1997 Ozone NAAQS Second Maintenance Plan for the Murray County Maintenance Area



ENVIRONMENTAL PROTECTION DIVISION

Air Protection Branch

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Executive Summary

This document fulfills Georgia's requirement under the Federal Clean Air Act Amendments of 1990 (CAA Section 175A(b)) to submit a second maintenance plan showing that the Murray Partial County area will continue to maintain the 1997 ozone National Ambient Air Quality Standard (NAAQS) over the remainder of the 20-year maintenance period¹.

The Murray Partial County maintenance area is located entirely within the Chattahoochee National Forest and is defined as the area enclosed to the east by Murray County's eastern border, to the North by latitude of 34.9004 degrees, to the West by longitude 84.7200 degrees, and to the South by 34.7040 degrees and is inclusive to all mountain peaks within this area of Murray County that have an elevation greater than or equal to 2400 feet.

The Murray Partial County area qualifies for its second 10-year maintenance plan to be submitted as a limited maintenance plan. In order to qualify, the 2015-2017 ozone design value at the Fort Mountain monitor must have been less than 85% of the 1997 ozone NAAQS (0.08 parts per million (ppm)) with design value trends from 2000 to 2017 showing decreasing ozone levels, and the area must have had no violations of the 8-hour ozone standard since being redesignated. This document is being submitted as a limited maintenance plan.

There has been and will continue to be the implementation of permanent and enforceable reductions in ozone precursor emissions along with continued compliance with all applicable requirements through the end of the maintenance period which is in 2027. Georgia EPD will continue to operate its air quality monitor in the Murray County area and contingency measures cited in the first 10-year maintenance plan will continue to apply for the remaining 10 years of the maintenance period. The transportation conformity process, assuring no interference in maintenance of the standard by onroad mobile transportation projects, will continue through the end of the second 10-year period; with the exception that the motor vehicle budgets will be uncapped. Ozone levels are far enough below the air quality standard that transportation planning should not cause an exceedance of the 1997 ozone NAAQS; especially with continued oversight through the transportation conformity process.

¹This affirmation of attainment addresses the 1997 8-hour ozone NAAQS for the second 10-year maintenance plan period.

TABLE OF CONTENTS

Exe	cutive Summary	i
1.0	Introduction and Background	5
1.1	Purpose	5
1.2	Historical Background	5
1.3	Criteria for Limited Maintenance Plan Eligibility	3
1.4	Requirements of a Limited Maintenance Plan	3
2.0	Ambient Monitoring Data)
2.1 2.2	Review and Assessment of Monitored Ozone Concentrations 9 1.1 Overview 9 1.2 Ozone Monitoring Network 9 1.2 Ambient Ozone Monitoring Data 9))) 1
3.0 ^{2.}	Emissions Inventory	5
4.0	Maintenance Demonstration	7
4.1	State and Federal Measures17	7
5.0	Mobile Source Emissions Budget	9
5.1	Mobile Source Maintenance Budgets Under a Limited Maintenance Plan 19)
6.0	Ozone Monitoring Network)
6.1	Continued Operation of Monitoring Network)
7.0	Contingency Plan	1
7.1	Contingency Measure Trigger21	Ĺ
7.2	Contingency Measures23	3
8.0	Conclusion	5

LIST OF FIGURES

Figure 1-1. Murray County 1997 Ozone NAAQS Maintenance Area.	7
Figure 2-1. Georgia Ozone Monitor Locations as of 2021 1	10
Figure 2-2. Murray Partial County Area 3-Year Ozone Design Value History 1	13

LIST OF TABLES

Table 2-1. Murray County Ozone Monitor Location as of 2004	11
Table 2-2. Ozone Design Values at the Fort Mountain Monitor Location	12
Table 2-3. Ozone 4 th Highest Annual Values (2003-2020)	14
Table 3-1. Murray County NO _x Emissions in 2014 and 2028 (Summer tons)	16
Table 3-2. Murray County VOC Emissions in 2014 and 2028 (Summer tons)	16
Table 7-1. Timeline and Steps for Implementing Contingency Measures	23

