

BASE YEAR 2017 EMISSIONS INVENTORY - 2015 OZONE STANDARD (70 PPB)

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MWAQC-TAC
June 9, 2020

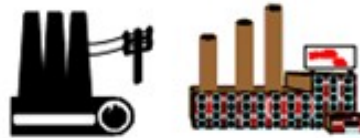
Base Year 2017 Emissions Inventory - 2015 Ozone Standard

- Current ozone standard was published in 2015 – 70 parts per billion (ppb)
- Washington region - Nonattainment Area for 2015 ozone standard (70 ppb)
- Levels of nonattainment depend on ozone levels
 - Marginal, Moderate, Serious, Extreme
- Washington region - **Marginal** Ozone Nonattainment Area
- Attainment deadline – August 3, 2021 (Attainment to be based on 2018-2020 data)
- Requirements for Marginal Ozone NAA - Submission of a comprehensive Base Year emissions inventory to EPA by August 3, 2020
- Base Year selected in coordination with EPA – 2017

Overview - BY 2017 Emissions Inventory

- Emission Sources

- Point



- Area



- Nonroad



- On-Road



Emission Period & Pollutants

- **Emission Period: Average ozone season day emission in 2017**
- **Pollutants**
 - **VOC and NO_x (Required) – These are precursors for ozone**
 - **Carbon Monoxide (CO) – Not required, but added to the inventory document keeping in mind uses in future air quality plans (e.g. ozone redesignation request/maintenance plan)**

BY2017 Emissions Inventory Updates

- Initial public comment period: March 3 – May 27 (DC/MD/VA)
- No public comment received during initial PH&C period
- District and Virginia provided technical corrections to nonpoint and marine, airport, and railroad source inventories after initial PH&C ended. This needs a new PH&C process for DC and VA.
- 2nd Public comment period:
 - June 12 – July 13 (DC)
 - June 22 – July 22 (VA)

BY2017 Emissions Inventory – Updates to Nonpoint Inventory

Initial Inventory (1st PH&C Process)

Updated Inventory (2nd PH&C Process)

Jurisdiction	VOC	NOx	CO
District of Columbia	9.95	2.26	2.29
Calvert County	2.33	0.24	3.31
Charles County	4.42	1.05	9.77
Frederick County	7.18	1.27	10.13
Montgomery County	22.70	4.14	4.32
Prince George's County	21.28	3.30	5.84
Maryland Total	57.90	10.00	33.36
Arlington County	4.90	0.88	1.12
Fairfax County	26.02	4.74	7.42
Fairfax City	1.02	0.21	0.34
Falls Church City	0.43	0.09	0.15
Loudoun County	10.48	2.19	14.38
Prince William County	11.46	1.66	7.94
Manassas City	1.18	0.32	0.61
Manassas Park City	0.93	0.11	0.18
Alexandria City	3.35	0.65	0.89
Virginia Total	59.76	10.86	33.03
Region Total	127.61	23.12	68.69

Jurisdiction	VOC	NOx	CO
District of Columbia	9.61	2.24	2.29
Calvert County	2.33	0.24	3.31
Charles County	4.42	1.05	9.77
Frederick County	7.18	1.27	10.13
Montgomery County	22.70	4.14	4.32
Prince George's County	21.28	3.30	5.84
Maryland Total	57.90	10.00	33.36
Arlington County	4.87	0.88	1.12
Fairfax County	25.96	4.74	7.42
Fairfax City	0.88	0.21	0.34
Falls Church City	0.41	0.09	0.15
Loudoun County	10.55	2.21	14.99
Prince William County	12.36	1.76	12.86
Manassas City	1.18	0.32	0.62
Manassas Park City	0.79	0.11	0.18
Alexandria City	3.35	0.65	0.89
Virginia Total	60.35	10.98	38.58
Region Total	127.86	23.22	74.23

BY2017 Emissions Inventory – Updates to MAR Inventory

Initial Inventory (1st PH&C Process)

