BART Exemption Modeling Report:

Georgia Power Company
Plant Branch

Prepared by:

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for Georgia Power Company

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Contents

List of Tables

List of Figures

1.0 Introduction

1.1 Objectives

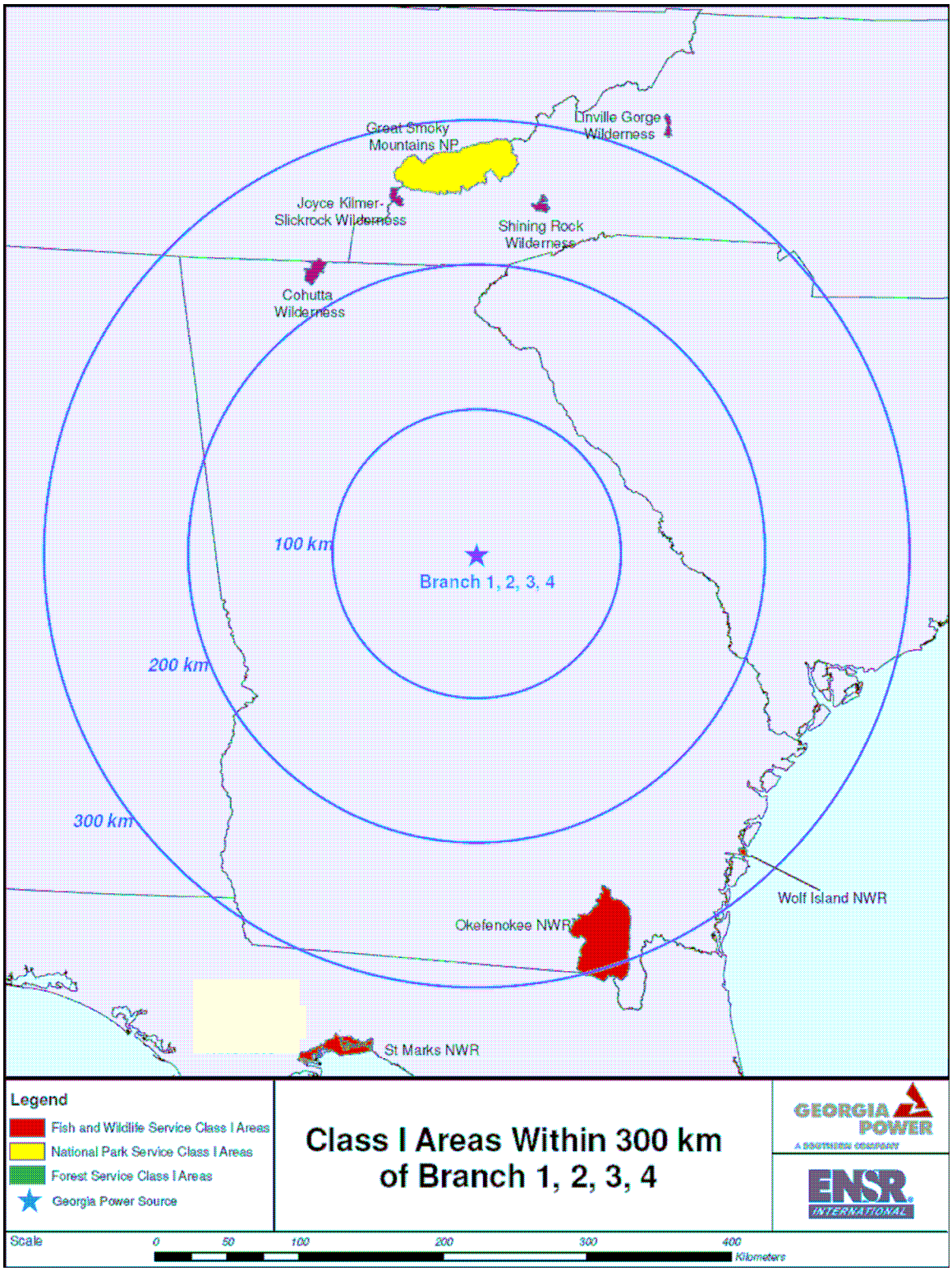
The Regional Haze Rule requires Best Available Retrofit Technology (BART) for any BART-eligible source that "emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility" in any mandatory Class I federal area. Pursuant to federal regulations, states have the option of exempting a BART-eligible source from the BART requirements based on dispersion modeling demonstrating that the source cannot reasonably be anticipated to cause or contribute to visibility impairment in a Class I area. In addition, the Environmental Protection Agency (EPA) has promulgated a rule allowing states subject to the Clean Air Interstate Rule (CAIR) to determine that CAIR satisfies the BART requirements for SO_2 and NO_x for electric generating units (EGUs). Feedback from the Georgia Environmental Protection Division indicates that CAIR satisfies BART for SO_2 and NO_x for EGUs. Therefore, this modeling report focuses on performing the BART modeling analysis for particulate matter (PM) only.

Units 1, 2, 3, and 4 at Plant Branch, located near Albany, which is owned and operated by Georgia Power Company, has been identified as a BART-eligible source. The modeling procedures outlined in the source-specific BART modeling protocol for Plant Branch were used to determine whether the source is subject to BART requirements (exemption modeling). The modeling procedures are consistent with those outlined in the updated final VISTAS common BART modeling protocol (dated December 22, 2005, revision 3 – July 18, 2006), available at http://www.vistas-sesarm.org/BART/BARTModelingProtocol_rev3_18Jul2006.pdf. This source-specific BART modeling protocol references relevant portions of the common VISTAS modeling protocol.

1.2 Location of source vs. relevant Class I Areas

The Georgia Environmental Protection Division, which is in charge of the state's BART program, has determined that unIts 1, 2, 3, and 4 at Plant Branch are BART-eligible for PM. Figure 1-1 shows a plot of Plant Branch relative to nearby Class I Areas. There are six Class I areas within 300 km of the plant: Cohutta (218.6 km), Great Smoky Mountains (250.5 km), Joyce Kilmer (247.4 km), Shining Rock (242.5 km), Okefenokee (254.8 km), and Wolf Island (274.4 km). The BART exemption modeling was conducted for these Class I areas in accordance with the referenced VISTAS common BART modeling protocol and the procedures described in the source-specific BART modeling protocol.

Figure 1-1 Location of Class I Areas in Relation to Plant Branch



2.0 Source description and emissions data

2.1 Unit-specific source data

The emissions data used to assess the visibility impacts at the Class I areas within 300 km of Plant Branch are discussed in this section. The Georgia Environmental Protection Division has indicated that CAIR will satisfy BART for EGUs for SO_2 and NO_x. Therefore, this BART exemption modeling analysis focuses only on PM_{10}. Since various components of PM_{10} emissions have different visibility extinction efficiencies, the PM_{10} emissions are divided, or "speciated," into several components (VISTAS common protocol Sections 4.3.3 and 4.4.2). The VISTAS protocol (Section 5) allows for the use of source-specific emissions and speciation factors and/or default values from AP-42. The PM_{10} emissions and speciation approach that were used for the modeling is indicated below. Where default speciation values are used, the data represents a unit where current (baseline) emission controls include electrostatic precipitators (ESPs), but no post-combustion NO_x or SO_2 control equipment exists.

- Total PM_{10} is comprised of filterable and condensable emissions.
- Baseline filterable PM_{10} emissions are based on the highest stack test for the most recent 3-year period (2003-2005). This stack test is combined with the highest 24 hour heat input value for this period from CEMS data to calculate the "maximum 24-hour average emission rate" as required by the VISTAS protocol.
- Filterable PM_{10} has been subdivided by size category consistent with the default approach from AP-42 Table 1-1.6, and as noted on pages 43 and 44 of the VISTAS common BART modeling protocol. The AP-42 Table 1-1.6 specifies for the emission controls indicated above that 55.6% of filterable PM_{10} emissions is coarse (greater than 2.5 microns in size) and 44.4% is fine. Of the fine portion, 3.7% is elemental carbon and the remainder is inorganic fine particulates (soil).
- Condensable PM_{10} consists of inorganic and organic compounds. The inorganic portion is by default assumed to be H_2SO_4, although other non-sulfate inorganic condensables could be present. The organic portion is modeled as organic aerosols.
- Baseline H_2SO_4 emissions are calculated consistent with the method used by Georgia Power to derive these emissions for TRI purposes. This approach assumes that the H_2SO_4 emissions released from the stack are proportional to SO_2 emissions from combustion and are dependent on the fuel type and the removal of H_2SO_4 by downstream equipment (i.e., ESP and air heater). For eastern bituminous coal the baseline H_2SO_4 release rate is in the range of 0.3 to 0.8% of the SO_2 emissions. Appendix A of the site-specific modeling protocol provides the basis for the site-specific values used.
- Baseline emissions of condensable organics (the remaining portion of condensable PM_{10}) are derived based on the supporting field observational information in Appendix B of the site-specific modeling protocol and is estimated as 0.32% of SO_2 emitted.
- Coarse filterable particles (between 2.5 and 10 microns in size) will be modeled with a geometric mass mean diameter of 5 microns, while fine filterable and all condensable particles will be modeled with a geometric mass mean diameter of 0.48 microns, consistent with the CALPUFF default value for fine particles. The geometric standard deviation for both fine and coarse particles will be set to 2 microns, consistent with the CALPUFF default value. The 0.48 micron diameter value for fine particles comes from the default values in sample input files presented on the TRC web site. There is no default value presented for the coarse particles on the TRC web site. However, since 5 is the geometric mass mean diameter of 2.5 and 10 (the bounds of coarse particle sizes), it is a reasonable estimate for the geometric mass mean diameter for that class of particles.

In practice, CALPUFF allows for the user to input certain components of PM_{10} as separate species and separate sizes, which will result in more accurate wet and dry deposition velocity results and also more

accurate effects on light scattering. As noted above, the particle size distribution information is provided in AP-42 Table 1-1.6, and will be used for the BART exemption modeling.

