

Report from the Tree Advisory Committee

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Tree Advisory Committee Members

Joli McCathran [*chair*], Ann Briggs, Don Henninger, Peter Kollasch, Tom Land, Jenny Long, Jean Myers, Carol Uhlendorf, Ted Yachup

All the members, requested by the Mayor to serve on the Tree Advisory Committee, have feelings for the appearance, health, safety, and future of trees in our community. While differences of opinion may exist in the way each would approach the care of trees and forest, a feeling of unity and a dedication to the future to trees and forest health exists in all who serve on this committee. The town budget over the course of the last 10 to 14 years has increased to cover the expanding costs of tree care and removal. Almost every year the town removes 3 to 5 large canopy trees. Some of these trees are removed because they are dead or dying. Some are removed because root systems are invasive and are damaging structural foundations. Still others fall over in storms. The price to remove a tree is in direct proportion to its size and location with respect to power lines and/or houses. Generally, expenses in the range of \$1200 to \$2000 can be expected to take down a large oak. With these costs it is easy to see how the budget can be stretched in a year when 5 trees need to be removed. The loss of some of these trees is hardly felt in some areas, while in others it is immediately apparent. Within the residential areas of town, the loss is compounded by the fact that most of the trees that are dying are the ancient oaks. Some of these trees have been around for the better part of 250 years. When we talk about the net loss of trees, we sometimes lost sight of these observations. Cutting them down is easy. Saving them is the hard part. They continue to survive under stressful conditions, some created by man, others by nature, and still we expect them to live to old age.

Without our large trees, this town would lose much of its historic charm as the trees give many homes their character, charm and uniqueness. The trees in our town are one of the reasons this site was selected for religious meetings over 125 years ago. Some of the trees still standing predate the earliest community by at least twice, and in some cases three times. Indeed, these very trees are the prime reason why our town is called "A Town Within a Forest".

Over the years many groups have endeavored to preserve the wooded areas for residents who would come after them. This committee is providing ideas and recommending options that could continue this stewardship for future residents of Washington Grove.

The Mayor's charge to the Committee

Mayor John Compton provided the following set of charges to be discussed, researched and answered by the committee:

- a. List and enumerate goals toward maintaining the forest in Washington Grove.
- b. Delineate issues that need to be addressed to maintain the forest in Washington Grove.
- c. Prepare a list of programs to achieve the goals and describe how they address these issues.

A set of additional charges, taken from the text of the Mayor's letter, includes the following:

- d. Address the health of trees in town and determine value of maintaining or sustaining of older trees.
- e. Investigate and report on the issue of starting and maintaining a tree inventory. Determine the value of an inventory.
- f. Determine the value of retaining the services of an arborist.
- g. Prepare a list of *prioritized programs* to achieve the goals recommended by the committee for Mayor and Council to review.

Glossary of terms

The terms below represent the common understanding among the Committee members in the preparation of this report:

arboretum/nursery:

a place where many kinds of trees and shrubs are grown for exhibition or study; a place where young trees or other plants are raised for transplanting.

{Note: the area of land between Maple Avenue and the swale behind the fireplace by the ball field is the location of the Town's arboretum/nursery.

Article VII, Section 1 of the Constitution and Bylaws of the Woman's Club of Washington Grove states, "The *Nursery/Arboretum Chairwoman* will selectively organize and promote activities which will improve the condition of the Town/Nursery/Arboretum. The Chairwoman will act in concert with the Mayor and Maintenance Director."}

arborist:

an expert who addresses individual trees.

canopy:

overhead cover of branches and foliage formed by the crowns of trees.

field succession:

the natural and gradual transition process of ecosystem development brought on by changes in species population that culminates in the absence of disturbance, in the production of a climax characteristic of a particular geographical region.

forest:

a large tract of land covered with trees and underbrush; woodland.

forester:

an expert who cares for the group of trees including the management of their wellbeing and rejuvenation.

understory:

trees growing under a forest canopy in which the tree crown is greater than 20' in height but less than 50' in height at maturity.

vertical mulching: a method of drilling 2" wide holes, 10" deep in the soil throughout a tree's root system. The holes are filled with an organic matter, *i.e.*: peat moss, etc. This small column of organic matter will improve the soil, and allow water and air penetration to the tree.

