Air Quality Control Strategy for Washington Region

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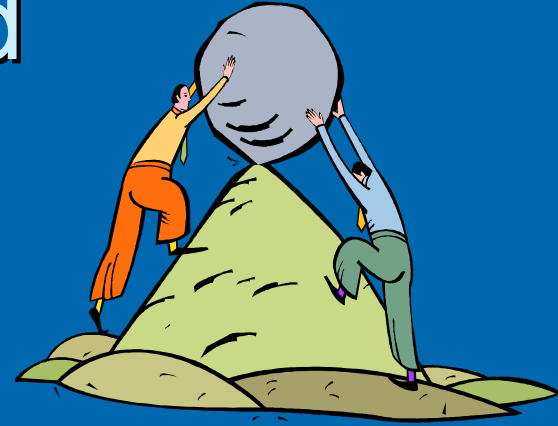MWCOG

July 26, 2006

Purpose of Control Strategy in SIP

- SIP must demonstrate that the Washington region will meet the public health standard for ozone by 2009
- Future control strategy is modeled to show effectiveness in cleaning the air by 2009

New Ozone Standard ("8-hr")

➢ Attainment modeling must show the control strategy achieves future design values below 85 ppb by Sept. 2009

Design Value

➢ A design value is the mathematically determine pollutant concentration at a particular site that must be reduced to, or maintained at or below the National Ambient Air Quality Standard to assume attainment.

➢ 8 hr DV: 4th highest 8-hr maximum ozone concentration at a site averaged over a continuous 3-year period
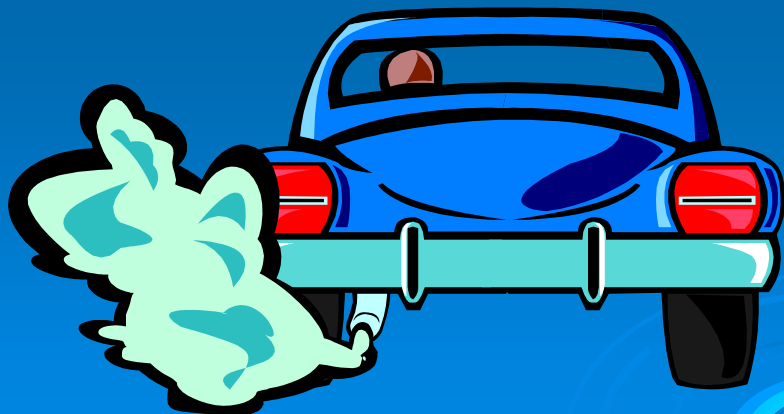
8-hour Ozone SIP

➤ Attainment demonstration modeling: range is important (82 – 87 ppb)

