

September 28, 2015

Janet McCabe
Acting Assistant Administrator
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Mail Code 6101A
Washington D.C. 20460

Re: EPA-HQ-OAR-2015-0468 - Reclassification of Connecticut for failing to attain the 2008 Ozone National Ambient Air Quality Standard

Dear Administrator McCabe:

On August 27th EPA published a proposed rule¹ with respect to the 2008 8-hour ozone national ambient air quality standard (NAAQS) which, among other things, determines that both the Greater Connecticut marginal nonattainment area and the Southwest Connecticut portion of the greater New York (NY-NJ-CT) marginal nonattainment area failed to attain the ozone NAAQS by July 20, 2015 and as such must be reclassified by operation of law to moderate nonattainment with a new attainment date of July 20, 2018.

Connecticut's Department of Energy and Environmental Protection (Department) appreciates the legal framework of the federal Clean Air Act, and of section 181(b)(2)(A) in particular, drives this proposed action. However, EPA and its implementation of the Clean Air Act are failing to comprehensively address in a timely manner the root cause of Connecticut's' persistent ozone problem – overwhelming interstate transport.

Connecticut's coastal ozone monitors have been the epicenter for the vast majority of ozone season exceedances in the Northeastern United States this year (see the Attachment). Many of these monitors are sited on Long Island Sound well south of Interstate 95 and generally upwind of any significant emission sources in Connecticut on high ozone days. EPA's latest modeling² bears this fact out with results indicating 94% of peak ozone levels at the Westport Sherwood Island State Park ozone monitor (EPA site number 09-001-9003, which is also Connecticut's highest reading ozone monitor) are caused by non-Connecticut sources *and* this same EPA modeling projects Connecticut will continue to violate the 2008 ozone NAAQS in 2017 based on already adopted programs. Adding to this unfair burden, EPA expects – and the CAA demands – that Connecticut develop an attainment demonstration accompanied by a litany of new and

¹ 80 Fed. Reg. 51992 (August 27, 2015)

² EPA's July 2015 modeling is documented at: <http://www3.epa.gov/airtransport/ozonetransportNAAQS.html>

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revised regulatory requirements that multiple rounds of photochemical grid screening modeling conducted by modeling centers within the Ozone Transport Region have determined will not bring Connecticut into attainment.

Regardless of the impact of interstate air pollution transport on Connecticut, the Department nonetheless recognizes that EPA's most recent modeling indicates that Connecticut sources contribute as much as 14% to in-state ozone levels and furthermore, may impact downwind states under a strengthened ozone standard. The Department commits to work with its sources to limit Connecticut's impact on itself and its downwind neighbors. Furthermore, the Department will also continue to work with the other states in the NY-NJ-CT nonattainment area to craft a pathway to attainment predicated on EPA assuring the upwind states fulfill their good neighbor obligations by eliminating their significant contribution to our air shed.

I urge EPA to assure the upwind states fully meet their good neighbor obligations in time for Connecticut to meet its 2008 ozone NAAQS obligations by 2017. I also urge EPA to make it a priority to supplement its photochemical modeling effort with in-depth scientific research to better understand and characterize the nature of the ozone problem over Long Island Sound. There is insufficient research being done to accurately reflect the transport dynamics associated with the confluence of emissions from major urban corridors over Long Island Sound and its impact on Connecticut's coastal population.

Sincerely yours,



Anne R. Gobin, Chief
Bureau of Air Management

Encl.

CC: Dave Conroy, EPA Region 1
Docket ID No. EPA-OAR-2015-0468

Attachment

Connecticut Department of Energy and Environmental Protection Comments on EPA's Proposed Determinations for Marginal Nonattainment Areas for the 2008 Ozone Standard

Summary of EPA's Proposed Rulemaking

On August 27, 2015, the Environmental Protection Agency (EPA) published a proposal, pursuant to Clean Air Act (CAA) §181(b)(2), to determine whether areas classified as marginal for the 2008 ozone national ambient air quality standard (NAAQS) attained the standard by the required marginal attainment date of July 20, 2015. EPA is required to finalize its determination within 6 months of the required attainment date (i.e., by January 20, 2016).

