates:

1) In the form of a report that the Tribe uses to summarize and explain the tables, charts, and maps from the Tribal Emissions Inventory Software Solution (TEISS). ITEP's online training includes how to export charts, maps, and tables from TEISS to use in an EI report. Some agencies may communicate their estimates only in such a report, which may be presented to agency management or the EPA regional office. Such reports will include sections on point sources, as well as the nonpoint (area) sources.

2) Emissions estimates data from sources on the Tribal lands can be uploaded to the National Emissions Inventory (NEI) database. Tribes are not required to submit data to the NEI database but are encouraged to do so to increase Tribal representation in the NEI database. The NEI database is used for air dispersion modeling, risk assessment screening, and tracking emissions trends. The modeling results are often used to provide information for the creation of new regulations and to provide technical support for rule making. By supplying data to the NEI, Tribes are represented in these important decision-making processes.

In summary, an air emissions inventory is an important component of an air program and is ideally updated every three years. Such information provides the Tribal agency with information that can be used to guide pollution exposure reduction measures, monitoring projects, and public outreach and communication.

New Ways of Assessing Air Quality

Emissions Forecasting

The fields of ambient air quality modeling and meteorology combine in the area of emissions forecasting. Several state and Tribal agencies are making use of this area of study to keep their citizens informed about predicted poor air quality days so that individuals and governments can make decisions to help reduce pollution or exposure. For example, the Minnesota Pollution Control Agency provides forecasting to all state citizens and has worked with Minnesota Tribes to respectfully include and address forecasts on Tribal lands.

Health Impact Assessments

In recent years, some agencies have started using Health Impact Assessments, or HIAs, to supplement other analyses, such as Environmental Impact Statements (EISs) or Environmental Assessments (EAs). Tribes often find that EISs and EAs do not adequately address the local health, economic, or social impacts of proposed actions and have been developing HIAs so these factors can be considered. For example, several HIAs can be reviewed on the Alaska Native Tribal Health Consortium's website.[viii] The Fond du Lac Band of Lake Superior Chippewa also produced a HIA related to protections for wild rice.[ix]

Traditional Ecological Knowledges and Traditional Knowledge Systems

Traditional Ecological Knowledges (or TEK) is hardly a new field, but it is one that is gaining recognition by the mainstream scientific community. *A White Paper Detailing the Science and Connections Between Air Pollution, Tribes, and Public Health* contains a section on Holistic Methods and Traditional Knowledges that highlights the world's growing appreciation for traditional ways. Section *Emerging Wildfire Threats* also relates how Tribal knowledge is starting to be used to manage wildfires that are growing in frequency and intensity because of climate change. As described in Appendix C: *A White Paper Detailing the Science and Connections Between Air Pollution, Tribes, and Public Health*, the *Guidelines for Considering Traditional Knowledges in Climate Change Initiatives*[x] (*Guidelines)* is a useful starting point for increasing our understanding of the role of TEK in climate change initiatives. The *Guidelines*

are also intended to address the need for protections for TEK (e.g., TEK may be subject to Freedom of Information Act requests, which would expose TEK to public examination) and to promote mutually beneficial and ethical interactions between Tribes and non-Tribal government entities. We hope that TEK will eventually be used in many additional areas of air quality management.

2.6 Permit Categories on Reservations

The Clean Air Act establishes emissions-related permitting programs, the pre-construction permit programs under Title I of the Act, and the operating permit program under Title V of the Act. EPA delegates their implementation to local air agencies. Tribes may implement their permit programs once approved by EPA either under the Tribal New Source Review rule or under the part 71 rule for Title V sources (Federal Implementation Plan) or by taking delegation of one or both Federal Implementation Plans (FIPs). Where a Tribe does not implement these programs, EPA issues the permits to the sources as appropriate.

Terms

NSR – New Source Review – NSR is a Clean Air Act program (aka, the "preconstruction air permitting program") that requires industrial facilities to install modern pollution control equipment when they are built or when making a change that increases emissions significantly. The program requires owners or operators to obtain permits before they begin construction.

Tribal New Source Review rule – The Tribal NSR rule is a Federal Implementation Plan (FIP – a plan that is developed by the EPA to federally implement CAA requirements) that establishes the nonattainment NSR and minor NSR permitting programs in Indian country where no EPA-approved Tribal program exists. There are 2 parts – the minor NSR rule and the nonattainment major NSR rule. The permitting authority (either EPA or a Tribe that takes delegation from EPA) reviews the permit application and either grants or denies the permit after a public comment period.

PSD – Prevention of Significant Deterioration – Applicable to new and modified major sources in attainment areas. Regulated pollutants: NAAQS, GHGs, and others (sulfuric acid mist, hydrogen sulfide) – does not include air toxics (mercury, cadmium, benzene, etc.). Has specific requirements - Install Best Available Control Technology (BACT); perform air quality analysis to assess impacts on air quality; perform Class I area analysis to assess impacts on national parks/wilderness areas and Tribal Class I areas; perform additional impacts analysis; and allow for public involvement. This program can also be delegated to the Tribes or implemented through an EPA approved Tribal Program.

FARR – Federal Air Rules for Reservations (applicable in Region 10 only) – A set of air quality regulations that apply to Indian Reservations in Idaho, Oregon, and Washington.

Title V – Permits issued to major sources by states (Part 70), Tribes (Part 71), or EPA (Part 71). These operating permits include all the applicable CAA requirements that apply to a major source and are designed to improve compliance by clarifying what sources must do to control air pollution.

Major Source – Facilities that emit or have the potential to emit pollutants in amounts equal to or greater than the corresponding major source threshold levels. These levels vary by pollutant and/or source category. Major sources must comply with specific emission limits which are generally more stringent in nonattainment areas and if the pollutant is a criteria pollutant or an air toxic.

Minor Source – Facilities that have the potential to emit pollutants in amounts less than the corresponding major source thresholds.

Synthetic Minor Source – Facilities that have the potential to emit pollutants at or above the major source threshold level, but voluntarily accept enforceable limits to keep emissions below the major source thresholds and avoid the major NSR requirements.

Nonattainment Area – Areas of the country not meeting air quality standards (NAAQS).

Attainment Area – Areas of the country that have air quality as good as or better than the air quality standards for a given pollutant.

HAP – Hazardous Air Pollutant - pollutants (toxic air pollutants or air toxics) that are known to cause cancer and other serious health impacts. There are approximately 187 toxic air pollutants.

TAS – Treatment as a State

The Tribal Authority Rule authorizes EPA to treat eligible federally recognized Indian Tribes in the same manner as a state for implementing and managing certain environmental programs.

TAS Eligibility – A Tribe must meet certain criteria to be eligible for TAS. The Tribe must be federally recognized; have a governing body; have appropriate authority to regulate air quality (includes exterior boundaries of the reservation); and be capable of carrying out the functions of the program.

Administrative TAS – Examples include 105 grants, 107 designations, 126/505 notifications, 319 monitoring, permit review, redesignations, etc.

Regulatory TAS – Examples include Tribal Implementation Plan (TIP), delegation of a FIP, regional haze, or permit program, etc.
Note: TAS is not required for all programs, e.g., program development, monitoring.

2.7 Air Quality and Health

The primary reason for Tribal involvement in air quality is the protection of the health of our American Indian/Alaska Native (AI/AN) citizens. In 2020, the NTAA published an update to *A White Paper Detailing the Science and Connections Between Air Pollution, Tribes, and Public Health* to assist Tribes in understanding and utilizing the latest scientific evidence to protect their people. Information in the White Paper shows that pollutants can have even stronger impacts on health than was previously understood.

Air quality is measured by a series of six criteria air pollutants that the EPA defines as ground-level ozone, particulate matter, carbon monoxide, lead, sulfur dioxide, and nitrogen oxide.[xi] According to the U.S. Global Change Research Program, ground-level ozone and particulate matter are common air pollutants that pose a severe risk to human health and the environment. Certain population groups, such as the elderly, children, and those with chronic illnesses, are especially susceptible to ozone and particulate matter (PM)-related health effects.[xii] Short– and long–term exposure to these pollutants results in adverse respiratory/pulmonary, asthma, lung cancer, emphysema, cardiovascular, neurological and brain development and cognition, and reproductive effects. Also, multiple studies have demonstrated the impacts of pollutants contributed to the increased mortality from COVID-19 in AI/AN populations.

Respiratory/Pulmonary

Studies on the impacts of indoor and ambient air pollution on the respiratory system are among the most widespread and well-established studies conducted. Asthma and lung cancer have all been shown to be heightened by or have an increased risk due to exposure to air pollution from ozone and particulate matter. Furthermore, climate change is leading to an increase in the same respiratory issues.[xiii]

Asthma

Due to the rapid development of the respiratory system both *in utero* and during early childhood, children and adolescents are more susceptible than adults to developing asthma or other respiratory conditions related to air pollution.[xiv] Studies regarding AI/AN children have shown that AI/AN children have a 13% higher probability (compared to 8.6% of children in non–AI/AN descent) of developing respiratory problems.[xv] The higher percentage may be due to the more frequent use of biomass in AI/AN communities for cooking and the heating of homes. For example, 89% of Navajo families still use biomass for heating and cooking, contributing to elevated PM levels and increasing the severity of asthma and morbidity.[xvi]

Lung Cancer

Multiple studies have shown the link between exposure to NO_2 and lung cancer. A meta-analysis from 2015 demonstrated that vehicular emissions of NOx, SO_2, and $PM_{2.5}$ led to a significant increase in the risk of developing lung cancer.[xvii] In China, increased air pollution from industrialization and urban development is now labeled a Group One carcinogen. In 2010,

cancers of the trachea, bronchus, or lung represented approximately 7% of total mortality attributable to $PM_{2.5}$.[xviii]

Emphysema

A 2019 study found a link between long-term exposure to air pollutants, especially ozone, and increasing emphysema and worsening lung function. Emphysema is a disease that is usually associated with smoking. An increase of about three parts per billion of ozone was found to be equivalent to smoking a pack of cigarettes a day for 29 years.[xix]

Cardiovascular

Studies have shown that heart disease rates are about 50% higher among AI/AN peoples in the United States than their non–AI/AN counterparts. More than one-third of their deaths attributed to cardiovascular disease occur before age 65. Multiple studies have also discovered that long-term exposure to air pollution from combustion-related fine particulates contributes to higher rates of heart disease and cardiopulmonary or respiratory conditions. Also, Tribes located near highways and heavy traffic areas experience heightened risk rates for developing cardiovascular problems.[xx, xxi, xxii]

Neurological and Brain Development and Cognition

Multiple studies conducted by the National Academy of Sciences and the EPA have cited that air pollutants such as PM, SO_2, lead, mercury, and NO_2 have direct links to the impedance of cognitive abilities in young children and are more pronounced in elderly populations. For children, exposure to such pollutants may increase inflammation in their brains, leading to cognitive deficits and the presence of proteins characteristic to the development of Alzheimer's disease. Impediments for elderly people include "early decline of immediate free recall/new learning…which indicates increased Alzheimer's disease risk."[xxiii] Studies have also suggested that mercury exposure poses a heightened risk to AI/AN populations. Some Tribes located near fresh and saltwater resources rely heavily on fish as a primary food source, which increases their risk for mercury exposure.[xxiv xxv]

Reproductive

Air pollution can negatively impact reproductive function. A study conducted by Candela et al. (2013) finds a correlation between air pollution and adverse perinatal events such as preterm delivery and low birth weight.[xxvi] Data from PubMed databases referencing over 100 independent studies with a correlation between animal and human epidemiological studies supports the idea that air pollutants cause defects during gametogenesis leading to a drop in reproductive capacities in exposed populations.[xxvii] Tellingly, AI/AN women have some of the highest preterm birth rates, miscarriages, and sudden infant death syndrome compared to non–AI/AN populations in the U.S.

Connection to COVID-19

In early 2020, the first cases of COVID-19 were present in the U.S. Over the next year, COVID-19 has taken over 500,000 U.S. citizens, including citizens from AI/AN communities. According to statistics from multiple sources, AI/AN populations were some of the most impacted

communities in the U.S., losing 1 in every 475 AI/AN, compared to 1 in every 825 non-AI/AN.[xxviii] The higher infection and mortality rates of AI/AN citizens is primarily due to the poor socioeconomic status and lack of basic infrastructure such as access to clean water. A study conducted by Italy's Northern Provinces of Lombardy and Emilia Romagna concluded that a high level of pollution in northern Italy should be considered an additional co-factor of the high level of lethality in that area. Furthermore, studies conducted in China by Zhu et al. (2020) found that there was a significant relationship between air pollution and COVID-19 infection.[xxix, xxx]

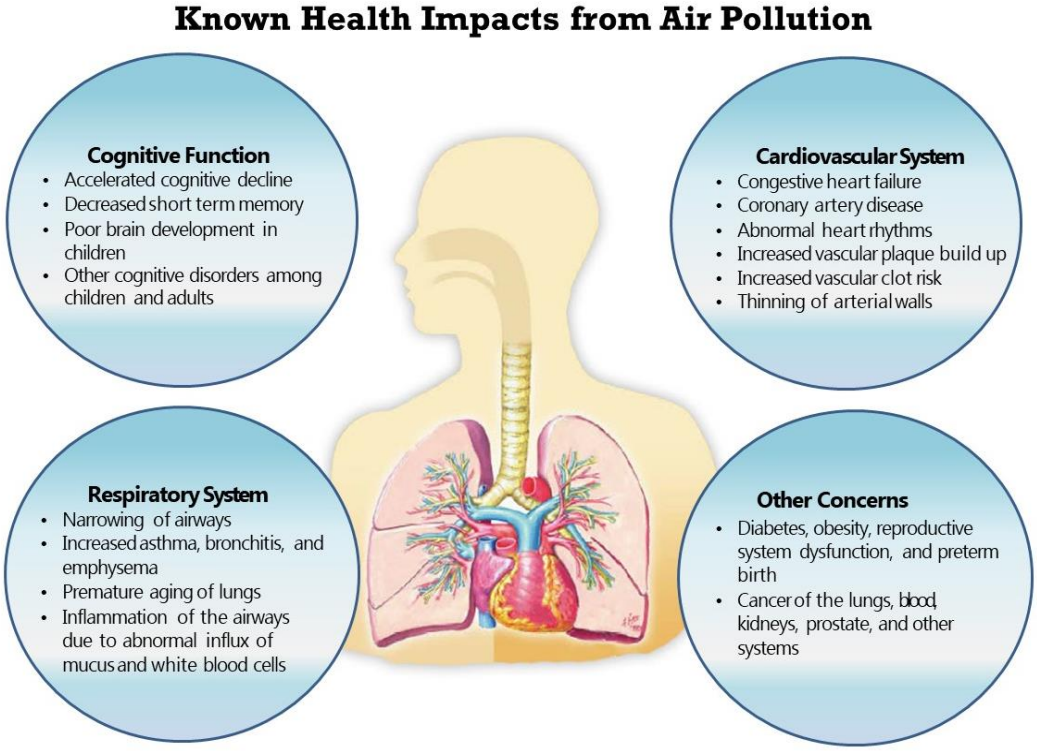


Figure 2 Known Health Impacts from Air Pollution

Conclusion

The link between poor air quality and health impacts is well documented around the world. Poor air quality can lead to respiratory/pulmonary, asthma, lung cancer, emphysema, cardiovascular, neurological and brain development and cognition, and reproductive problems. Poor air quality within Tribal boundaries can increase COVID-19 infection rates. Healthy air quality is a fundamental human right that all Tribal nations and surrounding communities should be actively improving. Without maintaining air quality standards in AI/AN communities there is an increased risk of losing AI/AN citizens and degrading the environment. Every member of the AI/AN community is vital for continuing its cultural teachings and heritage.

2.8 Areas of Concern

2.8.1 Emerging Wildfire Threats

As the climate changes, warmer temperatures and drier conditions lead to catastrophic wildfires on and near Tribal lands. In recent years, Tribes have struggled with growing costs to prepare for, defend against, and clean up following catastrophic wildfires that impact public health, cause environmental damage, and strain Tribal budgets.

In NTAA's FY2021 Tribal Air Quality Budget Analysis, wildfires are identified as a budgetary threat that must be addressed. While an increase over 2020 funding was seen in 2021 (from $11.77 million to $12.35 million), the disparity between Tribal funding needs and funding reality remains substantial. Fire staffing within the Forest Service has grown 114%, from 5,700 in 1998 to over 12,000 in 2015.[xxxi] Such increases have not been seen by Tribes, even though a recent article reports that more than 20% of Native Americans in the U.S. live in areas highly prone to wildfires, less than 18% of Tribes in the country have fire departments and less than 5% receive sufficient funding from agencies such as the FEMA or the BIA.[xxxii] This article also reports that insurers often refuse coverage to homeowners in these areas, which means that Tribes and individual Tribal members may lose everything due to wildfires. This could also lead to Tribal members being extremely reluctant to evacuate their homes during such a fire, putting their lives, as well as their property, in danger. An additional study in *PloS One*[xxxiii] found that Native Americans are more likely than people in other ethnic communities to live in areas that have both the highest potential for wildfires and the lowest capacity for effective response and recovery. This is due to factors such as income, education, and access to transportation and other social services.

At the same time, Tribes' attempts to reduce fire danger on their Reservations can be frustrating. Pre-European contact, many Tribes controlled wildfires through cultural burning. However, a 1911 federal law made it illegal for non-state or federal agencies to burn public land. The Karuk Tribe in California, for example, must negotiate individual agreements with the agencies that have jurisdictional power over their land.

Increasing Impacts from Wildfires
Sources report that today's fires are larger, last longer, start earlier in the year and last later in the year than in the past.[xxxiv] In a Washington Post article that ran on August 14, 2018,[xxxv] a number of facts were highlighted, as follows:

- The amount of acreage burned has been growing steadily since the 1980s, despite year-to-year variations.
- Between 1990 and 2000, the number of acres burned annually grew from 4.6 million to 7.4 million, and in 2015 this number was a record-breaking 10.1 million.

- The typical fire has gotten bigger, from between 40-80 acres in the 1980s and 1990s to more than 100 acres in the 2010s. In 2018, the average size was about 130 acres.

In 2020, there were about 57,000 wildfires, compared to 50,477 in 2019 and 58,083 in 2018. The acreage burned in 2020 totaled 10.3 million acres, compared to 4.7 million acres in 2019 and 8.7 million acres in 2018. In California, five of the top 20 largest fires in the state occurred in 2020.[xxxvi]

Annual Number of Acres Burned in Wildland Fires, 1980-2019

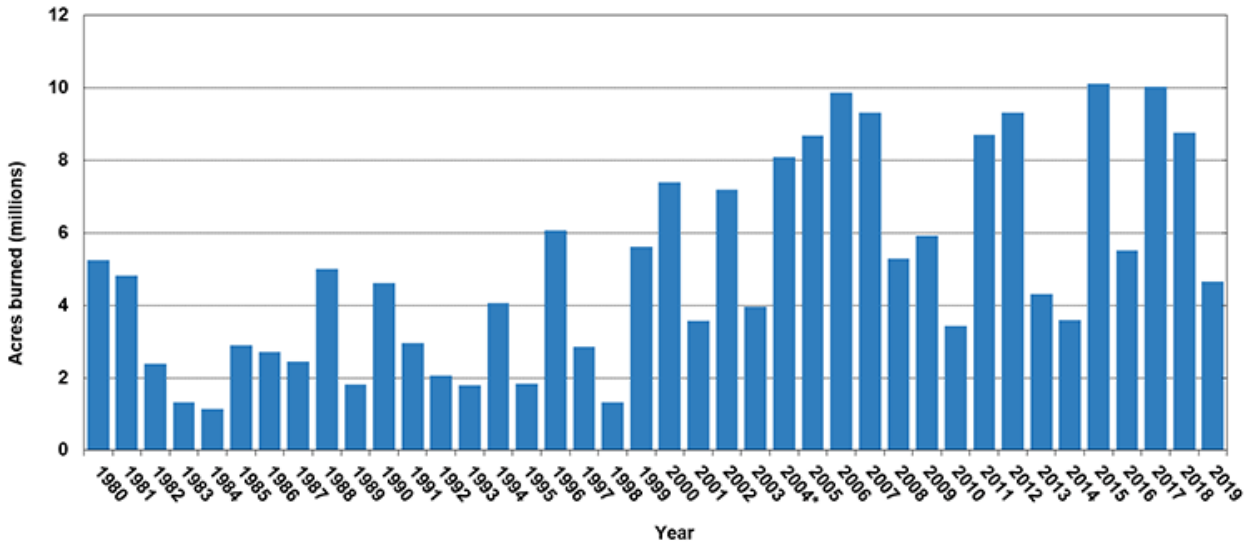


Figure 3 Annual Number of Acres Burned in Wildland Fires, 1980-2019

Wildfires burden Tribes with additional and often unplanned costs to monitor air quality, update Tribal leadership, conduct public outreach, assess environmental mitigation, and conduct clean-up operations. These have led to budgetary and capacity challenges for Tribes, which are described in the paragraphs below.

Tribal Responses to Wildfires

Tribes have many governmental entities and enterprises for which they are responsible. Tribal leadership must assess when they need to close K-12 schools, colleges, clinics, elder housing complexes, casinos, government buildings, and other businesses due to extreme wildfire smoke or the fires themselves. Tribes may need to evacuate employees and Tribal members, sometimes from remote locations, and must find a safe place for these evacuees to stay. Since many reservations are quite large and quite remote, Tribes cannot rely solely on other governmental agencies to help them manage these concerns. Other agencies are facing the same challenges with funding as Tribes and cannot devote the resources needed to fully protect reservations. Non-Tribal agencies may not respond to Tribal areas at all because these areas are not in their jurisdiction. Tribes know best how to manage these situations to minimize costs and health impacts but need the funds to do so. For example, advanced planning is necessary to coordinate community evacuations. Evacuations can be difficult and

dangerous because they may occur under all types of conditions, and at any time of the day or year. Routes can become blocked due to heavy traffic or vehicle breakdowns. Once citizens have been evacuated, they need to know where to go and need to be sheltered until they are able to return home.

If conditions do not require a call for evacuations or if citizens are instructed to shelter in place, indoor air quality can become an important issue. Studies show that during wildfire events, indoor air in older buildings can have particulate levels that are up to 70-80% of outdoor levels, even if all the doors and windows are closed. However, in newer buildings with high performance filtration, levels can reduce exposures to outdoor particles to less than 5%.

Residents can try to reduce pollutant levels indoors by using portable air cleaners (if they do not create ozone), recirculating indoor air rather than drawing in outdoor air, closing the dampers on window air conditioners, and avoiding indoor activities that create pollutants, such as burning incense or candles or spraying aerosols.[xxxvii]

Schools are a particular concern during wildfire events because their occupancy rate is higher than homes or office buildings.[xxxviii] Due to the amount of time that most people spend indoors, up to 80% of the length of time of exposure to particulates from wildfires can take place indoors.[xxxix]

Tribes are also responsible for the health and safety of the firefighters who are diligently working to protect life and property from these fires. In 2017, the BIA reported 1,100 Tribal firefighters and 1,500 Tribal administrative firefighters.[xl] Just as the Forest Service works to estimate pollutant levels for firefighters, Tribes need to be able to protect the health of these individuals if they are working on-reservation.

In addition to immediate emergency situations, many wildfires are lasting longer - leading to public health emergencies for several weeks at a time in Tribal communities, where Tribal members can be more susceptible to asthma or pulmonary issues.[xli] For those with asthma, other pulmonary issues, or who are homebound, both ambient air quality and indoor air quality are a threat.[xlii] Tribes may also need advanced communications equipment or plans in order to keep leadership and the Tribal population informed.

Clean-up operations include hauling away large amounts of housing debris and burned vehicles. These can cause air quality issues insofar as Tribal workers must be protected from lingering toxic emissions and particulate matter that come from moving the debris. Toxic chemicals may come from charred vehicles, asbestos, and fiberglass from homes, even from containers of cleaning fluids, such as bleach, that were burned.[xliii] Even though the flames may be out when the clean-up crews arrive, the contaminated ash that is left behind is hard to avoid.

Tribal people are also at risk from repercussions of power outages caused by wildfires due to geographic isolation and lack of basic services. This leads to increased costs for generators to keep buildings at a comfortable temperature and to provide refrigeration and sanitation.

Health Impacts from Wildfires

Tribal members with asthma and pulmonary conditions are not the only populations at risk. Health impacts can transmit to babies born to women who are pregnant during wildfires. Research shows that babies born during or immediately after fire events have lower birth weights than infants born at other times, with significant effects for wildfire exposure during the second and third trimester of pregnancy.[xliv]

Additionally, smoke from massive wildfires has been known to cause fetal infant and child mortality in extreme cases.[xlv] As wildfires destroy more and more homes, the emissions from these fires potentially contain toxic chemicals from burning furniture, carpets, and appliances. These add an entirely new category of pollutants that Tribes may need to monitor.[xlvi] The Wegesser[xlvii] study found that not only were concentrations of particulate matter higher during wildfire episodes, but the particulates were much more toxic to the lungs than PM collected during normal conditions. In fact, the study found that "we can estimate the relative toxicity of the wildfire PM on an equal-dose basis as about 10-fold more damaging than normal PM." The study further states that because the amount of PM in the air during the events observed was roughly three times higher than under normal conditions, people exposed to the air from the wildfires were exposed to a relative risk of lung inflammation around thirty times higher than the risk during normal conditions.

Specific Tribal Needs Related to Wildfires

Tribes in the western US and Alaska are experiencing larger, more intense, and longer-lasting wildfires over time, at substantial cost to all involved. In 2019, several catastrophic wildfires in California were estimated to cost $88 per person per day in additional costs. Affected Tribes must prepare emergency response plans that calculate some of these specific costs, in partnership with EPA. Through the BIA Wildland Fire Management, Tribes have responded to an average of 8,893 wildfires covering about 500,000 acres every year.[xlviii] These Tribes need support from EPA as soon as possible.

Funding within Tribes for air quality monitoring and public outreach is already stretched thin, so identifying additional funds to set up mobile air monitors during a fire or to educate Tribal communities to become "smoke-ready" is a real challenge. Tribes can fall into three categories when it comes to wildfire response: those who deal with wildfires consistently, those who deal with them occasionally, and those who deal with them remotely. Tribes in each of these categories have separate needs.

Tribes who regularly experience wildfires on or near the reservation need to be able to mobilize monitors and conduct outreach immediately upon notification of a wildfire. These Tribes should prepare emergency response plans and should have their own monitors, with staff trained and ready to deploy these devices. Clean-up staff should also be trained in how to protect themselves from emissions. Tribes whose lands cover large areas would likely need several of these monitors to adequately protect their populations. Cost estimates to prepare an emergency response plan vary greatly due to the complexity of the process and the need to include an Incident Command System (ICS) that prepares Tribes for all emergencies, not

just fires. Smoke modeling would be helpful for Tribes in these situations, as it could help protect firefighters and residents by predicting when and where the heaviest smoke conditions would occur. The NOAA provides air quality forecasts related to smoke through the National Weather Service but some Tribes may prefer to perform their own forecasts, and this would require training and software.

How do Tribes prepare and calculate costs from wildfires that may or may not happen? Some Tribes experience only occasional problems with wildfire smoke. Tribes can prepare emergency response plans that calculate some of these specific costs (the cost of preparing an emergency response plan is estimated above) but a dialogue between Tribes and EPA or another federal agency must take place to set things in motion. These Tribes could potentially borrow equipment from the Tribal Air Monitoring Support (TAMS) Center as needed, however the current TAMS Center equipment loan program is limited and currently does not have the budget to purchase the amount of equipment needed to adequately address Tribes being impacted during the wildfire season. These Tribes should also prepare emergency response plans. As stated above, if a Tribe needs to purchase their own portable monitor, these costs run at least $5,000-$10,000 for a basic unit. If the Tribe purchases a Federal Reference Method (FRM) monitor for long-term monitoring needs, they can expect to spend around $15,000-$25,000 just for the monitor, depending on what type is purchased. Additional costs are listed in the paragraphs below.

Tribes across the country experience smoke impacts each summer, such as high particulate levels, from wildfires in the western US and in Canada. For example, a recent study conducted by the Louisiana Department of Environmental Quality used a Weight of Evidence approach to demonstrate that wildfires in California caused ozone exceedances in Louisiana, roughly 1,600 miles away.[xlix] More demonstrations like this will be conducted in the future as states and Tribes work to pinpoint why exceedances occur. While Tribes impacted by distant fires may not need to use portable monitors, placement of FRM monitors can help track the movement of wildfire emissions across the nation and can help Tribal Nations protect their people. As stated above, the cost to purchase an FRM monitor is roughly $15,000-$25,000, but associated costs also include training, quality assurance project plan preparation, audits, filter analysis (at around $7,000 per year), and data analysis. EPA has prepared materials for "Smoke-Ready Communities." Publications such as this are helpful to Tribal communities preparing for wildfires, but additional funds must be made available for Tribes to address the air quality crises that result from wildfires.