1.0 Introduction and Background

1.1 Purpose

This document contains the technical support and documentation necessary for the Georgia Environmental Protection Divisions (EPD) to fulfill the requirements of The Clean Air Act (CAA) Section 175A(b), and to demonstrate that the Murray Partial County maintenance area will continue to maintain ozone levels below the 1997 8-hour ozone NAAQS of 0.08 ppm (84 ppb) for the remainder of the 20-year maintenance period ending in 2027. This demonstration is comprised of a second 10-year limited maintenance plan. The Murray Partial County Area qualifies for this less burdensome, limited option because the ozone design value (annual 4th high daily maximum 8-hour concentration averaged across 3-years) for the years 2015-2017 was below 85% of the standard (\leq 71 ppb) and ozone design values from 2007 to 2020 generally show decreasing ozone levels.

This limited maintenance plan was prepared in accordance with U.S. EPA guidance on limited maintenance plans in the form of a memorandum, issued on November 16, 1994, and the U.S. EPA resource document issued on November 20, 2018, on "orphan maintenance areas" for the 1997 8-hour ozone NAAQS.

1.2 Historical Background

On July 18, 1997, U.S. EPA promulgated a revised ozone standard of 0.08 parts per million (ppm), measured over an 8-hour period. The 8-hour ozone standard is more protective of public health and more stringent than the previous 1-hour ozone standard.

In accordance with Section 107(d)(1) of the CAAA, the Murray Partial County (Chattahoochee National Forest) area was designated as a nonattainment area for the 1997 8-hour ozone NAAQS in a Federal Register notice on April 30, 2004², to be effective June 15, 2004. The CAA requires nonattainment areas that are meeting the NAAQS to develop maintenance plans to show continued maintenance of the NAAQS, and to document a plan to address future violations of the NAAQS. These maintenance plans are divided into two ten-year periods, with a new plan developed for each period.

The Murray Partial County area was redesignated as attainment/maintenance for the 1997 8-hour ozone NAAQS with the approval of the first maintenance plan demonstrating attainment through the initial 10-year period. This redesignation was effective on November 15, 2007. Effective July 20, 2012, the Murray Partial County area was designated as attainment for the 2008 8-hour ozone standard³. Effective August 3, 2018, the Murray Partial County area was again designated attainment for the 2015 8-hour ozone NAAQS⁴. On March 6, 2015, EPA revoked the 1997 8-hour ozone NAAQS as part of the final implementation rule for the 2008 ozone NAAQS⁵. This implementation rule also indicated that maintenance areas

² 69 FR 23858, April 30, 2004

³ 77 FR 30088, May 21, 2012

⁴ 83 FR 25776, June, 4, 2018

⁵ 80 FR 12264, March 6, 2015

that had attained the 2008 ozone standard were no longer required to develop and submit a second 10-year maintenance plan for the 1997 ozone NAAQS which would have been due to EPA by November 15, 2015.

However, certain aspects of EPA's Implementation Plan rule were challenged in court⁶. One of the items challenged was the Agency's rule that excused "orphan maintenance areas," i.e., areas that had been redesignated to attainment for the 1997 ozone NAAQS and were designated attainment for the 2008 ozone NAAQS, from submitting a second maintenance plan for the 1997 ozone NAAQS. On February 16, 2018, the D.C. Circuit Court issued a decision in South Coast Air Quality Management District v. EPA (South Coast II) that, among other things, granted the petitioners argument on this point. The Court held that "orphan maintenance areas" are required to submit the "second 10-year" maintenance plans under CAA section 175A(b). Therefore, these areas must submit a second maintenance plan to ensure maintenance through the full 20-year period following the effective date of redesignation.

To assist areas that were nonattainment or maintenance for the 1997 8-hour ozone NAAQS in development of their second 10-year maintenance plans, EPA provided a resource document that outlines Limited Maintenance Plans (LMP) as an option that areas may choose to meet CAA section 175A requirements⁷. Conditions to qualify for a Limited Maintenance Plan and its requirements are described in the next section. This second 10-year maintenance plan, in this case an LMP, builds upon the foundation established by the first maintenance plan which was previously approved by EPA.

A map showing the Murray County 1997 ozone NAAQS maintenance area is provided below in Figure 1-1.

⁶ United States Court of Appeals for the District of Columbia Circuit. *South Coast Air Quality Management District v. EPA*.

