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1.0 INTRODUCTION

Duke Energy Generation Services (DEGS), formerly Cinergy Solutions of Narrows, LLC operates an industrial power house facility in Narrows, Virginia on the east side of town along the New River. Cinergy Corporation has recently merged with Duke Power. The DEGS power house, formerly owned and operated by Celanese Acetate LLC, operates nine boilers, seven of which are coal-fired boilers, and two of which are natural gas-fired boilers. DEGS boilers exclusively provide process steam and electricity to the Celanese facility.

The Virginia Department of Environmental Quality (VADEQ) has requested that the DEGS Narrows, Virginia facility conduct a BART exemption analysis, since DEGS is a BART-eligible source and possibly subject to regional haze regulations (see February 15, 2006 VADEQ letter). The EPA has issued final guidelines dated July 6, 2005 for the Best Available Retrofit Technology (BART) determinations (70 FR 39104-39172). The regional haze rule includes a requirement for BART for certain large stationary sources. Sources are BART-eligible if they meet three criteria;

1. Potential emissions of at least 250 tons per year of any visibility impairing pollutant
2. Falls within one of the 26 listed source categories in the guidance
3. Was in existence before August 7, 1977 or in operation after August 7, 1962

DEGS Boiler No. 7 is the only unit subject to BART at this time. For any BART-eligible source that can be reasonably expected to cause or contribute to impairment of visibility in any of the 156 federal parks and wilderness (Class I) areas, protected under the regional haze rule, a BART engineering evaluation is required using five factors: 1) existing controls; 2) cost to control; 3) energy requirements and non-air environment impacts of control; 4) remaining useful life of the source; 5) degree of visibility improvement expected from the application of controls. After considering the five factors it is possible that the BART engineering evaluation may result in no controls.

Air quality modeling is an important tool available to the states to determine whether a source can be reasonably expected to contribute to visibility impairment in a Class I area. Class I areas are national parks and wilderness areas in which visibility is more stringently protected under the Clean Air Act than any other areas in the United States. DEGS has retained the services of Trigon Engineering Consultants, Inc. (Trigon) to assist in addressing the impact modeling issues involved with the BART analysis. Trigon

is submitting the following modeling analysis for approval by the VADEQ and the Federal Land Managers (FLM). The FLM and VADEQ reviewed and approved DEGS modeling protocol submitted in May, 2006 with the following conditions (see July 18, 2006 VISTAS protocol revisions):

1. Forego the use of the Ammonia Limiting Method (ALM). DEQ has elected not to apply the ALM for any BART exemption modeling. As a result, a constant background value for ammonia of 0.5 ppb should be used.
2. Use Pasquill–Gifford dispersion coefficients in lieu of turbulence based dispersion coefficients.
3. Calculate natural background conditions using either the "20% best days" method or the annual average method. For this analysis DEQ suggested the use of the annual average method.
4. DEQ recommends the use of the existing IMPROVE algorithm to reconstruct light extinction.

DEGS has adhered to these requests in performing the modeling analysis. The BART exemption modeling was consistent with the guidance in the latest VISTAS protocol (revision 3 – 7/18/06). This document presents the procedures and the results of an air dispersion modeling analysis conducted for the DEGS facility. The modeling was conducted to evaluate whether the DEGS facility may cause or contribute to a visibility impact and therefore be subject to BART. As documented in this report, the modeled visibility impacts from Boiler No. 7 emissions from the DEGS facility are less than 0.5 deciviews (dv). The DEGS, Narrows facility is therefore not subject to BART.

2.0 SOURCE DESCRIPTION AND EVALUATION

2.1 LOCATION OF SOURCES VS. RELEVANT CLASS I AREAS

The DEGS power house is located at 37.34277 North latitude and -80.7675 West longitude (approximate Lambert conformal conic (LCC) coordinates are 1,420.322 kilometers east and -166.335 kilometers north) about 1.9 miles east of Narrows, Virginia along the New River, and approximately 5 miles east of the West Virginia line. DEGS is situated in a deep river valley with significant terrain elevations surrounding the plant and on both sides of the New River (Figure 1). The terrain surrounding the DEGS power house (at 1600 feet MSL) is mountainous, with elevations rising to 3,300 feet (MSL) just 1.5 miles north of the plant. Just to the south across the river, peak elevations exceed 3,600 feet (MSL) 1.8 miles from the plant, and rise to 3,770 feet (MSL) about 2.4 miles south southeast of the plant.

There are seven Class I areas located within 300 km of the DEGS power house site that require evaluation. They are the Dolly Sods and Otter Creek Wilderness Areas in West Virginia, Shenandoa National Park and James River Face Wilderness Area in Virginia, Linville Gorge Wilderness Area, Shining Rock Wilderness Area, Great Smoky Mountains National Park, and Joyce–Kilmer Slickrock Wilderness Area in North Carolina (See Table 1 and Figure 2). All other Class I areas were greater than 300 km away from DEGS. Joyce–Kilmore Slickrock Wilderness was greater than 300 km away, however, since it was within the 50 km buffer zone it was included in the analysis.

2.2 SOURCE IMPACT EVALUATION CRITERIA

DEGS has one BART-eligible unit (PC coal-fired Boiler No. 7) that was evaluated to determine if it is subject to BART requirements. The BART-eligible potential emissions for Boiler No. 7 appear in Table 2. If modeled impacts from the BART-eligible source exceed the threshold value of 0.5 deciviews (dv), then the source is subject to BART. Table 2 summarizes Boiler No. 7 potential-to-emit emission values for SO_2, NO_x, and PM. A source is eligible for BART if potential emissions of visibility-impairing air pollutants are greater than 250 tons per year. Qualifying pollutants include primary particulate matter (PM_{10}) and gaseous precursors to secondary fine particulate matter, such as SO_2 and NO_x. DEGS's Boiler No. 7 has potential emissions of SO_2 and NO_x which exceed the 250 ton per year cutoff, and potential emissions of PM_{10} which exceed the 15 ton per year *de minimis* level.

2.3 UNIT-SPECIFIC SOURCE DATA

Unit-specific (Boiler No. 7) source data and emission rates for the visibility-impairing pollutants SO_2, NO_x, and PM_{10} (including speciated data for PM_{10}), appear in Table 3. The emission rates and stack parameters shown in Table 3 were applied in the BART exemption modeling. The daily emission rates utilized in the BART exemption modeling analysis represents potential emission rates for DEGS coal-fired Boiler No. 7. These potential emission rates are based on the boilers design rating of 322 million Btu's per hour and 108,623 tons of coal per year. DEGS used potential emission rates instead of maximum actual emission rates for the highest emitting day over the most recent 3 to 5 year period, since adequate documentation was not available to justify using actual emissions.

Emissions of NO_x, SO_2, SO_4, PM, and secondary organic aerosols were evaluated. PM emissions were speciated into PM_{10} (PMC or PM Coarse) and $PM_{2.5}$ (PMF or PM Fine). Based upon the latest guidance from VISTAS, DEGS did not evaluate the visibility impacts of volatile organic compounds (VOCs) or ammonia emissions. The stack parameters and emission rates evaluated are provided in Tables 2 and 3. The speciated emission calculations are found in Appendix A.

3.0 BART EXEMPTION MODELING ANALYSIS

3.1 OVERVIEW

According to the BART regulation (FR 39162), a source contributes to visibility impairment in a Class I area if modeled visibility impacts are at least a 0.5 deciview (dv) impact. Sources which do not contribute to visibility impairment in a Class I area are not subject to the BART requirements. This section describes the procedures employed and the results of the modeling conducted in evaluating whether the DEGS facility in Narrows, VA is subject to BART.

The BART exemption modeling analysis involved modeling Boiler No. 7 emissions and comparing modeled impacts to the 0.5 deciview threshold. Since the modeling demonstrates that the BART-eligible emission unit at DEGS contributes less than a 0.5 dv change at any of the eight class I areas, the plant is exempt from further BART review.

The modeling followed EPA's Interagency Workgroup on Air Quality Modeling (IWAQM) and VISTAS guidance. A refined modeling analysis approach, as recommended by the VADEQ, was used in the BART exemption analysis. For the modeling, CALPUFF (version 5.754) was applied with a 3-yr, 4 km sub-regional CALMET meteorological dataset provided by VADEQ. The maximum, 24-hour average value for all receptors in each Class I area was compared to the threshold value of 0.5 dv. It was determined that the maximum value was below the 0.5 dv threshold at all Class I areas. The sub-regional domain 5 covers all of Class I areas shown in Table 1. The 98th percentile value (i.e., the 8th highest value for each year from the full three years) from the 4 km data, as well as the annual average background values, were used in making the comparison to the 0.5 dv criterion.

In creating the CALMET input files, VISTAS used the MM5 databases developed by Earth Tech (TRC) and made available through VISTAS. For the finer resolution sub-domain (4 km grid), available surface and upper air observations were used in addition to MM5 meteorological model outputs.

3.2 MODELING DOMAIN

3.2.1 CALMET Domain

A regional initial domain (12 kilometer grid scale) and a set of pre-computed regional CALMET meteorological files have been prepared by VISTAS, to allow any Class I areas within the VISTAS area to be evaluated with a consistent meteorological database and consistent CALPUFF modeling options. Typically the regional screening modeling results will indicate if a finer resolution run in necessary. However, since the VADEQ has determined that DEGS's only BART-eligible source (Boiler No. 7) has a Q/d (emissions in tons per year divided by distance in kilometers from a Class I area boundary) greater than 10, based on the boilers SO_2 emissions, the VADEQ recommended that DEGS skip the initial first cut screening with the 12 kilometer grid, and instead perform modeling using VISTAS fine grid resolution (4 kilometer grid) for the sub-regional modeling domain number 5. As a result, DEGS conducted the BART exemption modeling with the fine grid resolution in the sub-regional modeling domain. The sub-region domain for CALMET data coverage appears in Figure 3. The CALMET domain location, number of grid cells, and grid spacing are referenced in Table 4.

3.2.2 CALPUFF Domain

Cinergy's boiler No. 7 is located at 37.34277 North latitude and -80.7675 West longitude approximately 2 miles east of Narrows, Virginia. Eight Class I areas are within 300 kilometers of DEGS Boiler No. 7. The CALPUFF computational modeling domain (computational grid) covers all eight Class I areas, including those in Virginia, North Carolina, and West Virginia. The domain covers an area extending 50 kilometers beyond the furthest distance to the affected Class I areas, since the CALPUFF modeling guidance suggests a 50-km buffer zone be included in each direction in establishing the computational modeling domain. The CALPUFF computational domain is smaller than the VISTAS refined CALMET domain 5, and is the area over-which emissions are tracked through puff releases from the Boiler No. 7 stack. The CALPUFF domain is defined by southwest and northeast corners, number of grid cells, and grid spacing, all of which are referenced in Table 4. As shown in Figure 3, the domain extends 561 km in the longitudinal and 510 km in the meridional directions.

3.3 METEOROLOGICAL DATA BASE

3.3.1 MM5 Simulations

The CALMET-ready 4-km MM5 data, produced by Earth Tech and made available through VISTAS, was applied in the fine grid modeling analysis. MM5 meteorological data have been assembled by VISTAS for the BART modeling efforts for the 2001 to 2003 time period.

These datasets have been provided to Earth Tech by VISTAS, and from them Earth Tech has produced annual CALMET meteorological files at 12-km grid resolution for the entire Southeastern Region and at 4-km grid resolution for five sub-regional domains. The CALMET modeling output files in the form of CALPUFF-ready three-dimensional meteorological files have been made available from the States on external hard drives.

3.3.2 Measurements and Observations

Fine grid CALMET simulations were run by Earth Tech in the hybrid mode, using both MM5 data to define the initial guess fields and meteorological observational data. Overwater (buoy) data were provided in addition to the hourly surface meteorological observations, precipitation observations, and twice-daily upper air sounding data.

3.4 CALPUFF INPUT

The VISTAS-provided CALMET output was input to the CALPUFF model, which simulates the effects of the meteorological conditions on the transport and dispersion of pollutants from an individual source. No CALMET runs were therefore required to process meteorological, land use, or terrain data. As a result, CALMET settings are not discussed further.

3.4.1 Emission Data

The pollutant species modeled included SO_2, SO_4, NO_X, and particulate matter in size categories of <0.625 μm, 0.625 to 1.0 μm, 1.0 to 1.25 μm, 1.25 to 2.5 μm, 2.5 to 6.0 μm, and 6 to 10 μm aerodynamic diameters. The particulate matter emissions by size category were combined into the appropriate species for the visibility analysis.

PM_{10} Specifications:

Elemental Carbon (EC)
Fine PM or "soil" (<2.5 μm in diameter)
Coarse PM (2.5 to 10 μm in diameter)
Organics (secondary organic aerosols (SOA))

Appendix A provides emission calculations for speciated PM_{10} emissions.

3.4.2 Class I Receptors

DEGS used the FLM Class I receptors for all eight class I areas, with elevations, as obtained from the National Parks Service. The NPS receptors are shown in Figures 2, 4, 5 and 6. The receptor coordinates and elevations are provided in Appendix B.

Receptor locations for the Class I areas are provided by the National Park Service website at http://www2.nature.nps.gov/air/maps/receptors/index.cfm. The receptors are created approximately one kilometer apart. Depending on the size of the Class I area, the receptors are then extracted to every second, every third or every fourth receptor in an effort to keep the number of receptors between 100 and 1000 per area. A map of the receptor locations, for each Class I area in North Carolina, Virginia, and West Virginia, appear in Figures 4, 5 and 6.

3.4.3 Control File Settings

In general, DEGS used the default options in the CALPUFF model. Some of the options selected, including deviations from the default values, are discussed below:

- The MESOPUFF II module was used for chemical transformation (MCHEM=1)
- For dispersion, PG dispersion coefficients for rural areas was selected.
- Number of vertical layers (NZ) was set to 10 and cell face heights (ZFACE) of 0, 20, 40, 80, 160, 320, 640, 1200, 2000, 3000, 4000 meters were used (to be consistent with CALMET runs).
- Building downwash was ignored because the Class Areas I are located greater

than 50 km from the source and downwash should not influence concentration estimates.

- Read hourly ozone concentrations from the OZONE.DAT data file.
- Use constant 0.5 ppb values for monthly ammonia concentrations.

3.4.4 Ozone and Ammonia Background Concentrations

CALPUFF uses background ozone (O_3) values in its chemistry module. The model accepts either a single background value or an input file of hourly ozone values commensurate with the period of the meteorological data. DEGS used the observed ozone data for 2001-2003 from CASTNet and AIRS stations. DEGS obtained the O_3 data already extracted from Beeline Software's website. Per VISTAS Guidance, DEGS also used a constant ammonia background value of 0.5 ppb.

3.4.5 Natural Conditions at Class I Areas

The purpose of the CALPUFF modeling is to determine the cause and/or contribution of BART-eligible sources to the impairment of visibility to Class I areas within 300 km of the facility location. The threshold value of delta 0.5 deciviews (*dv*) is used to determine the affects of the Option C visibility-impairing pollutants SO_2, NO_x, and PM_{10}, which are emitted from BART-eligible sources. This means that any source resulting in a 0.5 *dv* change in visibility from the natural conditions at the affected Class I areas may be subject to BART guidelines. The deciview is a unit of measurement of haze, implemented in a haze index (HI) which is derived from calculated light extinction, and which is designed so that uniform changes in haziness correspond approximately to uniform incremental changes in perception across the entire range of conditions, from pristine to highly impaired.

Natural visibility conditions represent the long-term degree of visibility that is estimated to exist in a given mandatory Federal Class I area in the absence of human-caused impairment. These conditions are calculated from the EPA's IMPROVE method using particulate matter to calculate light extinction values. The baseline conditions refer to the conditions on the 20% best visibility days averaged annually. The methods for computing the natural visibility conditions are found in the EPA Guidance for Estimating Natural Visibility Under the Regional Haze Rule. The conditions at each Class I area are shown in Appendix C.

3.5 POSTUTIL AND CALPOST INPUT

3.5.1 Calculation Methods for Background Light Extinction

The CALPOST control file was set such that the background light extinction calculation Visibility Method 6 (MVISBK=6) was used. This is the VISTAS default value as described in the VISTAS protocol document. As required by Method 6, the EPA Class I area-specific monthly relative humidity values f (RH) based on the centroid of each Class I area were used. These values were obtained from Table A-3 of the EPA's "Guidance for Estimating Natural Visibility Conditions Under the Regional Haze Rule".

In Visibility Method 6, CALPOST also requires monthly background concentrations of ammonium sulfate, ammonium nitrate, coarse particulate mass, organic carbon, soil, and elemental carbon. Annual averages reflective of natural background conditions for these species are available in the EPA's "Guidance for Natural Visibility" document. For each Class I area, this guidance document provides separate deciview values representative of annual average natural background, and natural background for the 20 percent best days.

The EPA natural visibility guidance document however does not provide the speciated background concentrations for ammonium sulfate, ammonium nitrate, coarse particulate, organic carbon, soil or elemental carbon that is representative of the 20 percent best days. As a result, DEGS used a method provided in the revised VISTAS protocol document. Equation 3-2 of the VISTAS protocol document was used to calculate the extinction coefficient that corresponds to the EPA's haze index value for each Class I area. The Rayleigh scattering value of 10 Mm-1 was then subtracted. This value was then entered as the soil concentration (in μg/m3) in CALPOST. Background values for the other pollutants were set to 0. Appendix C provides the calculation for the background pollutant concentrations for the 20% best days.

3.5.2 Light Extinction Efficiencies and Rayleigh Scattering Value

The other values required to execute CALPOST include the light extinction efficiencies for the pollutant species identified above (i.e., ammonium sulfate, ammonium nitrate, etc.) and the extinction due to Rayleigh scattering (BEXTRAY). Dry extinction efficiencies for the pollutant species were set equal to the Table 2-1 values from the EPA Visibility Guidance Document. The value for Rayleigh scattering was set to 10 Mm-1.

3.6 MODEL RESULTS

The CALPUFF modeling system was executed with input data and settings as described in Sections 2 and 3. Delta-deciview results, necessary for comparison with the 0.5 dv visibility threshold, were obtained from the "24HR VISIBILITY (deciview)" table in the CALPOST output files. CALPOST was run separately for each Class I area in order to obtain the necessary visibility statistics for evaluating compliance with the BART finer grid modeling thresholds. The inputs to CALPOST involve selection of the visibility method (Method 6 in the standard EPA BART guidance), entry of Class I area-specific data for computing background extinction and monthly relative humidity factors for hygroscopic aerosols. The CALPOST output file contains a listing of the highest visibility impact of each day of the model simulation over all receptors included in CALPOST analysis. The peak value of change in extinction is shown at the bottom of the visibility table. The CALPOST processing computes the daily maximum change in deciviews.

In addition to the highest change in deciview value on each day over all the receptors in a particular Class I area, the CALPOST summary table contains the coordinates of the receptor, receptor type (D indicates discrete receptors), the total haze level (background + source, in dv), the background haze in deciviews, the change in haziness (delta dv), the humidity term applied to hygroscopic aerosols (f(RH)), and the contribution of each species to light extinction (in percent of the total source contribution) for SO_4, NO_3, organics, elemental carbon, coarse and fine particulate matter.

For the fine grid analysis, the data in the CALPOST output was imported into a spreadsheet and sorted on the delta dv column. The ranked visibility impacts (change in dv) were then included in a CALPOST summary table (Table 5) for each of three years and for eight different Class I areas.

The regional haze regulation and BART guideline state that the 98th percentile of 24-hour CALPUFF modeling results are to be compared with the contribution threshold for purposes of determining BART applicability. A 24-hour prediction greater than 0.5 delta-deciview at any receptor in a Class I area would constitute a day of exceedance. Up to 7 days of exceedance are therefore allowed per year per Class I area (i.e., the 98th percentile is approximated by the eighth-highest daily prediction).

The results from the 4 km grid runs are presented in Table 5. As shown, the 98% value is below the 0.5 dv criterion at each Class I area using the annual average values as background. The DEGS Narrows, Virginia facility is therefore exempt from further BART consideration. Model summary output data can

be found in Appendix D. The CALPUFF and CALPOST input and output files are provided on the enclosed CD.

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Table 1. Class I Areas Applied In CALPUFF
DEGS, Narrows, Virginia

Class I ID	Class I Description
otcr	Otter Creek Wilderness
doso	Dolly Sods Wilderness
shen	Shenandoah National Park
jari	James River Face Wilderness
ligo	Linville Gorge Wilderness
shro	Shining Rock Wilderness
grsm	Great Smoky Mountain National Park
joyc	Joyce-Kilmer Slickrock Wilderness

Table 2. BART-ELIGIBLE POTENTIAL EMISSIONS

Pollutant	Boiler No. 7 Emissions (tons/year)	BART Cutoff Level (tons/year)	De Minimis Level (tons/year)	Above Cutoff or De Minimis Levels (Yes/No)
NOx	1,169	250	40	Yes
SO2	1,827	250	40	Yes
PM_{10}	225	250	15	Yes

Emissions are based on Boiler No. 7 design heat input rating, potential fuel use, and heating value of coal.
Heat Input = 322 mmBtu per hour
Potential Fuel Use = 108,623 tons of coal per year.
Heating Value = 12,984 Btu's per pound of coal.

Table 3. SOURCE SPECIFIC MODELING PARAMETERS

a. Physical Parameters

Source		Location (UTM)			Elevation (m above MSL)	Stack Ht. (m)	Exit Temp. (K)	Exit Vel. (m/sec)	Stack Diam. (m)
Description	Type	X (km)	Y (km)	Zone					
Dry-Bottom PC Boiler # 7 (w/ ESP)	Point	521	4133	17	493	45.72	434	16.76	2.01

Boiler No. 7 is the only BART-eligible source at DEGS.

b. Emission Rates

Pollutant	Emission Rate (lbs/hr)
NO_X	267.01
SO_2	550.62

Pollutant	Speciation			Emission Rate
	Description	Name	% (wt)	(lbs/hr)
PM_{10}	PM Coarse (filterable)	PMC	10.0%	8.45
	PM Fine, Soil (filterable)	PMF	7.7%	6.51
	Elemental Carbon (filterable)	EC	0.3%	0.25
	Inorganic (condensable)	CPM IOR	65.6%	55.27
	Secondary Organic Aerosols (condensable)	CPM OR (SOA)	16.4%	13.82
	TOTALs	----	100.0%	84.30
SO_4	----	----	----	3.45

Sulfate (SO4) is assumed to be 5% of total SO2.

Table 4. CALMET & CALPUFF DOMAIN PARAMETERS

CALMET	Map Projection	LCC
	False Easting (km)	0
	False Northing (km)	0
	Hemisphere for UTM Projection	Northern
	Latitude of Projection Origin	40N
	Longitude of Projection Origin	97W
	Latitude of 1st Parrallell	33N
	Latitude of 2nd Parrallell	45N
	No. X Grid Cells	228
	No. Y Grid Cells	232
	Grid Spacing (km)	4
CALPUFF		
	SW Corner Easting UTM Coordinate (km)	166.83
	SW Corner Northing UTM Coordinate (km)	3,884.32
	NE Corner Easting UTM Coordinate (km)	785.51
	NE Corner Northing UTM Coordinate (km)	4,345.67
	X Index of SW Corner	14
	Y Index of SW Corner	54
	X Index of NE Corner	144
	Y Index of NE Corner	193
	Grid Spacing (km)	4

Table 5. Delta Deciview Visibility Impact Rankings

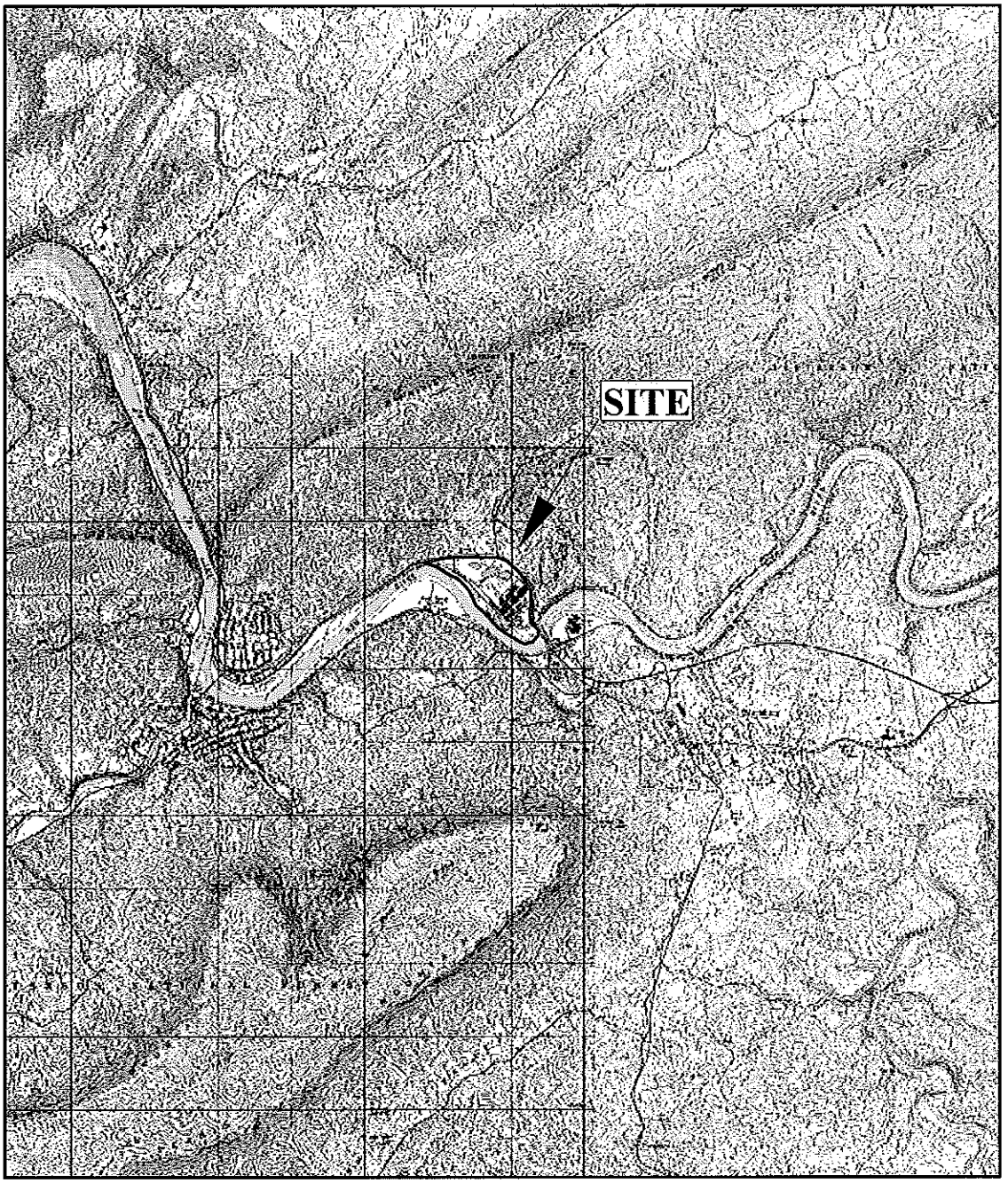
(4km CALMET Grid, Annual Average Concentrations as Background)

		Year of Meteorology		
Class I Area	Delta Deciview Rank (highest to lowest)	2001	2002	2003
Otter Creek Wilderness	1	0.242	0.119	0.461
	2	0.202	0.116	0.192
	3	0.151	0.111	0.143
	4	0.128	0.110	0.138
	5	0.124	0.103	0.137
	6	0.120	0.098	0.133
	7	0.105	0.097	0.120
	8	0.105	0.091	0.120
Dolly Sods Wilderness	1	0.189	0.112	0.379
	2	0.176	0.104	0.162
	3	0.152	0.103	0.135
	4	0.135	0.103	0.134
	5	0.124	0.096	0.120
	6	0.108	0.094	0.120
	7	0.107	0.091	0.119
	8	0.100	0.085	0.113
Shenandoah National Park	1	0.179	0.173	0.326
	2	0.170	0.137	0.209
	3	0.142	0.107	0.205
	4	0.137	0.103	0.202
	5	0.130	0.102	0.189
	6	0.115	0.101	0.173
	7	0.115	0.099	0.170
	8	0.111	0.098	0.143
James River Face Wilderness	1	0.273	0.380	0.315
	2	0.252	0.276	0.307
	3	0.214	0.272	0.298
	4	0.205	0.265	0.206
	5	0.200	0.258	0.200
	6	0.193	0.232	0.193
	7	0.186	0.209	0.185
	8	0.180	0.203	0.182

Table 5. Delta Deciview Visibility Impact Rankings

(4km CALMET Grid, Annual Average Concentrations as Background)

		Year of Meteorology		
Class I Area	Delta Deciview Rank (highest to lowest)	2001	2002	2003
Linville Gorge Wilderness	1	0.255	0.303	0.182
	2	0.235	0.179	0.160
	3	0.188	0.121	0.147
	4	0.146	0.116	0.120
	5	0.144	0.103	0.118
	6	0.129	0.099	0.096
	7	0.126	0.090	0.090
	8	0.120	0.086	0.088
Shining Rock Wilderness	1	0.090	0.088	0.105
	2	0.080	0.068	0.082
	3	0.076	0.062	0.082
	4	0.066	0.058	0.082
	5	0.057	0.054	0.079
	6	0.052	0.052	0.071
	7	0.051	0.045	0.059
	8	0.051	0.040	0.052
Great Smoky Mountain National Park	1	0.088	0.087	0.191
	2	0.082	0.077	0.130
	3	0.064	0.074	0.120
	4	0.060	0.072	0.108
	5	0.059	0.052	0.103
	6	0.053	0.051	0.103
	7	0.051	0.046	0.101
	8	0.050	0.046	0.058
Joyce-Kilmer Slickrock Wilderness	1	0.059	0.083	0.124
	2	0.037	0.054	0.093
	3	0.033	0.040	0.060
	4	0.030	0.035	0.056
	5	0.030	0.028	0.046
	6	0.027	0.023	0.037
	7	0.024	0.022	0.031
	8	0.024	0.020	0.025



0 1 2 3 4 5 km

0 0.8 1.6 2.4 3.2 4 mi

Map center is 37° 20' 44"N, 80° 45' 49"W (WGS84/NAD83)
Narrows quadrangle
Projection is UTM Zone 17 NAD83 Datum

TAIGON
ENGINEERING CONSULTANTS, INC.