EPA's proposal addresses the attainment status of 36 marginal nonattainment areas located throughout the country. Based on a review of certified 2014 ozone design values (DV), EPA proposed to determine that:

- 17 marginal areas attained the 2008 ozone NAAQS by the required attainment date;
- 8 marginal areas qualified and should be granted 1-year attainment date extensions under CAA §181(a)(5) and 40 CFR 51.1107;
- 11 areas failed to attain the 2008 ozone NAAQS by the required marginal attainment date and, in accordance with CAA 181(b)(2)(A), must be reclassified ("bumped-up") to moderate nonattainment status¹ with a new attainment deadline of July 20, 2018.

As shown in Figure 1, Connecticut is divided into two marginal nonattainment areas. The southwestern portion of the state is part of the New York-Northern New Jersey-Long Island (NY-NJ-CT) area. The remainder of the state comprises the Greater Connecticut area. Both areas have violating 2014 ozone DV, resulting in their inclusion among the areas proposed by EPA for bump-up to moderate classification.

For areas subject to bump-up, EPA is proposing to use the discretion allowed by CAA §182(i) to adjust the statutory deadlines for affected states to submit required State Implementation Plan (SIP) revisions. EPA's goal is to align the SIP due date with the 40 CFR 51.1108(d) requirement that all control measures needed for attainment be implemented no later than the beginning of the ozone season in the required (i.e., 2017) attainment year. EPA's proposal also notes that it considers a period of "at least approximately 1 year after the reclassification is finalized" as reasonable for states to develop and submit the required SIP revisions.

Based on the above, EPA requested comment on two options for SIP revision due dates:

- Option 1: SIP revisions would be due no later than the start of the 2017 ozone monitoring season for each affected state, as defined in 40 CFR 58 Appendix D (Section 4.1, Table D-3). Currently, for Connecticut, the ozone monitoring season start date is April 1st. However, EPA's pending proposed NAAQS revision changes the start date of the ozone monitoring season for some states. For Connecticut, the new start date would be March 1st. EPA notes that, if the EPA NAAQS revision is finalized prior to the bump-up proposal, any changes to the ozone season start date would impact the deadline for SIP revisions for bumped-up moderate areas. Thus, under Option

¹ SIP requirements for moderate nonattainment areas are described in EPA's SIP requirements rule ([80 FR 12264](#)).

1, Connecticut's moderate area SIP revisions would be due either April 1, 2017 or March 1, 2017, depending on the timing and content of EPA's final actions on the two proposals.

- Option 2: SIP revision due dates would be uniformly established as January 1, 2017 for all bumped-up areas. The January 1st date corresponds to the earliest ozone season start date for any of the affected states.

EPA's proposal also discusses a previous proposed rulemaking (79 FR 27830; May 15, 2014) for the NY-NJ-CT nonattainment area to rescind a clean data determination (CDD) for the 1997 NAAQS because EPA determined the area was no longer attaining that NAAQS. The May 2014 proposal included a SIP Call under CAA § 100(a)(5) requiring the three states to demonstrate how the area would re-attain the 1997 NAAQS as expeditiously as practicable. EPA also proposed an alternative option that would permit the states to respond by requesting the NY-NJ-CT area be reclassified as moderate for the 2008 NAAQS. Such a request would require the states to submit approvable attainment plans for the 2008 NAAQS (which would also be sufficient to demonstrate compliance with the less stringent 1997 NAAQS).

EPA notes that the current bump-up proposal, if finalized, would also result in a reclassification of the NY-NJ-CT area to a moderate classification for the 2008 NAAQS, with the requirement for the states to submit a moderate area attainment demonstration SIP. Although EPA is not taking final action on the CDD rescission and SIP Call, EPA indicates that the bump-up proposal would serve to satisfy the SIP call as proposed in May 2014.