Table 2-1 provides a summary of the modeling emission parameters used in the BART CALPUFF modeling, consistent with the source emissions data presented in Appendices A and B of the site-specific modeling protocol for the baseline. All of the emissions in Table 2-1 were derived from CEMS data for the 2003 to 2005 period and represent the maximum 24-hour average lb/hr rates (excluding days where startup, shutdown, or malfunctions occurred). For NO_x and SO_2 the values are directly from CEMS. Filterable PM_{10} emissions were calculated using the highest stack test over the 2003 to 2005 period and multiplying these values times the maximum 24-hour average heat input derived from CEMS. These values were then adjusted using AP-42 factors from Table 1.1-6 that indicate that PM_{10} is 67% of total PM for a pulverized coal unit with an ESP. PM_{10} speciation was then performed as indicated above such that total Filterable PM_{10} is made up of Coarse Soil plus total Fine PM and total Fine PM is made up of Fine Soil plus Elemental Carbon (EC).

Table 2-1 Plant Branch modeling emission parameters

Case	Source / Unit	Location UTM (Zone 17 NAD-83)		Actual Stack Ht	Base Elev.	Flue Dia-meter	Gas Exit Vel.	Stack Gas Exit Temp.	Emissions[1]			Particle Speciation[2]							
		UTM East	UTM North						SO_2	NO_X	PM_{10}	Filt. PM_{10}	Coarse Soil	Fine PM	Fine Soil	EC	Cond. PM_{10}	H_2SO_4	Organic
		m	m	m	m	m	m/s	deg K	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr
Baseline Data - Current Configuration (Unit Basis)																			
Baseline	Unit 1	285,644	3,675,169	304.8	110.3	6.9	24.9	394.1	6392.83	1427.65	80.60	41.34	22.98	18.35	17.68	0.68	39.26	18.81	20.46
Baseline	Unit 2	285,644	3,675,169	304.8	110.3	6.9	24.9	394.1	9709.09	1494.44	113.42	53.79	29.91	23.88	23.00	0.88	59.63	28.57	31.07
Baseline	Unit 3	285,644	3,675,169	304.8	110.3	8.8	23.4	399.7	10506.48	2705.26	352.63	288.10	160.18	127.92	123.18	4.73	64.53	30.91	33.62
Baseline	Unit 4	285,644	3,675,169	304.8	110.3	8.8	23.4	399.7	10867.81	3544.99	444.28	377.53	209.91	167.62	161.42	6.20	66.75	31.97	34.78
Baseline Data - Current Configuration (Stack Basis)																			
				Modeled Stk Ht[3]		Eq. Dia.													
		m	m	m	m	m	m/s	deg K	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr
Stack 1	1-4	285,644	3,675,169	148.4	110.3	11.2	24.2	396.9	37476.21	9172.34	990.93	760.76	422.98	337.78	325.28	12.50	230.17	110.24	119.92
Stack Basis Emissions Converted to g/sec									g/sec	g/sec	g/sec	g/sec	g/sec	g/sec	g/sec	g/sec	g/sec	g/sec	g/sec
Stack 1	1-4	285,644	3,675,169	148.4	110.3	11.2	24.2	396.9	4722.00	1155.72	124.86	95.86	53.30	42.56	40.99	1.57	29.00	13.89	15.11

[1] SO_2 and NO_x emissions are not BART-applicable for EGU sources in CAIR states, if the state agency agrees with EPA's interpretation of the BART final rule. The emissions for SO_2 and NO_x are provided for information purposes, and for reference in the computation of certain particle species such as H_2SO_4.

[2] Elemental carbon (EC) and Fine PM are a part of Filterable PM_{10} and H_2SO_4 and Organics are a part of Condensable PM_{10}. Note that H_2SO_4 is input to CALPUFF as SO_4. The molecular weights of H_2SO_4 and SO_4 are 98 and 96 respectively, therefore the conversion factor from H_2SO_4 to SO_4 is 96/98.

[3] Stack credit is equal to GEP. GEP of 487 ft (148.4 m) is less than actual height therefore GEP height is used for modeling.

3.0 Modeling results

The exemption modeling results are provided in Table 3-1, and Appendix A lists delta-deciview results for the top 20 days for each year modeled and the top 25 days for the overall three years at each Class I area. The table indicates that both the 8th highest day's impacts for each year and the 22nd highest day's impacts over all three years are below 0.5 delta-dv. These results demonstrate that Plant Branch's PM_{10} emissions do not cause or contribute to visibility impairment. Therefore, the source is not subject to BART for PM_{10}, and no further BART analysis is required.

Electronic data related to this application are provided on the attached disk. They include all input (INP) and list (LST) files.

Table 3-1 Summary of Results – Plant Branch Refined BART Exemption Modeling

		2001			2002			2003			Highest of 8th Highest delta-dv for the 3-years	22nd Highest delta-dv over 3-year period
Class I area	**Distance from source to Class I area boundary**	**# of days and receptors beyond 98th percentile with impact > 0.5 delta-dv**		**8th Highest delta-dv**	**# of days and receptors beyond 98th percentile with impact > 0.5 delta-dv**		**8th Highest delta-dv**	**# of days and receptors beyond 98th percentile with impact > 0.5 delta-dv**		**8th Highest delta-dv**		
	km	**Days**	**Rec**	**delta-dv**	**Days**	**Rec**	**delta-dv**	**Days**	**Rec**	**delta-dv**	**delta-dv**	**delta-dv**
Cohutta	**218.6**	0	0	0.11	0	0	0.17	0	0	0.14	0.17	0.14
Great Smoky Mountains	**250.5**	0	0	0.11	0	0	0.08	0	0	0.09	0.11	0.09
Joyce Kilmer	**247.4**	0	0	0.09	0	0	0.07	0	0	0.08	0.09	0.08
Shining Rock	**242.5**	0	0	0.08	0	0	0.07	0	0	0.09	0.09	0.08
Okefenokee	**254.8**	0	0	0.10	0	0	0.12	0	0	0.10	0.12	0.10
Wolf Island	**274.4**	0	0	0.11	0	0	0.08	0	0	0.09	0.11	0.09

Appendix A

Delta-Deciview Values for the Top 20 Days – for Each Year/Each Class I Area and for the Top 25 Days – Over Three Years

Ranked Daily Visibility Change for Cohutta (Top 20 Days for Each Year)

							% of Modeled Extinction by Species					
YEAR	DAY	REC	DV(Total)	DV(BKG)	DELTA DV	F(RH)	% SO4	% NO3	% OC	% EC	% PMC	% PMF	Ranking
2001	287	97	7.787	7.599	0.188	3.8	61.25	0.00	17.35	4.51	5.11	11.77	1
2001	307	3	7.783	7.599	0.184	3.4	58.51	0.00	18.53	4.81	5.59	12.56	2
2001	199	3	7.771	7.599	0.172	4.0	63.20	0.00	17.01	4.42	3.84	11.54	3
2001	171	16	7.749	7.599	0.150	3.8	59.95	0.00	16.98	4.41	7.14	11.52	4
2001	129	181	7.741	7.599	0.142	3.4	57.39	0.00	18.17	4.72	7.39	12.32	5
2001	328	1	7.736	7.599	0.137	3.4	59.04	0.00	18.69	4.86	4.73	12.68	6
2001	121	97	7.731	7.599	0.132	2.8	54.30	0.00	20.88	5.42	5.25	14.16	7
2001	251	8	7.710	7.599	0.111	4.2	62.32	0.00	15.98	4.15	6.72	10.83	8
2001	306	16	7.704	7.599	0.105	3.4	59.43	0.00	18.82	4.89	4.11	12.76	9
2001	247	8	7.697	7.599	0.099	4.2	62.68	0.00	16.07	4.17	6.18	10.90	10
2001	123	9	7.694	7.599	0.096	3.4	58.40	0.00	18.49	4.80	5.76	12.54	11
2001	30	214	7.695	7.599	0.096	3.3	58.79	0.00	19.18	4.98	4.05	13.01	12
2001	284	9	7.692	7.599	0.094	3.8	59.59	0.00	16.88	4.39	7.69	11.45	13
2001	198	3	7.693	7.599	0.094	4.0	63.32	0.00	17.04	4.43	3.65	11.56	14
2001	293	8	7.689	7.599	0.091	3.8	60.16	0.00	17.04	4.43	6.81	11.56	15
2001	124	8	7.686	7.599	0.088	3.4	57.11	0.00	18.08	4.70	7.84	12.26	16
2001	351	97	7.679	7.599	0.080	3.5	59.12	0.00	18.18	4.72	5.64	12.33	17
2001	252	8	7.676	7.599	0.078	4.2	64.18	0.00	16.45	4.27	3.94	11.16	18
2001	219	1	7.675	7.599	0.076	4.2	63.17	0.00	16.19	4.21	5.46	10.98	19
2001	178	3	7.674	7.599	0.075	3.8	61.56	0.00	17.44	4.53	4.64	11.83	20
2002	190	97	7.844	7.599	0.246	4.0	61.21	0.00	16.47	4.28	6.86	11.17	1
2002	277	1	7.810	7.599	0.211	3.8	61.57	0.00	17.44	4.53	4.63	11.83	2
2002	163	8	7.797	7.599	0.198	3.8	60.39	0.00	17.11	4.44	6.45	11.60	3
2002	276	3	7.787	7.599	0.188	3.8	60.35	0.00	17.10	4.44	6.51	11.60	4
2002	68	8	7.778	7.599	0.179	3.0	54.58	0.00	19.59	5.09	7.46	13.28	5
2002	41	3	7.768	7.599	0.170	3.1	56.12	0.00	19.49	5.06	6.12	13.22	6
2002	298	9	7.768	7.599	0.169	3.8	60.17	0.00	17.05	4.43	6.80	11.56	7
2002	263	179	7.766	7.599	0.167	4.2	63.36	0.00	16.24	4.22	5.17	11.01	8
2002	148	8	7.759	7.599	0.160	3.4	58.53	0.00	18.53	4.81	5.56	12.57	9
2002	223	181	7.752	7.599	0.153	4.2	63.77	0.00	16.35	4.25	4.55	11.09	10
2002	278	220	7.728	7.599	0.129	3.8	60.07	0.00	17.02	4.42	6.95	11.54	11
2002	72	1	7.724	7.599	0.125	3.0	55.07	0.00	19.76	5.13	6.63	13.40	12
2002	235	218	7.721	7.599	0.123	4.2	63.23	0.00	16.21	4.21	5.37	10.99	13
2002	47	9	7.720	7.599	0.122	3.1	55.50	0.00	19.27	5.01	7.15	13.07	14
2002	149	2	7.707	7.599	0.109	3.4	58.24	0.00	18.44	4.79	6.03	12.51	15
2002	222	214	7.705	7.599	0.107	4.2	63.74	0.00	16.34	4.24	4.59	11.08	16
2002	98	3	7.703	7.599	0.105	2.8	54.18	0.00	20.83	5.41	5.44	14.13	17
2002	224	3	7.702	7.599	0.104	4.2	64.29	0.00	16.48	4.28	3.78	11.18	18
2002	177	3	7.672	7.599	0.074	3.8	60.86	0.00	17.24	4.48	5.73	11.69	19
2002	225	97	7.669	7.599	0.071	4.2	64.73	0.00	16.59	4.31	3.12	11.25	20
2003	305	46	8.018	7.599	0.419	3.8	60.43	0.00	17.12	4.45	6.38	11.61	1
2003	363	16	7.955	7.599	0.356	3.5	58.19	0.00	17.90	4.65	7.12	12.14	2
2003	38	8	7.830	7.599	0.231	3.1	54.66	0.00	18.98	4.93	8.56	12.87	3
2003	323	156	7.758	7.599	0.160	3.4	57.64	0.00	18.25	4.74	6.99	12.38	4
2003	245	181	7.759	7.599	0.160	4.2	62.79	0.00	16.09	4.18	6.02	10.92	5
2003	331	8	7.758	7.599	0.159	3.4	56.76	0.00	17.97	4.67	8.42	12.19	6
2003	64	3	7.757	7.599	0.158	3.0	55.12	0.00	19.78	5.14	6.56	13.41	7
2003	332	97	7.735	7.599	0.136	3.4	58.20	0.00	18.43	4.79	6.09	12.50	8
2003	281	3	7.719	7.599	0.121	3.8	61.50	0.00	17.42	4.53	4.73	11.82	9
2003	270	3	7.720	7.599	0.121	4.2	65.05	0.00	16.67	4.33	2.64	11.31	10
2003	234	3	7.717	7.599	0.118	4.2	63.15	0.00	16.19	4.20	5.49	10.98	11
2003	119	3	7.682	7.599	0.084	2.8	54.02	0.00	20.77	5.40	5.73	14.09	12
2003	269	16	7.681	7.599	0.082	4.2	63.70	0.00	16.33	4.24	4.66	11.07	13
2003	316	3	7.677	7.599	0.079	3.4	57.15	0.00	18.10	4.70	7.78	12.27	14
2003	364	2	7.677	7.599	0.078	3.5	58.55	0.00	18.01	4.68	6.54	12.21	15
2003	226	218	7.675	7.599	0.077	4.2	63.62	0.00	16.31	4.24	4.77	11.06	16
2003	309	179	7.668	7.599	0.070	3.4	56.38	0.00	17.85	4.64	9.02	12.11	17
2003	246	3	7.668	7.599	0.069	4.2	63.72	0.00	16.33	4.24	4.62	11.08	18
2003	53	179	7.667	7.599	0.068	3.1	55.38	0.00	19.23	5.00	7.35	13.04	19
2003	97	220	7.666	7.599	0.067	2.8	53.84	0.00	20.70	5.38	6.04	14.04	20

