

TREE REPLACEMENT PROGRAM AT BALTIMORE GAS AND ELECTRIC COMPANY¹

by I.O. Bauer, Jr., T.D. Mayer, and W.T. Rees, Jr.

Abstract. A wonderful opportunity for community improvement materialized as the "Greening of Dundalk". A well coordinated effort between government agencies, private enterprise, university research and community volunteers resulted in a highly successful beautification program. The Baltimore Gas and Electric Company (BG&E) was able to participate by removing designated trees beneath the power lines and supplying flowering crab apples as replacements. The trees were obtained under the guidance of the Penn State sponsored Municipal Tree Restoration Program (MTRP) of which BG&E is an active member. BG&E expects to recoup its initial expenditures in approximately 3.3 years.

Résumé. Une merveilleuse opportunité pour l'amélioration de la communauté s'est matérialisée par le "verdissement de Dundalk". Un effort bien orchestré entre les services du gouvernement, l'entreprise privée, les recherches universitaires et des volontaires de la communauté a résulté in un programme d'embellissement hautement réussi. La compagnie de gaz Baltimore et la compagnie électrique (BG & E) ont participé par l'enlèvement des arbres désignés sous les lignes électriques et fourni des pommiers en remplacement. Les arbres ont été obtenus grâce à l'état de Pennsylvanie qui commandait le programme de remplacement des arbres municipaux (MTRP) dans lequel BG & E est impliquée activement.

In many communities, street tree populations are taken for granted. Consequently, they are ignored and neglected. The benefits they were intended to provide may never be realized. When problems are recognized, however, all too frequently programs are set in motion only to grind to a halt through ineffective design or poor follow through. Sometimes funding is lacking or the political climate may change. A well-managed urban forest is not a part-time entity, but one that requires constant vigilance and care. The story we are about to tell is one of interested citizens amidst a decaying urban forest who seized the initiative for change. Through their efforts, governmental and corporate support was secured and an integrated approach to their problem was begun.

It all began on March 10, 1988 when an article appeared in the Dundalk Eagle Newspaper delineating the history of the area's trees. The arti-

cle further commented on the poor condition of the current tree population and stated that community involvement could improve the situation. As a result, the Greater Dundalk Community Council contacted the Baltimore County Forest Conservancy District Board for advice on how to upgrade their trees. After several meetings, a decision was made to conduct a street tree inventory in the Historic Dundalk Area, with consideration for other parts of Dundalk at a later date. The purpose of this inventory would be to quantify the tree population and to document current management needs such as pruning, removals, plantings and insect control. Through word of mouth and an article that appeared in the Eagle asking for local support, 12 survey volunteers were recruited and trained in inventory techniques by the Maryland, Forest, Park, and Wildlife Service and the Baltimore County Forestry Board in April, 1988.

The survey lasted from May 28 until June 15. All data collected were collated and processed by the Maryland Forest, Park and Wildlife Service. From this information, a written report was developed as a management plan for the project. The results indicated that a large majority of the 1,147 trees in the area were sycamores, many of which were diseased or had outlived their growing space. About 1/3 of the total tree population was recommended for removal and replacement.

With this information in hand, the Greening of Dundalk Committee was formed by members of the Greater Dundalk Community Council and a decision was made to implement the report's recommendations. The comprehensive plan was for the Greening Committee to coordinate the overall effort with assistance from the other agencies.

It was decided to conduct the initial operation in 3 phases within the Historic Dundalk Area. Phase 1, implemented in April of 1989, involved removal of approximately 130 trees and planting of 180.

1. Presented at the annual conference of the International Society of Arboriculture in St. Charles, Illinois in August 1989.

Phases 2 and 3, scheduled for 1990 and 1991, will involve similar numbers of trees. Prior to tree removal, it should be noted that all trees slated for removal were posted with signs printed by Patapsco High School students. The signs informed area residents of the program and of the impending cut downs. This action afforded adjacent homeowners an opportunity to refuse removal.



Figure 1. Sycamore before removal.

Only one exercised the option.

Sixty of the trees to be removed were located under the power lines. This was done by BG&E contractor personnel. BG&E expects to recoup this expenditure in approximately 3.3 years (Table 1).

The remaining Phase I trees and all stumps were



Figure 3. Local community planting trees.



Figures 2. Contractor removing trees.

