

2009

National Tribal Air Association

TRIBAL AIR QUALITY STATUS REPORT

NATIONAL TRIBAL AIR PROGRAM OVERVIEW



Disclaimer – The views expressed in this document are not necessarily shared by all Federally Recognized Tribes and Alaskan Native Villages. Furthermore, the views expressed in this document are not necessarily shared by all Principal Members of the National Tribal Air Association. The NTAA has made a concerted effort in collaboration and peer review in the development of this document. This document will be updated annually.

CONTENTS

Executive Summary	3
Summary of Recommendations	4
The National Tribal Air Association (NTAA)	9
Introduction.....	10
The Role of Tribal Governments in Protecting Air Quality	10
Disproportionate health impacts to tribes from air pollution	12
Tribal Air Issues	13
Energy and Climate Change.....	13
Alternative Energy	14
Carbon Sequestration	14
Sustainability	15
Climate Change	15
Culture, Ecosystems, Public Health	18
Toxin bioaccumulation.....	18
Alaska.....	20
Indoor Air (PM and toxics).....	21
Data evaluation	22
Working effectively with partners	23
Visibility and Regional Planning Organizations	24
Tribal Air program development.....	25
Conclusion	26
Appendix A – Acronyms used	27

EXECUTIVE SUMMARY

- The National Tribal Air Association (NTAA) is pleased to present this tribal air policy paper to President Obama, to the U.S. Environmental Protection Agency (EPA), and to other interested persons. This document outlines priority recommendations to the new administration to address the critical air quality issues and needs for tribes and Alaska Native Villages.
- There are 564 federally recognized tribes, including 229 Alaska Sovereign Tribes (aka Alaska Native Villages).¹ In addition, there are 13 Alaska Native Regional Corporations, created under the Alaska Native Claims Settlement Act.²
- Tribal governments and Alaska Native Corporations have jurisdiction over 100 million acres of land and waters. Federally recognized tribal governments occupy approximately 2.3% (56 million acres) of the US land base, with Alaska Native Corporations owning another 1.8% (44 million acres).³ Furthermore, some tribes control resources outside of reservations due to treaties, federal court decisions and voluntary cooperative agreements which allow a co-management status between tribes and states. These lands are called Ceded and Usual and Accustomed Areas and equal over 38 million acres. In these areas, tribes maintain co-management jurisdiction for fisheries and wildlife management and utilization. Thus, tribal lands coupled with the Ceded and Usual and Accustomed Areas total a natural resource base of nearly 140 million acres, containing more than 730,000 acres of lakes and impoundments, and over 10,000 miles of streams and rivers.⁴ This land combined would constitute the third largest state in the United States.
- Compared with the rest of the United States as a whole, economic and public health conditions in Indian Country are dire. Nearly one-third of reservation homes are at or below the poverty level; the rate of several diseases for tribal members are higher than national averages. Within some regions, six out of every ten reservation homes have no telephone, and one of every five homes has no plumbing, sink, or toilet.
- In Region 9, 58 tribes breathe air that does not meet the National Ambient Air Quality Standards (NAAQS). Nationally, 55.4% of tribal populations lives within 50 miles of major mercury sources; 82.3% live within 50 miles of major NO_x sources;

¹ <http://www.bia.gov/WhatWeDo/index.htm>

² <http://www.lbblawyers.com/ancsa.htm#corp>

³ Utter, Jack, *American Indians: Answers to Today's Questions*, 2 Rev Enl edition, 2001, University of Oklahoma Press, Oklahoma City, Oklahoma. P. 217.

⁴ Native American Fish & Wildlife Society webpage.

http://www.nafws.org/index.php?Itemid=31&id=1&option=com_content&view=article

and 65.8% live within 25 miles of PM₁₀ point sources⁵. In addition toxins like lead present local concerns near existing or former mining operations. For example, one-half of the jurisdictional boundaries of the Quapaw Tribe (40 square miles) are listed as the Tar Creek Superfund site. The tribe's environmental offices are 100 yards within the boundary of the Superfund site boundary. Tar Creek is a major source of lead. Particulate matter from wood smoke is also another local concern for many tribes. Localized inversions can increase potential impacts to wood smoke.

- In spite of this, Tribal environmental program accomplishments have been extraordinary, especially considering the fact that a majority of tribal EPA-funded programs have been in existence fewer than four years, as opposed to the more than 25 years that EPA has been in partnership with states. But there is still a long way to go to address these air quality issues.
- Our goal for the new administration is that every tribe will know whether their air is safe to breathe, and tribes with on-reservation sources of air pollution have either tribal or EPA programs in place to regulate these sources.

SUMMARY OF RECOMMENDATIONS

- **Energy**
 - Tribal lands contain a significant amount of the nation's oil, natural gas, low sulfur coal, and uranium. Development of these resources requires the building of tribal capacity to adequately prevent harm to health and the environment.
- **Alternative Energy**
 - Provide education and conduct research to look at the potential benefits (both economical and ecological) of renewable energy development on tribal lands and provide funding to tribes for implementation.
- **Carbon Sequestration**
 - With nearly 13 million acres of forests, tribes can make a significant contribution to the sequestration of carbon. Education and outreach to tribes is required so that they can effectively participate in any national carbon trading program.
- **Sustainability**

⁵Source: Institute for Tribal Environmental Professionals, 2006
<http://www4.nau.edu/itep/resources/maps.asp>

