

Fact Sheet #5: How to Prepare for a Budget Cut

Here are some things you can do if you find that budget cuts are imminent.

Conduct a Needs Analysis

Review your tree program goals to determine the level of service desired by citizens and city leadership. This is your baseline. Then:

- Identify the funds needed to provide that desired level of service.
- Document the level of service you currently provide with funds available.
- Determine the reduced level of service you would be providing with a smaller budget.

Project Future Consequences

Determine the consequences on the future of tree health, as well as management costs and benefits for different funding levels. The steps include:

- Identify the backlog of needs that will develop without funding to maintain the required level of service determined by your needs analysis.
- Determine what funds will need to be spent in the future on this backlog.
- Describe how the budget cut will impact the future condition of trees that will receive a lower level of service.
- Determine the increased cost of maintenance when the funds are restored, taking into account the additional time required to play catch-up.
- Estimate the amount of emergency funds that will be needed for costs of storm cleanup, increased hazards and risks, and other expenses that are expected to result from deferred maintenance.

Here are some things you need to do on an ongoing basis to be better prepared for future budget cuts.

Reduce Program Costs

Reduce up-front and establishment costs. Cost-effectiveness is influenced by program costs as well as benefits:

$$\text{Cost-effectiveness} = \text{Total Net Benefit} / \text{Total Program Cost}$$

Improve planting practices and young tree care. Cutting costs is another strategy to increase cost-effectiveness. A substantial percentage of total program costs occur in the first five years and are associated with tree planting (McPherson 1993). Some strategies to reduce these costs include:

- Plant bare root or smaller tree stock
- Use trained volunteers for planting and pruning of young trees
- Provide follow-up care to increase tree survival; reduce replacement costs
- Select and locate trees to avoid conflicts

Use less expensive stock where appropriate. Where growing conditions are favorable, it may be cost effective to use smaller, less expensive stock or bare root trees to reduce costs. However, in highly urbanized settings and sites subject to vandalism, large stock may survive the initial establishment period better than small stock.

Develop standards of “establishment success.” During the first five years,
(continued)

Some benefits of the urban forest

Research has shown that healthy city trees:

- Create cleaner, healthier and more breathable air.
- Cool parking lots and parked cars.
- Mitigate the impacts of urban heat islands.
- Shade homes and buildings making them cooler and more energy efficient.
- Block winter winds.
- Retain rain on their leaf and branch surfaces, lessening the impact of storm runoff.
- Increase real estate values.
- Provide neighborhoods with a sense of place.
- Attract more shoppers and more money to business districts.
- Attract new business, homeowners and tourism.
- Reduce domestic violence and crime.
- Improve children’s performance in school.
- Shorten hospital stays and reduce need for medication.
- Lessen exposure to damaging solar radiation.
- Provide restorative experiences that ease mental fatigue and stress.

Visit our website at <http://cufr.ucdavis.edu> or <http://www.treelink.org> for additional sources of information on benefits of urban forests.



Cont.: How to Prepare for a Budget Cut

Additional Information

Information on urban and community forestry program design and implementation can be obtained from:

An Introductory Guide to Community and Urban Forestry in Washington, Oregon, and California. World Forestry Center, Portland, OR. 1987.

A Technical Guide to Urban and Community Forestry in Washington, Oregon and California. World Forestry Center, Portland, OR. 1989.

Costello, L.R. 2000. *Training young trees for structure and form.* Videotape Number: V99-A. University of California, Agriculture and Natural Resources, Communication Services Cooperative Extension Service, Oakland, CA. Telephone: 800-994-8849.

Hildebrandt, E.W.; Kallett, R.; Sarkovich, M.; Sequest, R. 1996. *Maximizing the energy benefits of urban forestation.* In: Proceedings of the ACEEE 1996 summer study on energy efficiency in buildings, volume 9; Washington DC: American Council for an Energy Efficient Economy. 121-131.

McPherson, E.G. 1993. *Evaluating the cost effectiveness of shade trees for demand-side management.* The Electricity Journal. 6(9): 57-65.

McPherson, E.G.; Maco, S.E., Simpson, J.R.; Peper, P.J.; Xiao, Q., VanDeZanden, A.M., Bell, N. 2002. *Western Washington and Oregon Community Tree Guide: Benefits, Costs and Strategic Planting.* International Society of Arboriculture, Pacific Northwest Chapter: Silverton, OR. 76 p.

Miller, R.W. 1997. *Urban Forestry: Planning and Managing Urban Greenspaces.* 2nd Edition. Upper Saddle River: Prentice-Hall. 502 p.

Urban and Community Forestry: A Guide for the Interior Western United States. U.S. Forest Service, Intermountain Region, Ogden, UT. 1990.

investing in the resources needed to promote tree establishment will generally pay huge dividends later on. Develop standards of “establishment success” for different species. Perform periodic inspections. Replace dead trees as soon as possible, and identify ways to improve survivability.

Prune early. Pruning during the establishment period should result in safer trees that require less care in the long-term. Training young trees will provide a strong branching structure that requires less frequent thinning and shaping (Costello 2000). Ideally, young trees should be inspected and pruned every other year for the first five years after planting. As trees grow larger, pruning costs may increase on a per-tree basis. The frequency of pruning will influence these costs, since it takes longer to prune a tree that has not been pruned in 10 years than one that was pruned a few years ago. Although pruning varies by species and location, a return frequency of five to eight years is usually sufficient for older trees (Miller 1997).

Match tree to site. Carefully select and locate trees to avoid conflicts with overhead powerlines, sidewalks, and underground utilities. Time spent planning will result in long-term savings. Also consider soil type and irrigation, microclimate, and activities occurring around the tree that will influence its growth and management.

Add up all benefits. When evaluating the bottom line—whether trees pay—do not forget to consider benefits other than the stormwater runoff reductions, energy savings, atmospheric CO₂ reductions, and other tangible benefits. The magnitude of benefits related to employment opportunities, job training, community building, and enhanced human health and well-being can be substantial. Moreover, these benefits extend beyond the site where trees are planted, furthering collaborative efforts to build better communities.

Increase Benefits

Work to increase survival rates. Improved stewardship to increase the health and survival of recently planted trees is one strategy for increasing cost-effectiveness. Higher survival rates increase energy savings and reduce tree removal costs. Tree survival rates have a substantial impact on projected benefits (Hildebrandt et al. 1996).

Target tree plantings with highest pay back. For example, conifers and broadleaf evergreens intercept rainfall and particulates year-round. Also, they tend to have relatively more leaf surface area than similar sized deciduous trees. Locating these types of trees in yards, parks, school grounds, and other open space areas can increase benefits.

Customize planting locations. Further increase energy benefits by targeting more trees for locations that produce the greatest energy savings, such as opposite west-facing walls and close to buildings. By customizing tree locations to increase numbers in high-yield sites, energy savings can be boosted.

Find lots of information at our website <http://cufr.ucdavis.edu>

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