The Role of Climate Change

As wildfires continue to sweep the landscape of America, the role of climate change in this area remains largely ignored. A recent article in the Columbia Journalism Review[l] discusses the lack of reporting on the link between climate change and this phenomenon. This article discusses media coverage of wildfires in the State of California over the past few years. While several papers have published "explainers," editorials, and opinion pieces about the role of climate change in their state's battle against these blazes, most articles either do not bring the topic up or gloss over it in a sentence or two. This means that readers must actively seek

out coverage that delves deeper into the causes of the fires. News stories that do mention climate change tend to do so only in quotes from politicians and officials, which can make the claims seem politically motivated and lacking in authority.

2.8.2 Indoor Air Quality

Much like ambient air quality, monitoring and maintaining indoor air quality (IAQ) plays a very important role in maintaining health within Tribal communities. Common indoor pollutants include allergens, radon, particulate matter, second-hand smoke, carbon monoxide, and excessive moisture, which in many cases leads to mold growth. These are linked to a wide variety of health impacts that may cause symptoms immediately or years later. IAQ issues can vary widely depending on the season and region, meaning Tribes across North America face different challenges when mitigating the impacts from indoor air pollution at any given time.

While the pollutants and health impacts associated with IAQ are very similar to those of ambient air quality, the challenges to monitoring and maintaining IAQ are much different. Due to the large number of indoor environments that must be assessed, monitoring IAQ can be much more time and resource intensive than monitoring ambient air quality. Additionally, many Tribal communities have poor housing conditions that amplify indoor air quality problems.

Monitoring indoor air quality and maintaining healthy indoor environments is critically important. The EPA has found that Americans spend as much as 90% of their time indoors, where levels of air pollutants are often 2, 5, or even 100 times higher than levels outside.[li] A recent study led by researchers at Harvard University compared the cognition of workers in conventional office buildings to their counterparts in well-ventilated buildings and highlights the value of healthy indoor air quality. The researchers found that people working in conditions with better-than-average air quality showed "significantly higher cognitive function" and scored nearly 300% higher when tested for cognitive strategy and information usage.[lii]

In 2017, the NTAA conducted the first National Indoor Air Quality Needs Assessment for Indian Country. The findings of this Needs Assessment were summarized in the 2017 STAR, and an update on progress from the IAQ work group was included in the 2018 STAR in section 3.4 Indoor Air Quality.

NTAA IAQ Work Group

The National Tribal Air Association's Indoor Air Quality (IAQ) Work Group has been meeting bi-monthly to present various issues/concerns that address many Tribes across our country. The NTAA IAQ Work Group includes Tribal and EPA professionals with an interest in indoor air quality in Tribal homes and other buildings. This has gone a long way in providing up to date information that Tribal IAQ programs can use in benefit to their communities. All information processed can be found on the NTAA website under the IAQ Work Group section.

In 2019, the work group met via conference call and virtual meetings with the U.S. Department of Housing and Urban Development's Office of Lead Hazard Control and Healthy Homes. With the assistance of the Tribal Healthy Homes Network and many Tribal IAQ program management personnel, four new Tribal Healthy Homes Guides that provide information and action steps on health-related impacts for Tribal families, Tribal leadership, as well as medical and housing professionals were produced and ready for distribution for 2020. Little did we know what was in store for us so soon after presenting the completed Guidance.

As many will recall, March of 2020 threw a curve ball we were not ready for. With the introduction of the coronavirus, Tribes across our country began shutting down to stem the rise of COVID-19. With little information available, the IAQ Work Group began planning a series of informational webinars to aid in safely re-opening Tribal business. This led to many conference calls with personnel who are professionals in their respective fields. The IAQ Work Group's priority became to get as much up-to-date information/technologies out to Tribes as possible.

Aptly titled, "IAQ Considerations to Assist Tribes in Re-Opening Tribal Buildings during COVID," the IAQ Work Group put together three webinars subtitled:

#1 – an *"Overview of COVID in the Workplace and Funding for Tribes"*

#2 – *"No Silver Bullets, Practical Guidance and Messaging on Re-Opening Tribal Buildings"*

#3 – *"Winter is Coming!"*

Each webinar is unique in its presentation of information which range from Seasonal Driven Risk Factors, Building Filtration and Disinfection, Current HVAC Recommendations, Indigenous perspective, and Science, to the fundamentals of Aerosol Transfer/Transport.

As there is no guarantee that COVID-19 will be going away anytime soon, the NTAA IAQ Work Group will continue to keep a pulse on rising issues as it pertains to indoor air quality with the sole effort of getting information out to the Tribes. All are welcome to join our bi-monthly conference calls to share and learn as we push through these trying times.

NTAA Wood Smoke Work Group

In 2020, the NTAA Wood Smoke Work Group (WSWG) continued to dedicate attention to Tribal residential wood smoke reduction programs by increasing awareness and capacity on the federal, state, local levels while assisting in the Hearth Patio and Barbeque Association's (HPBA) Stoves to Homes Initiative. Tribal wood smoke reduction programs across Indian Country continue to make strides by implementing wood stove change-out programs. Tribes are also working to increase awareness of the importance of indoor air

quality and the harmful impacts of smoke inhalation despite the change out program funding and other external challenges.

To assist with Tribal residential wood smoke reduction programs, the WSWG focused on two major areas:

1. Assisted in the development of the Stoves to Homes Initiative by deploying a request for proposals to identify non-profits to act as hubs to receive donated stoves for Indian Country. Four non-profits were identified:
    a. Wisteqn'eemit & Nez Perce Tribe Air Quality Program – four stoves were received; also, developed an advisory committee, found additional funding support to assist with change-out costs and developed partnerships.
    b. Environmental Initiative based in Minneapolis, Minnesota – six stoves received and found additional funding support to assist with change-out costs and developed partnerships.
    c. Red Feather Development Group based out of Flagstaff, Arizona – three stoves received and found additional funding support to assist with change-out costs.
    d. Alaska Native Tribal Health Consortium, Air Quality Program – no stoves were donated.
2. Provided the Institute of Tribal Environmental Professionals (ITEP) with Tribal needs and obstacles collected during engagements in 2019 and 2020 to help develop content for the 2020 Webinar Series: *Woodstoves in Indian Country*.

The WSWG followed EPA's proposed amendments to the 2015 New Source Performance Standards (NSPS) for Step One Wood Stoves. There was discussion that there would be a No Action Assurance, but no announcement was identified by the WSWG leads. The proposed amendment outcome impacted the Stoves to Homes Initiative since there was little to no enforcement to follow the NSPS which allowed retailers to export or scrap wood stoves rather than donate them to the Initiative.

In September, the WSWG leads were invited to participate in the Residential Wood Smoke Work Group for States, Locals, and Tribes (RWSWG). The work group is comprised of federal, state, Tribal, and local entities who also dedicate their time to residential wood smoke reduction. The calls are held monthly on the fourth Tuesday of each month starting at 2pm EST.

The NTAA WSWG also holds bi-monthly calls on the third Thursday, every other month staring in January of 2021. If you wish to participate and learn more about these calls, contact NTAA Program Coordinator, Mariah Ashley at mariah.ashley@nau.edu.

2.8.3 Hazardous Air Pollutants and Mobile Sources

Hazardous air pollutants (HAPs) are known or suspected to cause serious health effects such as cancer, neurological problems, and birth defects. The EPA lists 187 known toxic air pollutants including benzene, asbestos, mercury, and lead compounds. Humans can be exposed to hazardous air pollutants by breathing contaminated air, eating contaminated food (e.g., fish, meat, eggs, vegetables, etc.), drinking contaminated water, or simply coming into contact with contaminated soil, dust, or water. Some HAPs bioaccumulate, a process in which these toxins accumulate in body tissues.

Humans can face long-term impacts by ingesting even small amounts of toxins over long periods of time. This can be of particular concern for Tribes who may be more exposed due to subsistence and traditional life ways. The National Air Toxics Assessment (https://www.epa.gov/national-air-toxics-assessment) is a tool Tribes can use to determine if their area has the potential risk from certain air toxics.

Mobile source emissions are released by highway vehicles and non-road equipment and are known or suspected by the EPA to cause cancer or other serious health outcomes. While mobile source emissions of air toxics have been reduced by about 50% since 1990, these emissions continue to pose hazards to human health. Diesel exhaust is of particular concern, classified by the EPA as likely carcinogenic to humans, and was classified as a known human carcinogen by the WHO in 2012. This is of significant concern to Tribal communities that often rely on old or "legacy" fleets of diesel vehicles and equipment that produce high levels of air pollutants. Additionally, many low-income communities, including Tribal communities, are near roads, rail yards, and ports.

The Mobile Sources Work Group Keeps on Rollin' *by Craig Kreman, Quapaw Nation*
The NTAA Mobile Sources Work Group (MSWG) had a great year, with many people participating and actively engaged in the presentations from various Tribes, agencies, and interest groups. The big focus of the new administration in the White House is the future of transportation, with much buzz and hype on fleets transitioning to electric vehicles across the country. A priority of the administration should be on ways to include Tribes in this effort. Bringing in the necessary players to help Tribes better understand the potential rulemaking and policies surrounding mobile sources will be a focus of the MSWG this year.

Throughout the past year, leading up to the release of the 2021 STAR, various presentations and discussions included:

- Diesel 101 Presentations, Fuel and Engines from OTAQ Fuels Compliance Policy Center
- Diesel Emission Reduction Act (DERA) Tribal Program Introduction – Information Session
- Volkswagen Settlement Mitigation Action presentation by representative from Quapaw Nation

- Briefing from the Clean Air Act Advisory Committee Mobile Sources Technical Review Subcommittee
- California Air Resources Board presentation regarding Low NOx Heavy Duty Updates and Scalable Opportunities
- Presentation regarding California's Advanced Clean Truck regulation
- Volkswagen Settlement Updates, from both technical staff and Technical Advisory Committee members
- Presentation on EPA's Aircraft Greenhouse Gas Proposal
- Briefing on the Tribal Transportation Self Governance Program
- Discussion of creating a NTAA Task Force on Tribal funding from California Settlement from Daimler/Mercedes Benz Consent Decree
- Briefing from OTAQ regarding the EPA's E15 proposed rule
- Presentation on changes to MOVES3 model by OTAQ representatives
- Monthly OTAQ updates included

With the Volkswagen Settlement in its final year of funding cycles, the MSWG will no longer be receiving regular updates. However, we will remain engaged in any opportunity to secure a Tribal set aside for Supplemental Environmental Programs for any future settlements.

The NTAA Mobile Sources Work Group looks forward to the increased interest and participation on future calls and how it can help NTAA respond to necessary guidance and policymaking initiatives by EPA. The Work Group meets on the first Thursday of every month at 2pm ET. For more information and to join the calls, contact Dara.Marks-Marino@nau.edu.

Volkswagen Settlement Update *by Mark Daniels, Sr. Community Program Coordinator, Institute for Tribal Environmental Professionals*

This year marks the fourth, and probably final, funding cycle for the Volkswagen (VW) settlement diesel emissions environmental mitigation program, and the last time Tribes can apply to become beneficiaries of the program. Approximately $18.1 million is available to fund projects such as replacing or repowering old diesel vehicles or equipment with new, cleaner models, or installing electric vehicle charging stations. As the technical assistance provider for the program, ITEP has been busily working with Tribes around the country to complete the paperwork and meet the deadline to become beneficiaries of the settlement so they can seek funding. By the time this goes to press, the Trustee for the settlement will have announced the Tribes that have been designated as the final group of new beneficiaries for the program, and they (along with previously designated beneficiaries who wish to participate again) can start planning their projects for the year.

As we move into this final funding cycle, we would like to look back at what has been accomplished so far through the program. In the first three funding cycles, the Trustee

distributed roughly $38 million to fund 110 projects put forth by 67 Tribes (many of them applied for more than one funding cycle). A total of 155 older-model medium to large diesel trucks were removed from service and replaced with new, cleaner models (four of these were electric). An additional 35 diesel school or shuttle buses were also replaced (six of them with electric models), along with three forklifts. Many Tribes also took advantage of the option to use a portion of their funds to purchase and install light-duty electric vehicle charging stations, with 53 of them being purchased for use on Tribal lands across the country. And in Alaska, where many of the more remote Native Villages have few if any road vehicles to replace, 19 diesel stationary power generators were upgraded to new, cleaner models to provide electricity and sometimes heat (through waste heat recovery) for Tribal populations.

As always, ITEP looks forward to working with new and existing beneficiaries of the VW Settlement this year, as they take advantage of this historic funding opportunity once again to implement more projects like these and improve air quality on Tribal lands across the country.

Plug & Play in Akwesasne *by Angela Benedict, Air Quality Program Manager, Saint Regis Mohawk Tribe's (SRMT)*

Akwesasne is a small community located in two countries, one state, and two provinces. It is also governed by three governments: Saint Regis Mohawk Tribe (SRMT), Mohawk Council of Akwesasne (MCA), and Mohawk Nation Council of Chiefs (MNO). Approximately 30,000 Mohawks call Akwesasne home. The area is lush with trees, farmland, and wetlands, as well as a major waterway with its many tributaries. Over the years, Akwesasne has been exposed to pollution in the air, water, and wildlife from neighboring major industries: Reynolds Metals, General Motors, Alcoa, and Domtar. In the past, the SRMT Air Quality Program conducted a study on benzene exposure in Akwesasne. The results of this study showed that higher traffic and the refueling of cars led to higher exposures of benzene to the community. Akwesasne is known as a place to get gasoline at cheaper prices. Because of that, over 17 gas stations could be found on the main seven-mile highway going directly through the Akwesasne Territory.

When the Volkswagen Settlement offer came along, it was a no-brainer that the SRMT would like to participate. After all, who does not have old diesel vehicles that need to be replaced? It turned out that the SRMT Transfer Station, which has been in operation since 2003, had been utilizing the same truck for years.

We all know trash does not make you millions so when the offer of purchasing a new truck to replace an older truck came up the staff at the Transfer Station were excited. They could get rid of an old truck, get a new truck, and not even have to take it out of their tight budget. Plus, having a new truck reduces the emissions coming out of the tailpipe. Another program with the SRMT also had an old diesel dump truck that needed replacing. Our funding allocation was enough for two trucks, so we replaced one for them too.

Even after purchasing two new, low emitting trucks, the SRMT had enough funding to put in electric vehicle charging stations. Akwesasne is considered a very rural area about 60 miles from any major city. Not many new technologies get our way easily; zero emission electric vehicles are no exception. Most people think that electric vehicles are only for city driving, which is reasonably true, but why not make charging them more available in rural areas so owning an electric vehicle does not have to be challenging.

Tribal Air Quality Program Receives Second VW Settlement Payment. https://www.srmt-nsn.gov/news/2020/Tribal-air-quality-program-receives-second-vw-settlement-payment

The SRMT used about 12.5%, or $32,000, of the VW Settlement funds allocated to the Akwesasne to put in Level-2 charging infrastructure. Tribal Council supported the process from the beginning, recognizing that it was good for the community and good for the environment. The SRMT has many public-use places for the chargers: the newly built *Ionkwakiohkwaroron* Tribal Administration building, Generations Park & Pavilion, Travis Solomon Memorial Lacrosse Box and the *Tewathahita* Walking Trail, Saint Regis Mohawk Health Services, and the Akwesasne Mohawk Casino Resort.

The process to get the charging stations installed took a lot of planning. Finding a contractor experienced in installing these types of stations was complicated. The contractor had to install electrical lines and pedestals as well as get local permits and inspections. Two different styles of signs were purchased. One type was installed on the state highway, which had to be compliant with state signage standards and was installed by the NYS Department of Transportation. Signs at the chargers were compliant with state standards, although that was not required, and were installed by SRMT maintenance staff. From start to finish, it took approximately 10 months with the pandemic putting some delays in the process.

Akwesasne Mohawk Casino Resort completed the installation at their facility because they have an electrician on staff that was able to connect the chargers. The infrastructure was already in place at their RV park. Having the stations put at the Akwesasne Mohawk Casino Resort and at Generations Park & Pavilion made it easy to come up with the "Plug & Play" slogan.

The stations installed included dual Level-2 charging systems at each of these locations: *Ionkwakiohkwaroron* Tribal Administration building, the Saint Regis Mohawk Health Services and at the Akwesasne Mohawk Casino Resort and a single charger at Generations Park & Pavilion with access to the Travis Solomon Lacrosse Box and *Tewathahita* Walking Trail.

The chargers are also on the www.plugshare.com website, to help travelers locate them.

The charging stations are free to use for community members and visitors. The SRMT created a commercial showing where they are located and how easy they are to use. https://www.facebook.com/939040346108969/posts/3843044985708476/

So, for now and the next seven generations, the Akwesasne community has the same opportunity as big cities to plug into the future of zero emission driving.

2.8.4 Climate Change

The NTAA has a history of working on climate change issues and communicating the concerns of Tribes to the EPA. In 2009, NTAA developed a report on the impacts of climate change in Indian Country after a request by then-Office of Air and Radiation (OAR) Assistant Administrator, Gina McCarthy. As a result of work such as this, the EPA released the Clean Power Plan Final Rule with the goal of reducing greenhouse gas (GHG) emissions. This rule states: "Tribal communities whose health, economic well-being, and cultural traditions that depend upon the natural environment will likely be affected by the degradation of ecosystem goods, and services associated with climate change."

In March of 2019, EPA issued their proposed New Source Performance Standards (NSPS) for Greenhouse Gases from New, Modified, and Reconstructed EGUs. In September of 2019, NTAA was approached by members of the US Senate's Indian Affairs Committee and the Special Committee on the Climate Crisis and asked to provide information on the impacts of climate change to Tribal communities. In June of 2019, the Council for Environmental Quality (CEQ) issued draft guidance for Consideration of Greenhouse Gas emissions in implementation of the National Environmental Policy Act (NEPA), followed in January 2020 by a more comprehensive proposal to update the rules implementing NEPA, which the NTAA believes would have serious impacts on climate change. NTAA developed Policy Resource Kits (PRKs) to alert NTAA Member Tribes and other Tribal Air Offices of these important proposed rules and information requests and provide tools for Tribes to submit comments on federal actions.

According to the U.S. Fourth National Climate Assessment (NCA4) report, climate change has already started to alter and damage the U.S. economy, environment, and human health. Chapter 12 of the NCA4 concludes: "Climate change increasingly threatens Indigenous communities' livelihoods, economies, health, and cultural identities by disrupting interconnected social, physical, and ecological systems."[liii] On October 6, 2018, the Intergovernmental Panel on Climate Change (IPCC) released its Special Report on Global Warming of 1.5° Celsius. The report finds that drastic transformational actions across all economic sectors and levels, including energy, food production, behavior, and technologies, are required to limit global warming by 2030. Furthermore, the extent and magnitude of these changes depend on the current and future policy regulations and actions to limit the amount of GHG emissions released into the atmosphere today and in the future.

The consequences of climate change will endanger public health, both directly and indirectly. The EPA's Endangerment Finding cites numerous health concerns associated with increased levels of atmospheric GHGs. The EPA predicts that the negative effects of extreme hot days will outweigh the positive effects of less exposure to extreme cold, a scenario that will disproportionately impact poor communities that cannot afford or do not have access to air conditioning. Climate change has likely already increased ozone pollution in some regions of the US and has the potential to exacerbate fine particulate concentrations as well as the many associated health impacts.[liv] Changes in temperature and precipitation patterns will increase risks associated with aeroallergens (i.e., pollen and mold) and vector-borne diseases. Furthermore, climate change is leading to more frequent extreme weather events, which have the potential to severely impact Tribes, depending on their preparedness and geographic location.[lv] Finally, climate change is projected to cause more frequent and severe wildfires, degrading air quality and resulting in additional adverse health outcomes (e.g., increased respiratory illnesses from exposure to wildfire smoke, impaired visibility, and disrupted outdoor recreational activities). The negative health effects associated with climate change are especially damaging for vulnerable populations including the elderly, young children, and those individuals already in poor health.

Climate change threatens Tribal lifestyles by decreasing food security, endangering culturally significant flora and fauna, and forcing them towards extinction, increasing the risk of extreme weather events, and endangering public health in general. Climate change impacts are causing the loss of indigenous cultures and indigenous knowledge systems and forcing the relocation of Tribal communities.[lvi] Additionally, air quality impacts exacerbated by climate change extend to hunting, fishing, and gathering rights of Tribes in Ceded Territories, lands that Tribes transferred to the federal government in exchange for off-reservation rights by a treaty agreement. Long-term climate change and near-term weather variation are both leading to changes in biodiversity, the abundance of important flora and fauna species, and seasonal changes that are impacting traditional hunting, foraging, and farming. Tribes and their members are experiencing declines in health due to the loss of traditional food use caused by climate change.[lvii]

Longer summers and warmer winters in Alaska are causing sea ice to form late and melt early, reducing Alaska Natives' ability to move around their region to hunt or gather. In the upper Midwest, moose and wild rice habitats are shifting with the changing climate, restricting their availability as a food resource. Changing temperature and precipitation patterns are permanently altering biomes across the southwest, changing where many culturally significant plants can grow and even leading towards their extinction. Further, climate change is threatening food security based on subsistence agriculture, particularly in the west where a lack of rainfall has created long-term drought conditions. In the southeast, sea level rise and increasing flood risks in coastal and low-lying regions are impacting several communities and raising discussions on relocation.

A number of Tribes and Tribal organizations have committed significant resources to analyze the health effects of climate changes on Tribal communities. In particular, the ANTHC Center for Climate and Health has been conducting comprehensive community assessments for several Alaska Native Villages, such as the Native Village of Kivalina (Kivalina), focused on the impacts of climate change and related health effects.[lviii] For Kivalina, ANTHC has observed a rise in dust, smoke, and allergen levels along with health-related issues such as asthma, allergies, and other respiratory problems.[lix] These levels and health-related issues have become most prominent during the summer months due to an increase in the number of hot and dry summers, lightning and wildfires, and trees and shrubs.[lx]

Additionally, the NCA4 report highlighted over 800 climate adaptation activities across all regions that Tribal governments, Indigenous peoples, inter-Tribal organizations, and their partners have undertaken.[lxi] Tribal leaders and managers are developing climate change adaptation strategies and emissions reduction actions that not only consider ecological impacts but sociocultural impacts. Land and resources are integral to the cultures and economies of Tribes. As climate change continues to impact ecological biomes, Tribal governments face institutional barriers that severely limit their adaptive capacities, including limited access to traditional territory and resources and the limitation of existing policies, programs, and funding mechanisms in accounting for the unique conditions of Indigenous communities. Federal, state, and regional institutions must support the unique political status of Tribes as sovereign nations. Tribal sovereignty, self-determination, Indigenous knowledge systems, and inter-Tribal organizations provide vital opportunities to adapt to the potential challenges of climate change.

ITEP's Pathway to Reducing the Carbon Footprint of Conferences and Events *by Dara Marks-Marino*

The National Tribes and Indigenous Climate Conference (NTICC), hosted by ITEP, was originally intended to be held in St. Paul, Minnesota, in August of 2020. Although we were forced to shift the conference to a virtual event due to the COVID pandemic, our original planning process included a goal of achieving carbon neutrality. ITEP has long been working towards making its events more sustainable and planet-friendly to be good ancestors and keep the next seven generations in mind. Carbon neutrality was the next logical step.

It is important to understand what carbon neutrality is and is not. It is not a complete elimination of emissions. Rather, carbon neutrality is the attempt to *account* for as many of the emissions associated with our event as we reasonably can, *reduce* those emissions as much as possible, then *offset or sequester* the remaining emissions.

The first step in this process was to build out an emissions inventory (EI) just like when a Tribe wants to begin reducing the carbon emissions associated with their own Tribal operations. For the NTICC EI, we drew our boundaries to include the emissions from all attendees' travel to and from the conference, their lodging, and the portion of the energy use in the conference center attributable to our conference. We chose to not attempt to include emissions associated with food that attendees were eating, since we were not planning to serve any meals and therefore would not have a reasonable way of knowing the carbon footprint of what everyone was eating. We also chose to not go down the rabbit hole of emissions associated with the conference center's carpet, beds, tiny soaps, etc., because boundaries must be drawn somewhere.

We also came up with many tips and suggestions for attendees to reduce their conference-related emissions as much as possible. These fell into the categories of waste, travel, lodging, and food. To make it more fun, we were planning to turn it into a game, with ways for everyone to earn points for every reduction in emissions they made (low-carbon prizes were in the works!).

Knowing that even after reducing our emissions as much as possible there would still be emissions we were responsible for, and that creating our own carbon sequestration project for those remaining emissions was time and cost prohibitive, we partnered with Trees, Water, & People to offset the remaining emissions. Purchasing offsets would have been voluntary for each of the attendees, and would have gone towards the work that Trees, Water, & People do with communities in Central America, including providing clean cook stoves, supporting food sovereignty, and reforestation.

Offsetting is an imperfect solution, but we knew we had to start somewhere. Reducing emissions is the most important part, along with raising awareness and taking responsibility for our own impact. We at ITEP embrace these values. In the end, NTICC moved to a virtual event. We kept the EI and populated it with assumptions based on how

many people we anticipated would have attended and how far (and by what means) they likely would have traveled. Although we did not have a reliable way to calculate the emissions associated with the use of computers by those attending virtually, we were able to show that we avoided approximately 153.4 total metric tonnes of carbon dioxide equivalency (CO2e) (or .5 metric tonnes of CO2e per person). This is like taking 33 passenger vehicles off the road for one year, or one person not driving 380,645 miles.

(Equivalencies generated by using EPA's Greenhouse Gas Equivalencies Calculator)

Every effort we make to reduce our emissions leads to cleaner air and a healthier planet for our future generations. Events and conferences can be a large source of emissions, and ITEP is committed to doing our part to be good ancestors.

3 Regional Descriptions, Program Focus Areas, Successes & Challenges

The following section has brief descriptions of each Region, followed by the program focus areas that are specific to that Region. The list of program focus areas is followed by stories submitted by Tribes in that Region, illustrating the successes and challenges of Tribal air quality programs.

3.1.1 Region 10 – 229 Tribes – Alaska

There are 229 federally recognized Tribes/Alaska Native Villages in Alaska, and 25 of them are NTAA member Tribes. With over 40% of federally recognized Tribes residing in Alaska, often in remote locations and experiencing significant impacts from both air quality and climate change, support for Alaska Tribes is very much needed.

Specific focus areas in Alaska include:

- Funding: Alaska Tribes have disproportionately less access to funding for air quality work compared to other Tribes due to jurisdictional differences. An incredible amount of work is accomplished with often just one or two GAP-funded environmental staff, but there are still not enough resources and staff must manage many responsibilities at once.

- Indoor Air Quality & Healthy Homes: Native children in Alaska have some of the highest rates of lower respiratory infections and hospitalizations globally. Mold, carbon monoxide gas, wood smoke, radon, and dust are indoor air issues that are made worse by inadequate ventilation, deteriorating housing, old woodstoves, and high energy costs in rural Alaska. Prevention and management of bed bugs is another concern, as their fecal matter and hazardous chemicals used for mitigation are indoor air quality issues.
- Consultation, Sovereignty, Collaboration & Partnerships: Alaska Tribes have different legal challenges since they do not have jurisdiction over reservation land (except for Metlakatla Indian Community). Therefore, the State is responsible for implementing the Clean Air Act in rural Alaska. Given this dynamic, consultation with State and Federal agencies and collaborative partnerships is critical to Tribal sovereignty and protecting air quality. Tribes often work together with schools, community members, and agency partners to address environmental issues and develop ways to resolve them.
- Climate Change: Alaska Tribes are on the forefront of climate change and are seeing permafrost melt, major flood events, drought, wildfires, ocean acidification, and coastal erosion. Traditional and culturally important foods, subsistence, and commercial resources will continue to be vulnerable as the climate changes.
- COVID: Because Alaska Native Villages are such small communities, a breakout can be extremely detrimental. Some communities do not have in-home running water, so preventing the spread of illness is even harder. Many Tribal offices closed for a full year and are just now starting to reopen.
- Solid Waste Burning: Often unconnected to the road system and only accessible by barge or small plane, Alaska Tribes experience unique barriers to waste management since removing waste is costly and the options are limited. As a result, many communities burn waste as a disposal method, which causes smoke and chemical pollution.
- Road Dust: Many Village roads in rural Alaska are unpaved, so road dust is a significant health and air quality issue for Alaska Tribes. For Tribes in the Interior and North Slope of Alaska, dust suppressants are needed to help control road dust, but they are sometimes prohibitively costly to purchase.

Stories from Alaska:

Purple Air Sensors in Rural Alaska *by Julia Hnilicka, ITEP Summer Intern*

As the green dot appears on the Purple Air map indicating a new online air sensor, I feel a sense of excitement. This means data for Dr. Jingqiu Mao at the University of Alaska Fairbanks to study devastating Alaskan wildfires. More importantly, it is also data for Alaskan Tribes to monitor the air quality of their communities in real time. While talking to an interested Tribal leader recently, they became very excited about the prospect of the installation of a Purple Air sensor so that they can better serve their Elders. Oftentimes it is our Elders who are most affected by poor air quality.