➤ Other statistical evidence ("weight of evidence") based on air quality data will be considered
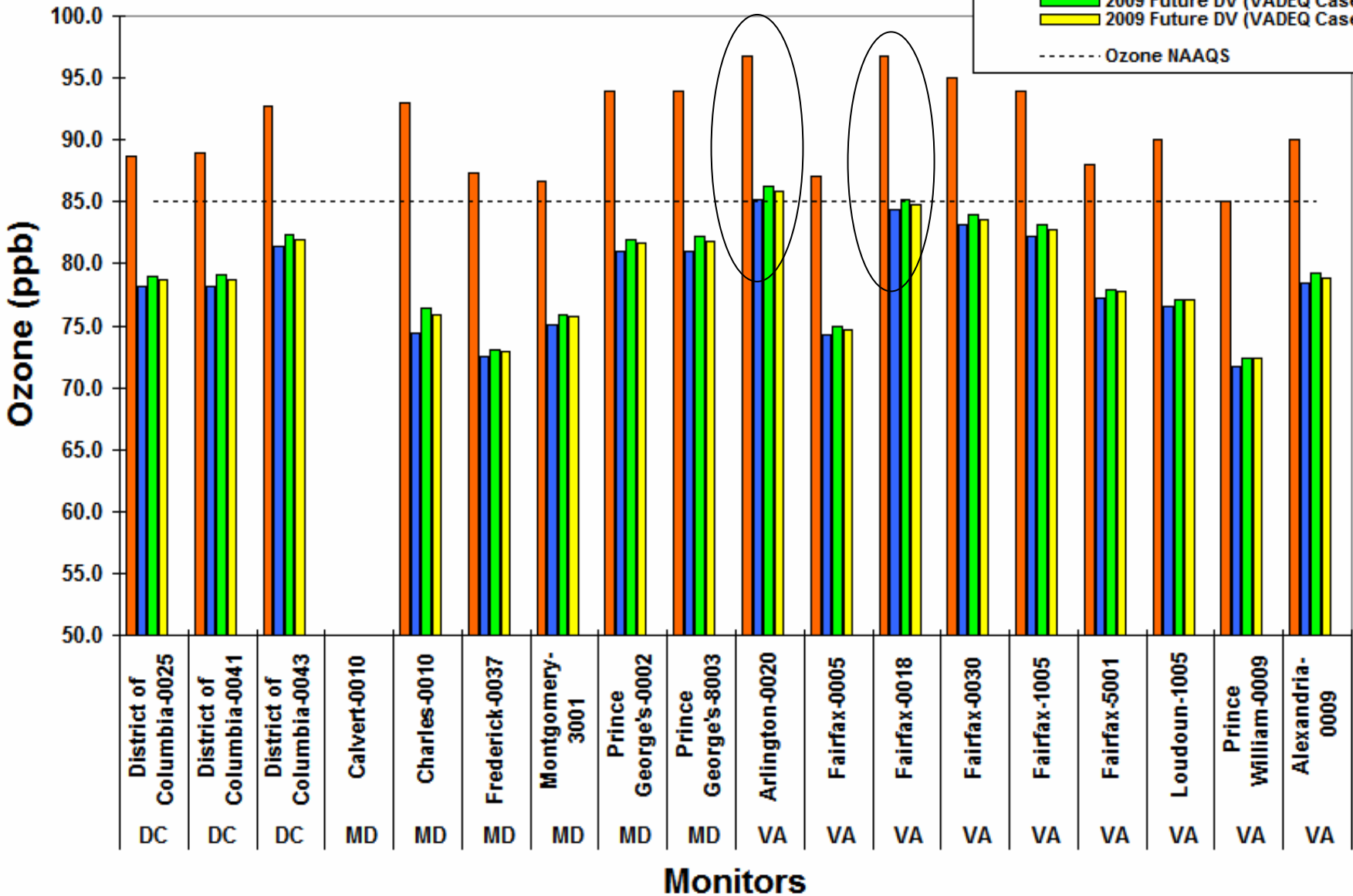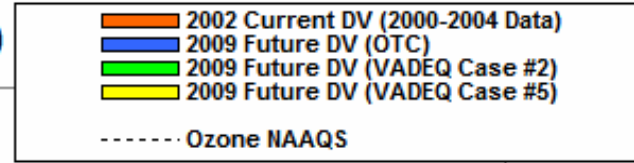
Preliminary Analysis

➢ "On the Books" and "On the Way" controls reduce emissions >21%

➢ More Reductions are needed to meet 8 hr standard.

