



2016 CLRP AMENDMENT

Air Quality Conformity Analysis of the 2016 CLRP Amendment and the FY 2017-2022 TIP

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TPB Technical Committee
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Pollutants

- ❖ Volatile Organic Compounds (VOC)
- ❖ Nitrogen Oxides (NO_x)



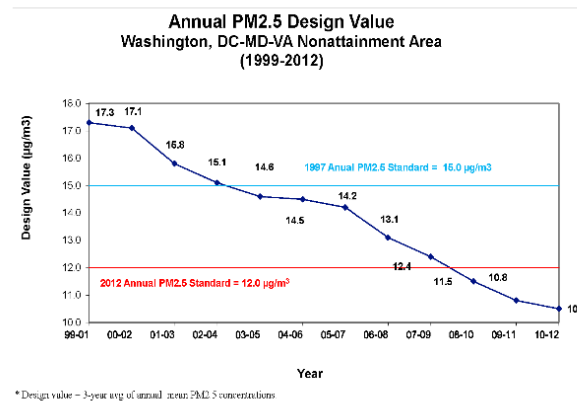
Pollutants

What happened to Fine Particles (PM_{2.5}) pollutants?

- ❖ EPA revoked the 1997 standard for Fine Particles
 - No more conformity determinations for Fine Particles pollutants (direct PM_{2.5} and Annual NO_x)
 - No update to the PM_{2.5} Maintenance Plan



Annual PM_{2.5} Design Value Trend



NOTE: See memo to TPB "Implications of EPA's Revocation of the 1997 PM_{2.5} NAAQS" 9/2/2016



Technical Approach

Key Technical Inputs and Tools:

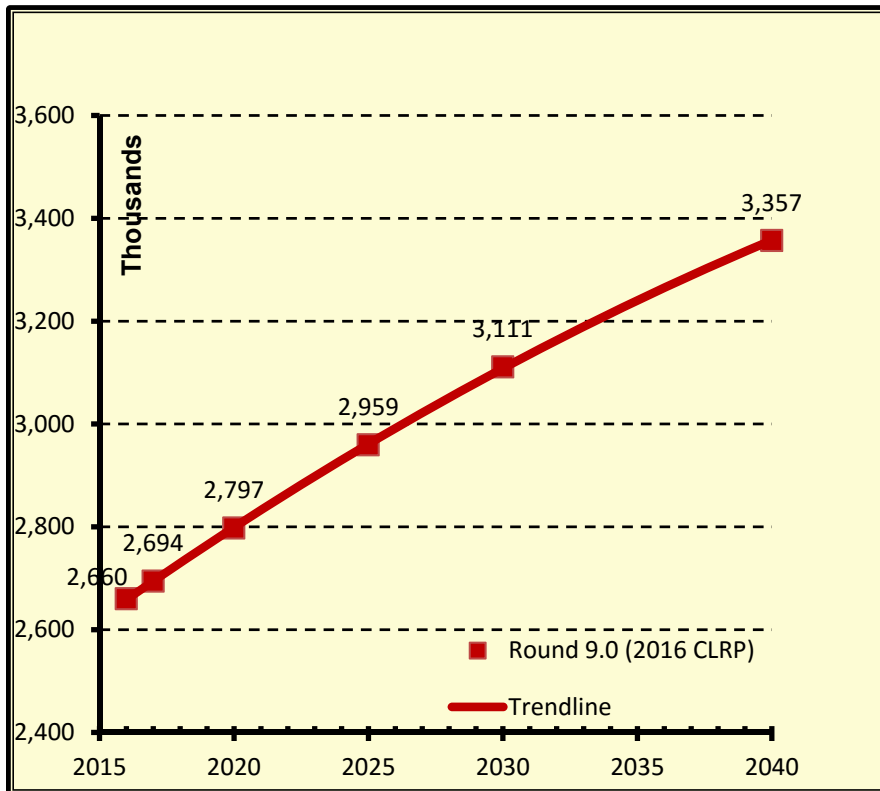
- ❖ Round 9.0 Cooperative Forecasts – **NEW**
(presentations: [TPB Tech March 4](#) & [TPB March 16](#))
- ❖ “Regionally Significant” Transportation Projects – **NEW**
(presentation: TPB March 16- [major changes](#) & [project input table](#))
- ❖ Version 2.3.66 Travel Demand Model
- ❖ 2014 Vehicle Registration Data (VIN)
(presentations: [TPB Tech Jan 9 2015](#) & [MWAQC TAC Jan 13 2015](#))
- ❖ EPA’s MOVES2014a Mobile Emissions Model
(presentation: [MWAQC TAC Feb 10 2015](#) & [TPB Tech April 3 2015](#))

