Hood County, Texas Sixth Annual Path Forward Report

Ozone Advance Program

April 27, 2020

Hood County Clean Air Coalition

www.hoodcountycleanair.com

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1.0 Introduction

Hood County joined the Ozone Advance Program in April 2012. Ozone Advance is an expansion of the U.S. Environmental Protection Agency's (EPA's) cooperative efforts with states, tribes, and local governments to encourage actions that result in reduced ozone formative emissions to enable continued compliance in meeting the National Ambient Air Quality Standard (NAAQS) for ozone. This program targets areas that have ambient ozone levels close to the NAAQS and are at risk of violating the standard. It acts to assist in efforts to reduce air pollution, ensure continued healthy air quality levels, avoid NAAQS violations, and increase public awareness regarding ground level ozone as an air pollutant. As part of the Ozone Advance program a "path forward letter" is submitted to the EPA program contact that describes measures and/or programs that the area will implement to try to meet the program goals along with a schedule for implementation of each (EPA, 2012a).

Ozone is a gas formed when three atoms of oxygen combine. This action may occur in the upper atmosphere as well as at ground level. In the upper atmosphere, about 6-30 miles above the Earth's surface, ozone forms a protective layer that shields the Earth from ultraviolet rays from the sun. At ground level, ozone is a secondary pollutant meaning that it is not directly emitted into the air, but is formed by a chemical reaction between oxides of nitrogen (NOx) and volatile organic compounds (VOC) in the presence of sunlight, thus NOx and VOC are called "formative" emissions or "precursors" to ozone formation. Major sources of the emissions of either NOx or VOC, or both, are industrial facilities, electric utilities, motor vehicle exhaust, gasoline vapors, and chemical solvents. Exposure to certain levels of ozone can cause health problems including respiratory problems like coughs and respiratory irritation as well as aggravating asthma symptoms (TCEQ, 2014a).

Hood County is a small rural county southwest of Fort Worth with an economy based on retail, retirees, tourism, and very little industrial or manufacturing professions. In April 2018, the EPA designated Hood County as attainment for the 2015 ozone NAAQS. Hood County has continued to take the initiative to address the air quality situation and, as part of its efforts to improve air quality, Hood County continues to partner with EPA through the Ozone Advance Program.

As part of participation in EPA's Ozone Advance Program, areas are asked to submit annual updates of measures and programs in their Path Forward Documents. These documents are intended to fully describe the measures and/or programs the area will implement and provide a schedule for the implementation of each one (EPA, 2012a). This document is the sixth annual update on the measures and programs discussed in the Path Forward for Hood County, Texas.

The programs and measures included in the Hood County Path Forward to aid in reduction of the formative emissions of ozone are focused on voluntary efforts for fuel and energy savings, locally enforced ordinances, and educational efforts. Hood County is ensuring actions are taken to improve air quality in the region, provide healthy air for its citizens, maintain healthy economic growth, and show leadership in environmental sustainability.

2.0 Background

Hood County is in North Texas and encompasses 425 square miles. It is bordered by the counties of Erath, Somervell, Johnson, Parker, and Palo Pinto. The main trade center and county seat is the town of Granbury, Texas. Hood County's population for 2019 is estimated at 61,643- a 20.5% increase over the 2010 Census. Granbury is the largest town in Hood County followed by the smaller communities of Tolar, Cresson, and Lipan. Current estimates are that 24.6% of Hood County's population is aged 65 and older (U.S. Census, 2020). Most of the residents who are not retired are employed within the county. Figure 1 indicates the geographic area of Hood County in the north Texas region including urbanized areas. Figure 2 is a map of the county including the county seat of Granbury and smaller communities of Tolar, Cresson, and Lipan.

In October 2015, EPA finalized the 2015 Ozone NAAQS of 70 parts per billion (ppb). The new standard is lower than the previous 2008 Ozone NAAQS of 75 ppb. EPA strengthened the standard to ensure protection of public health and the environment. In December 2017, 120 day letters were sent out by EPA. In the second round of area designations for the 2015 ozone standard, Hood County was designated attainment based on 2014-2016 data when the monitor's design value was 67 parts per billion (ppb).