- Energy development must find a level of sustainability that currently does not exist. It is the principle of sustainability that makes renewable and alternative energy so promising to tribes.
- **Climate Change**
 - Any regulatory action taken by the EPA must be preceded by sufficient government-to-government consultation between the Agency and the nation's Indian tribes.
 - Indian tribes should not have the same burden to reduce GHG emissions as states, as tribes have historically not been the major contributors of GHG emissions; and they often have limited staff to address environmental issues facing their respective communities - i.e., climate change will add to their already heavy burden.
 - Provide resources to Tribes to compile GHG emissions inventories, conduct GHG emissions modeling, and monitor GHG emissions.
 - The EPA should provide incentives to Indian tribes to develop and deploy new technologies to tribal communities and their respective sources to reduce and mitigate the impacts of GHG emissions such as incentives for energy efficiency and renewable energy development.
 - For any forthcoming regulatory action, specifically a cap-and-trade program, ask that the EPA make a tribal set-aside of allowances available:
 - A tribal set-aside would help insure that tribes have some degree of the necessary resources to address climate change impacts affecting their communities.
 - Indian tribes need to be provided with a fair and socially-responsible apportionment of allowances (e.g., equity).
 - Indian tribes should not be required to have treatment-as-a-state status in order to have access to the tribal set-aside of allowances.
 - The EPA should provide Indian tribes with direct monies as a result of the Agency auctioning off the allowances because most tribes lack the expertise, experience and administrative capacity to manage and sell allowances, and requiring tribes to convert allowances into money could cause unnecessary delays in their efforts to address climate change impacting their communities.
 - Indian tribes should have a certain degree of discretion in how they use their allowances or monies to address climate change impacts; such activities might include promotion of energy efficiency and investment in renewable energy development.
 - Any regulation of sources for GHG emissions means increased economic and administrative burdens to tribal sources as well as tribal permitting authorities; EPA should therefore provide tribes with the necessary resources to manage these burdens.
 - Regulating GHGs under Section 108 as a NAAQS would mean that Indian tribes would likely be included under a federal implementation plan which

- would allow their sources little leeway in how to comply with the NAAQS, and if the country was placed in non-attainment, tribes would not have the option to be excluded as they have done in the past for PM 2.5 and ozone.
- Smaller sources regulated for GHGs under the Title V program would be subject to fees imposed on them by permitting authorities to run the program; this would place an undue financial burden on a number of tribal sources, both major and minor, and also on tribal permitting authorities if the CAA does not end up allowing them to impose fees for GHG emissions.
 - Consult with tribes and Alaska Native Villages at a government-to-government level in rule promulgation, program development, and implementation of climate change work, including greenhouse gas (GHG) assessments, monitoring, emissions credits and trading programs, planning, impact assessments, mitigation, and relocations.
 - \$3 million dollars is needed to enable tribes to fully participate in the development and implementation of climate change programs, including grant assistance to conduct tribal greenhouse gas inventories or to participate in regional inventory efforts.
 - Make climate change a priority, and fully support voluntary and complimentary mitigation programs for and designed by tribes and Alaska Native Villages.
 - Restore and expand support for tribal science programs, including a regional assessment, research on adaptation, lifecycle assessment, mitigation technologies, and permitting of sequestration.
 - Support clean affordable energy projects and transmission development for tribes and Alaska Native Villages.
- **Toxin Bioaccumulation**
 - \$3 million is needed to increase mercury deposition monitoring.
 - Diesel Retrofit – Congress has recently passed legislation that would triple existing funding for diesel reduction/retrofit programs. To ensure that tribes have effective access to this funding, EPA could fund 3-4 “Diesel Retrofit Boot Camps” (developed by WRAP) specifically for tribes. These 3-day workshops provide all of the information required to create effective grant applications for these funds. To ensure tribal participation, travel funds should be included in the costs. Estimated costs: \$50K per workshop (approx 30 participants per) for a total of \$150 - \$200K.
 - Expand research on international transport and atmospheric deposition, including research on effects of atmospheric deposition of chemicals on the food chain of tribal subsistence foods and treaty-reserved lands.
 - Clean up dirty diesel engines in trucks, buses, and ships.
 - Adopt protective cancer risk policies for all future hazardous air pollution rules and revise recent rules that allow excessive cancer risk.
 - Reverse loopholes for toxic emissions from solid and hazardous waste incineration.

- Propose deep toxic reductions from industrial boilers.
- Require protective controls and monitoring for the numerous, smaller sources of toxic air pollution.
- Require greater continuous monitoring and reporting of air pollution from industrial polluters.
- Work with the tribes and Alaska Native Villages to implement a Mercury Strategy through characterization of fish water and sediment levels, characterization and control of regional mercury sources, and public education and outreach.
- EPA should propose rules requiring SO₂ and NO_x reductions from power plants sufficient to deliver clean air to all. EPA should also propose rules to achieve deep reductions in all hazardous air pollution from power plants, including mercury.
- **Alaska**
 - Implement strategies to mitigate human health impacts from road dust and toxics in Alaska Native Villages.
- **Indoor Air (PM and Toxics)**
 - Up to \$10 million is needed for a tribal woodstove change-out program.
 - Increase funding for assessment and mitigation of the indoor air quality problems affecting human health: wood burning, diesel generators, moisture and mold, and asbestos, radon and lead. Initiate an inter-agency collaborative effort develop permanent solutions to these tribal indoor air quality issues (BIA, IHS, USDA, HUD, EPA).
- **Data Evaluation**
 - \$250,000 is needed for a project to conduct a representative analysis of the existing tribal and non-tribal air monitoring networks to identify those tribes which do not currently have a source of air monitoring data relevant to their lands.
 - Continue funding for TEISS. To keep tribal data current regarding Emissions Inventories of GHG's, one effective tool would be the continued promulgation of the TEISS software to tribes. Lakes Environmental has recently advanced an estimated cost of \$59,000 to include GHG's into the TEISS software, and ITEP has proposed a 3-year, \$330K program to continue technical support for tribes using TEISS, additional TEISS trainings for tribes, and data reconciliation of tribal and state data.
- **Working effectively with Partners**
 - To build upon the progress to date, tribes have stated that it is critical to maintain the good working relationships and coordination already achieved between tribes and various partners – both regionally and nationally. One national priority is obtaining additional stable funding for all tribal air program related activities. This need will only be met by fostering more partnerships with agencies other than the USEPA.
- **Visibility and Regional Planning Organizations**

- Restore full funding to the Regional Planning Organizations (RPO's).
- **Tribal Air Program Development**
 - Respect and support the sovereign authority of tribes and Alaska Native Villages to determine their own priorities for air quality program development. EPA should not treat tribes with a one-size-fits-all approach. Different tribes have different air quality concerns and program needs and EPA should seek to collaboratively develop work plans and grant funding to address those concerns.
 - Five-year incremental Clean Air Act (CAA) funding increase to \$30 million is needed to meet existing national tribal air need in Indian Country (\$21.3M in 2010)
 - \$4.5 million is needed for tribes to implement permit programs under the recently enacted Tribal New Source Review, PSD, and Title V rules.
 - Most Tribes located in non-attainment areas find that the non-attainment status is caused largely by off-reservation sources. These tribal programs often do not have adequate training and capacity to interact with the regulating jurisdiction and comprehend respective data affecting their air. Increased funding is needed for data analysis & technical tools trainings.
 - Increase CAA grant funding for smoke, smog, soot, road dust, mercury, and air toxics.
 - Expand funding for tribal air pollution monitoring networks to maintain and enhance the nationwide network for particulate matter, ozone, SO₂, NO_x, lead, ammonia, and air toxics.
 - Create new CAA set-aside funding for FARR program implementation in EPA Region 10.
 - Increase funding for tribes to receive Federal inspector credentials certification and conduct inspection work under the CAA and the FARR.
 - Seek permanent authorization of Direct Implementation Tribal Cooperative Agreements (DITCAs) and establish a set-aside fund for DITCAs.
 - Restore funding levels for administrative, civil, and criminal enforcement of the CAA to their historic levels prior to Bush administration cuts.