NOTE: Detailed presentations were given to the TPB, the TPB Technical Committee, and MWAQC TAC on the ‘NEW’ items in the February – March timeframe. VIN data and the MOVES model presentations were made last year. There is not a significant difference between MOVES2014 and MOVES14a. Links to the presentations are included with each item above.

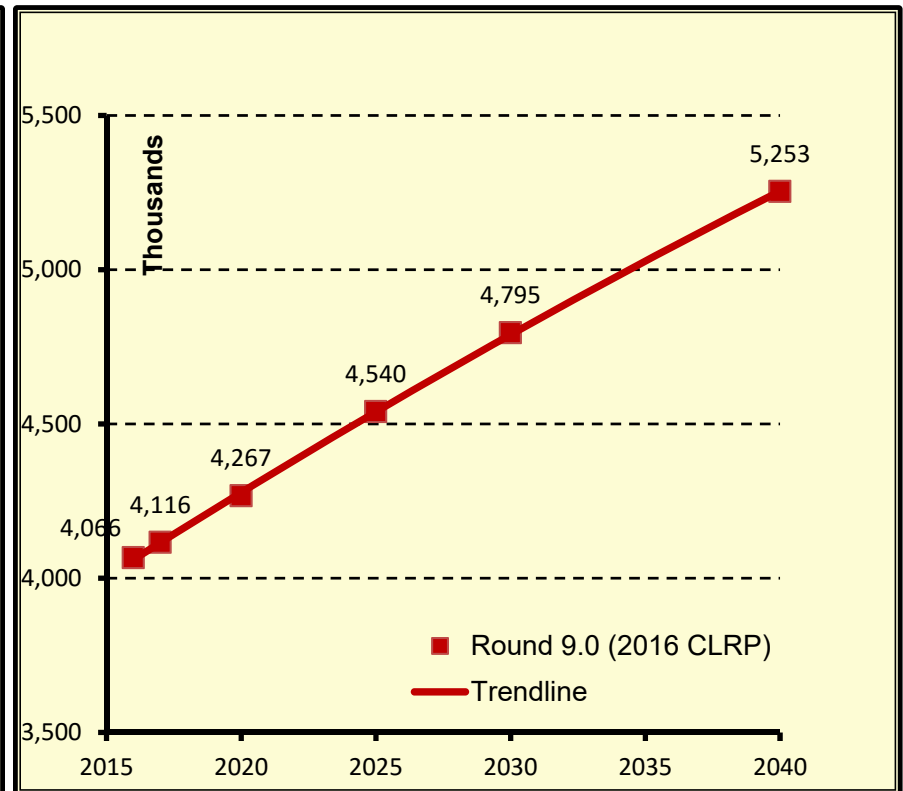


Round 9.0 Cooperative Forecasts

Households (in thousands)



Employment* (in thousands)



NOTE: Values are for the modeled area.

*Includes census adjustment

Mobile Emissions Model

MOVES2014a (released in November 2015):

- ❖ Minor update
- ❖ No significant change to emissions results compared to MOVES2014
- ❖ EPA does not consider it a new model for conformity and SIP purposes