Comments

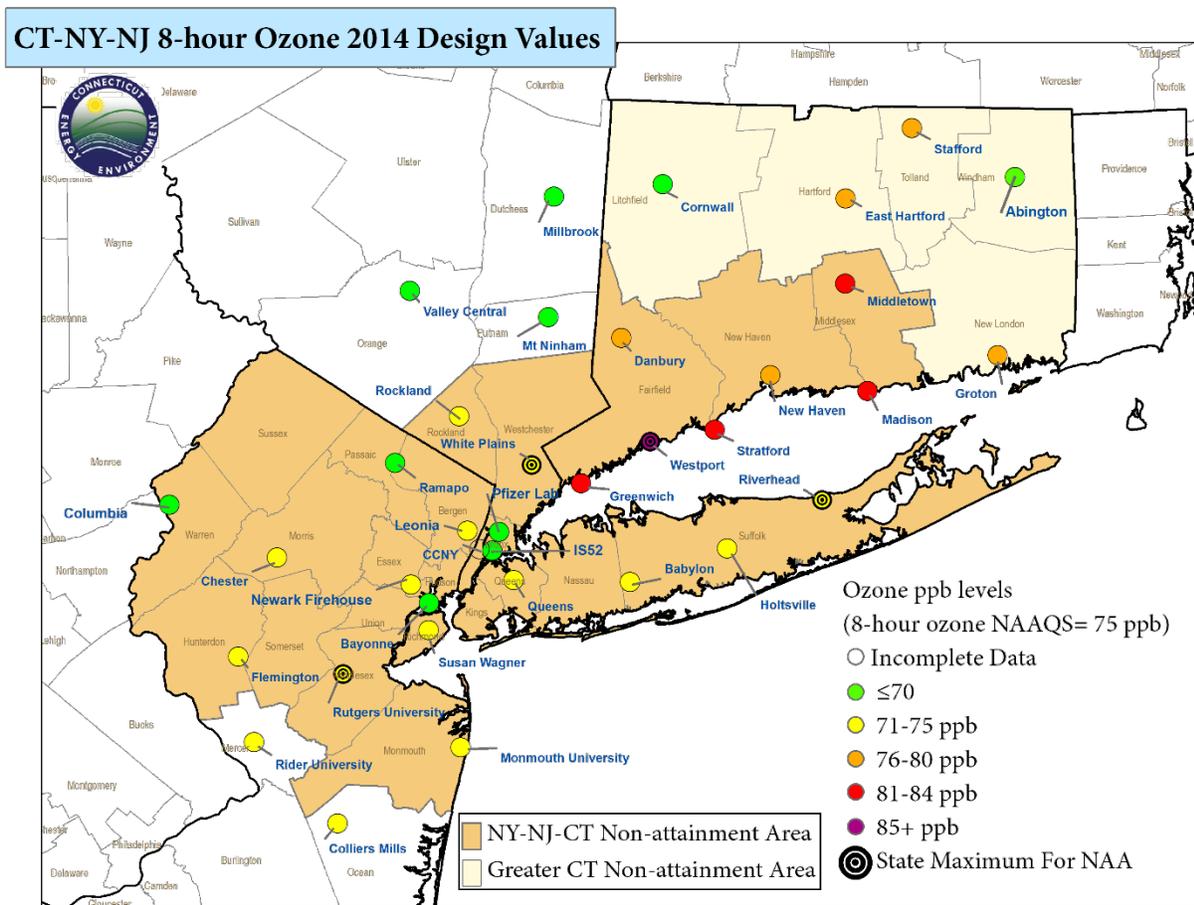
The Connecticut Department of Energy and Environmental Protection (Department) offers the following comments on EPA's proposal.