Site Location Map		
DEGS - Narrows, Virginia		
JOB No:	045-06-054	Figure
DATE:	August 2006	1
DRAWN BY:	TRP	
Scale: As Noted		

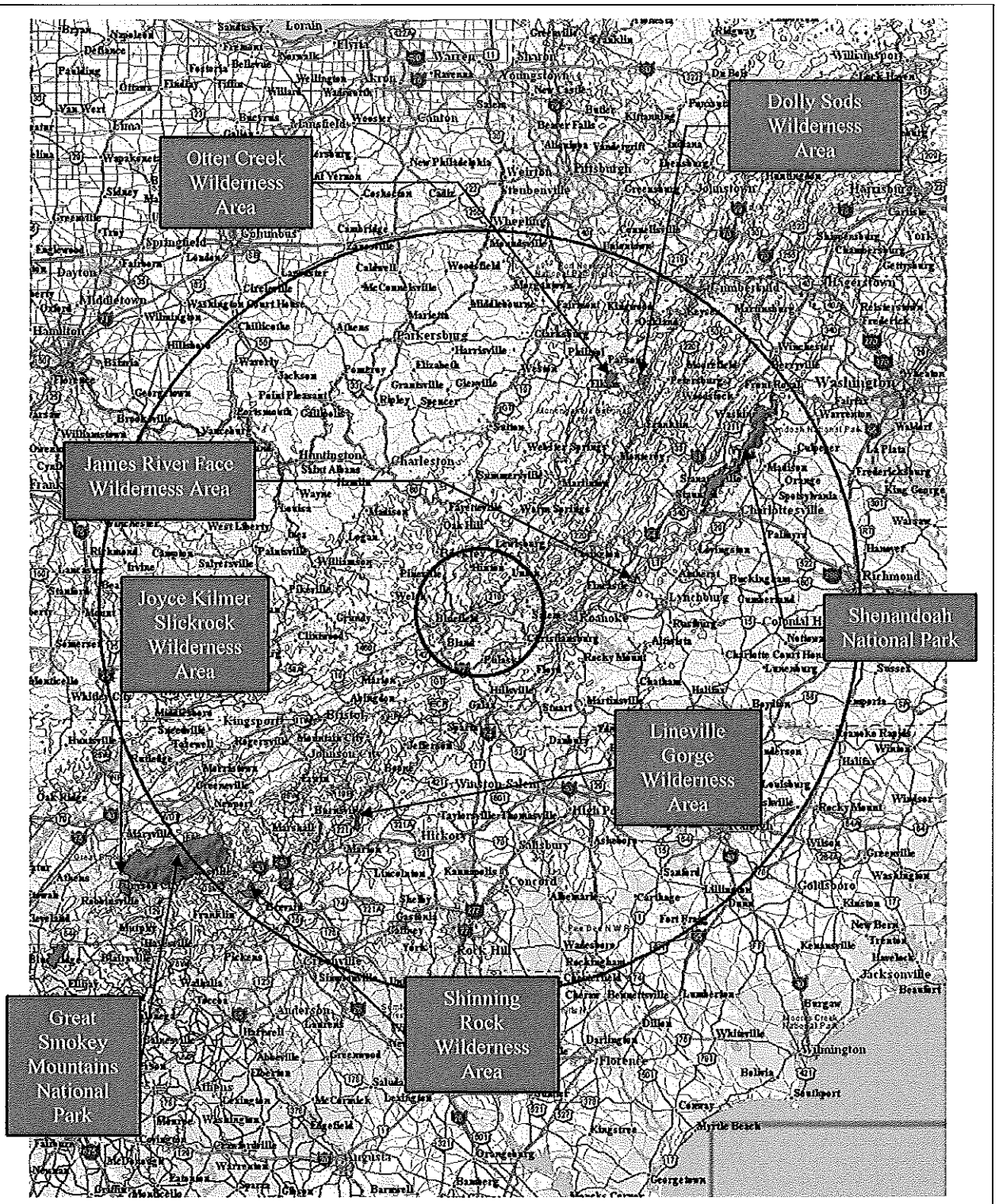


FIGURE 2 **Class I Areas (50 KM & 300 KM Impact Radii)**	Scale = 1:4,725,000	TRIGON
	Date: 4/06	
Sources: USGS, NPS, and NFS	Created By: JBW	

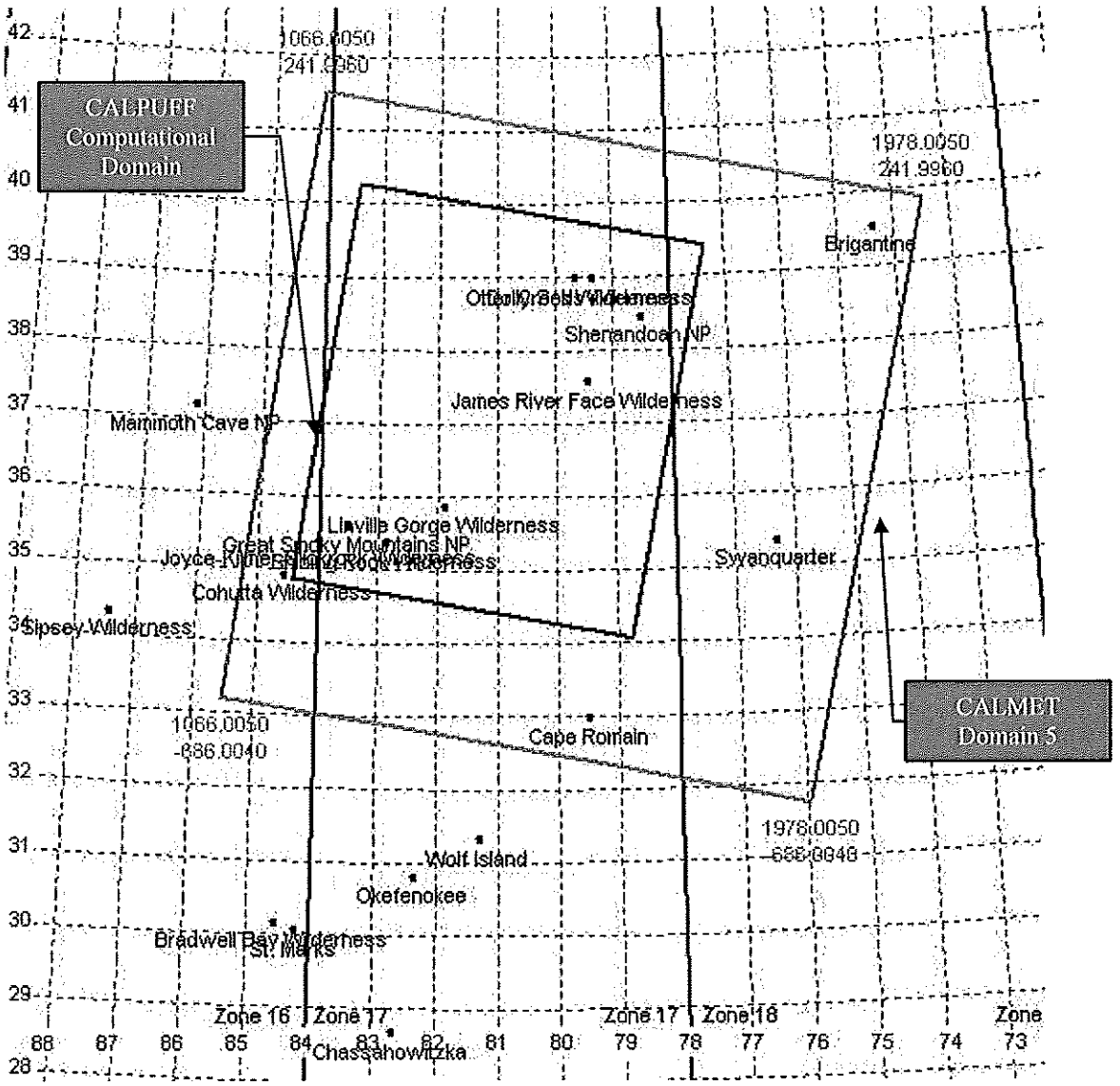


FIGURE 3 **CALMET Domain 5 & CALPUFF Domain**	Scale = NTS Date: 5/06	TRIGON
Sources: VISTAS & Beeline CALPRO Software	Created By: DHG	

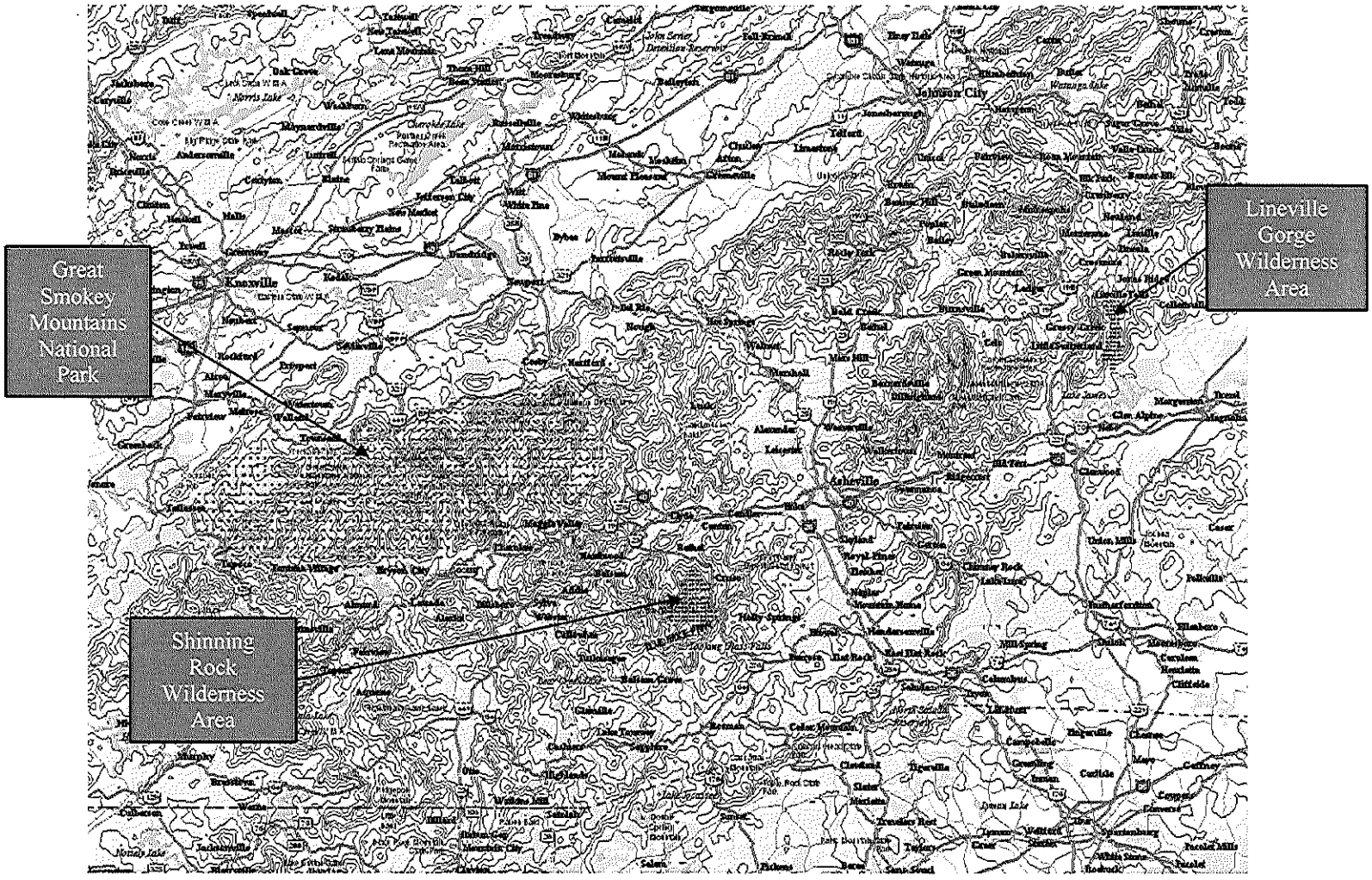


FIGURE 4. North Carolina Class I Receptors

Scale = 1:1,000,000

Date: 4/06

Sources: USGS, NPS, and NFS

Created By: JBW

TRIGON

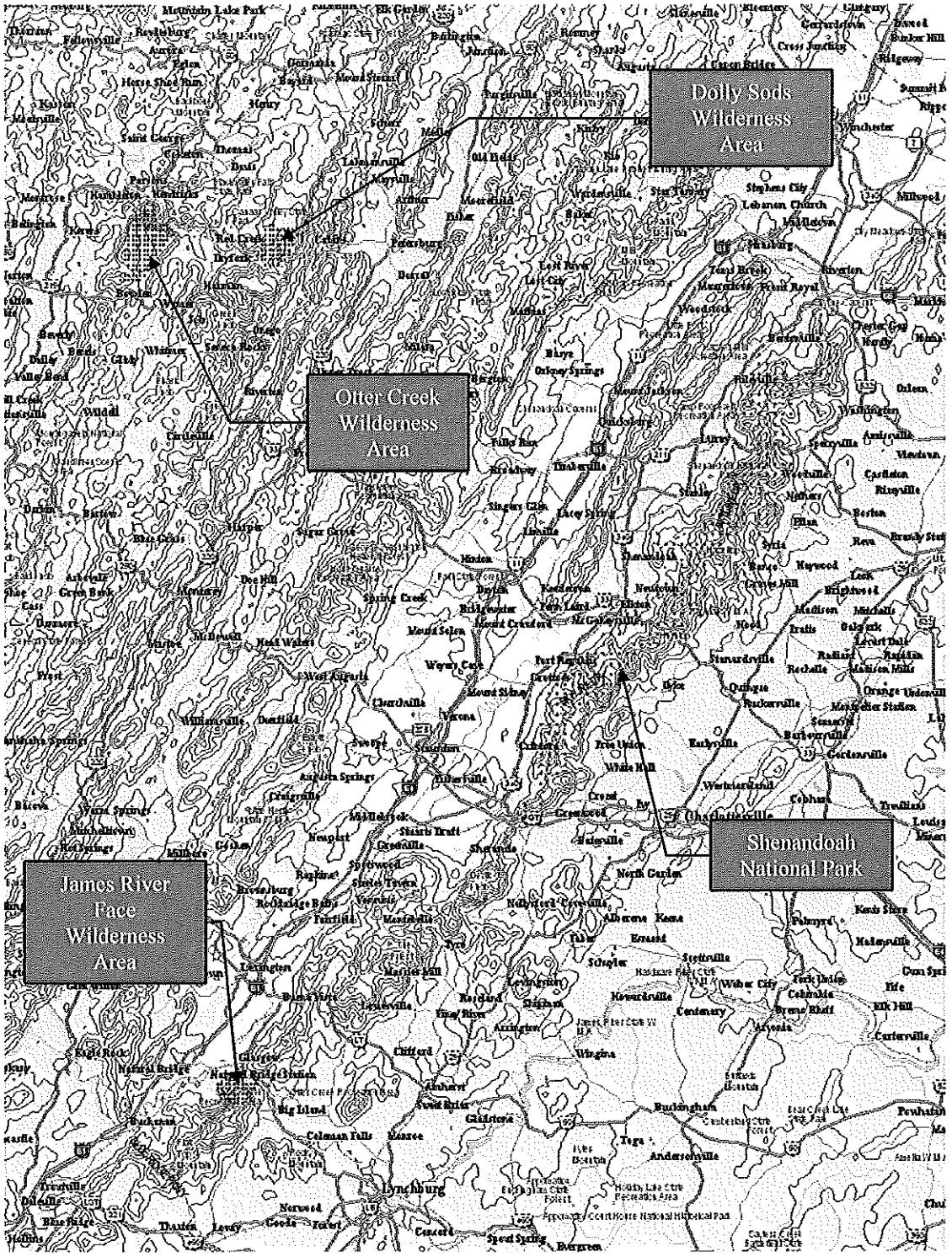


FIGURE 5. Virginia and West Virginia Class I Receptors	Scale = 1:1,000,000	TRIGON
	Date: 4/06	
Sources: USGS, NPS, and NFS	Created By: JBW	

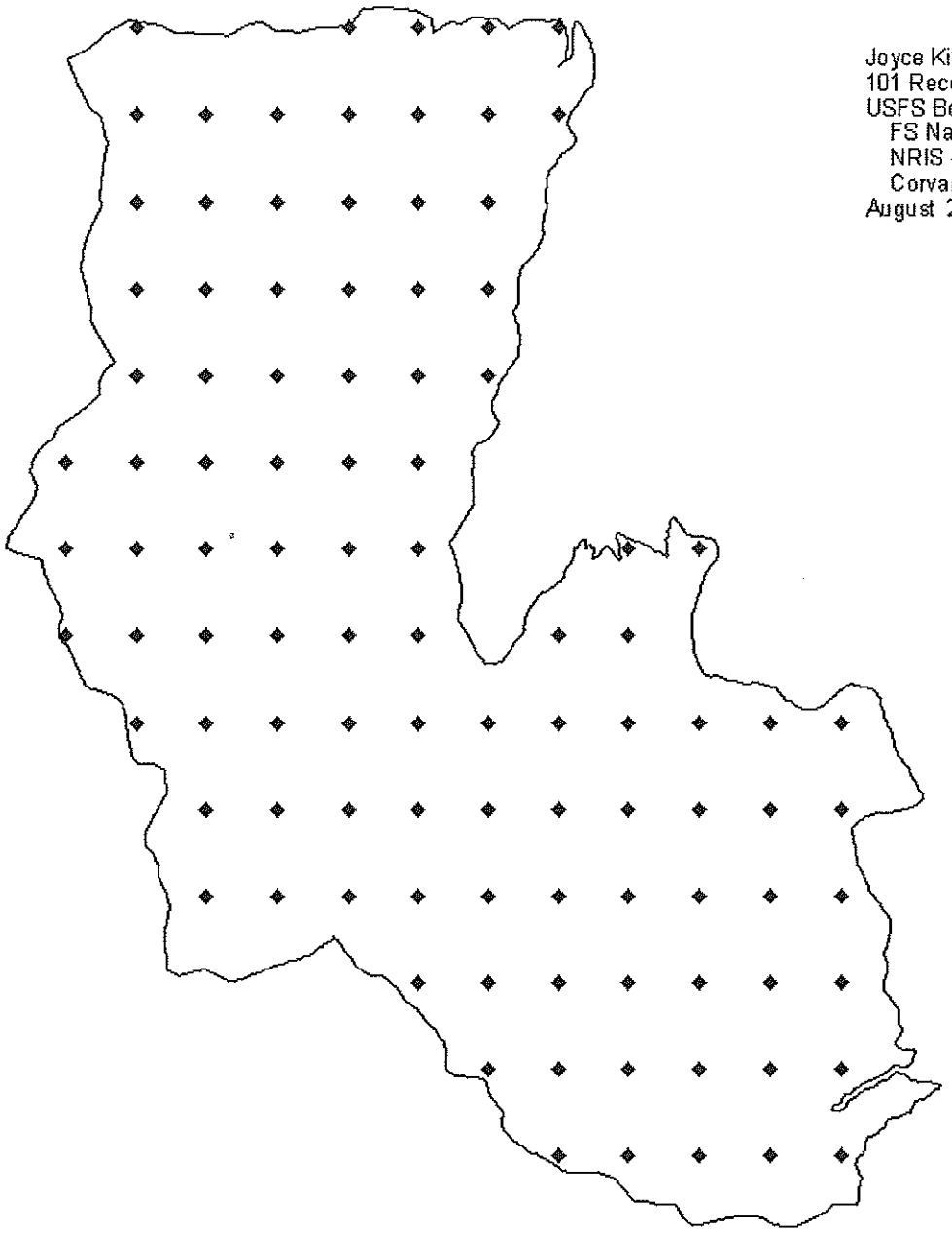


FIGURE 6 **JOYC Class I Area (> 300 KM Impact Radii)**	Scale = N.T.S Date: 8/06	TRIGON
Sources: NPS and NFS	Created By: DHG	

Controlled PM10 Speciation from AP-42 Tables 1.1-5 & 1.1-6
Dry Bottom Boiler burning Pulverized Coal using only ESP for Emissions control

assumes heating value of 12984 Btu/lb and a sulfur content of 1.15 % and an ash content of 9 % and f(RH) = 1

Controlled PM10 Emissions (**Bold** values from Table 1.1-5.)

Boiler	Total PM10	Filterable	Coarse	Ext.	Fine	Fine Soil	Ext.	Fine EC	Ext.	Condensible	CPM IOR	Particle		CPM OR	Particle	
Type	(lb/mmBtu)	(lb/mmBtu)	(lb/mmBtu)	Coef.	(lb/mmBtu)	(lb/ton)	Coef.	(lb/mmBtu)	Coef.	(lb/mmBtu)	(lb/mmBtu)	Type	Ext.Coef.	(lb/mmBtu)	Type	Ext.Coef.
PC-DB	0.1037	0.0187	0.0104	0.6	0.0083	0.0080	1	0.00031	10	**0.085**	**0.068**	SO4	3*f(RH)	**0.017**	SOA	4

Controlled PM10 Emissions (**Bold** Values from Table 1.1-6.)

Boiler	Total PM10	Filterable	Coarse	Ext.	Fine	Fine Soil	Ext.	Fine EC	Ext.	Condensible	CPM IOR	Particle		CPM OR	Particle	
Type	(lb/ton)	(lb/ton)	(lb/ton)	Coef.	(lb/ton)	(lb/ton)	Coef.	(lb/ton)	Coef.	(lb/ton)	(lb/ton)	Type	Ext.Coef.	(lb/ton)	Type	Ext.Coef.
PC-DB	2.693	**0.486**	0.270	0.6	**0.216**	0.208	1	0.0080	10	2.207	1.766	SO4	3*f(RH)	0.441	SOA	4

Controlled PM10 Emissions

Boiler	Total PM10	Filterable	Coarse	Ext.	Fine	Fine Soil	Ext.	Fine EC	Ext.	Condensible	CPM IOR	Particle		CPM OR	Particle	
Type	(% of Total)	(% of Total)	(% of Total)	Coef.	(% of Total)	(% of Total)	Coef.	(% of Total)	Coef.	(% of Total)	(% of Total)	Type	Ext.Coef.	(% of Total)	Type	Ext.Coef.
PC-DB	100%	18.0%	10.0%	0.6	8.0%	7.7%	1	0.3%	10	82.0%	65.6%	SO4	3*f(RH)	16.4%	SOA	4

If you are given Total PM10 emissions in lb/hr:

Controlled PM10 Emissions (**Bold** Value is **Input** by user.)

Boiler	Total PM10	Filterable	Coarse	Ext.	Fine	Fine Soil	Ext.	Fine EC	Ext.	Condensible	CPM IOR	Particle		CPM OR	Particle	
Type	(lb/hr)	(lb/hr)	(lb/hr)	Coef.	(lb/hr)	(lb/hr)	Coef.	(lb/hr)	Coef.	(lb/hr)	(lb/hr)	Type	Ext.Coef.	(lb/hr)	Type	Ext.Coef.
PC-DB	**84.3**	15.2	8.5	0.6	6.8	6.5	1	0.3	10	69.1	55.3	SO4	3	13.8	SOA	4
		Weighted Extinction		5.1			6.5		2.5				165.8			55.3	2.8

If you are given Total PM10 emissions in lb/mmBtu:

Controlled PM10 Emissions (**Bold** Value is **Input** by user.)

Boiler	Total PM10	Filterable	Coarse	Ext.	Fine	Fine Soil	Ext.	Fine EC	Ext.	Condensible	CPM IOR	Particle		CPM OR	Particle	
Type	(lb/mmBtu)	(lb/mmBtu)	(lb/mmBtu)	Coef.	(lb/mmBtu)	(lb/mmBtu)	Coef.	(lb/mmBtu)	Coef.	(lb/mmBtu)	(lb/mmBtu)	Type	Ext.Coef.	(lb/mmBtu)	Type	Ext.Coef.
PC-DB	**0.10**	0.02	0.01	0.6	0.01	0.01	1	0.0003	10	0.08	0.07	SO4	3	0.02	SOA	4

If you are given Filterable PM10 emissions:

Controlled PM10 Emissions (**Bold** values from Table 1.1-5 and from Table 6 of EPA's January 2002 DRAFT "Catalog of Global Emissions Inventories and Emission Inventory Tools for Black Carbon.")

Boiler	Total PM10	Filterable	Coarse	Ext.	Fine	Fine Soil	Ext.	Fine EC	Ext.	Condensible	CPM IOR	Particle		CPM OR	Particle	
Type	(% of Total)	(% of Total)	(% of Filterable)	Coef.	(% of Filterable)	(% of Filterable)	Coef.	(% of Filterable)	Coef.	(% of Total)	(% of Condensible)	Type	Ext.Coef.	(% of Condensible)	Type	Ext.Coef.
PC-DB	100%	18.0%	55.6%	0.6	44.4%	42.8%	1	1.6%	10	82.0%	**80.0%**	SO4	3	**20.0%**	SOA	4
						(% of Fine)	Coef.	(% of Fine)	Coef.							
						96.3%	1	**3.7%**	10							

If you are given Filterable PM10 emissions in lb/hr:

Controlled PM10 Emissions (**Bold** Value is **Input** by user.)

Boiler	Total PM10	Filterable	Coarse	Ext.	Fine	Fine Soil	Ext.	Fine EC	Ext.	Condensible	CPM IOR	Particle		CPM OR	Particle	
Type	(lb/hr)	(lb/hr)	(lb/hr)	Coef.	(lb/hr)	(lb/hr)	Coef.	(lb/hr)	Coef.	(lb/hr)	(lb/hr)	Type	Ext.Coef.	(lb/hr)	Type	Ext.Coef.
PC-DB	84.3	**15.2**	8.5	0.6	6.8	6.5	1	0.3	10	69.1	55.3	SO4	3	13.8	SOA	4

If you are given Filterable PM10 emissions in lb/mmBtu:

Controlled PM10 Emissions (**Bold** Value is **Input** by user.)