Value of trees in Washington Grove

The committee believes that in addition to the monetary value of our trees, the intrinsic value of trees in our town cannot be overstated. Since the community was begun, trees have been an integral part of day-to-day living.

It may be difficult for some to put into words the power of these majestic giants and the collective and individual effect they have upon us. We marvel at the closeness of many of these giants to our lives and homes. We mourn them when they die, relish the shade they provide during the summer, marvel at their fall colors and admire the beauty of bare snow-covered limbs in winter.

While the Committee recognizes that the Town has no authority to manage on private land, the fact that natural systems do not respect private or public ownership lines, suggests that any management philosophy affecting the entire Town must involve interaction between the Town and individual property owners.. It is the purpose of this report to identify a management philosophy and an approach that will allow the Town and individual landowners to participate in its implementation.

Goals to maintain and improve the forest of Washington Grove

1. Preserve the forest to maintain the overall character of "A Town Within a Forest", utilizing the best practices of forestry management that are appropriate for our residential areas and the Town's resources.
2. Manage public tree areas of the Town in a more pro-active and efficient manner.
3. Foster the continued maintenance of trees in the community through an interactive relationship between the Town and its residents, to include development of a planting program on public and private lands.
4. Educate Town residents about the value of the forest and identify and implement practices encouraging participation by children and adults.

Issues that need to be addressed to achieve goals

Issue No. 1 – The causes of mortality within the tree canopy

The death of the tree canopy is the result of trees reaching the end of their expected life span, further influenced by man-induced management and natural environmental stresses. Specifically, the Town's trees are dealing with atmospheric pollution, drought, pest infestation and other negative influences.

Invasive pests seem to arrive on American shores almost daily.. One of the latest is the Asian long horned beetle. This pest preys on trees like maples and fruit trees. Currently there is no way to eradicate the beetle once established. Gypsy moth problems also persist. In February 2000, the Maryland Department of Agriculture conducted a Gypsy moth egg case count on Town trees. In isolated areas the count was estimated at over 6,000 per acre and in other areas 1,000 per acre. Trees do not die directly from Gypsy moth infestation; they may succumb from complications resulting from the infestation.

Some trees are being harmed by *management stresses*. Many public tracts of land within the Town include trees growing in lawn-maintained areas. A direct consequence of the policy has been soil compaction, damage to trunks and exposed roots by mowing machines. Additionally, attempting to grow grass where the desired result is to grow trees is counterproductive especially in times of extended drought. Grasses absorb moisture before it reaches tree roots. The concept of mowed grass is incompatible and unsustainable over long periods if maintenance of the canopy is a priority.

Environmental stresses, such as drought, are having detrimental effects on the health of trees. For the last several years this problem appears to have contributed to the death of five to six mature trees per year.

Invasive plants pose a considerable threat. One has to look at the problem created by Wisteria vines that are strangling young and mature trees at the corner of McCauley Street and Grove Road to appreciate the depth of the problem. Examples of other invasive plants are English Ivy and Ailanthus. Mimosa trees and bamboo are two varieties of plants that tend to take over and dominate rather than complement a forest environment.

Issue No. 2- The best level of maintenance for the Town's old trees

Determining the value of older trees is difficult. The Committee debated relative costs and benefits of spending money to maintain old trees. It was questioned whether any effort should be made to save older trees, preferring to spend available funds for planting under trees nearing the end of their natural life span.

Others differ in opinion. Historically little has been done. Recently there have been three occasions when work was performed to prolong the life of trees, and as of this fall (1999) all three trees were still alive. The expense for this work cost approximately \$3,000 over a 14-year period, averaging to \$214 per year for all 3 trees, or \$71 per tree annually. A fourth tree was partially vertically mulched in an attempt to extend its life. The result has yet to be determined.

While time consuming, vertical mulching has shown to be an effective method to address compacted and nutrient deprived soil.

Issue No. 3 – The effectiveness of a tree inventory as a toll for managing the Town forest

At least two tree inventories were attempted in the past. Much effort went toward gathering information that was never utilized. The wisdom of compiling a tree inventory was questioned. It was suggested that a tree inventory is an effective tool for managing trees.

The Committee decided that with current computer technology it is possible to identify trees, determine the overall health of both individual trees and of the forest as a whole, ascertain which trees need pruning/trimming, note hazards, and determine if trees are worthy of extra effort if showing signs of stress. The issue of responsibility should not be overlooked. A record of when and what maintenance activities the Town has undertaken validates the Town’s responsible performance.

