Chapter 8

Urban and Community Forestry: Financing and Budgeting

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1. Introduction

Funding is the key component necessary for the development of a comprehensive urban and community forest management program. Optimizing the provisions of the social, aesthetic, and economic benefits available from the urban forest are dependent on an adequate level of funding. Adequate funding allows the resource to be managed in its entirety. The health and survival of the urban forest are directly proportional to the ability of the resource manager to obtain funding.

1.1. History and Overview

According to a 1994 national survey of municipal arborists (Tschantz and Sacamano, 1994), conducted by the Davey Resource Group, during the last decade there has been a significant decrease in municipal funding for urban and community tree management activities. From 1986 to 1994, when adjusted for inflation, the municipal tree management budget decreased nearly 40% from $4.14 to $2.49 per capita. It also lost ground as a percentage of the total municipal budget. In 1986, the tree budget was 0.49% of the total municipal budget, while in 1994 it had decreased to 0.31%, a drop of nearly 40%. It is important to note, however, that while the average overall municipal tree management budget as a percentage of total municipal budget in 1994 is less than in 1986, cities in six out of nine population ranges have had increased tree management budgets as a percentage of the total municipal budget (Davey, 1994).

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1.2. Sources of Funding

The funding picture is also changing. In the past, the municipal general fund, which is primarily financed through the collection of local property taxes, made up the bulk of funds available for tree management. The trend over the last 20 years has been less funding from the general fund. In 1986, 94% of the communities surveyed was partially or mainly funded by the general fund compared to only 67% in 1994 (Tschantz and Sacamano, 1994).

Because of decreasing revenues available to urban and community forestry and other factors, urban forest managers have begun to take the initiative in obtaining funding through outside grants, endowments, special assessments, and a multitude of special use taxes. In 1986, for example, only 1% of the communities surveyed (Tschantz and Sacamano, 1994) received funding via general forestry grants as compared to approximately 30% in 1994. The dependency on the general fund was decreased in favor of nonmunicipal funding sources. During this time period the development of partnerships with public and private groups to facilitate increased funding and support for urban forest management activities increased.

1.3. Competition for Budget Funds

Competing for budget dollars in urban and community tree management programs has never been more difficult. Obtaining funds for tree care is only half of the equation. The other, and probably more difficult part, is retaining them. Getting and keeping budget funds require the urban tree manager to justify, as never before, the existence and importance of the tree resource. Urban and community foresters can almost always convince their peers that there are not enough funds to do the job. Other, more objective officials with a multitude of competing interests have to be convinced that the benefits from the resource justify the costs of funding it. Looking at the cost of the program in light of, as well as the value of, the tree resource through the eyes of local political decision makers is the critical element in adequate funding. These decision makers are faced with major problems that have no easy fixes. Moreover, citizens' concerns about their personal health and welfare are increasing, as well as their general distrust of the political system. Each dollar spent on government services is now examined even more closely in the light of its ability to make the community a better, more desirable place in which to work and live.

Adequate knowledge of the costs and benefits of each element of the tree management program is another important step in successfully competing for budget dollars. People in general want to know how much something is worth and how much it costs; taxpayers are no different. In order to gain a fair share of scarce government money, an urban forester has to know the monetary value of the tree resource derived from the results of a sample or an inventory of the trees in it. The knowledge and communication of the fact that this resource has a dollar value is the first step in capturing the attention of taxpayers and politicians.

After ascertaining the monetary value of the resource, determining the degree to which its value would be impacted when budget funds are reduced or curtailed is paramount. Political decision makers need much more information on how and where each

urban forestry dollar is spent and what will be the impact of not spending it. Urban foresters should and can be as successful as many other vocal interest groups that fight for their share of government services. These groups have articulated their positions and informed the politicians what the results of these budget-cutting actions will be. For example, identifying what will happen if the pruning budget is reduced is not saying that fewer trees will be trimmed (that is a given). The key is able to articulate: (1) what will happen to the resource, (2) how much the reduction in funds will cost over the short and long run to it, and (3) to what extent taxpayers will be affected by this action.