Ranked Daily Visibility Change for Cohutta (Top 25 Days Over Three Years)

							% of Modeled Extinction by Species					
YEAR	DAY	REC	DV(Total)	DV(BKG)	DELTA DV	F(RH)	% SO4	% NO3	% OC	% EC	% PMC	% PMF	Ranking
2003	305	46	8.018	7.599	0.419	3.8	60.43	0.00	17.12	4.45	6.38	11.61	1
2003	363	16	7.955	7.599	0.356	3.5	58.19	0.00	17.90	4.65	7.12	12.14	2
2002	190	97	7.844	7.599	0.246	4.0	61.21	0.00	16.47	4.28	6.86	11.17	3
2003	38	8	7.830	7.599	0.231	3.1	54.66	0.00	18.98	4.93	8.56	12.87	4
2002	277	1	7.810	7.599	0.211	3.8	61.57	0.00	17.44	4.53	4.63	11.83	5
2002	163	8	7.797	7.599	0.198	3.8	60.39	0.00	17.11	4.44	6.45	11.60	6
2001	287	97	7.787	7.599	0.188	3.8	61.25	0.00	17.35	4.51	5.11	11.77	7
2002	276	3	7.787	7.599	0.188	3.8	60.35	0.00	17.10	4.44	6.51	11.60	8
2001	307	3	7.783	7.599	0.184	3.4	58.51	0.00	18.53	4.81	5.59	12.56	9
2002	68	8	7.778	7.599	0.179	3.0	54.58	0.00	19.59	5.09	7.46	13.28	10
2001	199	3	7.771	7.599	0.172	4.0	63.20	0.00	17.01	4.42	3.84	11.54	11
2002	41	3	7.768	7.599	0.170	3.1	56.12	0.00	19.49	5.06	6.12	13.22	12
2002	298	9	7.768	7.599	0.169	3.8	60.17	0.00	17.05	4.43	6.80	11.56	13
2002	263	179	7.766	7.599	0.167	4.2	63.36	0.00	16.24	4.22	5.17	11.01	14
2002	148	8	7.759	7.599	0.160	3.4	58.53	0.00	18.53	4.81	5.56	12.57	15
2003	323	156	7.758	7.599	0.160	3.4	57.64	0.00	18.25	4.74	6.99	12.38	16
2003	245	181	7.759	7.599	0.160	4.2	62.79	0.00	16.09	4.18	6.02	10.92	17
2003	331	8	7.758	7.599	0.159	3.4	56.76	0.00	17.97	4.67	8.42	12.19	18
2003	64	3	7.757	7.599	0.158	3.0	55.12	0.00	19.78	5.14	6.56	13.41	19
2002	223	181	7.752	7.599	0.153	4.2	63.77	0.00	16.35	4.25	4.55	11.09	20
2001	171	16	7.749	7.599	0.150	3.8	59.95	0.00	16.98	4.41	7.14	11.52	21
2001	129	181	7.741	7.599	0.142	3.4	57.39	0.00	18.17	4.72	7.39	12.32	22
2001	328	1	7.736	7.599	0.137	3.4	59.04	0.00	18.69	4.86	4.73	12.68	23
2003	332	97	7.735	7.599	0.136	3.4	58.20	0.00	18.43	4.79	6.09	12.50	24
2001	121	97	7.731	7.599	0.132	2.8	54.30	0.00	20.88	5.42	5.25	14.16	25

Ranked Daily Visibility Change for Great Smoky Mountains (Top 20 Days for Each Year)