Boiler	Total PM10	Filterable	Coarse	Ext.	Fine	Fine Soil	Ext.	Fine EC	Ext.	Condensible	CPM IOR	Particle		CPM OR	Particle	
Type	(lb/mmBtu)	(lb/mmBtu)	(lb/mmBtu)	Coef.	(lb/mmBtu)	(lb/mmBtu)	Coef.	(lb/mmBtu)	Coef.	(lb/mmBtu)	(lb/mmBtu)	Type	Ext.Coef.	(lb/mmBtu)	Type	Ext.Coef.
PC-DB	0.10	**0.02**	0.01	0.6	0.01	0.01	1	0.0003	10	0.08	0.07	SO4	3	0.02	SOA	4

				lbs/hr	B_{ext}
Coarse	10.0%	PMC	Coarse	8.5	0.6
Fine Soil	7.7%	PMF	Fine Soil	6.5	1
Fine EC	0.3%	EC	Fine EC	0.3	10
CPM IOR	65.6%	CPM IOR	CPM IOR	55.3	3*f(RH)
CPM OR	16.4%	CPM OR (SOA)	CPM OR	13.8	4
	100.0%			84.3	

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
1	1	1,479.24	23.78	1,127	Otter Creek Wilderness	199.03
2	2	1,479.95	23.91	1,088	Otter Creek Wilderness	199.37
3	3	1,480.65	24.05	1,006	Otter Creek Wilderness	199.71
4	4	1,481.35	24.19	973	Otter Creek Wilderness	200.06
5	5	1,482.06	24.32	945	Otter Creek Wilderness	200.40
6	6	1,482.76	24.46	1,043	Otter Creek Wilderness	200.75
7	7	1,479.07	24.68	1,139	Otter Creek Wilderness	199.85
8	8	1,479.77	24.82	1,090	Otter Creek Wilderness	200.19
9	9	1,480.48	24.95	1,071	Otter Creek Wilderness	200.52
10	10	1,481.18	25.09	974	Otter Creek Wilderness	200.87
11	11	1,481.88	25.23	1,017	Otter Creek Wilderness	201.21
12	12	1,482.59	25.36	1,072	Otter Creek Wilderness	201.56
13	13	1,483.29	25.50	1,095	Otter Creek Wilderness	201.90
14	14	1,481.01	25.99	1,068	Otter Creek Wilderness	201.68
15	15	1,481.71	26.13	938	Otter Creek Wilderness	202.02
16	16	1,482.41	26.27	914	Otter Creek Wilderness	202.36
17	17	1,483.12	26.40	1,016	Otter Creek Wilderness	202.71
18	18	1,483.82	26.54	1,079	Otter Creek Wilderness	203.06
19	19	1,480.13	26.76	1,006	Otter Creek Wilderness	202.15
20	20	1,480.83	26.90	975	Otter Creek Wilderness	202.49
21	21	1,481.53	27.04	1,034	Otter Creek Wilderness	202.83
22	22	1,482.24	27.17	960	Otter Creek Wilderness	203.17
23	23	1,482.94	27.31	929	Otter Creek Wilderness	203.52
24	24	1,483.64	27.44	1,091	Otter Creek Wilderness	203.86
25	25	1,484.35	27.58	1,084	Otter Creek Wilderness	204.21
26	26	1,479.25	27.53	1,120	Otter Creek Wilderness	202.63
27	27	1,479.95	27.67	1,065	Otter Creek Wilderness	202.96
28	28	1,480.66	27.80	1,058	Otter Creek Wilderness	203.30
29	29	1,481.36	27.94	1,036	Otter Creek Wilderness	203.64
30	30	1,482.06	28.08	1,006	Otter Creek Wilderness	203.98
31	31	1,482.77	28.21	916	Otter Creek Wilderness	204.32
32	32	1,483.47	28.35	895	Otter Creek Wilderness	204.67
33	33	1,484.17	28.48	951	Otter Creek Wilderness	205.02
34	34	1,479.07	28.44	1,148	Otter Creek Wilderness	203.44
35	35	1,479.78	28.57	1,100	Otter Creek Wilderness	203.78
36	36	1,480.48	28.71	1,056	Otter Creek Wilderness	204.11
37	37	1,481.18	28.84	1,017	Otter Creek Wilderness	204.45
38	38	1,481.89	28.98	939	Otter Creek Wilderness	204.79
39	39	1,482.59	29.12	912	Otter Creek Wilderness	205.13
40	40	1,483.29	29.25	853	Otter Creek Wilderness	205.48
41	41	1,484.00	29.39	937	Otter Creek Wilderness	205.82
42	42	1,484.70	29.52	1,039	Otter Creek Wilderness	206.17
43	43	1,478.90	29.34	1,126	Otter Creek Wilderness	204.26
44	44	1,479.60	29.48	1,092	Otter Creek Wilderness	204.59
45	45	1,480.31	29.61	1,068	Otter Creek Wilderness	204.92
46	46	1,481.01	29.75	1,038	Otter Creek Wilderness	205.26
47	47	1,481.71	29.89	986	Otter Creek Wilderness	205.60
48	48	1,482.42	30.02	931	Otter Creek Wilderness	205.94
49	49	1,483.12	30.16	829	Otter Creek Wilderness	206.28
50	50	1,483.82	30.29	954	Otter Creek Wilderness	206.63
51	51	1,484.53	30.43	1,065	Otter Creek Wilderness	206.97
52	52	1,485.23	30.57	1,096	Otter Creek Wilderness	207.32
53	53	1,479.43	30.38	1,064	Otter Creek Wilderness	205.41
54	54	1,480.13	30.52	1,034	Otter Creek Wilderness	205.74
55	55	1,480.83	30.65	979	Otter Creek Wilderness	206.07
56	56	1,481.54	30.79	942	Otter Creek Wilderness	206.41
57	57	1,482.24	30.93	870	Otter Creek Wilderness	206.75

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
58	58	1,482.94	31.06	830	Otter Creek Wilderness	207.09
59	59	1,483.65	31.20	941	Otter Creek Wilderness	207.44
60	60	1,484.35	31.33	1,038	Otter Creek Wilderness	207.78
61	61	1,485.05	31.47	1,104	Otter Creek Wilderness	208.13
62	62	1,485.76	31.61	1,132	Otter Creek Wilderness	208.48
63	63	1,478.55	31.15	986	Otter Creek Wilderness	205.89
64	64	1,479.25	31.29	1,032	Otter Creek Wilderness	206.22
65	65	1,479.96	31.42	1,006	Otter Creek Wilderness	206.55
66	66	1,480.66	31.56	1,022	Otter Creek Wilderness	206.89
67	67	1,481.36	31.69	1,003	Otter Creek Wilderness	207.22
68	68	1,482.07	31.83	941	Otter Creek Wilderness	207.56
69	69	1,482.77	31.97	830	Otter Creek Wilderness	207.90
70	70	1,483.47	32.10	1,012	Otter Creek Wilderness	208.24
71	71	1,484.18	32.24	1,036	Otter Creek Wilderness	208.59
72	72	1,484.88	32.37	1,073	Otter Creek Wilderness	208.93
73	73	1,485.58	32.51	1,098	Otter Creek Wilderness	209.28
74	74	1,486.28	32.65	1,095	Otter Creek Wilderness	209.63
75	75	1,479.08	32.19	1,064	Otter Creek Wilderness	207.04
76	76	1,479.78	32.33	1,067	Otter Creek Wilderness	207.37
77	77	1,480.49	32.46	1,050	Otter Creek Wilderness	207.70
78	78	1,481.19	32.60	929	Otter Creek Wilderness	208.04
79	79	1,481.89	32.74	781	Otter Creek Wilderness	208.37
80	80	1,482.59	32.87	934	Otter Creek Wilderness	208.71
81	81	1,483.30	33.01	1,027	Otter Creek Wilderness	209.05
82	82	1,484.00	33.14	1,056	Otter Creek Wilderness	209.40
83	83	1,484.70	33.28	1,097	Otter Creek Wilderness	209.74
84	84	1,485.41	33.42	1,087	Otter Creek Wilderness	210.09
85	85	1,486.11	33.55	878	Otter Creek Wilderness	210.43
86	86	1,478.91	33.10	1,041	Otter Creek Wilderness	207.86
87	87	1,479.61	33.23	1,040	Otter Creek Wilderness	208.19
88	88	1,480.31	33.37	946	Otter Creek Wilderness	208.52
89	89	1,481.01	33.50	818	Otter Creek Wilderness	208.85
90	90	1,481.72	33.64	737	Otter Creek Wilderness	209.19
91	91	1,482.42	33.78	997	Otter Creek Wilderness	209.52
92	92	1,483.12	33.91	1,044	Otter Creek Wilderness	209.86
93	93	1,483.83	34.05	1,037	Otter Creek Wilderness	210.20
94	94	1,484.53	34.18	1,034	Otter Creek Wilderness	210.55
95	95	1,485.23	34.32	1,065	Otter Creek Wilderness	210.89
96	96	1,485.93	34.46	816	Otter Creek Wilderness	211.24
97	97	1,486.64	34.59	695	Otter Creek Wilderness	211.59
98	98	1,479.43	34.14	1,068	Otter Creek Wilderness	209.01
99	99	1,480.14	34.27	1,039	Otter Creek Wilderness	209.34
100	100	1,480.84	34.41	803	Otter Creek Wilderness	209.67
101	101	1,481.54	34.54	835	Otter Creek Wilderness	210.00
102	102	1,482.24	34.68	1,033	Otter Creek Wilderness	210.34
103	103	1,482.95	34.82	1,048	Otter Creek Wilderness	210.67
104	104	1,483.65	34.95	949	Otter Creek Wilderness	211.01
105	105	1,484.35	35.09	860	Otter Creek Wilderness	211.36
106	106	1,485.06	35.22	1,006	Otter Creek Wilderness	211.70
107	107	1,485.76	35.36	725	Otter Creek Wilderness	212.05
108	108	1,479.26	35.04	933	Otter Creek Wilderness	209.82
109	109	1,479.96	35.18	921	Otter Creek Wilderness	210.15
110	110	1,480.66	35.31	774	Otter Creek Wilderness	210.48
111	111	1,481.37	35.45	775	Otter Creek Wilderness	210.82
112	112	1,482.07	35.59	862	Otter Creek Wilderness	211.15
113	113	1,482.77	35.72	832	Otter Creek Wilderness	211.49
114	114	1,483.47	35.86	789	Otter Creek Wilderness	211.83

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
115	115	1,479.79	36.08	763	Otter Creek Wilderness	210.97
116	116	1,480.49	36.22	757	Otter Creek Wilderness	211.30
117	117	1,481.19	36.35	816	Otter Creek Wilderness	211.63
118	118	1,481.89	36.49	807	Otter Creek Wilderness	211.96
119	119	1,482.60	36.63	688	Otter Creek Wilderness	212.30
120	120	1,481.02	37.26	1,097	Otter Creek Wilderness	212.45
121	121	1,481.72	37.39	990	Otter Creek Wilderness	212.78
122	122	1,482.42	37.53	979	Otter Creek Wilderness	213.11
123	1	1,504.74	31.55	916	Dolly Sods Wilderness	215.14
124	2	1,505.44	31.69	1,069	Dolly Sods Wilderness	215.55
125	3	1,506.15	31.83	1,175	Dolly Sods Wilderness	215.95
126	4	1,506.85	31.97	1,216	Dolly Sods Wilderness	216.36
127	5	1,503.86	32.32	824	Dolly Sods Wilderness	215.51
128	6	1,504.56	32.46	952	Dolly Sods Wilderness	215.91
129	7	1,505.27	32.60	1,049	Dolly Sods Wilderness	216.31
130	8	1,505.97	32.73	1,127	Dolly Sods Wilderness	216.71
131	9	1,506.67	32.87	1,171	Dolly Sods Wilderness	217.12
132	10	1,507.37	33.01	1,219	Dolly Sods Wilderness	217.52
133	11	1,508.08	33.15	1,202	Dolly Sods Wilderness	217.93
134	12	1,502.98	33.09	1,058	Dolly Sods Wilderness	215.87
135	13	1,503.68	33.22	967	Dolly Sods Wilderness	216.27
136	14	1,504.39	33.36	828	Dolly Sods Wilderness	216.67
137	15	1,505.09	33.50	851	Dolly Sods Wilderness	217.07
138	16	1,505.79	33.64	856	Dolly Sods Wilderness	217.47
139	17	1,506.49	33.78	974	Dolly Sods Wilderness	217.88
140	18	1,507.20	33.91	1,077	Dolly Sods Wilderness	218.28
141	19	1,507.90	34.05	1,148	Dolly Sods Wilderness	218.69
142	20	1,508.60	34.19	1,188	Dolly Sods Wilderness	219.10
143	21	1,503.51	34.13	1,116	Dolly Sods Wilderness	217.04
144	22	1,504.21	34.27	1,004	Dolly Sods Wilderness	217.43
145	23	1,504.91	34.40	1,097	Dolly Sods Wilderness	217.83
146	24	1,505.61	34.54	994	Dolly Sods Wilderness	218.23
147	25	1,506.32	34.68	954	Dolly Sods Wilderness	218.64
148	26	1,507.02	34.82	930	Dolly Sods Wilderness	219.04
149	27	1,507.72	34.96	1,110	Dolly Sods Wilderness	219.45
150	28	1,508.42	35.09	1,163	Dolly Sods Wilderness	219.85
151	29	1,503.33	35.03	1,145	Dolly Sods Wilderness	217.80
152	30	1,504.03	35.17	1,112	Dolly Sods Wilderness	218.20
153	31	1,504.73	35.31	1,100	Dolly Sods Wilderness	218.60
154	32	1,505.44	35.45	1,073	Dolly Sods Wilderness	219.00
155	33	1,506.14	35.58	1,127	Dolly Sods Wilderness	219.40
156	34	1,506.84	35.72	1,005	Dolly Sods Wilderness	219.80
157	35	1,507.54	35.86	1,050	Dolly Sods Wilderness	220.21
158	36	1,508.25	36.00	1,135	Dolly Sods Wilderness	220.61
159	37	1,508.95	36.14	1,211	Dolly Sods Wilderness	221.02
160	38	1,503.15	35.94	1,147	Dolly Sods Wilderness	218.57
161	39	1,503.85	36.07	1,127	Dolly Sods Wilderness	218.97
162	40	1,504.56	36.21	1,123	Dolly Sods Wilderness	219.36
163	41	1,505.26	36.35	1,108	Dolly Sods Wilderness	219.76
164	42	1,505.96	36.49	1,126	Dolly Sods Wilderness	220.16
165	43	1,506.66	36.63	1,015	Dolly Sods Wilderness	220.56
166	44	1,507.37	36.76	1,144	Dolly Sods Wilderness	220.97
167	45	1,508.07	36.90	1,109	Dolly Sods Wilderness	221.37
168	46	1,508.77	37.04	1,201	Dolly Sods Wilderness	221.78
169	47	1,503.68	36.98	1,154	Dolly Sods Wilderness	219.74
170	48	1,504.38	37.12	1,128	Dolly Sods Wilderness	220.13
171	49	1,505.08	37.25	1,135	Dolly Sods Wilderness	220.53

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
172	50	1,505.78	37.39	1,158	Dolly Sods Wilderness	220.93
173	51	1,506.49	37.53	1,090	Dolly Sods Wilderness	221.33
174	52	1,507.19	37.67	1,153	Dolly Sods Wilderness	221.73
175	53	1,507.89	37.81	1,157	Dolly Sods Wilderness	222.13
176	54	1,508.59	37.95	1,166	Dolly Sods Wilderness	222.54
177	55	1,509.30	38.08	1,168	Dolly Sods Wilderness	222.94
178	56	1,503.50	37.88	1,137	Dolly Sods Wilderness	220.51
179	57	1,504.20	38.02	1,127	Dolly Sods Wilderness	220.90
180	58	1,504.90	38.16	1,156	Dolly Sods Wilderness	221.30
181	59	1,505.61	38.30	1,158	Dolly Sods Wilderness	221.69
182	60	1,506.31	38.43	1,110	Dolly Sods Wilderness	222.09
183	61	1,507.01	38.57	1,097	Dolly Sods Wilderness	222.49
184	62	1,508.42	38.85	1,159	Dolly Sods Wilderness	223.30
185	63	1,509.12	38.99	1,188	Dolly Sods Wilderness	223.70
186	64	1,504.02	38.92	1,128	Dolly Sods Wilderness	221.67
187	65	1,504.73	39.06	1,157	Dolly Sods Wilderness	222.06
188	1	1,570.52	-58.69	700	Shenandoah National Park	184.79
189	2	1,571.58	-56.59	626	Shenandoah National Park	186.88
190	3	1,574.43	-56.01	781	Shenandoah National Park	189.52
191	4	1,573.69	-52.40	515	Shenandoah National Park	191.06
192	5	1,571.90	-50.88	607	Shenandoah National Park	190.54
193	6	1,573.33	-50.60	557	Shenandoah National Park	191.85
194	7	1,574.75	-50.31	676	Shenandoah National Park	193.16
195	8	1,576.17	-50.02	541	Shenandoah National Park	194.47
196	9	1,571.54	-49.08	586	Shenandoah National Park	191.35
197	10	1,572.96	-48.79	767	Shenandoah National Park	192.65
198	11	1,574.38	-48.50	708	Shenandoah National Park	193.96
199	12	1,575.80	-48.21	430	Shenandoah National Park	195.26
200	13	1,572.59	-46.98	563	Shenandoah National Park	193.47
201	14	1,574.01	-46.69	830	Shenandoah National Park	194.77
202	15	1,575.43	-46.41	564	Shenandoah National Park	196.07
203	16	1,576.85	-46.12	434	Shenandoah National Park	197.37
204	17	1,570.80	-45.47	452	Shenandoah National Park	193.01
205	18	1,572.23	-45.18	582	Shenandoah National Park	194.30
206	19	1,573.65	-44.89	739	Shenandoah National Park	195.59
207	20	1,575.07	-44.60	821	Shenandoah National Park	196.89
208	21	1,576.49	-44.31	451	Shenandoah National Park	198.18
209	22	1,571.86	-43.37	761	Shenandoah National Park	195.15
210	23	1,573.28	-43.08	733	Shenandoah National Park	196.44
211	24	1,574.70	-42.79	823	Shenandoah National Park	197.72
212	25	1,576.12	-42.50	602	Shenandoah National Park	199.01
213	26	1,571.49	-41.56	507	Shenandoah National Park	196.01
214	27	1,572.91	-41.28	474	Shenandoah National Park	197.29
215	28	1,574.33	-40.99	602	Shenandoah National Park	198.57
216	29	1,575.75	-40.70	734	Shenandoah National Park	199.86
217	30	1,578.59	-40.12	602	Shenandoah National Park	202.43
218	31	1,572.54	-39.47	623	Shenandoah National Park	198.16
219	32	1,573.96	-39.18	742	Shenandoah National Park	199.43
220	33	1,575.38	-38.89	749	Shenandoah National Park	200.71
221	34	1,576.80	-38.60	764	Shenandoah National Park	201.99
222	35	1,579.64	-38.02	534	Shenandoah National Park	204.56
223	36	1,572.18	-37.66	616	Shenandoah National Park	199.04
224	37	1,573.60	-37.38	704	Shenandoah National Park	200.31
225	38	1,575.01	-37.09	726	Shenandoah National Park	201.58
226	39	1,576.43	-36.80	792	Shenandoah National Park	202.86
227	40	1,577.85	-36.51	706	Shenandoah National Park	204.13
228	41	1,579.27	-36.22	481	Shenandoah National Park	205.41

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
229	42	1,570.39	-36.15	412	Shenandoah National Park	198.67
230	43	1,571.81	-35.86	461	Shenandoah National Park	199.93
231	44	1,573.23	-35.57	742	Shenandoah National Park	201.20
232	45	1,574.65	-35.28	493	Shenandoah National Park	202.46
233	46	1,576.07	-34.99	556	Shenandoah National Park	203.73
234	47	1,577.48	-34.70	781	Shenandoah National Park	205.00
235	48	1,578.90	-34.41	823	Shenandoah National Park	206.28
236	49	1,580.32	-34.12	854	Shenandoah National Park	207.55
237	50	1,581.74	-33.83	818	Shenandoah National Park	208.83
238	51	1,583.16	-33.54	631	Shenandoah National Park	210.12
239	52	1,572.86	-33.76	539	Shenandoah National Park	202.10
240	53	1,574.28	-33.47	649	Shenandoah National Park	203.36
241	54	1,575.70	-33.19	737	Shenandoah National Park	204.62
242	55	1,577.11	-32.90	612	Shenandoah National Park	205.89
243	56	1,578.53	-32.61	582	Shenandoah National Park	207.16
244	57	1,579.95	-32.32	650	Shenandoah National Park	208.43
245	58	1,581.37	-32.03	829	Shenandoah National Park	209.70
246	59	1,582.79	-31.74	825	Shenandoah National Park	210.98
247	60	1,584.20	-31.45	482	Shenandoah National Park	212.25
248	61	1,573.91	-31.67	609	Shenandoah National Park	204.27
249	62	1,575.33	-31.38	585	Shenandoah National Park	205.52
250	63	1,576.75	-31.09	757	Shenandoah National Park	206.78
251	64	1,578.16	-30.80	458	Shenandoah National Park	208.05
252	65	1,579.58	-30.51	582	Shenandoah National Park	209.31
253	66	1,581.00	-30.22	825	Shenandoah National Park	210.58
254	67	1,582.42	-29.93	691	Shenandoah National Park	211.85
255	68	1,583.83	-29.64	427	Shenandoah National Park	213.12
256	69	1,574.96	-29.57	472	Shenandoah National Park	206.44
257	70	1,576.38	-29.29	721	Shenandoah National Park	207.69
258	71	1,577.80	-29.00	459	Shenandoah National Park	208.95
259	72	1,579.21	-28.71	824	Shenandoah National Park	210.21
260	73	1,580.63	-28.42	728	Shenandoah National Park	211.47
261	74	1,582.05	-28.13	764	Shenandoah National Park	212.74
262	75	1,583.46	-27.84	769	Shenandoah National Park	214.00
263	76	1,584.88	-27.55	859	Shenandoah National Park	215.27
264	77	1,577.43	-27.19	457	Shenandoah National Park	209.86
265	78	1,578.84	-26.90	575	Shenandoah National Park	211.12
266	79	1,580.26	-26.61	548	Shenandoah National Park	212.37
267	80	1,581.68	-26.32	661	Shenandoah National Park	213.63
268	81	1,583.09	-26.03	547	Shenandoah National Park	214.89
269	82	1,584.51	-25.74	821	Shenandoah National Park	216.16
270	83	1,585.93	-25.45	691	Shenandoah National Park	217.42
271	84	1,579.89	-24.81	538	Shenandoah National Park	213.29
272	85	1,581.31	-24.52	649	Shenandoah National Park	214.54
273	86	1,585.56	-23.64	579	Shenandoah National Park	218.32
274	87	1,586.97	-23.35	821	Shenandoah National Park	219.58
275	88	1,588.39	-23.06	913	Shenandoah National Park	220.85
276	89	1,589.80	-22.77	890	Shenandoah National Park	222.11
277	90	1,579.52	-23.00	430	Shenandoah National Park	214.22
278	91	1,580.94	-22.71	516	Shenandoah National Park	215.47
279	92	1,582.35	-22.42	458	Shenandoah National Park	216.72
280	93	1,588.02	-21.26	671	Shenandoah National Park	221.74
281	94	1,589.43	-20.97	750	Shenandoah National Park	223.00
282	95	1,590.85	-20.67	541	Shenandoah National Park	224.27
283	96	1,592.26	-20.38	429	Shenandoah National Park	225.54
284	97	1,581.98	-20.61	457	Shenandoah National Park	217.64
285	98	1,583.40	-20.32	488	Shenandoah National Park	218.89

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
286	99	1,584.81	-20.03	412	Shenandoah National Park	220.14
287	100	1,586.23	-19.74	465	Shenandoah National Park	221.39
288	101	1,587.65	-19.45	624	Shenandoah National Park	222.65
289	102	1,589.06	-19.16	763	Shenandoah National Park	223.90
290	103	1,590.48	-18.87	849	Shenandoah National Park	225.16
291	104	1,591.89	-18.58	820	Shenandoah National Park	226.43
292	105	1,593.31	-18.29	893	Shenandoah National Park	227.69
293	106	1,583.03	-18.52	456	Shenandoah National Park	219.82
294	107	1,588.69	-17.36	544	Shenandoah National Park	224.82
295	108	1,590.10	-17.06	827	Shenandoah National Park	226.07
296	109	1,591.52	-16.77	796	Shenandoah National Park	227.33
297	110	1,592.93	-16.48	579	Shenandoah National Park	228.59
298	111	1,589.73	-15.26	710	Shenandoah National Park	226.99
299	112	1,591.15	-14.97	983	Shenandoah National Park	228.24
300	113	1,592.56	-14.68	943	Shenandoah National Park	229.49
301	114	1,593.98	-14.38	790	Shenandoah National Park	230.75
302	115	1,595.39	-14.09	700	Shenandoah National Park	232.01
303	116	1,587.95	-13.75	455	Shenandoah National Park	226.67
304	117	1,590.77	-13.16	631	Shenandoah National Park	229.16
305	118	1,592.19	-12.87	979	Shenandoah National Park	230.41
306	119	1,593.60	-12.58	716	Shenandoah National Park	231.66
307	120	1,595.02	-12.29	709	Shenandoah National Park	232.91
308	121	1,596.43	-11.99	452	Shenandoah National Park	234.17
309	122	1,588.99	-11.65	519	Shenandoah National Park	228.86
310	123	1,591.82	-11.07	717	Shenandoah National Park	231.34
311	124	1,593.23	-10.77	950	Shenandoah National Park	232.59
312	125	1,591.44	-9.26	653	Shenandoah National Park	232.28
313	126	1,592.86	-8.97	908	Shenandoah National Park	233.52
314	127	1,594.27	-8.68	977	Shenandoah National Park	234.76
315	128	1,595.68	-8.38	792	Shenandoah National Park	236.01
316	129	1,601.34	-7.21	398	Shenandoah National Park	241.01
317	130	1,602.75	-6.92	395	Shenandoah National Park	242.27
318	131	1,591.07	-7.46	486	Shenandoah National Park	233.23
319	132	1,592.48	-7.16	618	Shenandoah National Park	234.47
320	133	1,593.90	-6.87	934	Shenandoah National Park	235.70
321	134	1,595.31	-6.58	700	Shenandoah National Park	236.94
322	135	1,598.14	-5.99	800	Shenandoah National Park	239.43
323	136	1,600.96	-5.41	579	Shenandoah National Park	241.93
324	137	1,602.37	-5.11	475	Shenandoah National Park	243.18
325	138	1,586.46	-6.53	768	Shenandoah National Park	230.52
326	139	1,592.11	-5.36	579	Shenandoah National Park	235.42
327	140	1,593.52	-5.07	869	Shenandoah National Park	236.66
328	141	1,594.94	-4.78	1,059	Shenandoah National Park	237.89
329	142	1,596.35	-4.48	871	Shenandoah National Park	239.13
330	143	1,586.09	-4.72	627	Shenandoah National Park	231.51
331	144	1,587.50	-4.43	695	Shenandoah National Park	232.73
332	145	1,588.91	-4.14	600	Shenandoah National Park	233.95
333	146	1,590.33	-3.85	601	Shenandoah National Park	235.17
334	147	1,591.74	-3.55	831	Shenandoah National Park	236.39
335	148	1,593.15	-3.26	844	Shenandoah National Park	237.62
336	149	1,594.56	-2.97	1,033	Shenandoah National Park	238.85
337	150	1,595.98	-2.68	915	Shenandoah National Park	240.08
338	151	1,597.39	-2.39	775	Shenandoah National Park	241.31
339	152	1,584.30	-3.21	507	Shenandoah National Park	231.30
340	153	1,585.72	-2.92	611	Shenandoah National Park	232.51
341	154	1,594.19	-1.17	1,018	Shenandoah National Park	239.81
342	155	1,595.60	-0.87	1,066	Shenandoah National Park	241.04