Knowing the particulates in the air and the pollution from wildfires, road dust, or dust storms will alert the community to check on their Elders more frequently, and even move them out of that region if the pollution becomes too severe. The future data can also be used to apply for air quality grants and/or additional funding. It is intended to be another tool for Tribal members and Tribal councils to use at their discretion.

The installation of Purple Air sensors is very easy. With access to WiFi and an outdoor power source you have all the requirements to set one up. A contact that I talked to asked me, "Well, how many days will it take you to construct the air sensor?" I smiled while responding that the sensors are about the size of a large coffee cup and need only one screw (or zip tie) to secure them in place. They also come with a long power cord for issues such as impenetrable siding or limited outdoor outlets that I have found can often come in handy. After Dr. Mao tested air sensors all winter in Fairbanks, Alaska, we can also say that they are quite weather resistant even to extreme temperatures and snow.

According to Purple Air's website www.purpleair.com, the sensors use a fan to draw air past a laser, causing reflections from any particles in the air. These reflections are used to count particles in six sizes between 0.3μm and 10μm diameter. The air sensors come in three different categories and corresponding price points. The air sensors that we are using in Alaska for this project are model PA-II, and when ordering multiple sensors at a time there is a price advantage making them even more affordable. With ease of installation, affordability, and low maintenance, Purple Air sensors are a great resource for Tribal councils and members.

As the Alaskan map begins to populate with more and more green dots, some placed by myself, others by proactive Tribal councils, our shared knowledge will grow. I encourage you to check out the map at www.purpleair.com and see for yourself all the sensors not only in the United States, but also globally. You might be surprised to find how large this project has become and be encouraged to put your region on the Purple Map.

It has been a great honor to be invited into rural Alaskan communities to facilitate their addition to this air quality project which serves children, Elders, and all people. As I make my way around to rural Alaskan communities, I see the beauty and peace that living in those regions provides. Being able to help protect and preserve the people and land from wildfires and other air pollution is the driving force behind this project.

The Klawock Tribe's Impacts from COVID to Environmental Programs *by Ann Wyatt, Klawock Cooperative Association & AK Primary Representative for NTAA EC*

COVID-19 has hit us hard here in Klawock, Alaska, and on Prince of Wales Island. Because we are such small communities, a breakout can be extremely detrimental. The Klawock Tribes locked down their offices when the pandemic started in March 2020, but most people still worked in the office while some decided to telework. As mandates were lifted, they slowly started reopening. Some Tribes remained on lockdown as others decided to open, with strict conditions of wearing masks, social distancing, washing hands, using hand sanitizer, disinfecting surfaces, air filtering, and having offices well ventilated.

Klawock, Alaska

The Tribal offices were not the only ones to close when the coronavirus pandemic started. Many other agencies and businesses in Alaska also shut down or started teleworking from home.

On March 25, 2020, Alaska began requiring all out-of-state travelers to self-isolate for 14 days, per a health mandate. Critical Infrastructure businesses with employees traveling to Alaska are now required to submit a plan to the Department of Commerce, Community, and Economic Development outlining how they will maintain critical infrastructure. Quarantined travelers must remain in their hotels for 14 days or until they leave Alaska. The order defines critical infrastructure as twenty-four categories including healthcare, construction and public works, mining, financial services, grocery stores, agriculture and fishing, gas stations, suppliers of essential supplies to other essential businesses, professional services necessary to assist compliance with legally mandated activities, among others.

Volunteer conducting a shellfish biomass survey.

Most Tribes followed the travel mandates and not many traveled for business, i.e., business meetings, conferences, workshops, etc. Nationwide, Tribes have decided not to have such events, and decided to do virtual meetings, conferences, workshops, trainings, etc. The Klawock Cooperative Association sits on the Tribal Environmental Coalition (Four Tribes Environmental Departments on Prince of Wales Island,

Craig, Kasaan, Klawock, and Hydaburg); we have monthly meetings that we have been holding virtually. We also have virtual meetings with Alaska Native Tribal Health Consortium and the Central Council Tlingit Haida Tribes of Alaska; COVID information is always on the agenda, and is also sent through email listserv, social media and on websites. All these methods have been great to keep updated on COVID-19 information. Presently, Klawock Tribal offices are open to the public.

Although much of our environmental work was cancelled, we have plans in place to resume most of the work this year. We maintained our partnership with Southeast Alaska Tribal Ocean Research to continue Paralytic Shellfish Poisoning water sampling, shellfish sampling, water filtering, and nutrient sampling, and we brought on a handful of volunteers to conduct a shellfish biomass survey with all COVID safety precautions in place.

Tribal Environmental Coalition Electronic Recycling Event and Annual Community Spring Clean Up.

The Tribal Environmental Coalition Electronic Recycling Event (left) and our Annual Community Spring Clean Up event were both cancelled this past year as well, but we plan on holding both again with all safety precautions in place.

Our Tribal Environmental Coalition also had to cancel our Annual Earth Day Event last year. Usually, we have up to 300 students attend, with various booths with environmental information on Air Quality, Water Quality, Wood Burning, Emergency Preparedness, Recycling Game, Watershed, Renewable Energy, a coloring table with paper bags (children color what they think Earth Day is, then the bags are taken back to the grocery store and customers are encouraged to use them in place of plastic bags), an art contest, and displays. Participants include people from all four Tribes and different agencies, corporations, and school districts from Prince of Wales Island. This year we plan on having the event again.

It has been a difficult year for everyone, but we are still here and planning for a much better year to come.

3.1.2 Region 10 – 271 Tribes – Idaho, Oregon, & Washington

There are 43 federally recognized Tribes in EPA Region 10, and 14 of them are NTAA member Tribes; 14 Tribes are operating air monitoring sites. There are also 2 CASTNET locations in Region 10. Specific program focus areas in Region 10 include:

- Indoor Air Quality & Healthy Homes: Wildfire season is a major cause for concern especially with increasing COVID-19 impacts. This is the second most major area Region 10 is working on to address these issues for IAQ in homes and offices.
- Ambient Air & COVID: Wildfire is a high priority and is increasing every year. This is becoming a bigger and bigger issue for Tribes in Region 10. Tribes work months ahead of wildfire season to prepare for any wildfire event.
- Consultation, Sovereignty, Collaboration & Partnerships: This topic is the number 1 focus for Tribes in the Northwest.
- Mobile Sources: Marina and highway emissions are a big concern.
- Climate Change: Climate change has greatly affected many Tribes in the NW. Many Indigenous plants and way of life for Indigenous people are being affected.
- Hazardous Air Pollutants: This focus area is very different throughout; however, for the NW part of Region 10, it is a bigger concern than the NE portion of the region.
- Emergency Management: Having emergency management plans can save lives and could also encompass ambient air pollution, smoke, and wildfire episodes.
- Funding: The work that Tribes do in Region 10 could not be conducted without the aid of funding. This is a major focus area, but does not override Consultation, Sovereignty, Collaboration, & Partnerships.

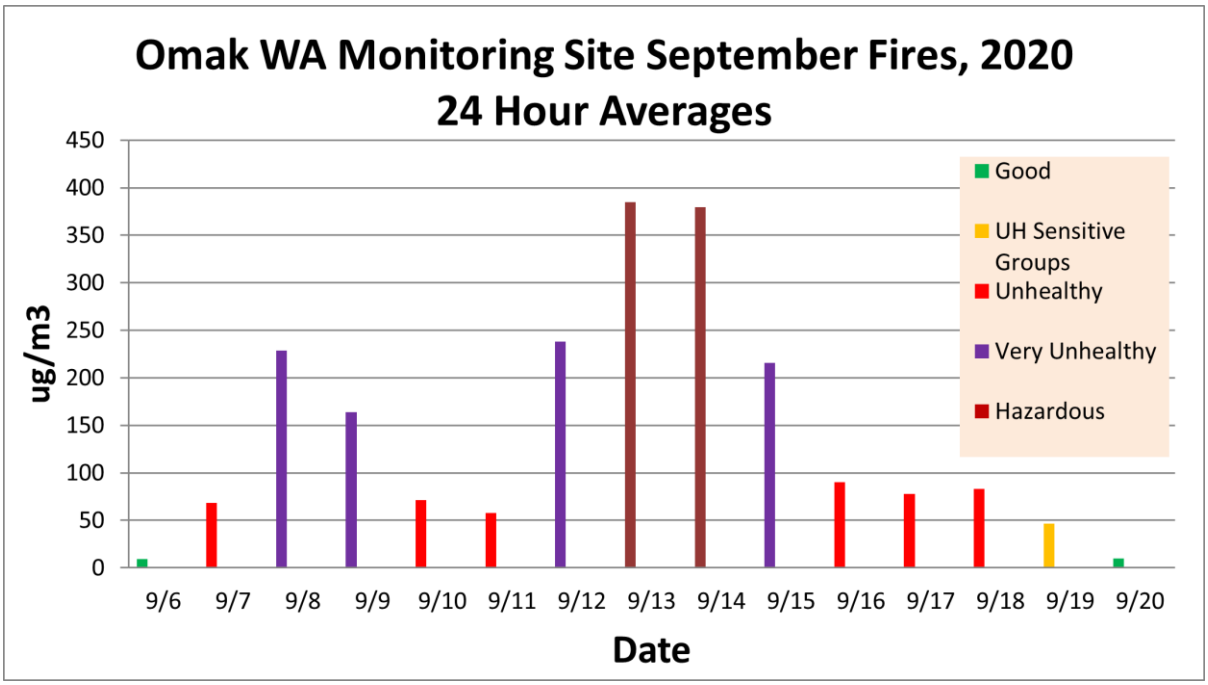
Stories from Region 10

Colville Wildfire Smoke, Health, & Climate *by Kris Ray, Air Quality Program Manager, Confederated Tribes of the Colville Reservation*

Labor Day, September 7th, 2020, will be remembered in our area and throughout the west as the beginning of an extraordinary fire year. The National Weather Service had put out information on a wind event expected to hit the Northwest on Labor Day. The wind coupled with high temperatures and low humidity prompted a red flag warning, wind advisory, hazardous weather warning, and high temperature warning for that day.

When we get this many warnings and advisories on one day the tension on the Reservation rises fast as we remember past catastrophic fire years of 2014 and 2015. As predicted, the wind event hit the area late afternoon and seemed to continue for several days. Unfortunately, not everyone felt the tension of a potential fire; someone purposely lit several fires on a remote road on the west end of the Reservation. Because of the conditions mentioned, the fires quickly combined and became a devastating fast-moving fire in a shrub-steppe ecosystem. The local incident commander arrived on the scene when the fires totaled 40 acres. He said the fire quickly expanded to 200 then 2000 and kept going. At that time, it was no longer a situation of controlling the fire but of evacuating everyone down wind. That proved to be very hard to do with the speed of the fire spread. At the height of fire spread it was consuming 10,000 acres an hour and moving 60 miles south in the next 8 hours.

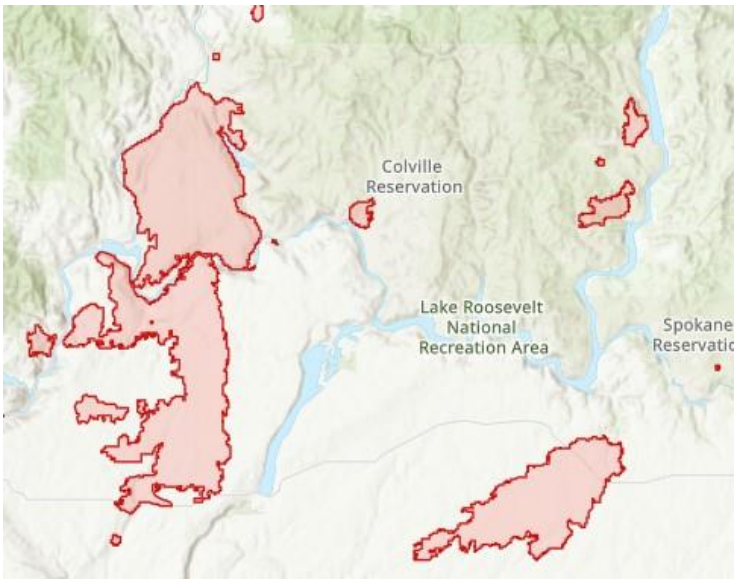
This was called the Cold Spring Fire and ended up consuming 190,000 acres, destroying 78 homes and 60 other buildings, and damaging 5.3 million dollars' worth of assessed property



Omak, WA September Fires, 2020

value on the Colville Reservation. Fire control was split when it jumped the Columbia River and entered Douglas County to become the Pearl Hill Fire. The fire raced another 30 miles south and eventually burned 223,730 acres including 26 homes and commercial buildings.

The extreme wind event also caused trees to break and fall on utility lines in the Inchelium area on the eastside of the Colville Reservation. These downed power lines sparked fires that burned 19,400 acres, including 14 homes and structures. With firefighting resources committed to other large fires, the Inchelium complex was left wanting with the community stepping up to defend their homes. When all the Reservation fires were contained, 209,000 acres burned, and 85 homes were destroyed.



Fires on and around the Colville Reservation, 2020.

What the numbers do not tell is the anxiety, personal loss, and health issues caused by local and western fires. Smoke from the devastating fires in California and Oregon also drifted into the area in high concentrations that combined for twelve continuous days of 24-hour averages at or above the AQI unhealthy category.

At these concentration levels, people's health rapidly moves from

the acute (short term) symptoms of the "unhealthy for sensitive groups," such as sore throat, coughing and shortness of breath, to a chronic situation. After a week or so of unhealthy smoke concentrations, everyone shows the symptoms mentioned but to a higher degree, which may continue months past the smoke event.


Cold Spring Fire Approaches Tribal Housing Development.

The stress of local fires and smoke on a community is profound. If you are not evacuating your home, you may be preparing to evacuate or helping someone else. People watch social media for word of families' homes burning or not, where the fire is headed, and who has evacuated. When the monster fire is contained, and the air is clear, recovery begins. Resource centers are established, temporary housing is found, and an accounting of the devastation begins. Unfortunately, the Reservation and surrounding area has become good at this process with over 1 million acres burned since 2014.

All the fires, smoke, and loss are a direct result of our changing climate; we are experiencing higher temperatures, shifting precipitation patterns, and devastating winds. This results in ever changing air quality issues that affect our communities. To deal effectively with this increasing demand, Tribal air programs need additional resources for personnel and implementation of mitigation measures.

The Washington State Tribal Transportation Planning Organization (TTPO) *by Casey Stevens, Stillaguamish Tribal Planner, Arlington WA, TTPO Member Tribe*

The Tribal Transportation Planning Organization is a partnership between the Washington State Department of Transportation (WSDOT) and the 29 Tribes in the state of Washington. WSDOT began in 1993 to meet annually with Tribes to address mutually identified transportation issues. The Tribal Transportation Planning Organization (TTPO) was formally established at the 2003 Tribal/State Transportation meeting. The purpose of the organization is for Tribes to take an active role in statewide transportation planning by providing a forum to discuss and participate in Tribal transportation system needs and opportunities. The TTPO meets quarterly.

This partnership has had noteworthy successes that have helped Tribes to express their sovereignty and strengthened Tribal/state relationships and communication. For example, in 2003, a very large WSDOT Hood Canal bridge pontoon fabrication project started in the

economically depressed region around Port Angeles, Washington. It was immediately discovered that the new pontoon fabrication location was on top of a 2,700-year-old Tribal village of the Lower Elwha Tribe. For 16 months, the Tribe and the State tried to keep the project going but that site was abandoned upon request of the Tribe. WSDOT lost $80 million on the failed effort. The Stillaguamish Tribe understands that WSDOT does not want to repeat this enormous and costly breakdown in communication again with any Tribe in the state. WSDOT not only strongly supports TTPO, but now WSDOT cultural staff visits with many Tribes monthly to better maintain intergovernmental relationships and lines of communication.

More recently, the quarterly meeting agenda includes several standing items intended to address most transportation issues that Tribes in the area are concerned about. These standing items include Project Information Sharing, Project Advocacy, Funding Source Discussion, Transit, Capacity Building Mini-Training Sessions, and Interagency Participation and Association. Examples of TTPO presentations include:

- One day Climate Change Summit
- Swinomish presented on sea level rise
- Kalispel described how they pulled all the seats from their transit busses to transport fire crews during forest fire emergencies
- Colville presented on extreme flooding and road washouts
- Safety presentations

While the TTPO is specifically a Washington state-based organization, other Tribal transportation groups exist in the region, such as the Affiliated Tribes of the Northwest Indians (ATNI) Transportation Committee, made up of approximately 45 Tribes, and the InterTribal Transportation Association, which is a national organization.

Kootenai Tribe of Idaho Air Monitoring Equipment *by Carol Kriebs, NTAA Chairwoman, Region 10 Primary Representative*

I have been working with the Kootenai Tribe of Idaho since July 9, 2018 and inherited an air station with equipment that was 20 plus years old. There were many things that needed to be replaced and priorities had to be set on how to begin. The first year the deck was replaced; the wood construction made it unsafe for people to walk on due to the rotting wood. I was able to move some funding around and replace it with a corrugated metal platform. This allows snow to pass through the platform and gives staff a slip resistant surface, as well as longevity for many decades.

Then, in 2019, our sensors and equipment began to fail. Travel funding was not being spent due to COVID-19 travel restrictions in 2020, so with permission I was able to move those funds to buy a new data logger and wind and temperature sensors. However, the data logger was so old that the model was not being serviced anymore. Thinking I was in good shape, the unthinkable happened. My Nephelometer (PM2.5 monitor) mother board went out. That took

my site offline for months, just prior to smoke season (a really bad time to lose a major piece of equipment). This time there was no available funding for replacements, but conversations with the Idaho Department of Environmental Quality (IDEQ) led to them sending us four old Nephelometers that they had replaced. We found one of the four that was still working. I did some research and found out these units are being phased out. IDEQ has also loaned me an E-Sampler so we can co-locate, since no one was sure how long the Nephelometer would last, giving us time to find funding to replace our Nephelometer. We managed to find one-time funds to replace the Nephelometer and now have a new air monitor installed and running.

Equipment failure is happening across Indian Country and additional funds are greatly needed to be able to, at a minimum, keep equipment running, and in most cases, upgrade. The National Tribal Air Association has reported this need for many years in the Status of Tribal Air Report to EPA leadership, and still grant funds being allocated to Tribal programs continue to decrease. It is my hope that this article will shed new light on this issue and help others to build partnerships with their states, for without the State of Idaho's help the Kootenai Tribe would not have been able to monitor through the smoke season.

Establishing CTUIR's CASTNET Site Near Dayton, Washington *by Caleb Minthorn (Confederated Tribes of the Umatilla Indian Reservation) and Taylor Macy (US Environmental Protection Agency)*

In the early 2010s, the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) drafted plans to join the Clean Air Status and Trends Network (CASTNET), which measures ambient air pollutant and ozone concentrations. Due to regulatory changes in the PM National Ambient Air Quality Standards (NAAQS), CTUIR's Air Quality Division allocated their resources to continuous PM 2.5 monitoring. With a Tribal government reorganization aligning with greater public concern about clean air in the wake of regional mega fires, the Tribe was ready to establish a multi-pollutant monitoring CASTNET site.

CTUIR CASTNET site in full operation with fresh snow on the ground.

In late 2019, CTUIR began consultation calls with the EPA's Region 10 Tribal Grants Office and the CASTNET team at EPA Headquarters (HQ). With the COVID-19 pandemic in the background, CTUIR coordinated with the EPA CASTNET Team and the CASTNET contractor, Wood Environment & Infrastructure Solutions, Inc. CTUIR also worked with the National Atmospheric Deposition Program (NADP) to include passive ammonia measurements as part of the Ammonia Monitoring Network

(AMoN). Crucial planning calls between CTUIR, the Region 10 Project Officers, and EPA HQ took place to establish a funding mechanism. CTUIR's funds from the Regional Multi-Purpose Grant (MPG) were utilized to cover capital costs (equipment and site infrastructure) and regional STAG funds will be allocated for annual operating costs.

The site itself lies approximately eight miles south of the township of Dayton, Washington. CTUIR worked closely with the CASTNET team to select a location that met the CASTNET siting criteria. The site is within the CTUIR ceded territory boundary but is 70 miles away from the CTUIR main office building. Due to its location away from air pollution point sources and access to electricity, this site allowed for a faster approval process from CTUIR, Washington Ecology, and the EPA.

Once the CASTNET site location was selected, work proceeded quickly. By summer 2020, a local Dayton, WA, contractor was selected through a general bidding process to prepare the site. The contractor poured the concrete pad, ran conduit, and established the required electrical connection for around $12,000. Most of the work was funded via Regional MPG and STAG dollars, with EPA covering the procurement of equipment, installation, and training costs.

CASTNET site groundbreaking day. Site is on right side of photo before construction began in early September 2020.

Special thanks to EPA Region 10, EPA CASTNET at EPA Headquarters, CTUIR Department of Natural Resources/Wildlife, CTUIR GIS Department, and the Washington Department of Ecology. For questions regarding the CTUIR CASTNET project, please reach out to Calebminthorn@ctuir.org or Matthewcampbell@ctuir.org. For questions regarding CASTNET, please reach out to Puchalski.melissa@epa.gov or macy.taylor@epa.gov.

For CTUIR CASTNET site information, access the CTUIR's CASTNET site page and for the AMoN site visit the NADP website.

3.1.3 Region 9 – 148 Tribes – Arizona, California, & Nevada

There are 148 federally recognized Tribes in EPA Region 9, and 40 of them are NTAA member Tribes; 27 Tribes are operating air monitoring sites. Specific program focus areas in Region 9 include:

- Ambient Air & COVID: Adequate funding and support is needed for existing and well-established air programs for Tribes that desire to develop and maintain technical capabilities for existing air programs. Targeted funding and support for Tribal indoor air programs is important to continue the work even though most air pollution sources are off Tribal lands.
- Emergency Management: Provide funding for Tribes to establish emergency air monitoring for increasing wildfires in California that have a direct regional impact on Tribal communities. The recent increased activity of wildfires has increased the devastating risk to human health as smoke migrates with wind patterns throughout the state of California which also becomes a transport concern to Tribes in neighboring states. Tribes that are in disadvantaged community areas are subject to unhealthy conditions with limited to no air filtration systems to minimize or eliminate indoor air quality effects from AC units that are required during extreme temperatures (desert communities with temperatures at 115-125 degrees Fahrenheits are forced to shut down AC units when smoke is intolerable).
- Funding: Provide funding to conduct baseline needs assessments which include air quality monitoring to evaluate air quality conditions that have the potential to impact human health and the environment.
- Consultation, Sovereignty, Collaboration & Partnerships: Develop wood stove trade out programs for all Tribes to utilize for the improvement of ambient and indoor air quality.

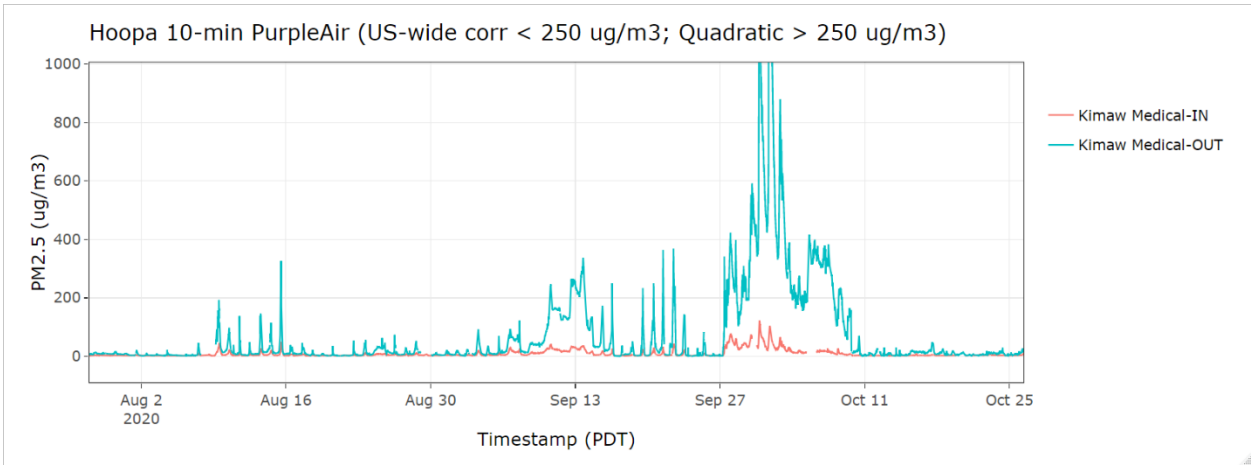
Stories from Region 9

Hoopa Valley Tribe & Wildfire Smoke *by Brian McCaughey, Air Quality Resources Specialist, Hoopa Valley Tribal EPA*

The most common sources of air pollution on the Hoopa Valley Indian Reservation are seasonal wildfires and wood burning stoves. Wildland fire generated smoke is an annual occurrence between June and October and air quality degradation is at its worst during this time. The increasing length of wildfire season may extend these negative impacts on air quality further into the spring and autumn. Cold air inversions between October and March also contribute to poor air quality in the Valley. The Hoopa community relies solely on wood as fuel to heat their homes and this smoke can be trapped on the Valley floor for days or weeks at a time.

Emissions from wildfires in the western United States can have important consequences for air quality both regionally and at sites hundreds of miles from the fires. Wildfire activity in the western United States is largely controlled by temperature and precipitation and driven largely by earlier spring snowmelt and increasing spring and summertime temperatures. Records of wildfire in the western United States show the annual area burned by large wildfires (>1000 acres) over the past decade (2008-2018) is six times that of the previous decade (1998-2008).

Throughout the summer and fall of 2020, the Hoopa Valley Indian Reservation was severely impacted by wildland fire smoke from regional as well as local wildfire events (see below).



PM2.5 concentrations from inside and outside K'ima:w Medical Center during the 2020 Red Salmon Complex Fire. Significant improvements in IAQ were observed when utilizing properly functioning HEPA filtration HVAC systems.

Community smoke exposures resulting from recent wildland fires have been associated with increased emergency department and hospital admissions for chronic obstructive pulmonary disease, bronchitis, asthma, and chest pain. Especially at risk are young children and the elderly. As these large-scale and costly incidents become a perennial challenge for the Hoopa people, the key for government organizations is to evolve from reactive strategies to proactive ones. By understanding location-specific air quality data related to wildfires, communities can be better equipped to prepare for, respond to, and recover from them.

Unhealthy AQI flag flying at Hoopa High School, September 2020.

Due to the inability of USEPA Region 9 to fund any additional Tribal air programs recently, the Hoopa Tribal Environmental Protection Agency (TEPA) has volunteered as a partner with USEPA Department munities can be better equipped to prepare for, respond to, and recover from them. of Research and Development, Missoula City-County Health Department, University of Montana, Climate Smart Missoula, and the U.S. Forest Service Fire Sciences Laboratory to expand the understanding of indoor exposures and air filtration approaches that are most effective during wildland fire smoke episodes. The ongoing research, titled Advancing Science Partnerships for Indoor Reductions of Smoke Exposures (ASPIRE), uses low-cost particulate sensors (PurpleAir) to monitor indoor and outdoor $PM_{2.5}$ concentrations in a variety of commercial and community buildings across Hoopa, CA.

Monitoring is taking place year-round during the wildfire season and the heating season to understand the real-world variation of indoor air quality under typical ambient conditions and opportunistically when smoke events occur. These measurements are being used to inform what building features or occupant practices impact smoke infiltration indoors. A complementary laboratory and health study are planned for 2021 to identify the effectiveness of portable air cleaning technology in reducing wildfire smoke pollutants. Commercial portable air cleaners as well as a do-it-yourself version will be evaluated with simulated wildfire smoke in an environmentally controlled chamber. The subsequent health study will involve taking a retrospective look at patient clinic visits (information from medical records) in comparison to air cleaner use.

Hoopa Tribal EPA (TEPA) EBAM and TEOM during the October 2020 Red Salmon Complex fire. The Red Salmon Complex began in Late July by lightning, burned 144,698 acres into early November and was not considered to be 100% contained until early December.

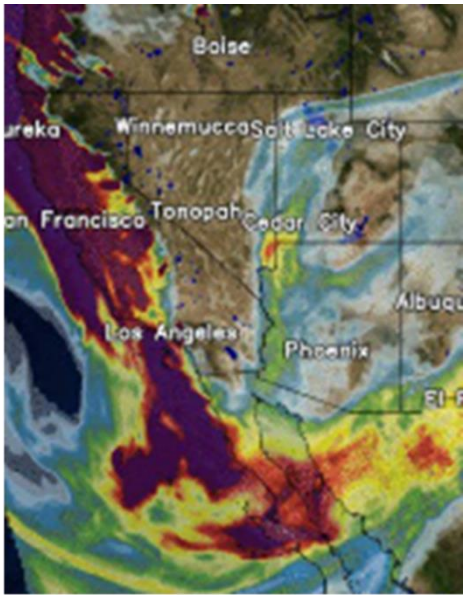
It is important to note that efforts to advocate for increases in Tribal air program funding are crucial for TEPA's involvement in projects such as ASPIRE. TEPA will not be able to participate in meaningful research projects in the future without the full support of USEPA Region 9 CAA 103 funding.