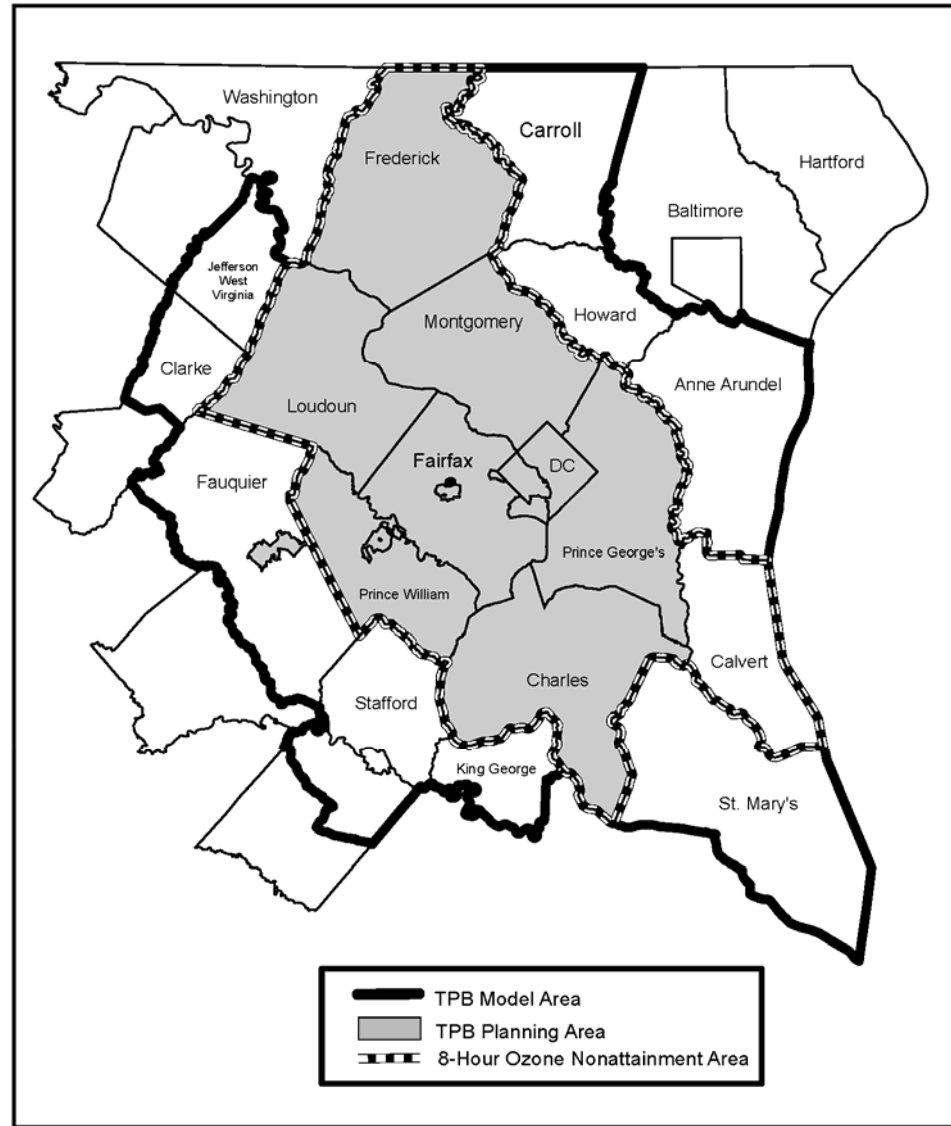
Technical Approach

Analysis Years:

2016, 2017, 2025, 2030, 2040



TPB Transportation Planning Areas

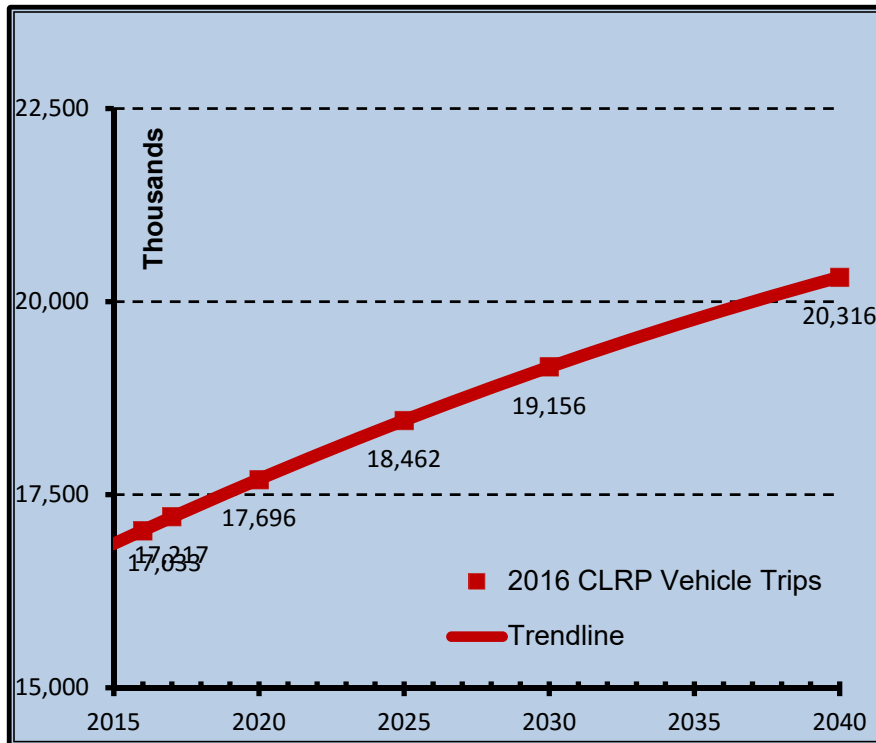


Travel Demand Summary

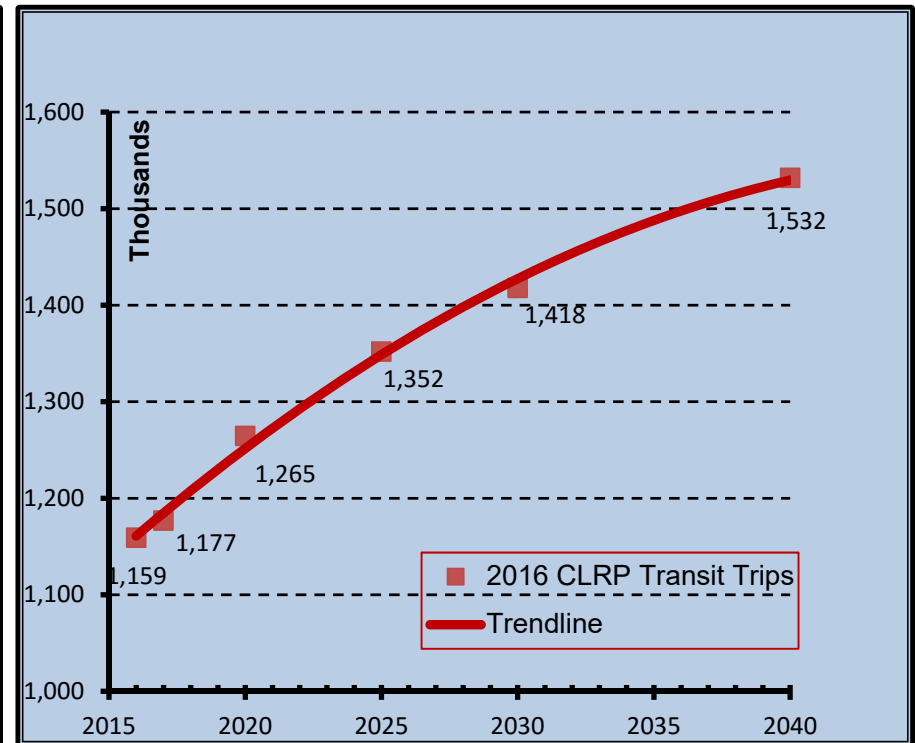
Average Weekday Traffic

Modeled Area

Vehicle Trips (in thousands)



Transit Trips (in thousands)