Figure 1: Hood County location in north Texas region *Data source: NCTCOG, 2013a*

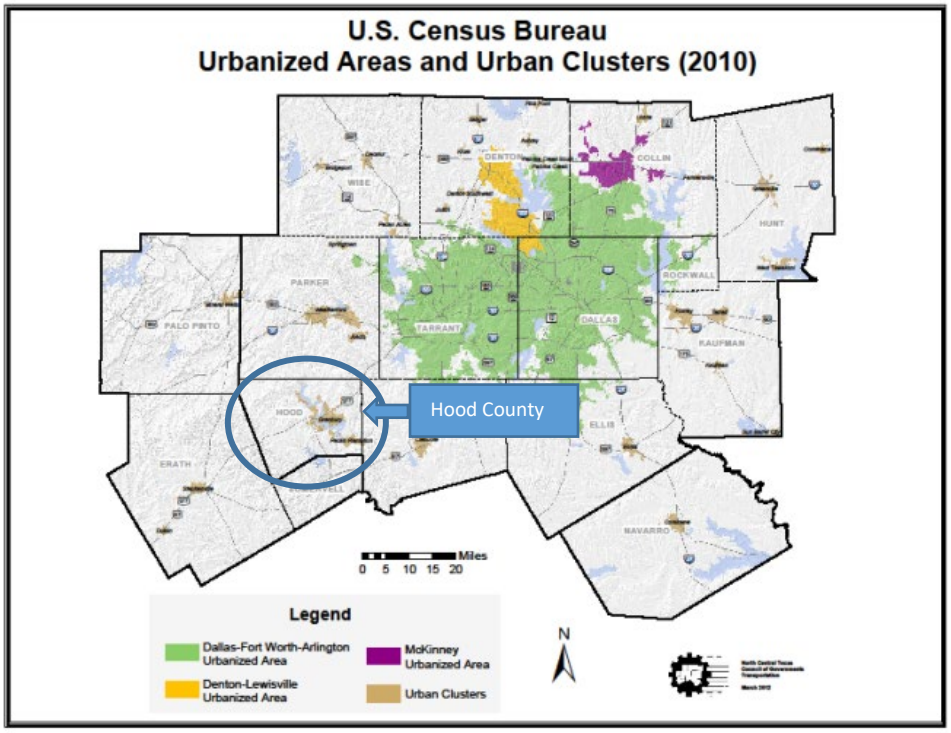
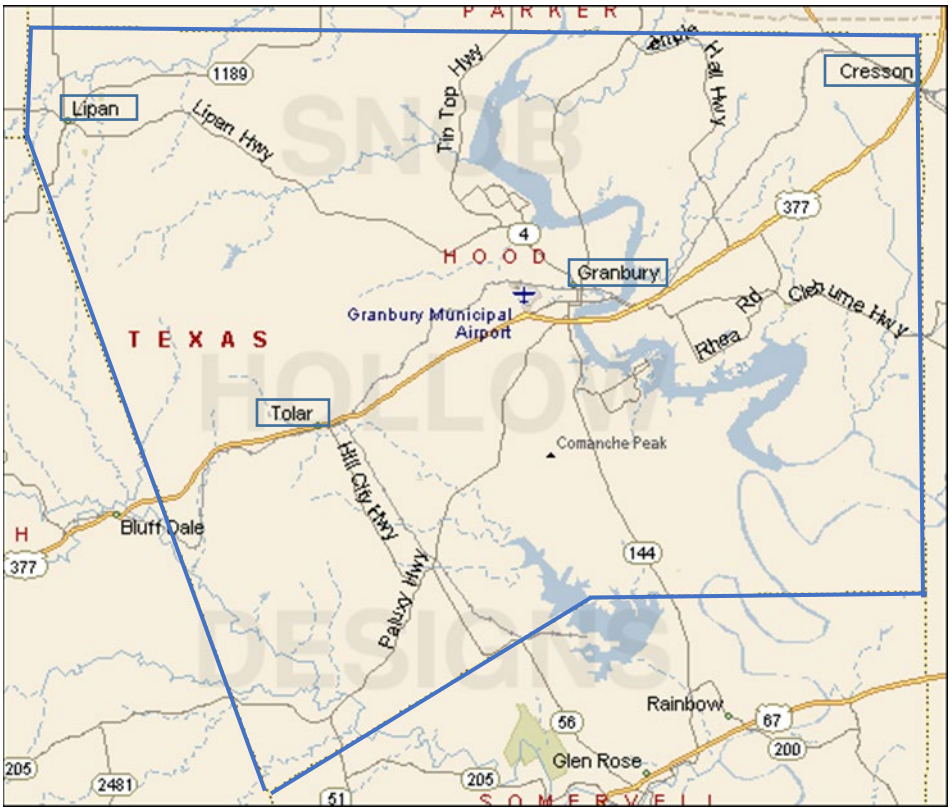