THE NATIONAL TRIBAL AIR ASSOCIATION (NTAA)

The NTAA is a tribal membership organization. The NTAA is an autonomous organization affiliated with the National Tribal Environmental Council (NTEC). The NTAA's mission is to advance air quality management policies and programs, consistent with the needs, interests, and unique legal status of federally recognized sovereign tribes.

The goals of the NTAA are:

- To advocate and advance tribal environmental, cultural, and economic interests in the development of air policy 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 and scientific and medical studies.
- To advance the recognition and acceptance of tribal sovereign authority by conducting effective communication and outreach to state, local, federal, and international agencies, and the general public.
- To encourage and support appropriate consultation with all tribal governments in accordance with tribal structures and policies.

INTRODUCTION

THE ROLE OF TRIBAL GOVERNMENTS IN PROTECTING AIR QUALITY

The role of tribal governments in environmental protection is little understood by most Americans. Most citizens are aware that the federal government has assumed a critical role in the protection of the nation's environment, through such landmark legislation as the Clean Air Act (CAA), Clean Water Act (CWA), Endangered Species Act (ESA), and National Environmental Protection Act (NEPA), and through the actions of the United States Environmental Protection Agency (USEPA) and other federal agencies. There can be little doubt that most individuals – including many in the environmental professions – are largely if not completely unaware of actual and potential roles played by tribal governments in this area.

Tribal governments possess a unique legal status in the American system of federalism. Tribal governments are third sovereigns, along with the individual states and the United States. The parameters of this sovereignty, as a matter of federal law, have been determined through the complex, vacillating, and often contradictory action of the three branches of the US Government. Fortunately, when it comes to protecting air quality, Congress has provided a clear authorization for tribes to regulate under the authority of the CAA.

The 1990 Amendments to the CAA, section 301(d) authorized EPA to treat Indian tribes “as States” under the Act, and required EPA to issue a rule by June 15, 1992 specifying the provisions of the Act for which it was appropriate to treat tribes as states. The EPA complied with this requirement in February of 1998 by finalizing the “Tribal Authority Rule” (TAR). In essence, the TAR provides that tribes may be treated in a manner similar to states for virtually all provisions of the Act, but on an optional basis. Therefore, implementation deadlines and sanctions do not apply. Instead, tribes are authorized to obtain delegation of federal authority to implement CAA programs, or parts of programs, as appropriate to the priorities, goals and objectives of independent tribes/governments. The TAR is one of the strongest examples of tribal government's ability to assert the right of sovereignty and self-determination.

From a tribal perspective air quality is about the protection and preservation of culture, environment (ecosystem) and public health. In a tribal framework it makes just as much sense to protect existing pristine air sheds as it does to clean up air sheds with poor air quality. This perspective coupled with their unique sovereign status makes tribes strong allies for the USEPA in protecting and improving the air quality of the nation.

Today tribes are engaging in a wealth of programs to improve air quality and provide public education on air quality concerns.

Many tribes are pursuing programs that implement activities to protect the health and welfare of their communities and citizens. These include network monitoring efforts; monitoring for visibility, as well as for pollutants such as ammonia and mercury; wet and dry acid deposition; smoke management programs, often conducted in cooperation with air quality agencies in surrounding states; indoor air quality programs, addressing issues like environmental tobacco smoke and mold; replacing woodstoves with much cleaner new models; and many tribes have tested homes in their communities for radon and one tribe has implemented a diesel retrofit program

The EPA and tribal governments have also successfully collaborated in the past to provide lower emitting diesel vehicles and school buses to tribal nations. The Diesel Emissions Reduction Program (authorized by Title VII, Subtitle G Sections 791 to 797 of the Energy Policy Act 2005) enables EPA to offer awards to eligible organizations and entities to fund projects that achieve significant reductions in diesel emissions from on-highway or non-road sources.

In 2008, the work of tribal air quality programs could be summarized as follows:

- Out of 564 federally recognized tribes and Alaska native villages, only 98 tribes were receiving air grant support;
- 68 tribes were monitoring air quality and reporting data to EPA's Air Quality System;
- 25 tribes are implementing programs to address toxic air pollutants
- 1 tribe completed a diesel retrofit project, and 2 others undertook other projects to address diesel emissions
- 11 tribal governments and organizations participate in the "Communities in Action for Asthma Friendly Environments" Network.
<http://www.asthmacommunitynetwork.org/communityprofiles.aspx>
- 3 tribes received grants to assess radon gas in homes, and 16 tribes participated in the radon testing program to evaluate radon levels in tribal housing
- 38 tribes have completed inventories of emissions sources on their reservations; and
- Over 50 tribes participated actively in [Regional Planning Organizations](#).⁶

In addition, 31 tribes have [received eligibility determinations \(TAS\)](#) under the Tribal Authority Rule; two tribes have been approved to implement TIPs to address air quality issues on their reservations, with several more under development; and, one tribe has received permission (under Clean Air Act Part 71) to implement a Title V operating permit program for their reservation.

⁶ U.S. EPA Tribal Air website/basic information <http://www.epa.gov/oar/tribal/backgrnd.html>

More tribal environmental professionals receive training in various aspects of air quality management and take further steps toward the development of comprehensive tribal air quality programs with each passing year. In addition, tribal officials and the [National Tribal Air Association](#) continue to participate on the national level through policy workgroups and advisory committees.

DISPROPORTIONATE HEALTH IMPACTS TO TRIBES FROM AIR POLLUTION

The broad effects of global climate change directly affect tribal life-ways, particularly as it relates to subsistence resources. Tribes that rely heavily on subsistence resources have been addressing current impacts from climate change with non-USEPA funding, for those tribes any new funding from USEPA will help them participate in this important policy development.