⁷ USEPA. Resource Document for 1997 Ozone NAAQS Areas: Supporting Information for States Developing Maintenance Plans. November 20, 2018.



Figure 1-1. Murray County 1997 Ozone NAAQS Maintenance Area.

1.3 Criteria for Limited Maintenance Plan Eligibility

According to the "Resource Document for 1997 Ozone NAAQS Areas: Supporting Information for States Developing Maintenance Plans" (hereafter called "the EPA resource document"), provided by EPA on November 20, 2018, an area qualifies for the limited maintenance plan option if:

- 1. Based on certified ambient monitoring data, the 2015-2017 design value is "substantially below the level of the standard" which has been defined in previous limited maintenance plan guidance as not more than 85% of the level of the standard; which in this case is 71 ppb for the 1997 8-hour ozone standard (85% of 84 ppb).
- 2. Based on certified ambient monitoring, the design values should not be "highly variable during preceding years".

Both of these requirements are satisfied for the Murray Partial County maintenance area with supporting data and tables provided in Section 2 of this document.

1.4 Requirements of a Limited Maintenance Plan

This document has been prepared with all of the required elements of a limited maintenance plan according to "*Resource Document for 1997 Ozone NAAQS Areas: Supporting Information for States Developing Maintenance Plans. November 20, 2018*".

- 1. Ambient monitoring data demonstrates continued attainment of the 1997 8-hour ozone NAAQS since attaining the standard with 2015-2017 design values below 85% of the level of the standard. In addition, assurances of continued monitoring of air quality at the same level as for the first maintenance plan and reporting annually of the design value.
- 2. Emissions inventory: A limited maintenance plan is not required to project emissions until the end of the maintenance period which for the Murray County 1997 8-hour ozone maintenance area is November 15, 2027.
- 3. Proof of stable or improving air quality trend: This can be generally demonstrated by showing a downward trend of design values by looking at the previous few years of design values.
- 4. Continued application of control measures as listed in the previous 10-year maintenance plan.
- 5. List of contingency plans that would be triggered in the remote chance that the design value, over the last 10 years of the maintenance period, approaches or exceeds the 1997 8-hour ozone NAAQS.
- 6. Continued application of transportation conformity.

2.0 Ambient Monitoring Data

2.1 Review and Assessment of Monitored Ozone Concentrations

2.1.1 Overview

The 1997 NAAQS for ground-level ozone is 0.08 parts per million (ppm) based on an 8-hour average concentration. Because of the EPA-established rounding convention, an 8-hour monitor reading of 0.085 ppm is considered an exceedance of the 8-hour ozone standard, whereas a reading of 0.084 ppm is not. For the purpose of this demonstration, the units of ppb are used so 84 ppb is considered the limit for the standard and less than or equal to 85% of that is less than or equal to 71 ppb. Compliance with the 1997 8-hour ozone NAAQS is based on an average of the annual 4th highest 8-hour daily maximum concentrations from each of the last three years of ambient air monitoring data. A violation of the ozone NAAQS occurs when the three-year average of the annual 4th highest 8-hour daily maximum concentrations exceeds 84 ppb; therefore, the limited maintenance plan requires a current design value equal to or below 71 ppb.

The 2015-2017 ozone design value for the Murray Partial County area demonstrates compliance with the 8-hour ozone NAAQS with a level of 65 ppb, which is well below the 85% level (71 ppb). The 2001-2003 ozone design value was 85 ppb. Since then, the ozone design values in the Murray Partial County area have generally decreased. The 2002-2004 ozone design value of 83 ppb brought the area into attainment. The most recent design value (2018-2020) is 62 ppb.

2.1.2 Ozone Monitoring Network

There is currently one ambient ozone monitoring station, Fort Mountain, in the Murray Partial County ozone maintenance area. This monitoring station has been installed and operated in accordance with 40 CFR 58, which provides adequate coverage of the maintenance area and has been representative of the area of highest concentration. The Fort Mountain monitor in the Chattahoochee National Forest has remained in its original location since the design value period 2002-2004, and the monitor will remain in this place throughout the remainder of the maintenance period. Table 2-2 contains a summary of the 8-hour ozone design values for each year at the monitor in the Murray Partial County maintenance area, starting with 2001-2003 and continuing all the way to the current three-year period. The Murray Partial County 8-hour ozone maintenance area monitoring network has been operational since 1999. Prior to 1999, the monitor was previously located at Jacks River Road in adjacent Fannin County, located in the Cohutta Wilderness Area of the Chattahoochee National Forest. Data from the Fort Mountain monitor in Table 2-1 is used in this evaluation.

