# Catawba Indian Nation Advance Program Path Forward Annual Report 2019



#### Ozone and PM<sub>2.5</sub> Advance Program

The Advance Program is a collaborative effort between EPA, states, tribes and local governments. The program encourages emission reductions in ozone and fine particulate matter ( $PM_{2.5}$ ) attainment areas to continue to meet the National Ambient Air Quality Standards (NAAQS) and in order to participate in the programs, the respective jurisdiction must be in attainment for ozone and  $PM_{2.5}$ .

The current NAAQS standard for ozone is 70 ppm, and for  $PM_{2.5}$  the standard is 12.0 µg/m3 annual standard and a 35 µg/m3 24-hour standard, which became effective on December 14, 2012. Currently the Catawba Indian Nation (CIN) is in attainment of NAAQS both ozone and  $PM_{2.5}$ .

CIN initiated discussion with EPA and formally submitted a letter to participate in the Ozone and PM<sub>2.5</sub> Advance Program in 2016. Additional jurisdictions that participate in the program include Mecklenburg County NC and the state of South Carolina.

#### Background

In 2012 the CIN participated in consultation with EPA to request that the area within the exterior boundaries of the Reservation be classified to attainment/unclassifiable. This request was made because initial designations of the eastern part of York County was designated as nonattainment for the 2008 ozone standard. EPA upheld the request by the CIN to have the area within the jurisdictional boundaries to be designated as attainment/unclassifiable. Some of the contributing factors included the fact that there are no emission sources located on Tribal Trust land and additionally the closest air monitoring station to the Reservation was approximately 16 to 18 miles away.

Recognizing the lack of air monitoring on the Reservation and in eastern York County the CIN initiated an Air Quality Program with strong support financially and technically through EPA Region 4. The CIN Air Program has monitored ozone since 2016 and will soon be collecting  $PM_{2.5}$  data after approval of the required Quality Assurance Project Plan (QAPP). This development along with the commitment from the CIN Executive Committee for protection of air quality and human health and the environment initiated the participation in the Ozone and  $PM_{2.5}$  Advance Program and the "Path Forward".

#### **Catawba Indian Nation Trust Lands**

The United States holds lands in trust for the Catawba Indian Nation and its members in Eastern York County, South Carolina. This area is comprised of two parcels totaling 1007 acres. However, the service area for the Catawba Indian Nation is recognized as all of South Carolina and six counties in North Carolina. The widespread service area location of these lands reflects the location of the historic Catawba's that comprise the contemporary Catawba Nation. These trust lands, which are collectively referred to herein as the Catawba Nation Trust Lands, total approximately 1007 acres. Approximately 560 of the Catawba's members live on CIN Trust Lands, and the Catawba's principal governmental, commercial, educational, health care and other communal facilities are located on those lands. Maps of the CIN Trust parcels are shown in Appendix A.

Federal enforcement of the ozone NAAQS is based on a 3-year monitor "design value". The design value is obtained by averaging the annual fourth highest daily maximum 8-hour ozone value over three consecutive years. If a monitor's design value exceeds the NAAQS (.070 ppm) the monitor is in violation of the standard and thus non-attainment.

#### **Overview of Catawba Indian Nation Air Quality**

8-Hour Ozone Values	2016	2017	2018
1 <sup>st</sup> Highest	.072	.069	.075
2 <sup>nd</sup> Highest	.069	.064	.071
3 <sup>rd</sup> Highest	.069	.062	.068
4 <sup>th</sup> Highest	.066	.06	.066

Table 1. Summary of Highest 8-Hour Ozone Values (ppm)

#### **Catawba Indian Nation Control Measures**

Some control measures are in place and being implemented by the Tribal members and governmental departments. Examples of those include: newer diesel-powered equipment in the Roads Department, Catawba Transit system, recycling efforts (residential and tribal government) and an energy efficient upgrade of the Senior Center building.