							% of Modeled Extinction by Species						
YEAR	DAY	REC	DV(Total)	DV(BKG)	DELTA DV	F(RH)	% SO4	% NO3	% OC	% EC	% PMC	% PMF	Ranking
2001	334	336	7.814	7.599	0.216	3.3	57.47	0	18.75	4.87	6.19	12.72	1
2001	327	351	7.768	7.599	0.169	3.3	58.29	0	19.01	4.94	4.86	12.9	2
2001	51	470	7.761	7.599	0.162	3	56.43	0	20.25	5.26	4.33	13.73	3
2001	179	431	7.748	7.599	0.15	3.9	62.5	0	17.25	4.48	4.06	11.7	4
2001	36	367	7.717	7.599	0.119	3	56.24	0	20.18	5.24	4.64	13.69	5
2001	286	325	7.717	7.599	0.118	3.8	61.73	0	17.49	4.54	4.38	11.86	6
2001	40	513	7.717	7.599	0.118	3	56.31	0	20.21	5.25	4.54	13.7	7
2001	329	703	7.71	7.599	0.111	3.3	56.19	0	18.33	4.76	8.29	12.43	8
2001	229	363	7.699	7.599	0.1	4	62.22	0	16.75	4.35	5.33	11.36	9
2001	56	770	7.695	7.599	0.096	3	54.19	0	19.45	5.05	8.13	13.19	10
2001	121	340	7.692	7.599	0.093	2.7	54.26	0	21.63	5.62	3.82	14.67	11
2001	114	605	7.692	7.599	0.093	2.7	51.57	0	20.56	5.34	8.57	13.95	12
2001	181	652	7.688	7.599	0.09	3.9	61.25	0	16.91	4.39	5.99	11.47	13
2001	41	513	7.686	7.599	0.087	3	54.6	0	19.6	5.09	7.42	13.29	14
2001	357	513	7.683	7.599	0.085	3.4	57.04	0	18.06	4.69	7.95	12.25	15
2001	306	435	7.679	7.599	0.08	3.3	56.65	0	18.48	4.8	7.53	12.53	16
2001	27	322	7.678	7.599	0.08	3.3	59.7	0	19.48	5.06	2.55	13.21	17
2001	199	340	7.678	7.599	0.079	3.8	62.27	0	17.64	4.58	3.55	11.96	18
2001	129	366	7.668	7.599	0.069	3.2	57.72	0	19.42	5.04	4.65	13.17	19
2001	333	465	7.666	7.599	0.067	3.3	56.65	0	18.48	4.8	7.54	12.53	20
2002	51	391	7.868	7.599	0.269	3	55.12	0	19.78	5.14	6.54	13.42	1
2002	223	366	7.796	7.599	0.197	4	63.3	0	17.04	4.43	3.68	11.55	2
2002	320	513	7.793	7.599	0.195	3.3	57.19	0	18.66	4.85	6.65	12.65	3
2002	222	429	7.715	7.599	0.116	4	63.43	0	17.07	4.43	3.48	11.58	4
2002	148	429	7.687	7.599	0.088	3.2	57.85	0	19.46	5.06	4.44	13.2	5
2002	226	339	7.683	7.599	0.084	4	62.66	0	16.86	4.38	4.67	11.44	6
2002	74	513	7.676	7.599	0.077	2.9	53.93	0	20.02	5.2	7.28	13.58	7
2002	313	513	7.675	7.599	0.076	3.3	59.92	0	19.55	5.08	2.19	13.26	8
2002	89	605	7.675	7.599	0.076	2.9	54.72	0	20.31	5.28	5.91	13.78	9
2003	1	364	7.674	7.599	0.075	3.4	58.04	0	18.38	4.77	6.34	12.46	10
2002	227	947	7.674	7.599	0.075	4	62.88	0	16.92	4.4	4.32	11.48	11
2002	224	322	7.671	7.599	0.073	4	63.93	0	17.21	4.47	2.73	11.67	12
2002	235	365	7.667	7.599	0.068	4	62.86	0	16.92	4.39	4.35	11.47	13
2002	99	514	7.661	7.599	0.062	2.7	54.07	0	21.56	5.6	4.14	14.62	14
2002	293	513	7.66	7.599	0.061	3.8	60.34	0	17.1	4.44	6.53	11.59	15
2002	47	371	7.657	7.599	0.058	3	55.15	0	19.79	5.14	6.49	13.42	16
2002	225	365	7.651	7.599	0.052	4	63.95	0	17.21	4.47	2.7	11.67	17
2002	190	606	7.651	7.599	0.052	3.8	61.37	0	17.39	4.52	4.93	11.79	18
2002	93	339	7.651	7.599	0.052	2.7	54.79	0	21.85	5.67	2.88	14.82	19
2002	163	606	7.649	7.599	0.05	3.9	62.19	0	17.17	4.46	4.54	11.64	20
2003	258	371	7.812	7.599	0.213	4.2	63.75	0	16.34	4.24	4.58	11.08	1
2003	351	605	7.785	7.599	0.186	3.4	58.02	0	18.37	4.77	6.38	12.46	2
2003	122	436	7.755	7.599	0.156	3.2	56.96	0	19.16	4.98	5.9	13	3
2003	331	434	7.72	7.599	0.121	3.3	56.78	0	18.52	4.81	7.33	12.56	4
2003	106	513	7.714	7.599	0.115	2.7	52.73	0	21.03	5.46	6.52	14.26	5
2003	245	429	7.704	7.599	0.105	4.2	63.93	0	16.39	4.26	4.31	11.11	6
2003	288	605	7.694	7.599	0.095	3.8	59.74	0	16.93	4.4	7.45	11.48	7
2003	364	510	7.691	7.599	0.093	3.4	57.87	0	18.32	4.76	6.61	12.43	8
2003	107	710	7.692	7.599	0.093	2.7	52.42	0	20.9	5.43	7.08	14.17	9
2003	226	435	7.689	7.599	0.09	4	61.68	0	16.6	4.31	6.15	11.26	10
2003	17	361	7.688	7.599	0.089	3.3	58.5	0	19.09	4.96	4.51	12.94	11
2003	344	423	7.678	7.599	0.08	3.4	58.4	0	18.49	4.8	5.77	12.54	12
2003	291	429	7.679	7.599	0.08	3.8	62.51	0	17.71	4.6	3.18	12.01	13
2003	329	364	7.676	7.599	0.078	3.3	57.4	0	18.73	4.86	6.31	12.7	14
2003	61	945	7.677	7.599	0.078	2.9	52.71	0	19.57	5.08	9.36	13.27	15
2003	363	422	7.676	7.599	0.077	3.4	57.08	0	18.07	4.69	7.9	12.26	16
2003	299	382	7.669	7.599	0.07	3.8	61.81	0	17.51	4.55	4.26	11.88	17
2003	270	429	7.668	7.599	0.069	4.2	64.48	0	16.53	4.29	3.49	11.21	18
2003	111	388	7.663	7.599	0.064	2.7	51.94	0	20.71	5.38	7.93	14.04	19
2003	246	587	7.661	7.599	0.063	4.2	63.12	0	16.18	4.2	5.53	10.97	20

Ranked Daily Visibility Change for Great Smoky Mountains (Top 25 Days Over Three Years)

							% of Modeled Extinction by Species						
YEAR	DAY	REC	DV(Total)	DV(BKG)	DELTA DV	F(RH)	% SO4	% NO3	% OC	% EC	% PMC	% PMF	Ranking
2002	51	391	7.868	7.599	0.269	3.0	55.12	0	19.78	5.14	6.54	13.42	1
2001	334	336	7.814	7.599	0.216	3.3	57.47	0	18.75	4.87	6.19	12.72	2
2003	258	371	7.812	7.599	0.213	4.2	63.75	0	16.34	4.24	4.58	11.08	3
2002	223	366	7.796	7.599	0.197	4.0	63.3	0	17.04	4.43	3.68	11.55	4
2002	320	513	7.793	7.599	0.195	3.3	57.19	0	18.66	4.85	6.65	12.65	5
2003	351	605	7.785	7.599	0.186	3.4	58.02	0	18.37	4.77	6.38	12.46	6
2001	327	351	7.768	7.599	0.169	3.3	58.29	0	19.01	4.94	4.86	12.9	7
2001	51	470	7.761	7.599	0.162	3.0	56.43	0	20.25	5.26	4.33	13.73	8
2003	122	436	7.755	7.599	0.156	3.2	56.96	0	19.16	4.98	5.9	13	9
2001	179	431	7.748	7.599	0.150	3.9	62.5	0	17.25	4.48	4.06	11.7	10
2003	331	434	7.720	7.599	0.121	3.3	56.78	0	18.52	4.81	7.33	12.56	11
2001	36	367	7.717	7.599	0.119	3.0	56.24	0	20.18	5.24	4.64	13.69	12
2001	286	325	7.717	7.599	0.118	3.8	61.73	0	17.49	4.54	4.38	11.86	13
2001	40	513	7.717	7.599	0.118	3.0	56.31	0	20.21	5.25	4.54	13.7	14
2002	222	429	7.715	7.599	0.116	4.0	63.43	0	17.07	4.43	3.48	11.58	15
2003	106	513	7.714	7.599	0.115	2.7	52.73	0	21.03	5.46	6.52	14.26	16
2001	329	703	7.710	7.599	0.111	3.3	56.19	0	18.33	4.76	8.29	12.43	17
2003	245	429	7.704	7.599	0.105	4.2	63.93	0	16.39	4.26	4.31	11.11	18
2001	229	363	7.699	7.599	0.100	4.0	62.22	0	16.75	4.35	5.33	11.36	19
2001	56	770	7.695	7.599	0.096	3.0	54.19	0	19.45	5.05	8.13	13.19	20
2003	288	605	7.694	7.599	0.095	3.8	59.74	0	16.93	4.4	7.45	11.48	21
2001	121	340	7.692	7.599	0.093	2.7	54.26	0	21.63	5.62	3.82	14.67	22
2001	114	605	7.692	7.599	0.093	2.7	51.57	0	20.56	5.34	8.57	13.95	23
2003	364	510	7.691	7.599	0.093	3.4	57.87	0	18.32	4.76	6.61	12.43	24
2003	107	710	7.692	7.599	0.093	2.7	52.42	0	20.9	5.43	7.08	14.17	25

Ranked Daily Visibility Change for Joyce Kilmer (Top 20 Days for Each Year)