The burning of fossil fuels and energy development plays a major role as a contributor to air pollution. However, the development of energy resources on or near tribal lands can also offer economic benefits. Therefore, energy policies and emission control technologies along with sustainable/renewable energy development affect tribes.

Health statistics demonstrate that tribal members are affected at a disproportional rate by several health conditions which are worsened with exposure to poor air quality. Furthermore, the negative impact poor air quality has on the biodiversity of ecosystems directly threatens tribal culture.

Tribal populations currently have the highest rate of asthma of any single ethnic group⁷, which is exacerbated by air pollution, both ambient and indoor. Furthermore, adult American Indian/Alaska Natives have a rate of diabetes that is twice that of the general US adult population⁸, which places them in a high-risk group related to exposure of PM according to the American Lung Association. A Harvard School of Public Health article has showed that people with diabetes have twice the risk of heart and lung disease associated with increased PM₁₀ levels⁹. Given these disparate health impacts impacting tribal communities, it is necessary that tribes have accurate and timely data on their air quality in order to protect their communities.

7 Center for Disease Control, "Asthma Prevalence and Control Characteristics by Race/Ethnicity --- United States, 2002" published Feb. 27, 2004. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5307a1.htm>

8 Center for Disease Control, "Diabetes Prevalence Among American Indians and Alaska Natives and the Overall Population --- United States, 1994—2002" <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5230a3.htm>

⁹ Am J Respir Crit Care Med Vol 164. pp831-833, 2001 www.atsjournals.org

TRIBAL AIR ISSUES

ENERGY AND CLIMATE CHANGE

Today the issues surrounding global climate change and energy resources are impacting the world. Tribes are not excluded from the impacts of climate change, nor are they immune to the numerous issues surrounding energy development. Currently tribes across the country are witnessing the direct impact of a global climate shift. Furthermore, tribes are directly impacted by the current energy development in the United States.

Tribal lands are a significant source of the United States' non-renewable energy resources. Roughly ten percent of the nation's total coal reserves and a third of its low-sulfur coal lie beneath Native American soil. Oil is also found in substantial quantities on several reservations and under some Alaska Native corporation lands. And, nearly one-sixth of America's natural gas reserves may lie under Indian land. Further, more than half of America's uranium is on Indian land.¹⁰

Energy development/production and the burning of fossil fuels are at the center of national air quality and climate change concerns. The impacts of energy development and production and burning of fossil fuels vary from tribe to tribe. Tribal lands and lands adjacent to tribal boundaries are energy rich. The energy source on or near tribal lands can be a renewable source or non-renewable source. The development of non-renewable energy resources on tribal lands can provide economic opportunity for tribes, as well as, providing utilities to tribal and non-tribal members.¹¹ For other tribes the development of energy resources near tribal lands can cause ecological, cultural, and public health concerns for a tribe. The mining, transport, processing, storage, and burning of fossil fuels all result in air quality concerns and potential risks. While Tribes must be allowed to exercise their sovereign right to develop any energy resource – renewable or non-renewable, they tribes must also be given the resources needed to protect their culture, their ecosystems (air sheds), and public health within tribal boundaries from air quality concerns resulting from energy production and development. Exercising the rights granted by the 1990 Clean Air Act Amendments and the Tribal Authority Rule (TAR) lay the framework for tribes to achieve this.

¹⁰ Utter, Jack, *American Indians: Answers to Today's Questions*, 1993, National Woodlands Publishing Company, Lake Ann, Michigan.

¹¹ The 2005 U.S. Energy Act allowed for tribes to receive 100% of royalties from the selling of energy resources. Prior to this Act, tribes received only a percentage of the value of any mineral or fossil fuel and the federal government received the remaining amount.

ALTERNATIVE ENERGY

Alternative energy research and development is paramount to ensure clean air, healthy ecosystems, healthy communities, and continuation of tribal culture. Tribal communities have demonstrated they are active participants in alternative energy. The size of some tribal land bases and the large amount of renewable resources on tribal lands make tribes logical locations for renewable energy products. Wave energy, solar, wind, biomass, agriculture residue, and algae are just some of the examples of tribal renewable/alternative energy projects that are underway. The potential for tribes to be self-sustaining in renewable energy production is real for many tribes. Further, some tribes have the potential to be major contributors to national energy production. According to the [National Renewable Energy Laboratory](#), tribal lands have the potential to provide more than 200 gigawatts of wind energy, enough to meet 25 percent of U.S. electricity demand.¹² Furthermore, tribes have the potential to connect individual alternative energy projects into a larger grid of renewable energy.¹³ Education and further research and development are needed to look at the potential benefits (both economical and ecological) of renewable energy development on tribal lands.

Recommendations:

- Tribal lands contain a significant amount of the nation's oil, natural gas, low sulfur coal, and uranium. Development of these resources requires the building of tribal capacity to adequately prevent harm to health and the environment.
- Provide education and conduct research to look at the potential benefits (both economical and ecological) of renewable energy development on tribal lands and provide funding to tribes for implementation.

CARBON SEQUESTRATION

About one-fourth of all Indian reservation lands, or nearly 52,000 km² (over 12.8 million acres), have some kind of forest cover. Almost a third of the forest land is considered to be of "commercial" quality, which means it is theoretically capable of growing timber at a volume that can be harvested for a profit on a renewable basis (Bureau of Indian Affairs 1992a)¹⁴

¹² <http://www.worldwatch.org/node/5298>

¹³ Tribes in New Mexico are discussing the potential of connecting all the various tribally-owned renewable energy projects into one large renewable energy grid. The end result would allow for energy consumers a choice to buy their energy from a tribal owned renewable energy collective.

¹⁴ Utter, Jack, American Indians: Answers to Today's Questions, 1993, National Woodlands Publishing Company, Lake Ann, Michigan.

Tribes have been engaged in the sustainable harvest of their forest resources and many are engaged in carbon sequestration programs. Tribes participate in both terrestrial and non-terrestrial carbon sequestration programs. Furthermore, tribes are engaged in the development of policy and research to further advance carbon sequestration. Several tribes are using sequestration to achieve a zero carbon footprint for the entire tribe. However, more work is needed to engage tribes in such programs and decision making processes.

Recommendations:

- With nearly 13 million acres of forests, tribes can make a significant contribution to the sequestration of carbon. Education and outreach to tribes is required so that they can effectively participate in any national carbon trading program.