1.4. Justification for Budget Funds

The urban tree program has to compare favorably with other city programs. Do the benefits provided by this resource justify the costs spent on it? It is not an easy taks to compare benefits and costs of trees to critical city services such as police and fire. But it has been done successfully at the expense of these services. Cost-efficiency in relation to benefits provided can make the difference. The urban forester, who is principally a good tree technician, may not have the skills needed to compete well for budget dollars. A successful urban tree program is most likely directed by a proactive manager who understands the boundary-spanning activities necessary for the program to survive in the political arena.

The successful competition for budget dollars can take many forms. Pruning three trees today for the same cost needed to prune two trees yesterday is exactly the same as a 50% increase in the pruning budget. If there are not additional budget funds available and even if there are, increasing the amount, quality, and effectiveness of the service may be the only answer for providing the necessary care the resource requires. It is incumbent on an urban and community forester to continually improve the management skills required for doing more with the same, or less.

Realistically, the outlook for massive or even moderate local budget increases is grim. Taxpayers are not in a mood to see their taxes raised. An urban tree manager, who relies on large budget increases in the future to provide necessary services to the urban forest, will be disappointed and unsuccessful as a resource manager.

This is not to say that urban forest managers are unaware of the difficulty of obtaining adequate funding for tree management programs. According to the Tschantz and Sacamano (1994), managers believe that the four greatest challenges to tree management over the next 10 years are general funding, funding for maintenance, public support, and general tree maintenance.

2. Funding Sources

2.1. The Property Tax

2.1.1. History

Although communities in general are relying less on municipal general funds, most still continue to receive funding from this important source, even though diversification of municipal revenues has developed by the formation and use of municipal

sales taxes, local income taxes, and many other nonproperty taxes. Municipal general funds are principally financed by the property tax. Originally the property tax was an annual levy on all forms of property such as land, buildings, tangible holdings (such as household goods, machinery in factories, and store inventories), and intangible holdings (such as stocks and bonds). Local assessors determined a value for the various properties and annual rates were levied against assessed valuations (Bromage, 1957).

The property tax now has become basically a tax on land, buildings, and tangible holdings. Income from stocks and bonds is now taxed as income and/or capital gains. The validity of the property tax as a mainstay of municipal revenues does not rest on a person's ability to pay. The owner of a large lot and home may have less income than a more modest homeowner. The property tax has been strongly criticized for its failure to conform to the principle of ability to pay. For example, the large property owner has more value to be protected by fire and police departments and served by the various public works such as road maintenance, parks and recreation, and the like. According to the theory, this property owner's income enables him or her to make a greater contribution to the various municipal services. The property tax is not strictly in accord with benifits because the wealthy large homeowner may require minimum services beyond basic police and fire protection and public works (Bromage, 1957).

In many situations, the assessed value of the homeowner's property has increased more than the property owner's ability to pay. In rapidly escalating real estate markets, for example, retired homeowners living on relatively fixed incomes found themselves having to sell their property because they could not afford to pay the taxes. This and other factors brought about a general dissatisfaction with property taxes and manifested themselves in property tax revolutions such as Proposition 13 in California. This controversial and popular referendum limits the property tax to not more than 1% of the assessed value of a home-owner's property. The tax can only increase by a maximum of 1% per year regardless of the increase in assessed value and can decrease if the assessed value decreases.

2.1.2. Limitations on the Property Tax

During the last 30 years there has been a great diversification of municipal revenues. Federal grants-in-aid, state-collected, locally shared taxes, such as state income taxes, gas taxes, nonproperty taxes, and service charges, have been required to enable municipal budgets to stay balanced (which by law, they have to be). Cities and counties increasingly have had to rely on sources other than property taxes because of state constitutional and statutory limits on the property tax; the failure of assessors to keep assessments proportionate to inflationary trends in real estate; a continued exemption of certain classes of property such as real estate belonging to federal and state government agencies, schools, churches, and charitable organizations; and increasingly popular opposition to any increase in tax rates.

2.1.2.1. Diversification of Municipal and Community Revenues. Because of the limitations of the property tax to adequately supply the needs of the general fund, cities and counties have developed new taxes on sales, income, admissions, utilities, business, gasoline, tobacco, and alcoholic beverages. These new sources of municipal

revenue are termed nonproperty taxes. In addition, service charges for sewage disposal and treatment, drinking water hookups, and the like have been growing rapidly to fulfill the need.

