MEMORANDUM

(#3)

TO: Board of Selectmen
FROM: Planning Board
DATE: June 3, 2011
SUBJECT: Recommendation - Tree Bank Contribution Rate

BACKGROUND

The newly adopted Tree Bylaw establishes a Tree Bank for the collection of contributions made to compensate for the removal of Protected Trees, in lieu of replanting trees. The Bylaw requires the Board of Selectmen to establish a contribution rate, and permits the Board to establish varying rates (a contribution schedule) that take into account the aggregate diameter (DBH) of Protected Trees to be removed, as follows:

> Section XVIE., F., 2., b., ii.
>
> *Contribution to the Town of Wellesley Tree Bank*: The Board of Selectmen shall establish a Tree Bank contribution schedule, such schedule to be based on the DBH of Protected Tree(s) to be removed. The schedule may take into account the aggregate DBH of Protected Trees to be removed. The applicant shall make such contribution to the Tree Bank for the removal of a Protected Tree not already mitigated for per subsection F.2.b.i.; contributions shall be received by the Building Department prior to the issuance of all applicable permits.

Initially, the Bylaw allowed the Board of Selectmen to establish a single rate per inch; however, Town Meeting expressed the desire, and adopted an amended Bylaw, to allow the Board of Selectmen flexibility to consider establishing a varying rate that discourages the removal of a significant numbers of trees from larger lots without disproportionately affecting smaller lots.

PLANNING BOARD RECOMMENDATION

After review of a number of scenarios and comparable communities (attached), the Planning Board recommends that the Board of Selectmen establish an incrementally increasing contribution rate, with only two rate points: $150 for 20"dbh or less removed, and $250 for 20" dbh or more removed. The contribution schedule is based on total caliper inches removed, not the number of trees removed. The schedule gives consideration to homeowners removing one or two protected trees with a discounted contribution rate for up to 20". However, in attempts to protect larger more significant trees, the Planning Board recommends that a single tree over 20" in caliper not receive the discount, and must begin the contribution at the higher rate.

The examples below are a comparison of the economics of saving a tree compared to removal and replanting or removal and contributing. The calculations can be found below the table. The assumption is that it costs approximately $500 per tree removal and costs approximately $400 for the purchase and installation of a new 2" tree.

Recommended Contribution Schedule

Contribution rate of $150 per inch for the removal of 10" to 20" and $250 per inch for the removal of more than 20".

	Number of Trees/Total DBH	Cost to Preserve/Protect	Cost to Remove & Replace	Cost to Remove & Contribute
Scenario 1	1 tree/10"	$1,200 to $1,500	$1,700	$2000
Scenario 2	1 tree/ 24"	$1200 to $1500	$2900	$6500
Scenario 3	4 trees/50"	$4,800 to $6,000	$7,200	$14,500
Scenario 4	8 trees/100"	$9,600 to $12,000	$14,000	$29,000

Scenario 1: One 10" dbh

Cost to Preserve/Protect: $1,200 to $1,500
Cost to Remove and Replace: $500 + $400 x 3 (3 - 2" trees) = $1,700
Cost to Remove and Contribute: $500 + $150 x 10 = $2,000

Scenario 2: One 24" dbh

Cost to Preserve/Protect: $1,200 to $1,500
Cost to Remove and Replace: $500 + $400 x 6 (3 - 2" trees) = $2,900
Cost to Remove and Contribute: $500 + ($250 x 24) = $6,500

Scenario 3: Four trees totaling 50" dbh

Cost to Preserve/Protect: $1,200 to $1,500 x 4 = $4,800 to $6,000
Cost to Remove and Replace: $500 x 4 + $400 x 13 (13 - 2" trees) = $7,200
Cost to Remove and Contribute: ($500 x 4) + (250 x 50) = $14,500

Scenario 4: Eight trees totaling 100" dbh

Cost to Preserve/Protect: $1,200 to $1,500 x 8 = $9,600 to $12,000
Cost to Remove and Replace: $500 x 8 + $400 x 25 (25 - 2" trees) = $14,000
Cost to Remove and Contribute: $500 x 8 + (100 x 250) = $29,000

ALTERNATIVES AND CONSIDERATIONS

The following are examples of "payment in lieu of replacement" rates used in a selection of municipalities:

Town of Lexington, MA: $50 per dbh inch of tree removed.

City of Happy Valley, OR: $250 per tree removed.

City of Newton, MA: Contribution amount equal to cost to replace the tree, to be determined by tree warden based on estimates from at least 2 tree companies

City of Roswell, GA: $500 per tree density unit of tree removed (10" tree = 3.6 density units = $1,800; 20" = 6.0 density units = $3,000).

City of Round Rock, TX and City of Pflugerville, TX: For trees with dbh of 8" to 19.99", $150 per inch of trees removed; for trees with dbh of 20" and greater, $450 per inch of trees removed.

City of Folsom, CA: Amount varies based on size of trees: 6" to 10" = $750 per tree; 11" to 15" = $1,500 per tree; 16" to 20" = $2,000 per tree; 21" to 25" = $2,500 per tree; 26" to 30" = $3,000 per tree; 31" to 35" = $3,500 per tree; 36" to 40" = $4,500; 40"+ = $6,000.

