

**FINAL REPORT**  
**FOREST SERVICE GRANT NO. 03-DG-11244225-425**  
Period covered by this report: August 1, 2003 through April 15, 2005

*NOTE: Please review the following information and revise/complete as necessary.*

**Issued to:** International City/County Management Association (ICMA)

**Address:** 777 North Capitol Street, NE, Suite 500, Washington, DC 20002

**Congressional District Number:** AL

**Project Name:** Communicating the Economic and Ecological Values of Urban and Community Forests to Local Government Officials

**Contact Person/Principal Investigator:**

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**Your Organization's internet home page address:** [www.icma.org](http://www.icma.org) & [www.lgean.org](http://www.lgean.org)

**Date of Award:** August 1, 2003

**Grant Modification: Mod. 1:** Time extension from December 31, 2004 to February 15, 2005  
**Mod. 2:** Time extension from February 15, 2005 to April 15, 2005

**Date of Expiration:** February 28, 2005

**Funding: Federal Share:** \$90,113 **Grantee Share:** \$92,113 = **Total Project:** \$182,226

**FS Grant Manager:** Phil Rodbell

Address: USDA Forest Service — NA, 11 Campus Blvd, Suite 200, Newtown Square, PA 19073

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**Provide a 100-word abstract on your project as defined by your initial proposal and contract. This abstract will be posted on the Council's internet home page.**

ICMA seeks to educate and inform local government officials about the economic and ecological values of urban forests. The project will empower local government managers to integrate trees as green infrastructure into their community's planning. Specifically, ICMA will:

- Produce a clearinghouse of urban forestry resources on its Local Government Environmental Assistance Network (LGEAN) web site;
- Promote and conduct a webcast to identify the benefits of green infrastructure;
- Host an urban forestry workshop at its 2004 Annual Conference; and
- Poll local government officials and gather their attitudes, needs, and success stories on urban and community forestry.

Project objectives:

ICMA's project objectives include:

- Demonstrating the economic and ecological benefits of urban forests as municipal assets;
- Providing tools and resources for local officials to improve and preserve urban forests; and
- Facilitating a feedback mechanism between local government officials and urban forestry researchers/practitioners.

ICMA will satisfy the project objectives through a number of deliverables, including:

- Developing of an online clearinghouse of urban forestry information for local decision makers on the Local Government Environmental Assistance Network (LGEAN) web site;
- Convening a national group of local government officials for a webcast focusing on the economic and ecological benefits of urban forestry;
- Hosting a workshop at ICMA's 2004 Annual Conference in San Diego, California, to further raise local government awareness of urban forestry practices; and
- Soliciting local decision makers' needs through online surveys and sharing that information with urban forestry researchers to guide future activities.

Objectives met successfully:

ICMA:

- Compiled information for and launched the Urban Forestry Hot Topic on the LGEAN web site. The Hot Topic will continue to be populated with urban forestry resources.
- Hosted the "Seeing Green with Trees: The Economic and Environmental Benefits of Urban Forests"
  - o Attended by 90 sites with 425 people participating
  - o Included presentations by Gary Moll & Cheryl Kollin, American Forests; Peter Gutowsky, City of Salem, OR; and Laura Brewer & Nick Roberts, City of Charlottesville, NC
  - o Feedback from the post-webcast survey:
    - How would you rate the content of the webcast?
      - Poor — 0%
      - Fair — 8%
      - Good — 40%
      - Very Good — 43%
      - Excellent — 8%
    - Would you participate in another webcast?
      - Yes — 98%
      - No — 1%
- Hosted the "Seeing Green with Trees: The Economic and Environmental Benefits of Urban Forests" workshop at the ICMA Annual Conference in San Diego, CA, on October 18, 2004.
  - o Attended by 46 city managers, assistant city managers, and other local government professionals
  - o Included presentations by Cheryl Kollin, American Forests; Cheryl Kortemeier, Trees Atlanta; Richard Mendes, City of San Diego, CA; and Peggy Merriss, City of Decatur, GA
  - o Received positive oral feedback from participants
  - o Posted the "Seeing Green with Trees: The Economic and Environmental Benefits of Urban Forests" workshop presentations on the ICMA web site.
- Produced 2,000 copies of the "Local Government Urban Forestry Toolkit" CD-ROM, which includes a Windows Media audio/video recording of the "Seeing Green with Trees: The Economic and Environmental Benefits of Urban Forests" webcast, as well as the individual PowerPoint presentations,

urban forestry fact sheets, and Internet links. More than 1,300 copies of the CD-ROM have been distributed. ICMA will continue to market and distribute the CD-ROM.



- Developed a survey of local government officials to gather information on how their understanding on the economic and ecological benefits of urban and community forests. The survey was completed by 125 ICMA members. A summary of the survey results was posted on the LGEAN web site.

Objectives not met:

None

List the major research or policy findings of your project.

ICMA's project primarily involved communications to local government officials. However, the survey was useful in collecting data from this audience. Highlights of the survey of local government officials included:

- 74% of the officials surveyed indicated that their local government has a tree protection ordinance or other policy that promotes the use of trees as green infrastructure
- 78% of the officials surveyed indicated that their local government has open space goals and policies
- Limited funding and competing priorities were ranked as the top two challenges for creating/sustaining a successful urban forestry program
- 76% of the officials surveyed indicated that their local government have yet to establish tree cover goals
- 72% of the officials surveyed indicated that they would consider establishing tree cover goals for their local government
- 30% of the officials surveyed indicated that trees have been incorporated into policies and management as an important air quality improvement tool
- 58% of the officials surveyed indicated that land use decisionmaking within their local government recognizes trees as an important stormwater mitigation tool
- Buffer areas and vegetated swales were the top practices using trees and vegetation to improve the quality and quantity of stormwater runoff
- 39% of the officials surveyed indicated that facility managers within their local government consider the placement of trees for energy conservation benefits

- 48% of the officials surveyed indicated that their local government promotes tree planting to citizens as an important energy conservation tool
- 23% of the officials surveyed indicated that their local government knows the ecological and/or economic value of its green infrastructure
- Quality of life, citizen advocacy, and energy conservation benefits were the primary drivers for protecting trees within local government
- Trees were promoted as tools to improve retail streetscapes and increase property values in the surveyed local governments
- 75% of the officials surveyed indicated that their local government communicates to citizens about the importance of protecting/planting trees
- Public events, print materials, and meetings and workshops were the top choices for communicating effectively with citizens about trees

**If not apparent in the above, or if your project did not involve research, how did the project increase the knowledge we have about urban forestry? How did the public benefit?**

ICMA's target audience for the project is local government decision makers. Representing more than 8,200 local government managers, ICMA informed this audience of the significance of trees within their communities. Across the United States, land-use authority falls within the purview of local governments. Towns, cities, and counties approve almost every aspect of land development, including land-use type determination, density, and design. As such, local land-use decisions can either enhance, protect, or destroy urban forestry resources. ICMA raised the awareness of local government officials on the importance of urban and community forests through the webcast, workshops, web site, and CD-ROMs. Through improved knowledge of green infrastructure, ICMA's project influenced the land-use decisions of local governments.

