

**REGIONAL AIR QUALITY EMISSIONS ASSESSMENT
ONE-HOUR OZONE NAAQS
TRANSPORTATION IMPROVEMENT PROGRAM – FFY 2015-2018
FOR THE CENTRAL NAUGATUCK VALLEY
METROPOLITAN PLANNING ORGANIZATION
October 2016**

The *Clean Air Act Amendments (CAAA) of 1990* and the federal transportation regulations and legislation recognized the major contributions of transportation sources to the overall air quality problem evidenced throughout the country. To effectuate a reduction in transportation-related emissions and a corresponding improvement in air quality, areas designated as non-attainment or maintenance for a criterion pollutant were required to demonstrate that their transportation plans, programs and projects contributed to the attainment of *National Ambient Air Quality Standards (NAAQS)* and would not cause a new violation or delay attainment of the *NAAQS*. This process is referred to as *Air Quality Conformity*.

Connecticut is divided into two non-attainment area for the 8-hour ozone *NAAQS*, both are classified as “Moderate” non-attainment areas. Fairfield, New Haven and Middlesex counties are included as part of the New York-Northern New Jersey-Long Island non-attainment area. The remainder of the state is designated as the Greater Connecticut non-attainment area.

In June, 2004, the EPA finalized the 8-hour conformity for Ozone non-attainment areas and the designated the Connecticut portion of the New York-Northern New Jersey-Long Island non-attainment area as a “moderate” non-attainment areas for the 8-hour Ozone standard. Subsequent decisions by the EPA and revisions to the approach for classifying non-attainment areas re-designated both of Connecticut’s non-attainment areas as a “marginal” non-attainment areas with an attainment date of December 31, 2015. Based on 2012-2014 air quality data, the EPA determined that Connecticut’s non-attainment areas did not attain ozone standards by July20, 2015. Both the Greater Connecticut and the New York-New Jersey-Long Island areas were reclassified as “Moderate,” effective June 3, 2016. The new attainment date for these two areas is July 20, 2018.

The Connecticut Department of Transportation is responsible for conducting the air quality emissions assessments for the metropolitan planning organizations in Connecticut. The CTDOT uses the statewide travel demand model to estimate vehicle miles of travel for various classes of highways and during various time periods. The future transportation network includes all planned improvement projects and is based on the complete implementation of the transportation improvement program (TIP) and the long range transportation plans.

The MOVES2014a emissions model is used to calculate emissions from transportation travel and establish emissions budgets. The 8-hour budgets were developed jointly by CTDOT and CTDEEP. The budgets were found to be adequate by EPA and can be used in comparing future transportation-related emission to determine conformity.

The conformity test requires the emissions from the future transportation system to be less than the EPA-approved budgets for all analysis years. The emissions analyses were conducted for the following years:

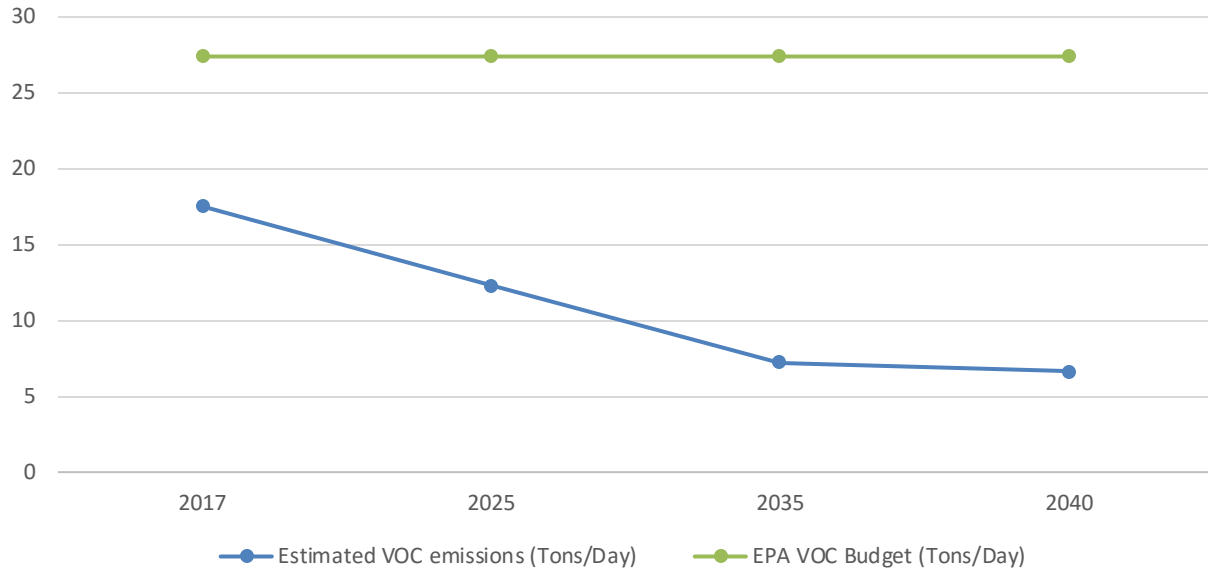
- 2017 – New Attainment year and near term analysis year
- 2025 – Interim modeling year
- 2035 – Interim modeling year
- 2040 – Long range transportation plan horizon year