Design Values for Future Case Scenarios
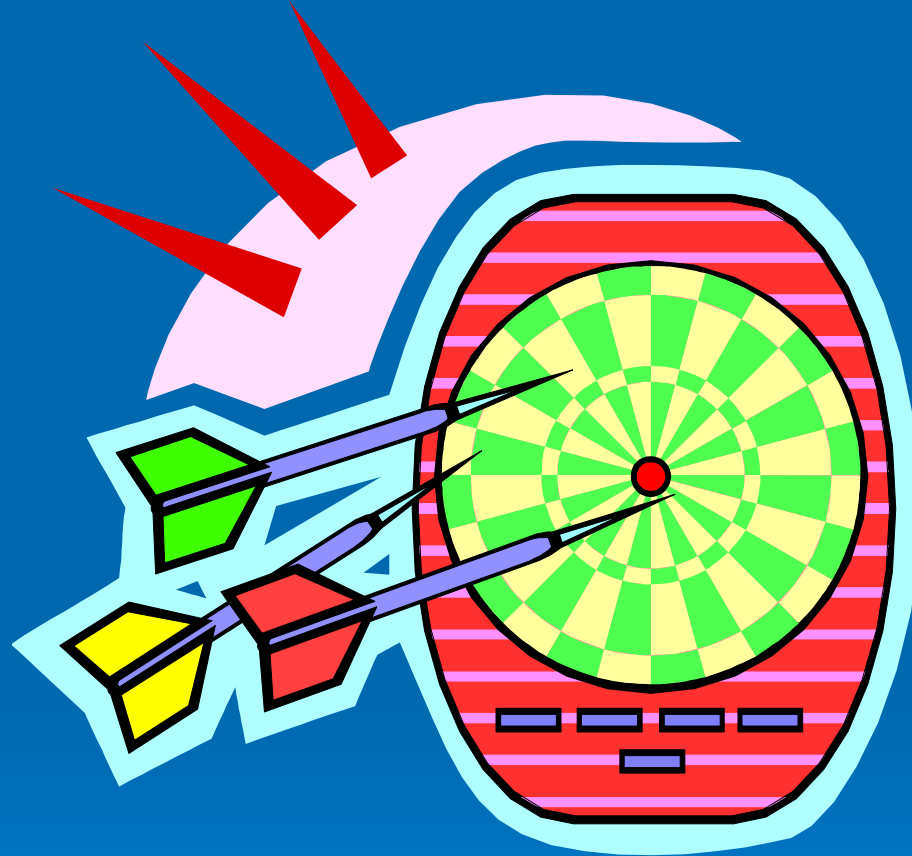## (Modeling Period: 6/6 - 8/16)

Note: Calvert County monitor has insufficient data collection for design value calculations.

Design Values for Future Case Scenarios

➢ **Monitored values above 85 ppb**

- OTC 2009 future base case @ 85.6 ppb (Arlington)

- VADEQ 2009 future base case (Case #2) @ 86.3 ppb (Arlington) & 85.2 ppb (Fairfax)

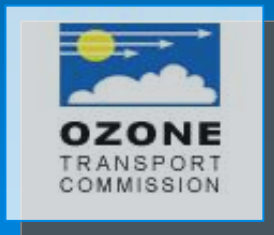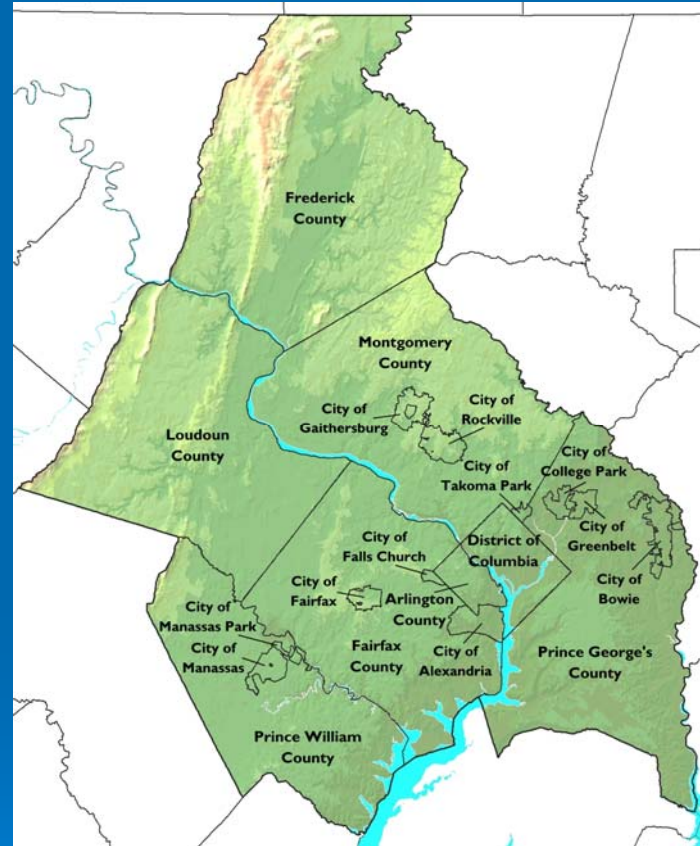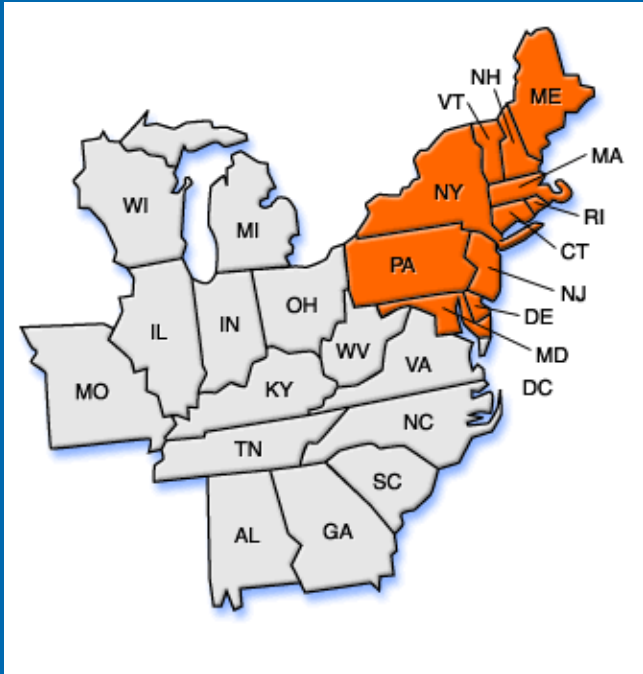- VADEQ 2009 future control case (Case #5) @ 85.9 ppb (Arlington)