Drought, Dust, & Wildfires impacts on the White Mountain Apache Tribe *by Delbert Altaha, Jr., Air Quality Specialist, White Mountain Apache Tribe, Environmental Protection Office*
The Fort Apache Indian Reservation is the land of the White Mountain Apache Tribe and its people. In this land our ancestors learned to adapted and we have learned from them. There are many different nations of Apache people that are different in languages, history, and culture.

Sawtooth Mtn, Canyon Day, AZ

Our reservation consists of 1.67 million acres (over 2,600 sq. miles) in east-central Arizona. In 2002, the Rodeo-Chediski Fire scorched 467,000 acres (2nd largest wildfires in Arizona); Sixty

percent of our richly forested land was burned. Now climate change with winters getting shorter, very little monsoons, and longer summer season is getting hotter, our forest lands are being degraded at an alarming rate. But what can you do when mother nature is in charge?



California Smoke drift

Across our communities' dust and pollens are kicking up on high windy days. It irritates the eyes and throats. Dust is more than an irritant for those that have health problems, Tribal members stay indoors and keep the windows closed when the weather is dry and windy. An alert is sent to our local radio station regarding bad 'air' days.

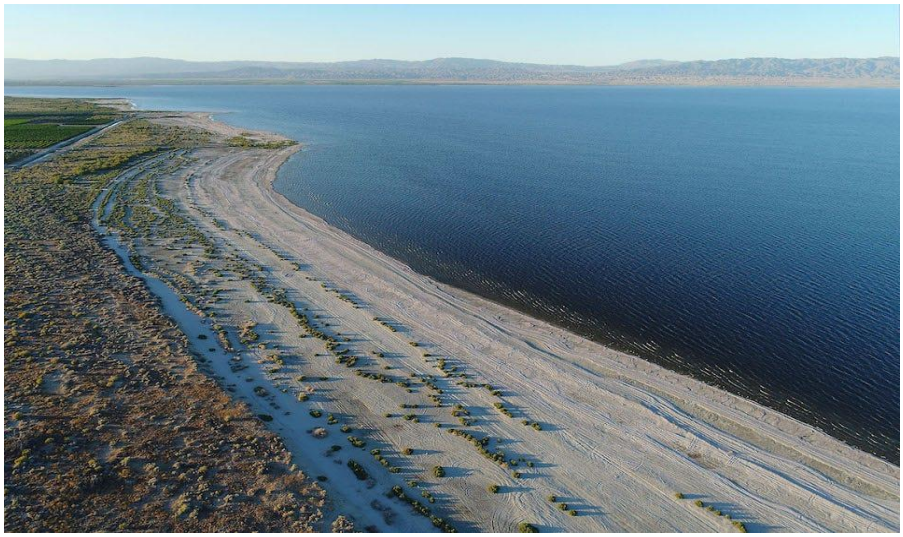
In 2020, the smoke from the California fires impacted the reservation during summer, making for hazy skies and more colorful sunsets. The smoke was not at ground level but had an impact on our Class-1 airshed visibility. Our Tribal communities also was largely impacted when COVID-19 pandemic wave spread on our reservation. Many Tribal members fell sick, some loss their lives, and most recovered or still recovering. The prescribed burn season was especially challenging as COVID-19 protocols interfered with the seasonal burn. Also, due to the fear from the drought condition and fire danger, the fire restriction was enforced year-round on the reservation. The challenges of 2020 threatened Tribal members physical and psychological well-being, both personally and culturally, but as we adapt and better determine how to survive, we can survive through this as we face future challenges. Thank you.


Bad Air Day in Whiteriver, AZ

Salton Sea Impacts on the Twenty-Nine Palms Band of Mission Indians *by Aaron Rojas, Tribal Air Technician, 29 Palms*

The Twenty-Nine Palms Band of Mission Indians is a federally recognized Tribe of Chemehuevi descendants located in southern California. A parcel of the Tribe's southern Reservation is

located near the City of Coachella, 17 miles northwest of the Salton Sea. Additionally, the Tribe's Traditional Land Use Area, which precedes modern boundaries, encompasses what is now known as the Salton Sea.



Salton Sea. Photos from USA Today by Zoë Meyers and Jay Calderon

The Quantification Settlement Agreement (QSA), executed in 2003 and implemented in 2018, is an action taken by stakeholders that reduces water levels of the Salton Sea by transferring Colorado River water away from irrigated farm fields that runoff into the Sea to municipal uses. This historic agriculture-to-urban water transfer may have a long-standing effect on air quality for residents in the Coachella Valley and Imperial County. The reduction of water inflow at the Sea will increase exposed dry lakebed, or playa, that could elevate air pollution levels during high- wind events. Studies have shown that inhalation of these particulates can cause health effects, such as respiratory disease, heart disease and cognitive decline. Imperial County, at the south end of the Sea, has one of the highest rates of asthma-related emergency room visits for children in California.

The Tribe is bound and connected to their lands in perpetuity and have a spiritual connection with the environment. A decline in air quality endangers many aspects of traditional lifeways.

Tribal Air Monitoring Station. Photo Credits: Levi Anderson

For example, activities such as storytelling may be limited by avoiding Tribal gatherings outside when air quality is unsafe. Also, particulate matter can affect the health of culturally sensitive plants' ability to photosynthesize and can cause decreased productivity. The California Natural Resources Agency's Salton Sea Management Program put forward a 10-year plan that aims to improve conditions at the Salton Sea by implementing species

conservation habitat and dust suppression projects to reduce exposed playa and preserve environmental habitat. However, the projected suppressed acres of playa by the end of the 10-year plan is superseded by the projected increase of exposed playa from the QSA water transfer of the Colorado River water.

In 2018, the Tribe was awarded funding to implement an air monitoring station to collect baseline data of particulate matter and meteorological conditions. This resource assists the Tribe and neighboring communities in their awareness of unsafe air pollution levels and air quality trends. The Tribe will continue to seek funding to build upon this air monitoring effort to increase the spatial coverage of particulate matter detection in the Coachella Valley.

3.1.4 Region 8 – 28 Tribes – Colorado, Montana, North Dakota, South Dakota, Utah, & Wyoming

There are 28 federally recognized Tribes in EPA Region 9, and 10 of them are NTAA member Tribes; 11 Tribes are operating air monitoring sites. Specific program focus areas in Region 8 include:

- Ambient Air & COVID: Is a concern that Tribes in the region would like to focus more on to better protect the health of the communities and the environment.
- Mobile Sources: Oil and gas development is an issue on Tribal lands although it has lessened since 2018, the pollution from major emitters can cause health concerns.
- Funding: Tribes in the region are interested in increasing funds in FTE. Limited funding is the most significant challenge to Tribal Air Quality Programs in Region 8.

Stories from Region 8

Tribal IAQ Training and Resource Directory *by Allison Reibach, EPA Region 8's Life Scientist & Amanda Hong, Region 8's ENERGY STAR, Indoor Air, and Radon Coordinator*
This story begins in Region 8's EPA office in Denver, Colorado. An informal needs assessment conducted by Amanda Hong, the region's new ENERGY STAR, Indoor Air, and Radon Coordinator, with the help of a summer intern, revealed that a directory of indoor air quality (IAQ) resources would be a great way for the region to add value to its Tribal IAQ programs. Through discussions with EPA colleagues across the nation, it quickly became clear that a directory of resources would be useful for Tribes beyond those located within Region 8. The original focus broadened to create a Tribal IAQ Directory that would serve Tribes in any part of the country, and EPA employees across the regions and headquarters volunteered to contribute to this effort.

At this point, Allison Reibach entered Region 8's Air and Radiation Division on a 4-month detail and was able to dedicate her attention to creating a nationally significant, user-friendly, and engaging document by facilitating national workgroups and seeking Tribal feedback every step of the way. As Allison's detail came to an end, this project was transferred to EPA's Office of Radiation and Indoor Air (ORIA) in Washington, D.C., with Secody Hubbard as the lead

driver. Along with the rest of the workgroup, Secody and ORIA are working to collect and implement feedback from Tribes and our sister federal agencies to make sure this directory is as robust, accurate, and useful as possible. We are hoping to release this resource to the public by the end of 2021.

IAQ is a broad subject, and people approach it from different angles with a variety of motivations. Since the inception of this directory, we have sought to honor each of these angles and motivations through a holistic approach. We have divided the directory into the following sections to make it organized and easy to navigate:

- Healthy Homes, Schools, and Buildings
- Asthma
- Mold and Moisture
- Radon
- Commercial Tobacco and Secondhand Smoke
- Home Heating, Cooking and Energy
- Disaster Preparedness
- Disaster Response, Recovery, and Mitigation
- COVID-19 and Other Pathogens
- Funding
- Helpful IAQ Contacts

For each of these topics, there are so many fantastic resources out there to help governments and organizations build IAQ programs, but these resources can be difficult to find. It can also be difficult to gauge their quality, and especially difficult if you are trying to locate Tribal-specific resources. The circumstances that Tribal governments and organizations face as they create IAQ programs are substantially different from those of state governments and organizations. On top of that, they are completely unique from Tribe to Tribe. This effort seeks to curate a broad directory of the most helpful resources to connect Tribes to the best training materials, policy examples, programmatic guides, and distributable materials that exist out there today. We hope that by providing this curated directory and by updating it on a regular basis, finding the latest and most helpful IAQ resources will no longer be a barrier to the success of Tribal IAQ programs.

Some of our sections are not exclusively considered IAQ topics, such as Disaster Preparedness; Disaster Response, Recovery, and Mitigation; and COVID-19 and Other Pathogens. These topics are represented in our directory because they have such an important overlap with IAQ, and we recognize that most of our readers are interested in IAQ as part of a broader conversation about how the health and safety of community members can be prioritized.

Tribal input and representation at every step of the way has been central to this directory's development. We reached out to the NTAA early on in this process and started leveraging their IAQ Work Group to gather Tribal input and ensure the resource we are creating is as useful for Tribes as possible. Andy Bessler and Ernie Grooms joined in workgroup calls for the directory's development to offer their thoughts and ideas. Mansel Nelson, the Senior IAQ Program Coordinator at the Institute for Tribal Environmental Professionals, also joined our workgroup and has helped us tremendously with content development. We have heard

stories about Tribal voices getting lost in the development of Tribal resources, and it is important to us that we do not let that happen for this project. For that reason, our ears are always open to you, and any thoughts or ideas you would like to share with us can be sent to Secody Hubbard, Hubbard.Secody@epa.gov.

The Ute Mountain Ute Tribe and the Expanding White Mesa Mill *by Janice Archuleta Program Manager, Air Quality at Ute Mountain Ute Tribe*

The Ute Mountain Ute (UMU) Tribe's (the Tribe) White Mesa Community had heightened apprehension this past year over the White Mesa Uranium Mill (Mill) activities. The Mill, the only conventional uranium mill in the country, shares a boundary with the UMU Reservation lands, and is located five miles from the White Mesa Community. The Mill has operated since 1980, when radiation limits were less stringent than they are today. Limited upgrades to the Mill, the accident in 2012 where the Mill became shrouded in a yellow-brown cloud, exceedances of National Emissions Standards of Hazardous Pollutants in 2013 and 2014, and other events have raised a long history of concerns and disagreements between the Tribe's Environmental Programs Department (EPD) and the Mill, as well as the Mill's state or federal regulatory agencies. Compounded with furthering expansion of the Mill's operation to world-wide markets, contradictory to the 1980 Environmental Impact Statement's fifteen-year operating lifetime, the uranium industry at the Mill has increasingly alarmed the Tribe.

View of White Mesa heading south on U.S. 191. Left—White Mesa water

A major development occurred when the Mill owners, Energy Fuels Resources Inc. (EFRI), notified the state of shipments from Japan to the Mill, presumedly under their current license, which the Utah Department of Environmental Quality's Waste Management and Radiation Control Division (WMRCD) has no opposition to. This action occurred with no public involvement, though several organizations on this side of the ocean and in Japan are opposed to the shipments of radioactive materials from a former uranium recovery facility in Japan to Utah for processing and disposal.

EFRI continues to advertise the Mill as a processing facility of materials with uranium and decay products which are otherwise considered to be waste streams. In addition, the Mill's owners are marketing themselves as producers of *Rare Earth Element concentrate* from

uranium containing monazite sands which have a higher concentrate of the elements. This has been supported through the October 2020 Executive Order on Critical Materials, which specify uranium, vanadium, and several rare earth elements as target materials. Seventy-five million dollars has been earmarked through government spending to aid the uranium domestic supply which includes processing and mining; in other words, our tax dollars will be aiding the Mill.

EFRI owns mines in Utah and others close to the Grand Canyon National Park. A mining resurge could affect Ute Mountain Ute Tribal lands, some highly sacred to the Tribe, and other areas at Bear's Ears, which are ancestral lands to several Tribes in Utah and the Southwest.

Reprocessing uranium materials may be considered as re-use of the raw materials, but the output of all these processes is being buried in the current and planned tailing cells adjacent to the UMU Tribal Reservation. Radioactive decay products such as radium and thorium will continue to be radioactive for many thousands—if not thousands of thousands—of years. In addition, radium and thorium release radioactive radon which makes its way to the surface of the covered and liquid waste impoundments to the air, where it is dispersed with the air movement. The direction of the White Mesa Community is the second most frequent wind direction that the winds blow, often at low speeds, where the radon could cause an increased health risk.

Other major proposed changes in the License had to do with uranium materials, not from neighboring mines, but from a facility in Estonia, one of the Balkan countries. The Tribe took part in a virtual public hearing in May 2020, presented by the State of Utah, and submitted comments to the WMRCD in opposition of allowing uranium materials that had shared the same facility as a uranium processing plant in the former Soviet Union.

On a positive note, after approval to a petition from the Tribe in 2019, the Agency for Toxic Substances and Disease Registry (ATSDR) has been reviewing documentation and Tribal air

White Mesa, Utah Community Center

monitoring data to obtain risk to health effects from the Mill to the White Mesa Community. This is a different approach from that of the UMU Air Quality Programs, where comparisons have been made to the national regulatory limits, not used as risk analyses. The ATSDR report is expected in the next six months.

Unfortunately, the annual spring protest march at the Mill was cancelled this year due to COVID-19. However, virtual outreach activities in opposition to the White Mesa Mill occurred in December 2020 and in February 2021. These were carried out in a townhall fashion with speakers including Tribal members, the Tribal EPD, environmental groups, environmental justice organizations, and other Native American grassroots movements, all interested in protecting southeast Utah and lands owned by the Tribe and its members from radioactive contamination.

With respect to the Tribe's Air Quality Program within the community, the Total Suspended Particulate monitoring was halted this year due to COVID-19 restrictions and continuing instrument failures. Troubleshooting and repairs will be made, so that we can provide monitoring at White Mesa. The AQ Program also has plans for measurement of ambient radon on Reservation lands and at the White Mesa Community.

3.1.5 Region 7 – 9 Tribes – Iowa, Kansas, & Nebraska

There are 9 federally recognized Tribes in EPA Region 7, and 7 of them are NTAA member Tribes; 4 Tribes are operating air monitoring sites. Specific program focus areas in Region 7 include:

- Ambient Air & COVID: Training for Tribe-to-Tribe technical support is needed regarding ambient air and COVID-19 that also includes independent audit training and hands-on troubleshooting.
- Indoor Air Quality & Healthy Homes: Support for air sensor technology and Citizen Science initiatives including healthy homes outreach and toolkits.
- Climate Change: The Clean Air Act's 103 and 105 grant funding that allows participation in capacity building and opportunities including cross-media outreach that focuses on climate change, adaptation, and drought warning systems. More encouragement to seek partnership with the Bureau of Indian Affairs and other agencies and departments.
- Hazardous Air Pollutants: Reconsider and update assessments that monitor health effects including indoor and ambient air quality. Additional support for mercury and ammonia monitoring
- Emergency Management: Support to develop or update Tribal Hazard Mitigation Plans.
- Funding: More flexibility during two-year grants cycles is needed as well as support for the CAA 103 and 105 funding. Funding is also needed for radon mitigation and an increase in the State Indoor Radon Grant for Tribal programs.

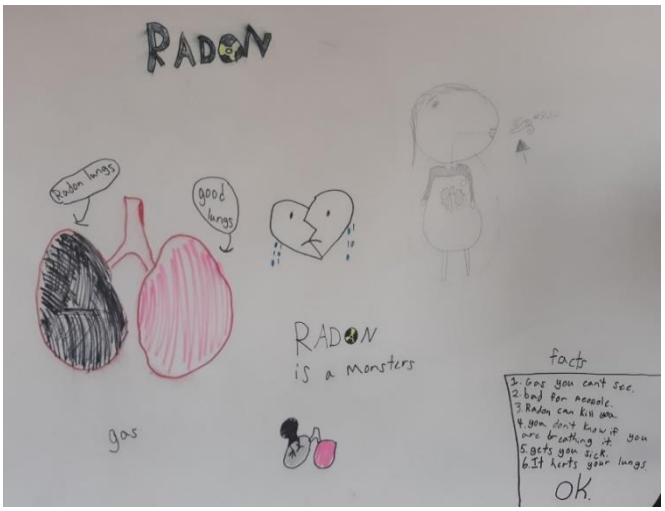
- COVID: Procurement and distribution of Personal Protective Equipment (PPE) for community members and related COVID-safety measured supplies is important.

Stories from Region 7

Prairie Band Potawatomi Nation and Radon *by Billie Toledo, Environmental Technician, Prairie Band Potawatomi Nation's Air Program*

The Prairie Band Potawatomi Nation (PBPN) Air: Radon Reduction Program continues program development while increasing awareness and partnerships despite obstacles. The pandemic was the biggest obstacle when shutdowns and interactions came to a halt and disrupted radon testing in the local community during 2020, but there were successes!

Radon Testing and Community Development: Since 2015, PBPN has reestablished the radon reduction program, testing over 56 homes/buildings (and finding six homes with elevated test results) and developing a database that spans over 20 years with over 200 radon test results. Radon maintains a permanent position as a topic during outreach and awareness and PBPN announced a radon poster contest in 2020 to the youth of the community. Participation was lower than hoped for, but online interaction allowed the program to identify why the outreach failed and build communication avenues to better connect with the community in the future. And it is a win either way, as the program did receive submissions of local radon art to use for awareness and gained valuable feedback!



Radon poster by Pētannokwe Lamb, Prairie Band Potawatomi Nation

Funding success: PBPN's Air Program was awarded a Radon Mini-Grant from the Conference of Radiation Control Program Directors, Inc. (CRCPD), a cooperative agreement under U.S. Environmental Protection Agency, titled, "Enhancing Radon Risk Reduction Through Partnerships and Training." The mini grant will provide the opportunity to install two radon mitigation systems, build capacity by demonstration, and purchase a radon mitigation standards handbook for program development and outreach materials. PBPN utilized the radon database to identify and prioritize eligible homes for radon mitigation installation. Completion of mitigation projects under the CRCPD grant will increase mitigation installation success to 67% (4 of 6 homes will have mitigation systems).

Continuing Partnerships: In the 2020 STAR, the PBPN described our partnership with the Kansas Department of Health and Environment (KDHE) in an article titled, "Elevating Radon Issues." Since then, the PBPN has continued to develop our relationship with the KDHE

Radiation Control Program and was recently invited to present at the 15th Annual Region 7 Virtual 2021 Radon Stakeholders' Meeting.

Air Program Challenges Faced by the Sac & Fox Tribe of the Mississippi in Iowa *by Kelly Schott, Natural Resource Coordinator, Meskwaki Natural Resources, Sac & Fox Tribe of Mississippi in Iowa*

The Air Quality Program of the Sac & Fox Tribe of the Mississippi in Iowa (Meskwaki Nation) is coordinated by the Environmental Branch of the Meskwaki Natural Resource department and is part of the departmental operations of the Tribe.

Impacts from COVID: The Air Quality Program broke new ground in the fall of FY2019 by creating a Memorandum of Understanding (MOU) with the Meskwaki Housing Program; this program was part of a two-year EPA CAA 103 FY 2019 – 2021. The MOU was twofold as it allowed the Meskwaki Appetence Program (MAP) to perform all the Indoor Air Quality testing on Tribal home and Tribal Operations Facilities. The data collected was to be used to justify home repairs that will help in IAQ Tribal Concerns, such as moisture concerns, HVAC, and mold. This partnership was viewed as groundbreaking within the EPA Region 7; however, the program was barely underway in the spring of FY2020 when the pandemic of COVID-19 hit. The COVID-19 pandemic brought the IAQ program to a halt, Tribal Council issued formal stay at home orders, then Tribal shut down was mandated. The Tribal shut down continued until mid-summer, however since the ability to enter the community homes to perform IAQ was no longer an option, we focused upon the Tribal operations facilities.

Emergency Management Challenges: The second hit we took was the devastation from the Derecho, which was the land hurricane that clocked winds of 112 miles per hour. This land hurricane affected 90% of the Tribal Homes and Facilities. MAP staff were completely pulled away from the Air Program tasks to perform emergency services to those home affected, such as roof replacements, window replacements, and tree removal from homes. This brought about the complete halt to the Air Program and has caused a re-think of how to reach Tribal members within their homes and provide IAQ assistance in a time when concerns run high.

Tribal Court building showing impacts from the Derecho.

Receipt of Funding and Communication Challenges: Additionally, the Meskwaki Nation's Air Program faced an unusual funding challenge in FY2020, which is continuing to plague the Tribe into 2021:

- EPA sent award letters to the Environmental Branch Department in January of 2020, awarding funding for the two-year air program.
- EPA award letters were sent to the Environmental Branch in October of 2020, notifying the Tribe of continuation of the Tribe's EPA programs' PPG (CWA 106, NPS 319 and the GAP), however an award letter was not received for funding for the 2nd year of the 2-year air program grant; the work plan had already been approved in January 2020.
- The issue was brought to the attention of the Region 7 EPA Air Project Officer (PO), and then was sent on to the Tribal Liaison within Region 7 within a timely manner.
- The EPA held Tribal one-on-ones in FY21, at which a new person was assigned to assist the Air PO. Since this time, a full modification of the FY20-21 work plan has taken place.
- To date, the Sac & Fox Tribe of the Mississippi in Iowa have not received EPA CAA 103 funding for the 2nd year of the EPA CAA 103 Grant, and the air program is currently shut down due to lack of funding. The lack of timely communication has impacted the Tribal Air Program's ability to function as a successful EPA program within Region 7.

3.1.6 Region 6 – 66 Tribes – Louisiana, New Mexico, Oklahoma, & Texas

There are 66 federally recognized Tribes in EPA Region 6, and 23 of them are NTAA member Tribes; 4 Tribes are operating air monitoring sites. Specific program focus areas in Region 6 include:

- Ambient Air & COVID: Training is a continuous need for Tribes in Region 6. COVID-19 has put a hamper on Tribes getting their staff necessary in-person training. Additionally, funding for continued program operation and/or startup of programs.
- Mobile Sources: Several Tribes in Region 6 are participating in the Volkswagen Settlement Program. Some have received large amounts of funds varying with population size and Tribal member enrollment. NTAA EC Primary Representative has heard of interest in the DERA program if match was reduced and/or not required.
- Climate Change: Tribes in Region 6 are very interested in how the Biden Administration will roll out climate change initiatives and funding. Additionally, Tribes are optimistic with the recent confirmation of the Secretary of Interior who provided immense support for Tribes to administer grants and funds to adapt and mitigate climate change issues to Tribes' specific issues, respectively.
- Hazardous Air Pollutants: Not much feedback received from Tribes on HAPs other than its relevance to permit review. It is unfamiliar at this time how many Tribes in Region 6 that are continually monitoring HAPs.

- Emergency Management: There seems to be more and more cross-over between Tribal Environmental and Emergency Management departments. Future STAR's may look to reach out and see what Tribes are doing relative to Emergency Management i.e., how many Tribes have a FEMA-approved Hazard Mitigation Plan and if they incorporated Climate Change issues.
- Funding: Always a priority. RTOC Region 6 annually asks Tribes to provide a budget matrix with funding needs that the NTC may present.
- Consultation, Sovereignty, Collaboration & Partnerships: The Region 6 RTOC is constantly discussing the issues around sovereignty as well as proper and timely consultation. Such issues are usually pushed up to the NTC.
- COVID: The Cherokee Nation contributed to this report that touched on the impacts COVID-19 on their air program.

Stories from Region 6

The Cherokee Nation Environmental Program's Challenges and Successes *by April Hathcoat, Director at Cherokee Nation Environmental Programs*

The Cherokee Nation Environmental Programs (CNEP) set up our first air monitoring site in 1998, and we currently operate three fixed sites and one mobile monitor in northeastern Oklahoma. All sites have ozone monitors and met equipment, and a few operate continuous PM monitors and trace instruments. At the time of the COVID-19 outbreak, we were still operating a site in Newkirk, OK, (approximately three hours from our home office in Tahlequah, OK). The CNEP building is a remote office (not located at the main complex), so we had hoped to stay open if possible, but we were instructed to begin working from home exclusively at the end of March. Because there was no one at our office to accept packages, we had to pause shipments for two months, which meant we missed loading our MDN, AMoN, and CASTNET samples during that time. We decided to continue operating our continuous analyzers, but to perform one audit per site each month (rather than every two weeks) during April and May to limit our travel.

WS/WD sensor pieces after lightning strike. Photo credit: Jacque Adam.

But then Oklahoma weather stepped in. We had a storm come through on April 12, and a lightning strike at our Stilwell site took out our phone jacks, damaged several pieces of equipment, and blew up our WD/WD

sensor (see picture). This would have been a major problem at any time, but the pandemic exacerbated the issue. We were fortunate that the phone company was able to work with our communications group to repair the line, and Wood was able to send us replacement CASTNET equipment and parts. Even receiving a package was a hassle during that time, as our site operators had to go to our office and wait on the delivery. Fortunately, management understood our dilemma and allowed us to work at the office periodically to do the work necessary to get our site up and running again. We had to order a replacement board for the ozone analyzer and discovered that placing a requisition during a pandemic has its challenges also. The phone line was repaired on April 29, and the ozone analyzer was back online after repairs on May 13. Some of the met equipment was not operational until after our offices re-opened in June. Our ammonia analyzer could not be repaired without a significant investment, so the decision was made to shut down the instrument.

The pandemic also delayed setting up our mobile monitor at the Muscogee (Creek) Nation site in Mounds, OK. We had originally planned to set up the site in the early spring of 2020; the delayed setup occurred in July. Setting up the site while maintaining a proper social distance was a challenge, but we did it!

Jacque Adam setting up the mobile monitor in Mounds, OK. Photo credit: April Hathcoat.

Our offices re-opened on June 1 on staggered shifts, and we were able to resume a regular operating schedule and receive sample shipments at that time. We kept the EPA Region 6 office apprised of our operating status during the entire shutdown and worked with them to submit our grant application for FY22 by the deadline. CNEP was fortunate that our Tribe was able to provide the tools for employees to work from home, and most had access to ethernet or were able to use their work cell phone as a hotspot. However, this pandemic has highlighted the need for broadband infrastructure in many areas. Another issue was employee availability; we were very fortunate that none of our air staff was infected with the virus during the shutdown but had that happened and a quarantine been put into place, our site work would have suffered. Many other Tribal air programs only have a single employee, which is a challenge that most state and local programs do not have to face.

I am proud of the work my site operators accomplished during this unprecedented time, and I am thankful they were able to stay healthy and safe. The issues at our site meant they had to work away from home for an extended period during the shutdown, despite our best

intentions. They are the backbone of our air program, and I appreciate them. I believe airheads are some of the hardest working people I know!

Innovative Ideas for Leveraging Funds to Build an Air Monitoring Program *by Polly Edwards, Caddo Nation of Oklahoma, Environmental Director and Emergency Manager*
Innovation in air monitoring is necessary given the limited funds often allocated for air monitoring and air projects. The lion's share of funding can be eaten away in monitoring equipment and lab fees. There is a discriminating difference in cost and reporting values between stable air monitoring systems and mobile air monitoring solutions. It is important to look at all possible applications that establish air monitoring protocols and systems that funding can be directed towards. For example, small air monitors which are mobile and easy to deploy can be used to sample air in different scenarios. They are cost effective depending on the type of monitor, ranging from $500 to a few thousand dollars.

These different uses and scenarios can open different pools of monies to help purchasing, deployment, monitoring, and reporting captured data. Off hand, Tribal Homeland Security grants, which are a pool of grant money available to Tribes, can be used if the established problem or project is related to terrorism. You can deploy air monitoring for potential dirty bombs, release of toxins, and potential terrorist attack fallout that has significant health impacts, such as the resulting particulate matter release in NYC from the falling of the towers during the attacks of 9/11. The resulting impacts to air quality affect more than just immediate exposure, but also ongoing exposure in the surrounding areas. Monitors can be deployed to capture harmful releases that are purposeful for mass causalities. There is no cap on Tribal Homeland Security project monies and a Tribe can write up to three investments per grant year. The overall grant monies allocated to the Homeland Security Grant has increase from $10 million in 2020 to $15 million in 2021.