The results of the quantitative emissions analysis conducted by CTDOT are shown in the following tables and the analysis year trends are depicted in the charts following the tables.

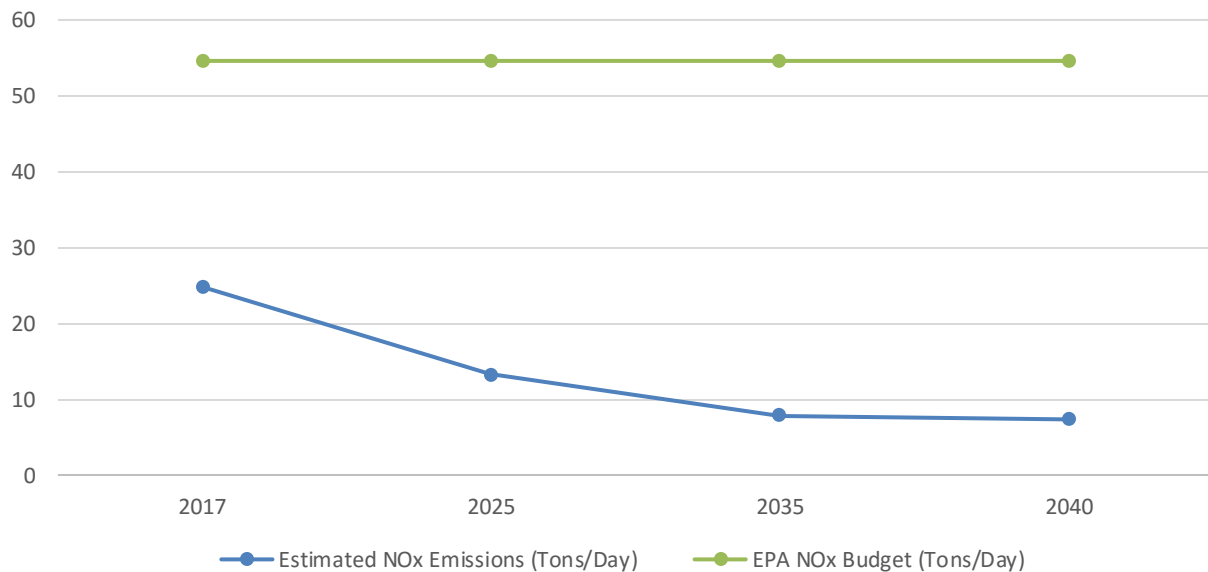
CENTRAL NAUGATUCK VALLEY PLANNING REGION 2015-2040 LONG RANGE TRANSPORTATION PLAN REGION EMISSIONS ANALYSIS RESULTS						
8-Hour Ozone NAAQS Connecticut Portion of the NY-NJ-LI-CT Area						
Analysis Year	VOC Emission Analysis			NO _x Emission Analysis		
	Action	SIP Budget	Difference	Action	SIP Budget	Difference
2017 Emissions	17.52	27.4	-9.88	24.8	54.6	-29.8
2025 Emissions	12.31	27.4	-15.09	13.24	54.6	-41.36
2035 Emissions	7.24	27.4	-20.16	7.83	54.6	-46.77
2040 Emissions	6.66	27.4	-20.74	7.33	54.6	-47.27

1. A small reduction in VMT and emissions in the Greater Connecticut area will occur from the ECO program in the Connecticut portion of the NY-NJ-LI area due to travel between the areas.
2. Emission analysis based on SUMMER conditions.
3. VOC & NO_x emissions are in tons per day and are calculated using Connecticut's vehicle mix.
4. HMPS 12 Functional Class system used.
5. National Low Emission Vehicle (NLEV) program included in 2008 and future years.
6. Eight Hour Ozone emission budgets effective June 27, 2008.