Figure 2. Map of Hood County, Texas *Data Source: County Maps of Texas, 2013*

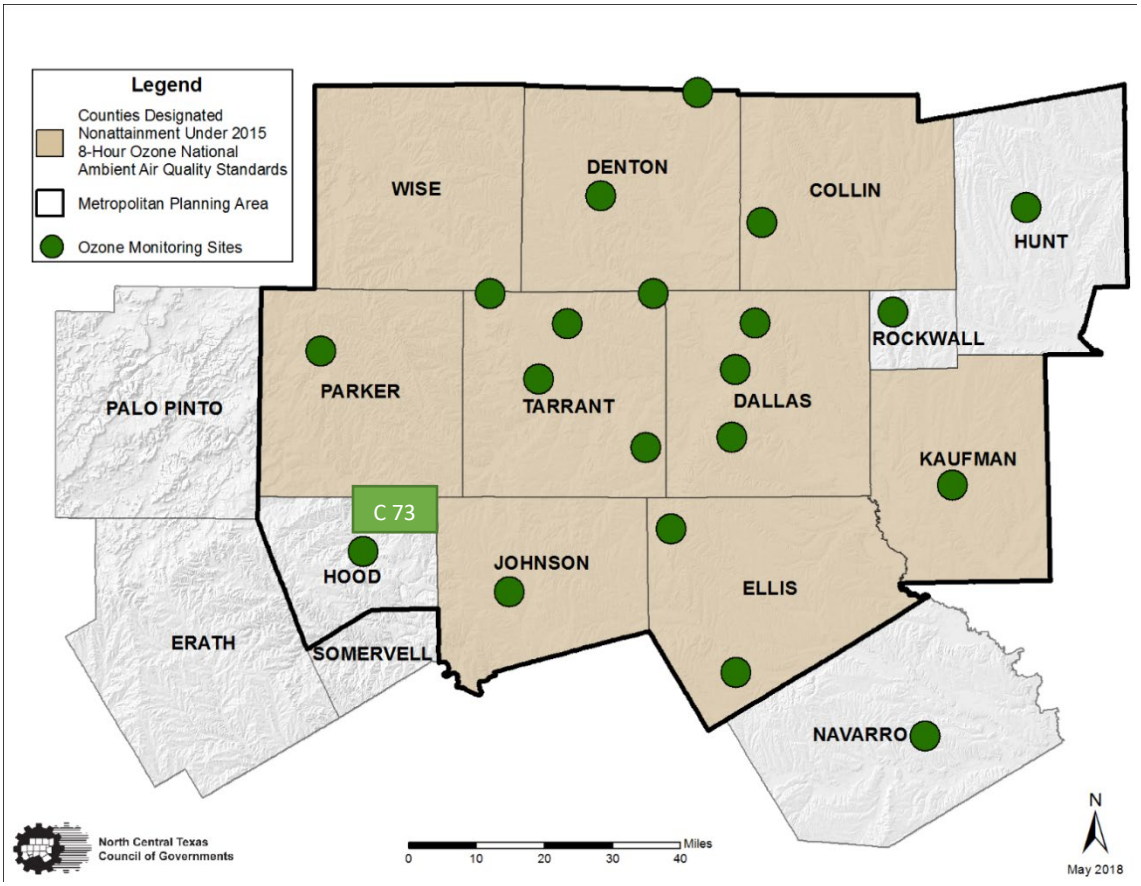


3.0 Current Ozone Data

3.1 Ozone Design Values

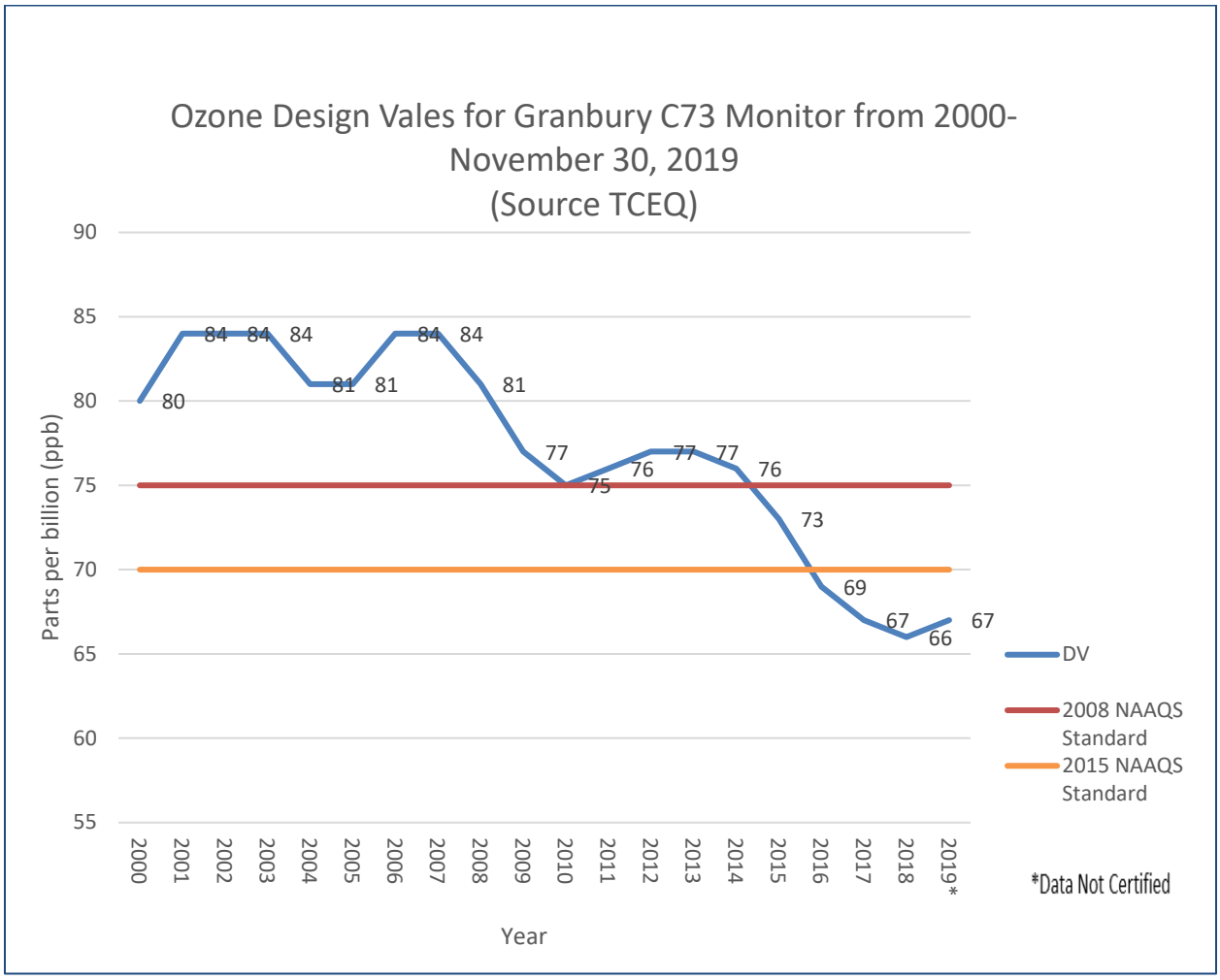
A statistic used to describe the air quality in a location with an air monitor is the Design Value (DV). The DV is used to designate nonattainment areas and measure progress towards meeting NAAQS. For ozone, the 2015 NAAQS is met when the annual fourth highest daily maximum 8-hour average concentration averaged over three years is 70 ppb or less. The air quality monitor in Hood County, located in Granbury, is a regulatory monitor operated by the Texas Commission on Environmental Quality (TCEQ), and is identified as C73. Figure 3 is a map of regional air monitors with the location of monitor C73 identified. The tan area of the map represents the 2015 Ozone Standard nonattainment area for the DFW region and green circles identify the location of ozone monitors.

