



# BY2011 Emissions Inventory (Draft)

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## Introduction

- **Washington region**
  - Nonattainment Area for current ozone standard (75 ppb)
  - Levels of nonattainment (Marginal, Moderate, Serious, Extreme) - depend on ozone levels
  - Washington region - Marginal Ozone NAA
  - Attainment deadline – December 31, 2015
  - Requirements for Washington Marginal Ozone NAA
    - Submission of a comprehensive Base Year emissions inventory to EPA
    - Base Year - 2011
    - Submission deadline – July 20, 2014

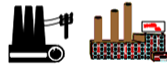
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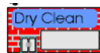
## Overview Base Year 2011 Emissions Inventory

### ▪ Emission Sources

- Point



- Area



- Nonroad



- Onroad



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## Emissions Inventory Emission Period & Pollutants

### ▪ Emissions Period

- Annual: January – December (2011)
- Avg Ozone Season Day: Avg day (May-September)

### ▪ Pollutants

- Annual – VOC, NO<sub>x</sub>, CO, PM<sub>2.5</sub>-Pri, SO<sub>2</sub>, NH<sub>3</sub>
- Avg Ozone Season Day – VOC, NO<sub>x</sub>, CO

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## Development - Emissions Inventory

- Point Sources – States
  - National Emissions Inventory (NEI 2011) was starting point
  - Developed annual and OSD (derived from annual) emissions inventories
  
- Area & MAR Sources – States
  - NEI 2011 was starting point
  - Developed annual and OSD (derived from annual) emissions inventories

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## Development - Emissions Inventory

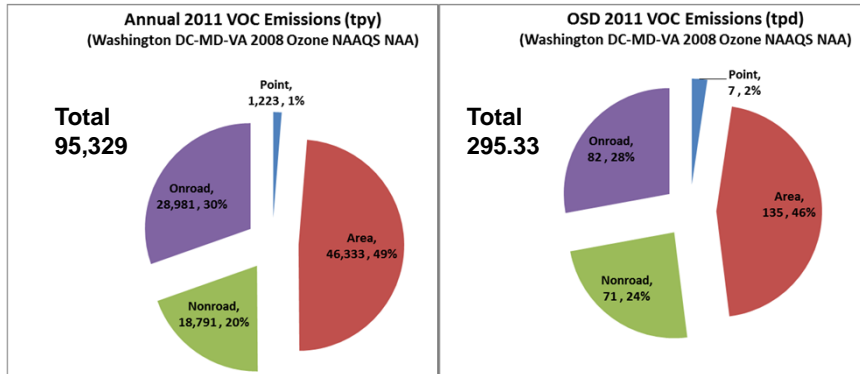
- Nonroad Sources (NMIM model) – MWAQC Staff
  - NEI 2011 inputs used
  - NMIM2008 software (NONROAD2008a model embedded)
  
- Onroad Sources – MWAQC/TPB Staff
  - MOVES2010a model used
  - Fuel & I/M Program inputs – States
  - Meteorology – MWAQC Staff
    - Dulles & National airports data averaged for 2011
  - Transportation inputs – TPB Staff
  - Inventory Development Periods
    - Annual run – Model run for Jan-Dec 2011
    - OSD run – Model run for July (Weekday)