Enlightened local governments will ensure the preservation of public green infrastructure within their own communities, and will serve as models of effective urban forestry management to concerned citizens, nonprofits, businesses, and other units of government nationwide.

**What recommendations might you make for community foresters or others who might benefit from your project?**

Community foresters can play an important role in educating elected leaders and other local government officials, as well as the public, on the ecological and economic value of trees. In difficult budget times, local government leaders must be able to justify their investment in community programs. While the value of trees greatly exceeds the cost of urban forestry programs, local governments often have not calculated their urban forest's value. Community foresters use the tools that exist to measure that value, and justify the continued investment in urban forestry programs.

**Attach copies of reports, publications, or videos.**

Attachments:

- Print copy of Urban forestry web page
- Local Government Urban Forestry CD-ROM (contains webcast archive, webcast presentations, web links, and fact sheets)
- Survey questions and results

## **How were your results disseminated to the public?**

ICMA promoted the *Urban Forestry Hot Topic*, webcast, CD-ROM, workshop, and survey to local government officials through the following:

- Articles on LGEAN (<http://www.lgean.org>), an online environmental clearinghouse visited by city and county leaders approximately 18,000 times monthly;
- News stories on LGEAN's e-mail listserv, a biweekly electronic newsletter that includes a distribution of approximately 4,300 local government stakeholders;
- Articles on ICMA's web site (<http://www.icma.org>), visited by local government officials more than 40,000 times monthly;
- Articles and advertising in ICMA's publications, including *Public Management*, a monthly magazine with a circulation of approximately 20,000;
- Press releases to ICMA's state-level city and county association affiliates (e.g., South Carolina City County Management Association, Georgia Municipal League, etc.), reaching thousands of local government officials;
- Exhibiting and advertising at ICMA's 2004 Annual Conference, scheduled for San Diego, California, where more than 4,000 local government officials are expected to attend;
- Exhibiting at other environmental conferences and events; and
- Announcements on the proposed urban forestry webcast, reaching hundreds of interested local government officials nationwide.

ICMA's *Urban Forestry Hot Topic*, webcast, workshop, and CD-ROM were available to a national audience of local government officials. The survey was targeted to city and county managers.

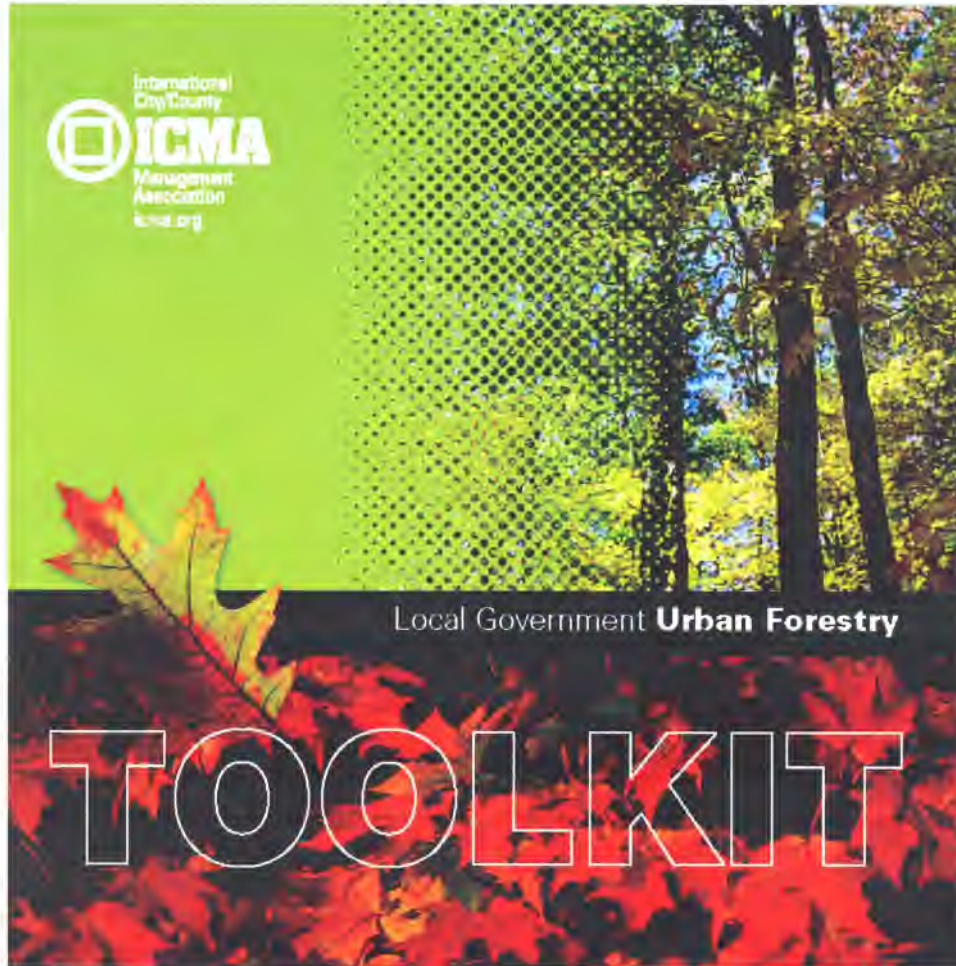
## **What are the logical next steps or future direction of your project/research?**

The effort to raise awareness among local government officials on how trees provide ecological and economic benefits to communities must be sustained. Local governments make decisions daily that impact urban forests, both positively and negatively. As the survey illustrated, many local governments are not aware that trees provide an alternative to built infrastructure, provide energy savings, reduce stormwater runoff, improve air quality, etc. Decision makers need to be reminded of how important natural resources are within their local governments.

## **List the active partners (key individuals and organizations) involved in the project.**

American Forests — Cheryl Kollin and Gary Moll

Photo or illustration: If possible, please provide a photo or illustration for our use that summarizes or represents the project. Indicate how this illustration should be credited.



The cover of the CD-ROM best illustrates the aim of the project. ICMA's goal was to provide urban forestry information to local government officials. A digital image of the cover will be e-mailed. It should be credited to ICMA.

