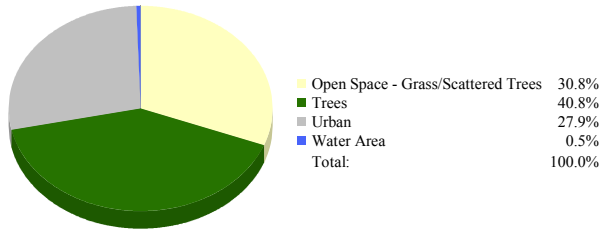
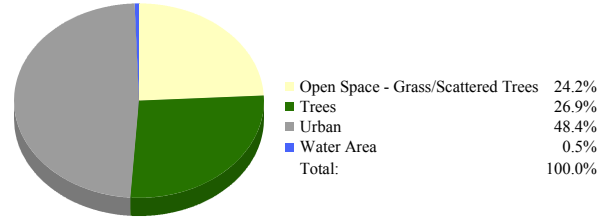


Gastonia, NC 1984 Landcover



Gastonia, NC 2003 Landcover



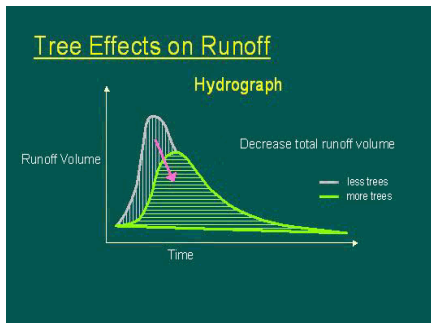
Air Quality Results

Pounds Removed per Year

Pollutant	1984	2003
Carbon Monoxide:	43,071	28,428
Nitrogen Dioxide:	75,375	49,748
Ozone:	441,481	291,382
Particulate Matter:	323,035	213,207
Sulfur Dioxide:	139,982	92,390
Total:	1,022,943	675,154

Stormwater Results

Storm Event Hydrograph



Stormwater Volume Change

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

*Curve Number reflecting conditions in 1984: 74

*Curve Number reflecting conditions in 2003: 79

Additional Storage volume of stormwater generated due to change in landcover from 1984 to 2003: 32,673,821 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: **\$65,347,642**

Benefits Summary

Landcover Change (acres)

Landcover	1984	2003	Change
Trees:	12,081	7,973	-34.0%
Grass, Crops w/ veg. & fallow:	9,123	7,177	-21.3%
Urban:	8,265	14,336	73.4%
Water:	160	142	0.5%
Total Acres:	29,631		

Air Pollution Benefits

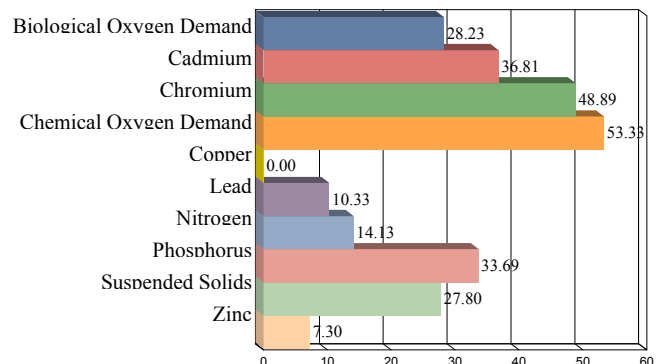
Pollutants Removed (lbs):	1,022,943	675,154	-347,789
\$ Amount:	\$2,373,924	\$1,566,817	-\$807,107
Carbon Stored (tons):	519,801	343,074	-176,726
Carbon Sequestered (lbs):	4,047	2,671	-1,376

Stormwater Benefits

Additional Storage Volume Needed:		71,809,760	32,673,821
Cost of Retaining Additional Volume of Runoff:		\$143,619,520	\$65,347,642

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.