

Will the Washington Region Meet the 8-hour ozone standard in 2009?

Joan Rohlf, Chief, AQ Planning
MWCOG

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Air Quality Plan (SIP)

- Must demonstrate that the Washington region will meet the public health standard for ozone by 2009
- What evidence does EPA require?
 - Photochemical modeling
 - Weight of evidence -

1-hour SIP: 2005

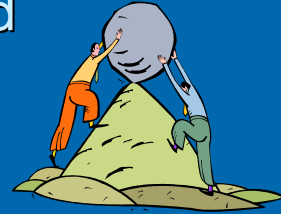
- CAA of 1990 and EPA required:
 - 3% per year reduction in emissions from 1990-2005
 - Attainment modeling demonstration
 - Weight of evidence (optional)

Regional Growth, 1990-2005

- Household population grew 28%
- Vehicle Miles Traveled grew 25%
- Ozone Design Value dropped 27%



New Ozone Standard ("8-hr")



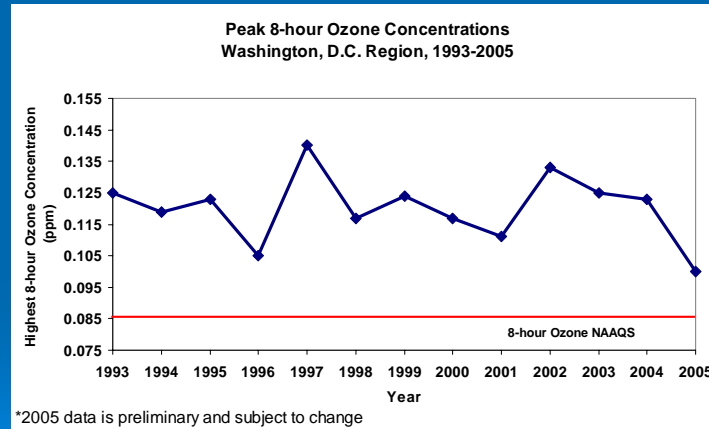
- Attainment Demonstration must show the control strategy achieves design values below 85 ppb by Sept. 2009
- EPA modeling for the Clean Air Interstate Rule (CAIR) shows the Washington region not meeting the 2010 deadline for ozone.

8-hour Ozone SIP

- Attainment demonstration modeling: range is important (82 – 87 ppb)
- All reasonably available control measures must be adopted and in force by 2009
- Other statistical evidence ("weight of evidence") based on air quality data will be considered