- 1) **Bump-up to moderate nonattainment:** The Department agrees that CAA § 181(b)(2) clearly requires EPA to evaluate whether nonattainment areas have attained the NAAQS by the required attainment date, and that areas (except for severe or extreme areas) determined not to attain on time must be bumped up to the appropriate higher classification. Therefore, based on 2014 DVs, both the NY-NJ-CT and the Greater Connecticut areas should be reclassified as moderate nonattainment areas. Nevertheless, as indicated in the cover letter for this attachment, and discussed in more detail below (Comment #4), both current measured ozone levels and available modeling projections indicate that Connecticut continues to be subject to overwhelming levels of interstate transport that make it impossible to achieve statewide attainment of the 2008 NAAQS by 2017 unless significant and timely reductions of transported emissions are provided by upwind states and EPA.
- 2) **SIP revisions due date:** The SIP development process is time consuming and resource intensive, requiring significant technical analyses with respect to air pollution control evaluations, emission estimations and multiple iterations of photochemical modeling, as well as allotting time for a lengthy regulation adoption process in Connecticut and a robust public review process that includes stakeholder meetings as well as formal public notice and comment periods. The Department continues to evaluate and pursue adoption of appropriate emission control measures (e.g., OTC measures, RACT, RACM) to address Connecticut's contribution to ozone levels both within the state and in downwind states. The 2-3 month difference in potential SIP due dates will not significantly alter the Department's ability to develop an approvable attainment demonstration for 2017. However, due to the continuing nature of the air pollution transport problem and the truncated ozone season compliance period, the Department prefers linking the SIP submittal deadline to the start of the ozone season, as described by EPA in the first option.

Regardless of when the submittal deadline is set, Connecticut will be extremely challenged to meet it.

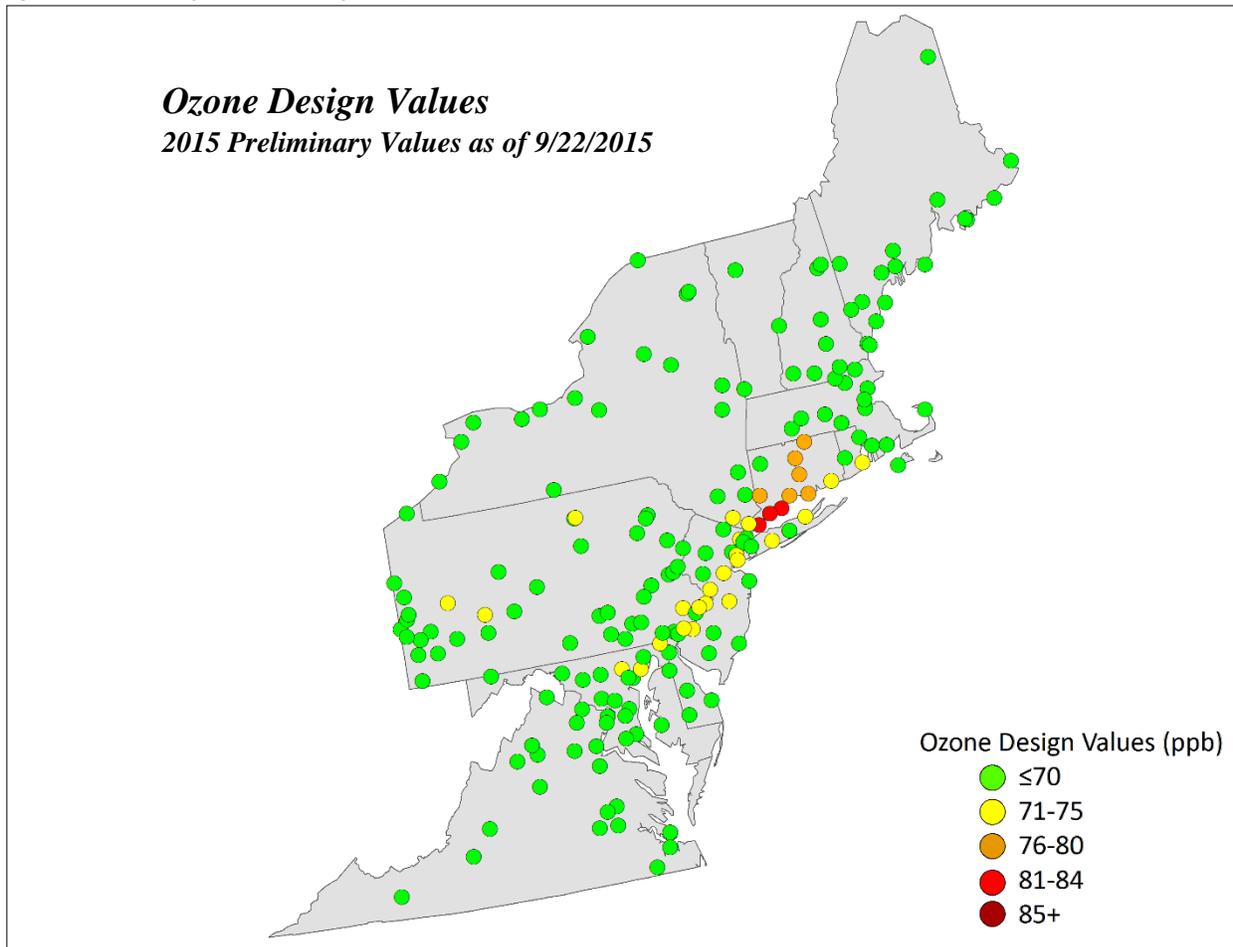
- 3) **Ozone Transport:** Compliance with the 2008 ozone NAAQS by 2017 in Connecticut is almost entirely dependent on securing significant and timely emission reductions from upwind states, as indicated by both current monitoring data and available modeling results. As depicted in Figure 1, Connecticut's highest 2014 design values occurred along the coastal boundary in the southwestern portion of the state. Preliminary 2015 design values are similar, with peak values measured at the Westport (84ppb), Stratford (82ppb) and Greenwich (81ppb) monitors along Connecticut's southwest coastline directly adjacent to Long Island Sound. Ozone levels along Connecticut's southwest coastline are higher than at any other monitoring location in the northeast United States, as shown in Figure 2 based on preliminary 2015 design values.