SUSTAINABILITY

Finally energy development must find a level of sustainability that currently does not exist. It is the principle of sustainability that makes renewable and alternative energy so promising to tribes. Traditionally some tribes follow a seven generation principle – this is where a decision or outcome of an action is weighed based upon the impact of people seven generations from now.¹⁵ When using the seven generation principle fossil fuel development does not seem to be a long-term solution. However, sustainability is defined differently too many. With respect to sustainable energy development it is up to the tribes to define exactly what this term means to them.

Recommendations:

- Energy development must find a level of sustainability that currently does not exist. It is the principle of sustainability that makes renewable and alternative energy so promising to tribes.

CLIMATE CHANGE

There is a great diversity of culture among Native American tribes due to unique histories and the close connection between any given tribe and its particular geographic location. The effects of climate change vary greatly from bioregion to bioregion due to varied geography, hydrology, and other factors. Therefore, each tribe will be affected by climate change differently. One thing is for certain; all tribes will be impacted by a global climate change. For some tribes the impacts of climate change are dire today. Three Alaskan Native Villages are facing relocation due to climate change within the next four years. At the same time drought driven by climate change has dramatically impacted tribes who live

¹⁵ Seven generations equals 175 years.

in the arid southwest and southeastern portion of the country. Tribes who rely upon wild game, fish, and harvesting of wild plants are also seeing negative impacts to ecosystems, culture, and public health as a result to global climate change.

Whatever the next steps this country takes with respect to climate change, tribes must be an active partner in policy development and continued research of climate change. Funding is needed to study the impacts of climate change, enforce current and future regulations which protect air quality, and for adaptation due to a changing climate. It is safe to say tribes will be impacted greatly by climate change due to the link between culture and the environment. Climate change will alter tribal ways of life that have existed since time immemorial.¹⁶ Action is needed from the legislative and executive branch to address climate change and reduction of greenhouse gas emissions.

Recommendations:

- Any regulatory action taken by the EPA must be preceded by sufficient government-to-government consultation between the Agency and the nation's Indian tribes
- Indian tribes should not have the same burden to reduce GHG emissions as states, as tribes have historically not been the major contributors of GHG emissions; and they often have limited staff to address environmental issues facing their respective communities - i.e., climate change will add to their already heavy burden
- Provide resources to Tribes to compile GHG emissions inventories, conduct GHG emissions modeling, and monitor GHG emissions
- The EPA should provide incentives to Indian tribes to develop and deploy new technologies to tribal communities and their respective sources to reduce and mitigate the impacts of GHG emissions such as incentives for energy efficiency and renewable energy development
- For any forthcoming regulatory action, specifically a cap-and-trade program, ask that the EPA make a tribal set-aside of allowances available
 - A tribal set-aside would help insure that tribes have some degree of the necessary resources to address climate change impacts affecting their communities
 - Indian tribes need to be provided with a fair and socially-responsible apportionment of allowances (e.g., equity)
 - Indian tribes should not be required to have treatment-as-a-state status in order to have access to the tribal set-aside of allowances
 - The EPA should provide Indian tribes with direct monies as a result of the Agency auctioning off the allowances because most tribes lack the expertise, experience and administrative capacity to manage and

¹⁶ This includes fishing, hunting, farming, and gathering of wild plants and medicines, as well as traditional ceremonies.

- sell allowances, and requiring tribes to convert allowances into money could cause unnecessary delays in their efforts to address climate change impacting their communities
- Indian tribes should have a certain degree of discretion in how they use their allowances or monies to address climate change impacts; such activities might include promotion of energy efficiency and investment in renewable energy development
 - Any regulation of sources for GHG emissions means increased economic and administrative burdens to tribal sources as well as tribal permitting authorities; EPA should therefore provide tribes with the necessary resources to manage these burdens
 - Regulating GHGs under Section 108 as a NAAQS would mean that Indian tribes would likely be included under a federal implementation plan which would allow their sources little leeway in how to comply with the NAAQS, and if the country was placed in non-attainment, tribes would not have the option to be excluded as they have done in the past for PM 2.5 and ozone
 - Smaller sources regulated for GHGs under the Title V program would be subject to fees imposed on them by permitting authorities to run the program; this would place an undue financial burden on a number of tribal sources, both major and minor, and also on tribal permitting authorities if the CAA does not end up allowing them to impose fees for GHG emissions.
 - Consult with tribes and Alaska Native Villages at a government-to-government level in rule promulgation, program development, and implementation of climate change work, including greenhouse gas (GHG) assessments, monitoring, emissions credits and trading programs, planning, impact assessments, mitigation, and relocations.
 - \$3 million dollars is needed to enable tribes to fully participate in the development and implementation of Climate Change programs, including grant assistance to conduct tribal greenhouse gas inventories or to participate in regional inventory efforts.
 - Make climate change a priority, and fully support voluntary and complimentary mitigation programs for and designed by tribes and Alaska Native Villages.
 - Restore and expand support for tribal science programs, including a regional assessment, research on adaptation, lifecycle assessment, mitigation technologies, and permitting of sequestration.
 - Support clean affordable energy projects and transmission development for tribes and Alaska Native Villages.

CULTURE, ECOSYSTEMS, PUBLIC HEALTH

A common mission of tribal air programs is to preserve and protect the culture, ecosystems and public health of the tribal communities. From a tribal perspective, preservation of a tribe's culture through improved air quality is just as vital as improved public health. In many cases a tribe's culture is directly linked to their environment. Therefore, poor air quality results in the potential for tribal culture to degrade. An example of this can be found in tribes whose cultural identity is tied to subsistence fishing. Most fresh water sources are polluted with mercury and other toxins so that it is no longer safe to consume subsistence levels of fish. The loss of consumable fish due to bioaccumulation of mercury from air pollution is a good example of a tribe's culture being impacted by air quality.

TOXIN BIOACCUMULATION

Air toxics are hazardous air pollutants that may cause cancer, birth defects, or other serious health problems. Under the Clean Air Act (CAA) Amendments of 1990, EPA is required to regulate emissions of 188 hazardous air pollutants. These pollutants can come from a variety of sources including point sources, area sources, indoor air sources and mobile sources. EPA is working in partnership with state, local and tribal authorities to reduce the emission of hazardous air pollution from all sources in order to better protect public health, the environment, and tribal culture.