Issue No. 4 – The engagement of a licensed expert for advice on tree and forest management for the Town

The Town has been fortunate in having a Forestry Committee. The Forestry Committee has assisted in choosing locations for planting trees and shrubs, making decisions on treatment to eradicate Gypsy moths, determining policy, and making recommendations to the Mayor and Council. Much good work has come out of the Forestry Committee but the individuals making these decisions have not been “tree experts”.

Arborists offer professional guidance on issues of disease, hazards and treatment, and make recommendations on when a tree should be removed. They make recommendations on replacement trees and offer advice on species appropriate for given areas. An arborist could help the Town in expanding educational programs. The Town should investigate whether it is more advantageous to hire a tree firm, who could offer the services of a licensed arborist, or an independent licensed arborist. Another approach is to more fully utilize the services of state foresters, the Maryland National Park and Planning Commission, the University of Maryland, the Department of Natural Resources, etc.

The Town should keep itself open to all resources.

Prioritized Goals and Specific Recommendations

The goals considered, discussed and agreed to by the committee have been assigned a priority for implementation. The goals are summarized here by priority. Specific recommendations, with discussion, follow under the appropriate goal.

Goals

Recommendations

Priority Goal I Preserve the forest canopy

Priority Goal II More effectively and aggressively manage public trees

Goals	Recommendations
Priority Goal III	Develop a planting program
Priority Goal IV	Educate the Town residents about the value of the forest through various programs
Priority Goal V	Remove invasive plants that post a threat to Town trees

I. Preserve the forest canopy

Priority Goal I

Recommendations:

- A. *Develop a long-term management strategy for all identified large, old trees on public land.* As has been stated, the canopy of trees over our town has determined much of our character over the years. While underplanting the older trees, well in advance of their ultimate demise is necessary, work should be programmed to *do what is reasonable* to prolong the life of older trees.
- B. *Implement a mulched area around the bases of designated trees.* A minimum of a 12-foot diameter of mulch around the base of (particularly) larger trees can aid in moisture retention, and has the added benefit of keeping the mowing machines away from the base and roots of these trees, reducing soil compaction. [footnote: In the past there was some fear about using “raw mulch,” (can be acquired at no cost) from recently ground up trees. It has now been shown that raw mulch does not deplete nitrogen from the soil as first thought when placed around trees.]
- C. *Limit mowing close to all trees to prevent tree injury and soil compaction.*

II. More effectively and aggressively manage public trees

Priority Goal II

Recommendations:

- A. *Retain the services of an arborist for managing trees throughout the Town.* Retain a dedicated arborist for optimum continuity of preserving and maintaining the forest environment. The Arborist will check for hazards, disease, and overall health and determine a plan of treatment or removal when needed.
- B. *Develop, maintain and utilize a tree inventory.* The proposed tree inventory, properly maintained, offers many real benefits to the Town. The tree inventory will be a tool to better understand and enhance knowledge of forest environment. The inventory would include but not be limited to:
 - Tracking diversity of trees;
 - Tracking maintenance performed on trees;

Mapping tree installations;

Providing a historical record to track trends and response.

1. *In consultation with the Town Arborist, establish a group to develop and implement a tree inventory.*
2. *Maintain the tree inventory, updating records from information received from arborist and other sources throughout each year.*

III. Develop a planting program

Priority Goal III

Recommendations:

- A. *Review areas around Town annually for tree planting.* Recommend on an annual basis, planting of stock to foster new growth as well as planting of replacement trees. These areas should include walkways and parkland areas. The Forestry Committee should identify possible candidates for transplanting within Town.
- B. *Establish a program to plant a variety of trees in the Town's parks and residential areas.* Diversity of plantings is important; monocultures should be avoided. With the number of diseases and pests threatening trees, diversity should be the rule. While it is understood that the prevailing trees of significant size are oaks, other trees indigenous to this area should be included in any planting program. Evergreens, including conifers, should also be encouraged for planting for their winter appeal, stately appearance and visual barrier.
- C. *Consider planting understory trees and shrubs.* For visual interest and to maintain the forest environment, consideration should be given to planting understory trees.