If a no-cost extension was granted for this project, why was it needed?

ICMA requested two no-cost extensions to complete the project's survey. Developing the survey questions took more time than anticipated.

How would you evaluate the grant process? What changes, if any, would you recommend?

The grant process worked well from the recipient's end. Communications were timely, and reporting was made easy with the template that was provided.

**Comments considered of importance but not covered above.**

ICMA has enjoyed the opportunity to communicate with our members about this important topic.

**This report was prepared by:**

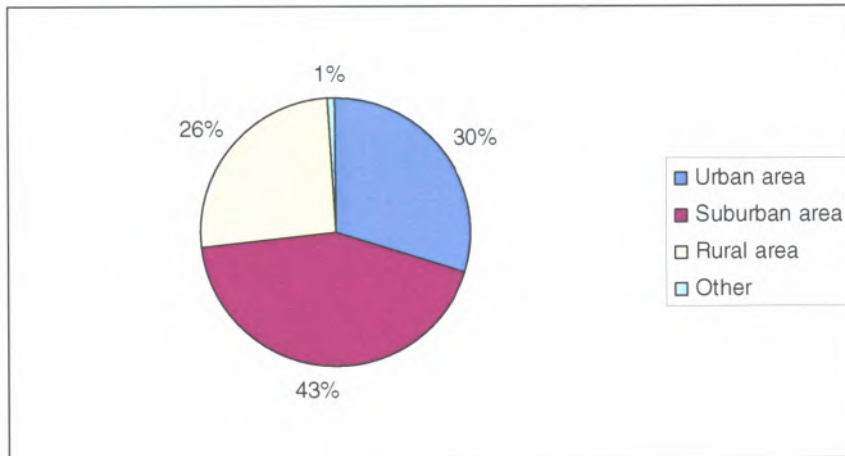
**Name:** Andrew Seth  
**Title:** Project Manager  
**Phone Number:** (202) 962-3622  
**Date:** July 7, 2005

## Urban Forestry Survey

The following short survey has been designed to measure the significance of trees as "green infrastructure" within your community. As an incentive, one survey participant will be randomly selected to receive a \$100 [Amazon.com](https://www.amazon.com) gift certificate. Thanks for your feedback and good luck with the drawing!

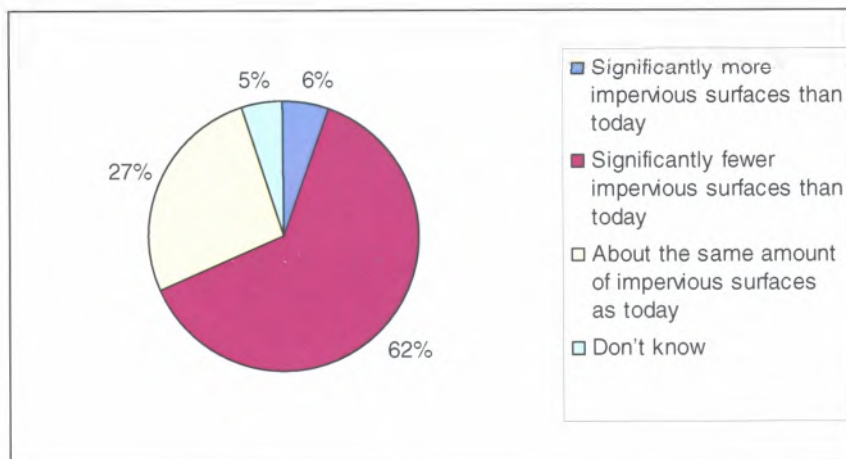
1. Is your local government located within a: (Select one.)

- Urban area **37**
- Suburban area **53**
- Rural area **32**
- Other. Please describe \_\_\_\_\_ **1**



2. Impervious surfaces, such as building structures, parking lots, sidewalks, and roads, prevent rainwater from soaking into the ground and produce increased stormwater runoff. Twenty years ago, did your local government have: (Select one.)

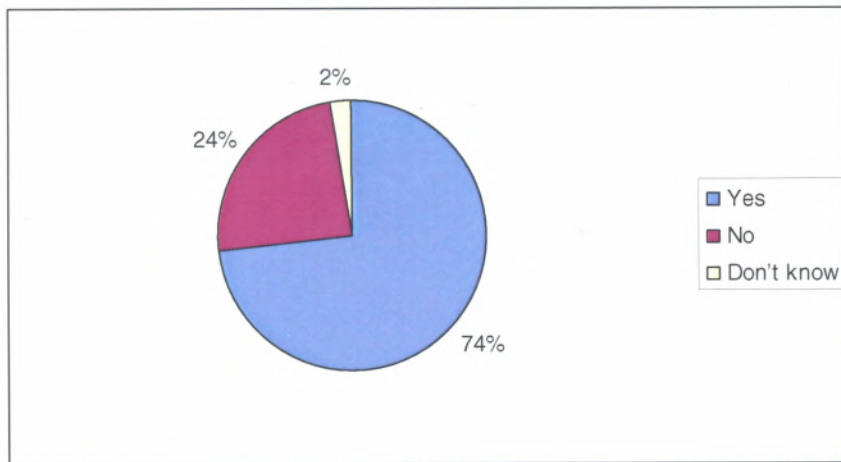
- Significantly more impervious surfaces than today **7**
- Significantly fewer impervious surfaces than today **77**
- About the same amount of impervious surfaces as today **33**
- Don't know **6**





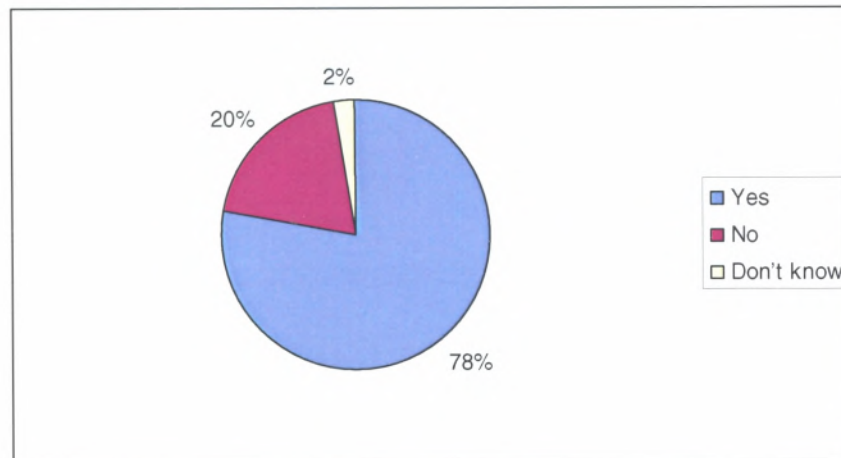
3. Does your local government have a tree protection ordinance or other policy that promotes the use of trees as green infrastructure? (Select one.)

