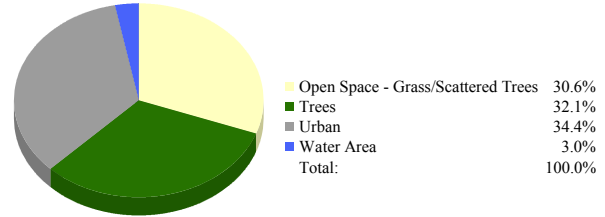
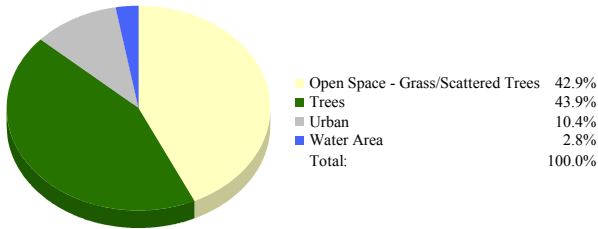


## 1984 Mecklenburg-Union MPO Landcover

## 2003 Mecklenburg-Union MPO Landcover



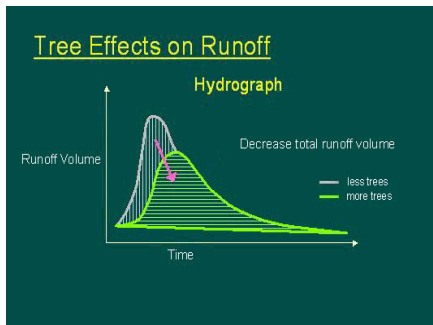
### Air Quality Results

#### Pounds Removed per Year

Pollutant	1984	2003
Carbon Monoxide:	932,863	682,044
Nitrogen Dioxide:	1,632,511	1,193,577
Ozone:	9,561,850	6,990,952
Particulate Matter:	6,996,476	5,115,330
Sulfur Dioxide:	3,031,806	2,216,643
<b>Total:</b>	<b>22,155,507</b>	<b>16,198,546</b>

### Stormwater Results

#### Storm Event Hydrograph



#### Stormwater Volume Change

2-yr, 24-hr Rainfall: 3.75 in.

\*Curve Number reflecting conditions in 1984: 73  
\*Curve Number reflecting conditions in 2003: 78

Additional Storage volume of stormwater generated due to change in landcover from 1984 to 2003: 734,038,181 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: **\$1,468,076,363**

### Benefits Summary

#### Landcover Change (acres)

Landcover	1984	2003	Change
Trees:	261,626	191,282	-26.9%
Open Space:	255,893	182,244	-28.8%
Urban:	61,806	205,075	231.8%
Water:	16,919	17,715	4.7%
Total Acres:	596,244		

#### Air Pollution Benefits

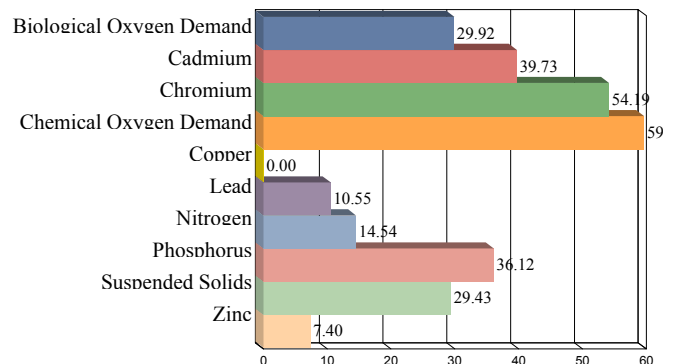
Pollutants Removed (lbs):	22,155,507	16,198,546	-5,956,960
\$ Amount:	\$51,415,857	\$37,591,654	-\$13,824,203
Carbon Stored (tons):	11,258,150	8,231,167	-3,026,984
Carbon Sequestered (lbs):	87,648	64,082	-23,566

#### Stormwater Benefits

Additional Storage Volume Needed:		1,748,821,182	734,038,181
Cost of Retaining Additional Volume of Runoff:		\$3,497,642,363	\$1,468,076,363

#### 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.