



Regional Emissions Analysis Results

2024-2027 TIP and Resilience 2050

May 3, 2023



Current Mobile Budget deemed Adequate by EPA

- The following mobile emission budgets for VOCs and NOx were used for analysis for 5 different horizon years: 2023, 2025, 2035, 2045 and 2050, using EPA's MOVES 3 model.

2012 RFP Budget	
VOC Emissions	40.2 tons/day
NOx Emissions	93.5 tons/day

2023

Balto Area	NOx (g)	VOC (g)	NOx (tpd)	VOC (tpd)	VMT
24003	5,825,080	3,852,614	6.42	4.25	18,974,637
24005	8,838,983	4,828,616	9.74	5.32	26,636,109
24013	1,635,984	1,290,278	1.80	1.42	4,007,924
24025	3,750,957	1,722,433	4.13	1.90	8,396,499
24027	4,183,823	1,881,712	4.61	2.07	13,785,409
24510	3,480,323	1,833,420	3.84	2.02	10,908,515
Grand Total	27,715,151	15,409,074	30.551	16.986	82,709,094

2025

Balto Area	NOx (g)	VOC (g)	NOx (tpd)	VOC (tpd)	VMT
24003	4,833,686	3,478,695	5.33	3.83	19,130,055
24005	7,284,510	4,314,591	8.03	4.76	26,516,260
24013	1,351,364	1,162,207	1.49	1.28	4,100,827
24025	3,120,689	1,533,186	3.44	1.69	8,164,757
24027	3,548,043	1,701,651	3.91	1.88	13,965,348
24510	2,933,934	1,628,129	3.23	1.79	10,867,955
Grand Total	23,072,226	13,818,459	25.433	15.232	82,745,203

2035

Balto Area	NOx (g)	VOC (g)	NOx (tpd)	VOC (tpd)	VMT
24003	3,251,840	2,352,897	3.58	2.59	20,678,152
24005	4,969,973	2,814,603	5.48	3.10	27,673,586
24013	829,932	694,919	0.91	0.77	4,314,398
24025	2,270,882	1,028,464	2.50	1.13	9,123,073
24027	2,496,150	1,136,231	2.75	1.25	14,536,436
24510	2,135,304	1,087,635	2.35	1.20	11,385,308
Grand Total	15,954,080	9,114,749	17.586	10.047	87,710,953

2045

Balto Area	NOx (g)	VOC (g)	NOx (tpd)	VOC (tpd)	VMT
24003	3,354,511	2,225,939	3.70	2.45	22,047,408
24005	4,681,660	2,547,902	5.16	2.81	28,653,587
24013	735,385	613,659	0.81	0.68	4,604,983
24025	2,302,233	969,791	2.54	1.07	9,716,403
24027	2,657,278	1,089,120	2.93	1.20	15,685,210
24510	2,157,350	954,885	2.38	1.05	11,880,099
Grand Total	15,888,416	8,401,296	17.514	9.261	92,587,692

2050

Balto Area	NOx (g)	VOC (g)	NOx (tpd)	VOC (tpd)	VMT
24003	3,593,232	2,248,526	3.96	2.48	22,780,075
24005	4,737,813	2,529,247	5.22	2.79	29,169,675
24013	770,069	598,748	0.85	0.66	4,859,293
24025	2,371,077	972,971	2.61	1.07	10,072,669
24027	2,803,557	1,107,240	3.09	1.22	16,199,421
24510	2,172,926	943,141	2.40	1.04	12,047,819
Grand Total	16,448,675	8,399,873	18.132	9.259	95,128,952

Overall Summary

- Even with an increase in VMT over the test horizon years, there is a decrease in projected emissions of NOx and VOCs.

Horizon Year	NOx (tpd)	VOC (tpd)	VMT
2023	30.551	16.986	82,709,094
2025	25.433	15.232	82,745,203
2035	17.586	10.047	87,710,953
2045	17.514	9.261	92,587,692
2050	18.132	9.259	95,128,952

Emission Results

VOC Emissions	2023	2025	2035	2045	2050
Total Emissions Modeled (tpd)	16.986	15.232	10.047	9.261	9.259
Conformity Budget¹	40.2	40.2	40.2	40.2	40.2
Conformity Result	PASS	PASS	PASS	PASS	PASS

¹ 2012, 8-hour ozone Reasonable Further Progress (RFP) SIP budget for the Baltimore region (motor vehicle emission budgets determined adequate by EPA on February 22, 2016)

Emission Results

NOx Emissions	2023	2025	2035	2045	2050
Total Emissions Modeled (tpd)	30.551	25.433	17.586	17.514	18.132
Conformity Budget¹	93.5	93.5	93.5	93.5	93.5
Conformity Result	PASS	PASS	PASS	PASS	PASS

¹ 2012, 8-hour ozone Reasonable Further Progress (RFP) SIP budget for the Baltimore region (motor vehicle emission budgets determined adequate by EPA on February 22, 2016)

For More Information

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