							% of Modeled Extinction by Species					
YEAR	DAY	REC	DV(Total)	DV(BKG)	DELTA DV	F(RH)	% SO4	% NO3	% OC	% EC	% PMC	% PMF	Ranking
2001	327	225	7.785	7.608	0.176	3.3	58.03	0.00	18.93	4.92	5.28	12.84	1
2001	179	239	7.766	7.608	0.158	3.8	61.56	0.00	17.44	4.53	4.64	11.83	2
2001	36	221	7.740	7.608	0.132	3.1	56.74	0.00	19.70	5.12	5.08	13.36	3
2001	121	221	7.723	7.608	0.115	2.7	53.99	0.00	21.53	5.59	4.29	14.60	4
2001	199	221	7.702	7.608	0.094	4.0	63.41	0.00	17.07	4.43	3.51	11.57	5
2001	129	270	7.697	7.608	0.089	3.3	58.11	0.00	18.96	4.92	5.15	12.86	6
2001	358	239	7.696	7.608	0.088	3.5	59.62	0.00	18.34	4.76	4.84	12.44	7
2001	286	225	7.694	7.608	0.086	3.8	61.83	0.00	17.52	4.55	4.22	11.88	8
2001	306	278	7.691	7.608	0.083	3.3	56.73	0.00	18.51	4.81	7.40	12.55	9
2001	229	248	7.691	7.608	0.083	4.2	62.71	0.00	16.07	4.18	6.13	10.90	10
2001	27	225	7.689	7.608	0.081	3.3	59.45	0.00	19.39	5.04	2.96	13.15	11
2001	30	221	7.680	7.608	0.072	3.3	58.40	0.00	19.05	4.95	4.67	12.92	12
2001	340	225	7.678	7.608	0.070	3.5	58.87	0.00	18.11	4.70	6.04	12.28	13
2001	178	253	7.677	7.608	0.069	3.8	60.30	0.00	17.08	4.44	6.59	11.59	14
2001	198	225	7.674	7.608	0.066	4.0	63.15	0.00	17.00	4.41	3.92	11.53	15
2001	113	241	7.674	7.608	0.066	2.7	51.28	0.00	20.45	5.31	9.09	13.87	16
2001	123	278	7.671	7.608	0.063	3.3	58.68	0.00	19.14	4.97	4.22	12.98	17
2001	307	278	7.669	7.608	0.061	3.3	57.97	0.00	18.91	4.91	5.37	12.83	18
2001	56	258	7.668	7.608	0.060	3.1	55.04	0.00	19.11	4.97	7.92	12.96	19
2001	293	278	7.657	7.608	0.049	3.8	60.92	0.00	17.26	4.48	5.62	11.71	20
2002	223	221	7.837	7.608	0.229	4.2	64.21	0.00	16.46	4.28	3.89	11.16	1
2002	51	225	7.752	7.608	0.144	3.1	57.20	0.00	19.86	5.16	4.30	13.47	2
2002	222	239	7.735	7.608	0.127	4.2	64.32	0.00	16.49	4.28	3.73	11.18	3
2002	148	270	7.706	7.608	0.098	3.3	58.53	0.00	19.10	4.96	4.46	12.95	4
2002	235	221	7.702	7.608	0.093	4.2	63.67	0.00	16.32	4.24	4.70	11.07	5
2002	99	270	7.695	7.608	0.087	2.7	53.82	0.00	21.46	5.57	4.60	14.55	6
2002	224	225	7.686	7.608	0.078	4.2	64.92	0.00	16.64	4.32	2.83	11.29	7
2002	226	225	7.679	7.608	0.071	4.2	64.06	0.00	16.42	4.27	4.12	11.14	8
2002	47	221	7.677	7.608	0.069	3.1	55.76	0.00	19.37	5.03	6.71	13.13	9
2002	227	258	7.674	7.608	0.066	4.2	64.65	0.00	16.57	4.30	3.23	11.24	10
2002	225	221	7.667	7.608	0.059	4.2	65.02	0.00	16.67	4.33	2.68	11.30	11
2002	298	239	7.658	7.608	0.050	3.8	60.52	0.00	17.15	4.45	6.25	11.63	12
2002	263	270	7.658	7.608	0.050	4.2	63.78	0.00	16.35	4.25	4.54	11.09	13
2002	276	239	7.656	7.608	0.048	3.8	61.54	0.00	17.43	4.53	4.67	11.82	14
2002	163	310	7.656	7.608	0.048	3.8	61.37	0.00	17.39	4.52	4.93	11.79	15
2002	100	225	7.655	7.608	0.047	2.7	52.85	0.00	21.07	5.47	6.30	14.29	16
2002	190	317	7.654	7.608	0.046	4.0	62.40	0.00	16.79	4.36	5.05	11.39	17
2002	319	221	7.649	7.608	0.041	3.3	60.17	0.00	19.63	5.10	1.78	13.31	18
2002	115	239	7.647	7.608	0.039	2.7	53.38	0.00	21.28	5.53	5.38	14.43	19
2002	277	278	7.646	7.608	0.037	3.8	61.79	0.00	17.50	4.55	4.29	11.87	20
2003	258	269	7.811	7.608	0.203	4.2	63.91	0.00	16.38	4.26	4.35	11.11	1
2003	122	223	7.768	7.608	0.160	3.3	57.51	0.00	18.76	4.87	6.13	12.72	2
2003	245	239	7.755	7.608	0.147	4.2	63.50	0.00	16.28	4.23	4.95	11.04	3
2003	331	286	7.740	7.608	0.132	3.3	56.69	0.00	18.49	4.80	7.47	12.54	4
2003	226	253	7.722	7.608	0.114	4.2	62.58	0.00	16.04	4.17	6.34	10.88	5
2003	291	317	7.689	7.608	0.081	3.8	62.56	0.00	17.72	4.60	3.09	12.02	6
2003	246	253	7.688	7.608	0.079	4.2	62.96	0.00	16.14	4.19	5.76	10.95	7
2003	270	239	7.685	7.608	0.077	4.2	64.50	0.00	16.53	4.29	3.46	11.21	8
2003	304	270	7.682	7.608	0.074	3.8	62.04	0.00	17.58	4.57	3.90	11.92	9
2003	323	222	7.678	7.608	0.070	3.3	57.88	0.00	18.88	4.90	5.53	12.81	10
2003	305	310	7.677	7.608	0.069	3.8	60.69	0.00	17.19	4.47	5.99	11.66	11
2003	299	221	7.675	7.608	0.067	3.8	61.96	0.00	17.55	4.56	4.02	11.90	12
2003	234	270	7.670	7.608	0.062	4.2	62.89	0.00	16.12	4.19	5.87	10.93	13
2003	363	270	7.660	7.608	0.052	3.5	57.95	0.00	17.83	4.63	7.50	12.09	14
2003	106	225	7.660	7.608	0.052	2.7	53.55	0.00	21.35	5.55	5.07	14.48	15
2003	61	258	7.660	7.608	0.052	2.9	52.52	0.00	19.50	5.06	9.69	13.22	16
2003	309	258	7.659	7.608	0.051	3.3	56.27	0.00	18.36	4.77	8.15	12.45	17
2003	271	258	7.656	7.608	0.048	4.2	64.46	0.00	16.52	4.29	3.52	11.21	18
2003	300	258	7.655	7.608	0.047	3.8	60.01	0.00	17.00	4.42	7.04	11.53	19
2003	89	248	7.653	7.608	0.045	2.9	53.42	0.00	19.83	5.15	8.14	13.45	20

Ranked Daily Visibility Change for Joyce Kilmer (Top 25 Days Over Three Years)

							% of Modeled Extinction by Species					
YEAR	DAY	REC	DV(Total)	DV(BKG)	DELTA DV	F(RH)	% SO4	% NO3	% OC	% EC	% PMC	% PMF	Ranking
2002	223	221	7.837	7.608	0.229	4.2	64.21	0.00	16.46	4.28	3.89	11.16	1
2003	258	269	7.811	7.608	0.203	4.2	63.91	0.00	16.38	4.26	4.35	11.11	2
2001	327	225	7.785	7.608	0.176	3.3	58.03	0.00	18.93	4.92	5.28	12.84	3
2003	122	223	7.768	7.608	0.160	3.3	57.51	0.00	18.76	4.87	6.13	12.72	4
2001	179	239	7.766	7.608	0.158	3.8	61.56	0.00	17.44	4.53	4.64	11.83	5
2003	245	239	7.755	7.608	0.147	4.2	63.50	0.00	16.28	4.23	4.95	11.04	6
2002	51	225	7.752	7.608	0.144	3.1	57.20	0.00	19.86	5.16	4.30	13.47	7
2001	36	221	7.740	7.608	0.132	3.1	56.74	0.00	19.70	5.12	5.08	13.36	8
2003	331	286	7.740	7.608	0.132	3.3	56.69	0.00	18.49	4.80	7.47	12.54	9
2002	222	239	7.735	7.608	0.127	4.2	64.32	0.00	16.49	4.28	3.73	11.18	10
2001	121	221	7.723	7.608	0.115	2.7	53.99	0.00	21.53	5.59	4.29	14.60	11
2003	226	253	7.722	7.608	0.114	4.2	62.58	0.00	16.04	4.17	6.34	10.88	12
2002	148	270	7.706	7.608	0.098	3.3	58.53	0.00	19.10	4.96	4.46	12.95	13
2001	199	221	7.702	7.608	0.094	4.0	63.41	0.00	17.07	4.43	3.51	11.57	14
2002	235	221	7.702	7.608	0.093	4.2	63.67	0.00	16.32	4.24	4.70	11.07	15
2001	129	270	7.697	7.608	0.089	3.3	58.11	0.00	18.96	4.92	5.15	12.86	16
2001	358	239	7.696	7.608	0.088	3.5	59.62	0.00	18.34	4.76	4.84	12.44	17
2002	99	270	7.695	7.608	0.087	2.7	53.82	0.00	21.46	5.57	4.60	14.55	18
2001	286	225	7.694	7.608	0.086	3.8	61.83	0.00	17.52	4.55	4.22	11.88	19
2001	306	278	7.691	7.608	0.083	3.3	56.73	0.00	18.51	4.81	7.40	12.55	20
2001	229	248	7.691	7.608	0.083	4.2	62.71	0.00	16.07	4.18	6.13	10.90	21
2001	27	225	7.689	7.608	0.081	3.3	59.45	0.00	19.39	5.04	2.96	13.15	22
2003	291	317	7.689	7.608	0.081	3.8	62.56	0.00	17.72	4.60	3.09	12.02	23
2003	246	253	7.688	7.608	0.079	4.2	62.96	0.00	16.14	4.19	5.76	10.95	24
2002	224	225	7.686	7.608	0.078	4.2	64.92	0.00	16.64	4.32	2.83	11.29	25

Ranked Daily Visibility Change for Shining Rock (Top 20 Days for Each Year)