1997 8-Hour Ozone Second Maintenance Plan for the Murray Partial County Maintenance Area



Figure 2-1. Georgia Ozone Monitor Locations as of 2021.

Site Name	County	AQS Identification Number	Date Established		
Fort Mountain, Cohutta Overlook	Murray	13-213-0003	1999		

Table 2-1. Murray County Ozone Monitor Location as of 2004

2.1.3 Ambient Ozone Monitoring Data

All the ozone ambient monitoring data was collected in accordance with 40 CFR 58 and has been submitted to EPA's Air Quality System (AQS). This process continues through the collection of the current data for calculating the 2018-2020 design value. The actual method for determining attainment of the 8-hour ozone standard is contained in 40 CFR 50.10. The standard is attained when the 3-year average of the annual fourth-highest daily maximum 8hour average ozone concentration is less than or equal to 0.08 ppm (which is equivalent to 84 ppb), as determined by Appendix I, 40 CFR 50. The number of significant figures in the level of the standard dictates the rounding convention for comparing the computed 3-year average annual fourth-highest daily maximum 8-hour average ozone concentration with the level of the standard. The third decimal place of the computed value is rounded, with values equal to or greater than 5 rounding up. Thus, a computed 3-year average ozone concentration of 0.085 ppm or 85 ppb is the smallest value that is greater than 0.08 ppm. As stated in Appendix I of 40 CFR 50, a valid maximum daily average value may not be available for each day of the year, and it is necessary to account for any such missing values when calculating the fourth highest value for a particular calendar year. The results of this analysis for the Murray Partial County area are shown in Tables 2-2 and 2-3. Figure 2-2 gives a visual illustration of Table 2-2 indicating a general downward trend.

The listing of the design values showing the three-year average of the fourth highest ozone concentrations at these monitors for all these years is included in Table 2-2 below. Design values for the last several years have been stable and well below 85% of the 1997 8-hour ozone NAAQS (\leq 71 ppb).

As Table 2-2 and Figure 2-2 indicate, the history of ozone design values is generally downward. The largest increase in recent history occurred between the 2013-2015 and 2014-2016 design values (1 ppb increase) following which the design values continued to decrease.

Design Value Year	Design Value (ppb)
2001-2003	85
2002-2004	83
2003-2005	79
2004-2006	76
2005-2007	79
2006-2008	78
2007-2009	76
2008-2010	73
2009-2011	71
2010-2012	72
2011-2013	68
2012-2014	66
2013-2015	64
2014-2016	65
2015-2017	65
2016-2018	65
2017-2019	65
2018-2020	62

 Table 2-2. Ozone Design Values at the Fort Mountain Monitor Location.



Figure 2-2. Murray Partial County Area 3-Year Ozone Design Value History.

Table 2-3 is a summary of the fourth-highest daily maximum 8-hour average ozone concentration for the Fort Mountain monitor for each year from 2003 to 2020. This table further demonstrates how ozone values have remained well below the standard since 2009, and below 71 ppb since 2012, even with 2016 being the fourth hottest summer on record in north Georgia. The trend is more variable since these are annual values, but a clear downward trend is seen with a sizable drop of approximately 20 ppb from the mid-2000s to present day.

Year	Annual Value (ppb)
2003	85
2004	74
2005	80
2006	75
2007	82
2008	76
2009	69
2010	73
2011	73
2012	70
2013	62
2014	67
2015	63
2016	67
2017	66
2018	64
2019	67
2020	57

 Table 2-3. Ozone 4th Highest Annual Values (2003-2020)

3.0 Emissions Inventory

In a limited maintenance plan, the maintenance demonstration requirement is considered satisfied if the monitoring data shows the area is meeting the air quality criteria for limited maintenance areas (i.e., 85% or lower of the 1997 8-hour ozone NAAQS). Because the ozone design values are meeting the 85% threshold, LMPs are not required to project emissions over the maintenance period. Since the ozone redesignation for the Murray Partial County area for 1997 8-hour ozone was effective on November 15, 2007, the 20-year maintenance period ends November 15, 2027. This document assures maintenance of the 1997 8-hour ozone NAAQS throughout that time.