The bioaccumulation of air toxics poses an increasing concern for tribal communities and ecosystems. The threat is two-fold. Toxins can bioaccumulate within a person and pose potential risk. In addition, the bioaccumulation of toxins in the food chain can impact human health by consumption of those contaminated food sources. Furthermore, the bioaccumulation of toxins can impact tribal culture through traditional practices such as basket weaving and making pottery. Science has demonstrated that the bioaccumulation of toxics is a serious health concern, but research is needed on the potential risks and impacts exposure to a cocktail of toxins can pose on tribal communities and environments.

Mercury is an air toxic pollutant that is of particular concern to tribes. Mercury consumption is a health concern among those tribes whose traditional diets include large amounts of fish, waterfowl, medicinal plants, moose and other land animals. Such diets have not been adequately considered by the USEPA in the process of addressing emissions standards for mercury. For example, in developing its recent rule for mercury emissions from power plants, EPA considered two segments of the population to be relevant to its analysis: recreational anglers, and "high level" consumers such as some Native American and other ethnic populations. In calculating the risk to these groups, USEPA used maximum fish consumption levels of 25 g/day for anglers and 170 g/day for high consumers. However, even this "high level" number may be far from adequate for some

tribal populations. For example, a survey of Great Lakes area tribes produced a range of 189.6 to 393.8 g/day, and the Minnesota Chippewa Tribe has adopted 227 g/day as its treaty-protected subsistence quantity.

Many tribes are in the midst of assessments of mercury levels in their water, fish, and wildlife. In general, however, there is marked absence of mercury deposition data in the western U.S., where the majority of the tribal land base exists. Because dry deposition monitoring techniques are not as developed as wet deposition techniques, data is particularly lacking in the southwest, where dry deposition predominates. Acquiring more deposition and health effects data is a priority for tribes in the years to come. Other toxics of concern include residential wood smoke, diesel emissions, and sources that are off-reservation.

Recommendations:

- \$3 million is needed to increase mercury deposition monitoring.
- Diesel Retrofit – Congress has recently passed legislation that would triple existing funding for diesel reduction/retrofit programs. To ensure that tribes have effective access to this funding, EPA could fund 3-4 “Diesel Retrofit Boot Camps” (developed by WRAP) specifically for tribes. These 3-day workshops provide all of the information required to create effective grant applications for these funds. To ensure tribal participation, travel funds should be included in the costs. Estimated costs: \$50K per workshop (approx 30 participants per) for a total of \$150 - \$200K.
- Expand research on international transport and atmospheric deposition, including research on affects of atmospheric deposition of chemicals in the food chain of tribal subsistence foods and treaty-reserved lands.
- Clean up dirty diesel engines in trucks, buses, and ships.
- Adopt protective cancer risk policies for all future hazardous air pollution rules and revise recent rules that allow excessive cancer risk.
- Reverse loopholes for toxic emissions from solid and hazardous waste incineration.
- Propose deep toxic reductions from industrial boilers.
- Require protective controls and monitoring for the numerous, smaller sources of toxic air pollution.
- Require greater continuous monitoring and reporting of air pollution from industrial polluters.
- Work with the tribes and Alaska Native Villages to implement a Mercury Strategy through characterization of fish water and sediment levels, characterization and control of regional mercury sources, and public education and outreach.
- EPA should propose rules requiring SO₂ and NO_x reductions from power plants sufficient to deliver clean air to all. EPA should also propose rules to

achieve deep reductions in all hazardous air pollution from power plants, including mercury.

ALASKA

Alaska has 229 federally recognized sovereign tribes, one of which is a reservation. With that, 228 tribes in Alaska aren't eligible for the many funding opportunities such as a 103 air grant. While there are many issues pertaining to air pollution in Alaska Native Villages, the leading air pollution problem within rural Alaska is fugitive dust. Tribal populations suffer from high rates of asthma and respiratory problems and elders and children suffer the most. There are currently many new proposed developments in mining and oil and gas, which is of deep concern because of the ties between the old mine sites and poor health in the surrounding communities.

Persistent Organic Pollutants (POPs) have been found in many traditional subsistence foods, and have become a major cause for concern. The traditional diet is 75% subsistence, and Alaska Natives would like to keep their traditional life ways environmentally healthy for the next 7th generations to come. Local air conditions such as winter inversions greatly increase the exposure of diesel emissions (which often run 24 hours a day to prevent freezing). Forest and tundra fires are increasing every year due to warmer weather and increased thunder and lightning.

Tourism industries have a huge effect in the southern part of Alaska due to cruise ships emitting vast amount of plumes of black smoke from the ships.

Air quality concerns are greatly exacerbated by the use of non-EPA certified woodstoves and burn barrels, which are often the only recourse when presented with the prohibitive costs of heating oil and diesel fuel in the rural villages. Many communities rely on diesel power generators, which are often the only source of electricity within the village, and these generators often run 24 hours a day, with corresponding emissions.

Alaska Native Villages are unique because they are at the forefront in suffering the effects of climate change, which has already resulted in the relocation of several villages away from eroding coastlines and may requires the relocation of up to 40 more, at a cost of hundreds of millions of dollars.

Under the Clean Air Act, the 228 federally recognized sovereign tribes are not eligible to apply for funding because they do not have reservations, and the State of Alaska does not recognize our tribes. Without federal funding, Tribal Air Programs will be nonexistent in Alaska.¹⁷

¹⁷ Also refer to <http://www.alaskaconservationsolutions.com/acs/about-us.html>

Recommendations:

Implement strategies to mitigate human health impacts from road dust and toxics in Alaska Native Villages.

INDOOR AIR (PM AND TOXICS)

More often than not when we speak of air quality we think of ambient (outdoor) air quality concerns. However, national studies by the American Lung Association and other organizations reveal that the average American spends 95% of their time indoors.¹⁸ Evidence indicates that impacts from poor indoor air quality may exceed that of ambient air and the risks of tribal communities are greater than for the general population. Therefore, it is no surprise that indoor air quality is a major concern for tribes. Indoor air quality concerns result from both exposure to toxics, including mold, and particulate matter (PM).

