





# Tree Canopy Coverage for MWAQC Strategic Planning Session

Improving air quality and reducing  
energy demands using trees.

Montgomery County  
Department of Environmental  
Protection

# Increasing Canopy Coverage in Montgomery County

- Current programs include:
  - Street tree planting program
  - Plantings through Environmental Action Plan on County facilities





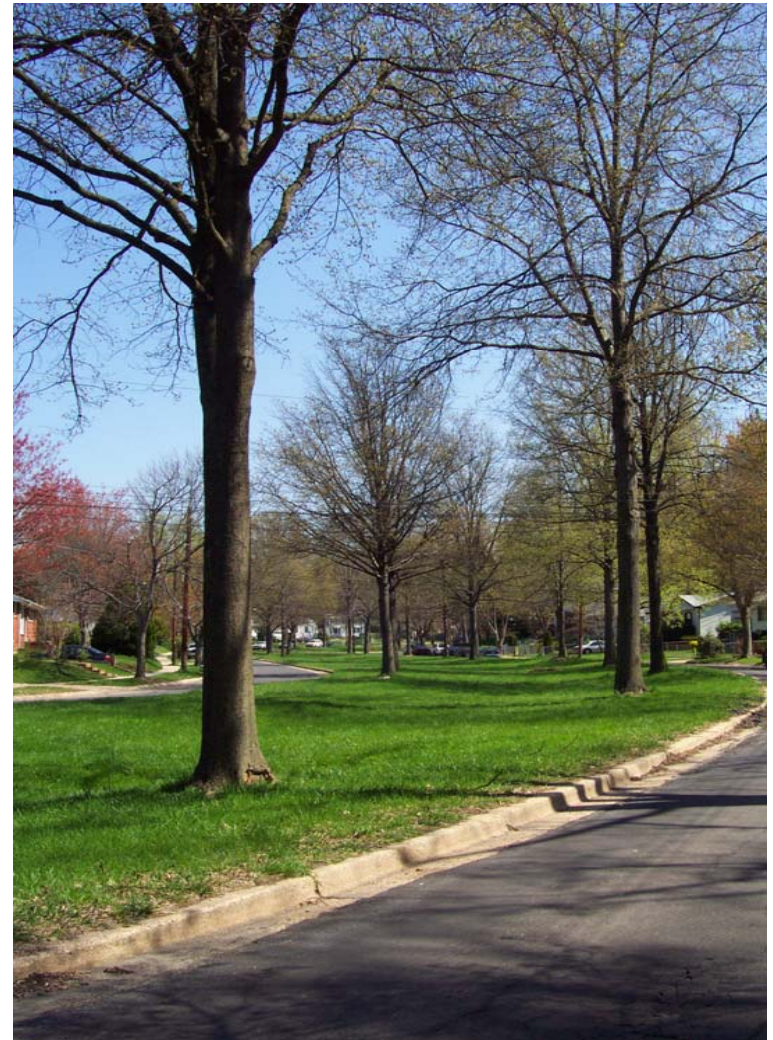
# Where do we plant street trees?



- Areas with low canopy coverage
  - Subwatersheds
    - Neighborhoods
- Impervious surface
- Location of streams or drainages

# Individual Plantings in Priority Areas

- Individual planting sites are selected to:
  - Increase canopy coverage
  - Cover impervious surfaces
  - Shade roads and sidewalks
- Species are selected to:
  - Survive and grow
  - Increase diversity
  - Not emit too many VOCs
  - Look nice





# Costs Associated with Plantings

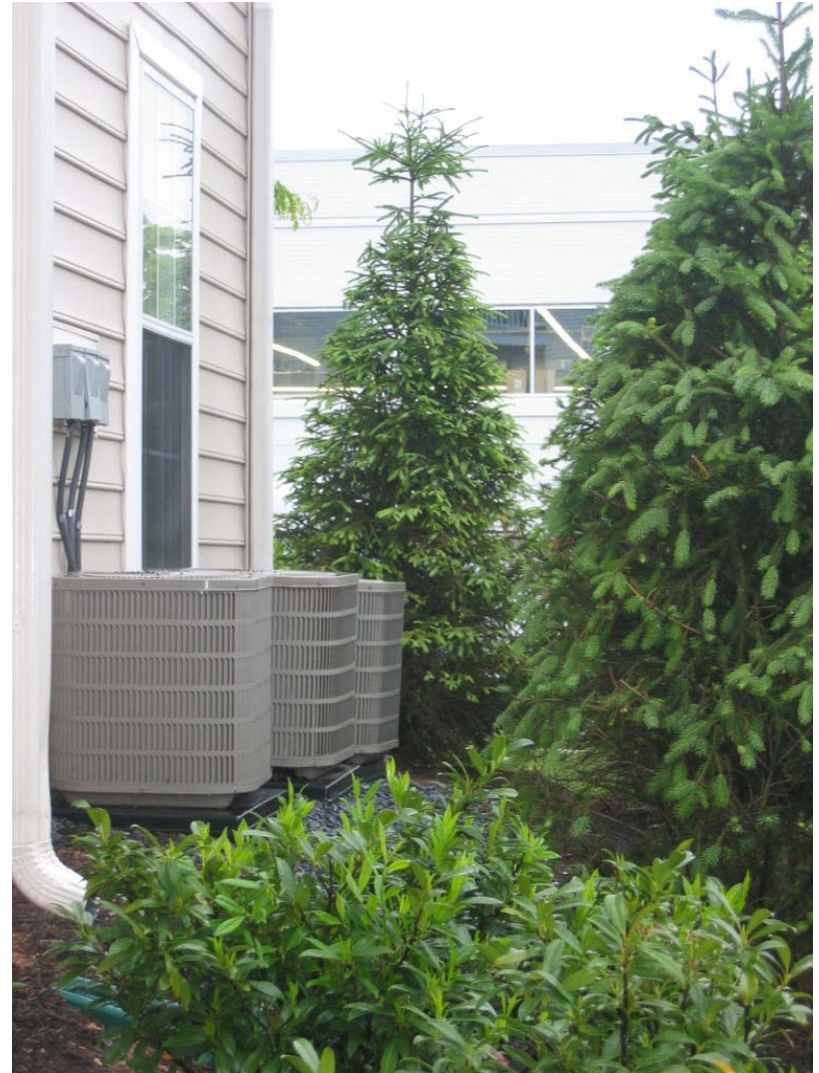
- Currently, Montgomery County plans for 1,500 trees per year
- Average cost per tree in FY04 was \$125
- Plan to request increases in funding to allow for
  - 2<sup>nd</sup>-year of aftercare and guarantee
  - guards to protect trees from mowers



# Expanding the Program

Plant on public and private lands:

- Replanting parking lots
- Shading air conditioning units
- Buffering winds



# Obtaining SIP Credits for Canopy

- **Results that we can measure (*with some difficulty*)**
  - Decreases in energy demands
  - Increases in canopy coverage
- **Results that we may be able to measure (*given time*)**
  - Lower summertime temps due to heat islands
  - Fewer ozone action days



# Tracking Changes in the Canopy



- **Traditional air photos**
- **Digital site plans for trees removed and planted**
- **IKONOS images and data**
- **Models to “grow” newly planted trees**

At this time, coverages are largely updated by hand.

Currently, we are considering LIDAR





Where to go from here...

