12.0 CONSIDERATION OF A NEW 8-HOUR OZONE HEALTH STANDARD

The Clean Air Act (42 U.S.C. §7409(b)(1)) requires the United States Environmental Protection Agency (USEPA) to set primary National Ambient Air Quality Standards (NAAQS) "…based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health." 42 U.S.C. §7409(d)1 further requires the USEPA to review and, if appropriate, revise the NAAQS for each criteria air pollutant every five years.

On January 31, 2007, the USEPA staff completed its review[1] of the NAAQS for ground-level ozone. The USEPA agreed to propose action to revise or retain the current ozone standards by June 20, 2007 and take final action by March 12, 2008. The USEPA staff recommended a revision to the 8-hour ozone primary standard level to a level in the range of 0.060 ppm to 0.080 ppm.

42 U.S.C. §7408(d)(2)(A) of the Clean Air Act further requires that decisions related to the NAAQS be reviewed by the Clean Air Scientific Advisory Committee (CASAC). The CASAC peer reviewed the USEPA staff recommendations and unanimously recommended that the current primary ozone NAAQS be revised to a level from 0.060 to 0.070 ppm. Both the USEPA staff recommendations for the 8-hour ozone primary and secondary standards, and CASAC recommendations after reviewing the USEPA's supporting documentation, are outlined in Table 12.1.

[1] USEPA. Review of the National Ambient Air Quality Standards for Ozone: Policy Assessment of Scientific and Technical Information - OAQPS Staff Paper. United States Environmental Protection Agency, Office of Air Quality Planning and Standards, January 2007.

Table 12.1: Proposed Changes to the 8-Hour Ozone Standard

Recommendation	USEPA	CASAC
Primary Standard		
Current primary ozone standard should be lowered from 0.08 ppm to no greater than 0.070 ppm.	X	X
The NAAQS should be specified to the third decimal place of the ppm scale to avoid any rounding issues.	X	X
It is not appropriate to consider retaining the current NAAQS.		X
Retain 8-hour averaging time and give consideration to retaining the form of the current standard.	X	
Margin of safety discussion should be added to the Final Ozone Staff Paper and taken into consideration in setting the primary ozone standard.		X
Secondary Standard		
Protection of managed agricultural crops and natural terrestrial ecosystems requires a secondary Ozone NAAQS that is substantially different from the primary ozone standard in averaging time, level and form.	X	X
Eliminate the daily maximum 8-hour average form for the secondary standard.	X	
Consider a form of the standard known as W126. This is a cumulative, weighted total of 12-hour (8 am – 8 pm) exposures over a 3-month period giving greater weight to exposures at higher levels of ozone.	X	X
Consider a range of levels from 21 down to 7 ppm-hrs (parts per million –hours) for W126.	X	
The lowest bound of the range within which a seasonal W126 welfare-based (secondary) ozone standard should be considered is 7.5 ppm-hrs; the upper bound of the range should not be as high as 21 ppm-hours.		X
The upper bound of the range considered should be no higher than 15 ppm-hour, which is estimated to be approximately equivalent to a seasonal 12-hour SUM06 level of 20 ppm-hours.		X
If multi-year averaging is employed to increase the stability of the secondary standard, the level of the standard should be revised downward to assure that the desired threshold is not exceeded in individual years.		X

Although the USEPA has not yet proposed its revisions to the 8-hour ozone primary and secondary standards, the health scientists indicate the revised standard must be lowered to adequately protect public health. Significant additional improvements, beyond those included in this SIP proposal, will be needed to bring the current ambient air quality levels through the New Jersey associated nonattainment areas (see Chapter 3) within the range recommended by CASAC and the USEPA staff.

As control measures and strategies are evaluated, consideration of longer-term strategies is critical to achieve further improvement in ozone air quality. These measures provide the regulated community certainty and time to identify the necessary funding to install control equipment, modify their products or usage patterns, and/or take other actions to implement pollution prevention strategies. As discussed in Section 5.4.6, an analysis of the 2012 modeling results (adjusted for transport, as discussed in Section 5.3.2) shows that with the implementation of additional measures beyond the 2010 attainment date the air quality in New Jersey and its associated nonattainment areas is expected to be equal to or better than 0.080 ppm (the upper range recommended by the USEPA staff), but not better than 0.070 ppm (the upper range recommended by the CASAC). The 2012 design values adjusted for transport are represented in Table 12.2. New Jersey is committed to

propose the implementation of longer-term measures with implementation dates beyond the 2010 attainment date. These measures, along with reductions in the emissions from upwind sources will enable healthier air as soon as practical.