Figure 1. Connecticut's Marginal Non-Attainment Areas 2014 DVs



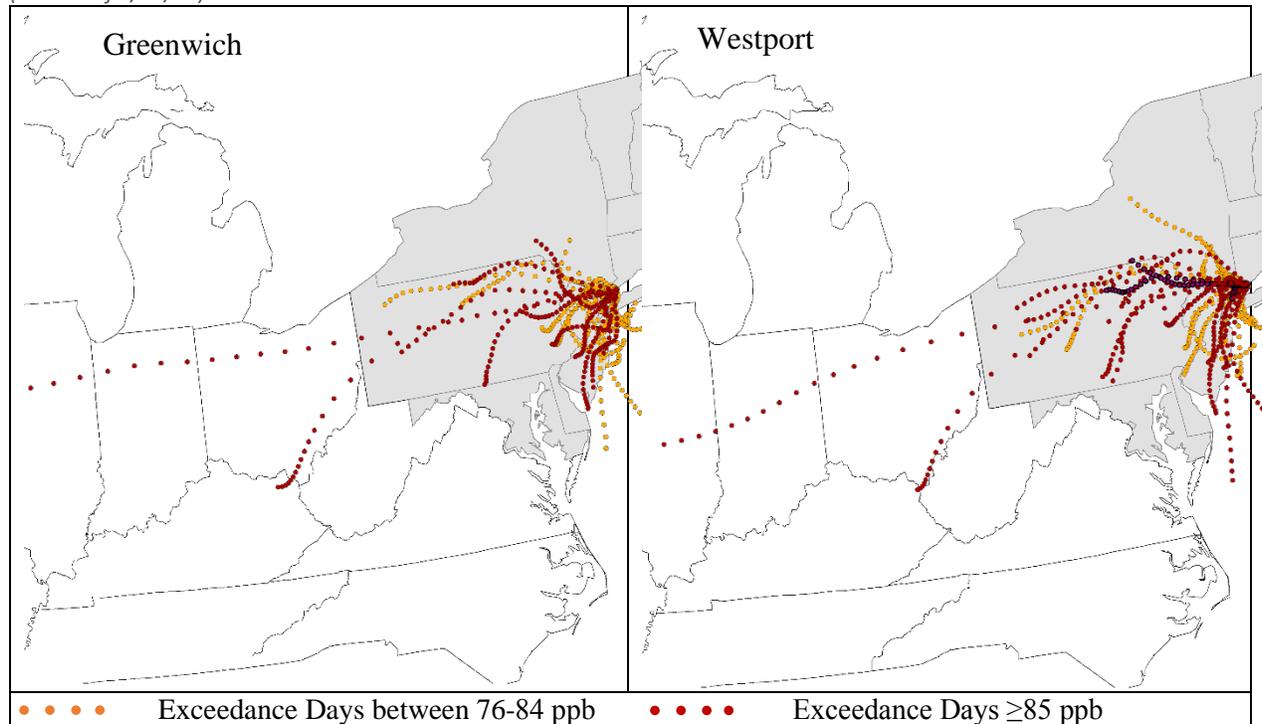
Revised September 24, 2015

Figure 2. Preliminary 2015 DVs as of 9/22/2015



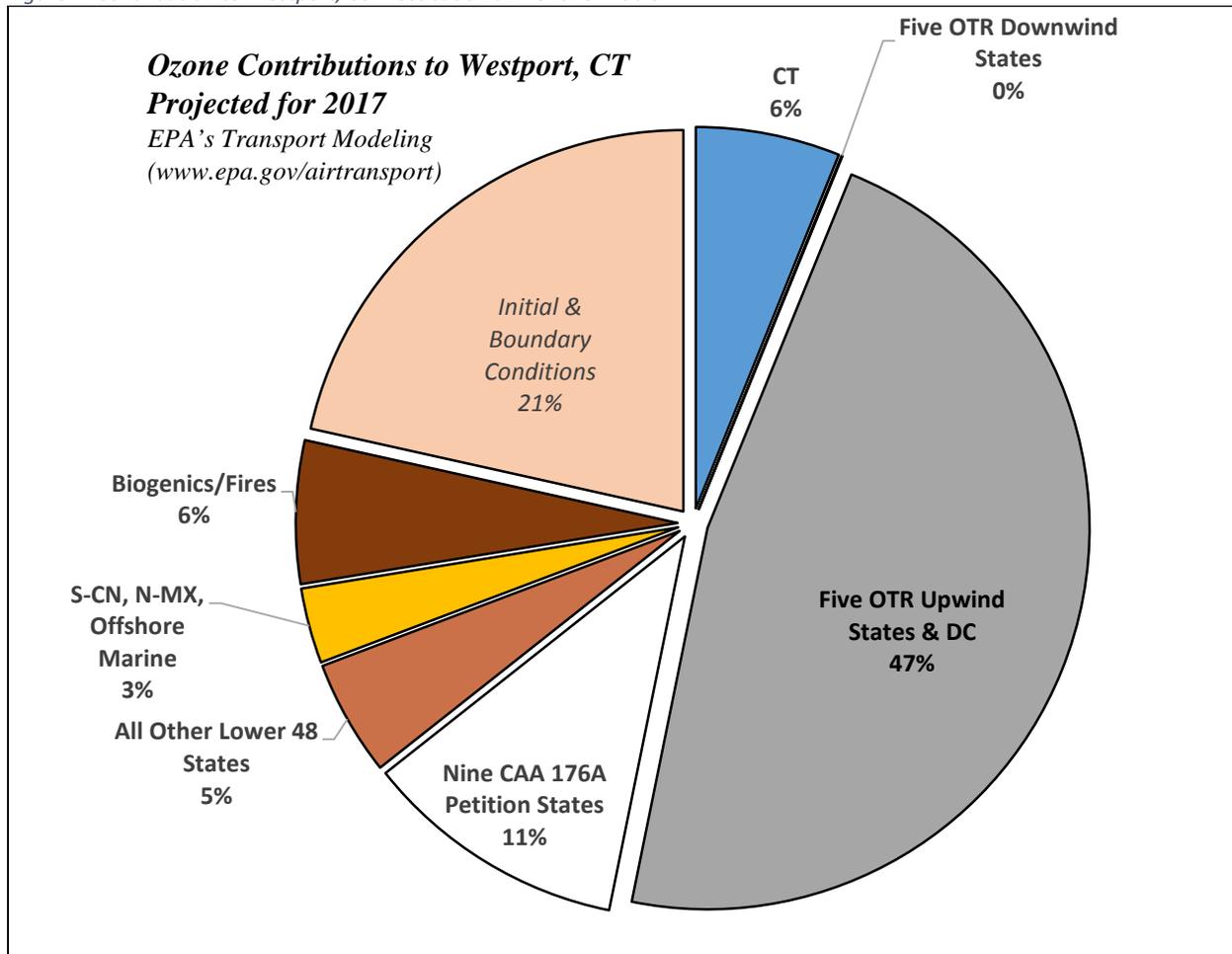
Backward trajectories reaching Connecticut's southwest coastal monitors on 2015 exceedance days (through 9/24/2015) are displayed in Figure 3. The trajectories show that, on high ozone days, the monitors are impacted by winds traveling from areas located to the southwest and west of the state, with minimal passage time within Connecticut. In addition, summer afternoon southwest sea breezes regularly enhance pollutant levels at coastal sites on exceedance days, carrying trapped pollutants within the cool and shallow Long Island Sound marine layer into coastal land areas.