							% of Modeled Extinction by Species					
YEAR	DAY	REC	DV(Total)	DV(BKG)	DELTA DV	F(RH)	% SO4	% NO3	% OC	% EC	% PMC	% PMF	Ranking
2001	333	1087	7.751	7.608	0.143	3.3	55.76	0	18.19	4.73	8.99	12.34	1
2001	40	1058	7.749	7.608	0.141	3	54.6	0	19.59	5.09	7.43	13.29	2
2001	297	1059	7.732	7.608	0.124	3.8	60.09	0	17.02	4.42	6.92	11.55	3
2001	181	1068	7.724	7.608	0.116	3.9	61.27	0	16.91	4.39	5.96	11.47	4
2001	179	1068	7.71	7.608	0.102	3.9	60.1	0	16.59	4.31	7.74	11.25	5
2001	123	1062	7.702	7.608	0.094	3.4	59.47	0	18.83	4.89	4.04	12.77	6
2001	114	1117	7.7	7.608	0.092	2.7	51.26	0	20.44	5.31	9.12	13.86	7
2001	220	1061	7.691	7.608	0.083	4.5	65.13	0	15.58	4.05	4.68	10.57	8
2001	327	1063	7.685	7.608	0.077	3.3	56.79	0	18.53	4.81	7.3	12.57	9
2001	51	1165	7.676	7.608	0.068	3	56.2	0	20.17	5.24	4.72	13.68	10
2001	41	1118	7.673	7.608	0.065	3	54.3	0	19.49	5.06	7.93	13.22	11
2001	122	1087	7.671	7.608	0.063	3.4	60.2	0	19.06	4.95	2.85	12.93	12
2001	340	1058	7.67	7.608	0.062	3.4	56.42	0	17.86	4.64	8.96	12.12	13
2001	199	1117	7.67	7.608	0.062	4.1	64.23	0	16.86	4.38	3.09	11.44	14
2001	12	1068	7.67	7.608	0.061	3.3	55.63	0	18.15	4.71	9.2	12.31	15
2001	334	1118	7.667	7.608	0.059	3.3	56.94	0	18.57	4.82	7.07	12.6	16
2001	180	1087	7.667	7.608	0.059	3.9	61.88	0	17.08	4.44	5.01	11.59	17
2001	332	1062	7.663	7.608	0.055	3.3	55.77	0	18.19	4.73	8.98	12.34	18
2001	141	1087	7.66	7.608	0.052	3.4	57.99	0	18.36	4.77	6.43	12.45	19
2001	182	1087	7.653	7.608	0.045	3.9	61.59	0	17	4.42	5.45	11.53	20
2002	89	1063	7.773	7.608	0.165	2.9	54.35	0	20.18	5.24	6.55	13.68	1
2002	320	1117	7.75	7.608	0.142	3.3	57.15	0	18.64	4.84	6.72	12.64	2
2002	229	1062	7.717	7.608	0.109	4.5	65.12	0	15.58	4.05	4.69	10.57	3
2002	313	1063	7.703	7.608	0.094	3.3	59.43	0	19.39	5.04	3	13.15	4
2002	293	1059	7.697	7.608	0.089	3.8	60.26	0	17.07	4.43	6.66	11.58	5
2002	227	1062	7.694	7.608	0.086	4.5	65.19	0	15.6	4.05	4.58	10.58	6
2002	105	1058	7.682	7.608	0.074	2.7	51.65	0	20.59	5.35	8.44	13.97	7
2002	86	1058	7.683	7.608	0.074	2.9	53.43	0	19.83	5.15	8.14	13.45	8
2003	1	1117	7.676	7.608	0.068	3.4	57.22	0	18.12	4.71	7.67	12.29	9
2002	137	1058	7.676	7.608	0.068	3.4	59.17	0	18.74	4.87	4.51	12.71	10
2002	226	1117	7.673	7.608	0.065	4.5	65.62	0	15.7	4.08	3.95	10.65	11
2002	223	1117	7.672	7.608	0.064	4.5	66.6	0	15.93	4.14	2.53	10.81	12
2002	51	1118	7.668	7.608	0.06	3	54.59	0	19.59	5.09	7.45	13.29	13
2002	224	1117	7.666	7.608	0.058	4.5	66.66	0	15.95	4.14	2.42	10.82	14
2002	93	1062	7.666	7.608	0.058	2.7	53.54	0	21.35	5.54	5.09	14.48	15
2002	15	1087	7.663	7.608	0.055	3.3	56.43	0	18.41	4.78	7.88	12.49	16
2002	225	1063	7.659	7.608	0.051	4.5	66.61	0	15.94	4.14	2.51	10.81	17
2002	278	1088	7.658	7.608	0.05	3.8	62.79	0	17.79	4.62	2.74	12.06	18
2002	74	1118	7.658	7.608	0.05	2.9	53.58	0	19.89	5.17	7.86	13.49	19
2002	236	1068	7.654	7.608	0.046	4.5	65.85	0	15.75	4.09	3.61	10.68	20
2003	351	1117	7.855	7.608	0.247	3.4	57.75	0	18.29	4.75	6.81	12.4	1
2003	106	1064	7.761	7.608	0.153	2.7	52.15	0	20.79	5.4	7.55	14.1	2
2003	288	1066	7.729	7.608	0.121	3.8	59.5	0	16.86	4.38	7.83	11.43	3
2003	107	1104	7.721	7.608	0.113	2.7	51.77	0	20.64	5.36	8.23	14	4
2003	344	1062	7.719	7.608	0.111	3.4	60.17	0	19.05	4.95	2.9	12.92	5
2003	328	1068	7.712	7.608	0.103	3.3	56.51	0	18.44	4.79	7.75	12.5	6
2003	291	1062	7.701	7.608	0.093	3.8	60.04	0	17.01	4.42	7	11.54	7
2003	331	1118	7.698	7.608	0.09	3.3	56.83	0	18.54	4.82	7.24	12.57	8
2003	142	1058	7.689	7.608	0.081	3.4	57.03	0	18.06	4.69	7.98	12.25	9
2003	111	1062	7.685	7.608	0.077	2.7	51.03	0	20.35	5.29	9.53	13.8	10
2003	247	1066	7.681	7.608	0.073	4.4	65.07	0	15.92	4.14	4.07	10.8	11
2003	316	1062	7.678	7.608	0.07	3.3	58.53	0	19.09	4.96	4.47	12.95	12
2003	271	1059	7.677	7.608	0.069	4.4	63.37	0	15.51	4.03	6.58	10.52	13
2003	242	1058	7.676	7.608	0.068	4.5	64.78	0	15.5	4.03	5.18	10.51	14
2003	178	1062	7.668	7.608	0.06	3.9	62.13	0	17.15	4.46	4.62	11.63	15
2003	358	1062	7.665	7.608	0.057	3.4	56.89	0	18.01	4.68	8.2	12.22	16
2003	170	1080	7.663	7.608	0.055	3.9	59.56	0	16.44	4.27	8.58	11.15	17
2003	17	1063	7.659	7.608	0.051	3.3	57.17	0	18.65	4.84	6.69	12.65	18
2003	364	1117	7.656	7.608	0.048	3.4	57.22	0	18.12	4.71	7.66	12.29	19
2003	329	1117	7.654	7.608	0.046	3.3	56.72	0	18.5	4.81	7.42	12.55	20

Ranked Daily Visibility Change for Shining Rock (Top 25 Days Over Three Years)

							% of Modeled Extinction by Species					
YEAR	DAY	REC	DV(Total)	DV(BKG)	DELTA DV	F(RH)	% SO4	% NO3	% OC	% EC	% PMC	% PMF	Ranking
2003	351	1117	7.855	7.608	0.247	3.4	57.75	0.00	18.29	4.75	6.81	12.40	1
2002	89	1063	7.773	7.608	0.165	2.9	54.35	0.00	20.18	5.24	6.55	13.68	2
2003	106	1064	7.761	7.608	0.153	2.7	52.15	0.00	20.79	5.40	7.55	14.10	3
2001	333	1087	7.751	7.608	0.143	3.3	55.76	0.00	18.19	4.73	8.99	12.34	4
2002	320	1117	7.750	7.608	0.142	3.3	57.15	0.00	18.64	4.84	6.72	12.64	5
2001	40	1058	7.749	7.608	0.141	3.0	54.60	0.00	19.59	5.09	7.43	13.29	6
2001	297	1059	7.732	7.608	0.124	3.8	60.09	0.00	17.02	4.42	6.92	11.55	7
2003	288	1066	7.729	7.608	0.121	3.8	59.50	0.00	16.86	4.38	7.83	11.43	8
2001	181	1068	7.724	7.608	0.116	3.9	61.27	0.00	16.91	4.39	5.96	11.47	9
2003	107	1104	7.721	7.608	0.113	2.7	51.77	0.00	20.64	5.36	8.23	14.00	10
2003	344	1062	7.719	7.608	0.111	3.4	60.17	0.00	19.05	4.95	2.90	12.92	11
2002	229	1062	7.717	7.608	0.109	4.5	65.12	0.00	15.58	4.05	4.69	10.57	12
2003	328	1068	7.712	7.608	0.103	3.3	56.51	0.00	18.44	4.79	7.75	12.50	13
2001	179	1068	7.710	7.608	0.102	3.9	60.10	0.00	16.59	4.31	7.74	11.25	14
2001	123	1062	7.702	7.608	0.094	3.4	59.47	0.00	18.83	4.89	4.04	12.77	15
2002	313	1063	7.703	7.608	0.094	3.3	59.43	0.00	19.39	5.04	3.00	13.15	16
2003	291	1062	7.701	7.608	0.093	3.8	60.04	0.00	17.01	4.42	7.00	11.54	17
2001	114	1117	7.700	7.608	0.092	2.7	51.26	0.00	20.44	5.31	9.12	13.86	18
2003	331	1118	7.698	7.608	0.090	3.3	56.83	0.00	18.54	4.82	7.24	12.57	19
2002	293	1059	7.697	7.608	0.089	3.8	60.26	0.00	17.07	4.43	6.66	11.58	20
2002	227	1062	7.694	7.608	0.086	4.5	65.19	0.00	15.60	4.05	4.58	10.58	21
2001	220	1061	7.691	7.608	0.083	4.5	65.13	0.00	15.58	4.05	4.68	10.57	22
2003	142	1058	7.689	7.608	0.081	3.4	57.03	0.00	18.06	4.69	7.98	12.25	23
2001	327	1063	7.685	7.608	0.077	3.3	56.79	0.00	18.53	4.81	7.30	12.57	24
2003	111	1062	7.685	7.608	0.077	2.7	51.03	0.00	20.35	5.29	9.53	13.80	25

Ranked Daily Visibility Change for Okefenokee (Top 20 Days for Each Year)