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
343	156	1,597.01	-0.58	1,017	Shenandoah National Park	242.27
344	157	1,598.43	-0.29	614	Shenandoah National Park	243.50
345	158	1,599.84	0.01	407	Shenandoah National Park	244.73
346	159	1,604.07	0.89	317	Shenandoah National Park	248.45
347	160	1,593.82	0.64	1,025	Shenandoah National Park	240.79
348	161	1,595.23	0.93	1,031	Shenandoah National Park	242.01
349	162	1,596.64	1.22	767	Shenandoah National Park	243.24
350	163	1,598.05	1.52	833	Shenandoah National Park	244.46
351	164	1,599.46	1.81	833	Shenandoah National Park	245.69
352	165	1,600.87	2.10	500	Shenandoah National Park	246.92
353	166	1,603.70	2.69	628	Shenandoah National Park	249.39
354	167	1,605.11	2.99	569	Shenandoah National Park	250.63
355	168	1,594.85	2.74	579	Shenandoah National Park	242.99
356	169	1,596.26	3.03	975	Shenandoah National Park	244.21
357	170	1,597.68	3.32	1,123	Shenandoah National Park	245.43
358	171	1,599.09	3.61	858	Shenandoah National Park	246.66
359	172	1,600.50	3.91	628	Shenandoah National Park	247.88
360	173	1,603.32	4.50	750	Shenandoah National Park	250.34
361	174	1,604.73	4.79	777	Shenandoah National Park	251.58
362	175	1,606.14	5.08	446	Shenandoah National Park	252.81
363	176	1,595.89	4.83	893	Shenandoah National Park	245.20
364	177	1,597.30	5.13	813	Shenandoah National Park	246.42
365	178	1,598.71	5.42	1,036	Shenandoah National Park	247.63
366	179	1,600.12	5.71	770	Shenandoah National Park	248.85
367	180	1,601.53	6.01	735	Shenandoah National Park	250.08
368	181	1,602.94	6.30	567	Shenandoah National Park	251.30
369	182	1,604.36	6.59	514	Shenandoah National Park	252.53
370	183	1,605.77	6.89	466	Shenandoah National Park	253.76
371	184	1,596.93	6.93	720	Shenandoah National Park	247.41
372	185	1,598.34	7.22	1,005	Shenandoah National Park	248.62
373	186	1,599.75	7.52	975	Shenandoah National Park	249.84
374	187	1,601.16	7.81	854	Shenandoah National Park	251.05
375	188	1,602.57	8.10	732	Shenandoah National Park	252.27
376	189	1,603.98	8.40	463	Shenandoah National Park	253.50
377	190	1,605.39	8.69	355	Shenandoah National Park	254.72
378	191	1,596.55	8.73	888	Shenandoah National Park	248.41
379	192	1,597.96	9.03	1,085	Shenandoah National Park	249.62
380	193	1,599.37	9.32	1,043	Shenandoah National Park	250.83
381	194	1,600.78	9.61	749	Shenandoah National Park	252.04
382	195	1,602.19	9.91	572	Shenandoah National Park	253.26
383	196	1,603.60	10.20	458	Shenandoah National Park	254.47
384	197	1,605.01	10.50	640	Shenandoah National Park	255.69
385	198	1,606.42	10.79	450	Shenandoah National Park	256.92
386	199	1,596.18	10.54	468	Shenandoah National Park	249.42
387	200	1,597.59	10.83	600	Shenandoah National Park	250.62
388	201	1,599.00	11.12	942	Shenandoah National Park	251.83
389	202	1,600.41	11.42	830	Shenandoah National Park	253.03
390	203	1,601.82	11.71	915	Shenandoah National Park	254.25
391	204	1,603.23	12.01	730	Shenandoah National Park	255.46
392	205	1,604.64	12.30	778	Shenandoah National Park	256.67
393	206	1,606.05	12.59	689	Shenandoah National Park	257.89
394	207	1,598.62	12.93	618	Shenandoah National Park	252.84
395	208	1,600.03	13.22	761	Shenandoah National Park	254.04
396	209	1,601.44	13.52	1,090	Shenandoah National Park	255.25
397	210	1,602.85	13.81	810	Shenandoah National Park	256.45
398	211	1,604.26	14.10	701	Shenandoah National Park	257.66
399	212	1,605.67	14.40	578	Shenandoah National Park	258.88

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
400	213	1,607.08	14.69	508	Shenandoah National Park	260.09
401	214	1,601.06	15.32	743	Shenandoah National Park	256.25
402	215	1,602.47	15.61	913	Shenandoah National Park	257.46
403	216	1,603.88	15.91	535	Shenandoah National Park	258.66
404	217	1,605.29	16.20	425	Shenandoah National Park	259.87
405	218	1,606.70	16.50	315	Shenandoah National Park	261.08
406	219	1,596.46	16.24	436	Shenandoah National Park	253.69
407	220	1,599.28	16.83	447	Shenandoah National Park	256.08
408	221	1,600.69	17.12	675	Shenandoah National Park	257.27
409	222	1,602.10	17.42	672	Shenandoah National Park	258.47
410	223	1,603.51	17.71	440	Shenandoah National Park	259.67
411	224	1,604.91	18.01	464	Shenandoah National Park	260.88
412	225	1,600.31	18.93	738	Shenandoah National Park	258.30
413	226	1,601.72	19.22	832	Shenandoah National Park	259.49
414	227	1,603.13	19.52	611	Shenandoah National Park	260.69
415	228	1,604.54	19.81	507	Shenandoah National Park	261.89
416	229	1,595.71	19.85	476	Shenandoah National Park	255.79
417	230	1,597.12	20.15	778	Shenandoah National Park	256.97
418	231	1,599.94	20.73	643	Shenandoah National Park	259.34
419	232	1,601.34	21.03	695	Shenandoah National Park	260.53
420	233	1,602.75	21.32	426	Shenandoah National Park	261.72
421	234	1,604.16	21.61	367	Shenandoah National Park	262.91
422	235	1,593.93	21.36	338	Shenandoah National Park	255.68
423	236	1,595.34	21.66	336	Shenandoah National Park	256.85
424	237	1,596.75	21.95	395	Shenandoah National Park	258.02
425	238	1,598.15	22.24	436	Shenandoah National Park	259.20
426	239	1,599.56	22.54	701	Shenandoah National Park	260.38
427	240	1,600.97	22.83	568	Shenandoah National Park	261.57
428	241	1,602.38	23.12	528	Shenandoah National Park	262.75
429	242	1,603.78	23.42	448	Shenandoah National Park	263.94
430	243	1,605.19	23.71	625	Shenandoah National Park	265.13
431	244	1,606.60	24.01	431	Shenandoah National Park	266.32
432	245	1,596.37	23.75	582	Shenandoah National Park	259.09
433	246	1,597.78	24.05	791	Shenandoah National Park	260.26
434	247	1,599.18	24.34	589	Shenandoah National Park	261.44
435	248	1,600.59	24.63	586	Shenandoah National Park	262.61
436	249	1,602.00	24.93	694	Shenandoah National Park	263.80
437	250	1,603.41	25.22	638	Shenandoah National Park	264.98
438	251	1,604.81	25.52	432	Shenandoah National Park	266.17
439	252	1,597.40	25.85	571	Shenandoah National Park	261.33
440	253	1,598.81	26.14	582	Shenandoah National Park	262.50
441	254	1,600.22	26.44	661	Shenandoah National Park	263.67
442	255	1,601.62	26.73	923	Shenandoah National Park	264.85
443	256	1,603.03	27.03	794	Shenandoah National Park	266.03
444	257	1,604.44	27.32	715	Shenandoah National Park	267.21
445	258	1,611.47	28.79	526	Shenandoah National Park	273.15
446	259	1,599.84	28.24	684	Shenandoah National Park	264.74
447	260	1,601.25	28.54	848	Shenandoah National Park	265.91
448	261	1,602.65	28.83	1,006	Shenandoah National Park	267.08
449	262	1,604.06	29.12	771	Shenandoah National Park	268.26
450	263	1,605.47	29.42	753	Shenandoah National Park	269.44
451	264	1,606.87	29.71	786	Shenandoah National Park	270.62
452	265	1,608.28	30.01	740	Shenandoah National Park	271.80
453	266	1,609.68	30.30	637	Shenandoah National Park	272.99
454	267	1,611.09	30.60	607	Shenandoah National Park	274.18
455	268	1,596.65	29.46	265	Shenandoah National Park	263.49
456	269	1,598.06	29.75	368	Shenandoah National Park	264.65

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
457	270	1,599.46	30.05	468	Shenandoah National Park	265.81
458	271	1,600.87	30.34	647	Shenandoah National Park	266.98
459	272	1,602.28	30.63	583	Shenandoah National Park	268.15
460	273	1,605.09	31.22	450	Shenandoah National Park	270.49
461	274	1,606.49	31.52	612	Shenandoah National Park	271.67
462	275	1,607.90	31.81	712	Shenandoah National Park	272.85
463	276	1,609.31	32.11	945	Shenandoah National Park	274.03
464	277	1,610.71	32.40	693	Shenandoah National Park	275.22
465	278	1,597.68	31.56	273	Shenandoah National Park	265.74
466	279	1,599.09	31.85	336	Shenandoah National Park	266.90
467	280	1,600.49	32.14	640	Shenandoah National Park	268.06
468	281	1,601.90	32.44	607	Shenandoah National Park	269.22
469	282	1,608.93	33.91	573	Shenandoah National Park	275.08
470	283	1,610.33	34.20	781	Shenandoah National Park	276.26
471	284	1,611.74	34.50	563	Shenandoah National Park	277.44
472	285	1,597.31	33.36	247	Shenandoah National Park	266.84
473	286	1,608.55	35.71	581	Shenandoah National Park	276.14
474	287	1,609.95	36.01	736	Shenandoah National Park	277.31
475	288	1,611.36	36.30	644	Shenandoah National Park	278.49
476	289	1,608.17	37.52	474	Shenandoah National Park	277.20
477	290	1,609.58	37.81	625	Shenandoah National Park	278.37
478	291	1,610.98	38.11	660	Shenandoah National Park	279.55
479	292	1,607.79	39.32	494	Shenandoah National Park	278.28
480	293	1,609.20	39.61	462	Shenandoah National Park	279.44
481	294	1,607.41	41.12	454	Shenandoah National Park	279.36
482	295	1,605.63	42.63	444	Shenandoah National Park	279.30
483	296	1,607.03	42.93	468	Shenandoah National Park	280.45
484	297	1,608.44	43.22	304	Shenandoah National Park	281.61
485	298	1,606.66	44.73	306	Shenandoah National Park	281.55
486	1	1,349.50	-350.86	468	Linville Gorge Wilderness	197.65
487	2	1,350.24	-350.74	457	Linville Gorge Wilderness	197.27
488	3	1,349.35	-349.95	478	Linville Gorge Wilderness	196.85
489	4	1,350.08	-349.83	576	Linville Gorge Wilderness	196.47
490	5	1,347.72	-349.29	550	Linville Gorge Wilderness	196.83
491	6	1,348.45	-349.16	472	Linville Gorge Wilderness	196.45
492	7	1,349.19	-349.04	721	Linville Gorge Wilderness	196.06
493	8	1,349.93	-348.92	759	Linville Gorge Wilderness	195.68
494	9	1,350.67	-348.79	600	Linville Gorge Wilderness	195.30
495	10	1,351.41	-348.67	517	Linville Gorge Wilderness	194.92
496	11	1,347.56	-348.38	641	Linville Gorge Wilderness	196.04
497	12	1,348.30	-348.25	439	Linville Gorge Wilderness	195.65
498	13	1,349.04	-348.13	607	Linville Gorge Wilderness	195.27
499	14	1,349.78	-348.00	881	Linville Gorge Wilderness	194.89
500	15	1,350.52	-347.88	758	Linville Gorge Wilderness	194.50
501	16	1,347.41	-347.47	920	Linville Gorge Wilderness	195.25
502	17	1,348.15	-347.34	665	Linville Gorge Wilderness	194.86
503	18	1,348.89	-347.22	458	Linville Gorge Wilderness	194.48
504	19	1,349.63	-347.09	585	Linville Gorge Wilderness	194.09
505	20	1,350.36	-346.97	870	Linville Gorge Wilderness	193.71
506	21	1,348.00	-346.43	826	Linville Gorge Wilderness	194.08
507	22	1,348.73	-346.31	518	Linville Gorge Wilderness	193.69
508	23	1,349.47	-346.18	525	Linville Gorge Wilderness	193.30
509	24	1,350.21	-346.06	695	Linville Gorge Wilderness	192.92
510	25	1,350.95	-345.94	892	Linville Gorge Wilderness	192.53
511	26	1,347.84	-345.52	874	Linville Gorge Wilderness	193.29
512	27	1,348.58	-345.40	581	Linville Gorge Wilderness	192.90
513	28	1,349.32	-345.27	573	Linville Gorge Wilderness	192.51

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
514	29	1,350.06	-345.15	664	Linville Gorge Wilderness	192.13
515	30	1,348.43	-344.49	728	Linville Gorge Wilderness	192.11
516	31	1,349.17	-344.36	694	Linville Gorge Wilderness	191.72
517	32	1,349.90	-344.24	914	Linville Gorge Wilderness	191.33
518	33	1,348.28	-343.58	756	Linville Gorge Wilderness	191.33
519	34	1,349.01	-343.45	631	Linville Gorge Wilderness	190.93
520	35	1,349.75	-343.33	944	Linville Gorge Wilderness	190.55
521	36	1,348.12	-342.67	826	Linville Gorge Wilderness	190.54
522	37	1,348.86	-342.54	624	Linville Gorge Wilderness	190.15
523	38	1,349.60	-342.42	965	Linville Gorge Wilderness	189.76
524	39	1,347.97	-341.76	732	Linville Gorge Wilderness	189.76
525	40	1,348.71	-341.63	685	Linville Gorge Wilderness	189.36
526	41	1,349.45	-341.51	889	Linville Gorge Wilderness	188.97
527	42	1,347.82	-340.85	890	Linville Gorge Wilderness	188.97
528	43	1,348.56	-340.72	697	Linville Gorge Wilderness	188.58
529	44	1,349.29	-340.60	827	Linville Gorge Wilderness	188.18
530	45	1,346.93	-340.06	1,096	Linville Gorge Wilderness	188.59
531	46	1,347.67	-339.94	749	Linville Gorge Wilderness	188.19
532	47	1,348.40	-339.81	816	Linville Gorge Wilderness	187.80
533	48	1,349.14	-339.69	1,106	Linville Gorge Wilderness	187.40
534	49	1,346.78	-339.15	1,055	Linville Gorge Wilderness	187.81
535	50	1,347.51	-339.03	762	Linville Gorge Wilderness	187.41
536	51	1,348.25	-338.90	909	Linville Gorge Wilderness	187.01
537	52	1,348.99	-338.78	1,092	Linville Gorge Wilderness	186.62
538	53	1,345.89	-338.36	941	Linville Gorge Wilderness	187.44
539	54	1,346.62	-338.24	813	Linville Gorge Wilderness	187.04
540	55	1,347.36	-338.12	953	Linville Gorge Wilderness	186.63
541	56	1,348.10	-337.99	1,097	Linville Gorge Wilderness	186.23
542	57	1,348.84	-337.87	1,083	Linville Gorge Wilderness	185.83
543	58	1,345.74	-337.45	923	Linville Gorge Wilderness	186.67
544	59	1,346.47	-337.33	924	Linville Gorge Wilderness	186.26
545	60	1,347.21	-337.21	901	Linville Gorge Wilderness	185.86
546	61	1,347.95	-337.08	1,114	Linville Gorge Wilderness	185.45
547	62	1,348.68	-336.96	1,219	Linville Gorge Wilderness	185.05
548	63	1,345.58	-336.54	946	Linville Gorge Wilderness	185.90
549	64	1,346.32	-336.42	983	Linville Gorge Wilderness	185.49
550	65	1,347.06	-336.30	1,142	Linville Gorge Wilderness	185.08
551	66	1,346.17	-335.51	1,063	Linville Gorge Wilderness	184.71
552	1	1,273.44	-416.51	1,629	Shining Rock Wilderness	290.10
553	2	1,274.18	-416.39	1,586	Shining Rock Wilderness	289.63
554	3	1,274.93	-416.27	1,370	Shining Rock Wilderness	289.15
555	4	1,275.67	-416.16	1,274	Shining Rock Wilderness	288.68
556	5	1,276.42	-416.04	1,181	Shining Rock Wilderness	288.20
557	6	1,268.83	-416.29	1,183	Shining Rock Wilderness	292.28
558	7	1,269.58	-416.18	1,416	Shining Rock Wilderness	291.80
559	8	1,270.32	-416.06	1,541	Shining Rock Wilderness	291.31
560	9	1,271.06	-415.95	1,677	Shining Rock Wilderness	290.83
561	10	1,271.81	-415.83	1,640	Shining Rock Wilderness	290.35
562	11	1,272.55	-415.71	1,770	Shining Rock Wilderness	289.87
563	12	1,273.30	-415.60	1,679	Shining Rock Wilderness	289.39
564	13	1,274.04	-415.48	1,585	Shining Rock Wilderness	288.91
565	14	1,274.78	-415.36	1,529	Shining Rock Wilderness	288.44
566	15	1,275.53	-415.24	1,309	Shining Rock Wilderness	287.96
567	16	1,276.27	-415.13	1,128	Shining Rock Wilderness	287.49
568	17	1,267.95	-415.50	1,097	Shining Rock Wilderness	292.06
569	18	1,268.69	-415.38	1,217	Shining Rock Wilderness	291.58
570	19	1,269.43	-415.27	1,536	Shining Rock Wilderness	291.09

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
571	20	1,270.18	-415.15	1,463	Shining Rock Wilderness	290.61
572	21	1,270.92	-415.03	1,436	Shining Rock Wilderness	290.12
573	22	1,271.67	-414.92	1,629	Shining Rock Wilderness	289.64
574	23	1,272.41	-414.80	1,771	Shining Rock Wilderness	289.16
575	24	1,273.15	-414.68	1,622	Shining Rock Wilderness	288.68
576	25	1,273.90	-414.57	1,425	Shining Rock Wilderness	288.20
577	26	1,274.64	-414.45	1,312	Shining Rock Wilderness	287.72
578	27	1,275.39	-414.33	1,362	Shining Rock Wilderness	287.24
579	28	1,276.13	-414.22	1,067	Shining Rock Wilderness	286.77
580	29	1,276.87	-414.10	1,162	Shining Rock Wilderness	286.29
581	30	1,277.62	-413.98	1,399	Shining Rock Wilderness	285.82
582	31	1,267.06	-414.70	1,029	Shining Rock Wilderness	291.85
583	32	1,267.80	-414.59	1,227	Shining Rock Wilderness	291.36
584	33	1,268.55	-414.47	1,505	Shining Rock Wilderness	290.87
585	34	1,269.29	-414.35	1,347	Shining Rock Wilderness	290.39
586	35	1,270.03	-414.24	1,317	Shining Rock Wilderness	289.90
587	36	1,270.78	-414.12	1,536	Shining Rock Wilderness	289.41
588	37	1,271.52	-414.00	1,675	Shining Rock Wilderness	288.93
589	38	1,272.27	-413.89	1,729	Shining Rock Wilderness	288.45
590	39	1,273.01	-413.77	1,523	Shining Rock Wilderness	287.97
591	40	1,273.75	-413.65	1,544	Shining Rock Wilderness	287.49
592	41	1,274.50	-413.54	1,429	Shining Rock Wilderness	287.01
593	42	1,275.24	-413.42	1,315	Shining Rock Wilderness	286.53
594	43	1,275.99	-413.30	1,068	Shining Rock Wilderness	286.05
595	44	1,276.73	-413.19	1,066	Shining Rock Wilderness	285.58
596	45	1,277.47	-413.07	1,352	Shining Rock Wilderness	285.10
597	46	1,266.17	-413.91	1,024	Shining Rock Wilderness	291.64
598	47	1,266.92	-413.79	1,296	Shining Rock Wilderness	291.15
599	48	1,267.66	-413.67	1,404	Shining Rock Wilderness	290.66
600	49	1,268.40	-413.56	1,373	Shining Rock Wilderness	290.17
601	50	1,269.15	-413.44	1,198	Shining Rock Wilderness	289.68
602	51	1,269.89	-413.32	1,198	Shining Rock Wilderness	289.19
603	52	1,270.64	-413.21	1,419	Shining Rock Wilderness	288.71
604	53	1,271.38	-413.09	1,571	Shining Rock Wilderness	288.22
605	54	1,272.12	-412.98	1,741	Shining Rock Wilderness	287.74
606	55	1,272.87	-412.86	1,717	Shining Rock Wilderness	287.26
607	56	1,273.61	-412.74	1,616	Shining Rock Wilderness	286.78
608	57	1,274.35	-412.63	1,569	Shining Rock Wilderness	286.30
609	58	1,275.10	-412.51	1,422	Shining Rock Wilderness	285.82
610	59	1,275.84	-412.39	1,161	Shining Rock Wilderness	285.34
611	60	1,265.29	-413.11	968	Shining Rock Wilderness	291.43
612	61	1,266.03	-412.99	1,198	Shining Rock Wilderness	290.94
613	62	1,266.77	-412.88	1,362	Shining Rock Wilderness	290.45
614	63	1,267.52	-412.76	1,470	Shining Rock Wilderness	289.96
615	64	1,268.26	-412.65	1,248	Shining Rock Wilderness	289.47
616	65	1,269.01	-412.53	1,058	Shining Rock Wilderness	288.98
617	66	1,269.75	-412.41	1,170	Shining Rock Wilderness	288.49
618	67	1,270.49	-412.30	1,415	Shining Rock Wilderness	288.00
619	68	1,271.24	-412.18	1,689	Shining Rock Wilderness	287.52
620	69	1,271.98	-412.06	1,547	Shining Rock Wilderness	287.03
621	70	1,272.72	-411.95	1,550	Shining Rock Wilderness	286.55
622	71	1,273.47	-411.83	1,437	Shining Rock Wilderness	286.07
623	72	1,274.21	-411.71	1,508	Shining Rock Wilderness	285.58
624	73	1,274.96	-411.60	1,300	Shining Rock Wilderness	285.10
625	74	1,275.70	-411.48	1,176	Shining Rock Wilderness	284.63
626	75	1,268.86	-411.62	1,012	Shining Rock Wilderness	288.28
627	76	1,269.61	-411.50	1,285	Shining Rock Wilderness	287.79

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
628	77	1,270.35	-411.38	1,366	Shining Rock Wilderness	287.30
629	78	1,271.09	-411.27	1,566	Shining Rock Wilderness	286.81
630	79	1,271.84	-411.15	1,451	Shining Rock Wilderness	286.33
631	80	1,272.58	-411.03	1,359	Shining Rock Wilderness	285.84
632	81	1,273.32	-410.92	1,273	Shining Rock Wilderness	285.36
633	82	1,274.07	-410.80	1,274	Shining Rock Wilderness	284.87
634	83	1,274.81	-410.68	1,280	Shining Rock Wilderness	284.39
635	84	1,275.56	-410.57	1,155	Shining Rock Wilderness	283.91
636	85	1,270.21	-410.47	1,179	Shining Rock Wilderness	286.60
637	86	1,270.95	-410.36	1,348	Shining Rock Wilderness	286.11
638	87	1,271.69	-410.24	1,488	Shining Rock Wilderness	285.62
639	88	1,270.81	-409.44	1,442	Shining Rock Wilderness	285.41
640	89	1,271.55	-409.33	1,565	Shining Rock Wilderness	284.92
641	90	1,272.29	-409.21	1,505	Shining Rock Wilderness	284.43
642	91	1,273.04	-409.09	1,409	Shining Rock Wilderness	283.94
643	92	1,273.78	-408.98	1,380	Shining Rock Wilderness	283.46
644	93	1,274.53	-408.86	1,303	Shining Rock Wilderness	282.98
645	94	1,275.27	-408.74	1,104	Shining Rock Wilderness	282.49
646	95	1,269.92	-408.65	1,500	Shining Rock Wilderness	285.19
647	96	1,271.41	-408.41	1,678	Shining Rock Wilderness	284.21
648	97	1,272.15	-408.30	1,707	Shining Rock Wilderness	283.73
649	98	1,272.89	-408.18	1,515	Shining Rock Wilderness	283.24
650	99	1,273.64	-408.06	1,321	Shining Rock Wilderness	282.75
651	100	1,274.38	-407.95	1,219	Shining Rock Wilderness	282.27
652	101	1,271.27	-407.50	1,394	Shining Rock Wilderness	283.51
653	102	1,272.01	-407.39	1,522	Shining Rock Wilderness	283.02
654	103	1,272.75	-407.27	1,411	Shining Rock Wilderness	282.54
655	104	1,273.50	-407.15	1,234	Shining Rock Wilderness	282.05
656	105	1,271.12	-406.59	1,189	Shining Rock Wilderness	282.81
657	106	1,271.87	-406.47	1,343	Shining Rock Wilderness	282.32
658	107	1,272.61	-406.36	1,265	Shining Rock Wilderness	281.83
659	108	1,270.98	-405.68	1,045	Shining Rock Wilderness	282.11
660	109	1,271.72	-405.56	1,235	Shining Rock Wilderness	281.62
661	110	1,272.47	-405.45	1,066	Shining Rock Wilderness	281.13
662	1	1,174.12	-429.61	1,154	Joyce-Kilmer Slickrock Wilderness	360.46
663	2	1,174.86	-429.50	1,056	Joyce-Kilmer Slickrock Wilderness	359.87
664	3	1,175.61	-429.39	903	Joyce-Kilmer Slickrock Wilderness	359.28
665	4	1,176.35	-429.28	820	Joyce-Kilmer Slickrock Wilderness	358.70
666	5	1,177.10	-429.18	818	Joyce-Kilmer Slickrock Wilderness	358.11
667	6	1,173.24	-428.80	1,278	Joyce-Kilmer Slickrock Wilderness	360.47
668	7	1,173.98	-428.69	1,069	Joyce-Kilmer Slickrock Wilderness	359.88
669	8	1,174.73	-428.59	913	Joyce-Kilmer Slickrock Wilderness	359.29
670	9	1,175.47	-428.48	776	Joyce-Kilmer Slickrock Wilderness	358.70
671	10	1,176.22	-428.37	788	Joyce-Kilmer Slickrock Wilderness	358.12
672	11	1,176.96	-428.26	750	Joyce-Kilmer Slickrock Wilderness	357.53
673	12	1,172.36	-427.99	1,327	Joyce-Kilmer Slickrock Wilderness	360.49
674	13	1,173.11	-427.89	1,085	Joyce-Kilmer Slickrock Wilderness	359.90
675	14	1,173.85	-427.78	985	Joyce-Kilmer Slickrock Wilderness	359.31
676	15	1,174.60	-427.67	934	Joyce-Kilmer Slickrock Wilderness	358.72
677	16	1,175.34	-427.56	978	Joyce-Kilmer Slickrock Wilderness	358.13
678	17	1,176.09	-427.46	982	Joyce-Kilmer Slickrock Wilderness	357.54
679	18	1,176.83	-427.35	824	Joyce-Kilmer Slickrock Wilderness	356.95
680	19	1,169.99	-427.40	1,317	Joyce-Kilmer Slickrock Wilderness	361.69
681	20	1,170.74	-427.30	1,394	Joyce-Kilmer Slickrock Wilderness	361.10
682	21	1,171.48	-427.19	1,487	Joyce-Kilmer Slickrock Wilderness	360.51
683	22	1,172.23	-427.08	1,308	Joyce-Kilmer Slickrock Wilderness	359.91
684	23	1,172.97	-426.97	1,237	Joyce-Kilmer Slickrock Wilderness	359.32