- Yes **90**
- No **30**
- Don't know **3**



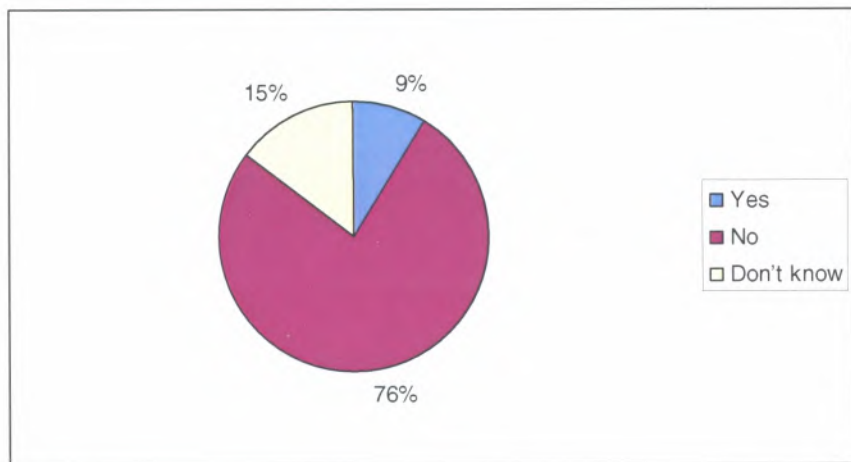
4. Does your local government have open space goals and policies?

- Yes **95**
- No **24**
- Don't know **3**



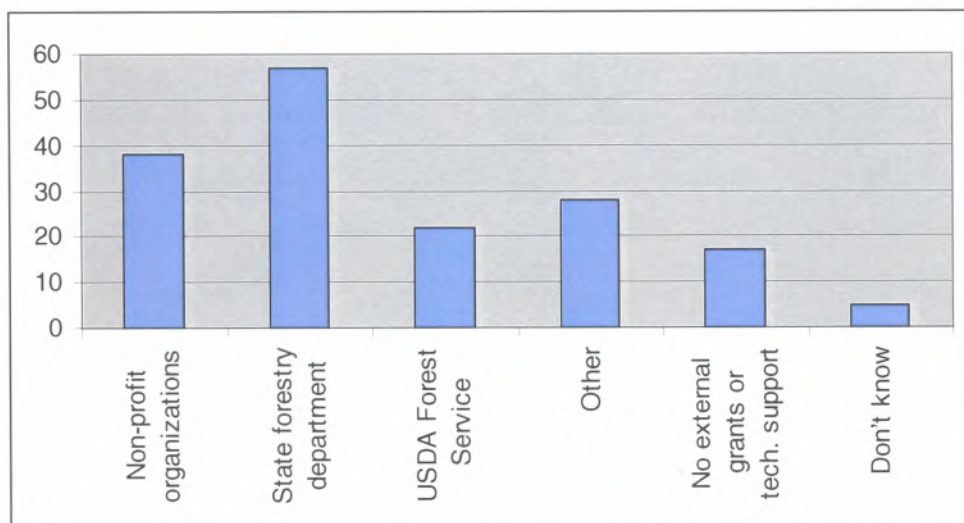
5. Has your local government tapped into stormwater or air quality sources of funding for urban forestry projects? (Select one.)

- Yes **11**
- No **94**
- Don't know **18**



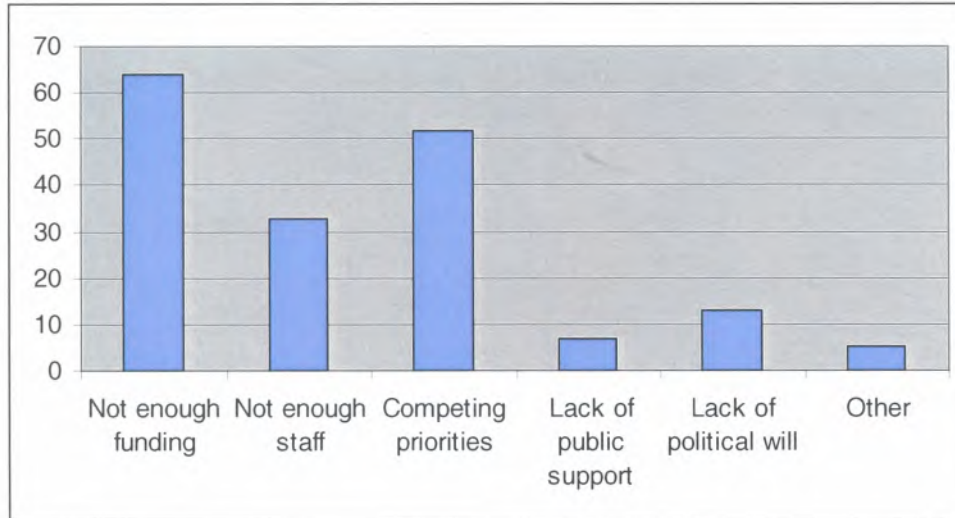
6. Has your local government received urban forestry grants or technical support from: (Select all that apply.)

- Non-profit organizations **38**
- State forestry department **57**
- USDA Forest Service **22**
- Other. Please describe \_\_\_\_\_ **28**
- We receive no external grants or technical support **17**
- Don't know **5**



7. What are the challenges for creating/sustaining a successful urban forestry program? (Select top two.)

- Not enough funding **64**
- Not enough staff **33**
- Competing priorities **52**
- Lack of public support **7**
- Lack of political will **13**
- Other. Please describe \_\_\_\_\_ **5**

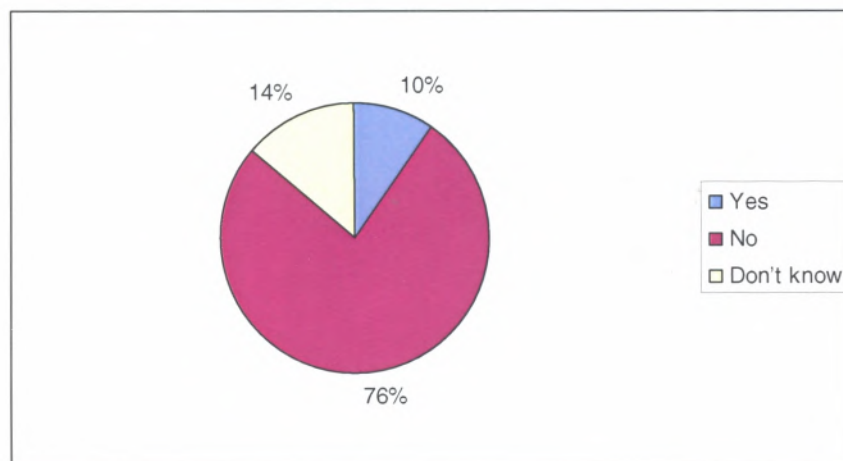


Tree Cover Goals

American Forests, a nonprofit organization, encourages local governments to set a tree cover goal to help ensure that their green infrastructure is maintained at minimum thresholds to best utilize their ecosystem services. For example, American Forests recommends an average 40% tree canopy for areas east of the Mississippi and in the Pacific Northwest.