							% of Modeled Extinction by Species						
YEAR	DAY	REC	DV(Total)	DV(BKG)	DELTA DV	F(RH)	% SO4	% NO3	% OC	% EC	% PMC	% PMF	Ranking
2001	356	1581	7.871	7.608	0.263	3.6	59.85	0.00	17.90	4.65	5.46	12.14	1
2001	365	1645	7.744	7.608	0.135	3.6	60.24	0.00	18.01	4.68	4.85	12.22	2
2001	109	1581	7.723	7.608	0.115	3.0	55.76	0.00	20.01	5.20	5.45	13.57	3
2001	270	1666	7.719	7.608	0.111	4.0	63.73	0.00	17.15	4.46	3.02	11.63	4
2001	33	1667	7.709	7.608	0.101	3.2	56.89	0.00	19.14	4.97	6.01	12.98	5
2001	269	1667	7.708	7.608	0.099	4.0	63.42	0.00	17.07	4.43	3.49	11.58	6
2001	144	1421	7.703	7.608	0.095	3.6	60.75	0.00	18.17	4.72	4.04	12.32	7
2001	29	1644	7.703	7.608	0.095	3.5	59.09	0.00	18.17	4.72	5.69	12.33	8
2001	291	1421	7.690	7.608	0.082	3.8	60.90	0.00	17.25	4.48	5.67	11.70	9
2001	176	1667	7.688	7.608	0.080	3.7	60.99	0.00	17.75	4.61	4.62	12.04	10
2001	314	1655	7.682	7.608	0.074	3.5	58.68	0.00	18.05	4.69	6.34	12.24	11
2001	35	1667	7.681	7.608	0.073	3.2	58.60	0.00	19.72	5.12	3.19	13.37	12
2001	59	1421	7.669	7.608	0.061	3.2	56.65	0.00	19.06	4.95	6.42	12.92	13
2001	116	1560	7.666	7.608	0.058	3.0	55.60	0.00	19.95	5.18	5.73	13.53	14
2001	68	1272	7.666	7.608	0.057	3.1	54.85	0.00	19.05	4.95	8.24	12.92	15
2001	86	1356	7.665	7.608	0.056	3.1	56.41	0.00	19.59	5.09	5.62	13.29	16
2001	10	1631	7.665	7.608	0.056	3.5	59.66	0.00	18.35	4.77	4.77	12.45	17
2001	4	1538	7.663	7.608	0.055	3.5	60.21	0.00	18.52	4.81	3.89	12.56	18
2002	1	1466	7.662	7.608	0.054	3.6	61.89	0.00	18.51	4.81	2.24	12.55	19
2001	355	1466	7.661	7.608	0.053	3.6	61.74	0.00	18.46	4.80	2.48	12.52	20
2002	45	1631	7.815	7.608	0.207	3.2	56.75	0.00	19.09	4.96	6.25	12.95	1
2002	2	1631	7.759	7.608	0.151	3.5	59.46	0.00	18.29	4.75	5.09	12.40	2
2002	361	1631	7.732	7.608	0.124	3.6	61.84	0.00	18.49	4.80	2.32	12.54	3
2002	328	1466	7.730	7.608	0.122	3.5	59.17	0.00	18.20	4.73	5.55	12.34	4
2002	5	1582	7.730	7.608	0.122	3.5	59.42	0.00	18.28	4.75	5.16	12.40	5
2002	334	1661	7.726	7.608	0.118	3.5	57.95	0.00	17.82	4.63	7.51	12.09	6
2002	65	1639	7.726	7.608	0.118	3.1	56.73	0.00	19.70	5.12	5.10	13.36	7
2002	17	1421	7.724	7.608	0.116	3.5	59.05	0.00	18.16	4.72	5.75	12.32	8
2002	199	1591	7.722	7.608	0.114	3.7	60.60	0.00	17.63	4.58	5.22	11.96	9
2002	167	1631	7.710	7.608	0.102	3.7	59.47	0.00	17.30	4.49	7.00	11.73	10
2002	155	1661	7.708	7.608	0.100	3.7	61.51	0.00	17.90	4.65	3.80	12.14	11
2002	333	1466	7.705	7.608	0.097	3.5	60.62	0.00	18.65	4.84	3.24	12.65	12
2002	219	1666	7.698	7.608	0.090	4.1	63.71	0.00	16.73	4.35	3.87	11.35	13
2002	201	1559	7.693	7.608	0.085	3.7	60.13	0.00	17.50	4.54	5.96	11.87	14
2002	318	1466	7.687	7.608	0.079	3.5	60.46	0.00	18.60	4.83	3.50	12.61	15
2002	95	1235	7.687	7.608	0.079	3.0	57.00	0.00	20.46	5.31	3.35	13.87	16
2002	82	1631	7.681	7.608	0.073	3.1	56.48	0.00	19.61	5.09	5.51	13.30	17
2002	352	1421	7.680	7.608	0.072	3.6	59.53	0.00	17.80	4.62	5.96	12.07	18
2002	337	1466	7.680	7.608	0.072	3.6	61.51	0.00	18.40	4.78	2.84	12.48	19
2002	362	1200	7.676	7.608	0.068	3.6	61.92	0.00	18.52	4.81	2.19	12.56	20
2003	325	1600	7.795	7.608	0.187	3.5	59.58	0.00	18.33	4.76	4.90	12.43	1
2003	25	1538	7.789	7.608	0.181	3.5	60.48	0.00	18.60	4.83	3.47	12.62	2
2003	12	1631	7.745	7.608	0.137	3.5	59.29	0.00	18.24	4.74	5.37	12.37	3
2003	15	1631	7.735	7.608	0.127	3.5	59.10	0.00	18.18	4.72	5.66	12.33	4
2003	16	1581	7.730	7.608	0.122	3.5	60.89	0.00	18.73	4.87	2.81	12.70	5
2003	37	1645	7.726	7.608	0.117	3.2	58.05	0.00	19.53	5.07	4.10	13.25	6
2003	289	1667	7.721	7.608	0.113	3.8	61.79	0.00	17.51	4.55	4.28	11.87	7
2003	343	1666	7.711	7.608	0.103	3.6	60.35	0.00	18.05	4.69	4.68	12.24	8
2003	341	1631	7.704	7.608	0.096	3.6	60.88	0.00	18.21	4.73	3.83	12.35	9
2003	360	1631	7.692	7.608	0.084	3.6	61.79	0.00	18.48	4.80	2.40	12.53	10
2003	63	1667	7.689	7.608	0.081	3.1	57.44	0.00	19.95	5.18	3.90	13.53	11
2003	103	1667	7.687	7.608	0.079	3.0	54.26	0.00	19.47	5.06	7.99	13.21	12
2003	279	1421	7.684	7.608	0.075	3.8	60.42	0.00	17.12	4.45	6.41	11.61	13
2003	312	1661	7.679	7.608	0.071	3.5	60.53	0.00	18.62	4.84	3.39	12.63	14
2003	149	1235	7.670	7.608	0.062	3.6	59.34	0.00	17.74	4.61	6.27	12.03	15
2003	70	1466	7.669	7.608	0.061	3.1	55.83	0.00	19.39	5.04	6.59	13.15	16
2003	45	1466	7.668	7.608	0.060	3.2	58.33	0.00	19.62	5.10	3.64	13.31	17
2003	361	1235	7.667	7.608	0.059	3.6	61.80	0.00	18.48	4.80	2.38	12.53	18
2003	84	1631	7.665	7.608	0.057	3.1	55.56	0.00	19.29	5.01	7.05	13.09	19
2003	26	1667	7.664	7.608	0.056	3.5	61.15	0.00	18.81	4.89	2.40	12.76	20

Ranked Daily Visibility Change for Okefenokee (Top 25 Days Over Three Years)

							% of Modeled Extinction by Species					
YEAR	DAY	REC	DV(Total)	DV(BKG)	DELTA DV	F(RH)	% SO4	% NO3	% OC	% EC	% PMC	% PMF	Ranking
2001	356	1581	7.871	7.608	0.263	3.6	59.85	0.00	17.90	4.65	5.46	12.14	1
2002	45	1631	7.815	7.608	0.207	3.2	56.75	0.00	19.09	4.96	6.25	12.95	2
2003	325	1600	7.795	7.608	0.187	3.5	59.58	0.00	18.33	4.76	4.90	12.43	3
2003	25	1538	7.789	7.608	0.181	3.5	60.48	0.00	18.60	4.83	3.47	12.62	4
2002	2	1631	7.759	7.608	0.151	3.5	59.46	0.00	18.29	4.75	5.09	12.40	5
2003	12	1631	7.745	7.608	0.137	3.5	59.29	0.00	18.24	4.74	5.37	12.37	6
2001	365	1645	7.744	7.608	0.135	3.6	60.24	0.00	18.01	4.68	4.85	12.22	7
2003	15	1631	7.735	7.608	0.127	3.5	59.10	0.00	18.18	4.72	5.66	12.33	8
2002	361	1631	7.732	7.608	0.124	3.6	61.84	0.00	18.49	4.80	2.32	12.54	9
2002	328	1466	7.730	7.608	0.122	3.5	59.17	0.00	18.20	4.73	5.55	12.34	10
2002	5	1582	7.730	7.608	0.122	3.5	59.42	0.00	18.28	4.75	5.16	12.40	11
2003	16	1581	7.730	7.608	0.122	3.5	60.89	0.00	18.73	4.87	2.81	12.70	12
2002	334	1661	7.726	7.608	0.118	3.5	57.95	0.00	17.82	4.63	7.51	12.09	13
2002	65	1639	7.726	7.608	0.118	3.1	56.73	0.00	19.70	5.12	5.10	13.36	14
2003	37	1645	7.726	7.608	0.117	3.2	58.05	0.00	19.53	5.07	4.10	13.25	15
2002	17	1421	7.724	7.608	0.116	3.5	59.05	0.00	18.16	4.72	5.75	12.32	16
2001	109	1581	7.723	7.608	0.115	3.0	55.76	0.00	20.01	5.20	5.45	13.57	17
2002	199	1591	7.722	7.608	0.114	3.7	60.60	0.00	17.63	4.58	5.22	11.96	18
2003	289	1667	7.721	7.608	0.113	3.8	61.79	0.00	17.51	4.55	4.28	11.87	19
2001	270	1666	7.719	7.608	0.111	4.0	63.73	0.00	17.15	4.46	3.02	11.63	20
2003	343	1666	7.711	7.608	0.103	3.6	60.35	0.00	18.05	4.69	4.68	12.24	21
2002	167	1631	7.710	7.608	0.102	3.7	59.47	0.00	17.30	4.49	7.00	11.73	22
2001	33	1667	7.709	7.608	0.101	3.2	56.89	0.00	19.14	4.97	6.01	12.98	23
2002	155	1661	7.708	7.608	0.100	3.7	61.51	0.00	17.90	4.65	3.80	12.14	24
2001	269	1667	7.708	7.608	0.099	4.0	63.42	0.00	17.07	4.43	3.49	11.58	25

Ranked Daily Visibility Change for Wolf Island (Top 20 Days for Each Year)