Another funding source through FEMA is the Pre-Disaster Mitigation (PDM) grant which has been renamed, Building Resilient Infrastructure and Communities (BRIC) grants. The BRIC grants allow a community to work on mitigation projects to help lessen the severity of disaster effects on vulnerable communities. This grant does have a 75/25 match, but the recipient 25% match can be met by in-kind donations, non-federal dollars, or volunteer time. The set-aside for Tribal communities in the FY 2020 Notice of Funding Opportunity (NOFO) was $600,000 per Tribe for a total set aside of $20 million dollars. Additional projects could be submitted beyond the Set-Aside allocations to the National Competition Subtotal of $446,400,000. Air monitoring can be fence-line monitoring between vulnerable communities and potential determined risk factors, such as a processing plant. Or deployment of mobile air monitors around a community hit by a natural disaster can be used to set up baseline data and monitor for potential vulnerabilities that can become activated during a known hazardous event, such as seasonal hurricanes, wild-land fire, flooding, earthquakes, and tornadoes.

Man-made disasters can also be covered in these categories, such as an accidental toxic release or environmental spill. For the project to be allowable, it is important to craft it to be a mitigation effort that will increase resilience and public safety; reduce injuries and loss of

life; and reduce damage and destruction to property, critical services, facilities, and infrastructure. Purchasing of monitoring equipment and establishing procedure, protocol, planning and implementation, and other mitigation planning projects are allowable. Monitoring can be towards air quality for vulnerable communities or even indoor air quality.

Finally, using just these suggested avenues of grant monies that are allocated yearly, you could draft a full program and set up a project by purchasing equipment and creating implementation plans, while using the limited funds provided to Tribes through the EPA Air grants to run the project and collect and submit data. This would allow for the leveraging of two or three federal grants to achieve a more robust program.

You can investigate these two program NOFOs at the following:

- The Department of Homeland Security (DHS) FY 2020 Building Resilient Infrastructure and Communities
- Fiscal Year 2021 Tribal Homeland Security Grant Program

3.1.7 Region 5 – 35 Tribes – Michigan, Minnesota, & Wisconsin

There are 35 federally recognized Tribes in EPA Region 5, and 21 of them are NTAA member Tribes; 16 Tribes are operating air monitoring sites. Each year, the Tribes in Region 5 publish the Tribal Air Resources Journal that details the accomplishments, obstacles, successes and setbacks of EPA Region 5 Tribes pertaining to air quality. The specific program focus areas in Region 5 include:

- Ambient Air & COVID: Ambient Air Monitoring and Small Sensor use, and Indoor Air Quality are a focus area for many Tribes in Region 5.
- Climate Change: Alternative Energy and Energy Efficiency is an important topic to address. Finding out ways to build Tribal resilience work in these sectors is a must.
- Hazardous Air Pollutants: Mining Impacts including the non-metallic and metallic sources has impacts in some areas where mercury is an issue. Mitigating this in Tribal communities is important to maintain public welfare.
- Emergency Management: Air Modeling and Risk Assessment should be strategies that can help to create emergency management programs.
- Funding: Funding and technical support for existing and new Tribal Air Programs is a must.
- Consultation, Sovereignty, Collaboration & Partnerships: Some Tribes in Region 5 are working with the Biden Administration on Tribal concerns, impacts, and jurisdiction that emphasize Treaty Rights and air quality impacts in Ceded Territories.

Stories from Region 5

IAQ and COVID at the Red Cliff Band *by Ernie Grooms, Air Quality Program Manager, Red Cliff Band of Lake Superior Chippewa*

On January 3, 2020, the CDC Director Robert Redfield was notified by a counterpart in China that a mysterious respiratory illness was spreading in Wuhan, China. On January 20th, the first recorded case of the new virus had reached the United States. On February 11th, the World Health Organization (WHO) gave the coronavirus its official name, COVID-19. Fast forward to March 11, 2020 and confirmed COVID-19 (COVID) cases in the United States surpassed 1,100. (Timeline of the COVID-19 pandemic in the United States (2020) – Wikipedia) With the introduction of COVID on American soil, Tribes across the nation experienced unprecedented actions to stem the spread of the virus and protect their members, first and foremost, by closing offices and eliminating other in-person work requirements.

The Red Cliff Band of Lake Superior Chippewa's Tribal Council and Community Health Center had been keeping a close eye on the progressions of the virus. On March 11th, 2020, Tribal Council issued a ban on all business travel. By then, many of the federal governmental entities, such as the EPA, had canceled all in person meetings/conventions and in turn, closed their offices. By March 13th, the Red Cliff Band made a Declaration of Emergency which dictated the direction the Tribe would take in dealing with a potential outbreak.

As COVID cases began making their way farther north, it became clear that business as usual would no longer be the norm, and decisions had to be made for the safety of the community and its workforce. The Tribe directed each working division to create a list of Essential and Non-Essential personnel, and beginning on March 20th, those labeled Essential remained physically on staff with limited access to any Tribal structure, while those under the Non-Essential label were to work from home with all access to Tribal buildings removed. By April 6th, the implementation of the Stay-at-Home Order was issued, closing access to all offices and Tribal buildings from the public, and barring community engagement in any group activities. This included the suspension of Indoor Air Quality (IAQ) Assessments.

As Air Quality Program Manager these events were of special concern to me as it meant the IAQ parameters of our EPA 103 grant could no longer be met by way of home/office assessments. Like many other Tribes that follow a set of guidelines pertaining to their programs, the closure of any one of the sections listed in our work plan can be problematic. During this initial timeframe, it was difficult to find answers from the EPA (who is our funding agency) regarding these issues as they themselves did not have access to information, let alone their offices. So, we waited.

In the following months, conference calls and virtual meetings were beginning to increase as available technologies advanced. I found that some Tribes opted to use iPads to perform virtual IAQ assessments, thus removing the contact between office personnel and community members. I, personally, did not see this as a viable way to properly assess a home/building, therefore I opted out. Once COVID cases began to stabilize, I returned to performing IAQ assessments, but with the following stipulations in place:

1. Tenants/homeowners could not be present (only one resident allowed).

2. Decrease assessment time to under 30 minutes.
3. Could not return to office until I had showered, changed clothing, and disinfected my equipment.

Although this did work for a time, the assessments were, in my opinion, inadequate to really give the homeowner/tenant a good, representative look at how their home was performing, particularly regarding structural issues. This modified structure, however, did not last long as COVID cases began to climb within the community and surrounding areas. Therefore, I was directed to cease any additional assessments for the foreseeable future. So again, we wait.

We are now closing in on one year since this all began. The most troubling part of this is there is not an end in sight. On a positive note, the Region 5 EPA understands that this is an unprecedented period we are all dealing with, and so far, have not taken any major issues with programmatic deficiencies. I cannot speak for other Tribes nor other Regions, but I am sure we can come up with something collectively that will allow us all to continue to provide much needed IAQ services to our community members. For those that have input, or an idea that is working for their Indoor Air Program, I would be happy to hear it during the NTAA IAQ Work Group bi-monthly conference calls.

Gigawaabamin!! (See you later!)

Nottawaseppi Huron Band of the Potawatomi's Environmental Dashboard *by Amy Boetcher*
Environmental Specialist, Nottawaseppi Huron band of the Potawatomi
The Nottawaseppi Huron Band of the Potawatomi (NHBP) air program serves approximately 1,600 Tribal members and is located on the Pine Creek Reservation in southwest Michigan. We do not receive any air-specific funding. We run eligible components of our program with EPA GAP funds, and the rest with Tribal general funds.

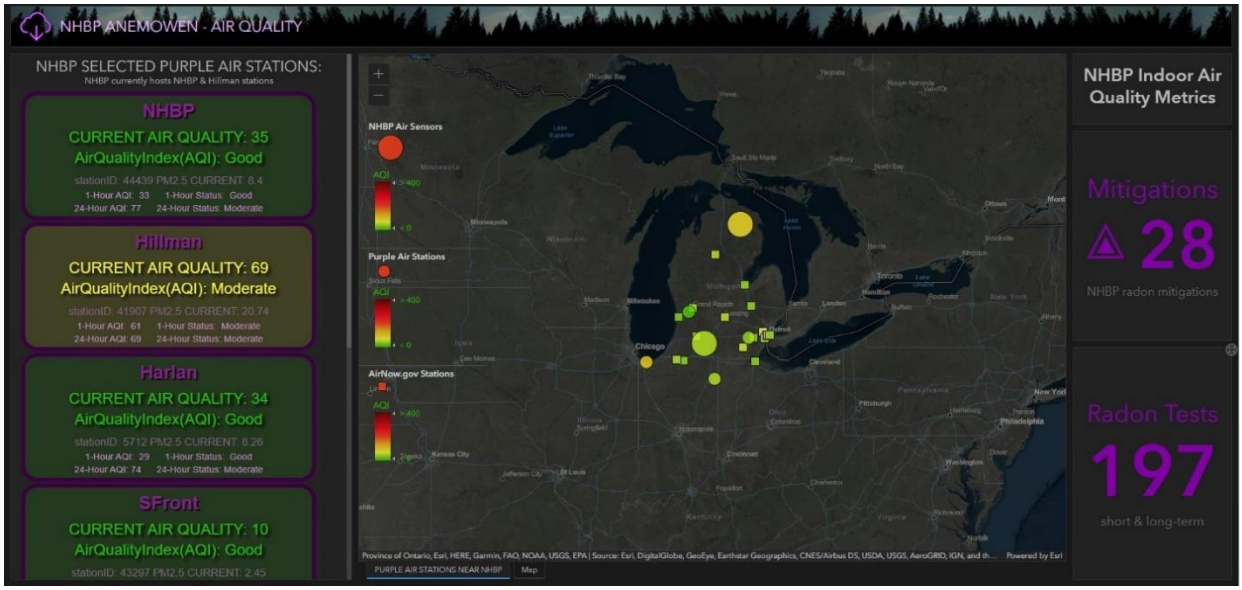
We have air quality concerns about potential particulate matter (PM) from activities on agricultural lands (e.g., windblown dust, pesticides, herbicides, manure use, active oil and gas wells, etc.), particularly because PM could be impacting our community's health. With few exceptions, Tribal members live in counties with up to 80% of land use in crops. The Reservation is within five miles of three industrial farms. Active oil and gas wells are becoming more numerous in agricultural lands near the Reservation. As of March 2021, the closest proposed permitted oil and gas well is less than 3,000 feet from NHBP property.

We are surrounded by potential sources of PM whose impacts may worsen with our changing climate, do not have a formalized air monitoring program, and our citizen engagement has been challenged by the COVID-pandemic. Our department's solution? Low-cost air quality sensors and an interactive website. Like many initiatives in our office, it did not come about in a linear way. We call our initiative the NHBP Environmental Dashboard, aka "the Dashboard."

What Is the Dashboard? *Values:* The NHBP Environmental Department values science and technical analysis, but our community is the driving force behind all our scientific inquiries. The Dashboard went live in the fall of 2019, but its inception would not have been possible

without years of leadership from our director, John Rodwan, advocating for projects useful to Tribal citizens, and encouraging staff creativity, collaboration, and exploration of uncharted topics (however unconventional, technical, or geeky). The Dashboard also required influence from other seemingly unrelated Tribal initiatives/programs including surface water monitoring and non-invasive wild rice monitoring.

The Non-Linear Path to The Dashboard: Our water resources specialist, Eric Kerney, has expertise with Geographic Information Systems and interests in computer programming and new technologies. While working on maps for the surface water monitoring program, he discovered a wealth of online data and wondered, *how can we make all this otherwise mostly inaccessible information useful to our members?* At the same time, the Department was working with a Michigan fine arts-based business (Gregory A.D.) on a film about our wild rice program. We purchased an underwater camera with a live feed to get less invasive imagery of wild rice beds. We thought the live underwater camera feed could be a community-capturing project if we could post these live videos online, similar to other organization's raptor nest watching. At the same time, we were working to find ways to screen outdoor air after several staff noticed smells near oil and gas drilling sites on the commute to the Reservation. We researched and invested $250 in a Purple Air PA-II monitor and put it up at the Environmental Office. With Tribal citizens on our minds, curiosity about emerging environmental data, the live "rice cam," and live air quality data maps, the Department brainstormed. The NHBP Environmental Dashboard was born.



Snapshot of the NHBP Environmental Air Quality Dashboard. Circles=PurpleAir Sensors. Large circles=NHBP Air Sensors. Squares=airnow.gov Sensors.

View the NHBP Air Dashboard here https://arcg.is/0HjHyv .

We had struggles with bandwidth and access to live data through the very secure NHBP IT network. Working closely with the NHBP IT Department was also crucial for the Dashboard's success. For clarity, the Dashboard is now two separate dashboards (land/water and air). Each

is a website created for Tribal membership that displays local environmental conditions and highlights Environmental Department program areas. It has an interactive map of Tribal parcels, and local radon and environmental assessment actions. The PM screenings from nearby PurpleAir monitors are used to apply an existing EPA Air Quality Index to the Dashboard.

Importance of The Project: The Michigan Department of Health & Human Services/GLISA reports that one of the top five climate-related health concerns in Michigan is respiratory diseases. The COVID-19 pandemic has obviously heightened that concern and decreased our ability to work directly with our membership. The Dashboard has been a way for us to stay engaged with our Tribal citizens and stay on top of emerging environmental concerns.

Current and Future Steps: The PM screenings from our local PurpleAir monitors (there are currently three NHBP monitors live) are used to apply an existing EPA Air Quality Index to our dashboard. In 2021/2 we plan to expand our screening of neighborhood-scale PM levels with PurpleAir monitors in other counties with an NHBP presence. We also plan to add other features to the Dashboard, including oil and gas well information.

Goals for Data: Our long-term goal is to stay engaged with Tribal membership, and to be able to impact policy relating to sources/impacts of particulate pollution that will help improve and/or protect our community's environmental quality in an ever-changing climate.

The Little Traverse Bay Bands Progress on Indoor Air Quality *by Jonathan Mauchmar, Environmental Specialist at Little Traverse Bay Bands*

On September 21, 1994, the Little Traverse Bay Bands of Odawa Indians (LTBB) was federally reaffirmed with the signing of Public Law 103-324. The LTBB Reservation area encompasses approximately 336 square miles of land in the northwestern part of Michigan's Lower Peninsula and is bordered by Lake Michigan to the north and west.

LTBB's Air Quality Program is run by one Environmental Specialist and funded by EPA's Clean Air 103 grants. Indoor Air Quality (IAQ) became a primary focus of the program in 2018. Over the long northern Michigan winters, people tend to stay inside for longer periods of time and keep their windows closed. Our IAQ suffers with the diminished fresh air exchange experienced in the winter. Mold often thrives in the tightly sealed homes when condensation and leaks occur. The Air Quality Program sought to improve these conditions through on-site IAQ assessments, education, and preventative maintenance.

A variety of methods were used to reach out to Tribal citizens and advertise this service. At first, the Program worked with the LTBB Health Department to suggest referrals for Tribal citizens with respiratory issues and set up an IAQ booth at the annual LTBB Health Fair. These methods reached a few people but most IAQ assessments have been requested by the LTBB

Furnace filters are always checked for LTBB IAQ assessments.

Housing Department. By working with LTBB Housing, the Air Quality Program can set up assessment appointments and communicate directly with Housing staff responsible for maintenance.

Approximately 40 indoor air assessments have been completed since 2018. Over the last few years various leaks and sources of condensation have been located through indoor air assessments. Without the assessments they would have likely gone unnoticed until air quality had been severely degraded through mold growth. The cost of repairs and preventative maintenance was also likely much lower than it would have been without discovering such issues through indoor air assessments.

We use a variety of meters to gauge moisture and ventilation during IAQ checks.

Unfortunately, pandemic conditions have not allowed indoor air assessments to resume in the winter of 2021. The risk of spreading COVID-19 is too great to conduct in-person assessments. Virtual assessments are limited in effectiveness since the people in many homes that may have issues are unlikely or unable to enter crawlspaces or attics where many of the IAQ issues originate. Various tools and meters are also unavailable virtually. We are hopeful to continue full assessment services in the winter of 2022.

3.1.8 Region 4 – 6 Tribes – Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, & Tennessee

There are 6 federally recognized Tribes in EPA Region 4, and 5 of them are NTAA member Tribes; 3 Tribes are operating air monitoring sites. Specific program focus areas in Region 4 include:

- Ambient Air: is the number 1 focus area that includes ambient air monitoring and keeping up with new technologies.
- Climate Change: creating a climate change action plan is the number 2 priority for many Tribes in Region 4.
- Funding: now that more Tribes in Region 4 are seeking funding for air projects; funding for maintaining a continuous monitoring program is being impacted.

Story from Region 4

The Poarch Band of Creek Indians Pivot IAQ Program to Respond to COVID *by Tiffany Lozada, Environmental Grants Coordinator at Poarch Band of Creek Indians*
The Poarch Band of Creek Indians (PBCI) operates a Clean Air 103 Grant that is funded by EPA and administered by the Environmental Grants Coordinator (EGC). The Healthy Homes Initiative and IAQ play a large role in the success of the PBCI's air program. The Healthy Homes Initiative includes working with other Tribal Departments to distribute Healthy Home Kits and provide outreach and education on the topics of IAQ, energy efficiency, and integrated pest management. The kits contain products and information discussing environmentally friendly cleaning, energy conservation, integrated pest management, and alternate ways of moisture and odor removal.

Due to COVID-19, the focus of the Healthy Homes Initiative changed, and the decision was made to refocus the Healthy Home Kits for families stricken by COVID-19. The Healthy Home kits contain environmentally friendly products to disinfect and sanitize surfaces in the home both during and after a positive case of COVID-19. The "COVID Cleaning Kit" was created after a conference call with the Tribal Healthy Homes Network and EPA Region 10 Staff arranged by EPA Region 4 staff. The "COVID Clean Kit" is made up of cleaning products separated into a burlap bag along with the addition of hand sanitizer and individually wrapped disposable masks to call attention to them. Several handouts were included in the box and put into a red folder. A sticker was put on the top outside of the box asking recipients to read the information in the red folder upon opening the kit. One page highlighted the COVID Cleaning Kit and provided information on how to use those products to clean and disinfect hard surfaces in the home. Other handouts in the folder provided information on the other products in the kit itself and their uses in addition to other tips on maintaining a Healthy Home.

The EGC collaborated with the PBCI Family Services department to send out the kits to families that had signed up for their food initiative program. The food initiative program was sending weekly grocery deliveries to any family that had a positive case of COVID-19 and was in quarantine. The Healthy Home Kits were delivered along with the groceries to 22 families, total. Since 30 kits had been assembled, the remaining 8 kits were distributed to departmental staff for evaluation of the kits and the contents. The Family Services Director stated, "The Family Services Department received only positive feedback, as each person who received the items were thankful. The extra cleaning supplies made a positive impact, especially with the elders who received the cleaning kits." The EGC will continue to work with PBCI Family Services to distribute recently requested kits to 50 of their clients through their home health service.

3.1.9 Region 3 – 7 Tribes – Delaware, Maryland, Pennsylvania, Virginia, West Virginia, & Washington D.C.

There are 7 federally recognized Tribes in EPA Region 3, and 1 is an NTAA member Tribe. The Tribes in Region 3 just recently secured federal recognition and are now in the process of

building their capacity in environmental management. The NTAA is eager to work with these Tribes to support their development process. One story from Region 3 provides inspiration and shows how they are hitting the ground running. Specific program focus areas in Region 3 include:

- Indoor Air Quality: The health of elders and children is of utmost importance due to the high rate of asthma. They are the most at-risk and susceptible members of the community. Increasing IAQ knowledge and mitigating unhealthy IAQ is a major focus area for Region 3.
- Ambient Air: The Clean Air Act's enforcement of Particulate Matter ($PM_{2.5}$) standards should be upheld.

Story from Region 3

Establishing an Environmental Program without Tribal Lands *by Dana Adkins, Tribal Environmental Director, Chickahominy*

The Chickahominy Tribe is located in central Virginia, equidistant from Richmond and Williamsburg. We are in a rural area, with just 7000 people in the whole county, about 1000 of which are enrolled Tribal citizens. Although our treaties predate the existence of the U.S. (our Treaty of 1614 states that our Tribe agreed to provide corn and protection to Jamestown settlers) we did not receive any recognition as being a nation until 1983 when we received state recognition. Federal recognition just occurred in 2018. Importantly, we do not have any kind of reservation or lands held in trust.

With federal recognition came a boost to our sovereignty and the opportunity for our Tribe to establish an environmental office for the protection of our citizens. While we are making good progress, we face a few hurdles. One is that we have a limited experience and knowledge base among our citizens in the environmental sciences. Also, the newness of our federal recognition status means that most of our citizens do not see how our environmental office will have benefits for them. Most importantly, however is our lack of Tribal lands which are held in trust.

Without lands in trust, we have virtually no enforcement ability. This means that I can do outreach and send out educational information, but we do not have a way or a right to enforce policies that our Tribe deems necessary. Tribes that do have their own lands can tailor federal regulations to meet their own needs, but we cannot. This is a sovereignty issue. Our expression of sovereignty is limited by our lack of trust lands. Our sense of empowerment is lessened.

Without enforcement ability, we are doing our best to build our capacity and an impactful environmental program. Our air program has had the most success, due to the availability of resources such as the Tribal Healthy Homes Air Matters Toolkit and other education materials we have been able to find. Our current strategy is to purchase and distribute as many of these Toolkits as we can, and help our citizens understand that if they are having a respiratory issue, the doctor might prescribe a medicine to help reduce their symptoms but getting to the root

of the problem will likely provide longer term, more holistic improvements. This, itself, is an expression of sovereignty, and one we hope to build more fully.

We have also found that the resources provided by ITEP are helping us express our sovereignty through capacity building, access to information, and connecting with mentors.

Federal recognition has increased our sovereignty, and our environmental program grows every year. Not having any lands held in trust is a limiting factor, but we will continue to press forward and find opportunities to express our sovereignty, just as we have for hundreds of years.

3.1.10 Region 2 – 8 Tribes – New Jersey, New York, Puerto Rico, & U.S. Virgin Islands

There are 8 federally recognized Tribes in EPA Region 2, and 3 of them are NTAA member Tribes; 1 is operating an air monitoring site. Specific program focus areas in Region 2 include:

- Ambient Air & COVID: Indoor air quality and the health of the community has been a major focus this past year.
- Mobile Sources: continued promotion on the use of all-Electric and Plug-In Hybrid vehicles by installing charging stations in Akwesasne.
- Hazardous Air Pollutants: Minimize exposure to hazardous air pollutants like Polychlorinated biphenyls (PCBs) and Fluoride.

Story from Region 2

Saint Regis Mohawk Tribe *by Angela Benedict, Air Quality Program Manager, Saint Regis Mohawk Tribe's (SRMT)*
2020 was one of the craziest years in the Saint Regis Mohawk Tribe's (SRMT) Air Quality Program (AQP). In EPA's Region 2, the SRMT is the only Tribe currently monitoring air quality. The monitoring station includes instruments for ozone, nitrogen oxides, sulfur dioxide, and particulate matter. All instruments were shut down as all staff were laid off due to the global pandemic.

Instruments were turned on in Tsiothóhrha/December 2020. Once turned on, the instruments needed to be calibrated. But because one of the calibration instruments stopped working, the air program had to purchase a new one, so monitoring got pushed back again. The AQP only ended up monitoring for 11 weeks out of the 52 weeks for the year.

Another task the SRMT AQP was unable to do was collect the precipitation at NY22, the National Atmospheric Deposition Program site. For 6 months the site was left unattended. Once it was deemed safe to do so, the sample was collected. In Kentenha/October the site lost power and was left in bulk mode for several months.

In 2021, the SRMT AQP will begin sampling homes for radon. Some funding has already been secured to start working on the quality assurance project plan and to get things for sampling to start in the fall of 2021. In the past couple of years and in coordination with another program of the SRMT, the AQP has helped do radon sampling in homes. Approximately six of sixty homes (or around 10%) had results over the radon action limit of 4 pCi/L. Although Akwesasne is not considered a high radon area, if the program is successful in receiving SIRG funding, more homes will be eligible for sampling.

The AQP took a big hit in 2020, but 2021 is looking promising with new protocols in place to make our jobs safer for all involved.

On a positive note, we are still here!

3.1.11 Region 1 – 7 Tribes – Maine, Massachusetts, Connecticut, & Rhode Island

There are 10 federally recognized Tribes in EPA Region 1, and 4 of them are NTAA member Tribes; 5 are operating air monitoring site. Specific program focus areas in Region 1 include:

- Ambient Air: The transport of ozone from out of state sources has impacts on Tribal Nations in Region 1, along with Class-1 Air Designations. Namely, the Acadia National Park and Wolf's Neck areas are heavily impacted and are areas of focus to reduce the harmful impacts of ozone pollution.
- Climate Change: In Region 1, Tribal Peoples are reliant upon the resources for sustenance. The food and medicines that sustain our way of life are heavily impacted due to climate change.
- Funding: Tribal set-aside funding helps to sustain the important work of protecting the environment. Tribes should continue to advocate for more funding.
- COVID: has had deadly impacts on Tribal communities. The work to best prepare for such impacts is needed.

Story from Region 1

Penobscot Nation's Air Program Work During COVID-19 *by Bill Thompson, Air Quality Manager, Penobscot Nation*

The global pandemic impacted Tribal air quality work in NTAA's EPA region 1 in 2020. Tribes encountered closures or limited access to workspaces, air labs, and monitoring sites. Reduction of access resulted in lowered monitoring sample collection, analyses, and data reporting. EPA worked with its Tribal partners to provide grant flexibility during the global pandemic, which reduced the burden on the tribe while helping to ensure safety for their monitoring staff.

Air quality workgroups and their meetings and conferences acclimated to the new paradigm of the virtual connection. The Penobscot Nation air program manager prepared for and attended five to eight meetings each week in such a manner, for OTC, IMProVE workgroups,

as well as RTOC meetings, NTC meetings, NTOC meetings, TAMS meetings, inter-Tribal consortium and EPA meetings, educational webinars, and especially NTAA's multitudinous weekly meetings for subcommittee work groups, conference planning, STAR, and Executive Committee work.

This was in addition to the work of collecting samples despite the shutdown for the Tribe. It involved sneaking into the Tribe's air lab to process the samples and prepare them for shipping. It also involved the weekly eight-hour round trip into the mountains for NADP and MDN sample collection. That involved the use of snowshoes to reach the site named ME04.

This is the work of a single-person air quality program. Tribes perform the work of state and urban air agencies in such a manner. Funding to Tribes for such work must not be regarded as a handout or welfare. Funding for Tribes for such work is on par with that of the state agencies.

4 National Tribal Air Quality Program Focus Areas

This year marked a challenging time in modern history with the onset of the novel coronavirus and its continued, devastating effects on Tribal communities. Many Tribal air programs and Tribal offices were furloughed to protect the wellbeing of staff and Tribal members. However, as offices are reopening the greatest, overarching priority for Tribes' air quality programs is to protect both human and environmental health. Tribes are excellent regulators and co-regulators of air quality. However, Tribes are faced with many challenges in the implementation of their air quality programs and projects, some of which are unique to Tribes and some of which are like other regulatory entities.

Pursuant to the 1984 Indian Policy, EPA must take Tribal interests into consideration whenever policy or environmental management decisions are proposed that affect Indian Country. To reaffirm that policy, the Biden Administration recognizes that American Indian and Alaska Native Tribal Nations are sovereign governments recognized under the Constitution of the United States, treaties, statutes, Executive Orders, and court decisions. It is a priority of their Administration to make respect for Tribal sovereignty and self-governance, commitment to fulfilling Federal trust and treaty responsibilities to Tribal Nations, and regular, meaningful, and robust consultation with Tribal Nations cornerstones of Federal Indian policy.

The United States has made solemn promises to Tribal Nations for more than two centuries. Honoring those commitments is particularly vital now, as our Nation faces crises related to health, the economy, racial justice, and climate change — all of which disproportionately harm Native Americans. History demonstrates that we best serve Native American people when Tribal governments are empowered to lead their communities, and when Federal officials speak with and listen to Tribal leaders in formulating Federal policy that affects Tribal Nations.

The following is a list of Tribal air quality priorities divided by topic area, with some examples given for specific regional concerns. It is important to note that there are many overlapping priorities since most air topics are interconnected.