One of the most productive nonproperty tax sources for the city has been the municipal income tax. Generally, this tax applies to the gross income of residents, wherever earned, and to nonresident income earned in the city. Some cities levy on the net earnings of unincorporated businesses and professions, others tax the income of corporations (Bromage, 1957).

2.2. Aid from Federal and State Governments

Although most cities and countries are supplementing their property tax revenues through nonproperty taxes, they are widely dependent on aid from federal and state governments. Municipalities have acquired a greater dependency on federal and state grants and state collected, formerly shared revenues. According to a nationwide survey taken in 1994 (Tschantz and Sacamano, 1994), there was a 29% decrease in the number of communities that received funding from municipal general funds since a similar survey was taken in 1986 (Kielbaso, 1988) (see Fig. 1 and Table 1). Conversely, the use of general forestry grants has increased from 1% of the communities responding to nearly 29% during this same period.

State-administered grants for planting, maintenance, and urban forestry management programs are included in this general forestry grants category. Federally

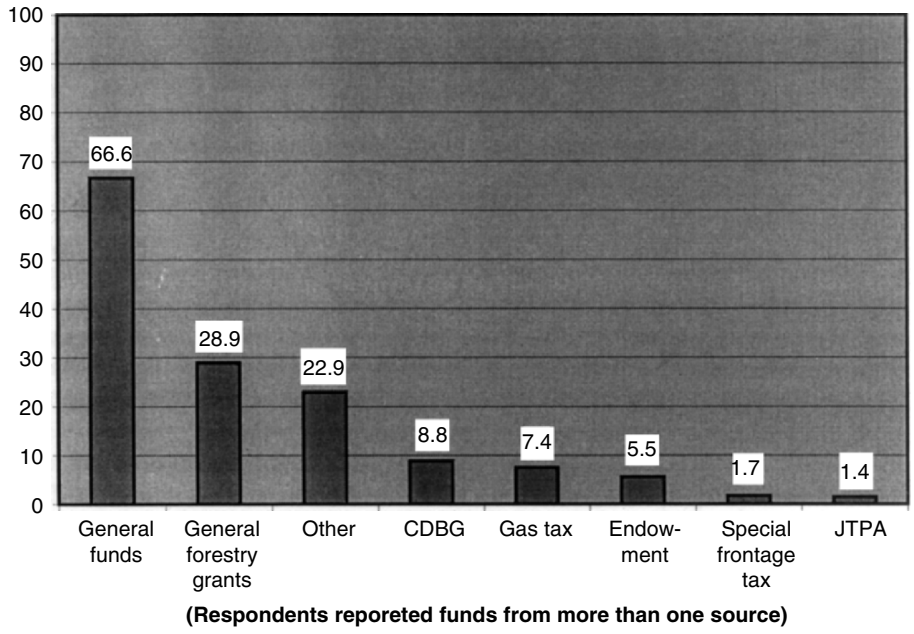

FIGURE 1. Percentage of respondents using various funding sources, from Tschantz and Sacamano (1994).

Table 1. Funding Sources Used for Tree Management Programs[a]

Funding source	Percentage of respondents using funding source	Mean amount of funding used ($)
General funds	66.6	257,155.00
General forestry grants	28.9	27,199.00
Other	22.9	N/A
Community development		
Block grants	8.8	31,389.00
Gas tax	7.4	209,288.00
Endowment	5.5	29,217.00
Special frontage tax	1.7	189,083.00
Job training partnership act	1.4	11,400.00

[a]From Tschantz and Sacamano (1994).

sponsored programs including the Small Business Administration's tree-planting grants and America the Beautiful tree-planting and maintenance activities are two of several examples of federal programs that are considered general forestry grants.

Community Development Block Grants are used by nearly 9% of the communities that responded to this survey (Tschantz and Sacamano, 1994). These federally appropriated allocations are awarded to municipalities that qualify for specific urban development projects. Tree planting, removal, and certain tree maintenance activities that are part of a larger development project can be funded for the duration of the specific activity.

An additional important source of funding for urban forestry activities is the state and federal Cooperative Assistance Program. It offers funding and technical advice to municipalities and was used by nearly 38% of the respondents in the survey. State foresters have detailed information available for those interested in pursuing state and federal Cooperative Assistance for their urban forestry programs.

