

Helpful Hints for Instructors of “Estimating Future Forest Cover in the Green River Watershed Using the Leaf-Out Analysis”

Total watershed area = 5,064 acres

Total stream miles = 20 miles (maximum possible forested acreage provided by 100-foot stream buffer is 485 acres)

The acres shown on the map for potential reforestation sites represent the forestable acres on the parcel (as opposed to the acreage of the entire parcel). Some areas of these parcels are not forestable because of impervious cover or ballfields.

If they choose to adopt a buffer ordinance, they should assume that: the ordinance applies only to new developments, and if buffer do not currently exist on these sites, reforestation of the 100-foot buffer will be required.

While there are 249 acres of protected land in the watershed, only 200 acres of this land is forested.

None of the existing forested stream buffer is currently protected.

If groups want to know what the zoning is for the potential reforestation sites, they can just make their own assumptions about what the future land use will be if developed.

Cost of providing incentives for landowners to conserve forest is based on the assumption that property tax is 30% of land value (\$5000 per acre) and the city would cover half that cost (total of \$800/acre).

Total acreage of potential forest conservation sites = 640 acres

Total acreage of potential reforestation sites = 240 acres.

Maximum possible reforestable acres on private land (acres of private turf on developed land) = 1278 acres.

Groups should consider where forest is located in addition to acreage when selecting priority parcels for conservation or reforestation.

Inputs to Leaf-Out spreadsheet for final group results:

Urban Watershed Forestry Technique	How to Account for Technique in Leaf-Out Spreadsheet
Acquire priority forest parcels for permanent conservation	Add total acres conserved to the acres of protected land for medium density residential (C7)
Provide incentives for landowners to place their forest land in conservation easements	Add total acres conserved to the acres of protected land for medium density residential (C7)
Adopt stream buffer ordinance that requires protection of a 100-foot forested stream buffer	Add 80 acres to the acres of protected land for each land use category (C6 – C10)
Adopt forest conservation regulations that require the following forest conservation thresholds: <ul style="list-style-type: none"> • Open Urban land: 40% • Medium Density and Multifamily Residential: 25% • Commercial and Industrial land: 15% 	Change forest cover coefficients to: Open Urban Land: 0.40 Medium Density and Multifamily: 0.25 Commercial and Industrial: 0.15 (F6 – F10)
Actively reforest public lands	Add total acres reforested to future forest cover under <i>Actively reforest priority lands</i> . (I14) Reduce other pervious cover accordingly (J14)
Provide incentives for planting trees on private land (e.g., free seedlings, technical assistance)	Add 127 acres to future forest cover under <i>Provide incentives for tree planting</i> . (I15) Reduce other pervious cover accordingly (J15)
Educate watershed residents about the benefits of planting trees	Add 12 acres to future forest cover under <i>Educate residents about tree planting benefits</i> . (I16) Reduce other pervious cover accordingly (J16)

Developed by the Center for Watershed Protection, 8390 Main Street, 2nd Floor, Ellicott City, MD 21043