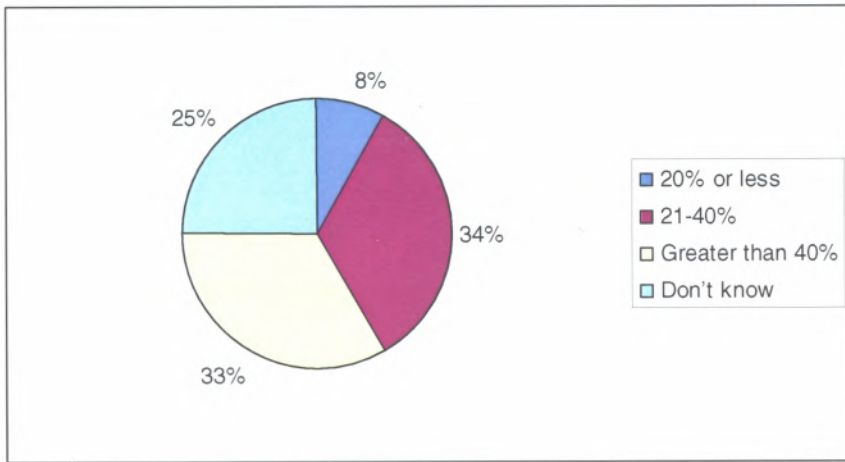
8. Has your local government established tree cover goals? (Select one.)

- Yes [go to question 11] **12**
- No [go to question 12] **94**
- Don't know [go to question 12] **17**



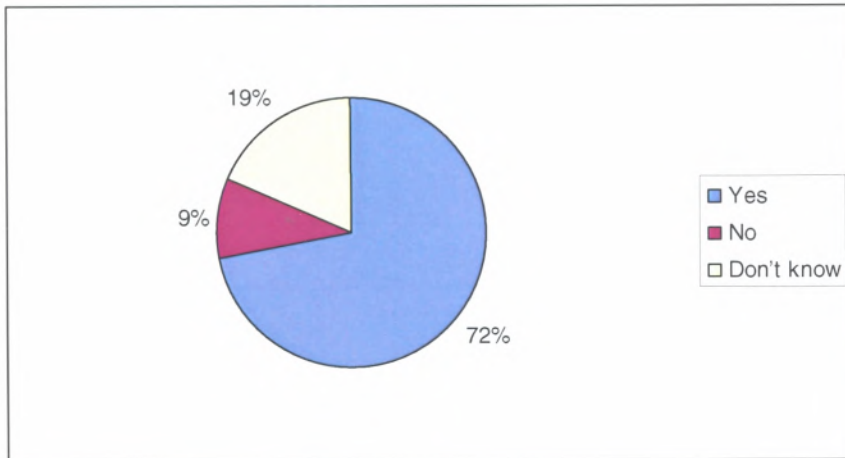
9. In what range does your local government's tree cover goal fall: (Select one.)

- 20% or less [go to question 13]      **1**
- 21-40% [go to question 13]      **4**
- Greater than 40% [go to question 13]      **4**
- Don't know [go to question 13]      **3**



10. Would you consider establishing tree cover goals for your local government? (Select one.)

- Yes      **77**
- No      **10**
- Don't know      **20**

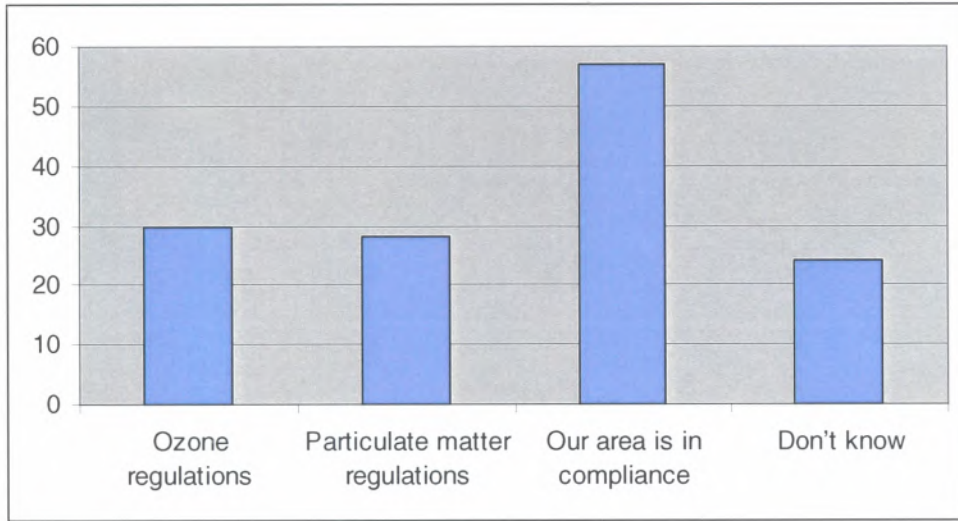


Air Quality

Few urban areas meet national clean air standards. Trees remove many atmospheric pollutants, including nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), ozone (O<sub>3</sub>), carbon monoxide (CO), and particulate matter (PM 10). Local governments are increasingly looking at trees as a tool to meet air quality regulations.

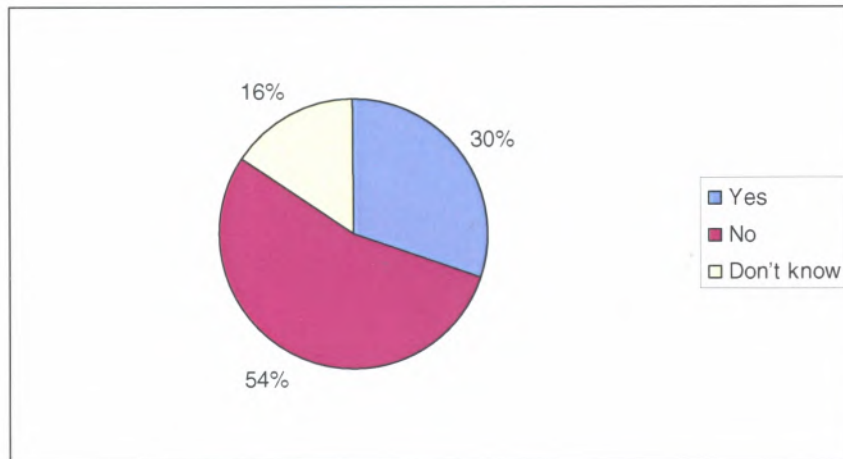
11. Is your local government in an area that is out of compliance with: (Select all that apply.)