One example of an indoor air quality concern is the use of woodstoves for heating. Many Tribal members use wood burning devices – often older, non-EPA certified wood stoves and fireplace inserts – as a significant source of heat in their home, and are routinely exposed to wood smoke from both indoor and outdoor air. For example, about 95% of the Makah Tribe’s members living on or near the reservation burn wood to heat their homes, which yields approximately 35 tons of particle pollution into their air shed. Wood smoke contains several air pollutants including greenhouse gases, toxins, and particulate matter, and is a health risk to tribal peoples, particularly those who suffer from asthma; chronic bronchitis and emphysema, coronary artery disease, and heart failure are at greater risk. A tribal wood stove change-out program would enable Tribal members to replace their old, dirty burning, non-certified wood stove with a new, clean burning EPA-certified wood stove (those made after 1992) or a pellet stove. Furthermore, a Tribal wood stove change-out program also would address energy concerns for Tribal communities, as new, clean burning USEPA-certified wood stoves are 50% more efficient and use 1/3 less wood than older stoves, as well as allow offer diverse options of fuel sources, including: wood, wood pellets, non-wood pellets, corn, and agriculture waste. A study found that a wood stove change-out to new USEPA-certified wood stoves reduced indoor and ambient particle pollution (PM_{2.5}) by 72% and is equivalent to taking five (5) old diesel buses off the road. Woodstove change-outs are an example of a reduction program that is practical and with proven results. At least ten (10) tribes have participated in a woodstove change-out program.

¹⁸ http://www.time.com/time/specials/2007/article/0,28804,1674995_1683300,00.html

Mold also poses a concern for indoor air quality in tribal communities. Black Mold has been found in over 15% of tribal homes¹⁹. In some tribes, the frequency rises to above 75%²⁰. While addressing the structural repairs (estimated costs: approx. \$100M) may be beyond the USEPA's scope, there is still a role for the USEPA to provide funding for tribal air programs to help educate their members on the relationship between mold and asthma, and proper remediation techniques.

Radon is another indoor air quality issue which tribes carry out educational and mitigation programs.²¹

Indoor air quality issues are made more complex due to the lack of building codes in many tribal communities and the average composition of a tribal home differs from that of a non-tribal home, or "typical American home".

Recommendations:

- Up to \$10 million is needed for a tribal woodstove change-out program.
- Increase funding for assessment and mitigation of the indoor air quality problems affecting human health: wood burning, diesel generators, moisture and mold, and asbestos, radon and lead. Initiate an inter-agency collaborative effort develop permanent solutions to these tribal indoor air quality issues (BIA, IHS, USDA, HUD, EPA).

DATA EVALUATION

There is a significant deficiency in available data for air quality within tribal air sheds. For example the Western Regional Air Partnership (WRAP) conducted a study of IMPROVE air monitors in the Western United States and how representative they were for tribal air quality. The study found that the IMPROVE monitors were not representative of the air quality for nearly 20% of the tribes in West. This is a major concern for tribes across the country. The fact is, an unknown number of tribes do not know whether their air quality is good or bad. Strengthening research and analysis of tribal air sheds is needed to provide the baseline analysis which is needed for long term air quality studies. Furthermore, due to limited staff and resources, some tribal programs have stated that it is difficult to analyze the data that is available. The NTAA does believe that an increase in representative analysis (of air monitors) and other data evaluation and health based studies are need so that all tribes can know what their air quality is.

¹⁹ U.S. Department of Housing and Urban Development (HUD), *Mold and Moisture Problems in Native American Housing on Tribal Lands: A Report to Congress*

²⁰ See Article in Indian Country Today re: Blackfeet Tribe

²¹ Contact Evelyn Martinez, Taos Pueblo for more information/data.

While there are relatively few sources of air pollution located on tribal lands, tribal populations quite often live in close proximity to major sources, i.e.

- 55.4% of tribal populations lives within 50 miles of major mercury sources;
- 82.3% live within 50 miles of major NO_x sources; and
- 65.8% live within 25 miles of PM₁₀ point sources²²

Currently, more and more tribes are facing increased pollution from the development of energy resources and power plants on or near their lands. This plus the factors listed above make it imperative that the funding for tribal air programs be increased.

Recommendations:

- \$250,000 is needed for a project to conduct a representative analysis of the existing tribal and non-tribal air monitoring networks to identify those tribes which do not currently have a source of air monitoring data relevant to their lands.
- Continue funding for TEISS. To keep tribal data current regarding Emissions Inventories of GHG's, one effective tool would be the continued promulgation of the TEISS software to tribes. Lakes Environmental has recently advanced an estimated cost of \$59,000 to include GHG's into the TEISS software, and ITEP has proposed a 3-year, \$330K program to continue technical support for tribes using TEISS, additional TEISS trainings for tribes, and data reconciliation of tribal and state data.

WORKING EFFECTIVELY WITH PARTNERS

To build upon the progress to date, tribes have stated that it is critical to maintain the good working relationships and coordination already achieved between tribes and various partners – both regionally and nationally. One national priority is obtaining additional stable funding for all tribal air program related activities. This need will only be met by fostering more partnerships with agencies other than the USEPA.

Agencies like Indian Health Services and the Center for Disease Control should become more active in assisting tribal air programs. Native American Housing Authority could provide more assistance on energy efficiency and indoor air quality concerns. Furthermore, the potential for tribes to develop partnerships with state and local governments, along with non-governmental organizations (NGOs) is great. Tribal involvement in RPO's has demonstrated such potential. Tribes have also participated in multi-partner grant programs like JTAP.²³

²²Source: Institute for Tribal Environmental Professionals, 2006

<http://www4.nau.edu/itep/resources/maps.asp>

²³ JTAP is a joint toxic air program that comprises of two tribes and the county, city, and state.

Recommendations:

- To build upon the progress to date, tribes have stated that it is critical to maintain the good working relationships and coordination already achieved between tribes and various partners – both regionally and nationally. One national priority is obtaining additional stable funding for all tribal air program related activities. This need will only be met by fostering more partnerships with agencies other than the USEPA.

VISIBILITY AND REGIONAL PLANNING ORGANIZATIONS

Because of national visibility concerns and the need to address certain air issues at a regional level, Regional Planning Organizations (RPO's) were created. Regional air issues have been a longstanding issue with tribes, and tribes have, therefore, actively engaged in the various RPO's throughout the country.