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
685	24	1,173.72	-426.87	1,336	Joyce-Kilmer Slickrock Wilderness	358.73
686	25	1,174.47	-426.76	1,290	Joyce-Kilmer Slickrock Wilderness	358.14
687	26	1,175.21	-426.65	1,304	Joyce-Kilmer Slickrock Wilderness	357.55
688	27	1,175.96	-426.54	1,111	Joyce-Kilmer Slickrock Wilderness	356.96
689	28	1,176.70	-426.43	1,066	Joyce-Kilmer Slickrock Wilderness	356.37
690	29	1,169.86	-426.49	1,189	Joyce-Kilmer Slickrock Wilderness	361.12
691	30	1,170.61	-426.38	1,127	Joyce-Kilmer Slickrock Wilderness	360.53
692	31	1,171.35	-426.27	1,299	Joyce-Kilmer Slickrock Wilderness	359.94
693	32	1,172.10	-426.17	1,380	Joyce-Kilmer Slickrock Wilderness	359.34
694	33	1,172.84	-426.06	1,553	Joyce-Kilmer Slickrock Wilderness	358.75
695	34	1,173.59	-425.95	1,336	Joyce-Kilmer Slickrock Wilderness	358.16
696	35	1,174.33	-425.84	1,219	Joyce-Kilmer Slickrock Wilderness	357.57
697	36	1,175.08	-425.74	1,109	Joyce-Kilmer Slickrock Wilderness	356.98
698	37	1,175.82	-425.63	1,133	Joyce-Kilmer Slickrock Wilderness	356.39
699	38	1,176.57	-425.52	1,226	Joyce-Kilmer Slickrock Wilderness	355.80
700	39	1,168.99	-425.68	1,280	Joyce-Kilmer Slickrock Wilderness	361.15
701	40	1,169.73	-425.57	1,136	Joyce-Kilmer Slickrock Wilderness	360.56
702	41	1,170.48	-425.47	906	Joyce-Kilmer Slickrock Wilderness	359.96
703	42	1,171.22	-425.36	999	Joyce-Kilmer Slickrock Wilderness	359.37
704	43	1,171.97	-425.25	1,170	Joyce-Kilmer Slickrock Wilderness	358.77
705	44	1,172.71	-425.15	1,376	Joyce-Kilmer Slickrock Wilderness	358.18
706	45	1,173.46	-425.04	1,318	Joyce-Kilmer Slickrock Wilderness	357.59
707	46	1,174.20	-424.93	1,369	Joyce-Kilmer Slickrock Wilderness	357.00
708	47	1,174.95	-424.82	1,152	Joyce-Kilmer Slickrock Wilderness	356.41
709	48	1,175.69	-424.71	924	Joyce-Kilmer Slickrock Wilderness	355.82
710	49	1,176.44	-424.61	882	Joyce-Kilmer Slickrock Wilderness	355.22
711	50	1,168.11	-424.88	1,151	Joyce-Kilmer Slickrock Wilderness	361.18
712	51	1,168.85	-424.77	1,116	Joyce-Kilmer Slickrock Wilderness	360.59
713	52	1,169.60	-424.66	1,044	Joyce-Kilmer Slickrock Wilderness	359.99
714	53	1,170.34	-424.55	772	Joyce-Kilmer Slickrock Wilderness	359.40
715	54	1,171.09	-424.45	866	Joyce-Kilmer Slickrock Wilderness	358.80
716	55	1,171.83	-424.34	1,090	Joyce-Kilmer Slickrock Wilderness	358.21
717	56	1,173.32	-424.12	1,020	Joyce-Kilmer Slickrock Wilderness	357.02
718	57	1,174.07	-424.02	1,067	Joyce-Kilmer Slickrock Wilderness	356.43
719	58	1,167.98	-423.96	1,224	Joyce-Kilmer Slickrock Wilderness	360.62
720	59	1,168.72	-423.85	1,065	Joyce-Kilmer Slickrock Wilderness	360.02
721	60	1,169.47	-423.75	836	Joyce-Kilmer Slickrock Wilderness	359.43
722	61	1,170.21	-423.64	700	Joyce-Kilmer Slickrock Wilderness	358.83
723	62	1,170.96	-423.53	782	Joyce-Kilmer Slickrock Wilderness	358.24
724	63	1,171.70	-423.42	961	Joyce-Kilmer Slickrock Wilderness	357.64
725	64	1,173.94	-423.10	809	Joyce-Kilmer Slickrock Wilderness	355.86
726	65	1,174.68	-422.99	941	Joyce-Kilmer Slickrock Wilderness	355.27
727	66	1,167.85	-423.05	991	Joyce-Kilmer Slickrock Wilderness	360.06
728	67	1,168.59	-422.94	817	Joyce-Kilmer Slickrock Wilderness	359.46
729	68	1,169.34	-422.83	751	Joyce-Kilmer Slickrock Wilderness	358.87
730	69	1,170.08	-422.73	635	Joyce-Kilmer Slickrock Wilderness	358.27
731	70	1,170.83	-422.62	772	Joyce-Kilmer Slickrock Wilderness	357.67
732	71	1,171.57	-422.51	882	Joyce-Kilmer Slickrock Wilderness	357.08
733	72	1,168.46	-422.03	954	Joyce-Kilmer Slickrock Wilderness	358.90
734	73	1,169.21	-421.92	739	Joyce-Kilmer Slickrock Wilderness	358.31
735	74	1,169.95	-421.81	620	Joyce-Kilmer Slickrock Wilderness	357.71
736	75	1,170.69	-421.70	635	Joyce-Kilmer Slickrock Wilderness	357.11
737	76	1,171.44	-421.60	700	Joyce-Kilmer Slickrock Wilderness	356.51
738	77	1,172.18	-421.49	865	Joyce-Kilmer Slickrock Wilderness	355.92
739	78	1,168.33	-421.11	943	Joyce-Kilmer Slickrock Wilderness	358.35
740	79	1,169.07	-421.01	742	Joyce-Kilmer Slickrock Wilderness	357.75
741	80	1,169.82	-420.90	505	Joyce-Kilmer Slickrock Wilderness	357.15

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
742	81	1,170.56	-420.79	558	Joyce-Kilmer Slickrock Wilderness	356.55
743	82	1,171.31	-420.68	538	Joyce-Kilmer Slickrock Wilderness	355.95
744	83	1,172.05	-420.58	686	Joyce-Kilmer Slickrock Wilderness	355.35
745	84	1,168.20	-420.20	946	Joyce-Kilmer Slickrock Wilderness	357.79
746	85	1,168.94	-420.09	760	Joyce-Kilmer Slickrock Wilderness	357.19
747	86	1,169.69	-419.98	644	Joyce-Kilmer Slickrock Wilderness	356.59
748	87	1,170.43	-419.88	491	Joyce-Kilmer Slickrock Wilderness	355.99
749	88	1,171.18	-419.77	442	Joyce-Kilmer Slickrock Wilderness	355.39
750	89	1,171.92	-419.66	491	Joyce-Kilmer Slickrock Wilderness	354.79
751	90	1,168.07	-419.28	959	Joyce-Kilmer Slickrock Wilderness	357.23
752	91	1,168.81	-419.18	752	Joyce-Kilmer Slickrock Wilderness	356.63
753	92	1,169.55	-419.07	528	Joyce-Kilmer Slickrock Wilderness	356.03
754	93	1,170.30	-418.96	598	Joyce-Kilmer Slickrock Wilderness	355.43
755	94	1,171.04	-418.86	515	Joyce-Kilmer Slickrock Wilderness	354.83
756	95	1,171.79	-418.75	400	Joyce-Kilmer Slickrock Wilderness	354.23
757	96	1,172.53	-418.64	523	Joyce-Kilmer Slickrock Wilderness	353.64
758	97	1,167.93	-418.37	712	Joyce-Kilmer Slickrock Wilderness	356.68
759	98	1,170.17	-418.05	743	Joyce-Kilmer Slickrock Wilderness	354.88
760	99	1,170.91	-417.94	684	Joyce-Kilmer Slickrock Wilderness	354.28
761	100	1,171.66	-417.83	538	Joyce-Kilmer Slickrock Wilderness	353.68
762	101	1,172.40	-417.73	361	Joyce-Kilmer Slickrock Wilderness	353.08
763	1	1,201.21	-417.25	521	Great Smoky Mountain National Park	333.11
764	2	1,204.19	-416.80	521	Great Smoky Mountain National Park	330.83
765	3	1,189.04	-417.17	521	Great Smoky Mountain National Park	341.19
766	4	1,190.53	-416.95	522	Great Smoky Mountain National Park	340.02
767	5	1,192.02	-416.74	523	Great Smoky Mountain National Park	338.86
768	6	1,193.50	-416.52	521	Great Smoky Mountain National Park	337.69
769	7	1,194.99	-416.30	538	Great Smoky Mountain National Park	336.53
770	8	1,196.48	-416.08	550	Great Smoky Mountain National Park	335.38
771	9	1,197.97	-415.86	640	Great Smoky Mountain National Park	334.22
772	10	1,199.46	-415.64	607	Great Smoky Mountain National Park	333.07
773	11	1,200.94	-415.42	523	Great Smoky Mountain National Park	331.92
774	12	1,202.43	-415.20	548	Great Smoky Mountain National Park	330.77
775	13	1,203.92	-414.98	524	Great Smoky Mountain National Park	329.63
776	14	1,205.41	-414.76	608	Great Smoky Mountain National Park	328.48
777	15	1,208.38	-414.31	546	Great Smoky Mountain National Park	326.21
778	16	1,209.87	-414.09	566	Great Smoky Mountain National Park	325.07
779	17	1,211.36	-413.87	541	Great Smoky Mountain National Park	323.94
780	18	1,212.85	-413.65	530	Great Smoky Mountain National Park	322.82
781	19	1,181.33	-416.43	683	Great Smoky Mountain National Park	345.93
782	20	1,182.82	-416.22	711	Great Smoky Mountain National Park	344.74
783	21	1,184.31	-416.00	583	Great Smoky Mountain National Park	343.56
784	22	1,185.79	-415.78	599	Great Smoky Mountain National Park	342.38
785	23	1,187.28	-415.56	561	Great Smoky Mountain National Park	341.21
786	24	1,188.77	-415.35	582	Great Smoky Mountain National Park	340.03
787	25	1,190.26	-415.13	703	Great Smoky Mountain National Park	338.86
788	26	1,191.75	-414.91	707	Great Smoky Mountain National Park	337.69
789	27	1,193.23	-414.69	522	Great Smoky Mountain National Park	336.52
790	28	1,194.72	-414.47	760	Great Smoky Mountain National Park	335.36
791	29	1,196.21	-414.25	846	Great Smoky Mountain National Park	334.20
792	30	1,197.70	-414.03	952	Great Smoky Mountain National Park	333.04
793	31	1,199.19	-413.81	765	Great Smoky Mountain National Park	331.88
794	32	1,200.67	-413.59	1,067	Great Smoky Mountain National Park	330.73
795	33	1,202.16	-413.37	915	Great Smoky Mountain National Park	329.58
796	34	1,203.65	-413.15	730	Great Smoky Mountain National Park	328.43
797	35	1,205.14	-412.93	822	Great Smoky Mountain National Park	327.28
798	36	1,206.62	-412.71	748	Great Smoky Mountain National Park	326.14

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
799	37	1,208.11	-412.49	544	Great Smoky Mountain National Park	325.00
800	38	1,209.60	-412.27	706	Great Smoky Mountain National Park	323.86
801	39	1,211.09	-412.04	627	Great Smoky Mountain National Park	322.73
802	40	1,212.57	-411.82	845	Great Smoky Mountain National Park	321.60
803	41	1,214.06	-411.60	772	Great Smoky Mountain National Park	320.47
804	42	1,215.55	-411.38	836	Great Smoky Mountain National Park	319.34
805	43	1,220.01	-410.71	665	Great Smoky Mountain National Park	315.98
806	44	1,175.11	-415.47	554	Great Smoky Mountain National Park	349.57
807	45	1,176.60	-415.25	760	Great Smoky Mountain National Park	348.37
808	46	1,178.09	-415.04	805	Great Smoky Mountain National Park	347.17
809	47	1,179.58	-414.82	703	Great Smoky Mountain National Park	345.98
810	48	1,181.06	-414.61	729	Great Smoky Mountain National Park	344.79
811	49	1,182.55	-414.39	699	Great Smoky Mountain National Park	343.61
812	50	1,184.04	-414.17	1,109	Great Smoky Mountain National Park	342.42
813	51	1,185.53	-413.95	1,001	Great Smoky Mountain National Park	341.24
814	52	1,187.02	-413.74	811	Great Smoky Mountain National Park	340.06
815	53	1,188.50	-413.52	522	Great Smoky Mountain National Park	338.88
816	54	1,189.99	-413.30	581	Great Smoky Mountain National Park	337.70
817	55	1,191.48	-413.08	629	Great Smoky Mountain National Park	336.53
818	56	1,192.97	-412.86	634	Great Smoky Mountain National Park	335.36
819	57	1,194.45	-412.64	582	Great Smoky Mountain National Park	334.19
820	58	1,195.94	-412.43	612	Great Smoky Mountain National Park	333.03
821	59	1,197.43	-412.21	944	Great Smoky Mountain National Park	331.86
822	60	1,198.92	-411.99	1,281	Great Smoky Mountain National Park	330.70
823	61	1,200.40	-411.77	1,427	Great Smoky Mountain National Park	329.55
824	62	1,201.89	-411.55	1,221	Great Smoky Mountain National Park	328.39
825	63	1,203.38	-411.33	1,030	Great Smoky Mountain National Park	327.24
826	64	1,204.87	-411.10	983	Great Smoky Mountain National Park	326.09
827	65	1,206.35	-410.88	894	Great Smoky Mountain National Park	324.94
828	66	1,207.84	-410.66	675	Great Smoky Mountain National Park	323.80
829	67	1,209.33	-410.44	950	Great Smoky Mountain National Park	322.66
830	68	1,210.81	-410.22	915	Great Smoky Mountain National Park	321.52
831	69	1,212.30	-410.00	732	Great Smoky Mountain National Park	320.38
832	70	1,213.79	-409.77	980	Great Smoky Mountain National Park	319.25
833	71	1,216.76	-409.33	1,020	Great Smoky Mountain National Park	316.99
834	72	1,218.25	-409.10	886	Great Smoky Mountain National Park	315.87
835	73	1,219.74	-408.88	615	Great Smoky Mountain National Park	314.74
836	74	1,221.22	-408.66	680	Great Smoky Mountain National Park	313.63
837	75	1,176.34	-413.43	767	Great Smoky Mountain National Park	347.25
838	76	1,177.82	-413.21	919	Great Smoky Mountain National Park	346.05
839	77	1,179.31	-412.99	905	Great Smoky Mountain National Park	344.86
840	78	1,180.80	-412.78	911	Great Smoky Mountain National Park	343.67
841	79	1,182.29	-412.56	965	Great Smoky Mountain National Park	342.47
842	80	1,183.77	-412.34	837	Great Smoky Mountain National Park	341.29
843	81	1,185.26	-412.13	1,055	Great Smoky Mountain National Park	340.10
844	82	1,186.75	-411.91	716	Great Smoky Mountain National Park	338.92
845	83	1,188.24	-411.69	825	Great Smoky Mountain National Park	337.73
846	84	1,189.72	-411.47	609	Great Smoky Mountain National Park	336.55
847	85	1,191.21	-411.26	814	Great Smoky Mountain National Park	335.38
848	86	1,192.70	-411.04	1,006	Great Smoky Mountain National Park	334.20
849	87	1,194.18	-410.82	1,036	Great Smoky Mountain National Park	333.03
850	88	1,195.67	-410.60	732	Great Smoky Mountain National Park	331.86
851	89	1,197.16	-410.38	746	Great Smoky Mountain National Park	330.70
852	90	1,198.65	-410.16	929	Great Smoky Mountain National Park	329.53
853	91	1,200.13	-409.94	1,008	Great Smoky Mountain National Park	328.37
854	92	1,201.62	-409.72	1,288	Great Smoky Mountain National Park	327.21
855	93	1,203.11	-409.50	1,266	Great Smoky Mountain National Park	326.05

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
856	94	1,204.59	-409.28	1,218	Great Smoky Mountain National Park	324.90
857	95	1,206.08	-409.06	959	Great Smoky Mountain National Park	323.75
858	96	1,207.57	-408.84	681	Great Smoky Mountain National Park	322.60
859	97	1,209.05	-408.61	920	Great Smoky Mountain National Park	321.45
860	98	1,210.54	-408.39	1,170	Great Smoky Mountain National Park	320.31
861	99	1,212.03	-408.17	956	Great Smoky Mountain National Park	319.17
862	100	1,213.51	-407.95	818	Great Smoky Mountain National Park	318.03
863	101	1,215.00	-407.73	1,223	Great Smoky Mountain National Park	316.90
864	102	1,216.49	-407.50	1,270	Great Smoky Mountain National Park	315.77
865	103	1,217.97	-407.28	872	Great Smoky Mountain National Park	314.64
866	104	1,219.46	-407.06	694	Great Smoky Mountain National Park	313.51
867	105	1,220.95	-406.83	963	Great Smoky Mountain National Park	312.39
868	106	1,222.43	-406.61	859	Great Smoky Mountain National Park	311.27
869	107	1,223.92	-406.38	1,000	Great Smoky Mountain National Park	310.16
870	108	1,170.12	-412.46	365	Great Smoky Mountain National Park	350.97
871	109	1,171.61	-412.25	406	Great Smoky Mountain National Park	349.76
872	110	1,173.10	-412.03	600	Great Smoky Mountain National Park	348.55
873	111	1,174.58	-411.81	591	Great Smoky Mountain National Park	347.34
874	112	1,176.07	-411.60	644	Great Smoky Mountain National Park	346.14
875	113	1,177.56	-411.38	1,036	Great Smoky Mountain National Park	344.94
876	114	1,179.04	-411.17	1,309	Great Smoky Mountain National Park	343.74
877	115	1,180.53	-410.95	1,262	Great Smoky Mountain National Park	342.54
878	116	1,182.02	-410.73	1,261	Great Smoky Mountain National Park	341.35
879	117	1,183.51	-410.52	1,072	Great Smoky Mountain National Park	340.16
880	118	1,184.99	-410.30	1,199	Great Smoky Mountain National Park	338.97
881	119	1,186.48	-410.08	1,097	Great Smoky Mountain National Park	337.78
882	120	1,187.97	-409.87	720	Great Smoky Mountain National Park	336.59
883	121	1,189.45	-409.65	640	Great Smoky Mountain National Park	335.41
884	122	1,190.94	-409.43	873	Great Smoky Mountain National Park	334.23
885	123	1,192.43	-409.21	852	Great Smoky Mountain National Park	333.05
886	124	1,193.92	-408.99	978	Great Smoky Mountain National Park	331.88
887	125	1,195.40	-408.77	809	Great Smoky Mountain National Park	330.70
888	126	1,196.89	-408.55	761	Great Smoky Mountain National Park	329.53
889	127	1,198.38	-408.33	987	Great Smoky Mountain National Park	328.36
890	128	1,199.86	-408.11	874	Great Smoky Mountain National Park	327.20
891	129	1,201.35	-407.89	1,147	Great Smoky Mountain National Park	326.04
892	130	1,202.84	-407.67	1,323	Great Smoky Mountain National Park	324.88
893	131	1,204.32	-407.45	1,221	Great Smoky Mountain National Park	323.72
894	132	1,205.81	-407.23	1,097	Great Smoky Mountain National Park	322.56
895	133	1,207.30	-407.01	800	Great Smoky Mountain National Park	321.41
896	134	1,208.78	-406.79	942	Great Smoky Mountain National Park	320.26
897	135	1,210.27	-406.57	1,167	Great Smoky Mountain National Park	319.11
898	136	1,211.75	-406.34	1,052	Great Smoky Mountain National Park	317.97
899	137	1,213.24	-406.12	1,012	Great Smoky Mountain National Park	316.83
900	138	1,214.73	-405.90	1,002	Great Smoky Mountain National Park	315.69
901	139	1,216.21	-405.68	1,143	Great Smoky Mountain National Park	314.55
902	140	1,217.70	-405.45	998	Great Smoky Mountain National Park	313.42
903	141	1,219.19	-405.23	710	Great Smoky Mountain National Park	312.29
904	142	1,220.67	-405.01	998	Great Smoky Mountain National Park	311.17
905	143	1,222.16	-404.78	907	Great Smoky Mountain National Park	310.04
906	144	1,223.64	-404.56	1,200	Great Smoky Mountain National Park	308.92
907	145	1,225.13	-404.33	1,173	Great Smoky Mountain National Park	307.80
908	146	1,226.62	-404.11	1,067	Great Smoky Mountain National Park	306.69
909	147	1,228.10	-403.88	896	Great Smoky Mountain National Park	305.58
910	148	1,229.59	-403.66	799	Great Smoky Mountain National Park	304.47
911	149	1,231.07	-403.43	683	Great Smoky Mountain National Park	303.36
912	150	1,169.86	-410.63	330	Great Smoky Mountain National Park	349.88

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
913	151	1,171.34	-410.42	523	Great Smoky Mountain National Park	348.66
914	152	1,172.83	-410.20	599	Great Smoky Mountain National Park	347.45
915	153	1,174.32	-409.99	769	Great Smoky Mountain National Park	346.24
916	154	1,175.81	-409.77	831	Great Smoky Mountain National Park	345.04
917	155	1,177.29	-409.56	941	Great Smoky Mountain National Park	343.83
918	156	1,178.78	-409.34	1,150	Great Smoky Mountain National Park	342.63
919	157	1,180.27	-409.12	1,194	Great Smoky Mountain National Park	341.43
920	158	1,181.75	-408.91	1,084	Great Smoky Mountain National Park	340.23
921	159	1,183.24	-408.69	1,206	Great Smoky Mountain National Park	339.03
922	160	1,184.73	-408.47	1,225	Great Smoky Mountain National Park	337.84
923	161	1,186.21	-408.26	987	Great Smoky Mountain National Park	336.65
924	162	1,187.70	-408.04	1,063	Great Smoky Mountain National Park	335.46
925	163	1,189.19	-407.82	873	Great Smoky Mountain National Park	334.27
926	164	1,190.67	-407.60	921	Great Smoky Mountain National Park	333.09
927	165	1,192.16	-407.38	1,233	Great Smoky Mountain National Park	331.91
928	166	1,193.65	-407.16	1,006	Great Smoky Mountain National Park	330.73
929	167	1,195.13	-406.95	1,024	Great Smoky Mountain National Park	329.55
930	168	1,196.62	-406.73	792	Great Smoky Mountain National Park	328.38
931	169	1,198.11	-406.51	1,015	Great Smoky Mountain National Park	327.20
932	170	1,199.59	-406.29	1,094	Great Smoky Mountain National Park	326.03
933	171	1,201.08	-406.07	996	Great Smoky Mountain National Park	324.87
934	172	1,202.56	-405.85	1,148	Great Smoky Mountain National Park	323.70
935	173	1,204.05	-405.63	1,368	Great Smoky Mountain National Park	322.54
936	174	1,205.54	-405.40	1,052	Great Smoky Mountain National Park	321.38
937	175	1,207.02	-405.18	958	Great Smoky Mountain National Park	320.23
938	176	1,208.51	-404.96	988	Great Smoky Mountain National Park	319.07
939	177	1,210.00	-404.74	1,019	Great Smoky Mountain National Park	317.92
940	178	1,211.48	-404.52	1,344	Great Smoky Mountain National Park	316.77
941	179	1,212.97	-404.30	1,246	Great Smoky Mountain National Park	315.63
942	180	1,214.45	-404.07	1,377	Great Smoky Mountain National Park	314.49
943	181	1,215.94	-403.85	1,135	Great Smoky Mountain National Park	313.35
944	182	1,217.43	-403.63	1,196	Great Smoky Mountain National Park	312.21
945	183	1,218.91	-403.40	851	Great Smoky Mountain National Park	311.08
946	184	1,220.40	-403.18	883	Great Smoky Mountain National Park	309.94
947	185	1,221.88	-402.96	1,060	Great Smoky Mountain National Park	308.82
948	186	1,223.37	-402.73	1,207	Great Smoky Mountain National Park	307.69
949	187	1,224.85	-402.51	1,245	Great Smoky Mountain National Park	306.57
950	188	1,226.34	-402.28	1,045	Great Smoky Mountain National Park	305.45
951	189	1,227.83	-402.06	1,068	Great Smoky Mountain National Park	304.34
952	190	1,229.31	-401.83	870	Great Smoky Mountain National Park	303.22
953	191	1,230.80	-401.61	782	Great Smoky Mountain National Park	302.11
954	192	1,241.19	-400.02	1,326	Great Smoky Mountain National Park	294.44
955	193	1,169.59	-408.81	453	Great Smoky Mountain National Park	348.79
956	194	1,171.08	-408.59	439	Great Smoky Mountain National Park	347.58
957	195	1,172.57	-408.38	582	Great Smoky Mountain National Park	346.36
958	196	1,174.05	-408.16	664	Great Smoky Mountain National Park	345.15
959	197	1,175.54	-407.94	770	Great Smoky Mountain National Park	343.94
960	198	1,177.03	-407.73	853	Great Smoky Mountain National Park	342.73
961	199	1,178.51	-407.51	810	Great Smoky Mountain National Park	341.52
962	200	1,180.00	-407.30	979	Great Smoky Mountain National Park	340.32
963	201	1,181.49	-407.08	809	Great Smoky Mountain National Park	339.12
964	202	1,182.97	-406.86	818	Great Smoky Mountain National Park	337.92
965	203	1,184.46	-406.65	1,027	Great Smoky Mountain National Park	336.72
966	204	1,185.95	-406.43	1,372	Great Smoky Mountain National Park	335.53
967	205	1,187.43	-406.21	1,203	Great Smoky Mountain National Park	334.33
968	206	1,188.92	-405.99	975	Great Smoky Mountain National Park	333.14
969	207	1,190.40	-405.78	1,077	Great Smoky Mountain National Park	331.95

