An urban forestry program really has no end... It will require the continued commitment of citizens, local tree groups and the elected officials of this generation and those of the future.

USDA FOREST SERVICE
BACKGROUND

The *State of the Trees Report*, published by the Sacramento Tree Foundation in 2000, laid out a bold vision: to capitalize on the remarkable benefits of trees to create the best urban forest for the Sacramento region.

As a result, in 2001 elected officials representing twenty municipalities in our six-county region took an exciting leap towards regional collaboration by signing an Urban Forest Compact. The Compact proposed a shared vision and identified goals to optimize the benefits of our region’s urban forest.

Over the next three years, an educational campaign produced a video and brochure, both titled *What's the Value of a Tree*. In specific detail they describe the benefits of trees and their financial value to our region. Other educational materials described the significant economic and health benefits that trees provide, and detailed the supporting studies conducted by leading scientists.

Beginning in 2005, residents and stakeholders were invited to participate in a public involvement campaign to contribute their thoughts and ideas in reviewing the first draft of the Greenprint. Over 35 presentations were made to elected bodies, civic groups, professional organizations, service clubs and general community meetings. Hundreds of citizen participants from Colfax to Winters, Live Oak to Galt, and all compass points between helped craft the best approaches to greening our communities.

The Greenprint represents the thinking and vision of the Tree Foundation board and staff, members of the scientific community, urban foresters and arborists, civic and elected leaders and concerned citizens from throughout the region.
Sacramento Regional  
GREENPRINT  

GUIDING PRINCIPLES FOR CITIES AND COUNTIES

Our region is remarkably well suited to capture the benefits of trees. Our hot summers and cool winters enable us to maximize the benefits of shade trees in energy savings, air quality improvement, stormwater runoff retention and community enhancement.

- We recognize the importance of tree canopies and their contributions to clean air and water, stormwater runoff reduction, energy conservation, improved public health, and increased property values.
- We support the protection of native trees, woodlands and riparian areas as key features to sustain our ecosystems and promote our natural heritage.
- We support the importance of citizen awareness and community involvement as major contributors to healthier urban forests, and in building neighborhood unity, community pride and civic trust.
- We support the value of public-private partnerships with business and nonprofit organizations in order to mobilize resources, widen funding sources, and increase the understanding of the importance of trees.
- We support the development of urban forest best management practices, policies and ordinances, and the adoption of urban forest master plans for each of our communities.
- We support coordinated tree planting plans in order to double the tree canopy in our region.
- We support the importance of nurseries and other green industries in providing the highest quality tree stock and state-of-the-art tree and urban forest services.
- We support a regional Greenprint steering committee of elected officials.
- We support a Greenprint Clearinghouse to provide high-quality technical information, education, and funding resources to communities so they can expand, protect, and steward their community trees and urban forest.
In 1998, the National Aeronautics and Space Administration (NASA) took flyover thermal image shots of Sacramento to analyze the urban heat island effect. The urban heat island effect is caused by condensed areas of hard surfaces that radiate heat from the sun, which results in higher temperatures. For example, the red areas in the image above are 118° Fahrenheit, while green areas are 82° Fahrenheit. One of the most effective ways to mitigate urban heat islands is to increase shade with tree canopy.

**Why TREES?**

**CANOPY MAKES A HEALTHY COMMUNITY**

The Greenprint invites our region’s cities and counties to develop livable and sustainable communities by building the best urban forests. Scientific investigations by a variety of nationally recognized research institutions have quantified a long list of tree-related benefits including improved air quality, energy conservation, attraction and retention of business, extended roadway life, water quality and stormwater mitigation, erosion prevention, dust removal, skin cancer prevention, summer air temperature relief and more.

**AIR**

- 10 million pounds of air pollutants
- $25 million in annual air pollution clean-up

**WATER**

- 1.75 billion gallons of rainwater
- $17.5 million in annual stormwater runoff costs
**Energy**

- 30% annual savings on summer cooling costs
- $50 million in annual energy savings

**Business**

- Increase in customers and frequency of business
- 11% increase in retail sales prices

**Real Estate**

- Well-shaded and landscaped yards and neighborhoods
- 1% increase in home sale value

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**Shade Cover Adds Value to Our Region**

Building an urban forest agenda begins by recognizing the pivotal role of canopy cover in the development of our communities. The Greenprint sets an average 35% shade canopy goal for our region based on the best available science.