- Ozone regulations **30**
- Particulate matter regulations **28**
- Our area is in compliance **57**
- Don't know **24**



12. Have trees been incorporated into policies and management as an important air quality improvement tool? (Select one.)

- Yes **37**
- No **66**
- Don't know **19**

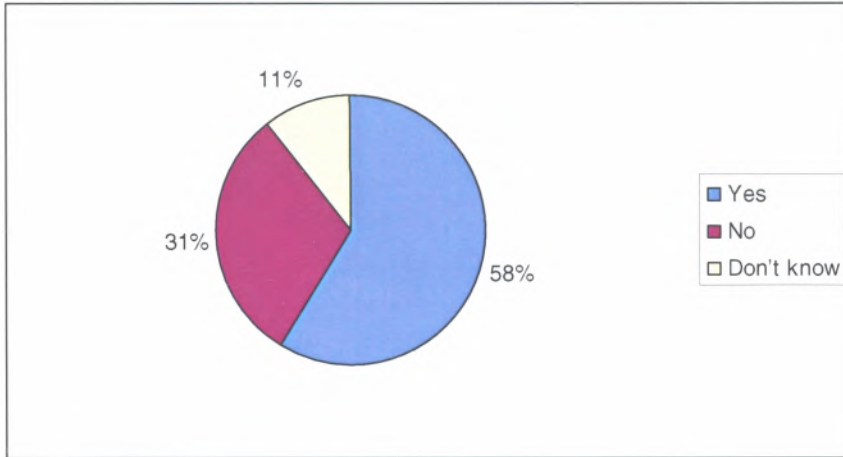


## Stormwater

Trees and soil function together to reduce stormwater runoff. Trees also slow storm flow, reducing the volume of water that a containment facility must store. Many local governments are considering non-built stormwater management strategies, including trees, to reduce the cost of constructing stormwater control infrastructure.

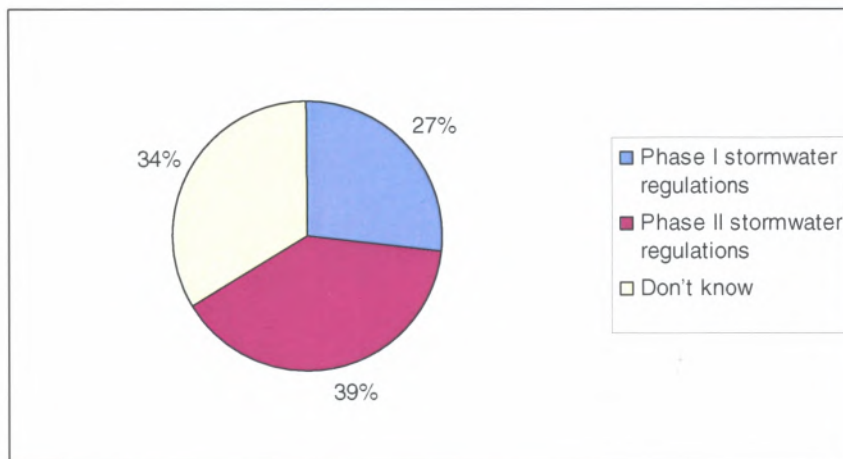
13. Does land use decisionmaking within your local government recognize trees as an important stormwater mitigation tool? (Select one.)

- Yes **72**
- No **38**
- Don't know **13**



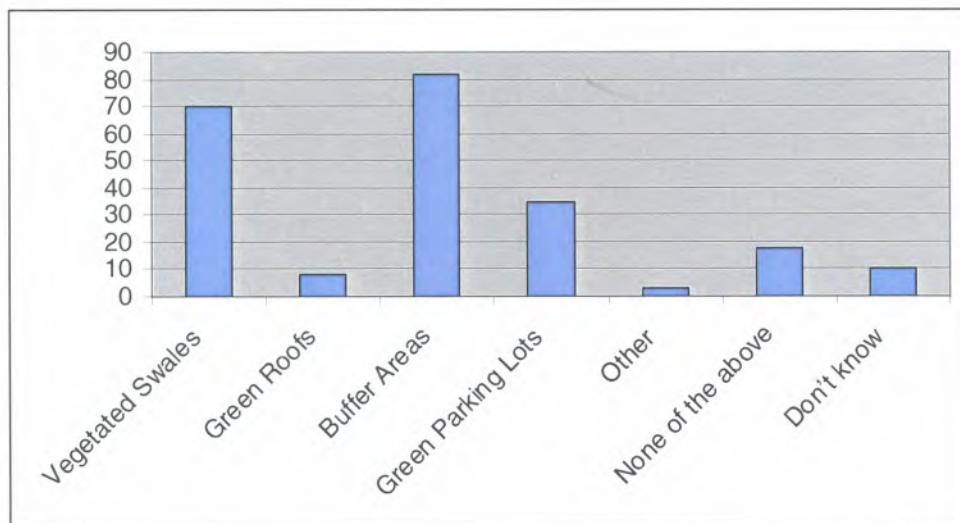
14. Has your local government developed plans to comply with: (Select one.)

- Phase I stormwater regulations **31**
- Phase II stormwater regulations **49**
- Don't know **35**



15. Does your local government encourage any of the following practices using trees and vegetation to improve the quality and quantity of stormwater runoff: (Select all that apply.)