Figure 3: Map of Regional Air Quality Monitors including Dallas-Fort Worth 8-Hour Ozone Nonattainment Area *Data Source: NCTCOG, 2018*



The preliminary 2019 DV for the C73 monitor in Granbury was 67 ppb in 2019 (TCEQ, 2019). Data for the 2019 ozone season will be certified in May 2020. The preliminary design value of 67 ppb meets the 2008 and 2015 Ozone NAAQS. Hood County remains committed to working diligently to ensure that it will maintain levels below the NAAQS for ozone. Figure 4 is a graph of Ozone Design Values for the monitor C73 from 2000-2019. This figure provides an indication of trends in ozone concentrations from 2000-2018. The DV had been on a general decline until the years 2011 and 2012 but continued a general decline after 2014. It is hoped that with further implementation of programs and measures described in the Path Forward and reductions in transported emissions, these values will continue to decline.

Figure 4. Ozone Design Values for C73 Monitor in Granbury from 2000-2019.



3.2 Number of Days that Ozone NAAQS Were Exceeded

Historic data regarding number of days that the 2008 75 ppb standard and the 2015 70 ppb standard were exceeded from 2008-2019 are found in Table 1. This table also includes the four maximum values reported for these years. The first max value has been declining over the last few years. The number of days of exceedance decreased to one for 2019.

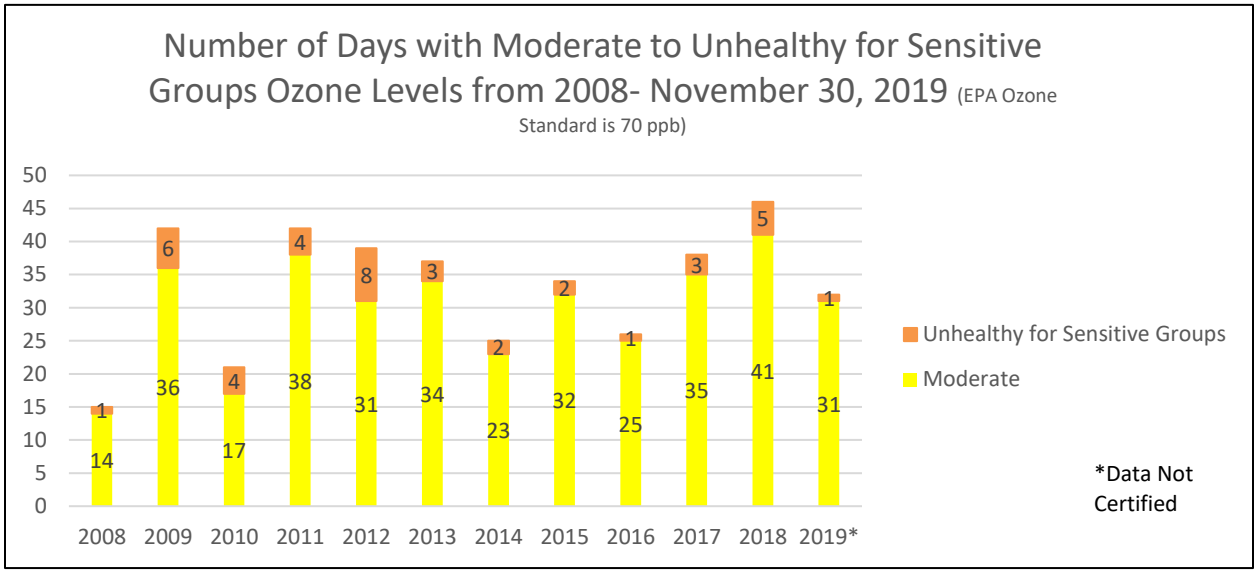
Table 1. Number of days that the NAAQS Was Exceeded and Four Highest Maximum Values for 2008-2019 for Monitor C73. (*Data not certified)
Data Source: TCEQ, 2020e