As stated earlier, a projected emissions inventory is not required, but EPA's Resource Document provides links to already prepared emissions inventories to illustrate emissions trends in support of LMPs⁸. Included below are two summary tables generated from the data EPA has made available from the 2014 National Emissions Inventory (NEI) with projections out to 2028. The 2014 emissions inventory information is from the EPA 2014 version 7.0 modeling platform. The U.S. Environmental Protection Agency (EPA) developed an air quality modeling platform for air toxics and criteria air pollutants that represents the year 2014 based on the 2014 National Emissions Inventory (NEI), version 2 (2014NEIv2). This 2014 modeling platform includes all criteria air pollutants and precursors. The air quality modeling platform consists of all the emissions inventories and ancillary data files used for emissions modeling, as well as the meteorological, initial condition, and boundary condition files needed to run the air quality model. For information on how EPA developed this inventory, visit EPA's Air Emissions Modeling Website⁹. The 2028 emissions inventory is projected from EPA's 2011 version 6.3 modeling platform. The inventory documentation for this platform can be found on EPA's Air Emissions Modeling Website¹⁰. Table 3-1 and Table 3-2 illustrate the projected changes in NO_x and VOC emissions by sector (Fire, Nonpoint, Nonroad, Onroad and Point) in Murray County between 2014 and 2028. Note, these emissions are the total cumulative emissions for the summer months (May through September) for the entire county (Appendix A), while the maintenance area only includes a part of Murray County. Based on data contained in Table 3-1, total summer-time NO_x emissions are expected to decline approximately 27% between 2014 and 2028. Similarly, Table 3-2 indicates that total summertime VOC emissions will decline approximately 44% over the same time. These projected decreases in emissions will ensure that the Murray Partial County area will continue to maintain the 1997 8-hour ozone NAAQS.

⁸ https://www.epa.gov/ground-level-ozone-pollution/1997-ozone-national-ambient-air-quality-standards-naaqs-nonattainment

⁹ https://www.epa.gov/air-emissions-modeling/2014-2016-version-7-air-emissions-modeling-platforms

¹⁰ https://www.epa.gov/air-emissions-modeling/2011-version-63-platform

NOx	Fi	ire	Non	point	Non	road	On	road	Po	int	То	tal
County	2014	2028	2014	2028	2014	2028	2014	2028	2014	2028	2014	2028
Murray	0	1	77	97	37	26	260	52	60	140	433	315

Table 3-1. Murray County NO_x Emissions in 2014 and 2028 (Summer tons¹¹)

Table 3-2. Murray County VOC Emissions in 2014 and 2028 (Summer tons)

VOC	Fire		Non	point	it Nonroad Onroad		Po	int	То	tal		
County	2014	2028	2014	2028	2014	2028	2014	2028	2014	2028	2014	2028
Murray	0	1	224	171	45	40	190	39	28	24	487	274

¹¹ Summer tons is defined as the total cumulative emissions for May through September.

4.0 Maintenance Demonstration

4.1 State and Federal Measures

As stated in the Sally L. Shaver memo¹² titled "Limited Maintenance Plan Option for Nonclassifiable Ozone Nonattainment Areas":

The EPA believes if the area begins the maintenance period at or below 85% of exceedance levels, the air quality along with the continued applicability of PSD requirements, and control measures already in the SIP, and Federal measures, should provide adequate assurance of maintenance over the initial 10-year maintenance period

PSD requirements under Georgia Rules for Air Quality Control 391-3-1-.02(7):

• All new major sources and major modifications in Georgia, are currently subject to Prevention of Significant Deterioration (PSD) under Georgia Rules for Air Quality Control 391-3-1-.02(7).