### **Proposed Control Measures**

#### Selected ozone and PM<sub>2.5</sub> control strategies and implementation schedule

#### **Outreach**

Strategy	Strategy Description/Impact	Implementation Date	Lead Department
Promote Transit Ridership (Catawba Transit)	Implement outreach campaign. This strategy impacts tribal and nontribal residents in the service area	June 2018	CIN Transit Dept.+
Ridership has increased, information and contact information are on each vehicle (see photo). Periodically information included in the Catawba Newsletter. Staff is working with the Transit Department to develop metrics for annual comparisons of "miles traveled" for Transit Vehicles. Total miles driven per month ranged from 7,000 to 11,000 miles.			

Air Quality Poster	Promote art contest	Earth Day Annual	Head Start and
Contest	with air quality theme	Earth Day Annual	Catawba Boys and Girls
contest	at CIN Head Start (80		Club
	students)		Club
Dive et Community		Ongoing	
Direct Community	Display Air Quality	Ongoing	CIN Environmental
Outreach	Information in		Services
	Newsletter and Health		
	Fair		
•	eing made to provide Triba	•	•
-	nd specifically the AQI are u		-
	en during days (Yellow and		nd our Spirit Sprinter
	n) with information on high		
Tree Power	Implement program to	Ongoing (focused on	CIN Environmental
	inform and promote	spring plant date)	Services
	the benefit of trees to		
	the environment, air		
	quality. 200		
	(estimated) seedlings		
	will be provided		
	community events.		
	Trees reduce/absorb		
	air pollution and help		
	reduce energy		
	consumption		
Approximately 40 trees	were planted over the year	r. planning continues to ind	crease the number of
tree plantings in the fut		,	
Utility Consumption	Monthly energy	Ongoing	CIN Environmental
Report	consumption will be		Services
hepone	posted in each building		Services
	that participates to		
	create awareness of		
	energy use in the		
	building		
Eive buildings are track	ed through Energy Star Port	folio Manager, this progra	m is slated to be
implemented in 2020.	eu thiough Energy Star Port	iono manager, tris progra	in is slated to be
Air Quality Flag	Three Tribal facilities	Ozone season (March	Head start, Little
Program	participate: Head start,	through October) and	People Academy and
	Little Peoples and	year-round for PM <sub>2.5</sub>	Catawba Health Clinic
	Catawba Health Clinic.		
	Promote awareness to		
	air quality (specifically		
	ozone and PM <sub>2.5</sub> )		
	forecasts and human		
	health protection.		
CIN Earth Day	Promote air quality	Earth Day	Primarily Head start
Chi Larth Day	outreach and		and Tribal Community

	protection, appreciation strategies		
Staff participated in an April 22, 2019 Earth Day event, approximately 80 students and teachers participated (see photos).			

## Selected ozone and $\ensuremath{\mathsf{PM}_{2.5}}$ control strategies and implementation schedule

## **Energy Reduction**

Strategy	Strategy Description/Impact	Implementation Date	Lead Department
Develop alternative	Photovoltaic solar	Ongoing	Economic
energy production	farms, biomass to		Development/
opportunities that are	energy and others;		Environmental Services
financially viable for	Clean energy sources		
CIN	reduce the volume of		
	fossil fuel burning		
	required for power		
	generation		
Green Building Review	Evaluate and	Ongoing	CIN Environmental
	recommend feasible		Services and other
	opportunities for		Tribal Departments
	energy, water and solid		
	waste consumption in		
	new and retrofit of		
	tribal buildings. This		
	activity reduces		
	electricity		
	consumption, water		
	usage and solid waste		
	production		
-	nced a lot of new construc Is Department, Environme		-
Operation Center. This b	uilding features the latest	in building envelop tightne	ess and is one of the
buildings tracked in the E	Energy Star Portfolio Mana	ger Program. The other bu	ilding worth mentioning
is our Senior Center that	has gone through renovat	ion implementing recomm	endations from a
previous energy audit. Th	nis building is also energy b	enchmarked and shows a	reduction in energy use
after energy conservatio	n improvements. We have	also implemented a numb	per of buildings with the
programable thermostat	s and respective phone ap	ps for energy efficiency.	
Local Food Access	Inform community on	Ongoing	Wellness Program
Program	benefit of sourcing		
	food locally, reducing		
	miles traveled by food		
	and consumers		
	ignty Committee has been		
programs to enhance loc 2020.	ally produced vegetables.	We will continue to work t	oward those goals in