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## Emission by Source

### VOC

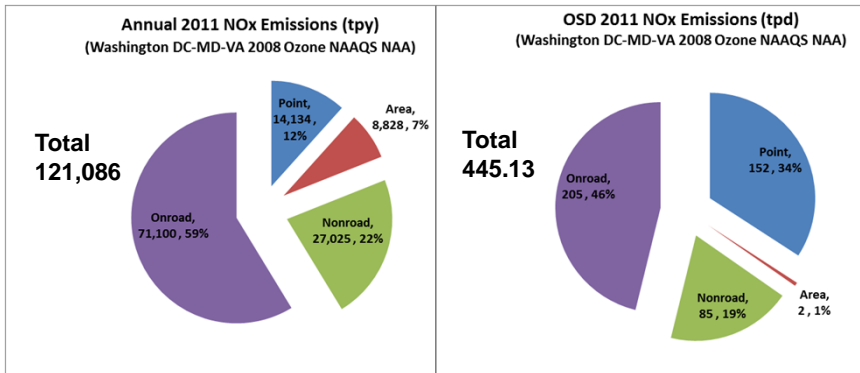


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## Emission by Source

### NOx

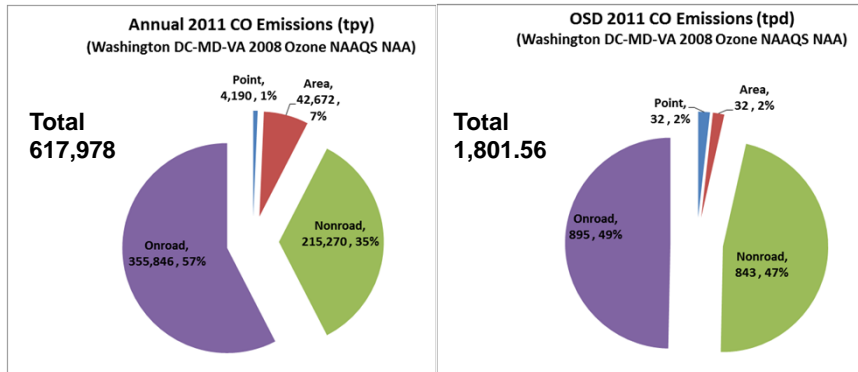


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## Emission by Source

### CO

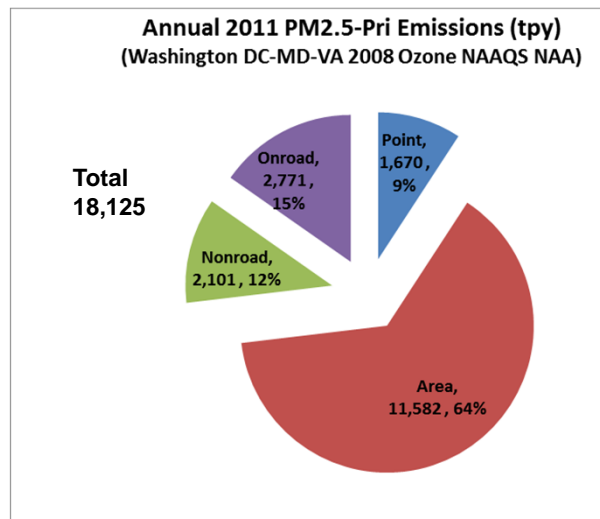


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## Emission by Source

### PM2.5

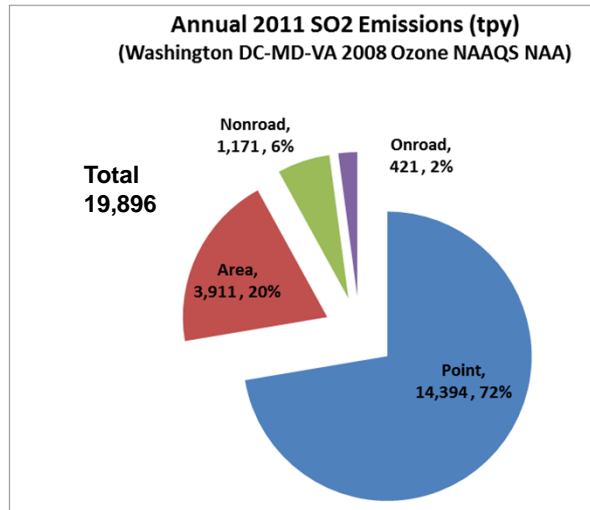


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## Emission by Source

### SO<sub>2</sub>

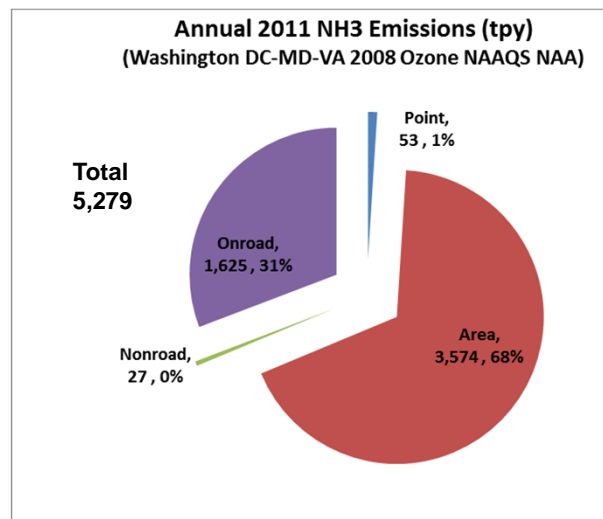


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## Emission by Source

### NH<sub>3</sub>



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## Largest Emission sources

- VOC, PM2.5-Pri, NH3 – Area
- NOx, CO – Onroad
- SO2 – Point

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## Next Steps

- **Today** - MWAQC approves Base Year 2011 Emissions Inventory for public comment
- **March** - State air agencies issue notices for public hearing and comment
- **April** – Public comment period ends
- **May** - MWAQC staff in association with state air agencies address comments received
- **May 13** – MWAQC-TAC approves BY2011 inventory
- **May 28** – MWAQC approves BY2011 inventory
- **June/July** – State air agencies submit BY2011 inventory to EPA

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