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
970	208	1,191.89	-405.56	1,343	Great Smoky Mountain National Park	330.77
971	209	1,193.38	-405.34	1,463	Great Smoky Mountain National Park	329.59
972	210	1,194.86	-405.12	1,193	Great Smoky Mountain National Park	328.40
973	211	1,196.35	-404.90	932	Great Smoky Mountain National Park	327.23
974	212	1,197.84	-404.68	1,059	Great Smoky Mountain National Park	326.05
975	213	1,199.32	-404.46	1,144	Great Smoky Mountain National Park	324.88
976	214	1,200.81	-404.24	1,231	Great Smoky Mountain National Park	323.71
977	215	1,202.29	-404.02	1,197	Great Smoky Mountain National Park	322.54
978	216	1,203.78	-403.80	1,220	Great Smoky Mountain National Park	321.37
979	217	1,205.27	-403.58	1,342	Great Smoky Mountain National Park	320.21
980	218	1,206.75	-403.36	1,350	Great Smoky Mountain National Park	319.05
981	219	1,208.24	-403.14	1,251	Great Smoky Mountain National Park	317.89
982	220	1,209.72	-402.91	1,467	Great Smoky Mountain National Park	316.74
983	221	1,211.21	-402.69	1,407	Great Smoky Mountain National Park	315.58
984	222	1,212.69	-402.47	1,671	Great Smoky Mountain National Park	314.43
985	223	1,214.18	-402.25	1,369	Great Smoky Mountain National Park	313.29
986	224	1,215.67	-402.02	1,412	Great Smoky Mountain National Park	312.14
987	225	1,217.15	-401.80	1,279	Great Smoky Mountain National Park	311.00
988	226	1,218.64	-401.58	863	Great Smoky Mountain National Park	309.86
989	227	1,220.12	-401.35	823	Great Smoky Mountain National Park	308.73
990	228	1,221.61	-401.13	1,103	Great Smoky Mountain National Park	307.60
991	229	1,223.09	-400.91	1,432	Great Smoky Mountain National Park	306.47
992	230	1,224.58	-400.68	1,448	Great Smoky Mountain National Park	305.34
993	231	1,226.06	-400.46	1,352	Great Smoky Mountain National Park	304.22
994	232	1,227.55	-400.23	1,094	Great Smoky Mountain National Park	303.10
995	233	1,229.03	-400.01	802	Great Smoky Mountain National Park	301.98
996	234	1,230.52	-399.78	756	Great Smoky Mountain National Park	300.87
997	235	1,239.43	-398.42	1,213	Great Smoky Mountain National Park	294.26
998	236	1,240.91	-398.20	1,312	Great Smoky Mountain National Park	293.17
999	237	1,169.33	-406.98	365	Great Smoky Mountain National Park	347.72
1000	238	1,170.82	-406.76	393	Great Smoky Mountain National Park	346.50
1001	239	1,172.30	-406.55	455	Great Smoky Mountain National Park	345.28
1002	240	1,173.79	-406.33	590	Great Smoky Mountain National Park	344.06
1003	241	1,175.28	-406.12	775	Great Smoky Mountain National Park	342.85
1004	242	1,176.76	-405.90	690	Great Smoky Mountain National Park	341.63
1005	243	1,178.25	-405.69	697	Great Smoky Mountain National Park	340.42
1006	244	1,179.73	-405.47	678	Great Smoky Mountain National Park	339.22
1007	245	1,181.22	-405.25	607	Great Smoky Mountain National Park	338.01
1008	246	1,182.71	-405.04	824	Great Smoky Mountain National Park	336.81
1009	247	1,184.19	-404.82	802	Great Smoky Mountain National Park	335.61
1010	248	1,185.68	-404.60	1,033	Great Smoky Mountain National Park	334.41
1011	249	1,187.16	-404.38	1,241	Great Smoky Mountain National Park	333.21
1012	250	1,188.65	-404.17	1,297	Great Smoky Mountain National Park	332.02
1013	251	1,190.14	-403.95	1,503	Great Smoky Mountain National Park	330.83
1014	252	1,191.62	-403.73	1,477	Great Smoky Mountain National Park	329.64
1015	253	1,193.11	-403.51	1,533	Great Smoky Mountain National Park	328.45
1016	254	1,194.59	-403.29	1,242	Great Smoky Mountain National Park	327.26
1017	255	1,196.08	-403.07	1,270	Great Smoky Mountain National Park	326.08
1018	256	1,197.57	-402.85	1,198	Great Smoky Mountain National Park	324.90
1019	257	1,199.05	-402.63	1,372	Great Smoky Mountain National Park	323.73
1020	258	1,200.54	-402.41	1,394	Great Smoky Mountain National Park	322.55
1021	259	1,202.02	-402.19	1,187	Great Smoky Mountain National Park	321.38
1022	260	1,203.51	-401.97	1,517	Great Smoky Mountain National Park	320.21
1023	261	1,204.99	-401.75	1,490	Great Smoky Mountain National Park	319.04
1024	262	1,206.48	-401.53	1,518	Great Smoky Mountain National Park	317.88
1025	263	1,207.96	-401.31	1,632	Great Smoky Mountain National Park	316.72
1026	264	1,209.45	-401.09	1,692	Great Smoky Mountain National Park	315.56

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
1027	265	1,210.94	-400.87	1,888	Great Smoky Mountain National Park	314.40
1028	266	1,212.42	-400.64	1,951	Great Smoky Mountain National Park	313.25
1029	267	1,213.91	-400.42	1,603	Great Smoky Mountain National Park	312.10
1030	268	1,215.39	-400.20	1,543	Great Smoky Mountain National Park	310.95
1031	269	1,216.88	-399.98	1,292	Great Smoky Mountain National Park	309.80
1032	270	1,218.36	-399.75	1,067	Great Smoky Mountain National Park	308.66
1033	271	1,219.85	-399.53	928	Great Smoky Mountain National Park	307.52
1034	272	1,221.33	-399.31	1,190	Great Smoky Mountain National Park	306.39
1035	273	1,222.82	-399.08	1,415	Great Smoky Mountain National Park	305.25
1036	274	1,224.30	-398.86	1,066	Great Smoky Mountain National Park	304.12
1037	275	1,225.79	-398.63	899	Great Smoky Mountain National Park	302.99
1038	276	1,227.27	-398.41	714	Great Smoky Mountain National Park	301.87
1039	277	1,228.76	-398.18	703	Great Smoky Mountain National Park	300.75
1040	278	1,237.67	-396.82	1,097	Great Smoky Mountain National Park	294.09
1041	279	1,239.15	-396.60	1,224	Great Smoky Mountain National Park	292.99
1042	280	1,240.63	-396.37	1,526	Great Smoky Mountain National Park	291.90
1043	281	1,242.12	-396.14	1,566	Great Smoky Mountain National Park	290.81
1044	282	1,243.60	-395.91	1,311	Great Smoky Mountain National Park	289.72
1045	283	1,245.09	-395.69	1,283	Great Smoky Mountain National Park	288.63
1046	284	1,246.57	-395.46	1,482	Great Smoky Mountain National Park	287.55
1047	285	1,169.07	-405.15	290	Great Smoky Mountain National Park	346.64
1048	286	1,170.55	-404.94	389	Great Smoky Mountain National Park	345.42
1049	287	1,172.04	-404.72	506	Great Smoky Mountain National Park	344.20
1050	288	1,173.52	-404.51	644	Great Smoky Mountain National Park	342.98
1051	289	1,175.01	-404.29	578	Great Smoky Mountain National Park	341.76
1052	290	1,176.50	-404.08	539	Great Smoky Mountain National Park	340.55
1053	291	1,177.98	-403.86	634	Great Smoky Mountain National Park	339.33
1054	292	1,179.47	-403.64	662	Great Smoky Mountain National Park	338.12
1055	293	1,180.95	-403.43	567	Great Smoky Mountain National Park	336.91
1056	294	1,182.44	-403.21	579	Great Smoky Mountain National Park	335.70
1057	295	1,183.93	-402.99	660	Great Smoky Mountain National Park	334.50
1058	296	1,185.41	-402.78	878	Great Smoky Mountain National Park	333.30
1059	297	1,186.90	-402.56	907	Great Smoky Mountain National Park	332.10
1060	298	1,188.38	-402.34	955	Great Smoky Mountain National Park	330.90
1061	299	1,189.87	-402.12	1,048	Great Smoky Mountain National Park	329.70
1062	300	1,191.35	-401.90	1,056	Great Smoky Mountain National Park	328.51
1063	301	1,192.84	-401.69	1,333	Great Smoky Mountain National Park	327.32
1064	302	1,194.33	-401.47	1,223	Great Smoky Mountain National Park	326.13
1065	303	1,195.81	-401.25	1,411	Great Smoky Mountain National Park	324.94
1066	304	1,197.30	-401.03	1,106	Great Smoky Mountain National Park	323.76
1067	305	1,198.78	-400.81	1,347	Great Smoky Mountain National Park	322.58
1068	306	1,200.27	-400.59	1,222	Great Smoky Mountain National Park	321.40
1069	307	1,201.75	-400.37	1,524	Great Smoky Mountain National Park	320.23
1070	308	1,203.24	-400.15	1,386	Great Smoky Mountain National Park	319.05
1071	309	1,204.72	-399.93	1,198	Great Smoky Mountain National Park	317.88
1072	310	1,206.21	-399.71	1,242	Great Smoky Mountain National Park	316.71
1073	311	1,207.69	-399.48	1,415	Great Smoky Mountain National Park	315.55
1074	312	1,209.18	-399.26	1,358	Great Smoky Mountain National Park	314.38
1075	313	1,210.66	-399.04	1,355	Great Smoky Mountain National Park	313.22
1076	314	1,212.15	-398.82	1,403	Great Smoky Mountain National Park	312.07
1077	315	1,213.63	-398.60	1,712	Great Smoky Mountain National Park	310.91
1078	316	1,215.12	-398.37	1,431	Great Smoky Mountain National Park	309.76
1079	317	1,216.60	-398.15	1,422	Great Smoky Mountain National Park	308.61
1080	318	1,218.09	-397.93	1,236	Great Smoky Mountain National Park	307.46
1081	319	1,219.57	-397.70	1,228	Great Smoky Mountain National Park	306.32
1082	320	1,221.06	-397.48	1,492	Great Smoky Mountain National Park	305.18
1083	321	1,222.54	-397.26	1,372	Great Smoky Mountain National Park	304.04

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
1084	322	1,224.03	-397.03	1,181	Great Smoky Mountain National Park	302.91
1085	323	1,225.51	-396.81	792	Great Smoky Mountain National Park	301.78
1086	324	1,227.00	-396.58	939	Great Smoky Mountain National Park	300.65
1087	325	1,228.48	-396.36	737	Great Smoky Mountain National Park	299.52
1088	326	1,229.96	-396.13	1,213	Great Smoky Mountain National Park	298.40
1089	327	1,231.45	-395.91	1,173	Great Smoky Mountain National Park	297.28
1090	328	1,235.90	-395.23	1,111	Great Smoky Mountain National Park	293.94
1091	329	1,237.39	-395.00	1,138	Great Smoky Mountain National Park	292.84
1092	330	1,238.87	-394.77	1,362	Great Smoky Mountain National Park	291.73
1093	331	1,240.36	-394.55	1,709	Great Smoky Mountain National Park	290.63
1094	332	1,241.84	-394.32	1,585	Great Smoky Mountain National Park	289.54
1095	333	1,243.32	-394.09	1,298	Great Smoky Mountain National Park	288.45
1096	334	1,244.81	-393.86	1,224	Great Smoky Mountain National Park	287.36
1097	335	1,246.29	-393.63	1,150	Great Smoky Mountain National Park	286.27
1098	336	1,247.78	-393.40	1,348	Great Smoky Mountain National Park	285.19
1099	337	1,171.77	-402.89	383	Great Smoky Mountain National Park	343.13
1100	338	1,173.26	-402.68	482	Great Smoky Mountain National Park	341.90
1101	339	1,174.75	-402.46	533	Great Smoky Mountain National Park	340.68
1102	340	1,176.23	-402.25	559	Great Smoky Mountain National Park	339.46
1103	341	1,177.72	-402.03	598	Great Smoky Mountain National Park	338.25
1104	342	1,179.20	-401.82	532	Great Smoky Mountain National Park	337.03
1105	343	1,180.69	-401.60	525	Great Smoky Mountain National Park	335.82
1106	344	1,182.17	-401.38	533	Great Smoky Mountain National Park	334.61
1107	345	1,183.66	-401.17	543	Great Smoky Mountain National Park	333.40
1108	346	1,185.14	-400.95	562	Great Smoky Mountain National Park	332.19
1109	347	1,186.63	-400.73	602	Great Smoky Mountain National Park	330.99
1110	348	1,188.11	-400.51	736	Great Smoky Mountain National Park	329.79
1111	349	1,189.60	-400.30	817	Great Smoky Mountain National Park	328.59
1112	350	1,191.09	-400.08	809	Great Smoky Mountain National Park	327.39
1113	351	1,192.57	-399.86	920	Great Smoky Mountain National Park	326.20
1114	352	1,194.06	-399.64	1,017	Great Smoky Mountain National Park	325.00
1115	353	1,195.54	-399.42	1,006	Great Smoky Mountain National Park	323.81
1116	354	1,197.03	-399.20	956	Great Smoky Mountain National Park	322.63
1117	355	1,198.51	-398.98	1,137	Great Smoky Mountain National Park	321.44
1118	356	1,200.00	-398.76	982	Great Smoky Mountain National Park	320.26
1119	357	1,201.48	-398.54	1,187	Great Smoky Mountain National Park	319.08
1120	358	1,202.97	-398.32	1,365	Great Smoky Mountain National Park	317.90
1121	359	1,204.45	-398.10	1,245	Great Smoky Mountain National Park	316.73
1122	360	1,205.94	-397.88	1,074	Great Smoky Mountain National Park	315.55
1123	361	1,207.42	-397.66	1,365	Great Smoky Mountain National Park	314.38
1124	362	1,208.91	-397.44	1,401	Great Smoky Mountain National Park	313.22
1125	363	1,210.39	-397.21	1,080	Great Smoky Mountain National Park	312.05
1126	364	1,211.87	-396.99	1,260	Great Smoky Mountain National Park	310.89
1127	365	1,213.36	-396.77	1,660	Great Smoky Mountain National Park	309.73
1128	366	1,214.84	-396.55	1,703	Great Smoky Mountain National Park	308.58
1129	367	1,216.33	-396.32	1,525	Great Smoky Mountain National Park	307.42
1130	368	1,217.81	-396.10	1,299	Great Smoky Mountain National Park	306.27
1131	369	1,219.30	-395.88	1,389	Great Smoky Mountain National Park	305.12
1132	370	1,220.78	-395.65	1,084	Great Smoky Mountain National Park	303.98
1133	371	1,222.27	-395.43	1,048	Great Smoky Mountain National Park	302.84
1134	372	1,223.75	-395.21	1,002	Great Smoky Mountain National Park	301.70
1135	373	1,225.23	-394.98	1,374	Great Smoky Mountain National Park	300.56
1136	374	1,226.72	-394.76	910	Great Smoky Mountain National Park	299.43
1137	375	1,228.20	-394.53	1,109	Great Smoky Mountain National Park	298.30
1138	376	1,229.69	-394.31	1,002	Great Smoky Mountain National Park	297.17
1139	377	1,231.17	-394.08	1,469	Great Smoky Mountain National Park	296.05
1140	378	1,232.66	-393.85	1,136	Great Smoky Mountain National Park	294.93

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
1141	379	1,234.14	-393.63	1,324	Great Smoky Mountain National Park	293.81
1142	380	1,235.62	-393.40	912	Great Smoky Mountain National Park	292.70
1143	381	1,237.11	-393.17	1,427	Great Smoky Mountain National Park	291.59
1144	382	1,238.59	-392.95	1,487	Great Smoky Mountain National Park	290.48
1145	383	1,240.08	-392.72	1,681	Great Smoky Mountain National Park	289.38
1146	384	1,241.56	-392.49	1,310	Great Smoky Mountain National Park	288.28
1147	385	1,243.04	-392.26	1,080	Great Smoky Mountain National Park	287.18
1148	386	1,244.53	-392.04	1,029	Great Smoky Mountain National Park	286.09
1149	387	1,246.01	-391.81	989	Great Smoky Mountain National Park	285.00
1150	388	1,247.49	-391.58	1,038	Great Smoky Mountain National Park	283.91
1151	389	1,248.98	-391.35	1,337	Great Smoky Mountain National Park	282.83
1152	390	1,173.00	-400.85	368	Great Smoky Mountain National Park	340.84
1153	391	1,174.48	-400.64	411	Great Smoky Mountain National Park	339.61
1154	392	1,175.97	-400.42	485	Great Smoky Mountain National Park	338.39
1155	393	1,177.45	-400.21	480	Great Smoky Mountain National Park	337.17
1156	394	1,178.94	-399.99	569	Great Smoky Mountain National Park	335.95
1157	395	1,180.42	-399.77	610	Great Smoky Mountain National Park	334.73
1158	396	1,181.91	-399.56	585	Great Smoky Mountain National Park	333.52
1159	397	1,183.39	-399.34	596	Great Smoky Mountain National Park	332.31
1160	398	1,184.88	-399.12	591	Great Smoky Mountain National Park	331.10
1161	399	1,186.36	-398.90	681	Great Smoky Mountain National Park	329.89
1162	400	1,187.85	-398.69	787	Great Smoky Mountain National Park	328.68
1163	401	1,189.33	-398.47	528	Great Smoky Mountain National Park	327.48
1164	402	1,190.82	-398.25	700	Great Smoky Mountain National Park	326.28
1165	403	1,192.30	-398.03	615	Great Smoky Mountain National Park	325.08
1166	404	1,193.79	-397.81	905	Great Smoky Mountain National Park	323.88
1167	405	1,195.27	-397.59	836	Great Smoky Mountain National Park	322.69
1168	406	1,196.76	-397.37	827	Great Smoky Mountain National Park	321.50
1169	407	1,198.24	-397.16	768	Great Smoky Mountain National Park	320.31
1170	408	1,199.73	-396.94	983	Great Smoky Mountain National Park	319.12
1171	409	1,201.21	-396.72	1,281	Great Smoky Mountain National Park	317.94
1172	410	1,202.69	-396.49	1,378	Great Smoky Mountain National Park	316.76
1173	411	1,204.18	-396.27	1,371	Great Smoky Mountain National Park	315.58
1174	412	1,205.66	-396.05	1,135	Great Smoky Mountain National Park	314.40
1175	413	1,207.15	-395.83	884	Great Smoky Mountain National Park	313.23
1176	414	1,208.63	-395.61	907	Great Smoky Mountain National Park	312.06
1177	415	1,210.12	-395.39	1,249	Great Smoky Mountain National Park	310.89
1178	416	1,211.60	-395.17	1,528	Great Smoky Mountain National Park	309.72
1179	417	1,213.09	-394.94	1,552	Great Smoky Mountain National Park	308.56
1180	418	1,214.57	-394.72	1,473	Great Smoky Mountain National Park	307.40
1181	419	1,216.05	-394.50	1,677	Great Smoky Mountain National Park	306.24
1182	420	1,217.54	-394.28	1,553	Great Smoky Mountain National Park	305.09
1183	421	1,219.02	-394.05	1,572	Great Smoky Mountain National Park	303.94
1184	422	1,220.51	-393.83	1,526	Great Smoky Mountain National Park	302.79
1185	423	1,221.99	-393.60	1,261	Great Smoky Mountain National Park	301.64
1186	424	1,223.47	-393.38	1,217	Great Smoky Mountain National Park	300.50
1187	425	1,224.96	-393.16	1,247	Great Smoky Mountain National Park	299.36
1188	426	1,226.44	-392.93	947	Great Smoky Mountain National Park	298.22
1189	427	1,227.93	-392.71	1,163	Great Smoky Mountain National Park	297.09
1190	428	1,229.41	-392.48	1,434	Great Smoky Mountain National Park	295.95
1191	429	1,230.89	-392.25	1,373	Great Smoky Mountain National Park	294.83
1192	430	1,232.38	-392.03	1,170	Great Smoky Mountain National Park	293.70
1193	431	1,233.86	-391.80	1,293	Great Smoky Mountain National Park	292.58
1194	432	1,235.34	-391.58	1,077	Great Smoky Mountain National Park	291.46
1195	433	1,236.83	-391.35	953	Great Smoky Mountain National Park	290.35
1196	434	1,238.31	-391.12	1,202	Great Smoky Mountain National Park	289.24
1197	435	1,239.80	-390.90	1,602	Great Smoky Mountain National Park	288.13

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
1198	436	1,241.28	-390.67	1,433	Great Smoky Mountain National Park	287.02
1199	437	1,242.76	-390.44	1,106	Great Smoky Mountain National Park	285.92
1200	438	1,244.25	-390.21	966	Great Smoky Mountain National Park	284.82
1201	439	1,245.73	-389.98	1,077	Great Smoky Mountain National Park	283.73
1202	440	1,247.21	-389.76	884	Great Smoky Mountain National Park	282.64
1203	441	1,248.70	-389.53	1,096	Great Smoky Mountain National Park	281.55
1204	442	1,174.22	-398.81	459	Great Smoky Mountain National Park	338.55
1205	443	1,175.70	-398.59	516	Great Smoky Mountain National Park	337.32
1206	444	1,177.19	-398.38	579	Great Smoky Mountain National Park	336.09
1207	445	1,178.67	-398.16	576	Great Smoky Mountain National Park	334.87
1208	446	1,180.16	-397.95	656	Great Smoky Mountain National Park	333.65
1209	447	1,181.64	-397.73	718	Great Smoky Mountain National Park	332.43
1210	448	1,183.12	-397.51	760	Great Smoky Mountain National Park	331.22
1211	449	1,184.61	-397.30	994	Great Smoky Mountain National Park	330.00
1212	450	1,187.58	-396.86	782	Great Smoky Mountain National Park	327.58
1213	451	1,189.06	-396.64	618	Great Smoky Mountain National Park	326.38
1214	452	1,190.55	-396.42	489	Great Smoky Mountain National Park	325.17
1215	453	1,192.03	-396.21	549	Great Smoky Mountain National Park	323.97
1216	454	1,193.52	-395.99	598	Great Smoky Mountain National Park	322.77
1217	455	1,195.00	-395.77	577	Great Smoky Mountain National Park	321.57
1218	456	1,196.49	-395.55	809	Great Smoky Mountain National Park	320.38
1219	457	1,197.97	-395.33	899	Great Smoky Mountain National Park	319.18
1220	458	1,199.45	-395.11	1,006	Great Smoky Mountain National Park	317.99
1221	459	1,200.94	-394.89	1,262	Great Smoky Mountain National Park	316.81
1222	460	1,202.42	-394.67	988	Great Smoky Mountain National Park	315.62
1223	461	1,203.91	-394.45	1,120	Great Smoky Mountain National Park	314.44
1224	462	1,205.39	-394.23	1,054	Great Smoky Mountain National Park	313.26
1225	463	1,206.88	-394.01	860	Great Smoky Mountain National Park	312.08
1226	464	1,208.36	-393.78	1,013	Great Smoky Mountain National Park	310.90
1227	465	1,209.84	-393.56	1,203	Great Smoky Mountain National Park	309.73
1228	466	1,211.33	-393.34	1,212	Great Smoky Mountain National Park	308.56
1229	467	1,212.81	-393.12	1,380	Great Smoky Mountain National Park	307.39
1230	468	1,214.30	-392.90	1,300	Great Smoky Mountain National Park	306.23
1231	469	1,215.78	-392.67	1,206	Great Smoky Mountain National Park	305.07
1232	470	1,217.26	-392.45	1,581	Great Smoky Mountain National Park	303.91
1233	471	1,218.75	-392.23	1,457	Great Smoky Mountain National Park	302.75
1234	472	1,220.23	-392.00	1,699	Great Smoky Mountain National Park	301.60
1235	473	1,221.71	-391.78	1,543	Great Smoky Mountain National Park	300.45
1236	474	1,223.20	-391.55	1,640	Great Smoky Mountain National Park	299.30
1237	475	1,224.68	-391.33	1,476	Great Smoky Mountain National Park	298.16
1238	476	1,226.17	-391.11	1,036	Great Smoky Mountain National Park	297.02
1239	477	1,227.65	-390.88	1,315	Great Smoky Mountain National Park	295.88
1240	478	1,229.13	-390.66	1,504	Great Smoky Mountain National Park	294.74
1241	479	1,230.62	-390.43	1,469	Great Smoky Mountain National Park	293.61
1242	480	1,232.10	-390.20	1,242	Great Smoky Mountain National Park	292.48
1243	481	1,233.58	-389.98	1,453	Great Smoky Mountain National Park	291.35
1244	482	1,235.07	-389.75	1,414	Great Smoky Mountain National Park	290.23
1245	483	1,236.55	-389.52	1,012	Great Smoky Mountain National Park	289.11
1246	484	1,238.03	-389.30	1,127	Great Smoky Mountain National Park	288.00
1247	485	1,239.52	-389.07	1,352	Great Smoky Mountain National Park	286.88
1248	486	1,241.00	-388.84	1,189	Great Smoky Mountain National Park	285.77
1249	487	1,242.48	-388.62	1,257	Great Smoky Mountain National Park	284.67
1250	488	1,243.97	-388.39	1,048	Great Smoky Mountain National Park	283.56
1251	489	1,245.45	-388.16	856	Great Smoky Mountain National Park	282.47
1252	490	1,246.93	-387.93	825	Great Smoky Mountain National Park	281.37
1253	491	1,248.41	-387.70	1,060	Great Smoky Mountain National Park	280.28
1254	492	1,249.90	-387.47	1,125	Great Smoky Mountain National Park	279.19

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
1255	493	1,175.44	-396.77	429	Great Smoky Mountain National Park	336.26
1256	494	1,176.92	-396.55	537	Great Smoky Mountain National Park	335.03
1257	495	1,178.40	-396.34	459	Great Smoky Mountain National Park	333.80
1258	496	1,179.89	-396.12	575	Great Smoky Mountain National Park	332.58
1259	497	1,181.37	-395.90	564	Great Smoky Mountain National Park	331.36
1260	498	1,182.86	-395.69	646	Great Smoky Mountain National Park	330.14
1261	499	1,188.80	-394.82	609	Great Smoky Mountain National Park	325.28
1262	500	1,190.28	-394.60	535	Great Smoky Mountain National Park	324.07
1263	501	1,191.76	-394.38	489	Great Smoky Mountain National Park	322.87
1264	502	1,193.25	-394.16	408	Great Smoky Mountain National Park	321.66
1265	503	1,194.73	-393.94	669	Great Smoky Mountain National Park	320.46
1266	504	1,196.22	-393.72	675	Great Smoky Mountain National Park	319.26
1267	505	1,197.70	-393.50	789	Great Smoky Mountain National Park	318.07
1268	506	1,199.18	-393.28	834	Great Smoky Mountain National Park	316.87
1269	507	1,200.67	-393.06	852	Great Smoky Mountain National Park	315.68
1270	508	1,202.15	-392.84	817	Great Smoky Mountain National Park	314.49
1271	509	1,203.64	-392.62	823	Great Smoky Mountain National Park	313.30
1272	510	1,205.12	-392.40	750	Great Smoky Mountain National Park	312.12
1273	511	1,206.60	-392.18	930	Great Smoky Mountain National Park	310.94
1274	512	1,208.09	-391.96	1,127	Great Smoky Mountain National Park	309.76
1275	513	1,209.57	-391.74	726	Great Smoky Mountain National Park	308.58
1276	514	1,211.05	-391.52	1,065	Great Smoky Mountain National Park	307.41
1277	515	1,212.54	-391.29	1,323	Great Smoky Mountain National Park	306.24
1278	516	1,214.02	-391.07	1,448	Great Smoky Mountain National Park	305.07
1279	517	1,215.51	-390.85	1,548	Great Smoky Mountain National Park	303.90
1280	518	1,216.99	-390.62	1,772	Great Smoky Mountain National Park	302.74
1281	519	1,218.47	-390.40	1,416	Great Smoky Mountain National Park	301.58
1282	520	1,219.96	-390.18	1,198	Great Smoky Mountain National Park	300.42
1283	521	1,221.44	-389.95	1,225	Great Smoky Mountain National Park	299.27
1284	522	1,222.92	-389.73	1,580	Great Smoky Mountain National Park	298.11
1285	523	1,224.41	-389.51	1,529	Great Smoky Mountain National Park	296.96
1286	524	1,225.89	-389.28	1,165	Great Smoky Mountain National Park	295.82
1287	525	1,227.37	-389.06	1,418	Great Smoky Mountain National Park	294.68
1288	526	1,228.86	-388.83	1,635	Great Smoky Mountain National Park	293.54
1289	527	1,230.34	-388.60	1,459	Great Smoky Mountain National Park	292.40
1290	528	1,231.82	-388.38	1,310	Great Smoky Mountain National Park	291.27
1291	529	1,233.30	-388.15	1,441	Great Smoky Mountain National Park	290.14
1292	530	1,234.79	-387.93	1,391	Great Smoky Mountain National Park	289.01
1293	531	1,236.27	-387.70	1,337	Great Smoky Mountain National Park	287.88
1294	532	1,237.75	-387.47	1,455	Great Smoky Mountain National Park	286.76
1295	533	1,239.24	-387.25	1,336	Great Smoky Mountain National Park	285.65
1296	534	1,240.72	-387.02	1,223	Great Smoky Mountain National Park	284.53
1297	535	1,242.20	-386.79	1,226	Great Smoky Mountain National Park	283.42
1298	536	1,243.68	-386.56	979	Great Smoky Mountain National Park	282.31
1299	537	1,245.17	-386.33	1,079	Great Smoky Mountain National Park	281.21
1300	538	1,246.65	-386.11	1,104	Great Smoky Mountain National Park	280.11
1301	539	1,248.13	-385.88	858	Great Smoky Mountain National Park	279.01
1302	540	1,249.62	-385.65	1,030	Great Smoky Mountain National Park	277.92
1303	541	1,178.14	-394.51	475	Great Smoky Mountain National Park	332.74
1304	542	1,179.62	-394.29	440	Great Smoky Mountain National Park	331.51
1305	543	1,181.11	-394.08	640	Great Smoky Mountain National Park	330.29
1306	544	1,191.49	-392.55	369	Great Smoky Mountain National Park	321.77
1307	545	1,192.98	-392.33	478	Great Smoky Mountain National Park	320.56
1308	546	1,194.46	-392.12	570	Great Smoky Mountain National Park	319.36
1309	547	1,195.95	-391.90	552	Great Smoky Mountain National Park	318.15
1310	548	1,197.43	-391.68	843	Great Smoky Mountain National Park	316.95
1311	549	1,198.91	-391.46	604	Great Smoky Mountain National Park	315.76