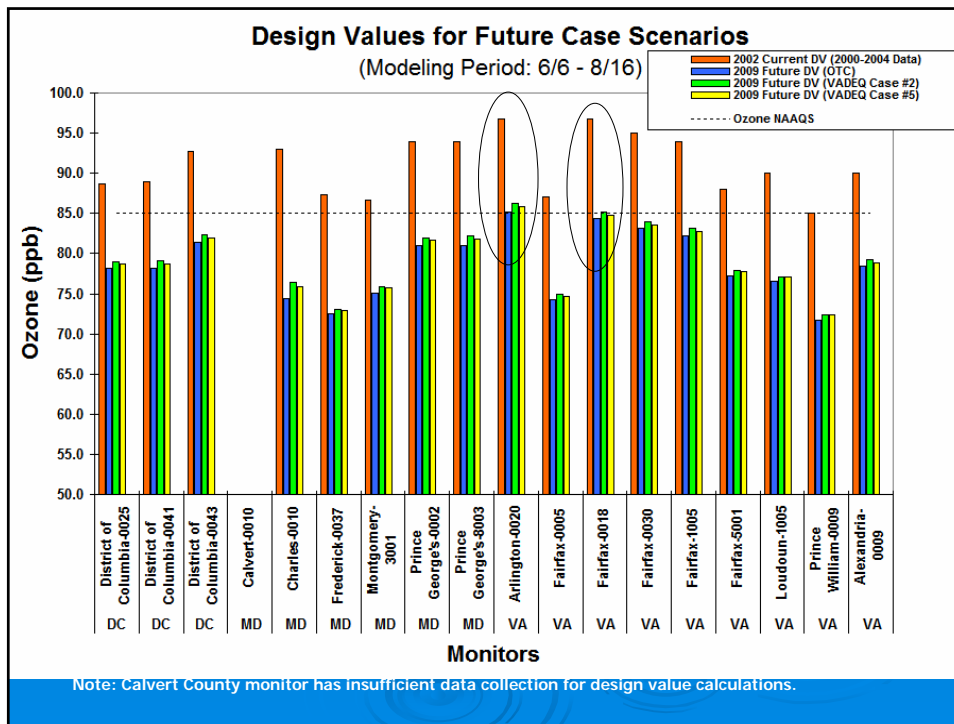
Peak 8-hr Ozone Concentrations



Broad Regional Scale Modeling

- Ozone Transport Commission (OTC) is leading attainment modeling for 13 member states. OTC is a Regional Planning Organization (RPO)
- Virginia Dept. Environmental Quality (DEQ) is leading Washington region's attainment modeling demonstration
- Modeling done on much larger geographic scale than the one-hour ozone SIP



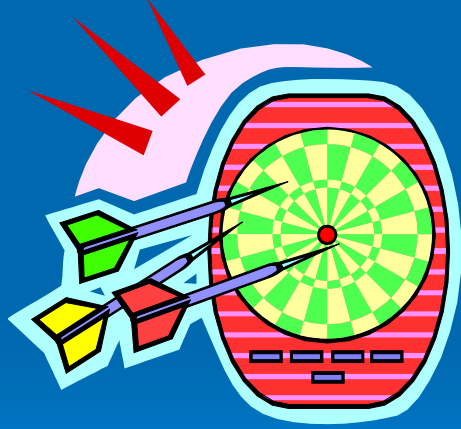


Design Values for Future Case Scenarios

➤ 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



Next Steps

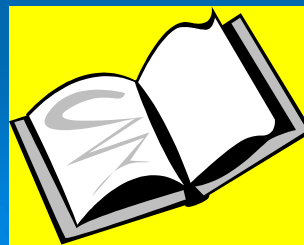
➤ **Additional Future Control Case Modeling**

- Identify & quantify additional control emissions
 - Awaiting decision from Interstate Air Quality Council (IAQC) on control measures to be modeled
- Run control case model to test these control strategies
- Perform attainment test (using Relative Reduction Factors)
- Repeat process as needed to demonstrate attainment

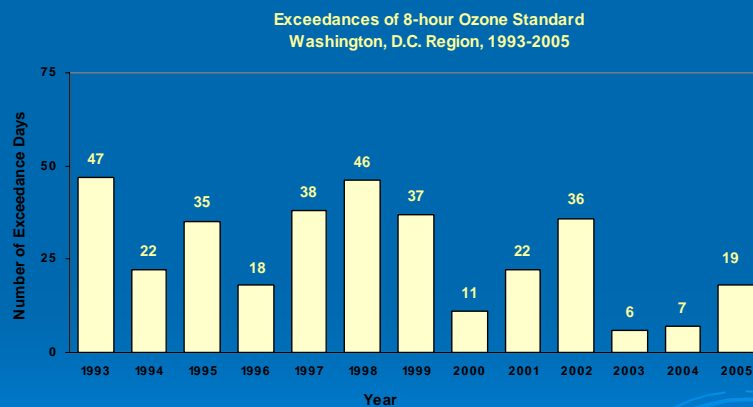
Next Steps

➤ Weight of Evidence (WOE)

- Supporting information that accompanies model attainment demonstration
- Provides additional documentation that the area will attain NAAQS

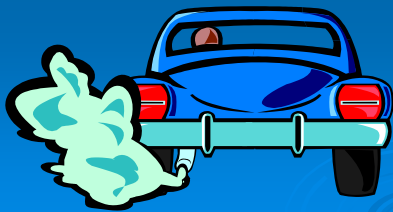


8-hr Ozone Exceedance Days



Preliminary Analysis

- “On the Books” and “On the Way” controls reduce emissions >21%
- More Reductions are needed to meet 8 hr standard.



New Controls Being Considered

- New regional control programs being developed as part of OTC process



- New Innovative Measures Bundle

Prelude to Decision-Making

- June 28: 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”