Updated Inventory (2nd PH&C Process)

Jurisdiction	VOC	NO _x	CO	Jurisdiction	VOC	NO _x	CO
District of Columbia	0.06	0.55	0.11	District of Columbia	0.13	1.34	0.35
Calvert County	0.05	0.86	0.14	Calvert County	0.05	0.86	0.14
Charles County	0.02	0.02	0.19	Charles County	0.02	0.02	0.19
Frederick County	0.16	0.84	1.58	Frederick County	0.16	0.84	1.58
Montgomery County	0.05	0.73	0.75	Montgomery County	0.05	0.73	0.75
Prince George's County	0.04	0.52	0.52	Prince George's County	0.04	0.52	0.52
Maryland Total	0.33	2.96	3.17	Maryland Total	0.33	2.96	3.17
Arlington County	0.56	3.43	5.47	Arlington County	1.46	4.60	12.97
Fairfax County	0.03	0.63	0.15	Fairfax County	0.03	0.58	0.15
Fairfax City	0.00	0.00	0.00	Fairfax City	0.00	0.00	0.00
Falls Church City	0.00	0.00	0.00	Falls Church City	0.00	0.00	0.00
Loudoun County	0.79	4.40	7.09	Loudoun County	1.36	5.79	14.19
Prince William County	0.03	0.50	0.12	Prince William County	0.02	0.52	0.13
Manassas City	0.03	0.07	0.64	Manassas City	0.03	0.06	0.64
Manassas Park City	0.00	0.00	0.00	Manassas Park City	0.00	0.00	0.00
Alexandria City	0.01	0.27	0.07	Alexandria City	0.01	0.31	0.07
Virginia Total	1.46	9.31	13.54	Virginia Total	2.92	11.86	28.16
Region Total	1.85	12.82	16.82	Region Total	3.38	16.16	31.67

BY2017 Emissions Inventory – Updates to Total Inventory

Initial Inventory (1st PH&C Process)

Updated Inventory (2nd PH&C Process)

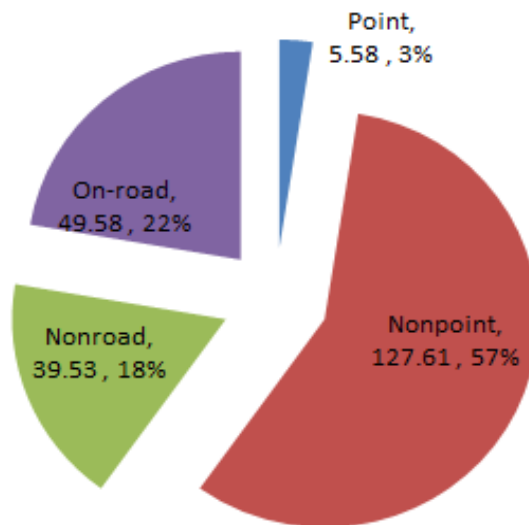
Source Category	VOC	NO _x	CO	Source Category	VOC	NO _x	CO
Point	5.19	79.55	25.13	Point	5.19	79.55	25.13
Quasi-Point ²	0.39	0.19	0.28	Quasi-Point ²	0.39	0.19	0.28
Nonpoint	127.61	23.12	68.69	Nonpoint	127.86	23.22	74.23
Nonroad Model	37.68	30.87	710.87	Nonroad Model	37.68	30.87	710.87
MAR ³	1.85	12.82	16.82	MAR ³	3.38	16.16	31.67
Onroad	49.58	93.42	673.21	Onroad	49.58	93.42	673.21
Anthropogenic Total	222.31	239.97	1,494.99	Anthropogenic Total	224.08	243.41	1,515.39
Biogenic ⁴	442.62	3.67	38.23	Biogenic Total ⁴	442.62	3.67	38.23

