

PLANTING THE SEEDS OF SUCCESS.



**Trees and Air Quality Planning**  
**Critical next steps for**  
**Inclusion of Tree Planting into the State**  
**Implementation Plan (SIP)**

Center for Chesapeake Communities

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**Goal of Work**

- Provide basis for decision to incorporate urban vegetation as a means to reduce ozone within the Washington area - SIP




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**What is a SIP?**

Multiple Choice:

- A nice neat report 
- A large file of information 
- Filing cabinets full of documentation 
- All of the above

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## Air Quality Plan ("SIP")

- A plan containing an emissions goal to improve air quality by a deadline established by the Clean Air Act
- The plan contains federal, state, and local measures to reduce air pollution

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## DC-MD-VA Air Quality Plan ("SIP") Scope

- Commits to meet the ozone standard by the year 2009
- Identifies control measures to be taken to reduce pollution created locally
- Identifies measures to reduce air pollution transported from our region into other states
- Sets a mobile emissions budget

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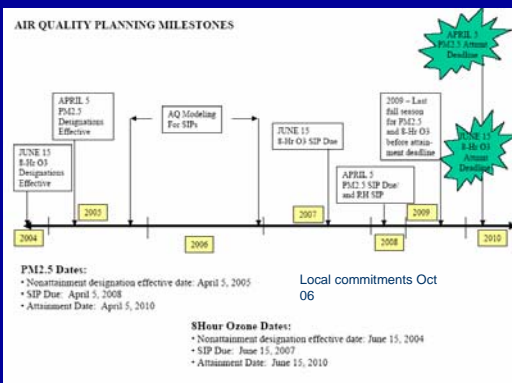
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### Timeline




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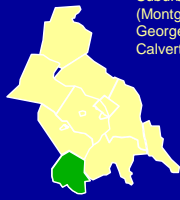
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**Metropolitan Washington DC-MD-VA Region  
8-Hour Ozone Moderate Nonattainment Area**

Virginia (Fairfax, Arlington, Loudoun, Prince William Counties, City of Alexandria)



District of Columbia  
Suburban Maryland (Montgomery, Prince George's, Frederick, Charles, Calvert Counties)

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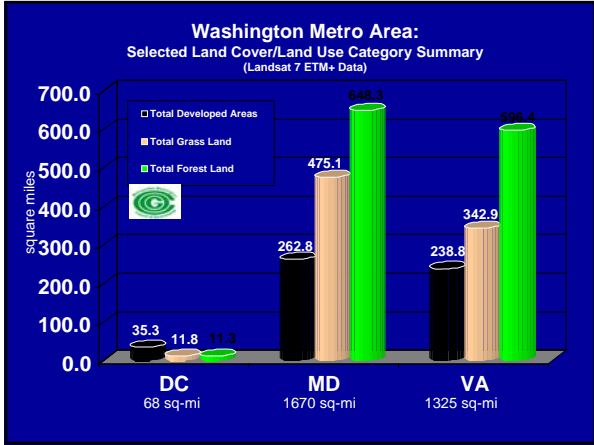
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**Control Measures in SIP**

Mandatory Measures (Regulations)

Voluntary Measures:

- Reformulated paints and solvents
- Gas can replacement programs
- AFV purchases, wind energy purchase, green roofs, tree canopy expansion

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## Voluntary Bundle

### Reductions Credited

- Low-VOC Consumer Products
- Wind Power Purchase
- Gas Can Replacement
- Use of Low-VOC Paint
- Reduce Locomotive Idling



### Included, But No Credit Taken

- Alternative Fueled Vehicle Purchase
- Remote Sensing Device
- Diesel Retrofits (School and Transit Buses)
- (may be included) Tree Canopy

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## Voluntary SIP Measures

- Not enforceable
  - Encourage not require people and local organizations to plant trees
  - Create need for a collaborative database of canopy expansion activities
- Provide regional support, priority and visibility to programs for canopy expansion
- Creates opportunities for new measures, funding and collaboration

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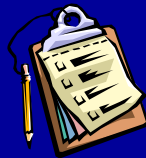
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## Commitment Requirements



Signed Letter



Program Details  
Estimate of Benefits



Program  
Effectiveness  
Report

Agree to monitor program and provide annual reports on program participation/effectiveness

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## Good News

- Maryland is committed and has included Trees as a consideration in the air quality planning process for the Baltimore air management area
- WASHCOG-MWAQC has included Trees as a consideration in the DC Metro Air Quality Plan subject to local commitment
- Other states are interested

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## Virginia CAN MAKE A DIFFERENCE



WHAT WILL YOUR JURISDICTION COMMITMENT TO DO ?

