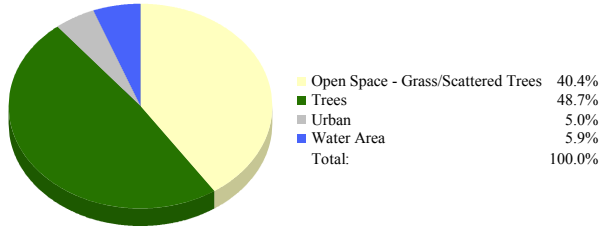
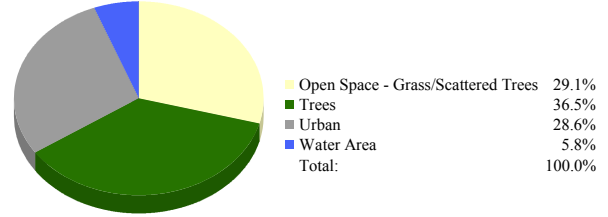


## Mountain Island Lake Watershed 1984 Landcover



## Mountain Island Lake Watershed 2003 Landcover



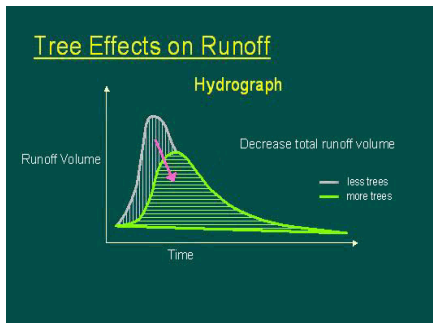
### Air Quality Results

#### Pounds Removed per Year

Pollutant	1984	2003
Carbon Monoxide:	76,080	57,052
Nitrogen Dioxide:	133,141	99,841
Ozone:	779,823	584,784
Particulate Matter:	570,602	427,891
Sulfur Dioxide:	247,261	185,419
<b>Total:</b>	<b>1,806,908</b>	<b>1,354,987</b>

### Stormwater Results

#### Storm Event Hydrograph



#### Stormwater Volume Change

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

\*Curve Number reflecting conditions in 1984: 72

\*Curve Number reflecting conditions in 2003: 78

Additional Storage volume of stormwater generated due to change in landcover from 1984 to 2003: 55,597,332 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: **\$111,194,665**

### Benefits Summary

#### Landcover Change (acres)

Landcover	1984	2003	Change
Trees:	21,337	16,001	-25.0%
Open Space:	17,726	12,772	-27.9%
Urban:	2,194	12,541	471.9%
Water:	2,592	2,535	-2.2%
Total Acres:	43,848		

#### Air Pollution Benefits

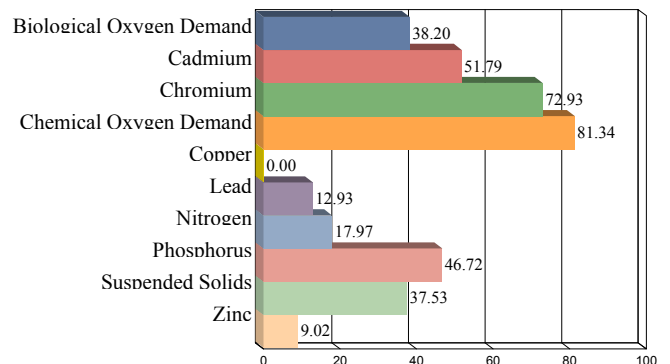
Pollutants Removed (lbs):	1,806,908	1,354,987	-451,921
\$ Amount:	\$4,193,256	\$3,144,492	-\$1,048,763
Carbon Stored (tons):	918,166	688,526	-229,640
Carbon Sequestered (lbs):	7,148	5,360	-1,788

#### Stormwater Benefits

Additional Storage Volume Needed:		130,060,259	55,597,332
Cost of Retaining Additional Volume of Runoff:		\$260,120,518	\$111,194,665

#### 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.