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
1312	550	1,200.40	-391.24	605	Great Smoky Mountain National Park	314.56
1313	551	1,201.88	-391.02	652	Great Smoky Mountain National Park	313.37
1314	552	1,203.36	-390.80	770	Great Smoky Mountain National Park	312.18
1315	553	1,204.85	-390.58	834	Great Smoky Mountain National Park	310.99
1316	554	1,206.33	-390.35	725	Great Smoky Mountain National Park	309.80
1317	555	1,207.81	-390.13	608	Great Smoky Mountain National Park	308.62
1318	556	1,209.30	-389.91	656	Great Smoky Mountain National Park	307.44
1319	557	1,210.78	-389.69	1,126	Great Smoky Mountain National Park	306.26
1320	558	1,212.26	-389.47	1,115	Great Smoky Mountain National Park	305.08
1321	559	1,213.75	-389.24	1,387	Great Smoky Mountain National Park	303.91
1322	560	1,215.23	-389.02	1,569	Great Smoky Mountain National Park	302.74
1323	561	1,216.71	-388.80	1,595	Great Smoky Mountain National Park	301.57
1324	562	1,218.20	-388.58	1,195	Great Smoky Mountain National Park	300.41
1325	563	1,219.68	-388.35	961	Great Smoky Mountain National Park	299.25
1326	564	1,221.16	-388.13	1,084	Great Smoky Mountain National Park	298.09
1327	565	1,222.65	-387.90	1,324	Great Smoky Mountain National Park	296.93
1328	566	1,224.13	-387.68	1,732	Great Smoky Mountain National Park	295.78
1329	567	1,225.61	-387.46	1,720	Great Smoky Mountain National Park	294.63
1330	568	1,227.10	-387.23	1,512	Great Smoky Mountain National Park	293.48
1331	569	1,228.58	-387.01	1,680	Great Smoky Mountain National Park	292.34
1332	570	1,230.06	-386.78	1,528	Great Smoky Mountain National Park	291.20
1333	571	1,231.54	-386.55	1,452	Great Smoky Mountain National Park	290.06
1334	572	1,233.03	-386.33	1,535	Great Smoky Mountain National Park	288.92
1335	573	1,234.51	-386.10	1,401	Great Smoky Mountain National Park	287.79
1336	574	1,235.99	-385.87	1,483	Great Smoky Mountain National Park	286.66
1337	575	1,237.47	-385.65	1,605	Great Smoky Mountain National Park	285.54
1338	576	1,238.96	-385.42	1,574	Great Smoky Mountain National Park	284.42
1339	577	1,240.44	-385.19	1,577	Great Smoky Mountain National Park	283.30
1340	578	1,241.92	-384.97	1,326	Great Smoky Mountain National Park	282.18
1341	579	1,243.40	-384.74	1,393	Great Smoky Mountain National Park	281.07
1342	580	1,244.89	-384.51	1,134	Great Smoky Mountain National Park	279.96
1343	581	1,246.37	-384.28	971	Great Smoky Mountain National Park	278.86
1344	582	1,247.85	-384.05	945	Great Smoky Mountain National Park	277.75
1345	583	1,249.33	-383.82	1,058	Great Smoky Mountain National Park	276.66
1346	584	1,192.71	-390.51	492	Great Smoky Mountain National Park	319.47
1347	585	1,194.19	-390.29	640	Great Smoky Mountain National Park	318.26
1348	586	1,195.68	-390.07	587	Great Smoky Mountain National Park	317.05
1349	587	1,197.16	-389.85	517	Great Smoky Mountain National Park	315.85
1350	588	1,198.64	-389.63	876	Great Smoky Mountain National Park	314.65
1351	589	1,200.13	-389.41	983	Great Smoky Mountain National Park	313.45
1352	590	1,201.61	-389.19	850	Great Smoky Mountain National Park	312.25
1353	591	1,203.09	-388.97	776	Great Smoky Mountain National Park	311.05
1354	592	1,204.58	-388.75	518	Great Smoky Mountain National Park	309.86
1355	593	1,206.06	-388.53	555	Great Smoky Mountain National Park	308.67
1356	594	1,207.54	-388.31	487	Great Smoky Mountain National Park	307.48
1357	595	1,209.02	-388.09	626	Great Smoky Mountain National Park	306.30
1358	596	1,210.51	-387.86	794	Great Smoky Mountain National Park	305.12
1359	597	1,211.99	-387.64	824	Great Smoky Mountain National Park	303.94
1360	598	1,213.47	-387.42	1,004	Great Smoky Mountain National Park	302.76
1361	599	1,214.96	-387.20	1,101	Great Smoky Mountain National Park	301.59
1362	600	1,216.44	-386.97	1,435	Great Smoky Mountain National Park	300.42
1363	601	1,217.92	-386.75	1,039	Great Smoky Mountain National Park	299.25
1364	602	1,219.40	-386.53	765	Great Smoky Mountain National Park	298.08
1365	603	1,220.89	-386.30	961	Great Smoky Mountain National Park	296.92
1366	604	1,222.37	-386.08	963	Great Smoky Mountain National Park	295.76
1367	605	1,223.85	-385.85	1,391	Great Smoky Mountain National Park	294.60
1368	606	1,225.34	-385.63	1,485	Great Smoky Mountain National Park	293.44

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
1369	607	1,226.82	-385.41	1,332	Great Smoky Mountain National Park	292.29
1370	608	1,228.30	-385.18	1,520	Great Smoky Mountain National Park	291.14
1371	609	1,229.78	-384.95	1,705	Great Smoky Mountain National Park	290.00
1372	610	1,231.27	-384.73	1,572	Great Smoky Mountain National Park	288.86
1373	611	1,232.75	-384.50	1,802	Great Smoky Mountain National Park	287.72
1374	612	1,234.23	-384.28	1,371	Great Smoky Mountain National Park	286.58
1375	613	1,235.71	-384.05	1,674	Great Smoky Mountain National Park	285.45
1376	614	1,237.19	-383.82	1,676	Great Smoky Mountain National Park	284.32
1377	615	1,238.68	-383.60	1,586	Great Smoky Mountain National Park	283.19
1378	616	1,240.16	-383.37	1,727	Great Smoky Mountain National Park	282.07
1379	617	1,241.64	-383.14	1,516	Great Smoky Mountain National Park	280.95
1380	618	1,243.12	-382.91	1,359	Great Smoky Mountain National Park	279.83
1381	619	1,244.61	-382.69	1,097	Great Smoky Mountain National Park	278.72
1382	620	1,246.09	-382.46	1,022	Great Smoky Mountain National Park	277.61
1383	621	1,247.57	-382.23	1,016	Great Smoky Mountain National Park	276.50
1384	622	1,249.05	-382.00	732	Great Smoky Mountain National Park	275.40
1385	623	1,198.37	-387.80	652	Great Smoky Mountain National Park	313.55
1386	624	1,199.86	-387.58	1,164	Great Smoky Mountain National Park	312.34
1387	625	1,201.34	-387.36	1,129	Great Smoky Mountain National Park	311.14
1388	626	1,202.82	-387.14	1,070	Great Smoky Mountain National Park	309.94
1389	627	1,204.30	-386.92	942	Great Smoky Mountain National Park	308.74
1390	628	1,205.79	-386.70	668	Great Smoky Mountain National Park	307.55
1391	629	1,207.27	-386.48	425	Great Smoky Mountain National Park	306.36
1392	630	1,208.75	-386.26	532	Great Smoky Mountain National Park	305.17
1393	631	1,210.23	-386.04	696	Great Smoky Mountain National Park	303.98
1394	632	1,211.72	-385.82	673	Great Smoky Mountain National Park	302.80
1395	633	1,213.20	-385.59	775	Great Smoky Mountain National Park	301.62
1396	634	1,214.68	-385.37	1,061	Great Smoky Mountain National Park	300.44
1397	635	1,216.16	-385.15	939	Great Smoky Mountain National Park	299.26
1398	636	1,217.65	-384.92	817	Great Smoky Mountain National Park	298.09
1399	637	1,219.13	-384.70	763	Great Smoky Mountain National Park	296.92
1400	638	1,220.61	-384.48	616	Great Smoky Mountain National Park	295.75
1401	639	1,222.09	-384.25	877	Great Smoky Mountain National Park	294.59
1402	640	1,223.58	-384.03	892	Great Smoky Mountain National Park	293.43
1403	641	1,225.06	-383.80	910	Great Smoky Mountain National Park	292.27
1404	642	1,226.54	-383.58	1,134	Great Smoky Mountain National Park	291.11
1405	643	1,228.02	-383.35	1,358	Great Smoky Mountain National Park	289.96
1406	644	1,229.51	-383.13	1,512	Great Smoky Mountain National Park	288.81
1407	645	1,230.99	-382.90	1,674	Great Smoky Mountain National Park	287.66
1408	646	1,232.47	-382.68	1,806	Great Smoky Mountain National Park	286.52
1409	647	1,233.95	-382.45	1,678	Great Smoky Mountain National Park	285.38
1410	648	1,235.43	-382.23	1,725	Great Smoky Mountain National Park	284.24
1411	649	1,236.92	-382.00	1,256	Great Smoky Mountain National Park	283.11
1412	650	1,238.40	-381.77	1,160	Great Smoky Mountain National Park	281.97
1413	651	1,239.88	-381.54	1,382	Great Smoky Mountain National Park	280.85
1414	652	1,241.36	-381.32	1,289	Great Smoky Mountain National Park	279.72
1415	653	1,242.84	-381.09	1,584	Great Smoky Mountain National Park	278.60
1416	654	1,244.32	-380.86	1,317	Great Smoky Mountain National Park	277.48
1417	655	1,245.81	-380.63	1,170	Great Smoky Mountain National Park	276.37
1418	656	1,211.44	-383.99	548	Great Smoky Mountain National Park	301.67
1419	657	1,212.93	-383.77	730	Great Smoky Mountain National Park	300.48
1420	658	1,214.41	-383.55	699	Great Smoky Mountain National Park	299.30
1421	659	1,215.89	-383.32	749	Great Smoky Mountain National Park	298.12
1422	660	1,217.37	-383.10	624	Great Smoky Mountain National Park	296.94
1423	661	1,218.85	-382.88	608	Great Smoky Mountain National Park	295.77
1424	662	1,220.34	-382.65	530	Great Smoky Mountain National Park	294.60
1425	663	1,221.82	-382.43	797	Great Smoky Mountain National Park	293.43

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
1426	664	1,223.30	-382.20	1,103	Great Smoky Mountain National Park	292.26
1427	665	1,224.78	-381.98	1,110	Great Smoky Mountain National Park	291.10
1428	666	1,226.26	-381.75	1,130	Great Smoky Mountain National Park	289.94
1429	667	1,227.75	-381.53	1,499	Great Smoky Mountain National Park	288.78
1430	668	1,229.23	-381.30	1,742	Great Smoky Mountain National Park	287.63
1431	669	1,230.71	-381.08	1,769	Great Smoky Mountain National Park	286.47
1432	670	1,232.19	-380.85	1,639	Great Smoky Mountain National Park	285.33
1433	671	1,233.67	-380.63	1,342	Great Smoky Mountain National Park	284.18
1434	672	1,235.15	-380.40	1,247	Great Smoky Mountain National Park	283.04
1435	673	1,236.64	-380.17	1,168	Great Smoky Mountain National Park	281.90
1436	674	1,238.12	-379.95	1,012	Great Smoky Mountain National Park	280.76
1437	675	1,239.60	-379.72	959	Great Smoky Mountain National Park	279.63
1438	676	1,241.08	-379.49	1,366	Great Smoky Mountain National Park	278.50
1439	677	1,242.56	-379.26	1,348	Great Smoky Mountain National Park	277.38
1440	678	1,244.04	-379.04	1,526	Great Smoky Mountain National Park	276.25
1441	679	1,245.52	-378.81	1,042	Great Smoky Mountain National Park	275.13
1442	680	1,214.13	-381.72	488	Great Smoky Mountain National Park	298.17
1443	681	1,215.62	-381.50	515	Great Smoky Mountain National Park	296.98
1444	682	1,217.10	-381.27	491	Great Smoky Mountain National Park	295.80
1445	683	1,218.58	-381.05	550	Great Smoky Mountain National Park	294.62
1446	684	1,220.06	-380.83	579	Great Smoky Mountain National Park	293.45
1447	685	1,221.54	-380.60	781	Great Smoky Mountain National Park	292.27
1448	686	1,223.02	-380.38	900	Great Smoky Mountain National Park	291.10
1449	687	1,224.51	-380.15	1,059	Great Smoky Mountain National Park	289.94
1450	688	1,225.99	-379.93	1,123	Great Smoky Mountain National Park	288.77
1451	689	1,227.47	-379.70	1,307	Great Smoky Mountain National Park	287.61
1452	690	1,228.95	-379.48	1,166	Great Smoky Mountain National Park	286.45
1453	691	1,230.43	-379.25	1,302	Great Smoky Mountain National Park	285.29
1454	692	1,231.91	-379.03	1,672	Great Smoky Mountain National Park	284.14
1455	693	1,233.39	-378.80	1,533	Great Smoky Mountain National Park	282.99
1456	694	1,234.88	-378.58	1,429	Great Smoky Mountain National Park	281.84
1457	695	1,236.36	-378.35	1,457	Great Smoky Mountain National Park	280.70
1458	696	1,237.84	-378.12	1,391	Great Smoky Mountain National Park	279.56
1459	697	1,239.32	-377.90	937	Great Smoky Mountain National Park	278.42
1460	698	1,240.80	-377.67	1,015	Great Smoky Mountain National Park	277.29
1461	699	1,242.28	-377.44	1,056	Great Smoky Mountain National Park	276.16
1462	700	1,243.76	-377.21	1,071	Great Smoky Mountain National Park	275.03
1463	701	1,245.24	-376.98	1,060	Great Smoky Mountain National Park	273.91
1464	702	1,218.30	-379.23	427	Great Smoky Mountain National Park	293.49
1465	703	1,219.79	-379.00	480	Great Smoky Mountain National Park	292.31
1466	704	1,221.27	-378.78	488	Great Smoky Mountain National Park	291.13
1467	705	1,222.75	-378.55	624	Great Smoky Mountain National Park	289.95
1468	706	1,224.23	-378.33	761	Great Smoky Mountain National Park	288.78
1469	707	1,225.71	-378.10	732	Great Smoky Mountain National Park	287.61
1470	708	1,227.19	-377.88	881	Great Smoky Mountain National Park	286.44
1471	709	1,228.67	-377.65	821	Great Smoky Mountain National Park	285.28
1472	710	1,230.15	-377.43	1,000	Great Smoky Mountain National Park	284.12
1473	711	1,231.63	-377.20	1,094	Great Smoky Mountain National Park	282.96
1474	712	1,233.12	-376.98	1,208	Great Smoky Mountain National Park	281.81
1475	713	1,234.60	-376.75	860	Great Smoky Mountain National Park	280.66
1476	714	1,236.08	-376.52	857	Great Smoky Mountain National Park	279.51
1477	715	1,237.56	-376.30	1,391	Great Smoky Mountain National Park	278.36
1478	716	1,239.04	-376.07	1,265	Great Smoky Mountain National Park	277.22
1479	717	1,240.52	-375.84	1,067	Great Smoky Mountain National Park	276.08
1480	718	1,242.00	-375.62	921	Great Smoky Mountain National Park	274.95
1481	719	1,243.48	-375.39	611	Great Smoky Mountain National Park	273.82
1482	720	1,226.91	-376.06	608	Great Smoky Mountain National Park	285.29

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	Location LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
1483	721	1,229.88	-375.60	699	Great Smoky Mountain National Park	282.95
1484	722	1,231.36	-375.38	785	Great Smoky Mountain National Park	281.79
1485	723	1,232.84	-375.15	892	Great Smoky Mountain National Park	280.63
1486	724	1,234.32	-374.93	622	Great Smoky Mountain National Park	279.48
1487	725	1,235.80	-374.70	762	Great Smoky Mountain National Park	278.33
1488	726	1,237.28	-374.47	1,130	Great Smoky Mountain National Park	277.18
1489	727	1,238.76	-374.25	1,458	Great Smoky Mountain National Park	276.03
1490	728	1,240.24	-374.02	1,097	Great Smoky Mountain National Park	274.89
1491	729	1,241.72	-373.79	823	Great Smoky Mountain National Park	273.75
1492	730	1,243.20	-373.56	603	Great Smoky Mountain National Park	272.61
1493	731	1,232.56	-373.33	534	Great Smoky Mountain National Park	279.47
1494	732	1,234.04	-373.10	545	Great Smoky Mountain National Park	278.31
1495	733	1,235.52	-372.88	582	Great Smoky Mountain National Park	277.15
1496	734	1,237.00	-372.65	735	Great Smoky Mountain National Park	275.99
1497	735	1,238.48	-372.42	885	Great Smoky Mountain National Park	274.84
1498	736	1,239.96	-372.19	873	Great Smoky Mountain National Park	273.69
1499	1	1,528.82	-121.49	735	James River Face Wilderness	117.40
1500	2	1,529.54	-121.35	762	James River Face Wilderness	118.12
1501	3	1,530.26	-121.21	771	James River Face Wilderness	118.84
1502	4	1,526.49	-121.00	480	James River Face Wilderness	115.44
1503	5	1,527.21	-120.86	610	James River Face Wilderness	116.16
1504	6	1,527.93	-120.72	460	James River Face Wilderness	116.87
1505	7	1,528.64	-120.58	560	James River Face Wilderness	117.59
1506	8	1,529.36	-120.44	678	James River Face Wilderness	118.30
1507	9	1,530.08	-120.30	731	James River Face Wilderness	119.02
1508	10	1,530.80	-120.16	792	James River Face Wilderness	119.73
1509	11	1,531.51	-120.02	612	James River Face Wilderness	120.45
1510	12	1,526.32	-120.10	484	James River Face Wilderness	115.64
1511	13	1,527.03	-119.96	619	James River Face Wilderness	116.35
1512	14	1,527.75	-119.82	696	James River Face Wilderness	117.07
1513	15	1,528.47	-119.68	608	James River Face Wilderness	117.78
1514	16	1,529.18	-119.54	759	James River Face Wilderness	118.49
1515	17	1,529.90	-119.40	791	James River Face Wilderness	119.21
1516	18	1,530.62	-119.26	503	James River Face Wilderness	119.92
1517	19	1,531.34	-119.12	398	James River Face Wilderness	120.64
1518	20	1,525.42	-119.33	447	James River Face Wilderness	115.13
1519	21	1,526.14	-119.19	544	James River Face Wilderness	115.84
1520	22	1,526.86	-119.05	604	James River Face Wilderness	116.56
1521	23	1,527.57	-118.91	789	James River Face Wilderness	117.27
1522	24	1,528.29	-118.77	770	James River Face Wilderness	117.98
1523	25	1,529.01	-118.63	739	James River Face Wilderness	118.69
1524	26	1,529.72	-118.49	609	James River Face Wilderness	119.41
1525	27	1,530.44	-118.35	463	James River Face Wilderness	120.12
1526	28	1,531.16	-118.21	457	James River Face Wilderness	120.83
1527	29	1,531.87	-118.07	390	James River Face Wilderness	121.55
1528	30	1,525.25	-118.43	347	James River Face Wilderness	115.34
1529	31	1,525.96	-118.29	465	James River Face Wilderness	116.05
1530	32	1,526.68	-118.15	609	James River Face Wilderness	116.76
1531	33	1,527.40	-118.01	551	James River Face Wilderness	117.48
1532	34	1,528.11	-117.87	670	James River Face Wilderness	118.19
1533	35	1,528.83	-117.73	470	James River Face Wilderness	118.90
1534	36	1,529.55	-117.59	397	James River Face Wilderness	119.61
1535	37	1,530.26	-117.45	425	James River Face Wilderness	120.32
1536	38	1,530.98	-117.31	333	James River Face Wilderness	121.03
1537	39	1,531.70	-117.17	360	James River Face Wilderness	121.75
1538	40	1,532.41	-117.03	363	James River Face Wilderness	122.46
1539	41	1,526.50	-117.24	441	James River Face Wilderness	116.98

CALPUFF Receptor Locations

LCC Origin: 1,420.32 East, -166.34 North

Receptor Number	Receptor No. for Each Class I Area	Location LCC Easting (X) (km)	LCC Northing (Y) (km)	Elevation z(m)	Class I Description	Distance to DEGS (km)
1540	42	1,527.22	-117.10	491	James River Face Wilderness	117.69
1541	43	1,527.94	-116.96	569	James River Face Wilderness	118.40
1542	44	1,528.65	-116.82	303	James River Face Wilderness	119.11
1543	45	1,529.37	-116.68	254	James River Face Wilderness	119.82
1544	46	1,531.52	-116.26	333	James River Face Wilderness	121.95
1545	47	1,532.24	-116.12	214	James River Face Wilderness	122.66
1546	48	1,527.04	-116.20	340	James River Face Wilderness	117.91
1547	49	1,527.76	-116.06	479	James River Face Wilderness	118.62
1548	50	1,528.48	-115.92	468	James River Face Wilderness	119.33
1549	51	1,529.19	-115.78	213	James River Face Wilderness	120.04
1550	52	1,528.30	-115.01	275	James River Face Wilderness	119.55
1551						

Monthly Background Soil Concentrations

DEGS, Narrows, Virginia

Class I Area			Haze Index HI[1] (dv)	Total Background Light Extinction bback (Mm-1)	Background Extinction of all Particulates		Extinction Coefficient for Soil (Csoil)	Monthly Background Concentration for Soil (BKSOIL) CALPOST[2] (ug/m3)
Map Name	Description	State			bray (Mm-1)	bsoil (Mm-1)		
doso	Dolly Sods Wilderness	WV	7.48	21.13	10	11.13	1	11.13
grsm	Great Smoky Mountains NP	TN	7.60	21.38	10	11.38	1	11.38
jari	James River Face Wilderness	VA	7.40	20.96	10	10.96	1	10.96
joyc	Joyce-Kilmer-Slickrock Wilderness	TN	7.61	21.40	10	11.40	1	11.40
ligo	Linville Gorge Wilderness	NC	7.59	21.36	10	11.36	1	11.36
otcr	Otter Creek Wilderness	WV	7.49	21.15	10	11.15	1	11.15
shen	Shenandoah NP	VA	7.41	20.98	10	10.98	1	10.98
shro	Shining Rock Wilderness	NC	7.61	21.40	10	11.40	1	11.40

[1] Haze Index (HI) represents the annual average visibility or HI values from Appendix B table of Guidance for Estimating Natural Visibility Conditions Under the Regional Haze Rule (2003)

[2] CALPOST input file, Input Group 2, Additional inputs used for MVISBK = 2, 3, 6, 7

DEGS CALPOST WORKSHEET

Background Light Extinction Calculations for Each Class I Area

Total background light extinction (Mm-1)	bback
Haze index (dv)	HI
Rayleigh scattering coefficient	10
Extinction for all particulates in the background	bray
Extinction for all particulates in the background	bsoil
Extinction coefficient for soil	Csoil
	bback = 10 * e^(HI/10) bback = bray + bsoil bback = 10 + bsoil where : HI = annual avg from Appendix B bray = 10 Mm-1 bsoil = bback - bray
Monthly background concentration for soil (BKSOIL)	BKSOIL (ug/m3)= bsoil/1.0 where: bsoil = Csoil * BKSOIL Csoil = 1.0

Example: bback = 10 * e^(3.65/10)
HI = 3.65 dv
bback = 14.40 Mm-1
bback = 10 Mm-1 + bsoil
bsoil = (14.40 Mm-1) - (10 Mm-1) = 4.40 Mm-1
BKSOIL = 4.40/1.0 = 4.40 ug/m3

CALPOST Results - 4km CALMET, No ALM (NH_3@0.5 ppb), Rayleigh at 10Mn^{-1}, PG Dispersion Coefficients, Annual Average as Background

Otter Creek Wilderness (Receptor Nos. 1 - 122)

YR.	DAY	HR	RECEPTOR	Coordinates X(km)	Coordinates Y(km)	TYPE	DV (Total)	DV (BKG)	DELTA DV	f(RH)	%_SO4	%_NO3	%_OC	%_EC	%_PMC	%_PMF
2001	216	0	1	1479.243	23.778	D	7.733	7.491	0.242	4.1	93.53	4.64	1.58	0.07	0.00	0.19
2001	207	0	6	1482.762	24.457	D	7.692	7.491	0.202	3.7	81.59	15.92	2.13	0.10	0.02	0.25
2001	219	0	7	1479.069	24.683	D	7.642	7.491	0.151	4.1	95.91	2.06	1.74	0.08	0.01	0.20
2001	251	0	122	1482.422	37.530	D	7.619	7.491	0.128	4.0	69.17	28.54	1.95	0.09	0.01	0.23
2001	297	0	1	1479.243	23.778	D	7.615	7.491	0.124	3.3	45.83	47.53	5.70	0.26	0.01	0.67
2001	257	0	1	1479.243	23.778	D	7.610	7.491	0.120	4.0	94.40	2.79	2.40	0.11	0.02	0.28
2001	247	0	108	1479.259	35.042	D	7.596	7.491	0.105	4.0	85.42	12.30	1.96	0.09	0.00	0.23
2001	323	0	63	1478.551	31.152	D	7.596	7.491	0.105	3.0	72.85	23.22	3.37	0.15	0.01	0.40
2002	190	0	1	1479.243	23.778	D	7.609	7.491	0.119	3.7	89.73	7.60	2.27	0.10	0.03	0.27
2002	274	0	63	1478.551	31.152	D	7.607	7.491	0.116	4.0	82.29	15.55	1.84	0.08	0.01	0.22
2002	163	0	6	1482.762	24.457	D	7.602	7.491	0.111	3.5	87.68	9.90	2.06	0.09	0.03	0.24
2002	149	0	120	1481.017	37.258	D	7.600	7.491	0.110	3.2	74.39	23.36	1.92	0.09	0.02	0.23
2002	171	0	6	1482.762	24.457	D	7.594	7.491	0.103	3.5	89.45	8.42	1.82	0.08	0.01	0.21
2002	257	0	6	1482.762	24.457	D	7.588	7.491	0.098	4.0	74.37	22.72	2.49	0.11	0.01	0.29
2002	365	0	1	1479.243	23.778	D	7.587	7.491	0.097	3.1	31.17	61.69	6.14	0.28	0.00	0.72
2002	177	0	1	1479.243	23.778	D	7.581	7.491	0.091	3.5	95.81	2.17	1.73	0.08	0.01	0.20
2003	61	0	63	1478.551	31.152	D	7.951	7.491	0.461	2.8	69.49	28.28	1.91	0.09	0.00	0.23
2003	309	0	1	1479.243	23.778	D	7.683	7.491	0.192	3.0	60.09	34.26	4.85	0.22	0.00	0.57
2003	321	0	122	1482.422	37.530	D	7.634	7.491	0.143	3.0	73.90	23.15	2.53	0.11	0.00	0.30
2003	215	0	1	1479.243	23.778	D	7.629	7.491	0.138	4.1	86.90	10.59	2.15	0.10	0.00	0.25
2003	308	0	6	1482.762	24.457	D	7.627	7.491	0.137	3.0	77.38	18.16	3.82	0.17	0.01	0.45
2003	53	0	63	1478.551	31.152	D	7.623	7.491	0.133	2.8	59.77	37.03	2.75	0.12	0.00	0.32
2003	300	0	6	1482.762	24.457	D	7.611	7.491	0.120	3.3	79.17	16.32	3.86	0.17	0.02	0.45
2003	344	0	63	1478.551	31.152	D	7.611	7.491	0.120	3.1	49.69	45.45	4.17	0.19	0.00	0.49

CALPOST Results - 4km CALMET, No ALM (NH_3@0.5 ppb), Rayleigh at 10Mn^{-1}, PG Dispersion Coefficients, Annual Average as Background

Dolly Sods Wilderness (Receptor Nos. 123 - 187)