In addition to the contribution rate, it is also important to take into account other costs associated with tree removal and tree planting.

Cost to Preserve/Protect Tree: Approximately $1,200 to $1,500 per tree (*fencing, mulch, labor & other professional services*).

Cost to Remove Tree: Approximately $500 per tree (*labor*).

Cost of Replacement Tree: Approximately $400 per 2" tree (*installation and maintenance*).

COMPARISON SCENARIOS

The Planning Board considered the following additional scenarios for comparison prior to making a recommendation. Scenarios 1, 2 and 3 are based on a single contribution rate per inch; scenarios 4, 5 and 6 are based on a rate of $100 per inch when removing 10" to 20" and $200 per inch for each inch removed in excess of 20"; scenario 7 is

similar to scenarios 4, 5 and 6 with the additional rate of $400 per inch being charged for each inch removed in **excess** of 75".

	Number of Trees/Total DBH	Cost to Preserve/Protect	Cost to Remove & Replace	Cost to Remove & Contribute
Scenarios 1, 2 & 3 $200/$250 per inch	1 tree/10"	$1,200 to $1,500	$1,700	$2,500/$3,000
	4 trees/50"	$4,800 to $6,000	$7,200	$12,000/$14,500
	8 trees/100"	$9,600 to $12,000	$14,000	$24,000/$29,000
Scenarios 4, 5 & 6 $100 per inch up to 20", $200 per inch thereafter	1 tree/10"	$1,200 to $1,500	$1,700	$1,500
	4 trees/50"	$4,800 to $6,000	$7,200	$10,000
	8 trees/100"	$9,600 to $12,000	$14,000	$18,000
Scenario 7 $100 per inch up to 20", $200 per inch for 20" up to 75" and $400 per inch for the removal of more than over 75"	8 trees/100"	$9,600 to $12,000	$14,000	$27,000

Scenario 1: One 10" dbh tree with a contribution rate of $200/$250 per inch

Cost to Preserve/Protect: $1,200 to $1,500
Cost to Remove and Replace: $500 + $400 x 3 (3 - 2" trees) = $1,700
Cost to Remove and Contribute: $500 + $200 x 10/$250 x 10 = $2,500/$3,000

Scenario 2: Four trees totaling 50" dbh with a contribution rate of $200/$250 per inch

Cost to Preserve/Protect: $1,200 to $1,500 x 4 = $4,800 to $6,000
Cost to Remove and Replace: $500 x 4 + $400 x 13 (13 - 2" trees) = $7,200
Cost to Remove and Contribute: $500 x 4 + $200 x 50/$250 x 50 = $12,000/$14,500

Scenario 3: Eight trees totaling 100" dbh with a contribution rate of $200/$250 per inch

Cost to Preserve/Protect: $1,200 to $1,500 x 8 = $9,600 to $12,000
Cost to Remove and Replace: $500 x 8 + $400 x 25 (25 - 2" trees) = $14,000
Cost to Remove and Contribute: $500 x 8 + $200 x 100/$250 x 100 = $24,000/$29,000

Scenario 4: One 10" dbh tree with a contribution rate of $100 per inch for the removal of 10" to 20" removed and $200 per inch for each inch removed over 20".

Cost to Preserve/Protect: $1,200 to $1,500
Cost to Remove and Replace: $500 + $400 x 3 (3 - 2" trees) = $1,700
Cost to Remove and Contribute: $500 + $100 x 10 = $1,500

Scenario 5: Four trees totaling 50" dbh with a contribution rate of $100 per inch for the removal of 10" to first 20" removed and $200 per inch for each inch removed over 20".

Cost to Preserve/Protect: $1,200 to $1,500 x 4 = $4,800 to $6,000
Cost to Remove and Replace: $500 x 4 + $400 x 13 (13 - 2" trees) = $7,200
Cost to Remove and Contribute: $500 x 4 + $100 x 20 + $200 x 30 = $10,000

Scenario 6: Eight trees totaling 100" dbh with a contribution rate of $100 per inch for the removal of 10" to first 20" removed and $200 per inch for each inch removed over 20".

Cost to Preserve/Protect: $1,200 to $1,500 x 8 = $9,600 to $12,000
Cost to Remove and Replace: $500 x 8 + $400 x 25 (25 - 2" trees) = $14,000
Cost to Remove and Contribute: $500 x 8 + $100 x 20 + $200 x 80 = $18,000

Scenario 7: Eight trees totaling 100" dbh with a contribution rate of $100 per inch for the first 20" removed, $200 per inch for each inch removed over 20" up to 75", and $400 per inch for each inch removed over 75".

Cost to Preserve/Protect: $1,200 to $1,500 x 8 = $9,600 to $12,000
Cost to Remove and Replace: $500 x 8 + $400 x 25 (25 - 2" trees) = $14,000
Cost to Remove and Contribute: $500 x 8 + $100 x 20 + $200 x 55 + $400 x 25 $= $27,000