Figure 3. 24-hour (3 level) Trajectories for 2015 Exceedance (≥ 76 ppb) Days at Connecticut's Worst-Case Monitors (data as of 9/24/15)



EPA's recent (July 2015) transport modeling² includes an analysis of upwind state contributions to downwind monitors that is consistent with the Department's trajectory analysis. Figure 4 summarizes EPA's 2017 contribution results for Westport, Connecticut's worst-case monitor. Results attribute the largest contributions at Westport during high ozone events to emissions originating from upwind Ozone Transport Region (OTR) states (47%), with 11% from the 9 states included in OTC's December 2013 petition to expand the OTR under CAA §176A, and 21% from initial and boundary conditions. Connecticut's contribution³ to the Westport monitor was estimated to be 6% of the projected design value of 78 ppb in 2017. Clearly, with 94% of peak ozone levels at Connecticut's most critical monitor caused by non-Connecticut sources, timely attainment will be largely dependent upon securing sizeable upwind reductions.

Figure 4. Contribution to Westport, Connecticut's 2017 Ozone Problem



² EPA's July 2015 modeling is documented at: <http://www3.epa.gov/airtransport/ozonetransportNAAQS.html>

³ Connecticut's largest in-state contribution is 14% to Groton, located in the Greater Connecticut area. EPA's July 2015 transport modeling projects that all Greater Connecticut monitors will achieve compliance with the 2008 NAAQS by 2017.

The prospects for attaining the 2008 NAAQS in the NY-NJ-CT area is already threatened based on preliminary ozone levels measured at Connecticut’s coastal monitors during the 2015 ozone season. Table 1 lists the 4th-highest daily 8-hour ozone levels at each of Connecticut’s monitors. The highest 4th-high value was measured at the Westport monitor, 87 ppb. In order to meet the 2008 NAAQS by the 2017 attainment deadline, 4th-high values in 2016 and 2017 would need to average 70 ppb to produce a 2017 design value in compliance with the 75 ppb NAAQS. Reviewing historical monitoring data back to 2008, the lowest 4th-high value measured at Westport was 73 ppb (in 2009), indicating that attainment in 2017 is unlikely without a significant reduction in transport at that highly impacted monitor.