Emission by Source

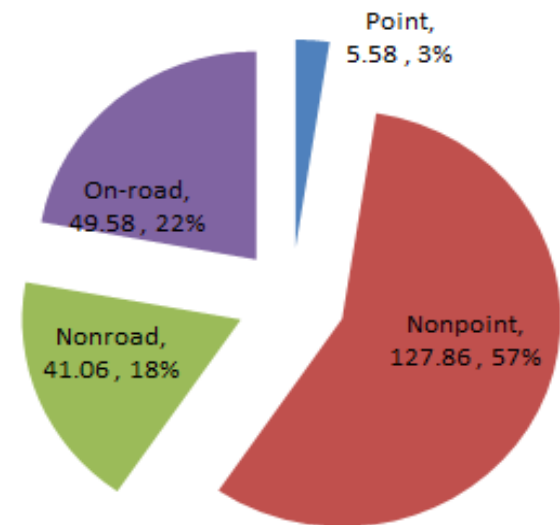
Initial Inventory (1st PH&C Process)

Updated Inventory (2nd PH&C Process)

Draft OSD 2017 VOC Emissions (tpd)
(Washington DC-MD-VA 2015 Ozone NAAQS NAA)



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(Washington DC-MD-VA 2015 Ozone NAAQS NAA)

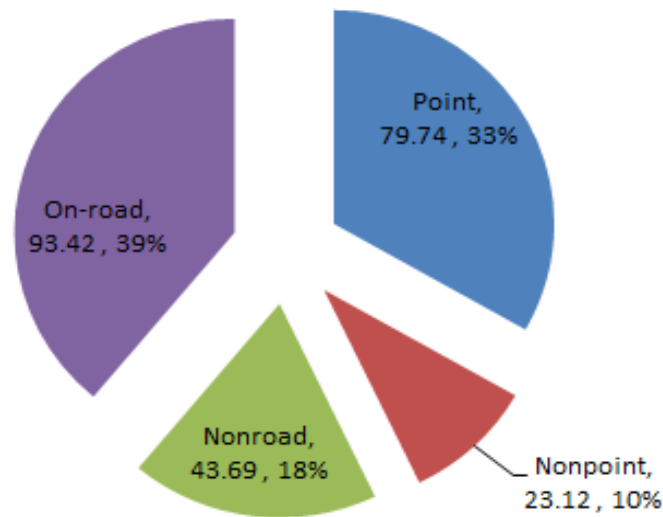


Emission by Source

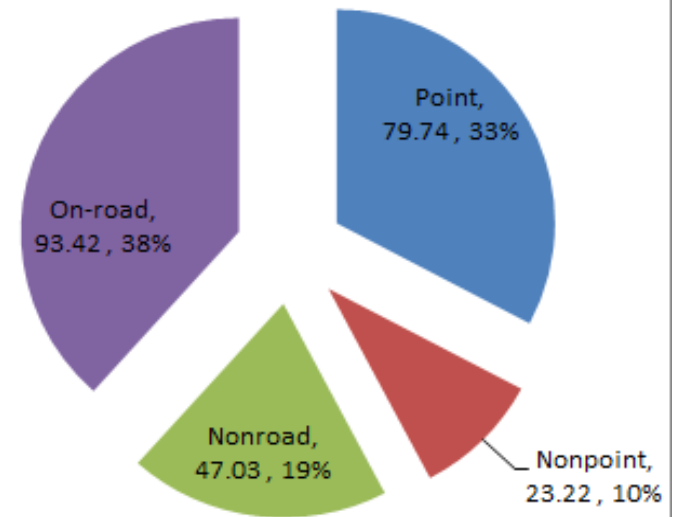
Initial Inventory (1st PH&C Process)

Updated Inventory (2nd PH&C Process)

Draft OSD 2017 NOx Emissions (tpd)
(Washington DC-MD-VA 2015 Ozone NAAQS NAA)