- Vegetated Swales **70**
- Green Roofs **8**
- Buffer Areas **82**
- Green Parking Lots **35**
- Other. Please describe \_\_\_\_\_ **3**
- None of the above **18**
- Don't know **10**

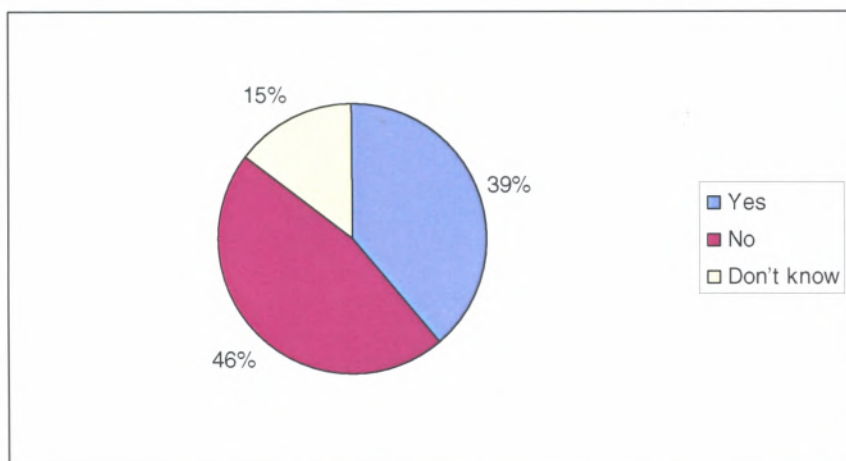


Energy Conservation

Trees cool our neighborhoods and save money on energy costs. Trees are most effective when located to shade air conditioners, windows, or walls, and when located on the side of buildings receiving the most solar exposure.

16. Do facility managers within your local government consider the placement of trees for energy conservation benefits? (Select one.)

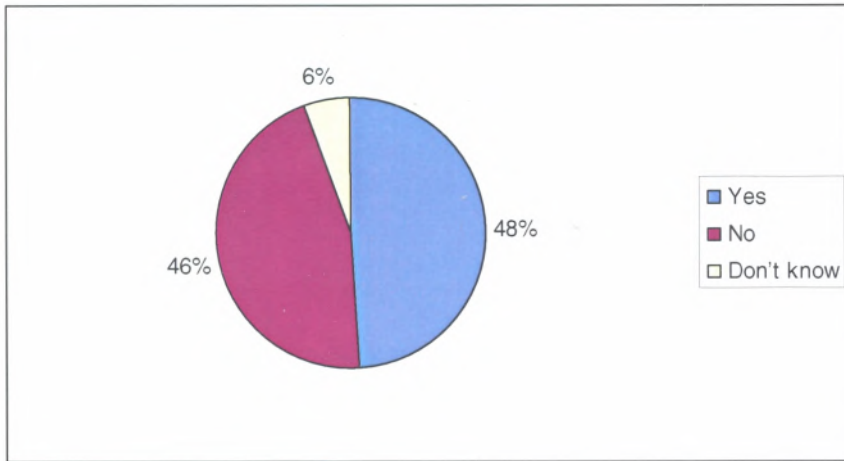
- Yes **48**
- No **57**
- Don't know **18**



17. Does your local government promote tree planting to citizens as an important energy conservation tool?

(Select one.)

- Yes **60**
- No **56**
- Don't know **7**

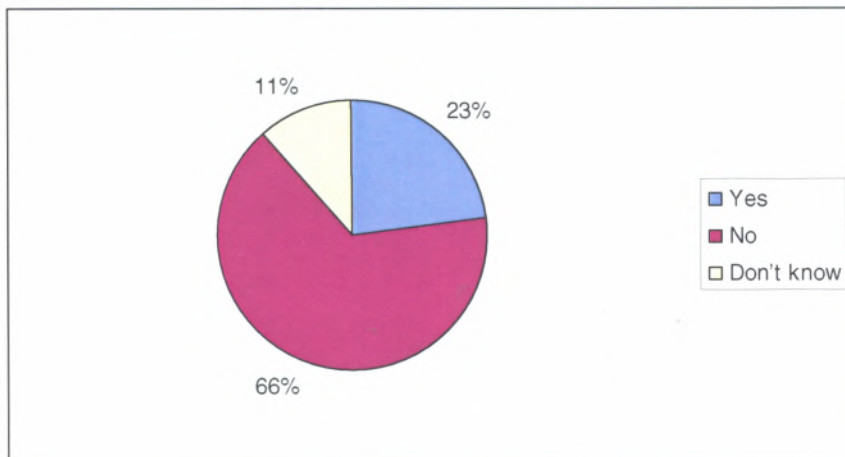


GASB 34

GASB 34 required local governments to calculate the value of their public infrastructure assets, such as bridges, roads, and storm sewers. Trees also serve as important "green infrastructure," providing ecological services such as removing air pollution and retaining stormwater.