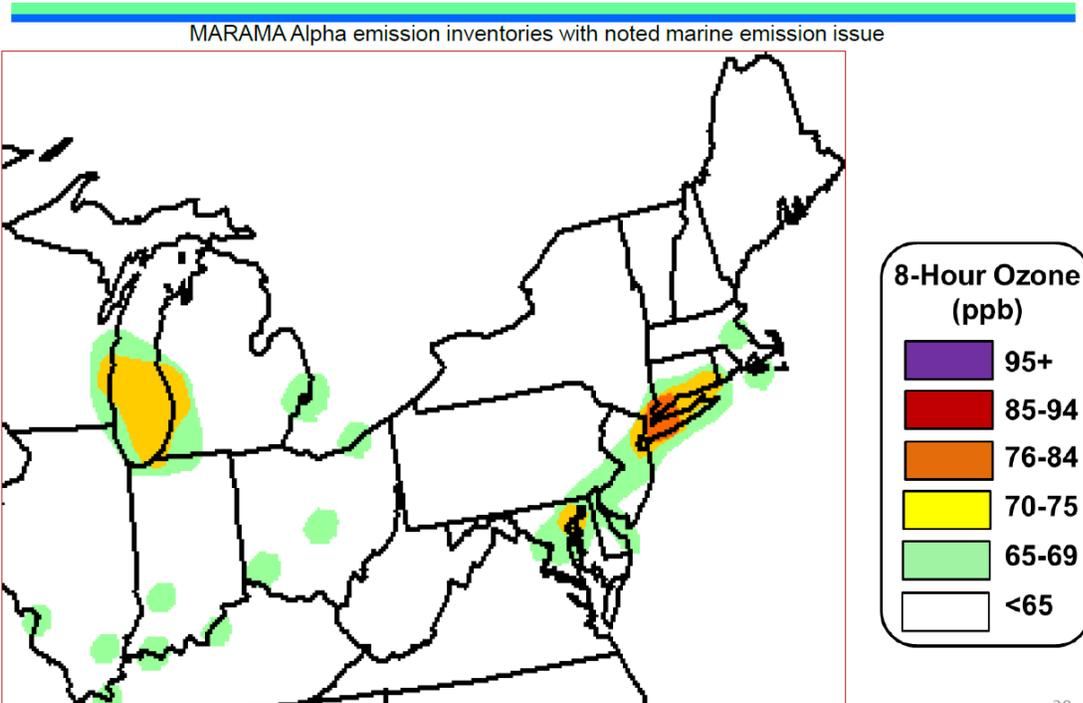
Table 1. 2015 Preliminary 4th High Values

<i>Non-Attainment Area</i>	<i>Monitor</i>	<i>4th High Ozone Value as of 9/24/2015</i>
NY-NJ-CT	Westport	87
	Stratford	86
	Greenwich	84
	Madison	81
	New Haven	81
	Danbury	79
	Middletown	78
Greater Connecticut	Groton	77
	Cornwall	76
	East Hartford	75
	Stafford	72
	Abington	70

The attainment challenge is further illustrated by recent preliminary OTC screening results using the CMAQ model.⁴ The preliminary modeling assumed an additional 25% NO_x reduction, beyond already adopted control programs, across all source sectors, with results indicating continued nonattainment issues in 2018 in Connecticut and elsewhere in the multi-state nonattainment area (see Figure 5). Further OTC modeling is planned using corrected and updated inventories for 2017, but both the OTC and EPA modeling to date support the need for significant regional emission reductions to address the overwhelming level of transport impacting Connecticut, especially at the coastal sites in the NY-NJ-CT nonattainment area. Recognizing the mandatory timeframes specified in the CAA §110(a)(2)(D) to address and implement good neighbor provisions have long passed, the Department emphasizes that EPA must require upwind states to submit strong good neighbor SIPs and must also promulgate a strong federal implementation plan as a timely backstop for any state SIPs that prove to be inadequate.

Figure 5. OTC Preliminary Screening Modeling Results for 2018 with Additional 25% NO_x Reduction Across All Source Sectors

5. 2018 Additional 25% NO_x Reduction



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⁴ See the OTC Modeling Committee presentation from the September 2015 OTC committee meeting, available at: <http://www.otcair.org/document.asp?fview=meeting>.