In addition to the above-mentioned PSD requirements, Georgia has in place the following SIP approved rules that will help with maintenance of the 1997 ozone standard. SIP Approved Rules:

- Georgia Rules for Air Quality Control 391-3-1-.02(2)(yy) Emissions of Nitrogen Oxides from Major sources.
- Georgia Rules for Air Quality Control 391-3-1-.02(2)(jjj) NO_x Emissions from Electric Utility Steam Generating Units.
- Georgia Rules for Air Quality Control 391-3-1-.02(2)(111) NO_x from Fuel Burning Equipment.
- Georgia Rules for Air Quality Control 391-3-1-.02(2)(rrr) NO_x from Small Fuel Burning Equipment.
- Georgia's Rules for Enhanced Inspection and Maintenance 391-3-20 Vehicle Emissions Inspection and Maintenance (I/M) Program.
- Georgia Rules for Air Quality Control 391-3-1-.02(13) Cross State Air Pollution Rule NO_x Annual Trading Program.

Additionally, the following national standards are now being implemented in various phases:

- Onboard Refueling Vapor Recovery for Light Duty Vehicles.
- Architectural and Industrial Maintenance Coatings.
- Automobile Refinishing.

¹²https://www3.epa.gov/ttn/naaqs/aqmguide/collection/cp2/19941116_shaver_limited_maintenance_nonclassif iable.pdf

- The National Emission Standards for Hazardous Air Pollutants (NESHAP); the majority of which are for VOC.
- Phase II Acid Rain Program for NO_x.
- Tier 2 Motor Vehicle Emissions Standards and Gasoline Sulfur Control Requirements (65 FR 6697).
- Tier 3 Motor Vehicle Emissions Standards and Gasoline Sulfur Control Requirements (79 FR 23414)
- Cross State Air Pollution Rule

5.0 Mobile Source Emissions Budget

5.1 Mobile Source Maintenance Budgets Under a Limited Maintenance Plan

As stated in the Sally L. Shaver memo titled "Limited Maintenance Plan Option for Nonclassifiable Ozone Nonattainment Areas":

The transportation conformity rule (58 FR 62188; November 24, 1993) and the general conformity rule (58 FR 63214; November 30, 1993) apply to nonattainment areas and maintenance areas operating under maintenance plans. Under either rule, one means of demonstrating conformity of Federal actions is to indicate that expected emissions from planned actions are consistent with the emissions budget for the area. Emissions budgets in limited maintenance plan areas may be treated as essentially not constraining for the length of the initial maintenance period because it is unreasonable to expect that such an area will experience so much growth in that period that a violation of the ozone NAAOS would result. In other words, EPA would be concluding that emissions need not be capped for the maintenance period. Therefore, in areas with approved limited maintenance plans, Federal actions requiring conformity determinations under the transportation conformity rule could be considered to satisfy the "budget test" required in sections 93.118, 93.119, and 93.120 of the rule. Similarly, in these areas, Federal actions subject to the general conformity rule could be considered to satisfy the "budget test specified in section 93.158 (a) (5) (i) (A) of the rule.

Therefore, the second 1997 8-hour ozone limited maintenance plan for the Murray Partial County area does not need to provide a mobile source emissions budget.

6.0 Ozone Monitoring Network

6.1 Continued Operation of Monitoring Network

To verify the attainment status of the area over the maintenance period, the limited maintenance plan should contain provisions for continued operation of an EPA-approved air quality monitoring network, in accordance with the 40 CFR Part 58. This is particularly important for areas using LMPs because there is essentially no cap on emissions.

The current ambient ozone monitor operating at the Fort Mountain site in Murray County will continue to operate unless a change is approved by EPA. No plans are underway to discontinue operation, relocate, or otherwise affect the ambient monitoring network in place. Current ozone monitoring operations are consistent with the requirements of 40 CFR Part 58; any EPA approved changes that are ever made will also be consistent with 40 CFR Part 58 requirements.

7.0 Contingency Plan

Section 175A(d) of the Clean Air Act Amendments requires that the maintenance plan include provisions for contingency measures that would promptly be implemented by the state to correct any violation of the 1997 8-hour ozone NAAQS after redesignation to attainment. A list of potential contingency measures that could be considered for future implementation in such an event should also be included in the maintenance plan.

EPD developed a contingency plan for the Murray Partial County 8-hour ozone maintenance area for the first 10-year maintenance plan which will continue to apply to the second 10-year maintenance plan. Contingency measures are intended to provide further emission reductions in the event that violations of the 1997 8-hour NAAQS occur after redesignation to attainment. Consistent with this plan, EPD agrees to adopt and implement, as expeditiously as practicable, the necessary corrective actions in the event that violations of the 1997 8-hour ozone NAAQS occur anywhere within the Murray Partial County maintenance area after redesignation to attainment. Contingency measures as described below would be implemented within 24 months of a contingency measure trigger.