- Ambient Air
    - Keep strong regulations in place. Since 1955 (beginning with the Air Pollution Control Act) the United States has worked to develop appropriate regulations that ensure healthy air quality. In January 2021, the Biden/Harris Administration directed agencies to examine the previous administration rules, specifically on the Clean Power Plan, Clean Air Act Analysis including scientific considerations and cost benefit analysis (CBA), stronger NAAQS standards, and greenhouse gas emissions including methane.
    - Update aging monitoring equipment and establish new monitoring sites where data gaps may exist.
        - Develop a clear path forward for Tribes to move from informational monitoring to regulatory monitoring.
        - Tribal monitoring sites can fill in data gaps and serve as ground truthing for modeling.
        - Co-regulators can leverage resources by working with Tribes on monitoring projects and data collection.
    - Increase awareness of wildfire and other sources of smoke as threats to air quality and develop strategies to minimize exposure to lessen or prevent health issues.
    - Maintain monitoring regulations and capacity for the Criteria Air Pollutants.
    - Provide communities with resources to decrease road dust, particularly in Alaska Native Villages, the southwest, and other rural areas.
    - Continue to provide and expand opportunities for training, particularly for reviewing and commenting on permits and conducting emission inventories to identify sources on and adjacent to Tribal lands and to assist in compliance enforcement activity.

- Indoor Air Quality (IAQ) and Healthy Homes
    - Increase funding, and reduce match requirements, for funding under the State Indoor Radon Grants (SIRG).
    - Elevate IAQ to an EPA stand-alone funded program. IAQ areas of particular concern include:
        - Mold/moisture control assessments and remediation
        - Wildfire impacts of smoke intrusion
        - Methamphetamine residue testing and remediation
        - Vaping/e-cigarette and cigarette impacts and outreach
        - Carbon monoxide testing, education, and prevention
        - Wood stove equipment replacement, education, and outreach

        - Road dust
    - Include ventilation standards in guidance for Healthy Homes energy efficiency upgrades.

- Mobile Sources
    - Uphold strong regulatory policies and emissions standards. The NTAA has submitted comment letters on regulatory proposals with the stance that the highest standards should be enacted and upheld.
    - Provide support for EV infrastructure.
    - Reducing diesel emissions from Commercial Fishing Vessels as a high priority in Region 10.
    - Using the Volkswagen Settlement as a successful model, EPA and the federal government should support any future supplemental environmental programs that result from legal settlements. This type of supplemental program allows Tribes to define their needs through self-determination.
    - Provide resources and education to mitigate road dust.

- Climate Change
    - Retain and strengthen national rules such as the Endangerment Finding that require regulation of greenhouse gases. The NTAA submitted comments on the Affordable Clean Energy proposed rule and the Council for Environmental Quality's update to the National Environmental Policy Act, emphasizing that taking climate change and greenhouse gas emissions into consideration as per the endangerment finding are of the utmost importance.
        - Regulating greenhouse gases will have far reaching impacts toward the goal of protecting human health. While all Tribes and ecosystems are experiencing the effects of climate change, Alaska Natives are particularly impacted by permafrost degradation due to increased temperatures, which leads to the erosion of coastlines, the collapse of infrastructure, the potential relocation of impacted communities, and other devastating impacts.

- Hazardous Air Pollutants (HAPs)
    - Improve consultation on NAAQS Risk and Technology Reviews (RTRs).
    - EPA must account for cumulative exposures of at-risk populations in its rulemaking. Tribal lifestyles often include a higher consumption of fish, plants, and animals that are reliant on environments which are often contaminated with toxins and pollutants. Consumption of wild foods and Tribal traditional practices are often suppressed because of contamination or depressed populations from impaired ecological conditions. Currently, many state and federal agencies set standards based on consumption levels of the general population, not on Tribal populations, who consume at a subsistence level and

consume higher levels seasonally or in conjunction with cultural events. Some EPA regions have incorporated Tribal consumption rates when setting standards, but this approach has not been used by all EPA regions, even though the approaches used have been well supported and well documented. Having standards set by the EPA rather than states is desirable because federal agencies are required to consider the best interests of Tribes under federal trust responsibility doctrine.

- Although progress has been made, EPA should continue to focus on air toxics and their health impacts. Carcinogenic air pollution is still a threat and of grave concern to Tribal communities.
- Maintain and expand monitoring for HAPs.

- <u>Emergency Management</u>
  - Maintain and expand training and technical support to include air quality for participation in Emergency Management incident command teams, modeling, and planning efforts. These Emergency Management needs include:
    - Wildfire smoke events
    - Industrial accidents, oil spills, and toxic gas release
    - Nuclear, biological, and chemical responses
    - Releases due to flooding or other extreme weather events
  - Strengthen the federal/Tribal/state relationship so that response teams have improved communication and greater agility.

- <u>Funding</u>
  - See the Budget Analysis *(Appendix A of this document)* for an in-depth look at the budgetary needs of Tribal Air Programs.
    - The President's proposed budget for FY2021, was released on February 10, 2020, by the previous administration. The budget called for $6.66 billion for EPA, which was an increase of $512 million, or 8%, compared to FY2020.This budget did not include funding for climate change, indoor air quality, or replacing aging air quality monitors. While this increase is appreciated, it still does not keep up with increased program costs due to inflation and increasing health care costs.
    - The three most significant funding needs most Tribal air quality programs have been: 1) retention of qualified staff and paying a competitive wage, 2) replacing aging monitoring equipment, and 3) wildfire air quality impacts.
  - Funds need to be contracted in advance where practicable. It is difficult to build capacity in programs and meet Tribal needs if Tribes are reliant on reimbursement rather than having available funds. Tribes in regions (such as Region 10) that implement multi-year contractual funds for Section 103 and 105

grants experience relatively stable budgets that are not reliant on conventional fluctuations of current year's federal budget.
    - EPA's Strategic Planning and Program Guidance documents should not be based on the President's Proposed Budget, but rather on the most probable funding scenarios and open reviews with co-regulators.
    - The Indian General Assistance Program (GAP) is the primary source of environmental program funding for most Tribes, and it is often used by Tribes to initiate or build air programs. GAP needs to have an increase in funding as well as a reduction in the administrative burdens for Tribes, without a concomitant reduction in State and Tribal Air Grant (STAG) funds. Increasing Tribal air funding could also accomplish this need for increased funding, by way of increasing the Tribal portion of the STAG grant funding.

- <u>Consultation, Sovereignty, and Collaboration</u>
    - Upholding the 1984 Indian Policy is of utmost importance. As such, EPA must increase the level of training provided to staff in working with Tribes, and Tribal professionals should be the leaders in conducting these trainings. These trainings are known internally as, "Working Effectively with Tribal Governments."
    - Continue to improve Tribal consultations, with a preference for face-to-face consultation. Tribal consultation notification that relies solely on the Tribal consultation website is insufficient and does not fulfill the intent of the consultation mandate.
    - EPA should continue to fund trainings and expand opportunities for training for Tribes on how to obtain Treatment as a State status, as well as expansion of CAA authorities and delegations.
    - Tribes should be included in national air monitoring projects and EPA may include Tribal air quality data in the national data sets when requested by a Tribe.
    - When EPA delegates authority to states, states must provide adequate consultation with Tribes and understand the government-to-government relationship that is required by the delegation of authority.
    - Provide increased support to Tribes in locations that are impacted by transboundary impacts to air quality. Air knows no boundaries. Tribes are predominately impacted by pollution beyond their borders, often by neighboring governments, and the ability to review and comment on permits, rules, and regulations is crucial.

5 Conclusion

Throughout Indian Country, Tribal Air Quality professionals work every day to protect human health and improve ambient and indoor air quality, and the NTAA hopes that the 2021 STAR tells the story of the successes and challenges they experience daily. Tribes have faced many challenges throughout their unique histories, and through their strong traditions Tribes will continue to serve as strong stewards of the land, air, and water. Tribes understand the interconnectedness of life, and seek successful partnerships with the federal, state, and local governments. Tribes understand that air quality will improve when Tribes are recognized as strong co-regulators. As the 2021 STAR demonstrates, recognition of a Tribe's sovereignty, meaningful consultation with Tribes, and adequate funding for air programs will provide all Americans with cleaner air to breathe and a better world for future generations.

Credits and Acknowledgments

The **2021 Status of Tribal Air Report** is the result of the dedicated work and contribution of many people, including Tribal representatives, organizations, and EPA personnel. We thank everyone that contributed a story, data, valuable time, effort, and resources to making this project a success. We acknowledge and thank the NTAA Executive Committee Members and Chairwoman, the NTAA STAR Work Group Members, NTAA Member Tribes, the Institute of Tribal Environmental Professionals, and the Tribal Air Monitoring Support Center Steering Committee.

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The NTAA appreciates the time and contributions of the following individuals for contributing stories of their successes and challenges in operating Tribal air quality programs: Chris Lee, Ann Wyatt, Gillian Middelstaedt, Janice Archuleta, Polly Edwards, Ernie Grooms, Allison Reibach, Amanda Hong, Amy Boetcher, Mark Daniels, Brian McCaughey, Kelly Schott, Jonathan Mauchmar, Carol Kriebs, Casey Stevens, April Hathcoat, Taylor Macy, Dana Adkins, Mansel Nelson, Aaron Rojas, Angela Benedict, Delbert Altaha, Kris Ray, Billie Toledo, Craig Kreman, Marvin Cling, Pam Atcitty, and Tiffany Lozada.

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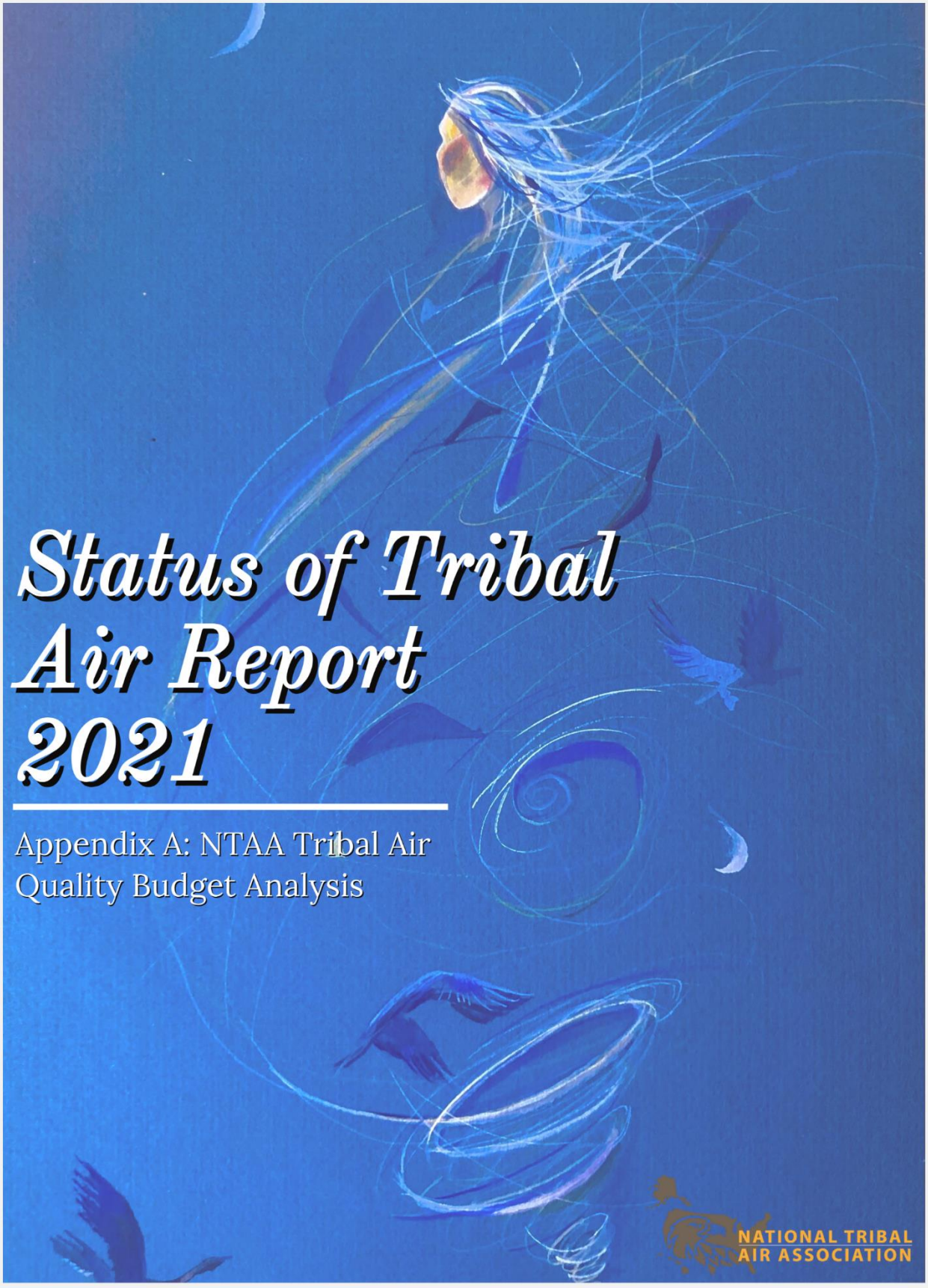

Status of Tribal Air Report 2021

Appendix A: NTAA Tribal Air Quality Budget Analysis

NATIONAL TRIBAL AIR ASSOCIATION

Cover art by Dana Tiger entitled 'Wind'.

Dana Tiger is an award winning and internationally acclaimed artist. She is a member of the Muscogee (Creek) Nation and is of Seminole and Cherokee descent. Dana was just five years old when her father, legendary artist Jerome Tiger, passed away. She turned to his art as a way to know him and that engagement, coupled with the tutelage of her uncle, renowned painter Johnny Tiger Jr., who exposed Dana both to the richness of her culture and to the bounty of her family's artistic tradition.

Best known for her watercolors and acrylic paintings depicting the strength and determination of Native American women, Dana's paintings now hang in galleries, universities, Native American institutions, and state buildings nationwide.

In recognition of her accomplishments Dana was inducted into the Oklahoma Women's Hall of Fame in 2001. In 2002 Dana and her family founded Legacy Cultural Learning Community, a non-profit with the mission of nurturing creativity within Native youth via the celebration and sharing of tribal languages and culture through the arts.

www.tigerartgallery.com

Appendix A: NTAA Tribal Air Quality Budget Analysis

Introduction

2021 is the 23rd anniversary of the promulgation of the Tribal Authority Rule (TAR). The TAR has made it possible for Tribes to actively participate in the management of Tribal air resources to the degree that the Tribe is currently able, including the option of sole management by the Tribe. Over the last 23 years, Tribes have made great strides in taking on the challenges of managing their air quality. Across the nation, Tribal air issues vary from permitting sources on-reservation, to monitoring for the criteria air pollutants, to participating in local, state, regional, and national work groups. Other program tasks include addressing indoor air quality issues and reviewing and commenting on permits issued by other agencies.

However, as much as Tribes have progressed in the past 23 years, funding for Tribal air programs has been relatively stagnant. Even as program costs have increased, air quality issues such as wildfire smoke have worsened, and the cost of living has increased. Tribes are also expanding the areas of air quality management in which they engage, such as increasing

participation in addressing emissions from mobile sources. Meanwhile, the nation seems to be operating in a near constant state of unpredictability when it comes to government funding in general. Continuing resolutions have become the new normal for Congressional spending, making it extremely difficult for Tribes to plan for future funding years and to keep operating without the government ever adjusting budget amounts. The activities carried out by Tribal programs have been impacted by funding shortfalls, with monitoring stations shut down and work group participation ending because travel and staffing funds are no longer available. COVID restrictions, such as layoffs and furloughs, have placed further burdens on Tribal air professionals' ability to protect Tribal members from the impacts of poor air quality.

As the charts and tables below show, the work products delivered by Tribal programs have remained largely unchanged over the years, due to the hard work and dedication of Tribal staff when it comes to making do with very little, but this work cannot continue without an increase in funding. While FY2021 saw a modest increase in funding compared to the past seven years, it still falls far short of the highest point of funding appropriations in FY2012, despite seven additional Tribes achieving federal recognition status in 2018, and the continuation of increases in cost of living.

Over the past several years, indicators of Tribal air program success grew in the following ways:

- The Treatment as a State (TAS) statute authorizes Tribes to manage programs under the CAA, including regulatory development, reviewing authority for Title V permits, the opportunity for PSD Redesignation of Reservation lands, air quality monitoring, etc. Between FY2012 and FY2021, the number of Tribes with non-regulatory TAS status increased from 34 to 61, and the number with regulatory TAS increased from 7 to 11 in FY2020, before declining to 10 in FY2021.

- The number of Tribes currently operating air monitors, monitoring for criteria pollutants, hazardous air pollutants, and other pollutants under the National Atmospheric Deposition Program, grew from 81 in FY2012 to 88 in FY2020, but declined to 85 in FY2021.

- The number of Tribes with completed Emissions Inventories ranged from 74 in FY2012 to a peak of 86 in 2015 but decreased to 74 in FY2021.

- The number of Tribes with §103 grants has varied from year to year but reached a peak of 96 in FY2014. This number fell to 80 in FY2021.

- The number of Tribes with §105 grants has increased steadily from 25 in FY2012 to 47 in FY2021.

- 29 Tribes applied for, and 26 Tribes were determined eligible for, Volkswagen Settlement funds in the first round, which dispersed approximately $6 million in funding. The second round dispersed $15.5 million to 45 Tribes. The third round

dispersed $16.5 million to 58 Tribes. A fourth round has been announced, and will disperse $18.1 million, with a due date of August 30, 2021. These funds can be used in limited applications to replace certain old diesel engines with updated technology. However, not all applications may be useful to all Tribes.

- Since the DERA program began in 2009, 43 Tribes have received a total of $13.7 million in funds to replace older diesel engines or vehicles that release high levels of harmful pollutants with cleaner options.

Development of a Tribal Air Program

The first thing most Tribes with new air programs do is complete an emissions inventory (EI). This helps a Tribe plot its air program's future course and decide whether or what type of monitors might be needed. Obtaining TAS status is also a natural next step for many (but not all) Tribes, and movement from §103 to §105 funding indicates movement from "project" to "program" status. However, these progressions are not free of costs. A §105 program receives priority funding, but significant non-federal matching Tribal funds are required to supplement these federal funds. Given the economic challenges that many Tribes face, it can be difficult for them to come up with this money. Further, §105 status can be difficult for Tribes to obtain due to EPA delays and inconsistencies. Some Tribes choose not to apply for §105 funding because this requires submittal of proof of Reservation boundaries, which are sometimes still under dispute by states or local governments. Monitors are expensive to purchase, operate, and maintain. These activities require extensive training and experience. While training is available through the Tribal Air Monitoring Support (TAMS) Center and the Institute for Tribal Environmental Professionals (ITEP) for free or at reduced costs, many Tribes do not have travel funds or cannot spare staff time. Travel scholarships are sometimes available but are limited. Additionally, most Tribes that have an air program operate with only one air program staff member. It can be difficult to travel for training when there is no one else to help run the program.

Training and Creating Institutional Knowledge

Statistics from ITEP show that 499 Tribes and Tribal organizations (and 9,960 individuals) received training through 2019 at either ITEP or the TAMS Center. When compared to the total of 574 federally recognized Tribes, this means that about 87% of Tribes (or Tribal organizations) across the nation have received some type of Tribally focused, air quality specific, environmental training. It is interesting to note that about 60% of the individuals trained are no longer in the Tribal air quality field. Only 10% of individuals who take an introductory air quality course go on to take five or more courses, indicating that overall Tribal air quality staff do not receive more than entry-level training.

Instructors notice that some Tribes send multiple staff to trainings. It is possible that this reflects growth of an air program because many Tribes begin air training with their General Assistance Program (GAP) staff, then expand to dedicated Tribal air staff and sometimes to supervisors or multiple staff members. While it is possible that some programs are experiencing growth (as evidenced by having multiple staff from a single Tribe at a given

training), it is also likely that the low percentage of individuals who go on to receive advanced training is reflective of high turnover rates in Tribal air programs due to stagnant and relatively low wages in comparison to state and federal counterparts. Many air programs also lose staff due to interruptions in funding from year to year.

Some EPA Regions consider funding for Tribes to only be appropriate for §103 (project) funding rather than allowing a move to §105 (program) funding. While new §103 funding may be awarded for a separate project, there can be years in which no funding is awarded, leading to the loss of air staff. While many Tribes already know these situations to be true from their own personal experience, training data from the TAMS Center and ITEP support this statement. Since the number of Tribes with air grants is not increasing and Tribes with established air programs almost exclusively receive the available funding, the conclusion must be that Tribes are continually sending new staff to beginner level trainings to maintain air quality monitoring proficiency. It is rare or challenging to find enough participants to fill advanced level training classes.

All training in 2020 was conducted remotely and numbers are not indicative of a normal year, given that many Tribal staff were furloughed due to COVID restrictions. Therefore, updated numbers are not being presented for 2021.

Monitoring

A recent survey of Tribes operating monitors demonstrates that a significant portion of the monitors deployed in Indian Country are over ten years old. Although the data is not complete, the percentage of Tribal monitors older than ten years old could well be over 50%. Meanwhile, the number of Tribes with monitoring programs has increased only slightly, from 81 in 2012 to 85 in 2021, slightly down from a high of 88 in 2020. Tribes operating monitors report that even if there is money in their budget for day-to-day operation of these monitors, there often is not enough for audits, spare parts, repairs, or training.

It is difficult for Tribes to plan for repair and/or replacement of monitors because programs never know how long a monitor may continue to operate. Tribes can apply for funds for repair and replacement, but unused funds need to be returned to the EPA at the end of each grant cycle and there is no guarantee they will be awarded again. Tribes try to make the best possible decisions as to whether a malfunctioning monitor needs to be replaced or if it can be repaired. The problem with this approach is that a program may invest thousands of dollars into repairs only to find these to be ineffective and then need to pay thousands more to replace the monitor. The increasing cost of new monitors has also exacerbated this situation – while Tribes are continually expected to do more with less, the cost of a new monitor is estimated to have increased by about $3,000 over the past few years.

Purchasing new or upgraded software for a monitor is another cost that is often unplanned for. A monitor may be operating correctly but need a software upgrade to keep operating or to keep communicating with a data logger or with a Tribe's IT department. Software licensing costs around $2,500 per year but there are additional associated costs, such as sending the

monitor to the manufacturer for the upgrade (hourly charge plus shipping) plus the inconvenience of having the monitor out of service for several days. Ongoing vendor or outside technical support also increases annually. Tribes contract with outside entities to provide lab work, help with audits of monitoring equipment, and write quality assurance project plans.

Sipayik Tribal Air Quality Program's Monitoring Challenges *by Marvin Cling*

Currently, the biggest issue for the Sipayik's air program is relocating and upgrading to a new system. Site relocation is necessary to either fix or replace the aging shelter. Investments in new hardware, new software, and possibly getting an upgrade for our PM2.5 sampling equipment is necessary because the current site is using older equipment and data collection and storage system. This move and upgrade were supposed to happen last year, but the pandemic stay-at-home order threw things off and the new site location became a staging area for the new Tribal school construction.

In addition to the physical and equipment challenges, the staff member responsible for the air program has to learn more about the new datalogger and make decisions on how much monitoring will need to be done. The current air software can function with a free database application, but the free option will quickly run out of room for storing data. A more advanced database software and datalogger will be necessary to accommodate future data collecting activities, but the air program budget will have to pay for it and there is not much to spend.

When the air monitoring first started in 2003, technical support was minimal. Staff member was very self-reliant and able to configure gear with little or no assistance. The air program was already polling by Ethernet and practically paving the way for the state of Maine when they were still doing phone modem connections! The new technologies are different. Now, the air program will probably need the state to provide technical assistance to setup the new datalogger and PM2.5 sampler. Understanding how to use the new tools and hardware is a struggle, especially when the air program is manned by only one individual and it takes a team of disciplined professionals to do the job. Fortunately, Maine does have these professionals who have been working with the new tools far longer and will hopefully provide assistance once we are able to open up more as the pandemic restrictions ease.

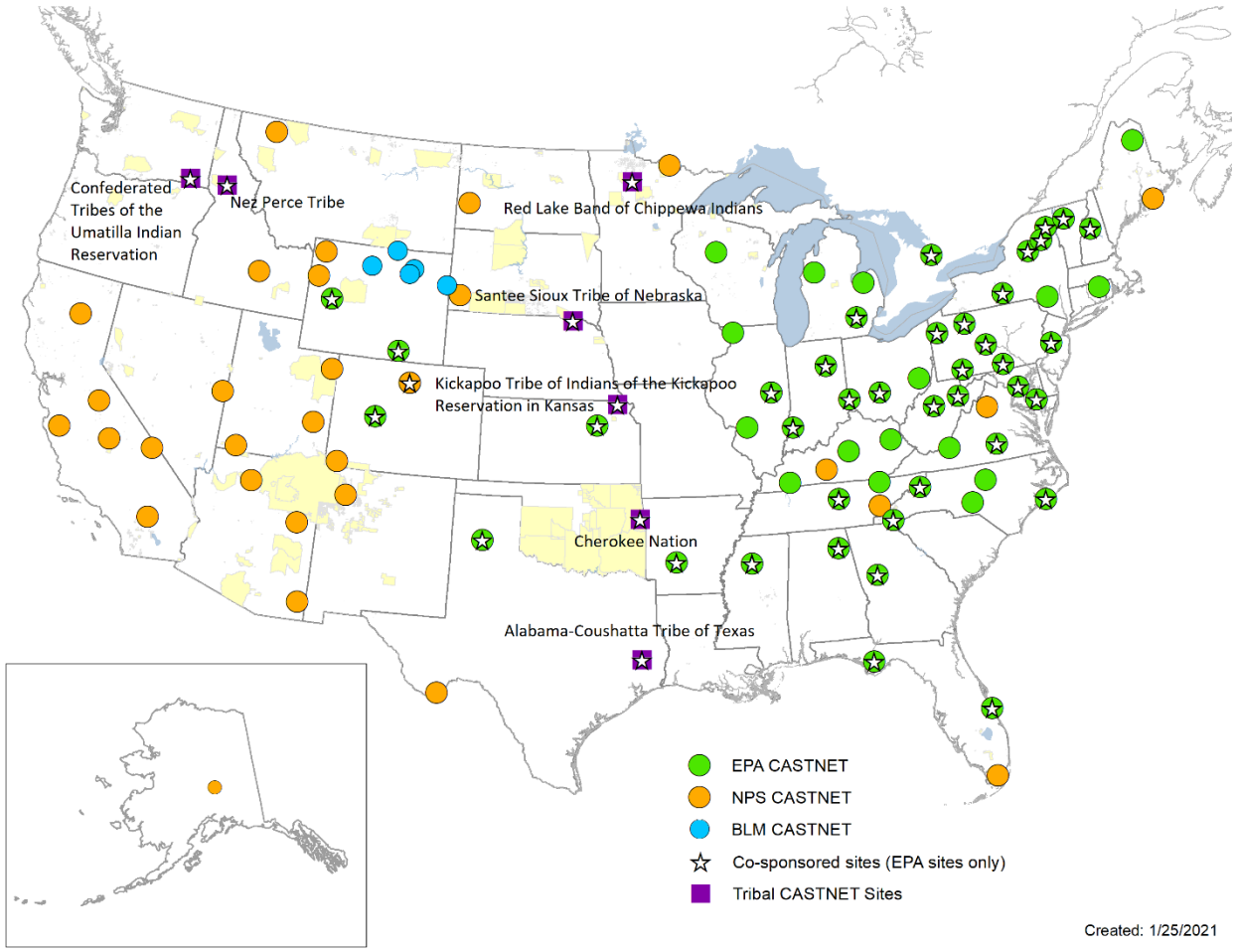

Figure 4 Tribal CASTNET Sites

Funding Impacts on Tribal Air Programs

Stagnant or reduced Tribal funding impacts Tribes through a lack of completion of emissions inventory updates, reduced participation in Regional Planning Organizations (RPOs), and reduced ability to address non-attainment areas. Completed Tribal emissions inventories have decreased from 86 in 2015 to 74 in 2021, likely because funds are not available to update them after five years. RPO funding has simply disappeared since the early 2000s, meaning that Tribes cannot meaningfully participate in regional air quality decision making. The number of Tribal non-attainment areas has increased by 20% from 2018-2020 but monitoring budgets have not increased accordingly, leading to reduced ability for Tribes to address non-attainment areas.

The decrease in funding to both the EPA and to Tribal air programs is a double-edged sword when it comes to implementing the CAA on Tribal lands. Tribes are increasingly unable to "do it all" because of insufficient funding to meet their needs and must rely on EPA to address air pollution and compliance assurance issues on their reservations. Since EPA regional offices

are in urban areas, extensive travel on the part of EPA staff is required to conduct inspections or permitting site visits on or near reservations. However, decreased funding within EPA has made it even more difficult for EPA staff to justify travel to Indian Country. It would be more cost efficient to train Tribal staff to perform site inspections and to work with facilities on compliance assurance with the added benefit of trained staff who are locally situated to respond quickly to emergencies.

Likewise, any loss of Tribal monitors can place an additional burden on state agencies, some of whom have come to rely on Tribally purchased monitors and Tribal staff to operate equipment that helps the state assess its air quality and meet monitoring placement requirements.