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## Measures/ Tools What government can do

- Conserve priority forests
- Restore forest remnants
- Reforest public land
- Reforest private land



- Maintain existing forest canopy
- Prevent forest loss during development
  - Landscaping (including street trees) during land use changes

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## Virginia tree tools

- Local Tree Cover Ordinances based on VA State Code § 15.2-961
- Local Erosion and Sediment Control Ordinances based on VA State Code § 10.1-562
- Local C-Bay Ordinances based on VA State Code § 10.1-2100. and Management Regulations; 9 VAC 10-20-10 through -230
- Local Preservation Ordinances based on VA State Code § 10.1-1127.1. Conservation of Heritage, Specimen, Memorial and Street Trees

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## Virginia tools - #2

- Non-profit Tree planting tree planting
- Urban Tree Canopy Goals subset of Chesapeake 2000 Agreement
- Earth Day/Arbor Day Programs
- Tree City USA Program
- Forest Pest Management Programs
- Conservation Easements
- Local Urban Forestry Strategic Plans

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## Virginia Agenda

- What should the goal be? (5% 20 years)
- A variety of strategies can be used
- Characterizing the campaign (Canopy expansion versus tree planting goal)
- How will you track, verify and report progress?
- Identifying needed funding for the tree planting, tracking and outreach database

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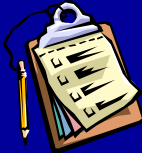
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**Critical near term Steps**



**Signed Letter**



**ID Program Details  
Complete reporting  
Form**



**Agree Future  
Effectiveness  
Report**

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*Future actions  
ID needed Legislative - Administrative changes  
Program funding opportunities*

- Tree ordinances
- Tree requirements
- Mitigation opportunities
- Sites, Permitting




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**Measures**  
*What nongovernmental  
Partners can Do*




- Planting
- Citizen Training
- Member Education
- Inventories
- Maintenance/Stewardship
- Identify Funding

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Sample Implementation Plan:  
The program would begin implementation in 2007 and be completed in 2023. The tree-planting rate would follow this schedule:

| Planting Schedule | Year     | % of goal | Trees Planted | Cumulative Trees |
|-------------------|----------|-----------|---------------|------------------|
| Program Year      | Pre-2007 | 10%       | 490000        | 490000           |
| 1                 | 2007     | 3%        | 147000        | 637000           |
| 2                 | 2008     | 5%        | 245000        | 882000           |
| 3                 | 2009     | 3%        | 147000        | 1029000          |
| 4                 | 2010     | 8%        | 392000        | 1421000          |
| 5                 | 2011     | 9%        | 441000        | 1862000          |
| 6                 | 2012     | 10%       | 490000        | 2352000          |
| 7                 | 2013     | 10%       | 490000        | 2842000          |
| 8                 | 2014     | 9%        | 441000        | 3283000          |
| 9                 | 2015     | 8%        | 392000        | 3675000          |
| 10                | 2016     | 7%        | 343000        | 4018000          |
| 11                | 2017     | 3%        | 147000        | 4165000          |
| 12                | 2018     | 1%        | 49000         | 4214000          |
| 13                | 2019     | 1%        | 49000         | 4263000          |
| 14                | 2020     | 1%        | 49000         | 4312000          |
| 15                | 2021     | 1%        | 49000         | 4361000          |
| 16                | 2022     | 1%        | 49000         | 4410000          |
| 17                | 2023     | 1%        | 49000         | 4459000          |
|                   |          | 100.0%    | 4900000       |                  |

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In addition ...

- Establish long-term canopy goals for local area
- Fund programs for canopy expansion, maintenance and care
- Support volunteer tree planting organizations
- Educate the public
- Champion inclusion of trees in SIP

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Questions?

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# Thanks!

Credits: VA: Mike Knapp, Jim McGlone

U S Forest Service: David J. Nowak

MDE: Tad Aburn, Brian Hug, Michael Woodman

COG: Joan Rohlf, Jeff King

UMCP: Jeff Stehr, Charles Piety, Dalin Zhang, Russ Dickerson

CCC: Gary G. Allen

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