Under Section 175A(d), the minimum requirement for contingency measures is the implementation of all measures that were contained in the SIP before the redesignation. However, due to the fact that this area has attained the 8-hour ozone NAAQS prior to requiring the submittal of an Attainment Demonstration SIP revision, the area is currently not subject to any ozone abatement measures, and none are required as per guidance prescribed by the Seitz Memo¹³.

The State of Georgia will use ambient monitoring data and emission inventory trends as the indicators to determine whether contingency measures would be implemented. In accordance with 40 CFR Part 58, ambient ozone monitoring data that indicates a violation of the ozone NAAQS will begin the process to implement these contingency measures according to the protocols identified below. The contingency plan provides for corrective responses should the 8-hour ozone NAAQS be violated, or if emissions in the Murray Partial County maintenance area increase significantly above current levels

7.1 Contingency Measure Trigger

Tier I: Any 8-hour ozone monitoring reading exceeding 84 ppb at the Fort Mountain ambient monitoring station located in the Murray Partial County maintenance area or, if the periodic emission inventory updates reveal excessive or unanticipated growth greater than 10% in anthropogenic emissions of either NOx or VOCs over the baseline or intermediate emissions inventories for the Murray Partial County maintenance area (as determined by the triennial emission reporting required by AERR (80 FR 8787)). EPD will evaluate the exceedances as expeditiously as practicable to determine if the trend is likely to continue. If it is determined

¹³ https://archive.epa.gov/ozonedesignations/web/pdf/cleandatapol51095.pdf

that additional emission reductions are necessary, EPD will implement the Tier II schedule below to implement any required measures as expeditiously as practicable, taking into consideration the ease of implementation and the technical and economic feasibility of selected measures. It should be noted that EPA does not require a state to implement contingency measures when occasional exceedances are recorded.

Tier II: Any recorded violation of the 1997 8-hour ozone NAAQS at the Fort Mountain ambient monitoring station in the Murray Partial County maintenance area. EPD will conduct a comprehensive study to determine the causes of the violation and determine if the trend is likely to continue. Since the Murray Partial County area is often influenced by emissions from sources outside the maintenance area, the study will also determine if the source of the violation is due to local emissions, emissions from other areas within Georgia, or transport due to out-of-state contributions.

The comprehensive analysis, based on quality assured ambient data, will examine:

- The number and severity of the ambient ozone violations of the standard;
- The meteorological conditions contributing to ozone levels;
- Potential local contributing emissions sources;
- Potential contributing emission sources of transport;
- The geographic applicability of possible contingency measures;
- Emission trends, including implementation timelines of potential control measures;
- Current and recently identified control technologies; and
- Air quality contributions from outside the state of Georgia.

If it is determined that the violation is due to local or in-state sources, EPD will implement the necessary controls as expeditiously as possible. At least one contingency measure will be implemented within 18 to 24 months after Georgia makes a determination, based on quality-assured ambient data, that a violation of the NAAQS has occurred.

If the source of the emissions is due to out-of-state contributions, EPD is committed to work with those states in an attempt to assess the source(s) of emissions and to determine what likely reductions may be achieved.

Steps for Implementing Contingency Measures	Timeline*
Comprehensive analysis	6 months
Identify potential sources for reductions.	3 months
Identify applicable control measures.	3 months
Initiate a stakeholder process.	3 months
Draft SIP regulations.	3 months
Initiate rulemaking process (including public comment period, hearing,	6 months
DNR Board adoption, and final submission to EPA). This process may be	
initiated simultaneously with drafting of regulations.	
Completion no later than:	24 months

Table 7-1.	Timeline and	l Steps for	r Implementing	Contingency	Measures.
		- ~ • • • • • • •		Commission Service	1.1.4.4.0.4.1.4.0.4

*Timeline begins when a determination is made based on quality-assured data that a trigger has occurred.

