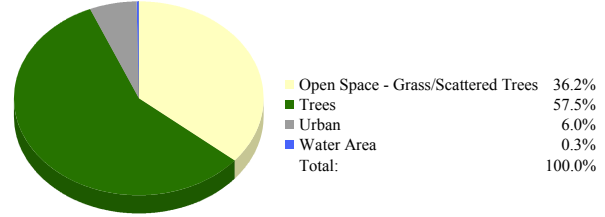
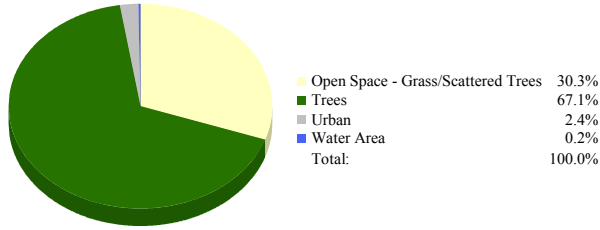


## I-77 Corridor Chester County, SC 1984 Landcover

## I-77 Corridor Chester County, SC 2003 Landcover



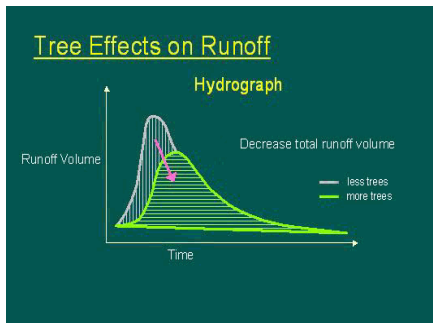
### Air Quality Results

#### Pounds Removed per Year

| Pollutant           | 1984             | 2003             |
|---------------------|------------------|------------------|
| Carbon Monoxide:    | 67,497           | 57,792           |
| Nitrogen Dioxide:   | 118,120          | 101,136          |
| Ozone:              | 691,843          | 592,366          |
| Particulate Matter: | 506,227          | 433,439          |
| Sulfur Dioxide:     | 219,365          | 187,823          |
| <b>Total:</b>       | <b>1,603,051</b> | <b>1,372,556</b> |

### Stormwater Results

#### Storm Event Hydrograph



#### Stormwater Volume Change

2-yr, 24-hr Rainfall: 3.25 in.

\*Curve Number reflecting conditions in 1984: 70

\*Curve Number reflecting conditions in 2003: 71

Additional Storage volume of stormwater generated due to change in landcover from 1984 to 2003: 5,216,422 cu. ft.

Construction cost of retention facilities per cu. ft. of stormwater: \$2.00

Cost of the construction of retention facilities to store excess volume of stormwater: **\$10,432,845**

### Benefits Summary

#### Landcover Change (acres)

| Landcover    | 1984   | 2003   | Change |
|--------------|--------|--------|--------|
| Trees:       | 18,929 | 16,208 | -14.3% |
| Open Space:  | 8,531  | 10,214 | 19.7%  |
| Urban:       | 684    | 1,696  | 147.9% |
| Water:       | 48     | 75     | 57.4%  |
| Total Acres: | 28,193 |        |        |

#### Air Pollution Benefits

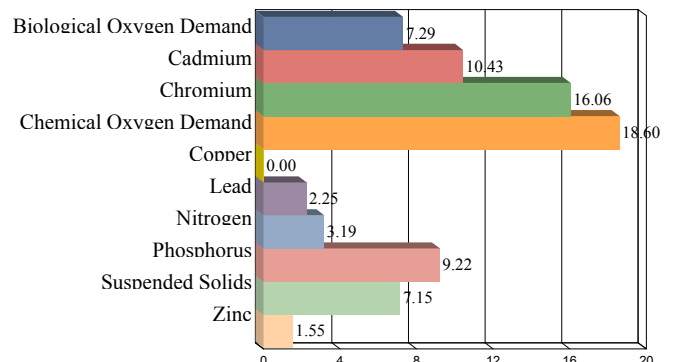
|                           |             |             |            |
|---------------------------|-------------|-------------|------------|
| Pollutants Removed (lbs): | 1,603,051   | 1,372,556   | -230,495   |
| \$ Amount:                | \$3,720,170 | \$3,185,265 | -\$534,905 |
| Carbon Stored (tons):     | 814,578     | 697,454     | -117,124   |
| Carbon Sequestered (lbs): | 6,342       | 5,430       | -912       |

#### Stormwater Benefits

|  |  |               |              |
|--|--|---------------|--------------|
| Additional Storage Volume Needed:              |  | 116,025,329   | 5,216,422    |
| Cost of Retaining Additional Volume of Runoff: |  | \$232,050,659 | \$10,432,845 |

#### Water Quality (Contaminant Loading)

#### Percent Change in Contaminant Loadings from 1984 to 2003 due to land cover change



\*The stormwater calculations are based on curve number which is an index developed by the NRCS, to represent the potential for storm water runoff within a drainage area. Curve numbers range from 30 to 100. The higher the curve number the more runoff will occur. The change in curve number reflects the increase in the volume of stormwater runoff.