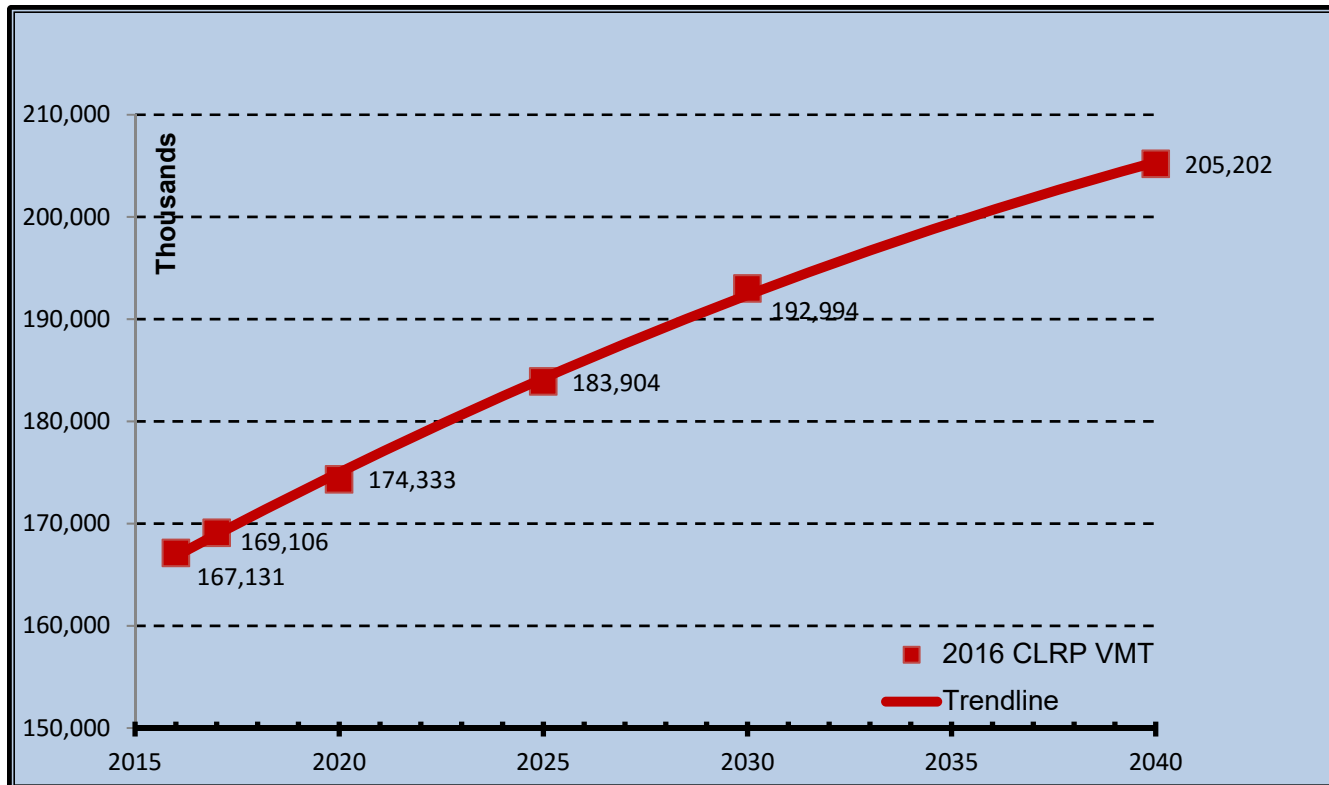
Travel Demand Summary

Average Weekday Traffic

Modeled Area

Vehicle Miles Traveled

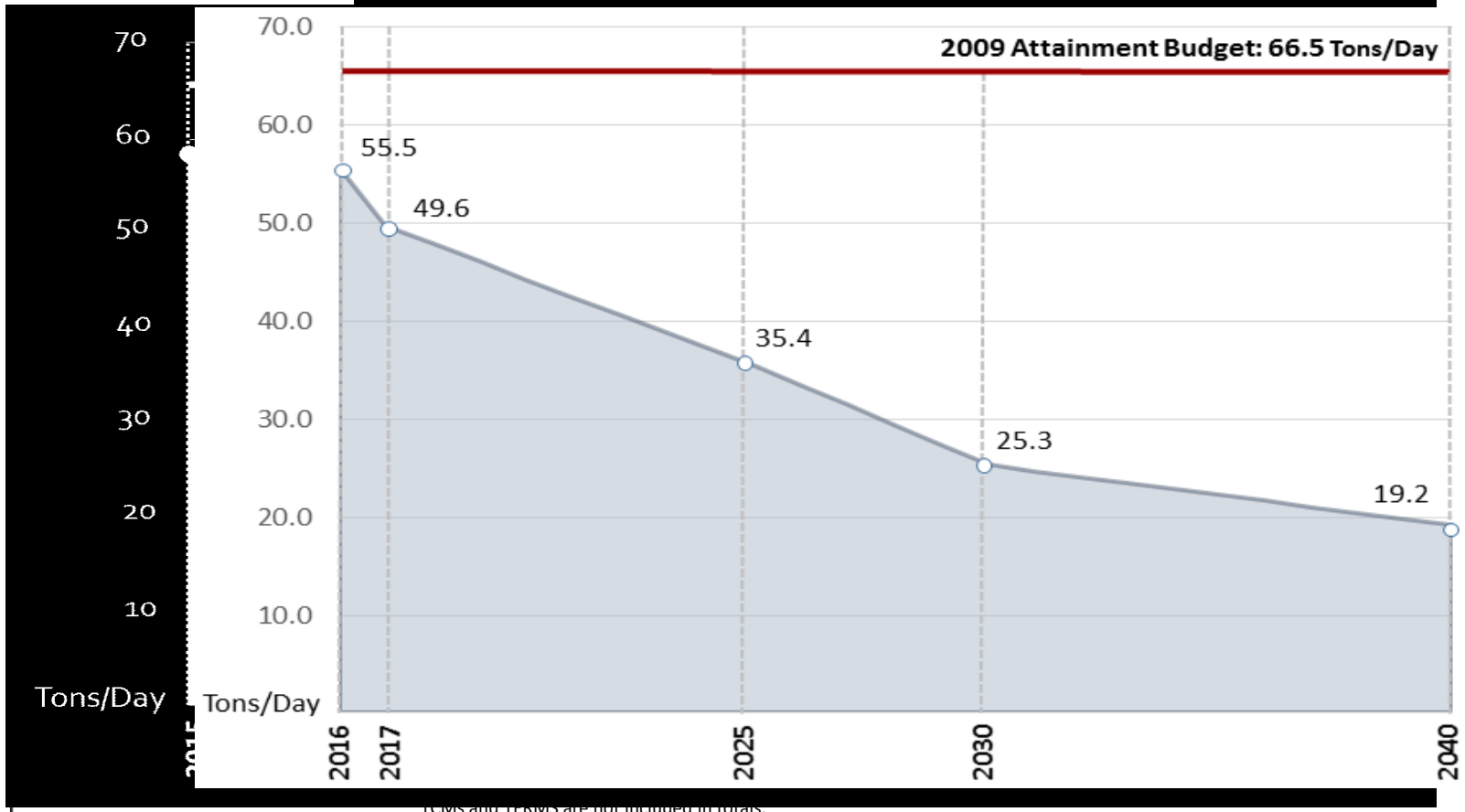
(in thousands)



Mobile Source Emissions

NOTE: The Mobile Budget shown was developed in 2007, as part of the 8 Hour-Ozone SIP, in response to the 1997 Ozone Standard. This budget, as the most current approved by EPA, is required for use in any conformity analysis assessing ozone season pollutants.