Suggestions include:

- Sourwood
- Dogwoods (disease resistant cultivars) Orton hybrid dogwood, Cornelian cherry dogwood, etc.
- Fringe Tree
- Yellowwood
- Oklahoma and/or Texas white redbud
- Hollies

While not under the mandate of the Mayor for this report, it is suggested that some consideration be given to planting more decorative shrubbery.

Many areas are suitable for inclusion in this program.

IV. Educate the Town residents about the value of the forest through various programs

Priority Goal IV

Recommendations:

The Town, through the Forestry Committee, should promote and educational process for adults and children.

The Town should begin programs informing the citizens of actions they can do to foster the continued maintenance, and replacement, of trees in the community.

- A. *Charge the Forestry Committee to develop a packet of information to provide to Town citizens.* The packet should offer guidelines for tree care, shade gardening, and recommendations in the selection of planting material and guidelines for proper placement of plant material.

Education of the citizens with emphasis on the benefits of trees in the community is a priority.

These benefits include, but are not limited to, the cooling effects during summer, value trees add to property, and the inherent beauty of different tree species at different stages of growth for future generations to appreciate.

- B. *Encourage residents to donate trees as gifts for planting in public areas.*
The Forestry Committee and the Memorial Committee should approve installation location of donated trees.

- C. *Offer and encourage the use of approved trees from the Town arboretum for use on private property.* This would aid in restoring the original purpose of the nursery. Develop a procedure for identifying trees in the arboretum/nursery that are ready for removal and notify residents about the availability of such trees for planting on private property.

All transplants would need to be approved by the Forestry Committee.

- D. *Require the Town's arborist to make a status report of the forest environment at the annual Town meeting in June.* If the Town retains the services of an arborist, that individual should attend designated town meetings for the purpose of issuing a supplemental educational report to the general Forestry Committee report.

- E. *Establish educational programs which link with existing local, state and national programs.* The Forestry Committee should avail itself of the many programs and educational opportunities available from federal, state and local governments that could aid in dealing with some of the issues on a regular basis.

Some of these groups are listed below:

- *Maryland Forest Council*, which includes PLANT community, awards. This organization offers access to the best available information on tree selection, use, care and community action through a statewide network. Timely notification of federal, state and local funding programs for community trees. Opportunity for this community to express opinions on urban and community forestry related matters on a national and state level. The Town could receive newsletters with articles of interest and information on upcoming regional events, as well as discounts on council sponsored events and programs.
- *Tree City USA*: The Town should again become an active member of this organization.
- *Tree-Mendous Maryland*: The Town should become an active member of this organization.

- *Big Tree Champions of Maryland*: Trees are measured and submitted to the State for comparison with other trees statewide.
 - *Association for Consulting Foresters* 703-549-0347 Frank Stewart, Director.
This organization may be an excellent resource for connecting with an arborist.
- F. *The Town should do more to promote Arbor Day activities.* Arbor Day activities could include a talk with the Town's arborist.
- G. *Develop an Adopt a Tree program within Town.* This program might prove very effective in times of drought to aid Town Maintenance with watering trees.
- H. *Publish tree hints monthly.* As part of the Town bulletin, the Forestry Committee should offer monthly tree information with suggestions on tree care and information about the Town's forests.
- Suggestions include, but not limited to:
- Watering
 - Optimum planting for best success
 - Species of plant material for installation
 - Provide proper planting instructions
 - Benefits of mulching
 - Staking information
 - Pruning Techniques
 - Transplanting instructions
 - Fertilizing
 - Information on plant pests and pest control

V. Remove invasive plants that post a threat to Town trees

Priority Goal V

Recommendation:

- A. *Establish a program to remove invasive plants that post a threat to trees in Town.* To look at an oak tree, it is difficult to imagine something capable of literally strangling the life from it, and yet this is the plight of some of the oaks in Town. *Wisteria* is overrunning some areas in the Town's forests.

While beautiful in its own right, it has no place in the Town's forests.

The committee believes that every effort should be made to remove this vine from areas where it poses a threat to existing trees. *English Ivy*, a perennially green vine, somewhat attractive, is the perfect hiding place for Gypsy Moth egg cases.

While fine on a wall, it should be removed from all trees in Town.

[Footnote: Care should be exercised in removing the vine from trees as they can suffer from sunscald when the vine is removed.