							% of Modeled Extinction by Species					
YEAR	DAY	REC	DV(Total)	DV(BKG)	DELTA DV	F(RH)	% SO4	% NO3	% OC	% EC	% PMC	% PMF	Ranking
2001	189	1697	7.755	7.58	0.175	3.7	61.27	0	17.83	4.63	4.18	12.09	1
2001	360	1669	7.751	7.58	0.171	3.5	58.41	0	17.97	4.67	6.77	12.19	2
2001	74	1697	7.714	7.58	0.134	3.1	54.93	0	19.08	4.96	8.1	12.94	3
2001	7	1696	7.711	7.58	0.131	3.4	57.76	0	18.29	4.75	6.8	12.4	4
2001	35	1697	7.705	7.58	0.125	3.1	56.26	0	19.54	5.08	5.87	13.25	5
2001	67	1668	7.704	7.58	0.124	3.1	57.41	0	19.94	5.18	3.96	13.52	6
2001	22	1668	7.691	7.58	0.111	3.4	58.18	0	18.42	4.79	6.12	12.49	7
2001	26	1668	7.69	7.58	0.11	3.4	57.44	0	18.19	4.72	7.31	12.33	8
2001	269	1668	7.687	7.58	0.107	4	62.26	0	16.76	4.35	5.27	11.36	9
2001	17	1691	7.674	7.58	0.094	3.4	58.76	0	18.61	4.83	5.18	12.62	10
2001	270	1685	7.665	7.58	0.085	4	64.13	0	17.26	4.48	2.42	11.71	11
2001	147	1668	7.659	7.58	0.079	3.3	59.35	0	19.36	5.03	3.13	13.13	12
2001	353	1668	7.657	7.58	0.077	3.5	60.6	0	18.64	4.84	3.28	12.64	13
2001	192	1697	7.657	7.58	0.077	3.7	60.32	0	17.55	4.56	5.66	11.9	14
2001	300	1696	7.649	7.58	0.069	3.7	60.59	0	17.63	4.58	5.24	11.96	15
2001	86	1696	7.642	7.58	0.062	3.1	57.94	0	20.12	5.23	3.07	13.65	16
2001	105	1668	7.64	7.58	0.06	3	55.73	0	20	5.19	5.51	13.56	17
2001	191	1696	7.638	7.58	0.058	3.7	61.79	0	17.98	4.67	3.37	12.19	18
2001	107	1668	7.635	7.58	0.055	3	56.15	0	20.15	5.23	4.8	13.67	19
2001	5	1696	7.634	7.58	0.055	3.4	59.08	0	18.71	4.86	4.67	12.69	20
2002	291	1696	7.842	7.58	0.262	3.7	61.51	0	17.9	4.65	3.81	12.14	1
2002	154	1697	7.713	7.58	0.133	3.7	61.29	0	17.83	4.63	4.15	12.09	2
2002	350	1690	7.694	7.58	0.114	3.5	59.11	0	18.18	4.72	5.65	12.33	3
2002	14	1685	7.684	7.58	0.104	3.4	58.38	0	18.49	4.8	5.8	12.54	4
2002	201	1685	7.681	7.58	0.101	3.7	60.82	0	17.7	4.6	4.88	12	5
2002	363	1668	7.658	7.58	0.078	3.5	59.42	0	18.28	4.75	5.15	12.4	6
2002	219	1685	7.658	7.58	0.078	4.1	62.72	0	16.47	4.28	5.37	11.17	7
2002	60	1669	7.657	7.58	0.077	3.1	56.48	0	19.62	5.1	5.5	13.3	8
2002	49	1696	7.656	7.58	0.076	3.1	57.57	0	19.99	5.19	3.69	13.56	9
2002	338	1697	7.655	7.58	0.075	3.5	59.61	0	18.34	4.76	4.85	12.44	10
2002	36	1691	7.649	7.58	0.069	3.1	57.22	0	19.87	5.16	4.27	13.48	11
2002	17	1685	7.647	7.58	0.067	3.4	58.47	0	18.51	4.81	5.65	12.56	12
2002	9	1674	7.647	7.58	0.067	3.4	58.07	0	18.39	4.78	6.3	12.47	13
2002	198	1697	7.643	7.58	0.063	3.7	60.39	0	17.57	4.56	5.56	11.92	14
2002	182	1697	7.639	7.58	0.059	3.7	59.14	0	17.21	4.47	7.5	11.67	15
2002	329	1697	7.632	7.58	0.052	3.5	60.85	0	18.72	4.86	2.87	12.69	16
2002	332	1696	7.63	7.58	0.05	3.5	60.27	0	18.54	4.82	3.8	12.57	17
2002	254	1685	7.629	7.58	0.049	4	63.3	0	17.04	4.43	3.68	11.55	18
2002	361	1685	7.623	7.58	0.043	3.5	59.78	0	18.39	4.78	4.58	12.47	19
2002	117	1668	7.622	7.58	0.042	3	56.98	0	20.45	5.31	3.39	13.87	20
2003	40	1685	7.743	7.58	0.163	3.1	57.1	0	19.83	5.15	4.47	13.45	1
2003	43	1696	7.739	7.58	0.159	3.1	54.92	0	19.07	4.95	8.11	12.94	2
2003	5	1691	7.737	7.58	0.157	3.4	59.57	0	18.86	4.9	3.87	12.79	3
2003	153	1668	7.68	7.58	0.1	3.7	61.26	0	17.82	4.63	4.2	12.09	4
2003	19	1669	7.672	7.58	0.092	3.4	57.31	0	18.14	4.71	7.53	12.31	5
2003	312	1697	7.667	7.58	0.088	3.5	58.55	0	18.01	4.68	6.55	12.21	6
2003	296	1668	7.667	7.58	0.087	3.7	61.03	0	17.76	4.61	4.56	12.04	7
2003	90	1675	7.666	7.58	0.086	3.1	58	0	20.14	5.23	2.97	13.66	8
2003	91	1696	7.66	7.58	0.08	3.1	56.98	0	19.79	5.14	4.67	13.42	9
2003	12	1668	7.657	7.58	0.077	3.4	59.02	0	18.69	4.85	4.76	12.67	10
2003	104	1697	7.655	7.58	0.075	3	54.43	0	19.53	5.07	7.71	13.25	11
2003	336	1696	7.652	7.58	0.072	3.5	60.15	0	18.5	4.81	3.99	12.55	12
2003	360	1668	7.648	7.58	0.068	3.5	59.53	0	18.31	4.76	4.99	12.42	13
2003	18	1696	7.643	7.58	0.063	3.4	60.58	0	19.18	4.98	2.24	13.01	14
2003	173	1697	7.642	7.58	0.062	3.7	60.16	0	17.5	4.55	5.92	11.87	15
2003	151	1668	7.641	7.58	0.061	3.3	56.13	0	18.31	4.76	8.38	12.42	16
2003	343	1691	7.64	7.58	0.06	3.5	59.95	0	18.44	4.79	4.32	12.51	17
2003	15	1669	7.64	7.58	0.06	3.4	59.08	0	18.71	4.86	4.66	12.69	18
2003	6	1668	7.64	7.58	0.06	3.4	59.27	0	18.77	4.88	4.35	12.73	19
2003	37	1669	7.637	7.58	0.057	3.1	55.29	0	19.2	4.99	7.51	13.02	20

Ranked Daily Visibility Change for Wolf Island (Top 25 Days Over Three Years)

							% of Modeled Extinction by Species					
YEAR	DAY	REC	DV(Total)	DV(BKG)	DELTA DV	F(RH)	% SO4	% NO3	% OC	% EC	% PMC	% PMF	Ranking
2002	291	1696	7.842	7.580	0.262	3.7	61.51	0	17.9	4.65	3.81	12.14	1
2001	189	1697	7.755	7.580	0.175	3.7	61.27	0	17.83	4.63	4.18	12.09	2
2001	360	1669	7.751	7.580	0.171	3.5	58.41	0	17.97	4.67	6.77	12.19	3
2003	40	1685	7.743	7.580	0.163	3.1	57.1	0	19.83	5.15	4.47	13.45	4
2003	43	1696	7.739	7.580	0.159	3.1	54.92	0	19.07	4.95	8.11	12.94	5
2003	5	1691	7.737	7.580	0.157	3.4	59.57	0	18.86	4.9	3.87	12.79	6
2001	74	1697	7.714	7.580	0.134	3.1	54.93	0	19.08	4.96	8.1	12.94	7
2002	154	1697	7.713	7.580	0.133	3.7	61.29	0	17.83	4.63	4.15	12.09	8
2001	7	1696	7.711	7.580	0.131	3.4	57.76	0	18.29	4.75	6.8	12.4	9
2001	35	1697	7.705	7.580	0.125	3.1	56.26	0	19.54	5.08	5.87	13.25	10
2001	67	1668	7.704	7.580	0.124	3.1	57.41	0	19.94	5.18	3.96	13.52	11
2002	350	1690	7.694	7.580	0.114	3.5	59.11	0	18.18	4.72	5.65	12.33	12
2001	22	1668	7.691	7.580	0.111	3.4	58.18	0	18.42	4.79	6.12	12.49	13
2001	26	1668	7.690	7.580	0.110	3.4	57.44	0	18.19	4.72	7.31	12.33	14
2001	269	1668	7.687	7.580	0.107	4.0	62.26	0	16.76	4.35	5.27	11.36	15
2002	14	1685	7.684	7.580	0.104	3.4	58.38	0	18.49	4.8	5.8	12.54	16
2002	201	1685	7.681	7.580	0.101	3.7	60.82	0	17.7	4.6	4.88	12	17
2003	153	1668	7.680	7.580	0.100	3.7	61.26	0	17.82	4.63	4.2	12.09	18
2001	17	1691	7.674	7.580	0.094	3.4	58.76	0	18.61	4.83	5.18	12.62	19
2003	19	1669	7.672	7.580	0.092	3.4	57.31	0	18.14	4.71	7.53	12.31	20
2003	312	1697	7.667	7.580	0.088	3.5	58.55	0	18.01	4.68	6.55	12.21	21
2003	296	1668	7.667	7.580	0.087	3.7	61.03	0	17.76	4.61	4.56	12.04	22
2003	90	1675	7.666	7.580	0.086	3.1	58	0	20.14	5.23	2.97	13.66	23
2001	270	1685	7.665	7.580	0.085	4.0	64.13	0	17.26	4.48	2.42	11.71	24
2003	91	1696	7.660	7.580	0.080	3.1	56.98	0	19.79	5.14	4.67	13.42	25