Year	Number of Days	First Max	Second Max	Third Max	Fourth Max
2019*	1	80	67	67	66
2018	5	80	78	74	71
2017	3	81	72	71	66
2016	1	80	63	63	63
2015	2	86	80	75	73
2014	2	91	87	74	73
2013	3	93	83	78	75
2012	8	82	80	80	80
2011	4	82	80	77	76
2010	4	80	80	79	77
2009	6	89	81	80	77
2008	1	78	75	73	73

The EPA Air Quality Index (AQI) is broken down into six categories. These categories are grouped by ozone levels and their associated air quality index values. The five categories and their associated indices are “good” (0-50), “moderate” (51-100), “unhealthy for sensitive groups” (101-150), “unhealthy” (151-200), “very unhealthy” (201-300), and “hazardous” (301-500). The “unhealthy for sensitive groups” category marks the first category with an ozone level above the NAAQS standard of 70 ppb (EPA Air Data, 2016). Figure 5 is a graphic representation for the number of days with “moderate” and “unhealthy for sensitive groups” ozone levels recorded at monitor C73 for the previous AQI associated with the 2008 Ozone Standard and 2015 Ozone Standard. Figure 5 indicates a general decline in the overall number of days with moderate and unhealthy for sensitive groups ozone levels from 2008-2019. While the number of days for each category seems to increase from 2016-2019, this reflects the change in levels associated with the 70 ppb 2015 ozone standard. The change caused readings that were considered “moderate” under the 2008 standard to be considered “unhealthy for

sensitive groups" under the 2015 standard and readings that previously were considered "good" are now considered "moderate" under the 2015 standard.

Figure 5. Number of Days with Moderate and Unhealthy for Sensitive Groups Ozone Levels from 2008-2019 at the Granbury C73 monitor. *Data Source: TCEQ, 2019c*.



4.0 Status of Programs

In the early days of the formation of the Hood County Clean Air Coalition, a Clean Air Strategy was developed. This included efforts to limit emissions, zone for appropriate use, develop an Early Compact with EPA, convert city/county fleets to natural gas, convert city/county generators to alternative power sources, and seek voluntary action by all gas operators in the County. Regarding oil and gas emissions that were reported at the time to TCEQ, these were reported as "potential to emit" not actual emissions. In later emission inventories these corrections were made and showed that oil and gas related emissions were significantly less than earlier reported and have been declining since then. As mentioned in the Clean Air Strategy, the City of Granbury adopted an oil and gas zoning authority as a general matter. Regarding developing an Early Compact with EPA, the Hood County Clean Air Coalition took the steps necessary for the County to participate in the EPA Ozone Advance Program and continues to do so. The conversion of diesel fleets to natural gas proposed in the strategy has over time been presented with several obstacles and efforts were made to help with some those obstacles. There was no natural gas fueling infrastructure for the fleets to be able to use after conversion. Funds were used from the Rider 7 to help with installing propane fueling infrastructure, as it was the more affordable option than compressed natural gas. Another obstacle was a lack of locally available servicing of natural gas vehicles. There were successes in

finding local service for propane lawn mowers and this led to the expansion of use of propane riding mowers. Efforts have been made to notify fleets of training opportunities for working with natural gas fleets. The conversion to alternative power sources for generators faces the same challenges. Regarding seeking voluntary action by gas operators in the County, the gas operations have slowed dramatically in the County from the peak around 2008. The Clean Air Strategy for the Hood County Clean Air Coalition was a guide for where to start and learn from the challenges that arose from following the strategy.