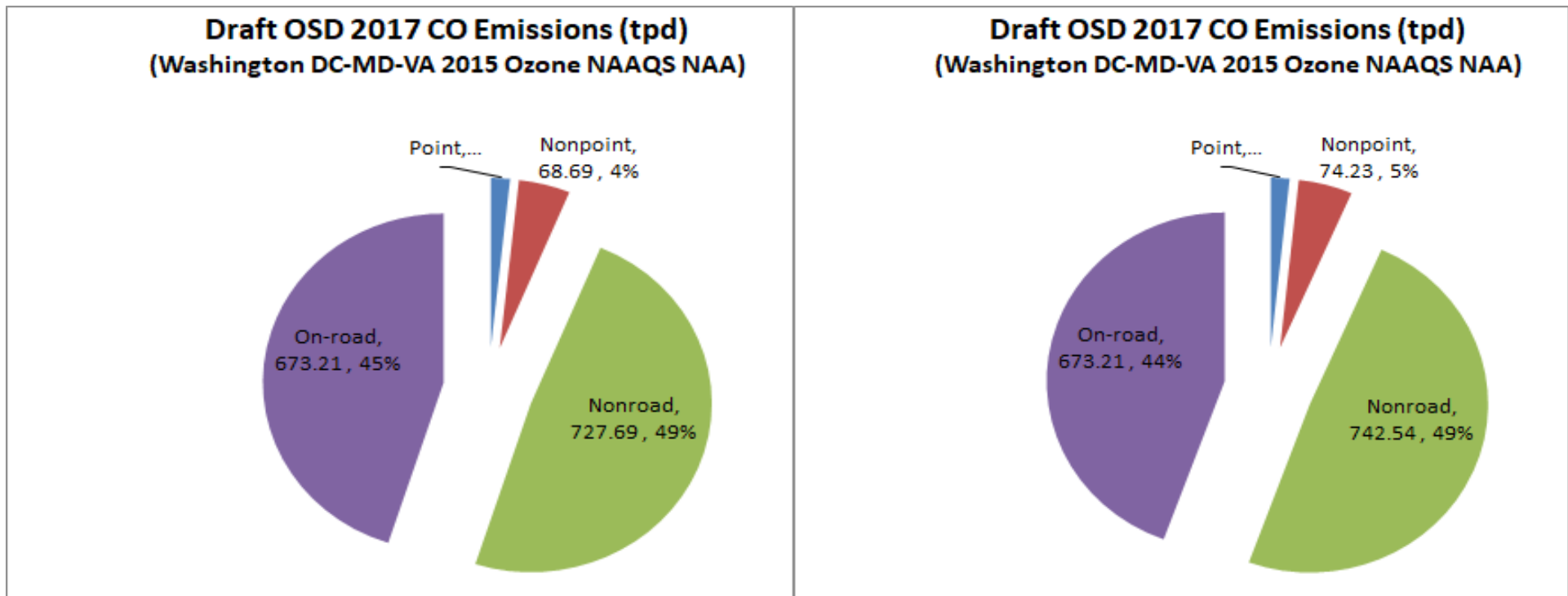
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(Washington DC-MD-VA 2015 Ozone NAAQS NAA)



Emission by Source

Initial Inventory (1st PH&C Process)

Updated Inventory (2nd PH&C Process)



Timeline – BY2017 Emissions Inventory

- MWAQC-TAC recommended MWAQC to approve inventory for public comment and hearing (PH&C) process: February 11
- EPA provided comments on inventory before PH&C process started: February 21
- MWAQC approved for PH&C process: February 26
- Initial public comment period: March 3 – May 27 (DC/MD/VA)
- No public comment received during initial PH&C period
- District and Virginia provided technical corrections to inventory after initial PH&C ended. This needs a new PH&C process for DC and VA.
- 2nd Public comment period: June 12 – July 22 (DC & VA only)
- MWAQC authorized MWAQC-Executive Committee to approve response to any comments received on/after May 27 and the final inventory document: May 27
- MWAQC-Executive Committee approves the final document in July.
- States submit the document in August to EPA.