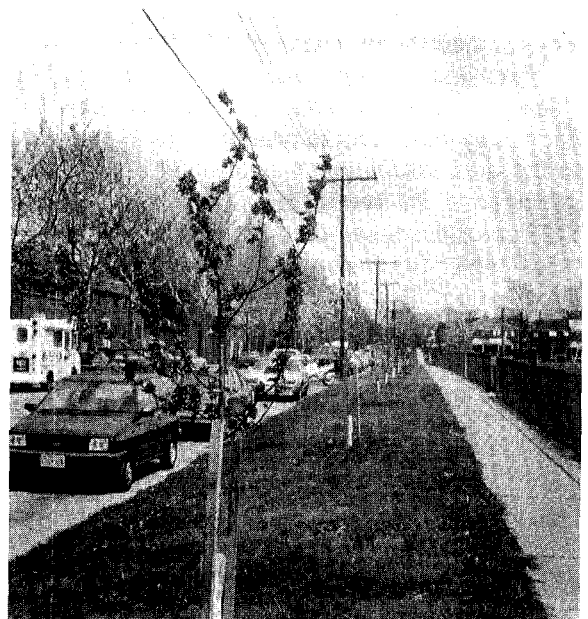


Figure 4. Panoramic view of newly-planted trees.

Table 1. Baltimore Gas and Electric Company Breakdown Analysis. Greening of Dundalk Project.

PROBLEM: 60 Sycamore trees approximately 20" dbh			
SOLUTION: Option A - Removal at a cost			
			\$ 6,175
	Tree purchase cost		4,765
	TOTAL		\$10,940
Option B - Past trimming cost			
	2-year cycle		\$5,480
<i>Break-even analysis (compounded forward at 8%)</i>			
	<i>Removal</i>	<i>Trimming</i>	
	(And Associated Costs)	(2-Year Cycle)	
Removal Cost	\$6,175		
Tree Purchase Cost	4,765		
TOTAL	\$10,940		
Year 1	\$10,940	\$ 5,480	
Year 2	11,815		
Year 3	12,760	12,204*	
Year 4	13,781		
Year 5	14,883	20,301	
Year 6	16,074		
Year 7	17,360		

* Break-even point in between 3 to 3.3 years for this study.

Stump removal and planting was accomplished by volunteer and municipal crews. Consequently, total removal cost was reduced, thereby lowering the break-even point from past removal and planting studies at BG&E where these costs were included. The break-even point was six years.

removed through a contract funded by the Baltimore County Department of Community Development. Additionally, Community Development funded the purchase of 110 trees comprised of a mixture of species. They also provided for County equipment and operators to dig the necessary holes and to provide logistical support to the area volunteers. For planting beneath the power lines, Baltimore Gas and Electric provided 70 tree-cultivars selected under the auspices of the Penn State-sponsored Municipal Tree Restoration Program. Under this program, selected cultivars are performance tested in actual field conditions. Extensive follow-up studies will be conducted and a data base developed for more accurate future siting of tested trees. In this instance, the trees were selected because of their low mature height and urban hardiness. The follow-up work in this study will be by Dundalk High School Science Department students, and will be conducted over a number of years.

The actual planting went smoothly and was completed within a few days, thanks to the time

and effort provided by the agencies and individuals involved.

Already, indications suggest that because of the grassroots community involvement, area residents are exhibiting heightened awareness and concern about the trees in their neighborhoods. Through their unflinching interest and hard work during all stages of this operation, they have accomplished much. Because of the same interest and hard work, they have convinced government and private enterprise alike that their community was worthy of attention and support. All parties involved stand to benefit from this experience for a variety of reasons. Enhanced aesthetics, reduced maintenance costs, and positive public relations are but a few.

Most importantly, through these efforts, the community has provided a successful model as a showcase for other communities. People *can* make a difference. Even as we speak, other communities in Baltimore County are already in the early stages of similar programs. The possibilities are limitless.

In recognition of the successful completion of Phase 1 of the Greening of Dundalk, and as a kickoff to Phases 2 and 3 and the dynamic process to follow, a commemorative ceremony was held honoring all involved. Government and corporate officials participated in acknowledgment of their efforts.

The BG&E Company goal of good electric reliability has been obtained and the Company has contributed to the community by providing desirable, low-growing, aesthetically pleasing trees in replacement for the sycamores.

For additional information about how you can help your community, contact any of the following organizations:

The Maryland Forest, Park and Wildlife Service
 Baltimore Gas and Electric Company
 Baltimore County Forestry Conservancy District Board
 Greening of Dundalk Committee
 Municipal Tree Restoration Program, Penn State University

Baltimore Gas & Electric Company
 1116 Concordia Drive
 Baltimore, Maryland 21204