Table 12.2: 2012 Adjusted Probable Modeling Results

Site Name - County, State	Site Number	Air Monitoring Data	Modeling Results Adjusted for Transport			
		2002 Modeling Baseline DV_B (ppb)	2012 DV_{AT} RRF Adjusted (ppb)	Upper and Lower Bound of 2012 DV_{AT} (ppb)		
NNJ/NY/CT Nonattainment Area						
Teaneck - BERGEN CO, NJ	340030005	91	75	78	-	72
Bayonne - HUDSON, NJ	340170006	84	70	73	-	67
Flemington - HUNTERDON, NJ	340190001	95	69	72	-	66
Rutgers Univ. - MIDDLESEX CO, NJ	340230011	96	70	73	-	67
Monmouth Univ. - MONMOUTH CO, NJ	340250005	95	72	75	-	69
Chester - MORRIS CO, NJ	340273001	95	70	73	-	67
Ramapo - PASSAIC CO, NJ	340315001	86	66	69	-	63
Botanical Garden - BRONX CO, NY	360050083	83	70	73	-	67
Queens College - QUEENS CO, NY	360810124	83	65	68	-	61
Susan Wagner - RICHMOND CO, NY	360850067	93	73	76	-	70
Babylon - SUFFOLK CO, NY	361030002	93	76	79	-	73
Holtsville - SUFFOLK CO, NY	361030009	97	80	83	-	77
Riverhead - SUFFOLK CO, NY	361030004	83	63	66	-	60
White Plains - WESTCHESTER CO, NY	361192004	91	77	80	-	74
Danbury - FAIRFIELD CO, CT	90011123	95	73	76	-	70
Greenwich - FAIRFIELD CO, CT	90010017	95	76	79	-	73
Stratford - FAIRFIELD CO, CT	90013007	98	79	82	-	76
Westport - FAIRFIELD CO, CT	90019003	94	74	77	-	71
Middletown - MIDDLESEX CO, CT	90070007	95	72	75	-	69
Hamden - NEW HAVEN CO, CT	90099005	93	74	77	-	71
Madison - NEW HAVEN CO, CT	90093002	98	75	78	-	72
SNJ/Phila. Nonattainment Area						
Fairhill - CECIL CO, MD	240150003	97	63	66	-	60
Brandywine Creek - NEW CASTLE CO, DE	100031010	92	67	70	-	64
Bellefonte - NEW CASTLE CO, DE	100031013	90	65	68	-	62
Killens Pond - KENT CO, DE	100010002	88	66	69	-	63
Lewes - SUSSEX CO, DE	100051003	87	67	70	-	64
Lums Pond - NEW CASTLE CO, DE	100031007	94	63	66	-	60
Seaford - SUSSEX CO, DE	100051002	90	60	63	-	56
Bristol - BUCKS CO, PA	420170012	99	76	79	-	73
West Chester - CHESTER CO, PA	420290050	95	68	71	-	64
New Garden - CHESTER CO, PA	420290100	94	62	65	-	59
Chester - DELAWARE CO, PA	420450002	91	69	72	-	66
Norristown - MONTGOMERY CO, PA	420910013	92	69	72	-	66
Elmwood - PHILADELPHIA CO, PA	421010136	83	65	68	-	61
Lab - PHILADELPHIA CO, PA	421010004	71	55	58	-	52
Roxborough - PHILADELPHIA CO, PA	421010014	90	71	74	-	68
Northeast Airport - PHILADELPHIA CO, PA	421010024	96	74	77	-	71
Colliers Mills - OCEAN CO, NJ	340290006	106	76	79	-	72
Rider - MERCER CO, NJ	340210005	97	73	76	-	69
Ancora State Hospital - CAMDEN CO, NJ	340071001	100	72	75	-	69
Camden - CAMDEN CO, NJ	340070003	98	75	78	-	72
Clarksboro - GLOUCESTER CO, NJ	340155001	98	75	78	-	72
Millville - CUMBERLAND CO, NJ	340110007	95	64	67	-	61
Nacote Creek - ATLANTIC CO, NJ	340010005	89	65	68	-	61

NOTE: Highlighted sites are the controlling monitors in each nonattainment area