The recommended removal technique is to cut the vine at ground level, let the vine die and after approximately a year remove dead vines from trunks of trees.]

Ailanthus tree-of-heaven is an import and should be removed.

This tree spreads most commonly by a spreading, strong root system, and once established, is extremely difficult to eradicate except by using powerful herbicides and poisons.

Sometimes the roots can be removed, but this is no guarantee that the plant won't show up again.

This tree can currently be found in Town.

Left on its own it may push out more desirable trees.

Mimosa is generally thought of as a yard tree.

It gained popularity in the last century for its airy appearance and sweet smelling, attractive flowers.

Mimosa spreads easily and should be avoided and removed.

Bamboo easily can take over an area.

This fast growing grass would take over the area in front of the Maintenance Building were it not for the mowing on a continuous basis.

Bamboo spreads through a vigorous root system and is very difficult to control.

Kudzu, while not currently growing in Town, it should be watched for and eradicated immediately if found.

Goals/Recommendations	Priority	Cost
Preserve the forest canopy		
Develop a long-term management strategy for all identified large, old trees on public lands.	High	High
Implement a mulched area around the bases of designated trees.	Medium	Medium
Limit mowing close to all trees to prevent tree injury and soil compaction.	Medium	Low
More effectively and aggressively manage public trees		
Retain the services of an arborist for managing trees throughout the Town.	High	High
Develop, maintain and utilize a tree inventory.	High	High
Develop a planting program		
Review areas around Town annually for tree planting.	High	Low
Establish a program to plant a variety of trees in the Town's parks and residential areas.	Medium	Low
Consider planting understory trees and shrubs.	Medium	Medium
Educate the Town residents about the value of the forest through various programs that involve adults and children		
Charge the Forestry Committee to develop a packet of information to provide to Town citizens.	High / Medium	Low
Encourage residents to donate trees as gifts for planting in public areas.	Medium	Low
Offer and encourage the use of approved trees from the Town arboretum/nursery for use on private property.	Low	Low
Require the Town's arborist to make a status report of the forest environment at the annual Town meeting in June.	High	Medium
Establish educational programs which link with existing local, state and	Medium	Medium

Goals/Recommendations	Priority	Cost
national programs.		
The Town should do more to promote Arbor Day activities.	Medium	Low
Develop an Adopt a Tree program within Town.	Medium	Low
Publish a tree hints monthly.	Medium	Low
Remove invasive plants that post a threat to Town trees		
establish a program to remove invasive plants that post a threat to trees in Town.	High	Medium

Addendum to the Tree Advisory Committee Recommendations

In our discussions the idea of the first preserve areas kept surfacing.

Some thought it impossible to write about just the forest environment in the residential area without including/offering some suggestions on the future use and preservation of the areas within the forest preserve.

While not used by all residents of Town, these forests provide many benefits.

Chiefly there is the issue of providing a Town buffer in the form of 50 acres on both the east and west sides of Town.

One only has to look at the tracts of housing and apartments on the limits of Town to appreciate the fact that these buffer zones exist.

These wooded areas protect the Town from visual intrusions.

These woods contribute to cooling, water retention and provide a sanctuary for birds and wildlife.

For the most part the Committee thinks these areas should remain unmanaged.

There are, however, exceptions.

In the West Woods the area abutting Town Crest Apartments is in regular need of attention.

People living in these apartments dispose of drained oil, old furniture and trash simply by throwing them into the woods.

While there is a channel of communication open between the Town and the Town Crest management office, additional work needs to be done to educate/coerce the management office to aid in preserving this section of the woods.

It is possible to enlist the aid of personnel from the State Office of Pollution Control in this effort, particularly in the areas of oil disposal as it directly affects the waters flowing to the Chesapeake Bay. Scouts could perhaps be enlisted to aid in cleaning up this area, as could youth from Town.

Many of us think of ourselves as being protected by the trees.

They represent character, are graceful and beautiful, and are living expressions of entities which will out-live all of us.

We, also, over the course of time have attempted to foster and maintain in some limited fashion

the forest within the town and thereby preserve, “A Town Within a Forest” Entering the Grove feels like coming home.

It touches an unidentifiable place deep inside that speaks of history, safety, and comfort.

How can we not affirm the ways in which our trees are a part of and touch our lives?