Ozone Season VOC



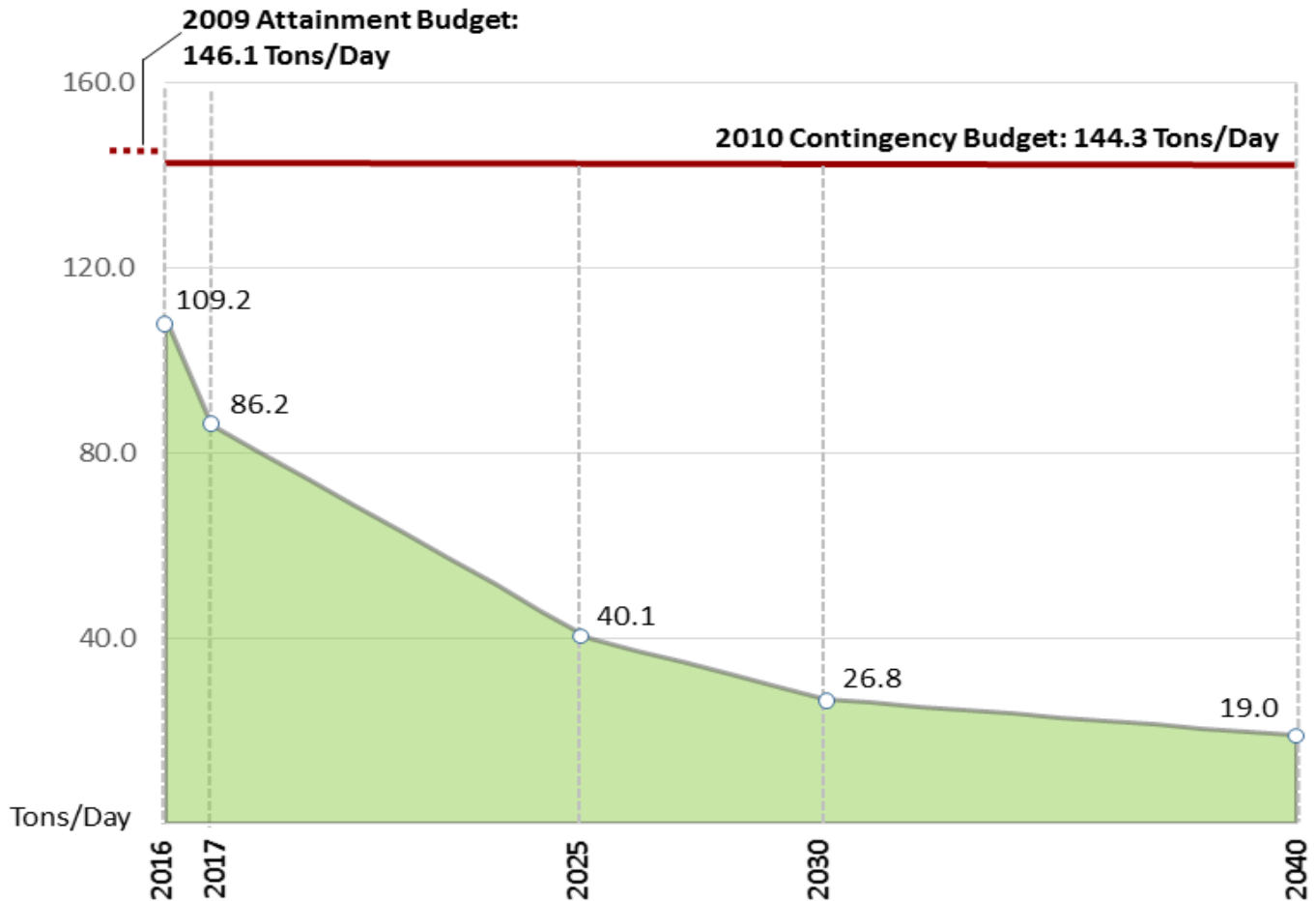
TCMS and TERMS are not included in totals.



Mobile Source Emissions

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Ozone Season NOx



TCMs and TERMS are not included in totals.

Findings

- ✓ Ozone Season VOC within Mobile Budget
- ✓ Ozone Season NO_x within Mobile Budget



Transportation Emission Reduction Measures (TERMS)

ADDITIONAL EMISSIONS REDUCTIONS- ALL TERMS COMBINED				
Years/Pollutants	Ozone - VOC	Ozone - NOx	PM2.5 Direct	Precursor NOx
	(tons/day)	(tons/day)	(tons/year)	(tons/year)
2016	0.066	0.090	0.95	25.77
2017	0.074	0.083	1.04	23.91
2025	0.097	0.071	1.43	20.84
2030	0.087	0.054	1.63	16.60
2040	0.093	0.043	2.06	15.09

NOTE: Benefits from these TERMS are not included in the emissions totals in this conformity analysis.

Schedule

Next Steps:

- ❖ Public Comment Oct 13 – Nov 12
- ❖ TPB Briefing: Conformity Findings Oct 19
- ❖ TPB Action: Conformity Analysis Nov 16
2016 CLRP Amendment
2017-2022 TIP Update

Ozone Standards

Implications for Conformity

Previous 2008 Standard (75 ppb)

- ❖ Ozone Maintenance Plan with New Mobile Budgets

Current 2015 Standard (70 ppb)

- ❖ State Recommendations to EPA
 - Marginal Non-attainment (no new SIP required)
 - MD & DC air agencies recommending expansion of non-attainment area to include Baltimore's MPO

QUESTIONS?