Purchase ENERGY STAR Equipment	Energy efficient products are procured and installed. This strategy reduces energy consumption.	Ongoing	All Departments
Policies for purchase of E promote purchasing of E	•••••••	, staff will continue to wo	rk with departments to
Green and energy efficiency initiatives	Evaluate CIN government departmental recycling practices in place and evaluate opportunities to improve/expand. This strategy reduces solid waste and operating costs.	Annually	All Departments
change this year, in part Center. Although we recy	due to recycling markets a cle cardboard, plastics we	our recycling programs hav nd increase cost at the Yor have a direct source to a uue to promote recycling a	rk County Recycling cardboard recycler even

## Selected ozone and PM<sub>2.5</sub> control strategies and implementation schedule

## **Transportation**

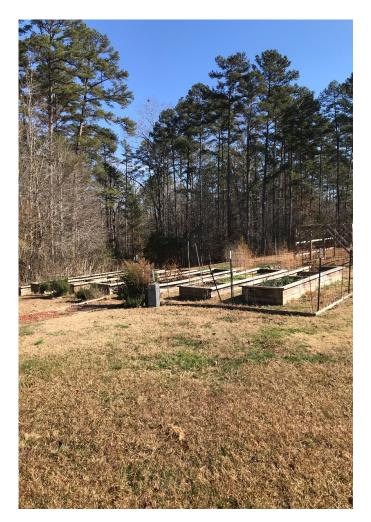
Strategy	Strategy Description/Impact	Implementation Date	Lead Department
Fleet Management	Implement efforts to minimize unnecessary idling of vehicles. This strategy reduces NO <sub>x</sub> emissions	On going	All Departments
Idling is considered by all departments; Idle time is minimized and is considered as a metric. Planned drive time which helps reduce idling for the Transit Department. Head Start and			
Little People Academy transport children daily, they minimize idle time and in the future staff will discuss time to warm or cool vehicles in designated areas.			

AlternateWhen feasible and decisions for vehicleFuel/Hybrid Vehicledecisions for vehicle replacement are considered. Evaluat alternate fuel/hybri vehicle replacemen This strategy reduce NOx emissions.	t.	All Departments
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Currently there are 2 Flex Fuel vehicles in the fleet, consideration for these types of replacements is made and will continue to be a consideration in the future. Most departments are purchasing vehicles for specific purposes, like Public Works for hauling equipment. There has been some discussion about hybrid and electric vehicles. In the future feasibility of such vehicles and the respective charging stations will need to be evaluated.



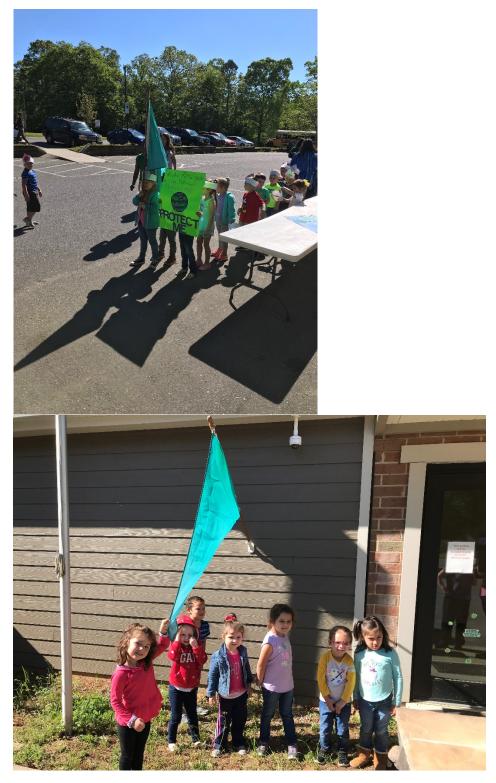
**Catawba Transit Vehicles** 



Catawba Senior Center Garden



Fall Vegetables at the Catawba Longhouse



Catawba Head Start Earth Day April 22, 2019