

Conducting an Emissions Inventory for a Traditional Haudenosaunee Territory.

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ABSTRACT

The Tuscarora Nation Territory comprises a tract of 6,429 acres located within western New York State. Prevailing winds come towards the territory from the west and southwest, past the cities of Niagara Falls and Buffalo. These cities and their surrounding areas have long industrial histories and a significant number of Major and Minor Sources, which could be adversely affecting the Tuscarora Nation. The Tuscarora Nation Council requested that the Tuscarora Environment Program conduct an Emissions Inventory of Nation territory and of any Major Sources within a ten-mile radius, with the knowledge that there is a responsibility when it comes to the natural environment.

Representing seven clans, a traditional Council of Chiefs and Clanmothers govern the Tuscarora Nation, these are lifelong positions chosen by the clans. The Tuscarora Nation and other traditional councils within the Haudenosaunee Confederacy have a long history of non-interference with the United States that dates back to the making of the Guswenta or Two-Row Wampum. This treaty was first made with the Dutch, and each subsequent sovereign, and represents our two vessels or Nations travelling along a parallel path in mutual respect, friendship and peace and neither vessel will attempt to steer or alter the other's course.

The Tuscarora Environment Program is an affiliate of the Haudenosaunee Environmental Task Force (HETF). The HETF was formed as a consortium in 1992 to help the Nations of the Haudenosaunee Confederacy fulfil their environmental responsibilities. It is comprised of delegates from each Nation committed to finding responsible and sustainable solutions to environmental problems in their communities.

INTRODUCTION

The Tuscarora Nation is the youngest member of the Haudenosaunee Confederacy, joining the Mohawk, Oneida, Onondaga, Cayuga, and Seneca Nations in the early 1700's. Tuscarora Nation Territory presently comprises a tract of 6,429 acres located within the geographical boundaries of western New York State. The Territory is situated on the Lake Ontario lake-plane between the Great Lakes of Erie and Ontario, next to the Niagara River. Its altitude is an average of 520 feet above sea level and its landscape has very little relief with the exception of the Niagara Escarpment that runs the length of the Territory's northern boarder and drops to an average of 350 feet above sea level.

The Tuscarora Environment Program (TEP), under the direction of the Tuscarora Nation Council of Chiefs and Clanmothers, was created to address internal and external environmental threats to Nation land and to the health of the people. The TEP is also responsible for identifying protection and restoration efforts within the Nation. It is the Council's request that the Tuscarora Environment Program conduct an Emissions Inventory of the Nation territory, as well as document any Major Sources within a ten mile radius, with the knowledge that there is a responsibility when it comes to matters of the natural environment.

The traditional Council of Chiefs and Clanmothers representing seven clans within the community govern the Tuscarora Nation. None of their positions are salaried and we have no paid governmental workers as there are in other Tribal governments. The Tuscarora Nation and other

traditional councils within the Haudenosaunee Confederacy have a long history of non-interference with the United States that dates back to the making of the Guswenta or Two-Row Wampum. This treaty was first made with the Dutch, and then with each subsequent sovereign, and represents our two vessels, or Nations, peacefully travelling along a parallel path in mutual respect and friendship and as we travel along this path neither will attempt to steer or alter the others course. The Guswenta or Two-Row Wampum is still in existence between the United States and the Haudenosaunee Confederacy and represents our government to government relationship with the United States. Traditionally the Haudenosaunee have not accepted funding from the United States, but the reality of our environmental situation compels us to make an exception in order to protect the future seven generations yet unborn.

TUSCARORA ENVIRONMENT PROGRAM

The TEP has been assigned many tasks designed to help create and maintain a healthy and productive natural environment and to educate our community about these tasks. The TEP assesses and implements its program with a balance between traditional knowledge systems and western science. It must balance the needs of both worlds to get its job done with many questions needing to be addressed before actual work can begin. First above all, is this responsible, respectful, and sustainable? Does this protect our future generations: are we thinking through all of the alternatives: does this uphold the Nation or does it undermine it: how do we go about this: as well as: is this good science: can we document and defend this? All of these questions are foremost in our minds before we act.

The TEP functions with the help of the Haudenosaunee Environmental Task Force (HETF), which was formed as a consortium in 1992 to help the Nations of the Haudenosaunee Confederacy fulfil their responsibilities to the natural world and to future generations. It is comprised of delegates chosen by each Nation committed to identifying environmental problems in their communities and working together to find solutions to them. The HETF operates under the Treaty of One Dish One Spoon, an agreement between the Six Nations of the Confederacy and reminds us that we share resources, we all eat from one dish with one spoon. The Treaty of One Dish One Spoon also sets the conditions for which we accept funding from the United States, as one people, not six separate entities.