- **35% Shade Cover**
  - $105.5 million

- **25% Shade Cover**
  - $75.3 million

- **15% Shade Cover**
  - $45.2 million

- **10% Shade Cover**
  - $30.1 million
The GREENPRINT

PURPOSE

To guide cities and counties of the Sacramento Area Council of Governments region in developing urban forest initiatives.

GOALS

- To optimize the benefits of trees throughout our region.
- To create sustainable urban forests.
- To build community-wide appreciation for our urban forests.

ELEMENTS

A successful urban forest program requires attention in three key elements:

A  Management of Public Trees
B  Policies and Ordinances
C  Community Partnerships
The Greenprint offers a step-by-step approach to enhancing your urban forest called growth rings. The growth rings represent increasing levels of commitment and benchmarks for progress. There is built-in flexibility for each city and county to determine their particular pathway for achieving progress in each of the growth rings.

Reaching growth ring 4 in all three elements is the ultimate goal. It will take several years, even decades to achieve, depending on local priorities, resources, and commitments.
AIR QUALITY

City and county streets and parks are home to most of our public trees. These are often the signature trees of a community, because they are typically the largest and most frequently seen. Properly managed, they serve as models to showcase the best tree selection, pruning, and care. The values of a community are displayed daily by the presence and quality of public trees, or by their absence.

Some of the many components to public tree management include: knowledgeable and experienced staff and contractors, state-of-the-art tree care programs, comprehensive inventories, regular tree assessments, and regular inter-departmental communications. Adopting an urban forest master plan reinforces the values, goals, and vision of your city or county.

The Greenprint Clearinghouse, managed by the Sacramento Tree Foundation, will have available technical, scientific, and policy-making information and resources to assist Greenprint cities and counties in building optimal public tree management programs.

Element A: Management of Public Trees

Doubling the region’s tree canopy is key to:

- Removing 250,000 tons of carbon dioxide annually
- Removing 10 million pounds of air pollutants annually
- Reducing air pollution by as much as 50%
- Removing 50 tons of nitrogen oxide annually

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6 Tree species selection can ensure low biogenic volatile organic compound (BVOC) emissions.
GROWTH RING 1
- Maintain public trees on an emergency basis
- Become a Greenprint participant

GROWTH RING 2
- Assign a liaison to the Greenprint Clearinghouse
- Conduct an urban forest value assessment\(^7\)
- Convene interdepartmental urban forest stakeholder working group
- Develop stage 1 of urban reforestation program components\(^8\)

GROWTH RING 3
- Develop stage 2 of urban reforestation program components\(^9\)
- Adopt an urban forest master plan
- Adopt staff education and certification guidelines

GROWTH RING 4
- Form an urban forest department/hire an urban forest coordinator
- Conduct biannual urban forest department evaluations
- Publish a state of the urban forest report on 5-year intervals

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\(^7\) An urban forest value assessment provides a net value of your urban forest, canopy cover %, and priorities for management direction. The Greenprint Clearinghouse offers this service using a program developed and endorsed by the U.S. Forest Service.

\(^8\) Mature tree care program; young tree care program; tree purchasing and planting specifications; 5-year planting plan

\(^9\) Tree inventory and database; 20-year planting plan; tree hazard, pest and disease management program
Improving the extent, safety, and health of trees can be advanced by adopting tree policies, ordinances, and plans for both public- and private-property trees. Local urban forest policies support and reflect the image, character, and values of your community.

Cities and counties throughout the region have a variety of policies and ordinances to protect and preserve trees. Throughout the region, the requirements vary widely from the species and sizes of trees protected, to the planting replacement ratios and mitigation requirements for removal. This is a great starting point from which to build a better future.

The Greenprint Clearinghouse will provide information, guidance, and workshops to develop model policies and ordinances that can be adopted throughout the region. This approach offers consistency throughout the region, creating a regional approach to the protection, replacement, and mitigation of trees.