Estimated VOC Emissions by Analysis Year
 Compared to Approved EPA Budget
 CT Portion of NY-NJ-LI-CT Non-Attainment Area



Estimated NOx Emissions by Analysis Year
 Compared to Approved EPA Budget
 CT Portion of NY-NJ-LI-CT Non-Attainment Area



CENTRAL NAUGATUCK VALLEY PLANNING REGION
2015-2040 LONG RANGE TRANSPORTATION PLAN
REGION EMISSIONS ANALYSIS RESULTS

8-Hour Ozone NAAQS

Greater Connecticut Non-Attainment Area

VOC Emission Analysis				NO _x Emission Analysis		
Analysis Year	Action	SIP Budget	Difference	Action	SIP Budget	Difference
2017 Emissions	15.99	26.3	-10.31	21.99	49.2	-27.21
2025 Emissions	11.39	26.3	-14.91	11.87	49.2	-37.33
2035 Emissions	6.7	26.3	-19.6	6.94	49.2	-42.26
2040 Emissions	6.17	26.3	-20.13	6.49	49.2	-42.71

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2. Emission analysis based on SUMMER conditions.

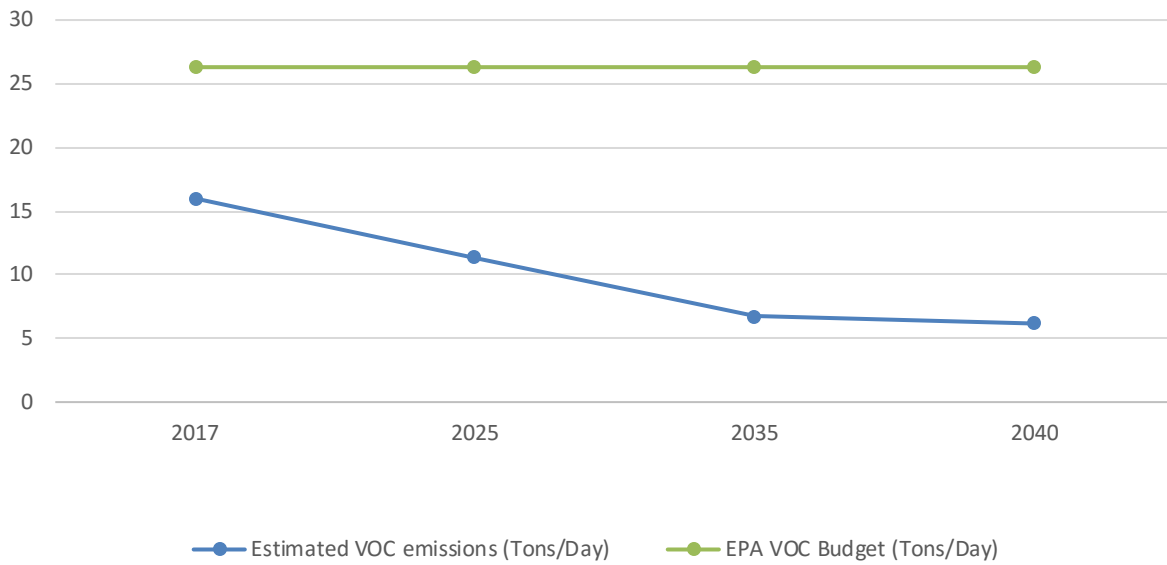
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Estimated VOC Emissions by Analysis Year Compared to Approved EPA Budget Greater CT Non-Attainment Area



Estimated NOx Emissions by Analysis Year Compared to Approved EPA Budget Greater CT Non-Attainment Area

