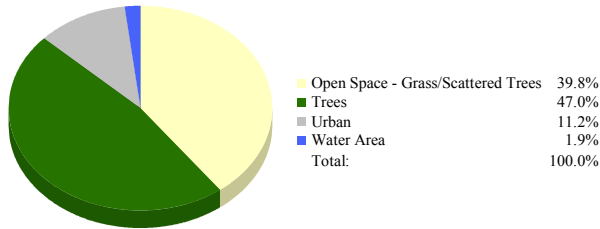
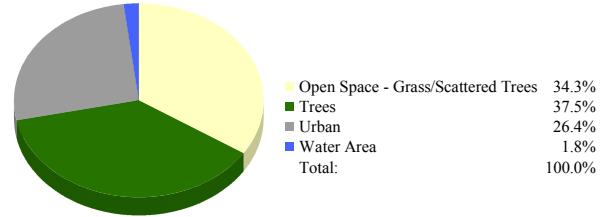


## Gaston County 1984 Landcover



## Gaston County 2003 Landcover



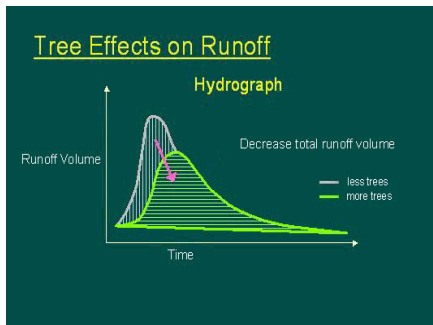
### Air Quality Results

#### Pounds Removed per Year

Pollutant	1984	2003
Carbon Monoxide:	390,300	310,907
Nitrogen Dioxide:	683,024	544,088
Ozone:	4,000,570	3,186,802
Particulate Matter:	2,927,247	2,331,806
Sulfur Dioxide:	1,268,474	1,010,449
<b>Total:</b>	<b>9,269,615</b>	<b>7,384,053</b>

### Stormwater Results

#### Storm Event Hydrograph



#### Stormwater Volume Change

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

\*Curve Number reflecting conditions in 1984: 71

\*Curve Number reflecting conditions in 2003: 74

Additional Storage volume of stormwater generated due to change in landcover from 1984 to 2003: 137,068,973 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: **\$274,137,946**

### Benefits Summary

#### Landcover Change (acres)

Landcover	1984	2003	Change
Trees:	109,461	87,195	-20.3%
Grass, Crops w/ veg. & fallow:	92,518	79,775	-13.8%
Urban:	26,160	61,394	134.7
Water:	4,518	4,294	-5.0%
Total Acres:	232,657		

#### Air Pollution Benefits

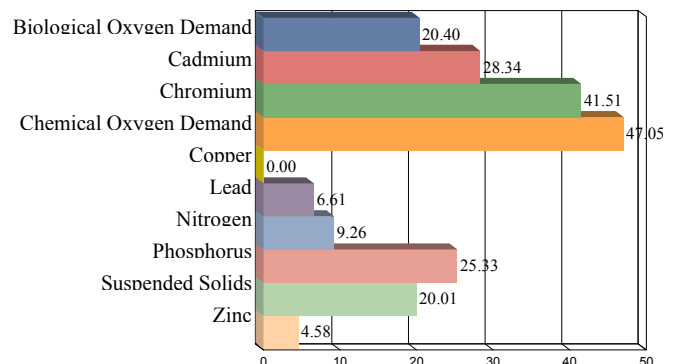
Pollutants Removed (lbs):	1984	2003	Change
Pollutants Removed (lbs):	9,269,615	7,384,053	-1,885,562
\$ Amount:	\$21,511,816	\$17,136,029	-\$4,375,787
Carbon Stored (tons):	4,710,283	3,752,150	-958,134
Carbon Sequestered (lbs):	36,671	29,211	-7,459

#### Stormwater Benefits

Additional Storage Volume Needed:	1984	2003	Change
Additional Storage Volume Needed:		750,436,179	137,068,973
Cost of Retaining Additional Volume of Runoff:		\$1,500,872,358	\$274,137,946

#### 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.