Because of this increasing dependency on external grants from federal and state agencies, the urban and community forester must have a working knowledge of the grant application process. Obtaining outside funding has always been extremely competitive and will become even more difficult as the competition for these funds increases. Even though urban forest managers appear to be obtaining increasingly more external grants (Tschantz and Sacamano, 1994), many still have not applied for federal funding grants or federal technical assistance grants. In a survey conducted in New Jersey (Tate, 1984), two-thirds of the urban tree managers did not feel that they had sufficient information regarding the design and filing of grant applications and few of the 13 potential sources of funding listed by Unsoeld (1979) were known to the respondents. However, nearly all (97%) would apply if information about the process was made available.

Undoubtedly the best single source of information about federal funding agencies and programs is the Catalog of Federal Domestic Assistance published annually by the Office of Management and Budget. It is available from the Superintendent of Documents in Washington, DC. The catalog describes the federal government's domestic programs and identifies the types of assistance, explains the nature and

purpose of the programs, specifies who is eligible, tells what kinds of credentials and documentation are needed to obtain assistance, lists the application and award process, and includes deadlines. Although the catalog provides a tremendous amount of information, direct contact with the target funding agency is usually necessary to acquire additional knowledge to clarify the instructions given in the written guidelines and assess the potential of the target proposal for funding. Additional information needed is the latest update about the particular program of interest, reaction of the agency to specific proposal ideas, lists and costs of projects funded in previous years, and the makeup of the proposal reviewing panel. Telephoning the agency is probably the best way to initially establish contact and gain needed information.

After the urban forester has contacted the potential funding agency, a better informed decision can be made on whether or not to actually write a proposal. This is also the time to contact other urban foresters for information about their success in obtaining funding in similar programs and to determine whether local funds are available to continue the project after external funding ends. At this point the urban and community forester should ascertain whether political decision makers, superiors, and the community are behind the proposal and whether resources are available in the organization to properly complete the project if and after the external funds run out.

Since most federal grants are oriented to construction and development, it is advantageous if the proposal can be subordinate to the main thrust of a larger project. Unsoeld (1979) lists several urban tree projects that probably would not have been funded alone but were funded as parts of larger funding programs, such as federal highway funds, resource conservation and development funds, and community development block grants. In this respect there is an obvious need to develop a close working relationship with engineers, architects, urban planners, and grantspersons who are responsible for preparing and administering grants that may provide ancillary funding for urban and community forestry activities.

If the decision is made to prepare a proposal as a subordinate part of a larger one or to stand on its own, most of the preparation skills needed can be generalized. A good proposal should be well written and organized according to the suggestions of the particular funding agency. In general, good proposals have similar characteristics, which are as follows:

1. The need for the project is clearly demonstrated.
2. Important ideas are highlighted and repeated.
3. Project objectives are given in detail.
4. Collaboration with all interested groups in the project planning stage is evident.
5. Commitment of all involved parties is evident.
6. The uses of the funds are clearly indicated in the proposal.
7. All government procedures have been followed.
8. Directions given in the proposal guidelines have been followed.
9. The proposal is in line with funding agency guidelines.
10. The writing style is clear and concise.

Submitting the proposal is the last important step in the process. After it is written, follow the agency guidelines for submission. Note the date of submission deadlines; they are inflexible. If the proposal is received beyond the stated deadline, it will be rejected and the effort expended will have been a costly exercise. In this respect, after the proposal is sent, it is wise to telephone the agency prior to the deadline to ascertain whether the proposal has been received.

Applying for a federal grant is unquestionably a considerable amount of work. Because of this and other factors mentioned earlier, many urban tree managers who have tried it do not feel the effort justifies the results. While it does take considerable effort and ability, one successful grant may more than justify the effort. Even if the proposal is rejected, learn why. Federal agencies are required to supply information as to the reasons for rejection. If the proposal is appropriate to the agency and was rejected because of specific problems, rewrite it and resubmit it.

Most cities with more than 50,000 population employ grantspersons or a person in a similar capacity to help obtain external funding. Many consultants provide training programs dealing with the process of obtaining grants.