4.0 2019 Status of Measures and Programs

Table 2. Status of Measures and Programs

Project	Entity	Description	Proposed Schedule in Path Forward	Current Status
Stakeholder Group	Hood County Clean Air Coalition (HCCAC)	1. Holding monthly meetings. 2. Researching and coordinating efforts to address air quality issues in Hood County	Current Strategy	Ongoing
Informational website	Hood County Clean Air Coalition	The Hood County Clean Air Coalition website was developed in May 2012 and expanded with a new domain established in June 2014 - www.hoodcountycleanair.com . The website was further expanded in February 2015.	Current Strategy	Meeting notifications, Ozone Advance Documents, and technical work documents are posted to the website.
Intern	HCCAC	Intern position replaced with an Air Quality Program Manager position in 2014.	Current Strategy	Ongoing
Regional Partnerships	HCCAC	The North Central Texas Council of Governments is a valuable resource	Current Strategy	The Coalition participates in meetings/conference calls with NCTCOG including bimonthly conference calls for Air North Texas (www.airnorthtexas.org) and DFW Clean Cities (www.dfwcleancities.org) meetings. The next meetings are scheduled for May 2019.

Project	Entity	Description	Proposed Schedule in Path Forward	Current Status
Public Awareness Campaign	HCCAC	Public Services Announcements for TV, radio, and print. Participation in Outreach events to increase awareness	Increased participation in NCTCOG programs by June 2013 and increased public service announcements by August 2013.	Three public service announcements began playing on a local radio station for the 2019 ozone season from March through October as was done for the previous ozone seasons. Three public service announcements began playing on the local public television channel, Granbury TV, in March of 2015 and are continued to play each day through 2019. Print PSAs were used in the 2018 ozone season in two local magazines. The Coalition hosted a booth at the Weatherford Campus of Weatherford College for their Earth Day Event in 2019 as was done in previous years.

Project	Entity	Description	Proposed Schedule in Path Forward	Description
Trip Reductions	1. Hood County, City of Granbury, and numerous area employers 2. City of Granbury	Use of Direct Deposit, support for public transportation and alternative transportation	Current Strategy	1. Continued use of direct deposit by most of the large employers in the County. 2. Researching possible use of funding to replace the City of Granbury's trolley.
Highway Improvement Projects	Texas Department of Transportation	Highway Projects Cresson Rail Overpass	Broke Ground in 2019	Rail overpass project broke ground in 2019. Construction expected to take about 2 years.

Project	Entity	Description	Proposed Schedule in Path Forward	Current Status
Alternative Fuel Vehicles	HCCAC	Conversion of city and county fleets	Research Conversion of City and County fleets	Public adoption of electric vehicles continues to increase. Researching funding opportunities to aid in possible electric vehicle charging station.
Idling Restrictions	1. Hood County 2. City of Granbury, Tolar, and Cresson and Hood County	Efforts to increase awareness to reduce idling and idling restrictions	Hood County passed a resolution supporting voluntary idling restrictions and the City of Granbury was considering additional idling restrictions	1. A voluntary idling restriction resolution was passed by Hood County in 2012. The county does not have the authority to enforce this but encourages voluntary actions with the Resolution. Signs providing educational outreach were installed at three county owned parking lots in 2015. 2. Ordinance enforcement is done by the Granbury Police Department for the Idling Restriction Ordinance. Anti-idling signs provide educational outreach. The City of Granbury passed an Idling Restriction Ordinance in October 2013 Anti-idling signs supporting the voluntary measure of the county resolution were installed at four City of Granbury owned parking lots, and one each in Cities of Tolar and Cresson