Air Quality Needs Assessment

The preamble to the Tribal Authority Rule clearly stated the need for EPA to conduct a needs assessment for maintaining and improving air quality in Indian Country. While narrowly constructed needs assessments have been performed to address such things as capacity building, drinking water/wastewater, and indoor air quality funding, no comprehensive assessment of the air quality management needs in Indian Country exists today. Such an assessment would cost on the order of $500,000 but would provide a wealth of information to EPA. The NTAA has consistently made the request for a comprehensive air quality needs assessment since 2016. Due to unallocated funds attributable to the pandemic, the NTAA finds itself in a position to be able to fund a baseline needs assessment, which will seek to determine which federally recognized Tribes wish to develop air quality management programs, the reasons for wanting these air programs, and the estimated costs, in addition to the baseline needs for established air programs. While the NTAA sees this as an important first step, once results have been analyzed further needs assessments may be in order.

Unfunded Priorities

In recent years, the EPA's priorities have changed, as shown by changes from previous years in the Strategic Plan and the National Program Manager's Guidance. Several important areas have been removed from these planning documents, including indoor air quality, radon, and climate change. These areas are especially important in Tribal communities because of the high poverty rate, high rates of asthma and diabetes, old and failing housing stocks, and old and failing infrastructure. Many Tribal homes are energy inefficient and were poorly built according to plans that did not consider the local climate. Therefore, cases of mold are common and widespread. Increased flooding due to climate change has exacerbated the problem for many Tribes.

Wildfire smoke is increasingly a concern for Tribal indoor air quality and ambient air quality, as wildfires have grown in incidence, size, and duration. Radon is a naturally occurring element found in many Tribal homes and offices. Remediation is relatively cheap (about $2,200 per home) and effective but Tribal funding for evaluating these homes has decreased drastically and funding has never been available for remediation. Poor air quality due to climate change is a great concern for Tribes in many ways, including increased mold from flooding, increased

impacts from wildfires, increased construction debris from floods and fires, increased levels of pollen from longer growing seasons, and increased levels of ozone due to higher temperatures. Climate change is also an issue that will have huge impacts on Tribes, from the loss of important species and other resources, such as crops and grazing land, and the increasing impacts of wildfires, drought, flooding, severe weather, and the erosion of topsoil in the western mountain states (which also leads to dust generation).[2] In short, not only are Tribes losing ground in terms of funding, but they are increasingly unable to direct what funds they receive to the issues that may need the most attention. We are hopeful that under the new administration, these priorities will again be funded.

Unexpected Interruptions and Concerns

The introduction of the novel coronavirus has the potential to have deleterious effects on Tribal air programs, because it impacts the government, the public, and the public employee sector all at once. Tribal governments need to take whatever actions are appropriate to protect what is, in most cases, a severely underserved population with prevalent underlying health issues. Tribal governments and workers are consistently underfunded and understaffed but must be prepared to take care of their people because they have little assurance that any other governmental entity will do so, they know best how to care for their people, and taking care of the vulnerable is a core Tribal value.

This may impact Tribal air programs in terms of completing work and meeting grant deadlines for deliverables. When Tribal buildings are closed, healthy employees need to work from home. This introduces costs for providing computers, internet access, and software for these employees, along with providing cyber security and possibly for purchasing additional servers. Meanwhile, there are no cost savings on unused office spaces since those spaces will eventually be filled once again.

The current COVID pandemic underscores why the investment in Tribal air quality work is mission critical, vital to our communities and states, and why such investments outweigh only the associated monetary value. Currently, underfunded, and unfunded programs magnify and exacerbate underlying health issues for Tribal members. Often, Tribes are being forced to stretch already frayed resources and to reallocate or diminish important air quality work (which is fundamentally related to public health) to address urgent pandemic-related needs. This dilemma was apparent from the beginning of the COVID outbreak. As early as May 2020, it was demonstrated that, "American Indian and Alaskan Native people made up 18% of deaths and 11% of cases compared to 4% of the total population in Arizona, 57% of cases compared to 9% of the total population in New Mexico, and 30% of cases compared to 2% of the total population in Wyoming." Tribal members "have disproportionately high rates of many health

[2] "Wind erosion and dust from US drylands: a review of causes, consequences, and solutions in a changing world". Ecosphere. 18 March 2019. https://doi.org/10.1022/ecs.2650.

conditions that may put them at higher risk for serious illness if they contract coronavirus, including diabetes, heart disease, asthma, and obesity."[3]

The American Rescue Plan of 2021, passed by Congress and signed into law on March 11, 2021, provides $20 billion to Tribal governments and another $100 million to the EPA to address disproportionate environmental harms to minority and low-income populations. The NTAA is hoping that some of this money will be directed to Tribal air programs for use in fighting the spread and the disproportionate impacts of COVID. Such money could be useful in one-time projects such as replacing outdated monitors or creating wildfire or emergency response plans.

Increasing Tribal Monetary Needs

Program costs for health insurance benefits have continued to increase each year, decreasing the amount of program budgets available for staffing, equipment, supplies, training, and transportation costs. In the period from 1991-2014, the average annual increase in health care costs in the US was 4.9%.[4] From 2015-2017, these costs increased by 3% annually - slower, but still outpacing federal funding for Tribal programs. In 2018, the average premium for single coverage increased by 3% over 2017 and the average premium for family coverage increased by 5% (for our calculations, an average of 4% was assumed).[5] In 2019, the average premium for single coverage increased by 4% over 2018 and the average premium for family coverage increased by 5% (for our calculations, an average of 4.5% was assumed). In 2020, the average premium for single coverage increased by 4% over 2019, as did the average premium for family coverage.

The US Department of Labor estimates that benefits combined are worth about 30% of an employee's total compensation package.[6] Many Tribes have higher compensatory costs than these, especially if their staff members have been employed with the Tribe for several years – their experience makes them very valuable, but their salaries are higher than newer staff with less experience.

The problem of high employee turnover is explored in a February 4, 2016, article by Christina Merhar on the website Peoplekeep.com.[7] The article claims that replacing a business employee costs an average of 6 to 9 month's salary due to hiring costs, training, and lost work

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[3] Samantha Artiga and Kendal Orgera, May 14, 2020, 'COVID-19 Presents Significant Risks for American Indian and Alaska Native People | KFF', Kaiser Family Foundation. https://www.kff.org/coronavirus-covid-19/issue-brief/covid-19-presents-significant-risks-for-american-indian-and-alaska-native-people/

[4] https://www.kff.org/other/state-indicator/avg-annual-growth-percapita/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D. Sources: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group. National Health Expenditure Data: Health Expenditures by State of Residence, June 2017.

[5] https://www.kff.org/report-section/2018-employer-health-benefits-survey-section-1-cost-of-health-insurance/

[6] Steve Santiago, "The value of employer benefits," May 11, 2009, CAREER. Found at https://www.bankrate.com/finance/financial-literacy/the-value-of-employer-benefits.aspx.

[7] Merhar, C. (2016, February 4). *Employee Retention – The Real Cost of Losing an Employee*. Retrieved from https://www.peoplekeep.com/blog/bid/312123/employee-retention-the-real-cost-of-losing-an-employee.

time while the new employee comes up to speed. Similarly, a study by the Center for American Progress found that the cost of training a new employee can be roughly 16% of annual salary for those earning below $30,000, and 20% of annual salary for those earning between $30,000 and $50,000. These costs are highly detrimental to Tribes and their air programs. As outlined above, Tribal air programs have difficulty retaining staff, due to stagnant wages and low wages relative to their state and federal counterparts.

Estimating that about 80% of any Tribe's air budget goes to salary and compensation, the 1996 initial appropriation of $11 million, if increased to account for rising health care costs, would need to total a $31.8 million appropriation today. Indirect costs, which are negotiated with the federal government, can also increase drastically without warning, meaning that air budgets have already been set and must be revised to absorb the difference. These include administrative costs, space costs, and security costs. Improved grants management across EPA Regions may help with this issue.

If we look at the same problem in terms of general inflation, the 1996 initial appropriation of $11 million would total $18.3 million in FY2021 dollars if it kept pace with inflation (www.usinflationcalculator.com). Instead, at $12.35 million, absolute funding has barely changed and is, by these calculations, underfunded by 33%.

Separate Funding Stream for Training

The American Indian Air Quality Training Program (AIAQTP) has provided high quality, culturally sensitive training to Tribal air quality staff since 1993. The program has grown from providing 3 workshops in 1993 to currently providing over 20 workshops per year. The AIAQTP also funds the Tribal Air Monitoring Support (TAMS) Center to assist Tribes with their air monitoring needs. This type of training, aimed specifically at Tribes, addresses the unique situation many Tribal air staff find themselves facing – the need to run a one or two-person program while state and local programs have dozens of staff members.

Over the past 15 years, this program has been funded using $1 million in STAG funds, supplemented by EPA with an additional $600,000, plus EPA contributions of facilities and salaries for a co-director and instructor. While this structure has been greatly beneficial to Tribes, the EPA should consider a shift to funding the full costs of this program, thereby releasing the $1 million in STAG funds for Tribal implementation activities.

Multi-Purpose Grants (MPGs)

Since 2018, MPGs have been made available through EPA to eligible Tribes for high priority activities that complement co-regulator implementation activities, such as for work on water quality standards or Class I redesignation activities. In 2020, $1.95 million was made available for these projects. Initial data indicates that in Regions 1 and 5, five MPGs have been dispersed to three Tribes. Of this total, Region 1 awarded four separate grants to two different Tribes. These awards were for roughly $20,000 and $40,000. Region 5 awarded one grant, in the amount of roughly $28,000. In Region 10, eight Tribes receive MPGs for air quality activities.

This is an important opportunity for eligible Tribes, however many Tribes do not currently have the authorities necessary, such as Treatment as a State (TAS), to meet these eligibility requirements. More outreach from EPA on obtaining these authorities would be helpful and would open possibilities for more Tribes. It should be noted that these grants come out of STAG funds, so are not additional monies. The NTAA has undertaken efforts to assist Tribes in obtaining TAS for the CAA by doing outreach to Tribes that already have TAS under the Clean Water Act, since once that has been achieved much of the work for obtaining TAS under the CAA is easier.

Air related activities that can be covered under MPGs include tasks related to development of: Tribal Implementation Plans, New Source Performance Standards, National Emissions Standards for Hazardous Air Pollutants, Federal Air Rules for Reservations, and Class I redesignations.

Tribal Air Program Budget Analysis

Tribes are not the only air agencies struggling with stagnant budgets. The National Association of Clean Air Agencies' (NACAA) website states that the EPA budget for state and local air grants has remained steady for about 15 years at roughly $228 million despite increased workloads, rising costs of inflation, and health care.[8] NACAA showed that if this $228 million amount were adjusted for inflation it would translate into $315 million in today's dollars. As demonstrated in this budget analysis, Tribal air budgets have many additional challenges, beyond stagnancy.

FY2020

The 2020 STAR showed that the health concerns facing Tribal nations have increased in recent years, while funding has remained relatively stagnant. From FY2012-FY2017, overall EPA funding remained fairly steady, reaching a peak of $8.45 billion in FY2012, but followed a downward trend to a FY2018 budget of $5.6 billion. By FY2020, funding increased to $6.6 billion, which is helpful but still nowhere near the amount needed by the Agency to continue its efforts to protect air quality across the US and in Indian Country. Tribal air funding comes almost solely from EPA State and Tribal Assistance Grants (STAG). Peak Tribal funding occurred in 2012 at $12.49 million, but only totaled $11.77 million in FY2020. Most Tribes do not have the funding base to pay for these programs themselves. Tribes are unable to raise revenue through taxation, and even if they could do so, taxation would be unlikely to lead to much revenue. For those Tribes with the capacity to raise funds through other methods such as business ventures, providing housing and health care for their membership takes precedent since many Tribal members live below the poverty level. Replacing aging infrastructure on reservations is also a priority. Many Tribes also operate K-12 schools,

[8] "FY 2018 Budget and Congressional Appropriations." *NACAA - National Association of Clean Air Agencies*, http://www.4cleanair.org/sites/default/files/Documents/NACAA_FY2021_Oral_Testimony-House.pdf

colleges, detention facilities, and substance abuse treatment centers, to name just a few governmental entities that require internal revenue streams.

Because federal CAA funding has been stagnant, Tribes with existing air programs receive the vast majority of available funds, meaning that hundreds of remaining Tribes have little hope of establishing air programs, even though they may face serious air quality issues or exist in non-classified air sheds. Even as funding remains stagnant, the number of federally recognized Tribes has grown from 566 in 2012 to 574 in 2018. This problem is especially apparent in Region 3, where the number of federally recognized Tribes has grown from 0 in 2015 to 7 in 2018. None of these Tribes currently receives air funding.

This stagnation in funding can be seen in the leveling off or even decreases in the types of activities that indicate a growing Tribal air program, such as completion (or updating) of emissions inventories, the movement of Tribes from §103 to §105 funding, placement of new Tribal monitors, or submittal of new quality assurance project plans, and the pursuit of authorities such as Class I Redesignation, permitting authorities, Tribal Implementation Plan development, and TAS status. Figure 2 contrasts Tribal funding with rising inflation and cost of living increases.

FY2021

The President's proposed budget for FY2021, was released on February 10, 2021, by the previous administration. The budget called for $6.66 billion for EPA, which was an increase of $512 million, or 8%, compared to FY2020. This budget did not include funding for climate change, indoor air quality, or replacing aging air quality monitors. While this increase is appreciated, it still does not keep up with increased program costs due to inflation and increasing health care costs. Costs of fighting and responding to higher pollution levels associated with wildland fires are also rising as these fires grow larger and more frequent. It is estimated that in 2020, insurance costs due to wildland fires totaled between $7 and $13 billion in California, Oregon, Washington, and Colorado.[9] A recent article in the National Fire Prevention Association Journal reports that annual average fire response costs have risen from about $425 million between 1985 and 1999 to $1.6 billion from 2000 to 2019. Reports estimate that for the 2017 wildfire season in California, suppression costs plus insurance claims for property loss account for about $14 billion, while the season's overall cost (including indirect costs) were an astonishing $100 billion. These indirect costs include environmental cleanup, lost business and tax revenue, and property and infrastructure repairs.[10]

[9] Lavietes, Matthew. December 15, 2020.Western U.S. wildfires cost insurers up to $13 billion in 2020. Reuters. Western U.S. wildfires cost insurers up to $13 billion in 2020 | Reuters

[10] Greetings from the 2020 wildfire season: "Five undeniable truths from a pivotal year in the world's growing struggle with wildfire," NFPA Journal, The magazine of the National Fire Prevention Association. November/December 2020. NFPA Journal - The Wildfire Crisis, November/December 2020

FY2022

The President's proposed budget for FY2022 has not yet been released and may not be released until 2022 or 2023. When the current administration does release a budget proposal, NTAA hopes that it will include input both from Tribes and EPA career staff and will reflect the realities of economic growth, inflation, and the increasing needs of Tribes.

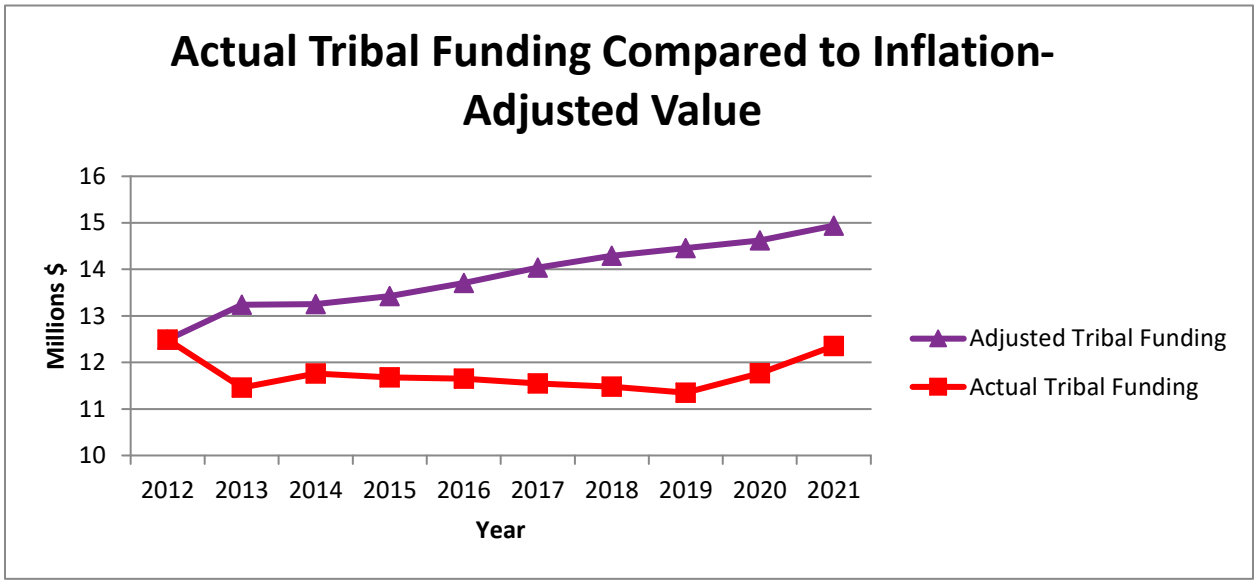


Figure 5 Actual Tribal Funding vs. Tribal Funding Adjusted for Inflation

Tribal funding has been stagnant for the last decade. Compared with inflation-adjusted numbers, this means funding has effectively decreased by approximately $2.5 million.

Conclusions and Recommendations

Based on the need for increased funding as outlined in this analysis, the NTAA recommends that the EPA consider the two budgeting solutions proposed below to alleviate some of the financial pressure on Tribal air programs:

Solution 1 accounts for basic inflationary costs, and totals $18.3 million. This is an increase of $7.3 million over the FY1996 appropriation, but in today's dollars is equal to that year's appropriation.

Solution 2 accounts for increases in health care costs, and totals $31.8 million.

FY1996 appropriation	Solution 1: FY2021 (inflationary adjustment)	Solution 2: FY2021 (health care costs adjustment)
$11 million	$18.3 million	$31.8 million

Data Tables of Tribal Air Quality Programs and Grants

Tribal Air Quality Monitoring Programs and Projects

Tribes significantly contribute to air quality protection, exercising Tribal sovereignty through air quality program activities. At the request of the NTAA, EPA's Office of Air and Radiation provided a set of data summarizing Tribal air activities from 2012-2021. A broad national summary of Tribal air quality programs can be found below, followed by regional summaries, with additional explanations of terms used in Appendix C.

The following data is used by the EPA to create budgets that influence CAA grant funding available to Tribes. The presentation of this data is illustrated in a simplified layout that is both easier to understand and more useful to readers. This simplified layout serves the important purpose of highlighting recent declines of funding and stagnation of Tribal air quality programs.

The data set was provided to the NTAA by EPA's OAR Tribal System (OTS) database.

National Summary of Tribal Air Quality Programs

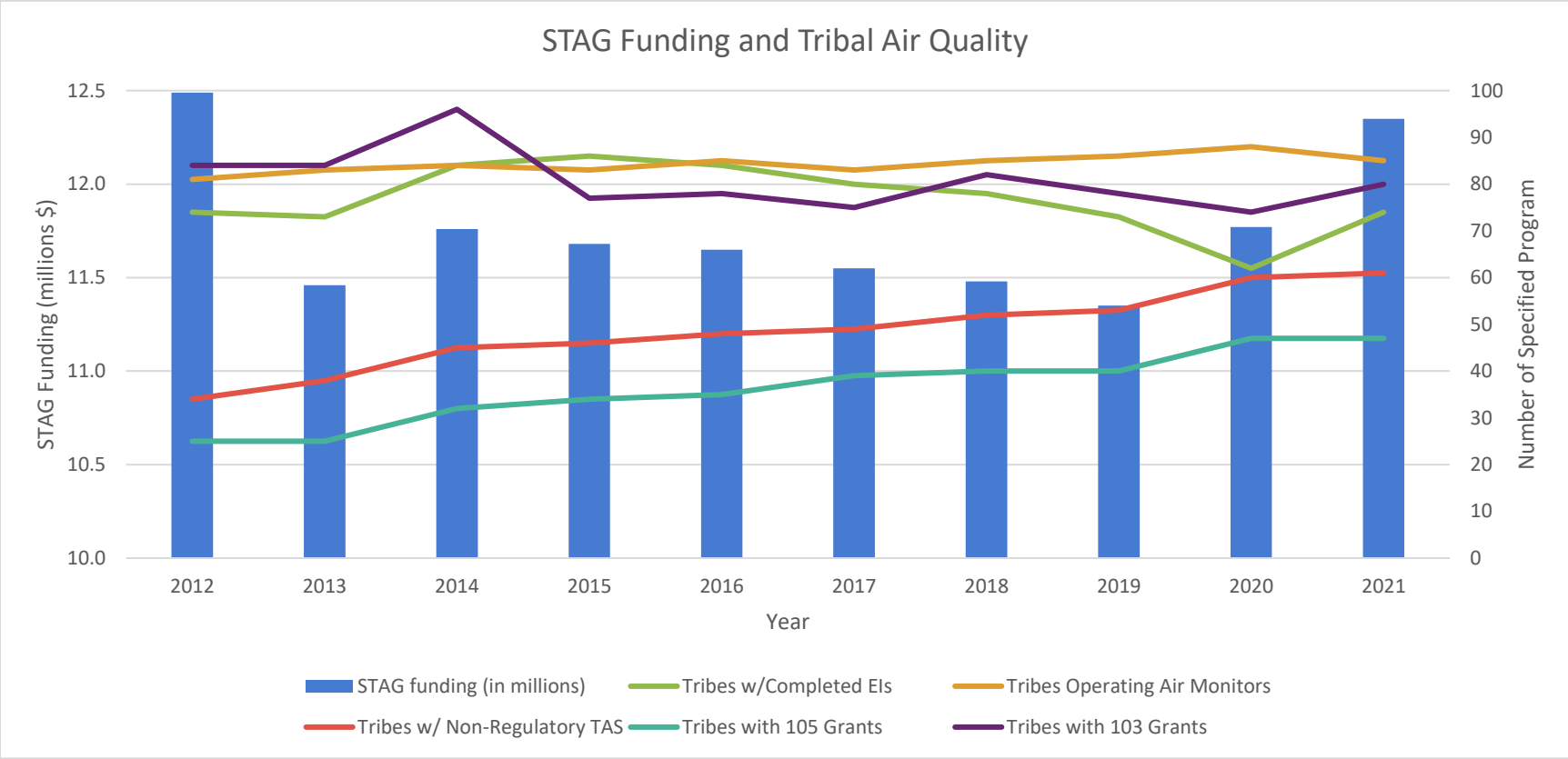
Table 3 National Summary of Tribal Air Quality Programs

National Summary of Tribal Air Quality Programs										
	2012	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
STAG Funding (in millions)	$12.49	$11.46	$11.76	$11.68	$11.65	$11.55	$11.48	$11.35	$11.77	$12.35
Tribes Operating Air Monitors	81	83	84	83	85	83	85	86	88	85
Tribes w/ Completed EIs	74	73	84	86	84	80	78	73	62	74
Tribes w/ Non-Regulatory TAS	34	38	45	46	48	49	52	53	60	61
Tribes w/ Regulatory TAS	7	8	8	8	10	10	10	10	11	10
Major Sources on Reservations*	167	159	863	1626	1900	2991	342	367	368	400
Tribal Non-Attainment Areas**	201	156	156	202	167	166	166	198	199	113
Tribes with 105 Grants	25	25	32	34	35	39	40	40	47	47
Tribes with 103 Grants	84	84	96	77	78	75	82	78	74	80

***The values shown in this table reflect annual totals for all regions. The steep rise of Major Sources on Reservations in 2014-2017 is due to the introduction of new major source registration rules, which were applied to previously identified sources. This jump in major sources was caused by increased regulation, not by new pollutant sources. 2018-2021 totals are reflective only of actual permitted sources in Indian country.

****The decrease in Tribal Non-Attainment Areas in 2021 reflects a realignment of reporting protocols for Region 9 to ensure consistency with other Regions, not an actual change in the number of non-attainment areas.

Table 4 STAG Funding and Tribal Air Quality Programs



STAG funding increased in 2021. However, this does not account for either inflation or the Cost-of-Living Adjustment.

Regional Summaries of Tribal Air Quality Programs

Table 5 Regional Summaries of Tribal Air Quality Programs

Region 1 - Summary of Tribal Air Quality Programs										
	2012	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
STAG Funding (in thousands)	$657	$614	$623	$622	$594	$576	$566	$554	$621	$642
Tribes Operating Air Monitors	4	5	5	5	5	5	5	5	5	5
Tribes w/ Completed EIs	1	1	1	1	1	1	1	1	0	0
Tribes w/ Non-Regulatory TAS	1	2	2	2	2	2	2	2	4	3
Tribes w/ Regulatory TAS	2	2	2	2	2	2	2	2	2	2
Major Sources on Reservations	2	2	2	2	2	2	2	2	2	2
Tribal Non-Attainment Areas	5	5	5	5	3	3	3	3	5	3
Tribes with 105 Grants				2	2	2	2	2	4	3
Tribes with 103 Grants	8	8	8	4	4	4	5	5	4	3

Region 2 - Summary of Tribal Air Quality Programs										
	2012	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
STAG Funding (in thousands)	$440	$424	$425	$418	$403	$394	$389	$380	$368	$368
Tribes Operating Air Monitors	1	1	1	1	1	1	1	1	1	1
Tribes w/ Completed EIs	0	1	1	1	1	1	1	0	0	0
Tribes w/ Non-Regulatory TAS	1	1	1	1	1	1	1	1	1	1
Tribes w/ Regulatory TAS	1	1	1	1	1	1	1	1	1	1
Major Sources on Reservations	1	1	1	1	1	1	1	1	1	1
Tribal Non-Attainment Areas	5	4	4	4	1	1	1	1	1	1
Tribes with 105 Grants				1	1	1	1	1	1	1
Tribes with 103 Grants	2	2	2	0	2	1	1	1	1	1

Region 3 - Summary of Tribal Air Quality Programs		
	2020	**2021**
STAG Funding (in thousands)	$77	$85
Tribes Operating Air Monitors	0	0
Tribes w/ Completed EIs	0	0
Tribes w/ Non-Regulatory TAS	0	0
Tribes w/ Regulatory TAS	0	0
Major Sources on Reservations	0	0
Tribal Non-Attainment Areas	0	0
Tribes with 105 Grants	0	0
Tribes with 103 Grants	0	0

Region 4 - Summary of Tribal Air Quality Programs										
	2012	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
STAG Funding (in thousands)	$331	$312	$317	$313	$316	$327	$328	$322	$317	$321
Tribes Operating Air Monitors	1	2	2	3	3	4	4	3	3	3
Tribes w/ Completed EIs	1	1	2	2	2	2	2	2	3	3
Tribes w/ Non-Regulatory TAS	1	1	1	1	1	1	1	1	1	1
Tribes w/ Regulatory TAS	0	0	0	0	0	0	0	0	0	0
Major Sources on Reservations	0	0	0	0	0	0	0	0	0	0
Tribal Non-Attainment Areas	1	0	0	0	0	0	0	0	0	0
Tribes with 105 Grants				1	1	1	1	1	1	1
Tribes with 103 Grants	2	2	3	3	3	4	4	3	3	3

Region 5 - Summary of Tribal Air Quality Programs										
	2012	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
STAG Funding (in millions)	$1.26	$1.15	$1.18	$1.23	$1.23	$1.23	$1.28	$1.29	$1.28	$1.34
Tribes Operating Air Monitors	11	11	12	12	12	14	14	14	14	16
Tribes w/ Completed EIs	14	14	15	16	18	19	20	20	10	11
Tribes w/ Non-Regulatory TAS	4	4	5	5	5	6	7	7	8	8
Tribes w/ Regulatory TAS	0	0	0	0	0	0	0	0	0	0
Major Sources on Reservations	13	15	15	15	15	16	17	17	19	19
Tribal Non-Attainment Areas	5	5	5	5	4	4	4	4	4	4
Tribes with 105 Grants				5	5	5	7	7	8	8
Tribes with 103 Grants	15	15	19	11	12	10	10	9	8	8

Region 6 - Summary of Tribal Air Quality Programs										
	2012	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
STAG Funding (in millions)	$1.31	$1.17	$1.18	$1.18	$1.14	$1.14	$1.11	$1.07	$1.17	$1.24
Tribes Operating Air Monitors	5	5	4	4	5	5	7	7	6	4
Tribes w/ Completed EIs	8	8	14	15	11	12	9	5	10	7
Tribes w/ Non-Regulatory TAS	2	2	3	3	4	4	5	6	7	8
Tribes w/ Regulatory TAS	0	0	0	0	0	0	0	0	0	0
Major Sources on Reservations	6	6	6	6	11	10	9	9	13	13
Tribal Non-Attainment Areas	0	0	0	0	0	0	0	0	1	1
Tribes with 105 Grants				0	0	1	1	1	3	4
Tribes with 103 Grants	9	9	9	10	7	8	15	12	11	11

Region 7 - Summary of Tribal Air Quality Programs										
	2012	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
STAG Funding (in thousands)	$465	$434	$500	$525	$535	$535	$575	$605	$563	$549
Tribes Operating Air Monitors	4	4	5	4	4	4	5	6	4	4
Tribes w/ Completed EIs	6	6	6	6	6	6	6	6	4	4
Tribes w/ Non-Regulatory TAS	0	1	2	2	2	2	2	2	2	2
Tribes w/ Regulatory TAS	0	0	0	0	0	0	0	0	0	0
Major Sources on Reservations	4	4	4	4	4	4	4	4	4	4
Tribal Non-Attainment Areas	0	0	0	0	0	0	0	0	0	0
Tribes with 105 Grants				1	0	1	2	2	1	1
Tribes with 103 Grants	4	4	7	7	7	7	5	6	6	6

Region 8 - Summary of Tribal Air Quality Programs										
	2012	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
STAG Funding (in millions)	$2.11	$2.00	$2.10	$2.07	$2.00	$1.98	$1.89	$1.83	$1.89	$2.01
Tribes Operating Air Monitors	10	10	10	10	10	10	9	9	11	11
Tribes w/ Completed EIs	18	13	14	14	14	8	8	8	4	4
Tribes w/ Non-Regulatory TAS	7	7	9	9	9	9	9	9	10	11
Tribes w/ Regulatory TAS	1	1	1	1	1	1	1	1	2	3
Major Sources on Reservations*	86	89/706‡	702	1451	1719	2806	261	289	268	300
Tribal Non-Attainment Areas	3	3	3	3	3	3	3	4	2	3
Tribes with 105 Grants				7	6	8	8	8	8	8
Tribes with 103 Grants	11	11	11	14	14	13	13	13	16	18

***The steep rise of Major Sources on Reservations in 2014-2017 is due to the introduction of new major source registration rules, which were applied to previously identified sources. This includes newly identified oil and gas sources required to be registered for PSD permits. 2018 totals are reflective only of actual permitted sources in Indian country.