7.2 Contingency Measures

If the analysis required above determines that the Murray Partial County maintenance area is the source of emissions that contribute to the 1997 ozone NAAQS violation, EPD will evaluate those measures as specified in Section 172 of the CAA for control options as well as other available measures. Contingency measure(s) will be selected from those identified below or from any other measure deemed appropriate and effective at the time the selection is made. Any resulting contingency measure(s) will be based upon cost effectiveness, emission reduction potential, economic and social considerations, ease and timing of implementation, and other appropriate factors. Implementation of necessary controls will take place as expeditiously as possible. At least one contingency measure will be implemented within 18 to 24 months after Georgia makes a determination, based on quality-assured ambient data, that a violation of the NAAQS has occurred. Below are some controls that will be considered by EPD:

- Reasonably Available Control Measures (RACM) for all sources of NO_x and VOC
- Reasonably Available Control Technology (RACT) for existing point sources of NOx and VOC
- Expansion of RACM/RACT to area(s) of transport within the State
- Mobile Source NO_x and VOC control measures
- Additional NO_x and VOC reduction measures yet to be identified

As the Murray Partial County maintenance area is located in a National Forest, and therefore has no significant sources of emissions that could be subject to controls, any emission contributions to violations of the standard that the above analysis deems necessary will most likely fall within the Atlanta or Chattanooga metropolitan areas, which are both currently subject to ozone maintenance area SIP provisions. Additional control options for the Atlanta metropolitan area are limited due to the fact that the area was previously subject to the 1-hour ozone severe designation, and most significant emission control measures have already been utilized. Those measures ultimately resulted in the attainment of the 1-hour ozone standard

for the Atlanta area. In addition, the Atlanta 8-hour ozone redesignations to attainment for both the 1997 and 2008 ozone NAAQS indicate even greater improvements to the air quality in Atlanta. Similarly, the Chattanooga area is subject to emission limitations associated with the Chattanooga 8-hour ozone Early Action Compact (EAC) that has already resulted in monitored 8-hour design values that show compliance with the standard, further abating ozone transport contributions to the Fort Mountain site. EPD contends that significant improvements in ambient level ozone due to the current SIP measures for the Atlanta and Chattanooga maintenance areas will ensure continued permanent and enforceable reductions in the precursors of ozone emissions from these contributing areas to the Murray Partial County maintenance area. However, in the event that the analysis required above determines that the Atlanta area is the source of the emissions for any violation of the 1997 8-hour ozone standard, the Atlanta maintenance plan will be updated as necessary to implement additional emission reductions.

Adoption of additional control measures is subject to necessary administrative and legal processes. EPD will solicit input from interested and affected persons (stakeholders) in the area prior to selecting appropriate contingency measures. No contingency measure will be implemented without providing the opportunity for full public participation. This process will include publication of notices, an opportunity for public hearing, and other measures required by Georgia law.

8.0 Conclusion

The 2015-2017 ozone design value for the Murray Partial County maintenance area demonstrates continued compliance with the 1997 8-hour ozone NAAQS. In addition, the 2015-2017 ozone design value for the Murray Partial County maintenance area was less than 85% of the level of the 1997 ozone standard which qualifies the Murray Partial County maintenance area for a limited maintenance plan for the second 10-year period. The emissions controls adopted in the first 10-year maintenance plan and request for redesignation to attainment continue to be permanent and enforceable. The Murray Partial County maintenance area will continue to monitor ozone levels, calculate and report design values annually, and identify any violations of the NAAQS.

The second Murray Partial County maintenance plan provides a contingency plan listing steps that the region will take in case a violation or threat of violation would occur, including a 24-month timeline and list of specific controls or procedures that would be considered for implementation. Since the late 1970s, major programs enacted in the Atlanta area have led to significant emissions reductions which have led to improvements in the air quality in Atlanta and subsequently in the Murray Partial County area. Significant emissions reductions have also been demonstrated for the Murray Partial County area. Those regulations currently in place for the Atlanta maintenance and nonattainment areas are expected to remain and will allow the Murray Partial County area to maintain the 1997 8-hour ozone NAAQS by mitigating Georgia's most significant in-state sources of ozone transport.

In summary, this second 10-year limited maintenance plan fulfills the requirements of Section 175A(b) of the Clean Air Act for second 10-year maintenance plans and Georgia hereby requests that this maintenance plan be approved and finalized into the Federal Register.