In 1999 the United States Environmental Protection Agency (USEPA) and the HETF negotiated the terms of a US EPA General Assistance Program (GAP) Grant. These terms involved US EPA's assurances of a government to government relationship between the United States and the Haudenosaunee Confederacy. With the assistance of a US EPA GAP grant the HETF administers the monies for three separate programs within the Confederacy. The Cayuga and Tonawanda Seneca Nations each run an environmental program along with the Tuscarora Nation. The three programs have a total of seven staff people and there is three additional staff in the central office that run the administrative and confederacy wide programs.

The Haudenosaunee believe that conservation and protection of the environment are required to ensure that there will be resources available for future generations to draw upon. Through industrialization, modern agriculture and urbanization, all of Haudenosaunee land has suffered a loss of natural ecosystems including the loss of native plants, trees and wildlife. These natural ecosystems are the cleaning and purifying element that keep nature's balance allowing us as human beings to exist. It is not only the land but also the people who have suffered a loss. At one time we as Haudenosaunee people knew how to enhance and help that natural ecological balance as a daily practice, now we must actively seek out ways to educate ourselves on how to improve and protect our natural world.

Traditional Knowledge Based Environmental Protection Processes

One of the ways in which we seek to educate ourselves is through a series of five workshops designed to give an in-depth understanding of how our traditional knowledge systems are designed.

These confederacy wide workshops are provided for HETF members as well as for many of our leaders and citizens in an effort to create Traditional Knowledge Based Environmental Protection Processes. It is not our intent to simply put in place the standard regulations of the United States but to create a standard of practices that protect and enhance our lands and remind our people of our responsibility to the Earth.

At the completion of our workshop series we will begin the process of applying these traditional laws and traditional holistic knowledge to develop Haudenosaunee environmental standards and guidelines. Native people predominantly live traditional sustenance lifestyles and require greater environmental protections than western society lifestyles. Our proposed standards and guidelines will meet and exceed federal standards that will assist each Haudenosaunee Nation in creating modern day culturally based protection processes to protect and restore the natural world.

It could be argued that we are wasting valuable time in developing our programs in our traditions when we could be using already established models developed for Tribal Environmental Programs. Many of these tribal environmental standards are simply adopted U.S. standards that uphold little of the cultural practices and traditional knowledge of the communities they are made for and therefore are not effective in protecting their future generations. The HETF commissioned Barbara Gray-Kanatiyosh to compile a Report on Tribal Environmental Codes in 1998. Her findings are indicated in the following:

“These eighteen (*tribal*) environmental codes are very illuminating, for they indicate what has and has not been going on in Indian Country. Although the majority of the codes are written in a way that promotes the nation’s sovereignty, these codes for the most part are absent an assertion of the nation’s traditional and indigenous knowledge and laws.”

Tuscarora Nation’s Emissions Inventory

One of the tasks assigned to the TEP is to conduct an Emissions Inventory (EI) for the Nation territory. An EI is a basic but important component to a developing air program that should not be conducted carelessly. The TEP is in the unique position of having the flexibility to incorporate and use indigenous knowledge, ethics and values to make decisions that guide an EI. As a small environment program consisting of a director and three technicians, the TEP must also work with the reality of conducting an EI under financial and time constraints. Monies are allocated for one Director, one Water Quality technician, one GIS/GPS technician and one Air Quality/Solid Waste (AQ/SW) technician (myself) with Air Quality (AQ) and Solid Waste (SW) activities divided equally.

My main AQ responsibility is to complete an EI in 2002. Prior to 2002 I focused on acquiring AQ training from the Institute for Tribal Environmental Professionals (ITEP) out of Northern Arizona University with the eventual ability to complete an EI being my goal. Although there is a feeling of urgency to completing an EI to create baseline data, there is also the need to move with deliberateness and strategy. There must be a greater objective to completing an EI other than it simply being a step to progress the Air program in order to gain more funds. I must ensure that my actions are sustaining and responsible. There is also the fact that as a new Air Program some essential elements have not been developed. I needed to find out what our AQ objectives were.

Methodology

Air Quality Objectives

The Council has taken a stance of zero tolerance in terms of polluting our air, they simply stated that it is imperative that we work towards clean air. It is the TEP’s goal to create numeric standards based on our traditional knowledge systems and cultural practices. Any standards created without

incorporating our traditional knowledge systems and cultural practices do not protect our subsistence-based lifestyles and definitely do not protect our future generations.

A first step towards clean air is to assess our own territory. How are we polluting our own air? I conducted a windshield assessment of our own activities and realized that the community could be contributing an unacceptable amount to our air pollution problems. I concluded that as well as completing the EI I also needed to be doing outreach education in our community to promote clean air practices.