18. Does your local government know the ecological and/or economic value of its green infrastructure? (Select one.)

- Yes **28**
- No **80**
- Don't know **14**

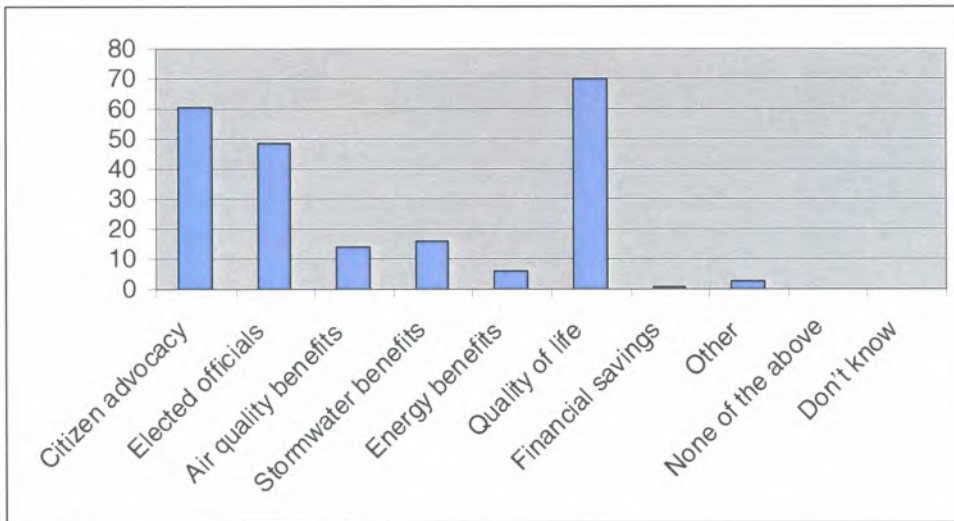




Motivating Factors

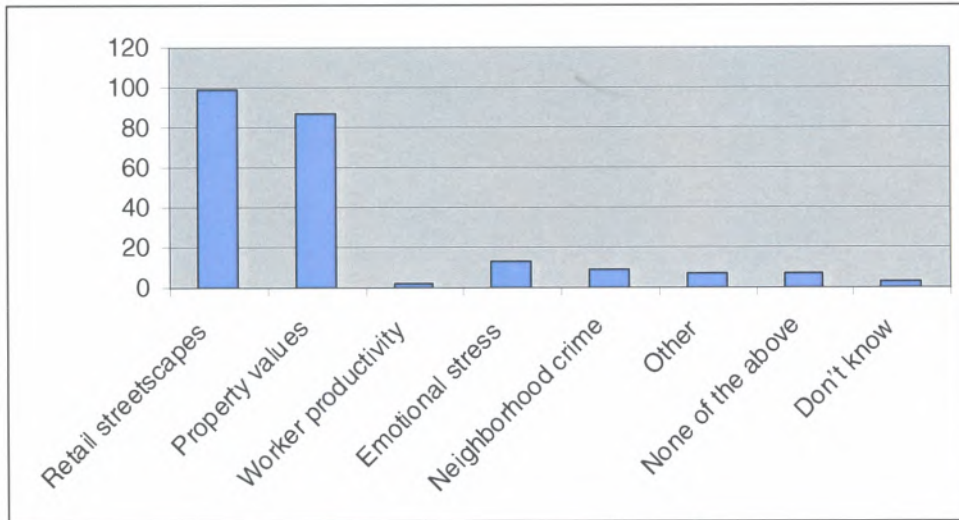
19. What are the primary drivers for protecting trees within your local government? (Select top three.) Note: 56 checked more or less than 3, so they were eliminated.

→ Citizen advocacy	61
→ Concerned elected officials	49
→ Air quality benefits	14
→ Stormwater benefits	16
→ Energy conservation benefits	6
→ Quality of life	70
→ Financial savings	0
→ Other. Please describe _____	3
→ None of the above	0
→ Don't know	0



20. Does your local government promote trees as a tool to: (Select all that apply.)

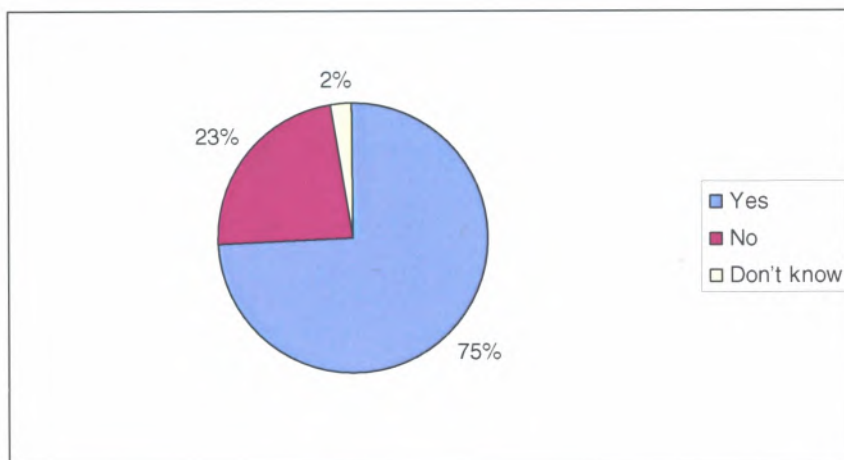
- Improve retail streetscapes **99**
- Increase property values **87**
- Enhance worker productivity **2**
- Mitigate emotional stress **13**
- Reduce neighborhood crime **9**
- Other. Please describe \_\_\_\_\_ **7**
- None of the above **7**
- Don't know **3**



### Communications

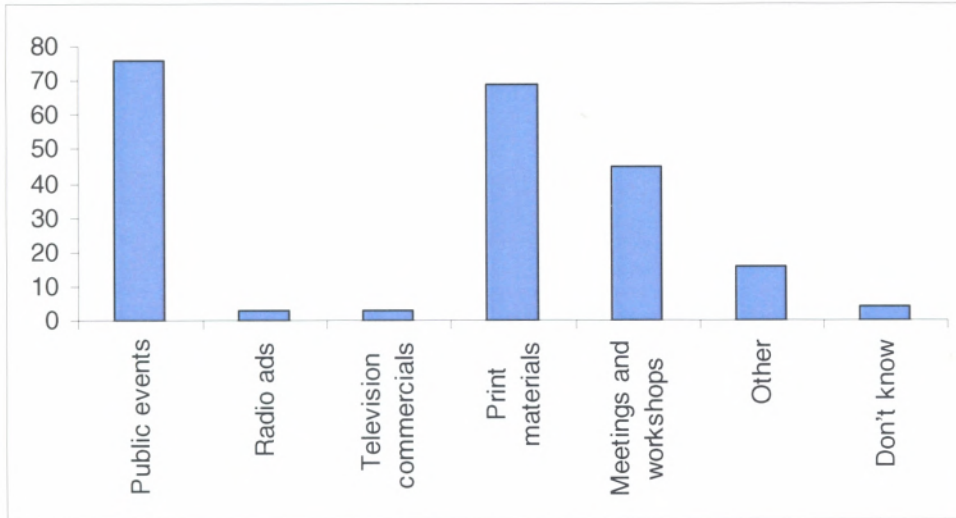
21. Does your local government communicate to citizens about the importance of protecting/planting trees? (Select one.)


- Yes **92**
- No [end] **29**
- Don't know **3**




22. How does your local government communicate effectively with citizens about trees? (Select all that apply.)

- Public events (e.g., tree plantings, Arbor Day) **76**
- Radio ads **3**
- Television commercials **3**
- Print materials (e.g., utility bill inserts) **69**
- Meetings and workshops **45**
- Other. Please describe \_\_\_\_\_ **16**
- Don't know **4**



Local Government Environmental Assistance Network					
HOT TOPICS	WHAT'S NEW?	REGULATORY INFORMATION	TOOLS & RESOURCES	CALENDAR	




## Hot Topics

### Urban Forestry


**Issue Summary:**

Urban forestry, the planting and management of all trees and woodland in towns and cities, has the potential to dramatically impact the quality of life within a community. Communities with well run urban forestry programs enjoy improvements in energy efficiency, water and air quality, storm water management, and neighborhood property value. By optimizing canopy coverage, communities can avoid "heat islands," localized areas where temperatures can be much higher than surrounding neighborhoods and air pollution can become concentrated. Tree canopies can also play a significant role in storm water management. By dispersing rainfall over time, tree canopies make runoff more gradual, decreasing water pollution and flood damage.


Trees can be a significant factor in air pollution reduction as well, cleansing the air of pollutants such as smog and carbon dioxide. Communities have reported enormous savings in energy costs, simply by increasing the number of trees in the area. Shelter from sun and wind leads to decreased air conditioning costs in the summer months and decreased heating costs in winter. The resources below provide information on the various benefits that many communities have realized from strong urban forestry programs, and also provide information on publications, conferences, and technologies that local governments can use to bolster their own programs.




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Local Government **Urban Forestry**

# TOOLKIT