YR.	DAY	HR	RECEPTOR	Coordinates X(km)	Coordinates Y(km)	TYPE	DV (Total)	DV (BKG)	DELTA DV	f(RH)	%_SO4	%_NO3	%_OC	%_EC	%_PMC	%_PMF
2001	207	0	123	1504.741	31.554	D	7.670	7.481	0.189	3.7	85.78	11.87	2.00	0.09	0.02	0.24
2001	216	0	134	1502.980	33.086	D	7.657	7.481	0.176	4.1	94.25	3.99	1.51	0.07	0.00	0.18
2001	232	0	133	1508.078	33.149	D	7.633	7.481	0.152	4.1	71.98	25.61	2.07	0.09	0.01	0.24
2001	251	0	187	1504.726	39.063	D	7.616	7.481	0.135	4.0	75.77	21.99	1.91	0.09	0.02	0.22
2001	219	0	134	1502.980	33.086	D	7.605	7.481	0.124	4.1	95.74	2.35	1.64	0.07	0.01	0.19
2001	247	0	133	1508.078	33.149	D	7.589	7.481	0.108	4.0	78.43	19.58	1.71	0.08	0.01	0.20
2001	257	0	123	1504.741	31.554	D	7.588	7.481	0.107	4.0	95.01	2.32	2.28	0.10	0.02	0.27
2001	297	0	134	1502.980	33.086	D	7.581	7.481	0.100	3.3	56.38	37.28	5.44	0.25	0.01	0.64
2002	163	0	126	1506.850	31.968	D	7.593	7.481	0.112	3.5	92.45	5.12	2.06	0.09	0.03	0.24
2002	190	0	134	1502.980	33.086	D	7.586	7.481	0.104	3.7	92.69	4.67	2.24	0.10	0.04	0.26
2002	171	0	126	1506.850	31.968	D	7.584	7.481	0.103	3.5	89.61	8.33	1.76	0.08	0.01	0.21
2002	257	0	133	1508.078	33.149	D	7.584	7.481	0.103	4.0	76.69	20.42	2.48	0.11	0.01	0.29
2002	265	0	126	1506.850	31.968	D	7.577	7.481	0.096	4.0	89.89	5.82	3.69	0.17	0.01	0.43
2002	178	0	133	1508.078	33.149	D	7.575	7.481	0.094	3.5	88.17	8.79	2.60	0.12	0.02	0.31
2002	149	0	186	1504.024	38.925	D	7.572	7.481	0.091	3.2	79.66	18.35	1.70	0.08	0.02	0.20
2002	365	0	126	1506.850	31.968	D	7.566	7.481	0.085	3.1	40.72	53.04	5.37	0.24	0.00	0.63
2003	61	0	134	1502.980	33.086	D	7.861	7.481	0.379	2.8	69.31	28.73	1.68	0.08	0.00	0.20
2003	309	0	160	1503.151	35.937	D	7.643	7.481	0.162	3.0	54.97	40.40	3.97	0.18	0.01	0.47
2003	308	0	123	1504.741	31.554	D	7.617	7.481	0.135	3.0	83.22	12.47	3.70	0.17	0.02	0.44
2003	321	0	186	1504.024	38.925	D	7.615	7.481	0.134	3.0	71.90	25.06	2.61	0.12	0.00	0.31
2003	181	0	142	1508.603	34.191	D	7.601	7.481	0.120	3.5	76.43	21.40	1.86	0.08	0.00	0.22
2003	265	0	133	1508.078	33.149	D	7.601	7.481	0.120	4.0	85.96	11.47	2.19	0.10	0.02	0.26
2003	332	0	133	1508.078	33.149	D	7.600	7.481	0.119	3.0	52.87	43.21	3.36	0.15	0.01	0.40
2003	53	0	178	1503.499	37.883	D	7.594	7.481	0.113	2.8	59.13	37.89	2.56	0.12	0.00	0.30

CALPOST Results - 4km CALMET, No ALM (NH_3@0.5 ppb), Rayleigh at $10Mn^{-1}$, PG Dispersion Coefficients, Annual Average as Background

Shenandoah National Park (Receptor Nos. 188 - 485)

YR.	DAY	HR	RECEPTOR	Coordinates X(km)	Coordinates Y(km)	TYPE	DV (Total)	DV (BKG)	DELTA DV	f(RH)	%_SO4	%_NO3	%_OC	%_EC	%_PMC	%_PMF
2001	326	0	256	1574.961	-29.574	D	7.589	7.410	0.179	3.0	49.61	45.79	3.95	0.18	0.00	0.47
2001	46	0	192	1571.904	-50.884	D	7.580	7.410	0.170	2.8	80.46	15.95	3.08	0.14	0.01	0.36
2001	16	0	190	1574.426	-56.014	D	7.551	7.410	0.142	3.1	66.57	27.48	5.12	0.23	0.00	0.60
2001	339	0	188	1570.525	-58.686	D	7.547	7.410	0.137	3.1	61.72	33.36	4.23	0.19	0.00	0.50
2001	340	0	188	1570.525	-58.686	D	7.540	7.410	0.130	3.1	60.82	32.12	6.06	0.27	0.01	0.71
2001	163	0	188	1570.525	-58.686	D	7.525	7.410	0.115	3.4	85.37	11.95	2.30	0.10	0.01	0.27
2001	348	0	190	1574.426	-56.014	D	7.525	7.410	0.115	3.1	89.48	6.80	3.20	0.14	0.00	0.38
2001	186	0	316	1601.337	-7.212	D	7.521	7.410	0.111	3.5	79.33	16.65	3.46	0.16	0.01	0.41
2002	287	0	188	1570.525	-58.686	D	7.582	7.410	0.173	3.2	83.92	13.61	2.12	0.10	0.01	0.25
2002	177	0	190	1574.426	-56.014	D	7.547	7.410	0.137	3.4	93.83	3.40	2.38	0.11	0.00	0.28
2002	224	0	188	1570.525	-58.686	D	7.517	7.410	0.107	3.9	91.16	4.98	3.30	0.15	0.02	0.39
2002	51	0	188	1570.525	-58.686	D	7.513	7.410	0.103	2.8	52.44	42.18	4.61	0.21	0.01	0.54
2002	85	0	229	1570.391	-36.146	D	7.512	7.410	0.102	2.8	42.57	48.83	7.38	0.33	0.02	0.87
2002	176	0	188	1570.525	-58.686	D	7.511	7.410	0.101	3.4	95.78	0.57	3.13	0.14	0.01	0.37
2002	163	0	422	1593.929	21.365	D	7.509	7.410	0.099	3.4	97.11	0.50	2.03	0.09	0.02	0.24
2002	171	0	422	1593.929	21.365	D	7.508	7.410	0.098	3.4	92.48	5.43	1.77	0.08	0.03	0.21
2003	321	0	284	1581.984	-20.615	D	7.736	7.410	0.326	3.0	53.11	42.65	3.64	0.16	0.01	0.43
2003	160	0	188	1570.525	-58.686	D	7.619	7.410	0.209	3.4	73.85	24.20	1.65	0.07	0.02	0.19
2003	234	0	188	1570.525	-58.686	D	7.615	7.410	0.205	3.9	91.55	5.99	2.09	0.09	0.03	0.25
2003	29	0	188	1570.525	-58.686	D	7.612	7.410	0.202	3.1	33.37	59.97	5.71	0.26	0.01	0.67
2003	247	0	339	1584.303	-3.206	D	7.599	7.410	0.189	3.9	89.84	7.76	2.06	0.09	0.01	0.24
2003	214	0	229	1570.391	-36.146	D	7.583	7.410	0.173	3.9	91.18	6.70	1.82	0.08	0.00	0.21
2003	242	0	352	1600.874	2.103	D	7.580	7.410	0.170	3.9	84.99	11.47	3.03	0.14	0.01	0.36
2003	332	0	229	1570.391	-36.146	D	7.553	7.410	0.143	3.0	49.04	46.65	3.70	0.17	0.00	0.44

CALPOST Results - 4km CALMET, No ALM (NH_3@0.5 ppb), Rayleigh at 10Mn^{-1}, PG Dispersion Coefficients, Annual Average as Background

Linville Gorge Wilderness (Receptor Nos. 486 - 551)

YR.	DAY	HR	RECEPTOR	Coordinates X(km)	Coordinates Y(km)	TYPE	DV (Total)	DV (BKG)	DELTA DV	f(RH)	%_SO4	%_NO3	%_OC	%_EC	%_PMC	%_PMF
2001	195	0	510	1350.948	-345.937	D	7.844	7.589	0.255	4.1	90.68	5.66	3.13	0.14	0.01	0.37
2001	261	0	495	1351.406	-348.667	D	7.824	7.589	0.235	4.4	79.83	18.02	1.85	0.08	0.00	0.22
2001	14	0	551	1346.167	-335.511	D	7.777	7.589	0.188	3.3	38.25	57.63	3.54	0.16	0.00	0.42
2001	212	0	547	1348.683	-336.960	D	7.735	7.589	0.146	4.1	96.50	1.87	1.40	0.06	0.00	0.16
2001	162	0	510	1350.948	-345.937	D	7.733	7.589	0.144	3.9	84.65	11.99	2.87	0.13	0.01	0.34
2001	228	0	492	1349.193	-349.039	D	7.718	7.589	0.129	4.5	80.59	14.03	4.61	0.21	0.01	0.54
2001	246	0	495	1351.406	-348.667	D	7.715	7.589	0.126	4.4	93.73	3.81	2.11	0.10	0.01	0.25
2001	250	0	495	1351.406	-348.667	D	7.710	7.589	0.120	4.4	95.34	2.93	1.49	0.07	0.00	0.17
2002	221	0	548	1345.583	-336.544	D	7.892	7.589	0.303	4.5	92.31	4.41	2.80	0.13	0.02	0.33
2002	184	0	495	1351.406	-348.667	D	7.768	7.589	0.179	4.1	96.81	1.67	1.30	0.06	0.01	0.15
2002	222	0	551	1346.167	-335.511	D	7.711	7.589	0.121	4.5	96.19	2.04	1.52	0.07	0.00	0.18
2002	297	0	547	1348.683	-336.960	D	7.706	7.589	0.116	3.7	84.03	15.13	0.72	0.03	0.00	0.09
2002	185	0	495	1351.406	-348.667	D	7.693	7.589	0.103	4.1	93.97	4.30	1.48	0.07	0.00	0.17
2002	298	0	551	1346.167	-335.511	D	7.688	7.589	0.099	3.7	83.04	15.63	1.14	0.05	0.00	0.13
2002	220	0	537	1348.988	-338.780	D	7.679	7.589	0.090	4.5	91.01	3.84	4.41	0.20	0.01	0.52
2002	295	0	547	1348.683	-336.960	D	7.675	7.589	0.086	3.7	80.17	18.44	1.20	0.05	0.00	0.14
2003	298	0	510	1350.948	-345.937	D	7.772	7.589	0.182	3.7	43.37	51.84	4.11	0.19	0.01	0.48
2003	250	0	551	1346.167	-335.511	D	7.749	7.589	0.160	4.4	93.37	4.33	1.97	0.09	0.01	0.23
2003	261	0	551	1346.167	-335.511	D	7.737	7.589	0.147	4.4	43.83	49.89	5.40	0.24	0.01	0.64
2003	252	0	516	1349.167	-344.364	D	7.709	7.589	0.120	4.4	89.46	5.01	4.75	0.21	0.00	0.56
2003	313	0	526	1349.446	-341.510	D	7.707	7.589	0.118	3.2	63.53	30.45	5.17	0.23	0.01	0.61
2003	237	0	511	1347.845	-345.522	D	7.685	7.589	0.096	4.5	83.81	11.18	4.29	0.19	0.02	0.50
2003	257	0	551	1346.167	-335.511	D	7.680	7.589	0.090	4.4	93.22	3.89	2.47	0.11	0.01	0.29
2003	228	0	551	1346.167	-335.511	D	7.677	7.589	0.088	4.5	84.94	13.43	1.40	0.06	0.00	0.16

CALPOST Results - 4km CALMET, No ALM (NH_3@0.5 ppb), Rayleigh at 10Mn^{-1}, PG Dispersion Coefficients, Annual Average as Background

Shining Rock Wilderness (Receptor Nos. 552 - 661)

YR.	DAY	HR	RECEPTOR	Coordinates X(km)	Coordinates Y(km)	TYPE	DV (Total)	DV (BKG)	DELTA DV	f(RH)	%_SO4	%_NO3	%_OC	%_EC	%_PMC	%_PMF
2001	195	0	581	1277.617	-413.981	D	7.698	7.608	0.090	4.1	96.47	1.05	2.12	0.10	0.01	0.25
2001	250	0	581	1277.617	-413.981	D	7.688	7.608	0.080	4.4	95.55	2.70	1.50	0.07	0.00	0.18
2001	228	0	645	1275.269	-408.743	D	7.684	7.608	0.076	4.5	91.59	5.62	2.39	0.11	0.01	0.28
2001	95	0	581	1277.617	-413.981	D	7.674	7.608	0.066	2.7	92.71	4.68	2.24	0.10	0.00	0.26
2001	321	0	581	1277.617	-413.981	D	7.665	7.608	0.057	3.3	69.72	25.81	3.81	0.17	0.03	0.45
2001	14	0	661	1272.465	-405.445	D	7.660	7.608	0.052	3.3	52.89	42.97	3.55	0.16	0.00	0.42
2001	251	0	661	1272.465	-405.445	D	7.659	7.608	0.051	4.4	96.54	2.11	1.15	0.05	0.00	0.14
2001	258	0	645	1275.269	-408.743	D	7.660	7.608	0.051	4.4	93.40	4.30	1.97	0.09	0.00	0.23
2002	221	0	661	1272.465	-405.445	D	7.696	7.608	0.088	4.5	95.80	1.84	2.02	0.09	0.01	0.24
2002	214	0	611	1265.287	-413.110	D	7.676	7.608	0.068	4.5	95.37	1.87	2.36	0.11	0.01	0.28
2002	184	0	581	1277.617	-413.981	D	7.670	7.608	0.062	4.1	98.21	0.52	1.08	0.05	0.01	0.13
2002	297	0	645	1275.269	-408.743	D	7.666	7.608	0.058	3.8	83.36	16.06	0.49	0.02	0.00	0.06
2002	185	0	581	1277.617	-413.981	D	7.662	7.608	0.054	4.1	98.09	0.77	0.96	0.04	0.01	0.11
2002	220	0	659	1270.979	-405.678	D	7.661	7.608	0.052	4.5	90.99	3.76	4.51	0.20	0.01	0.53
2002	222	0	661	1272.465	-405.445	D	7.653	7.608	0.045	4.5	95.93	2.31	1.51	0.07	0.00	0.18
2002	296	0	661	1272.465	-405.445	D	7.648	7.608	0.040	3.8	76.36	23.15	0.42	0.02	0.00	0.05
2003	228	0	611	1265.287	-413.110	D	7.713	7.608	0.105	4.5	94.65	4.05	1.11	0.05	0.01	0.13
2003	31	0	659	1270.979	-405.678	D	7.690	7.608	0.082	3.3	64.63	34.43	0.80	0.04	0.00	0.09
2003	32	0	659	1270.979	-405.678	D	7.690	7.608	0.082	3.3	62.70	36.74	0.48	0.02	0.00	0.06
2003	314	0	661	1272.465	-405.445	D	7.690	7.608	0.082	3.3	61.19	34.19	3.96	0.18	0.01	0.47
2003	252	0	659	1270.979	-405.678	D	7.687	7.608	0.079	4.4	90.71	6.43	2.45	0.11	0.00	0.29
2003	251	0	659	1270.979	-405.678	D	7.679	7.608	0.071	4.4	91.22	6.82	1.68	0.08	0.00	0.20
2003	250	0	661	1272.465	-405.445	D	7.667	7.608	0.059	4.4	93.29	4.59	1.82	0.08	0.00	0.21
2003	255	0	659	1270.979	-405.678	D	7.660	7.608	0.052	4.4	85.73	11.57	2.30	0.10	0.02	0.27

CALPOST Results - 4km CALMET, No ALM (NH_3@0.5 ppb), Rayleigh at $10Mn^{-1}$, PG Dispersion Coefficients, Annual Average as Background

Great Smoky Mountain National Park (Receptor Nos. 763 - 1498)

YR.	DAY	HR	RECEPTOR	Coordinates X(km)	Coordinates Y(km)	TYPE	DV (Total)	DV (BKG)	DELTA DV	f(RH)	%_SO4	%_NO3	%_OC	%_EC	%_PMC	%_PMF
2001	14	0	1492	1243.200	-373.564	D	7.687	7.599	0.088	3.3	48.80	47.80	2.92	0.13	0.00	0.34
2001	165	0	861	1212.028	-408.170	D	7.680	7.599	0.082	3.9	91.95	5.54	2.12	0.10	0.04	0.25
2001	214	0	1498	1239.959	-372.194	D	7.662	7.599	0.064	4.0	97.11	1.63	1.08	0.05	0.00	0.13
2001	215	0	1498	1239.959	-372.194	D	7.659	7.599	0.060	4.0	96.59	2.14	1.09	0.05	0.00	0.13
2001	250	0	1151	1248.978	-391.351	D	7.658	7.599	0.059	4.2	96.04	2.18	1.52	0.07	0.00	0.18
2001	251	0	1492	1243.200	-373.564	D	7.652	7.599	0.053	4.2	96.38	2.22	1.20	0.05	0.00	0.14
2001	95	0	1151	1248.978	-391.351	D	7.649	7.599	0.051	2.7	92.70	4.65	2.29	0.10	0.00	0.27
2001	228	0	1384	1249.051	-382.000	D	7.649	7.599	0.050	4.0	92.70	4.38	2.50	0.11	0.01	0.29
2002	214	0	1261	1188.795	-394.816	D	7.685	7.599	0.087	4.0	96.99	0.48	2.15	0.10	0.03	0.25
2002	254	0	1483	1229.876	-375.604	D	7.676	7.599	0.077	4.2	87.48	8.82	3.17	0.14	0.01	0.37
2002	221	0	1384	1249.051	-382.000	D	7.673	7.599	0.074	4.0	94.66	2.44	2.49	0.11	0.00	0.29
2002	220	0	1498	1239.959	-372.194	D	7.671	7.599	0.072	4.0	91.87	2.64	4.71	0.21	0.01	0.55
2002	297	0	1384	1249.051	-382.000	D	7.651	7.599	0.052	3.8	83.48	15.96	0.48	0.02	0.00	0.06
2002	296	0	1492	1243.200	-373.564	D	7.649	7.599	0.051	3.8	73.34	26.15	0.44	0.02	0.00	0.05
2002	187	0	765	1189.038	-417.173	D	7.644	7.599	0.046	3.8	96.04	1.91	1.74	0.08	0.03	0.20
2002	298	0	1492	1243.200	-373.564	D	7.645	7.599	0.046	3.8	87.20	11.95	0.73	0.03	0.00	0.09
2003	252	0	1464	1218.304	-379.225	D	7.790	7.599	0.191	4.2	91.16	6.50	2.00	0.09	0.02	0.24
2003	31	0	1492	1243.200	-373.564	D	7.728	7.599	0.130	3.3	64.24	34.76	0.86	0.04	0.00	0.10
2003	32	0	1498	1239.959	-372.194	D	7.719	7.599	0.120	3.3	62.62	36.71	0.57	0.03	0.00	0.07
2003	314	0	1498	1239.959	-372.194	D	7.707	7.599	0.108	3.3	59.48	36.02	3.86	0.17	0.01	0.45
2003	228	0	1046	1246.573	-395.458	D	7.701	7.599	0.103	4.0	95.00	3.53	1.25	0.06	0.02	0.15
2003	253	0	1303	1178.138	-394.509	D	7.702	7.599	0.103	4.2	89.53	8.48	1.71	0.08	0.00	0.20
2003	251	0	1493	1232.558	-373.328	D	7.700	7.599	0.101	4.2	91.26	6.60	1.84	0.08	0.00	0.22
2003	255	0	1498	1239.959	-372.194	D	7.657	7.599	0.058	4.2	78.10	19.29	2.24	0.10	0.01	0.26

CALPOST Results - 4km CALMET, No ALM (NH_3@0.5 ppb), Rayleigh at $10Mn^{-1}$, PG Dispersion Coefficients, Annual Average as Background

James River Face Wilderness (Receptor Nos. 1499 - 1550)

YR.	DAY	HR	RECEPTOR	Coordinates X(km)	Coordinates Y(km)	TYPE	DV (Total)	DV (BKG)	DELTA DV	f(RH)	%_SO4	%_NO3	%_OC	%_EC	%_PMC	%_PMF
2001	339	0	1508	1530.795	-120.161	D	7.673	7.400	0.273	3.0	55.58	38.13	5.40	0.24	0.01	0.64
2001	243	0	1518	1525.423	-119.333	D	7.652	7.400	0.252	3.7	88.81	8.38	2.40	0.11	0.02	0.28
2001	147	0	1502	1526.493	-121.002	D	7.614	7.400	0.214	3.0	89.26	7.09	3.13	0.14	0.01	0.37
2001	125	0	1546	1527.043	-116.199	D	7.605	7.400	0.205	3.0	87.87	5.03	6.10	0.28	0.02	0.72
2001	364	0	1503	1527.210	-120.862	D	7.600	7.400	0.200	3.0	26.97	59.82	11.34	0.51	0.02	1.34
2001	341	0	1511	1527.034	-119.957	D	7.593	7.400	0.193	3.0	66.27	18.39	13.15	0.59	0.05	1.55
2001	94	0	1528	1525.247	-118.428	D	7.586	7.400	0.186	2.4	67.25	30.26	2.14	0.10	0.00	0.25
2001	340	0	1547	1527.760	-116.059	D	7.580	7.400	0.180	3.0	58.71	30.79	9.02	0.41	0.00	1.06
2002	27	0	1530	1526.680	-118.148	D	7.781	7.400	0.380	2.8	43.91	46.57	8.19	0.37	0.00	0.96
2002	313	0	1511	1527.034	-119.957	D	7.676	7.400	0.276	2.8	38.06	50.99	9.41	0.43	0.01	1.11
2002	247	0	1499	1528.821	-121.486	D	7.672	7.400	0.272	3.6	91.87	4.64	2.99	0.14	0.01	0.35
2002	287	0	1499	1528.821	-121.486	D	7.666	7.400	0.265	3.2	77.05	20.06	2.48	0.11	0.01	0.29
2002	294	0	1501	1530.255	-121.206	D	7.658	7.400	0.258	3.2	72.96	19.26	6.67	0.30	0.02	0.79
2002	176	0	1528	1525.247	-118.428	D	7.632	7.400	0.232	3.3	93.95	0.84	4.46	0.20	0.02	0.53
2002	28	0	1530	1526.680	-118.148	D	7.610	7.400	0.209	2.8	51.29	37.60	9.55	0.43	0.00	1.12
2002	330	0	1499	1528.821	-121.486	D	7.603	7.400	0.203	2.8	32.55	58.21	7.94	0.36	0.00	0.94
2003	238	0	1500	1529.538	-121.346	D	7.715	7.400	0.315	3.7	87.51	7.80	4.02	0.18	0.02	0.47
2003	200	0	1499	1528.821	-121.486	D	7.707	7.400	0.307	3.4	95.01	0.88	3.51	0.16	0.03	0.41
2003	322	0	1518	1525.423	-119.333	D	7.698	7.400	0.298	2.8	56.30	36.91	5.83	0.26	0.01	0.69
2003	72	0	1532	1528.114	-117.868	D	7.606	7.400	0.206	2.7	48.43	42.33	7.91	0.36	0.04	0.93
2003	234	0	1502	1526.493	-121.002	D	7.601	7.400	0.200	3.7	93.85	2.69	2.98	0.13	0.00	0.35
2003	145	0	1499	1528.821	-121.486	D	7.593	7.400	0.193	3.0	89.25	6.94	3.25	0.15	0.02	0.38
2003	29	0	1546	1527.043	-116.199	D	7.585	7.400	0.185	2.8	32.33	59.87	6.69	0.30	0.02	0.79
2003	166	0	1502	1526.493	-121.002	D	7.583	7.400	0.182	3.3	87.94	6.50	4.75	0.21	0.04	0.56

CALPOST Results - 4km CALMET, No ALM (NH_3@0.5 ppb), Rayleigh at $10Mn^{-1}$, PG Dispersion Coefficients, Annual Average as Background

Joyce-Kilmer Slickrock Wilderness (Receptor Nos. 662 - 762)

YR.	DAY	HR	RECEPTOR	Coordinates X(km)	Coordinates Y(km)	TYPE	DV (Total)	DV (BKG)	DELTA DV	f(RH)	%_SO4	%_NO3	%_OC	%_EC	%_PMC	%_PMF
2001	165	0	666	1177.097	-429.175	D	7.667	7.608	0.059	3.8	94.01	3.55	2.06	0.09	0.04	0.24
2001	261	0	762	1172.400	-417.727	D	7.645	7.608	0.037	4.2	88.76	9.33	1.63	0.07	0.01	0.19
2001	215	0	762	1172.400	-417.727	D	7.641	7.608	0.033	4.2	96.96	1.88	0.99	0.04	0.00	0.12
2001	214	0	762	1172.400	-417.727	D	7.639	7.608	0.030	4.2	97.54	1.48	0.84	0.04	0.00	0.10
2001	250	0	666	1177.097	-429.175	D	7.638	7.608	0.030	4.2	96.84	1.43	1.49	0.07	0.00	0.17
2001	251	0	762	1172.400	-417.727	D	7.635	7.608	0.027	4.2	97.11	1.50	1.19	0.05	0.00	0.14
2001	95	0	710	1176.436	-424.607	D	7.632	7.608	0.024	2.7	93.60	4.39	1.73	0.08	0.00	0.20
2001	177	0	762	1172.400	-417.727	D	7.632	7.608	0.024	3.8	95.23	2.49	1.95	0.09	0.00	0.23
2002	214	0	762	1172.400	-417.727	D	7.691	7.608	0.083	4.2	97.58	0.22	1.87	0.08	0.02	0.22
2002	187	0	666	1177.097	-429.175	D	7.662	7.608	0.054	4.0	96.58	1.56	1.57	0.07	0.03	0.19
2002	254	0	666	1177.097	-429.175	D	7.648	7.608	0.040	4.2	87.82	9.01	2.71	0.12	0.01	0.32
2002	220	0	710	1176.436	-424.607	D	7.643	7.608	0.035	4.2	95.03	1.07	3.35	0.15	0.01	0.39
2002	297	0	710	1176.436	-424.607	D	7.636	7.608	0.028	3.8	81.10	18.49	0.35	0.02	0.00	0.04
2002	298	0	762	1172.400	-417.727	D	7.631	7.608	0.023	3.8	88.52	10.94	0.47	0.02	0.00	0.05
2002	186	0	758	1167.934	-418.371	D	7.630	7.608	0.022	4.0	91.64	7.00	1.15	0.05	0.02	0.14
2002	221	0	762	1172.400	-417.727	D	7.629	7.608	0.020	4.2	95.09	1.76	2.70	0.12	0.00	0.32
2003	252	0	762	1172.400	-417.727	D	7.732	7.608	0.124	4.2	92.69	5.26	1.75	0.08	0.01	0.21
2003	253	0	762	1172.400	-417.727	D	7.701	7.608	0.093	4.2	89.58	8.47	1.67	0.08	0.00	0.20
2003	314	0	762	1172.400	-417.727	D	7.668	7.608	0.060	3.3	78.74	16.88	3.75	0.17	0.01	0.44
2003	251	0	762	1172.400	-417.727	D	7.664	7.608	0.056	4.2	90.64	7.18	1.87	0.08	0.00	0.22
2003	228	0	710	1176.436	-424.607	D	7.654	7.608	0.046	4.2	97.52	1.32	0.99	0.04	0.01	0.12
2003	100	0	758	1167.934	-418.371	D	7.645	7.608	0.037	2.7	66.81	32.27	0.79	0.04	0.00	0.09
2003	32	0	762	1172.400	-417.727	D	7.639	7.608	0.031	3.3	62.53	36.82	0.56	0.03	0.00	0.07
2003	261	0	762	1172.400	-417.727	D	7.634	7.608	0.025	4.2	95.08	1.24	3.15	0.14	0.00	0.37