Quality Assurance

Quality Assurance (QA) is a necessary part of any environment program. U.S. EPA Region 2 has recently approved an HETF Quality Management Plan for the TEP. But individual projects like an EI require an individual Quality Assurance Project Plan (QAPP). I had hoped to be well into my EI community assessment by this time, I have been developing a QAPP instead. Acquiring guidance documents has been a challenge. Most of the guidance documents are available on the Internet, for me that requires tying up our single phone line while I not only search for the necessary documents but also try to download them. I was able to get in contact with an employee at ITEP who knew where to look and was able to give me some Web addresses and I eventually went to the local library and used their Internet connection to shorten the download time. This still leaves me with the task of writing our QAPP after I work through all of the provided information.

Assessment Development

When conducting an EI Assessment it is important to know the community, it has been recommended that we hire a contractor to conduct our entire EI but the assessment is a key feature of an EI and the community just wouldn't respond to an outside agency assessing them. As we learned from our initial Recycling Survey, the community does not give a good response to general written surveys. TEP employees who are from the community completed the Recycling Survey by going house to house and interacting with the community.

Although my community is relatively small there are many people who do not know what I do or simply do not know me. While I was getting my AQ training from ITEP I was also doing as much air quality education at the community events we set up a booth at as I could. This was not just outreach education it also served to open a dialog within the community for me. Hopefully this groundwork will serve me when it is time to ask people the questions on my EI Assessment.

I am planning to create a comprehensive EI Assessment for residences and one for the various businesses that are on the territory. I am also seeking guidance, from the contacts I made at my training, on what I should include in my assessment. There are so many things to factor into the assessment.

In the Residential Assessment I have many things to consider: such as households in our community are heated a number of ways; by wood stoves, oil furnaces, propane furnaces or electric heaters, and many of these heat sources are older and not as efficient as newer model. We have a very good solid waste curbside collection service available to us, but there are still many people who burn their garbage. There are also various sources from household activities, as well as traditional activities and events that occur and need to be noted. The Business Assessment will have to consider such diverse sources as gas and diesel refilling station to a lacrosse stick factory. I still need to decide if an in-depth assessment is really necessary or if a broader assessment would fulfil our needs and still remain within budget and time constraints.

On Territory Sources

The Tuscarora Nation has between 1000-1500 residents and there are no Major Sources on the territory. There are almost two dozen businesses spread out over the whole territory that could possibly be considered Minor Sources; including a fuel mixing operation, a lacrosse stick factory, gasoline and diesel filling stations, a road paving company and a number of smaller businesses. The traffic they bring to the territory would be considered a source by itself. The fuel and diesel businesses could be classed as Area Sources but there is the possibility that I can assess many as a point source to get a more accurate emissions amount. Again, prior to assessing them I have to weigh the need for the most accurate numbers with the reality of financial and time factors.

Off Territory Major Sources

The Council has asked that I include an inventory of Major Sources within a ten-mile radius of Nation territory, this includes the entire City of Niagara Falls as well as a number of additional sources elsewhere. I am going to depend on the State of New York's EI for these sources paying close attention to how they may be adversely contributing to our air quality.

Unfortunately there are well over a dozen major sources within this area and it's very unlikely that they are not impacting us significantly. Many of these industries have been with us, in some form, for at least fifty years, others are newer but not any less toxic, and a number of these sources are not very far from our borders. These include chemical manufacturing plants such as Oxychem, Goodyear Chemical Plant, and Dupont Plant; chemical and solid waste landfills like CWM Chemical Services, and Modern Landfill Inc.; carbon graphite factories such as Carborundum; incinerators, as well as sources associated with an urban area, such as hospitals, dry cleaners, restaurants etc. We also have the notoriety of having the Love Canal site within ten miles of our border. Although this list is not comprehensive it gives a good indication of what we are dealing with.

CONCLUSIONS

Although I am from this community there is always the need to earn cooperation and trust. Even with the extensive community outreach that the TEP has conducted there is still the question of are we doing this work correctly. The community for the most part does not believe that cleaning up our practices can make any difference in our air quality when the surrounding area is so polluted. In my outreach education efforts I have asked people to consider upgrading their wood stoves and oil furnaces to run more efficiently, this is a big financial step and many people would be hard pressed to do this. They want to know how this can make a difference when there are so many more pollution sources off the territory. There are also those people that do not believe it is fair to ask them to change their practices when such blatant disregard is exhibited in the outside industrial practices. On some level I empathize with their feelings but in a broader context I realize that fairness aside we are the people who have to look out for our coming generations and clean up our environment.

I could argue that our Air Program would have progressed much faster with greater funding, but in the Tuscarora Nations case, I believe that the limited funds have allowed us the space to develop a responsible program. It is our goal to develop air strategies based on traditional knowledge systems for the protection of the health and welfare of our future generations coming.

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KEYWORD

Emissions Inventory

Haudenosaunee Confederacy

Haudenosaunee Environmental Task Force

Traditional Knowledge

Tribal Air

Tuscarora Environment Program

Tuscarora Indian Nation