‡In 2013, Region 8 reported this data using both old and new rules.

Region 9 - Summary of Tribal Air Quality Programs										
	2012	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
STAG Funding (in millions)	$3.26	$2.93	$2.97	$2.89	$2.97	$2.92	$2.87	$2.84	$2.88	$2.94
Tribes Operating Air Monitors	29	29	29	29	30	29	27	28	30	27
Tribes w/ Completed EIs	17	19	21	21	24	24	24	24	10	10
Tribes w/ Non-Regulatory TAS	7	7	9	10	11	11	12	12	12	12
Tribes w/ Regulatory TAS	2	2	2	2	4	4	4	4	5	3
Major Sources on Reservations	21	21	21	21	22	22	22	18	25	24
Tribal Non-Attainment Areas	170	137	137	183	154	154	154	185	185	100*
Tribes with 105 Grants				4	7	7	5	6	7	7
Tribes with 103 Grants	23	23	23	26	26	25	25	24	20	24

* The decrease in Tribal Non-Attainment Areas in 2021 for Region 9 reflects a realignment of reporting protocols for the Region 9 to ensure consistency with other Regions, not an actual change in the number of non-attainment areas.

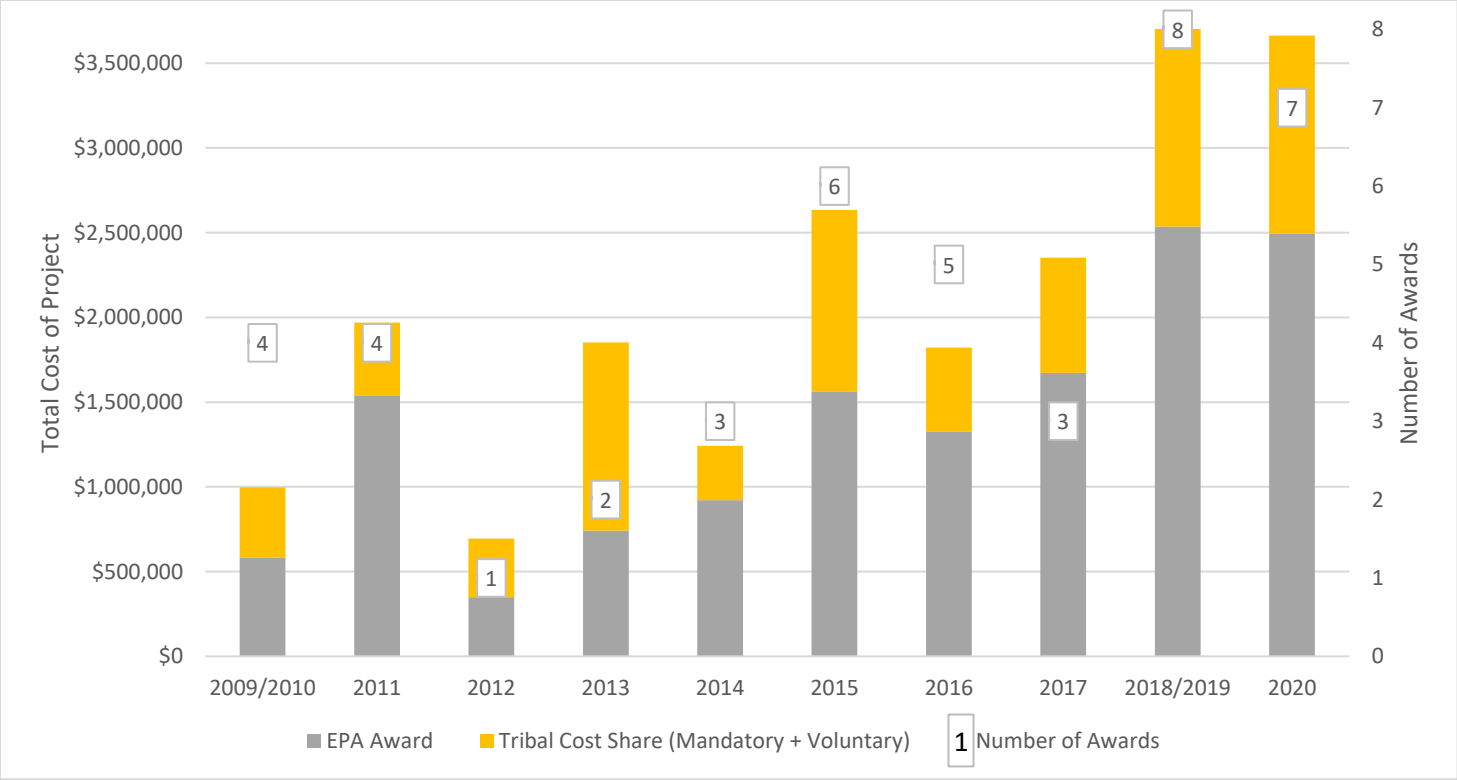
Region 10 - Summary of Tribal Air Quality Programs										
	2012	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
STAG Funding (in millions)	$2.66	$2.42	$2.47	$2.44	$2.46	$2.45	$2.47	$2.44	$2.60	$2.86
Tribes Operating Air Monitors	16	16	16	15	15	13	13	13	14	14
Tribes w/ Completed EIs	9	10	10	10	7	7	7	7	21	35
Tribes w/ Non-Regulatory TAS	11	13	13	13	13	13	13	13	15	15
Tribes w/ Regulatory TAS	1	2	2	2	2	2	2	2	1	1
Major Sources on Reservations*	34	110	112	126	126	130	26	27	36	37
Tribal Non-Attainment Areas	12	2	2	2	1	1	1	1	1	1
Tribes with 105 Grants				13	13	13	13	12	14	14
Tribes with 103 Grants	10	10	14	2	3	3	4	5	5	6

*The steep rise of Major Sources on Reservations in 2014-2017 is due to the introduction of new major source registration rules, which were applied to previously identified sources. 2018 totals are reflective only of actual permitted sources in Indian country.

Tribal Diesel Emissions Reduction Act (DERA)

EPA's Tribal DERA program awards grants to federally recognized Tribes, inter-Tribal consortium, and Alaska Native Villages for projects that reduce emissions from diesel engines. Through 2020, the Tribal DERA program required a high-cost share commitment, which was a barrier for most Tribes. In 2020, the NTAA wrote to the EPA with recommendations on ways to improve the Tribal DERA program so that Tribes could better utilize the funds. The EPA responded, in part, by removing the required cost share for the anticipated 2021 DERA RFP. The graph below provides the total amounts awarded from EPA, the total amounts of cost share borne by the Tribes, and the total number of awards for each year since the program began in 2009 through 2020.

Table 6 Tribal DERA Grant Awards



Appendix B: List of 153 NTAA Member Tribes by EPA Regions

Region 1 (4 Tribes)

- Houlton Band of Maliseet Indians
- The Mohegan Tribe
- Passamaquody Tribe at Pleasant Point
- Penobscot Indian Nation

Region 2 (3 Tribes)

- Saint Regis Band of Mohawk Indians
- Seneca Nation of Indians
- Shinnecock Indian Tribe

Region 3 (1 Tribe)

- Chickahominy Indian Tribe

Region 4 (5 Tribes)

- Catawba Indian Nation
- Eastern Band of Cherokee
- Miccosukee Indian Tribe of Florida
- Mississippi Band of Choctaw Indians
- Poarch Band of Creek India

Region 5 (21 Tribes)

- Bad River Band of Lake Superior Tribe of Chippewa Indians
- Bois Forte Band of Chippewa
- Fond du Lac Band of Lake Superior Chippewa
- Forest County Potawatomi Community
- Grand Portage Band of Lake Superior Chippewa
- Grand Traverse Band of Ottawa & Chippewa Indians
- Keweenaw Bay Indian Community
- Lac du Flambeau Band of Lake Superior Chippewa Indians
- Leech Lake Band of Ojibwe
- Little Traverse Bay Bands of Odawa Indians
- Lower Sioux Indian Community
- Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians of Michigan
- Menominee Indian Tribe of Wisconsin
- Oneida Tribe of Indians of Wisconsin
- Red Cliff Band of Lake Superior Chippewa Indians
- Red Lake Band of Chippewa Indians
- Saginaw Chippewa Indian Tribe of Michigan
- Sault Tribe of Chippewa Indians
- Shakopee Mdewakanton Sioux Community
- St. Croix Chippewa Indian of Wisconsin
- White Earth Nation

Region 6 (23 Tribes)

- Caddo Nation of Oklahoma
- Cherokee Nation of Oklahoma
- Choctaw Nation of Oklahoma
- Citizen Potawatomi Nation

- Delaware Nation of Oklahoma
- Fort Sill Apache Tribe of Oklahoma
- Iowa Tribe of Oklahoma
- Modoc Tribe of Oklahoma
- Muscogee (Creek) Nation
- Ohkay Owingeh
- Pueblo of Acoma
- Pueblo of Jemez
- Pueblo of Laguna
- Pueblo of Pojoaque
- Pueblo of Santa Ana
- Pueblo of Santo Domingo
- Pueblo of Zia
- Pueblo of Zuni
- Quapaw Tribe of Oklahoma
- Sac and Fox Nation
- Seminole Nation of Oklahoma
- Taos Pueblo
- United Keetoowah Band of Cherokee Indians in Oklahoma

Region 7 (7 Tribes)

- Kickapoo Tribe in Kansas
- Ponca Tribe of Nebraska
- Prairie Band Potawatomi Nation
- Sac & Fox Tribe of the Mississippi in Iowa/Meskwaki
- Sac & Fox Nation of Missouri in Kansas and Nebraska
- Santee Sioux Nation
- Winnebago Tribe of Nebraska

Region 8 (10 Tribes)

- Confederated Salish & Kootenai Tribes
- Fort Belknap Indian Community
- Fort Peck Tribes of Assiniboine & Sioux Tribe
- Northern Cheyenne Tribe
- Northwestern Band of Shoshone Nation
- Sisseton Wahpeton Oyate
- Southern Ute Indian Tribe
- Standing Rock Sioux Tribe
- Ute Indian Tribe
- Ute Mountain Ute Tribe

Region 9 (40 Tribes)

- Augustine Band of Cahuilla Indians
- Ak-Chin Indian Community
- Big Pine Paiute Tribe of the Owens Valley
- Bishop Paiute Tribe
- Blue Lake Rancheria
- Cahto Tribe of the Laytonville Rancheria
- Cahuilla Band of Indians
- Campo Band of Mission Indians
- Colorado River Indian Tribes
- Coyote Valley Band of Pomo Indians
- Elk Valley Rancheria
- Enterprise Rancheria Estom Yumeka Maidu Tribe
- Fort Independence Tribe of Paiute Indians
- Gila River Indian Community
- Habematolel Pomo of Upper Lake
- Hoopa Valley Tribe
- Hualapai Tribe
- Jamul Indian Village
- Kletsel Dehe Wintun Nation
- La Posta Band of Mission Indians

- Lone Pine Paiute Shoshone Reservation
- Los Coyotes Band of Cahuilla Cupeno Indians
- Manzanita Band of the Kumeyaay Nation
- Moapa Band of Paiutes
- Morongo Band of Mission Indians
- Pala Band of Mission Indians
- Pechanga Band of Luiseno Indians
- Pyramid Lake Paiute Tribe
- Robinson Rancheria of Pomo Indians
- Round Valley Indian Tribes
- Santa Ynez Band of Chumash Indians
- Soboba Band of Luiseno Indians
- Susanville Indian Rancheria
- Tejon Indian Tribe
- Tohono O'odham Nation
- Utu Gwaitu Paiute Tribe
- Walker River Paiute Tribe
- Washoe Tribe of Nevada and California
- White Mountain Apache Tribe
- Yavapai Apache Nation

Region 10 (14 Tribes)

- Coeur d'Alene Tribe
- Confederated Tribes of Warm Springs
- Confederated Tribes of the Colville Reservation
- Confederated Tribes of the Coos, Lower Umpqua & Siuslaw Indians
- Kootenai Tribe of Idaho
- Makah Indian Tribe
- Nez Perce Tribe
- Nisqually Tribe
- Quinault Indian Nation
- Samish Indian Nation
- Shoshone Bannock Tribes
- Spokane Tribe
- Tulalip Tribes
- Yakama Nation

Alaska (25 Tribes and Villages)

- Aleknagik Traditional Council
- Alutiiq Tribe of Old Harbor
- Bristol Bay Native Association
- Chickaloon Village Traditional Council
- Craig Tribal Association
- Inupiat Community of the Arctic Slope
- Klawock Cooperative Association
- Native Village of Aniak
- Native Village of Buckland
- Native Village of Kiana
- Native Village of Kivalina (IRA)
- Native Village of Kluti-Kaah
- Native Village of Kwinhagak
- Native Village of Noatak
- Native Village of Nuiqsut
- Native Village of Selawik
- Native Village of Shungnak
- Native Village of Tyonek
- Noorvik Native Community
- Nulato Tribal Council
- Orutsararmuit Native Council
- Qawalangin Tribe of Unalaska
- Seldovia Village Tribe
- Ugashik Traditional Village
- Wrangell Cooperative Association

Appendix C: EPA OAR and OITA Organizational Charts

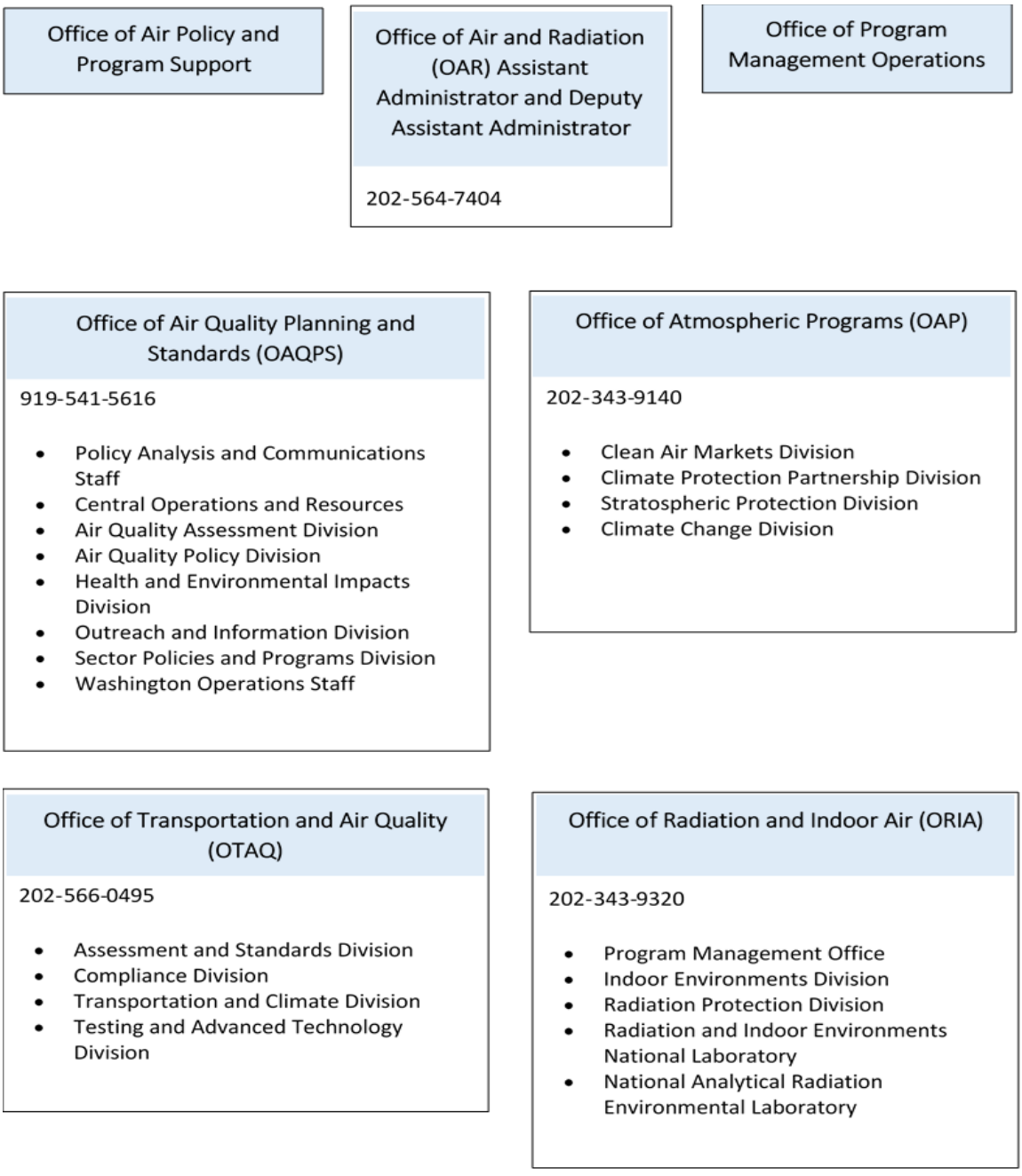


Figure 6 EPA OAR Organizational Chart

Additional information about the EPA Office of Air and Radiation can be found at: https://www.epa.gov/aboutepa/about-office-air-and-radiation-oar.

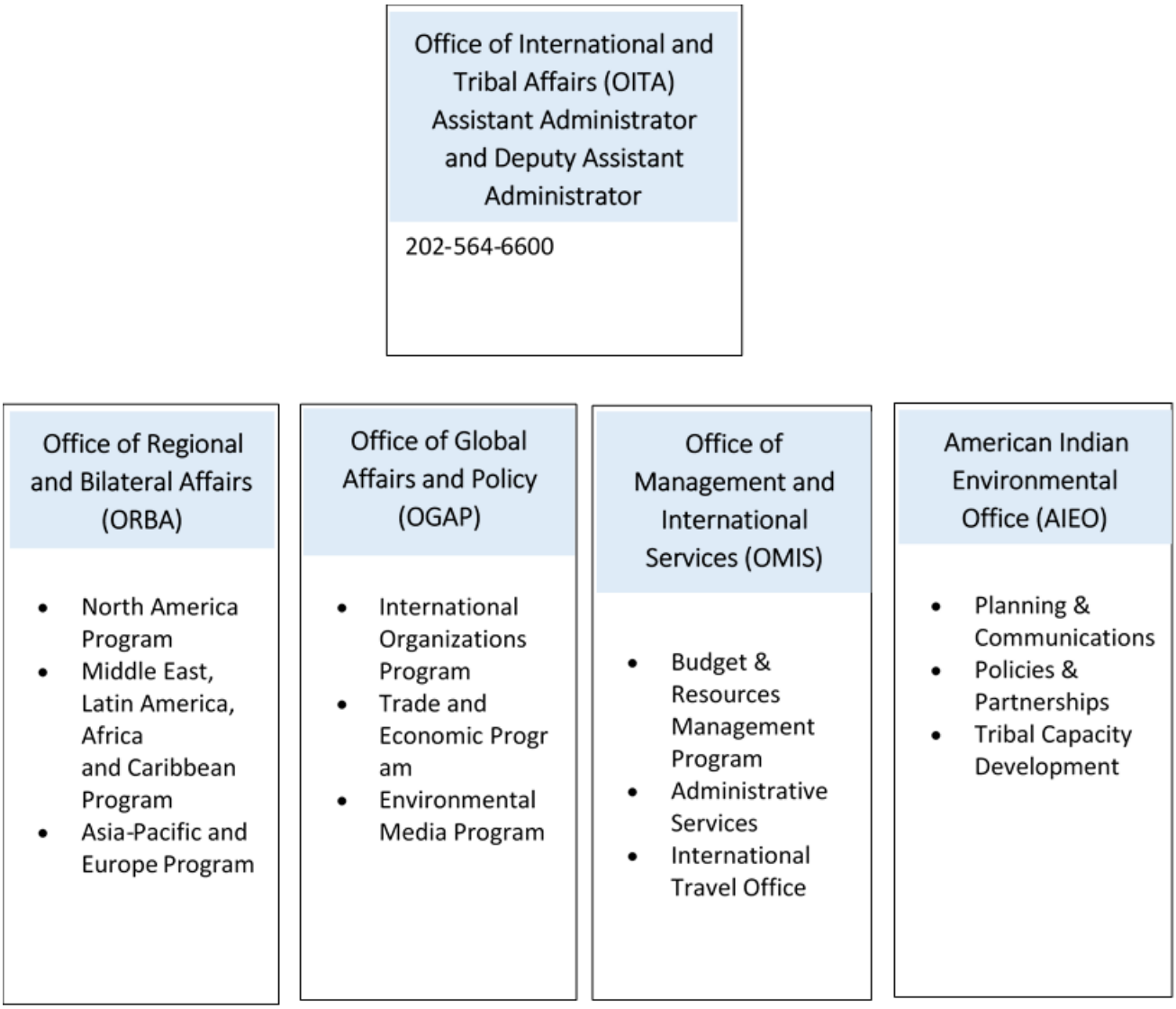


Figure 7 EPA OITA Organizational Chart

Additional information about the EPA Office of International and Tribal Affairs can be found at: https://www.epa.gov/aboutepa/about-office-international-and-Tribal-affairs-oita.

Appendix D: NTAA Comment Letters on EPA and Federal Agencies' Actions May 2020 – May 2021

EPA's Updates to the Indoor airPLUS Version 2

EPA's Indoor airPLUS Version 2 updates the original specifications of the Indoor airPLUS program, which is a voluntary partnership and labeling program for new homes to improve IAQ by requiring builders to use practices and products that minimize airborne pollutants and contaminants.

NTAA created a template letter for Tribes to comment on the proposal https://secureservercdn.net/198.71.233.47/7vv.611.myftpupload.com/wp-content/uploads/2021/03/NTAA-Template-Comment-Letter-on-EPAs-Indoor-airPLUS.doc

NTAA submitted a formal comment letter on March 17, 2021

No response received.

EPA's Proposed Rulemaking: Revised Cross-State Air Pollution Rule (CSAPR) Update

On October 15, 2020, EPA proposed the Revised Cross-State Air Pollution Rule (CSAPR) Update to fully address 21 states' outstanding interstate pollution transport obligations for the 2008 ozone National Ambient Air Quality Standards (NAAQS).

NTAA created a template letter for Tribes to comment on the proposal https://www.ntaaTribalair.org/2020-12-14-ntaa-template-comment-letter-on-proposed-revised-csapr-update/

NTAA submitted a formal comment letter on December 14, 2020 https://secureservercdn.net/198.71.233.47/7vv.611.myftpupload.com/wp-content/uploads/2020/12/12-14-20-NTAA-Comment-Letter-on-CSAPR.pdf

The EPA responded in the Preamble and the Response to Comments document for the Final Revised CSAPR Update Rule https://www.epa.gov/sites/production/files/2021-03/documents/final_revised_csapr_update_-_prepublication_version_with_disclaimer.pdf

EPA's Proposed Rulemaking: Control of Air Pollution from Airplanes and Airplane Engines: GHG Emission Standards and Test Procedures

The EPA is proposed standards for greenhouse gas emissions for certain new commercial airplanes.

NTAA created a template letter for Tribes to comment on the proposal

https://secureservercdn.net/198.71.233.47/7vv.611.myftpupload.com/wp-content/uploads/2020/10/Airplane-GHG-standards-Tribal-template-letter.doc

NTAA submitted a comment on October 19, 2020
https://secureservercdn.net/198.71.233.47/7vv.611.myftpupload.com/wp-content/uploads/2020/10/NTAA-Comment-Letter-on-Airplane-GHG-Standards.pdf

No response received.

EPA's Proposed Update to the National Ambient Air Quality Standards (NAAQS) for Ground-Level Ozone Pollution

On July 13, 2020, the U.S. Environmental Protection Agency (EPA) proposed to retain, without revision the primary and secondary ozone National Ambient Air Quality Standards (NAAQS).

NTAA created a template letter for Tribes to comment on the proposal
https://secureservercdn.net/198.71.233.47/7vv.611.myftpupload.com/wp-content/uploads/2020/09/9-14-2020-NTAA-Template-Ozone-NAAQS-letter.doc

NTAA submitted a comment on October 1, 2020
https://secureservercdn.net/198.71.233.47/7vv.611.myftpupload.com/wp-content/uploads/2020/10/10.1.20-NTAA-Letter-on-EPA-NAAQS-Ozone-Review.pdf

See below for EPA's response to NTAA's Comment on the PM NAAQS proposed rule.

EPA's Proposed Rule on Increasing Consistency in Considering Benefits and Costs in the Clean Air Act Rulemaking Process

EPA sought input on whether and how to set national standards agency-wide for how costs and benefits are calculated when EPA performs economic analyses of the impacts of their actions.

NTAA submitted a comment on August 3, 2020
https://secureservercdn.net/198.71.233.47/7vv.611.myftpupload.com/wp-content/uploads/2020/08/8.7.20-Letter-to-EPA-from-NTAA-on-Docket-ID-No.-EPA-HQ-OAR-2020-00044.pdf

NTAA also created a CBA Fact Sheet for Tribal members
https://secureservercdn.net/198.71.233.47/7vv.611.myftpupload.com/wp-content/uploads/2020/07/NTAA-Fact-Sheet-on-EPA-Inc-Consistency-Benefits-and-Costs.pdf

No response received.

EPA's response to NTAA on the PM NAAQS Review

On April 14, 2020, the EPA announced its proposal to retain the NAAQS for particulate matter (PM) without changes. On June 29, 2020, NTAA Chairman Wilfred J. Nabahe submitted a letter

concerning EPA's proposal to retain the current National Ambient Air Quality Standards (NAAQS) for particulate matter (PM).

On July 16, 2020, the EPA responded with a signed copy of the Agency's response to Mr. Nabahe's letter below.
https://secureservercdn.net/198.71.233.47/7vv.611.myftpupload.com/wp-content/uploads/2020/07/AX-20-000-5848-Response-to-National-Tribal-Air-Association-SIGNED.pdf

NTAA submitted a formal comment letter on June 6, 2020
https://secureservercdn.net/198.71.233.47/7vv.611.myftpupload.com/wp-content/uploads/2020/06/6.29.20-NTAA-Letter-on-EPA-PM-NAAQS-Standard-Review-1.pdf

EPA's proposed amendment to the National Standards of Performance for New Residential Wood Heaters, New Residential Hydronic Heaters and Forced-Air Furnaces

NTAA published a comment letter and Tribal Template Letter for Tribes to respond to EPA's proposed amendment to the National Standards of Performance for New Residential Wood Heaters, New Residential Hydronic Heaters and Forced-Air Furnaces on July 6, 2020. While the 2015 NSPS would have required retailers to stop selling Step One wood heaters, due to the nation-wide spread of the COVID-19 virus, the proposed amendments, if finalized, would provide retailers more time to sell Step 1-certified residential wood heating devices.

NTAA submitted a formal comment letter on July 6, 2020.
https://secureservercdn.net/198.71.233.47/7vv.611.myftpupload.com/wp-content/uploads/2020/07/07.06.20-NTAA-Comment-Letter-on-Wood-Stove-Extension-Proposal-1.pdf

No response received.

2021 STAR References

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