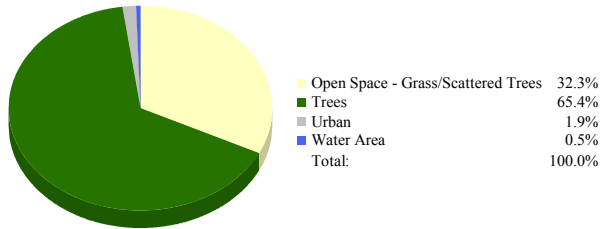
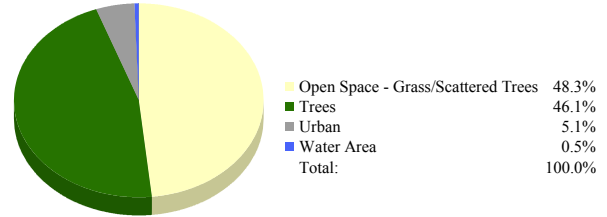


## Union County Partial 1984 Landcover



## Union County Partial 2003 Landcover



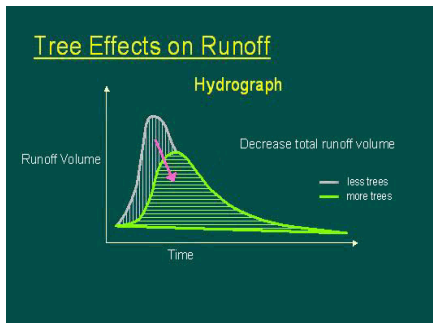
### Air Quality Results

#### Pounds Removed per Year

Pollutant	1984	2003
Carbon Monoxide:	581,269	409,885
Nitrogen Dioxide:	1,017,220	717,300
Ozone:	5,958,004	4,201,326
Particulate Matter:	4,359,515	3,074,141
Sulfur Dioxide:	1,889,123	1,332,128
<b>Total:</b>	<b>13,805,132</b>	<b>9,734,780</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: 46,106,630 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: **\$92,213,260**

### Benefits Summary

#### Landcover Change (acres)

Landcover	1984	2003	Change
Trees:	163,019	114,954	-29.5%
Open Space:	80,400	120,279	49.6%
Urban:	4,645	12,778	63.6%
Water:	1,130	1,181	-4.3%
Total Acres:	249,195		

#### Air Pollution Benefits

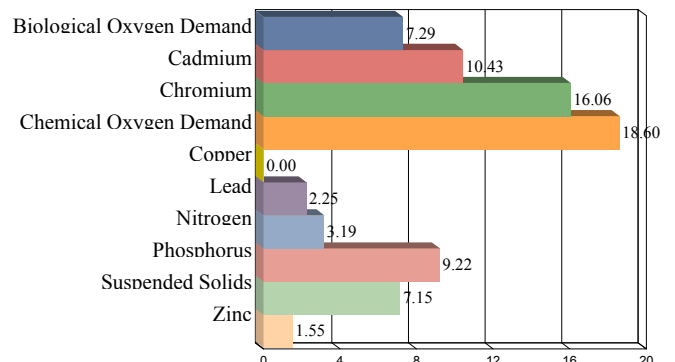
Pollutants Removed (lbs):	13,805,132	9,734,780	-4,070,352
\$ Amount:	\$32,037,304	\$22,591,316	-\$9,445,988
Carbon Stored (tons):	7,014,972	4,946,653	-2,068,318
Carbon Sequestered (lbs):	54,613	38,511	-16,102

#### Stormwater Benefits

Additional Storage Volume Needed:		806,944,987	46,106,630
Cost of Retaining Additional Volume of Runoff:		\$1,613,889,974	\$92,213,260

#### 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.