Goal is 85 ppb or less

Additional Future Control Case Modeling

- Identify & quantify additional control emissions

- Run control case model to test these control strategies

- Perform attainment test (using Relative Reduction Factors)

- Repeat process as needed to demonstrate attainment

Regional + Local = Strategy

Control Measures

Control Strategy Development for 8 - hour Ozone SIP

Master List

Total Number of Measures: >300

Examples:
Point
- Multipollutant Strategy
- Distributed Generation Rule
- ICI Boiler Standards
- Peaking Unit Rule
- State RACT Update

Area
- Consumer Products Phase II
- AIMs Phase II
- Portable Fuel Containers
- Airport Emission Budget
- Episodic Measures

Nonroad
- Performance Contracting
- Diesel Retrofits
- Idling Controls

Mobile
- I-95 Corridor Strategy
- Idling Controls
- Alternative Fueled Vehicle Purchases
- Diesel Retrofits
- Land Use and Zoning Controls
- Episodic Measures

Priority List

Total Number of Measures: 27

Select Examples:
- ICI Boiler Standards
- State RACT Updates
- Distributed Generation Rule
- Peaking Unit Rule
- Consumer Products Phase II
- Portable Fuel Containers
- Upwind NOx and VOC Controls
- Airport Emissions Budget
- Innovative Measures Bundle

OTC Model Rules

Total Number of Measures: 4

- Consumer Products Phase II
- Adhesives and Sealants
- Portable Fuel Containers
- Voluntary Chip Reflash

Ozone Transport Commission Measures under development:
- Asphalt Paving
- Asphalt Plants
- Cement Kilns
- Regional Fuels
- Glass Furnaces   *Not included in modeling
- ICI Boilers

Proposed SIP Control Strategy

Total Number of Measures: 6

Examples:
- Consumer Products Phase II
- Portable Fuel Containers
- Adhesives and Sealants
- Chip Reflash
- Voluntary Bundle
- State RACT Updates

Contingency Measures

Total Number of Measures: 2 - 4

To be determined.

Development of Control Strategy

1. Select Core OTC Control Measures
2. Select Local Government Initiatives
3. Model (1) and (2)
4. Modeling Results ⟶

   Attainment Demonstration

Local Controls (voluntary)

➢ Wind power purchase

➢ Diesel Retrofits (buses, trucks, equipment)

➢ LED Traffic Signal Retrofits

➢ Alternative Fuel Vehicle Purchases

➢ Low VOC Paint

Steps to Decision-Making

☑ June 28:   MWAQC Work Session
- Preparation for Approving Control Strategy

☑ July 17: Interstate Air Quality Council
- States agree to adopt regional OTC measures

❑ July 26:   MWAQC Meeting
- MWAQC decides to adopt regional measures and local voluntary measures ("bundle") as AQ plan's   "CONTROL STRATEGY"

❑ Oct-Nov: MWAQC Meeting
- MWAQC adopts DRAFT SIP with CONTROL STRATEGY

❑ March, 28, 2007
- MWAQC approves SIP, sends to States