3. Budgeting

3.1. Competing for a Fair Share of Budget Funds with Other Local Governmental Agencies

The purpose of local government is to perform functions and render services that the people in the community expect, require, and demand and that cannot be performed more efficiently by the private sector. The greater the demand and/or the perceived need for a service, the more likely that it will be performed. In order for a service to be rendered, it must have benefits that can be identifiable and quantifiable and be supported by the community. The benefits provided by the urban and community forest have to be compared with other municipal capital expenditures in terms of how these benefits compare with the costs of providing them. Increasingly, more of the benefits provided by the urban and community forest are quantified, yet most are passive and aesthetic. Most citizens would agree that these improve the quality of urban life. However, the electorate, if given a choice, often tends to choose services that are critical over those that provide the amenities of life.

Examples of community services that are critical and essential would be police and fire protection; public works such as clean and abundant drinking water, disposing of sewerage, and passable roads; educational institutions (although funding for schools is becoming more difficult to obtain as the percentage of the population without school-aged children increases); electrical power and communications networks; and a certain level of social services such as minimal medical care for the indigent. Understandably, there must be a minimal level above which these services are maintained or the city and urban area would cease to exist in a manner compatible with continued human habitation.

As budgets shrink in urban and community governments, the essential services are generally supported to a higher degree than nonessential services such as those

provided by the urban forest. Therefore, it follows that urban and community forestry activities will require a continuing and increasingly major effort to obtain and retain the funds required to maintain them.

An urban forest management program is truly a long-term consideration. Trees are long-lived and provide the maximum benefits to the community only when they reach a larger size. The urban forestry program must be stable because wild budget fluctuations and reductions on a yearly basis do not allow for consistent planting and maintenance needs. When the program is allowed to fall below a threshold level, a series of events are set into motion. Gaps in stocking occur when planting is curtailed. Decline of tree health and aesthetic values are by-products of a less than stable program. Future maintenance costs increase, and the potential for hazard increases in the future when current funds are reduced. Unfortunately, a true picture of the costs required to maintain a healthy and safe urban forest often is not clearly defined to citizens and their elected officials. As mentioned earlier in this chapter, the need to know the cost of managing, planting, and maintaining an urban forestry program at various levels is critically important.

3.2. Allocation of Budget Funds to Various Tree Management Activities

The four most commonly performed tree management activities in communities surveyed (Tschantz and Sacamano, 1994) were pruning, planting, spraying, and tree and stump removal (see Fig. 2). These activities were performed on only 7.2% of the total publicly owned tree population. This leads to one of two conclusions: either municipal trees do not require maintenance or, because of funding restrictions, the vast majority of trees are not maintained. Most observers would agree that more maintenance is needed on more trees and lack of funding is precluding additional maintenance activities.

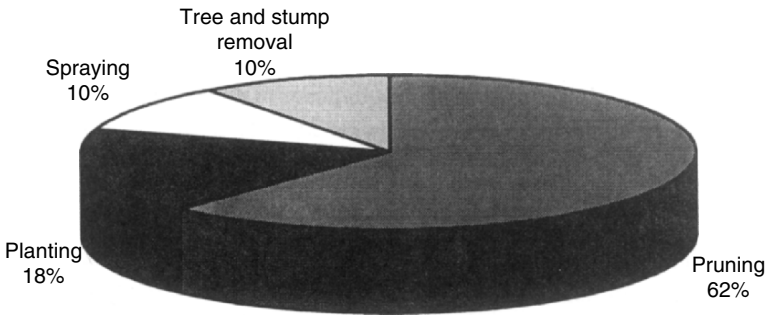

FIGURE 2. Maintenance activity on publicly owned tree population, from Tschantz and Sacamano (1994).

3.3. Establishment of Priorities for Various Tree Management Activities

Which activity should be given the highest priority when applying for tree management funding? Should an urban and community forester consider the health and preservation of the urban forest as the highest priority and only perform maintenance activities that maintain and/or increase the health of the resource? What are these activities? Would planting and replanting enter into this equation? For example, does the urban forester plant trees when there are trees in the existing urban forest that could be made healthier and would live longer by the forester providing an activity, such as fertilization, bracing and cabling, pest control, or girdling root removal, which would be withheld because of the funds expended on planting? Does the urban forester plant trees at the expense of the existing urban forest to create a more desirable urban forest in the future? In the northeastern United States during the height of the Dutch elm disease infection, some communities made the control of Dutch elm disease and the consequent minimal loss of the existing city elms a high priority. Others withheld extensive control measures, removed the elms as they died, and replanted as soon as possible. Controversy and concern over preserving (extensive control) versus conserving (minimal control) the resource raged. There is no clear answer as to which was the better decision.