Project	Entity	Description	Proposed Schedule in Path Forward	Current Status
Travel Systems Management	HCCAC	Traffic flow and signals	August 2013	Signals on Highway 377, the main road through Granbury, are regularly monitored by TxDOT Yellow flashing turn arrows were added in 2018 along Highway 377 to assist in traffic flow.
Review of Air Permits	HCCAC	Monitor air permits.	Current Strategy	Ongoing
Modeling Emission Sources	HCCAC	Technical Projects	Long term Strategy for future consideration	With loss of funding, no new technical or modeling projects were done in 2018.
Review of Efforts at Eagle Ford Shale	HCCAC	Outreach efforts to oil and gas companies	Long term Strategy for future consideration	With the reduction in oil and gas activities in Hood County this is now a reduced priority.

Project	Entity	Description	Proposed Schedule in Path Forward	Current Status
Improved Energy Efficiency	1. United Cooperative Services And Tri County Cooperative and United Cooperative 2. Local governments in Hood County	1. Tri County Cooperative and United Cooperative both offer free energy audits for customers 2. Local governments participated in recording energy usage to the State Energy Conservation Office	Long term Strategy for future consideration	1. Ongoing 2. Ongoing

5.0 Implementation Schedule

As part of the Ozone Advance Program, it is recommended that an area commit to a five-year term, with an option to renew at the end of the term. Hood County joined the Advance Program in April 2012 and commits to continuing to follow the general schedule:

April 2020 Submit sixth annual report on status of local air quality, measures and programs in place and lessons learned, re-evaluate and revise path forward as necessary.

Summer 2020 Action on measures/programs:

- Review preliminary air monitoring results and re-evaluate path forward
- Research and develop new and/or revise existing measures/programs as appropriate
- Research and evaluate any funding opportunities against program goals

April 2021 Submit annual report on status of local air quality, measures and programs in place and lessons learned, re-evaluate and revise path forward as necessary.

Hood County continues to be committed to the Ozone Advance Program as part of its efforts to improve air quality in the region. Through the formation of the HCCAC, the county has brought together many groups of stakeholders to coordinate efforts to address the issues. The coalition represents that these stakeholders continue to support taking action to support clean air efforts including participation in the Ozone Advance Program.

Dave Porcher, Chairman of Hood County Clean Air Coalition

Michelle McKenzie, Air Quality Program Manager
Hood County Clean Air Coalition

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Appendix A

Hood County Clean Air Coalition Members

Name	Affiliation
Board Members	
Dave Porcher (Chairman)	Dave Porcher Mowing Service
Bruce White	Hood County Commissioner
Mark Clark	Luminant Environmental Manager
John Campbell	Owner Diamond C
Bob Cornett	Mayor, City of Cresson
Mark Franco	Propell
Nin Hulett	Mayor, City of Granbury
Terry Johnson	Mayor, City of Tolar
Joe Drew	Vista Proppants and Logistics
Members	
Jan Caldwell	Retired
Lori Clark	NCTCOG
Chris Coffman	Granbury City Manager
Teena Conway	City of Cresson
Ron Cotton	Hood County Commissioner
Chris Klaus	Senior Program Manager, NCTCOG
Derinda Long	Transit System
Michelle McKenzie	Air Quality Program Manager, Hood County Clean Air Coalition
Mauri Montgomery	United Cooperative, Director of Community Relations
Lee Overstreet	Winston Properties
Michael Ross	Granbury Assistant City Manager
Mike Scott	Granbury Chamber of Commerce
Dr. Allison Stamatis	Weatherford College
Congressman Charlie Stenholm	Retired
Shannon Stevenson	Program Manager, Transit Operations, NCTCOG
Andrea Thomas	National Service Research
Bethany Warner	City of Granbury PIO
Diane Williams	Representative for Congressman Mike Conaway