Tribes have a clear need for addressing air quality issues on a regional basis. Tribes across the country are faced with many air quality issues that involve long-range transport of air pollutants, including particulate matter, nitrogen deposition/critical loads, mercury and other air toxics, and ozone, as well as regional haze. The results of long-range transport of air pollutants contribute to unhealthy ecosystems and public health, as well as threaten tribal culture. Tribes must address these issues with state, federal, and local partners because (a) tribes do not have the resources to conduct the regional modeling, monitoring, and emissions inventory work needed to conduct this type of regional analysis, and (b) many of the sources of the emissions that impact tribal populations are not located within tribal jurisdictions, necessitating an ongoing dialogue with regional partners that can regulate these sources.

Benefits for tribal participation in RPO's include:

- Opportunities to shape federal, state and tribal regulations regarding air quality.
- Opportunities to interact with federal, state and tribal officials to learn what new developments or technologies are becoming available.
- Opportunities to make a difference at a local and a regional level.

Even though states are in the final process of developing State Implementation Plans (SIPs) for regional haze, regional haze and other regional air quality issues will continue to be major issues for tribes in various locations throughout the country. Continued support and continuation of RPO's is viewed as a need for tribes. The RPO process has fostered many partnerships and collaborative processes between tribes, states, locals, and federal governments, as well as with non-governmental organizations (NGO's).

Recommendations:

- Restore full funding to the Regional Planning Organizations (RPO's).

TRIBAL AIR PROGRAM DEVELOPMENT

Development of tribal air programs with the capacity and ability for regulatory authority is the pinnacle achievement under the TAR. The ability to function exactly in the same capacity as a state air program is a realistic objective for some tribal air programs. Currently, some tribal air programs throughout Indian Country are exercising this right, but much more work and resources are needed to allow more tribes to continue such work. Currently two tribes have had Tribal Implementation Plans (TIPs) approved and implemented. Both the Southern Ute Tribe and the Navajo Nation have been delegated authority for Title V sources on their reservations. The Gila River Indian Community has developed a comprehensive Air Quality Management Plan that is awaiting the USEPA's approval.

Tribe can also take on federally-delegated authority to administer EPA programs, similar to states. Three tribes have implemented programs under delegated authority from EPA using the Direct Implementation Tribal Cooperative Agreement (DITCA) mechanism: the Confederated Tribes of the Umatilla Indian Reservation, the Nez Perce Tribe, and the Navajo Nation.

Tribes also implement numerous programs outside of TIPs or delegations to protect the health and welfare of their communities and citizens.

There is an increasing role taken on by tribal governments in reviewing and commenting on USEPA's rulemaking and standards review. This involvement and any subsequent implementation of rules require funding and resources. USEPA's court-ordered mandate to review all of its air regulations every five (5) years creates a tremendous ongoing demand on tribal air program resources. For example, many tribes were involved in reviewing the proposed National Ambient Air Quality Standards (NAAQS) for Ozone. In FY 2007, USEPA initiated the review of the Ozone NAAQS. In FY 2010, additional resources will be needed to assist tribes to continue to participate in rule development and implementation.

Recommendations:

- Respect and support the sovereign authority of tribes and Alaska Native Villages to determine their own priorities for air quality program development. EPA should not treat tribes with a one-size-fits-all approach. Different tribes have different air quality concerns and program needs and EPA should seek to collaboratively develop work plans and grant funding to address those concerns.

- Five-year incremental Clean Air Act (CAA) funding increase to \$30 million is needed to meet existing national tribal air need in Indian Country (\$21.3M in 2010)
- \$4.5 million is needed for tribes to implement permit programs under the soon to be/ recently enacted Tribal New Source Review, PSD, and Title V rules.
- Most Tribes located in non-attainment areas find that the non-attainment status is caused largely by off-reservation sources. These tribal programs often do not have adequate training and capacity to interact with the regulating jurisdiction and comprehend respective data affecting their air. Increased funding is needed for data analysis & technical tools trainings.
- Increase CAA grant funding for smoke, smog, soot, road dust, mercury, and air toxics.
- Expand funding for tribal air pollution monitoring networks to maintain and enhance the nationwide network for particulate matter, ozone, SO₂, NO_x, lead, ammonia, and air toxics.
- Create new CAA set-aside funding for FARR program implementation in EPA Region 10.
- Increase funding for tribes to receive Federal inspector credentials certification and conduct inspection work under the CAA and the FARR.
- Seek permanent authorization of Direct Implementation Tribal Cooperative Agreements (DITCAs) and establish a set-aside fund for DITCAs.
- Restore funding levels for administrative, civil, and criminal enforcement of the CAA to their historic levels prior to Bush administration cuts.

CONCLUSION

The National Tribal Air Association would like to thank you for taking the opportunity to review this document. We hope the document has provided informative information on the work federally recognized American Indian Tribes and sovereign Alaskan Native Villages are doing with respect to Clean Air Act programs. While tribes have made great strides in program development and implementation more work is needed to be done.

The National Tribal Air Association would like to thank its Executive Committee and members for reviewing and providing input for this document. The NTAA would also like to thank the staff at the Institute for Tribal Environmental Professionals at Northern Arizona University for providing assistance, and to the staff at U.S. EPA OAR and OAQPS for their input.

APPENDIX A – ACRONYMS USED

- BIA Bureau of Indian Affairs
- CAA Clean Air Act
- CDC Center for Disease Control
- CWA Clean Water Act
- DITCAs Direct Implementation Tribal Cooperative Agreements
- EPA Environmental Protection Agency
- ESA Endangered Species Act
- FARR Federal Air Rules for Reservations
- GHG greenhouse gas
- HUD Housing and Urban Development
- IHS Indian Health Service
- ITEP Institute for Tribal Environmental Professionals
- JTAP Joint Toxics Assessment Program
- NAAQS National Ambient Air Quality Standards
- NEPA National Environmental Protection Act
- NGOs non-governmental organizations
- NO_x nitrogen-oxide
- NTAA National Tribal Air Association
- NTEC National Tribal Environmental Council
- OAQPS Office of Air Quality Planning and Standards
- OAR Office of Air and Radiation
- PM particulate matter
- POPs Persistent Organic Pollutants
- PSD Prevention of Significant Deterioration
- RPO Regional Planning Organization
- SIP State Implementation Plan
- SO_x sulfur-oxide
- TAMS Tribal Air Monitoring Support (Center)
- TAR Tribal Authority Rule
- TAS Treatment as a state
- TEISS Tribal Emission Inventory Software Solution
- TIP Tribal Implementation Plan
- USDA United States Department of Agriculture
- USEPA United States Environmental Protection Agency
- WRAP Western Regional Air Partnership