Does public safety enter into the decision to allocate priorities? Large trees can be dangerous to many persons in the densely populated urban environment. Should the highest priority be only those activities that can increase the safety of the public such as pruning and removal of dead and dangerous trees?

Should politically popular activities, such as planting and replanting, receive the extensive support they are getting today? Money spent on planting programs amounts to nearly one-fifth of the funds allocated to maintenance activities in the urban and community forest. Remember, only 7.2% of the total publicly owned trees had any type of maintenance activity done on them. Most would agree that establishing priorities for tree management activities is a balance between politically popular activities, public safety concerns, and maintaining the health and longevity of the urban forest.

4. Urban and Community Tree Inventories and Their Role in Financing and Budgeting Urban and Community Forestry Activities

4.1. Use of the Inventory to Create an Urban Tree Management Program

Inventory data can be used to demonstrate the need to develop a systematic tree care program and the possible consequences of failing to develop one. The community is ultimately responsible for maintaining the publicly owned urban tree resource and the liability that may result from improperly caring for it. Not having funds to maintain the resource does not absolve a city of an accountability in lawsuits arising from it. Moreover, the cost of a judgment against the community or the defense costs in a lawsuit could conceivably pay for a systematic tree care program for many years (Tate, 1985).

To create an urban and community forest management program in a community that does not have one, data must be arranged and presented to best put forth a message that is concise, straightforward, and graphic. Charts and graphs catch attention and have the ability to impress the need for a program on all who should be concerned but have limited time and interest to spend on interpreting reams of tree-related data. The time for details can come later.

Three major items should be summarized: (1) planting needs, (2) maintenance requirements, and (3) potential hazards to life and property. If a management program is created, data from the inventory can aid in the development of a specific urban tree management plan. While urban and community forest management planning has become commonplace in this country, it has not focused on long-range objectives (Lobel, 1983). The need for a management plan that includes long-range planning is tremendously important. Inventory data can be used to determine the extent, condition, and maintenance needs of the resource and compare these parameters with desired objectives stated in a plan.

4.2. Use of the Inventory to Gain Increased Funding

Increased funding without quantitative information is difficult to secure when competing with other departments that have supporting data (Tate, 1985). Obtaining worthwhile supporting data also lends credibility to budget requests. Police departments, for example, keep crime statistics and usually can make an extremely strong case for the maintenance of their budgets. Obviously, urban tree care does not rank in importance with the protection of citizens from crime, but city trees do improve the general quality of urban life and have continuing maintenance requirements that can be demonstrated by inventory data.

Although increases may be denied, it is important to continue to request what can be justified by an inventory. Political decision makers' and administrators' priorities can and do change after a certain amount of education. Education can be one of the objectives of an inventory, and budget hearings are in many ways akin to educational sessions. Well-presented information that educates and substantiates the need for a budget increase often gains a more favorable response when contrasted to funding requests without proper supporting data. Data presentation for programmatic increases must be concise, straightforward, and oriented to the graphic. The principal purpose is to present a picture of the program, where it is now, and where it has to go to satisfy the stated objectives of a resource management plan.

4.3. Use of the Inventory to Insulate Against Budget Reductions

Each year various city agencies' funding requests are submitted and considered. These are viewed as part of the larger general city budget. Priorities in each community change, sometimes, yearly. Programs are ranked and evaluated for their worth in light of their political and monetary costs and values (Tate, 1985). An urban forestry program that cannot defend itself adequately is in danger of being cut back or eliminated. Obviously, cutbacks result in reduced urban and community forestry maintenance activities. The reductions are not readily apparent to city residents over the

short run but may have a tremendous long-term impact on the urban tree resource. Future budget increase do not necessarily reverse the ill effects of the cutbacks.

Unfortunately, many political decision makers do not understand that the existing resource must be maintained at some threshold level. Trees that comprise the resource will continue to grow; limbs and trees will die even though the budget is cut back. Often when systematic tree care is eliminated, tree removal funds seem to be found because of the threat of lawsuits against the city and other factors. Even if the tree program is totally eliminated, tree work will still be done in some reduced format. Operations will probably be less efficient because there is no full-time tree care agency. If the work is done by contract, it will require in-house management and supervision to be effective. More importantly, trees will probably die at greater rates when the tree maintenance budget is reduced.

