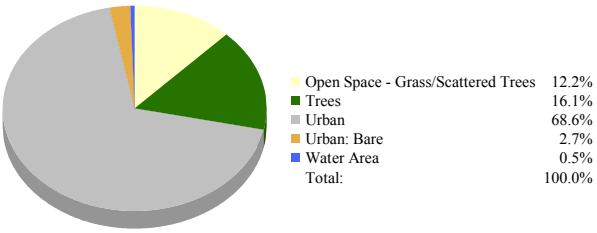
Analysis Report

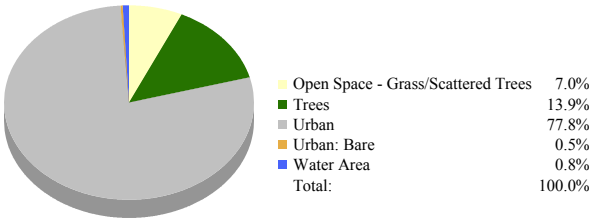
Landcover 1

1991 Middle 3 SWMA Land Cover



Landcover 2

2002 Middle 3 SWMA Land Cover



Air Quality Results

Pounds Removed per Year

Pollutant	1991 Landcover	2002 Landcover
Carbon Monoxide:	5,996	5,196
Nitrogen Dioxide:	32,977	28,580
Ozone:	92,936	80,543
Particulate Matter:	101,930	88,337
Sulfer Dioxide:	26,981	23,383
Total:	**260,820**	**226,039**

By absorbing and filtering out nitrogen dioxide (NO2), sulfur dioxide (SO2), ozone (O3), carbon monoxide (CO), and particulate matter less than 10 microns (PM10) in their leaves, urban trees perform a vital air cleaning service that directly affects the well-being of urban dwellers. This model, UFORE, developed the the US Forest Service, estimates the annual air pollution removal rate of trees within a defined study area for the pollutants listed below. To calculate the dollar value of these pollutants, economists use “externality” costs, or indirect costs borne by society such as rising health care expenditures and reduced tourism revenue. The actual externality costs used in the model is set by the each state, Public Services Commission.

Benefits Summary

Landcover Change (acres)			
Landcover	**Landcover 1**	**Landcover 2**	**Change**
Tree Canopy:	3,363	2,915	-13%
Air Pollution Benefits			
Pollutants Removed (lbs):	260,820	226,039	-34,781
$ Amount:	$618,716	$536,209	-$82,507
Carbon Stored (tons):	144,721	125,422	-19,299
Carbon Sequestered (lbs):	1,127	976	-150

Stormwater Results

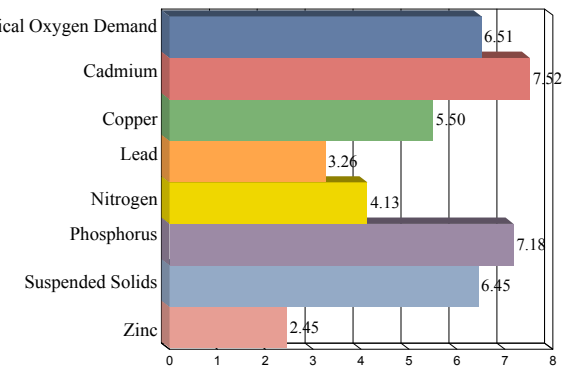
Stormwater Volume Change Summary

2-yr, 24-hr Rainfall: 2.25 in.

**Curve Number reflecting Landcover 1:*	87
**Curve Number reflecting Landcover 2:*	89
Change in stormwater volume due to landcover change:	10,127,501 cu. ft.
Construction cost, per cu. ft.of stormwater, to build retention facility :	$2.00
Cost of stormwater retention resulting from landcover change:	**$20,255,002**

Water Quality (Contaminant Loading)

Percent Change in Contaminant Loadings from Landcover 1 to Landcover 2



Notes: *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/decrease in the volume of stormwater runoff.