To insulate and protect against budget cutbacks, inventory data can be used to describe the composition and condition of the resource. If cutbacks will affect planting, pruning, and removal, the presentation of data describing number of planting locations, trees requiring pruning, and dead or dying trees to be removed can be used to demonstrate accomplishments with the existing budget, as compared to what occurs if the budget is reduced. As stated earlier, tree maintenance is needed on a regular and sustained basis, and cutting the budget will not make the need for it go away.

Cutbacks may not directly affect the major service elements, but could impact on minor but critically important expenditure such as fertilizing, pest control, and post-planting care. In these cases data describing vigor conditions, insect and disease extent, and the proportion of newly planted trees to the established tree population can be used to explain the future effects on the resource when these services are reduced.

4.4. Use of the Inventory to Manage the Urban and Community Forest More Efficiently

Efficiency can be improved to some degree in most organizations. Many existing systematic tree care programs are underfunded. Because of intense competition for funds, tree care programs often have extreme difficulty in gaining real budget increases. The additional funds received may not cover yearly cost increases due to inflation. To provide a higher level of service and in some cases just to maintain the same level, given the same budget, a program must become more efficient (Tate, 1993).

More efficient dispatching of work crews can be accomplished if it is known in which area of the city there are large accumulations of trees with similar maintenance needs. For example, trees with low limbs that interfere with pedestrian and/or vehicular traffic should be pruned for clearance. These operations can be easily handled by crews working from the ground without extensive equipment and training. This work can be done during inclement weather, when equipment is being repaired, or as fill-in when key members of a particular crew are absent and other work cannot be done. Minor pruning and lifting can be performed by seasonal workers and temporary employees. Inventory data can be used to determine the number and size of crews needed for a particular tree maintenance operation. For example, the removal of large trees along busy streets requires more personnel and equipment than the removal of

smaller trees in residential areas. The sizes, numbers, and locations of trees to be removed in various areas can be provided by inventory data. Then work can be scheduled more effectively.

The purchase of equipment can be made more efficiently by using inventory data. The existing equipment inventory should match today's tree maintenance needs and be the most efficient type for existing and future work. For example, the cost of an aerial life increases proportionally to its working height. If inventory data indicate that most of the street trees needing work are less than 30 feet in height and only one aerial lift can be purchased, buying a lift that can reach 30 feet rather than a taller one is probably a better decision because it is more cost-effective. The small percentage of taller trees may be done by contract, or climbers can be placed into these trees (Tate, 1985).

In planting, species can be better matched with the aid of inventory data to the site. If, for example, one of the inventory variables notes the presence and heights of overhead utility lines, planting locations that are sited under lines can be used to estimate the number of trees needed that are shorter and more compact at maturity. Decisions made about the species mix for future tree purchases will be enhanced. The development of special pruning practices for small trees that will grow into utility lines as they mature can be programmed into the maintenance plan as a result of the inventory.

Properly trained tree crews work more efficiently than untrained crews (Tate, 1981). Inventory data can indicate existing and future tree work. From this, an in-service training program can be designed to adequately prepare the crews for necessary operations. If a large number of potential planting locations exist, for example, and an increased planting program is anticipated, crews can be trained in nursery maintenance practices, proper planting techniques, and postplanting care procedures.

5. Summary

Without adequate funding, the urban tree resource cannot optimize and provide the social, aesthetic, and economic benefits that are available from its citizens of the urban environment. Yet funding has decreased significantly during the last decade for urban and community tree management activities. The sources of funding also are changing from heavy reliance on the general fund, primarily financed by local property taxes, to other sources of income. As the revenue picture continues to get smaller, competition between agencies of local government looms larger, requiring the urban and community forester to become more adept at identifying, obtaining, and retaining inside as well as outside funds for urban forestry management activities. The urban forester must become an expert in utilizing the grant process.

Budgeting or urban and community forest management activities was always an important practice but has become even more so today because of funding reductions. Justification of a budget request requires establishing priorities for each type of management activities and marketing them to local appointed and elected officials who have a role in the budget approving process.

The use of a tree inventory can be critical in the creation of a systematic urban and community forestry program, as well as a tool to justify present funding levels

and even gain additional funding. It also can be used to manage the urban tree resource more efficiently. All this can be accomplished only if the inventory is designed as a management tool.

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