Shade trees on our streets and in parking lots are key to:

- Extending the life of asphalt pavement up to 10 years\textsuperscript{10}
- Reducing hydrocarbon emissions from parked cars by 18\%\textsuperscript{11}
- Reducing temperatures in parked cars by 60˚ Fahrenheit\textsuperscript{11}

GROWTH RING 1
■ Adopt street and park tree protection ordinance/policy

GROWTH RING 2
■ Develop stage 1 of comprehensive urban forest ordinance components
  ■ Adopt street, median, and parking lot planting and design guidelines
  ■ Implement sustainable funding for urban forest activities

GROWTH RING 3
■ Develop stage 2 of comprehensive urban forest ordinance components

GROWTH RING 4
■ Adopt urban forest goals in the general plan and community plans
  ■ Finalize comprehensive set of urban forest ordinances and policies

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12 Shade cover objectives for various land uses, tree replacement and mitigation policies
13 Healthy tree protection and preservation, ordinance compliance program
14 Urban heat island mitigation policy, green infrastructure principles, smart growth and green planning policies
The most significant element to creating a healthy urban forest is the role played by private property owners and volunteers, because 80% of the urban forest is located on private land. Cities and counties that create partnerships with their community members and businesses are more likely to succeed in their urban forest plans and programs.

Developing public, private, and nonprofit partnerships provides support for mobilizing widespread volunteerism. These partnerships create effective, long-term solutions for our cities and counties to develop a sustainable urban forest. Community organizations including TREE Davis, the Woodland Tree Foundation, Placer Tree Partners, the Roseville Urban Forest Foundation, and the Sacramento Valley Urban Forest Council are poised to provide resources for tree planting, urban forest stewardship, and community education.

Shaded neighborhoods and business districts increase:
- Home sale prices by 1%\(^\text{15}\)
- Property values by 10%\(^\text{15}\)
- Retail sale prices by 11%\(^\text{16}\)

\(^{15}\) Sacramento Association of Realtors. 2004.  
**GROWTH RING 1**
- Sponsor community and neighborhood tree plantings
- Recognize volunteer contributions

**GROWTH RING 2**
- Conduct media events for tree projects and Greenprint milestones
- Create partnerships to develop: local preferred tree list, landscape and planting guidelines, and outreach to form NeighborWoods\(^{17}\) groups
- Gain recognition as a Tree City USA\(^{18}\)

**GROWTH RING 3**
- Form a Citizen Advisory Tree Committee
- Grow partnerships to develop: structured support for NeighborWoods leaders, groups and projects; residential tree care guide; and business guide to trees
- Develop and implement private partnership tree planting and grant programs
- Earn a Tree City growth award\(^{19}\)
- Create partnerships with school districts for tree plantings

**GROWTH RING 4**
- Through partnerships: support NeighborWoods groups to develop neighborhood-level urban forest master plans, and host recognition events for community tree heroes and champions
- Gain recognition as a Sterling Tree City USA\(^{20}\)

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\(^{17}\) NeighborWoods is an established Sacramento Tree Foundation program, and modeled nation-wide by the Alliance for Community Trees and Home Depot.

\(^{18}\) Tree City USA is a National Arbor Day Foundation program that requires an awardee to have a tree board or department, a tree care ordinance, a community forestry program with $2 per capita annual budget, and an Arbor Day observance.

\(^{19}\) A Tree City Growth Award is given by the National Arbor Day Foundation to recognize Tree City USA participants for completing activities to strengthen local tree care programs.

\(^{20}\) Sterling Tree City USA is awarded to Tree City USA participants who earn a Tree City Growth Award for ten consecutive years.
Regional and Local Organizations

American Institute of Architects
American Lung Association
American Planning Association
American River Conservancy
American Society of Landscape Architects
Association of Environmental Professionals
Building Industry Association
Clean Air Partnership
Davis Tree Commission
Earth Day Sacramento
Environmental Council of Sacramento
North Sacramento Chamber of Commerce
Placer Tree Partners
Power Inn Business and Transportation Association
Roseville Urban Forest Foundation
Sacramento Area Council of Governments
Sacramento Bee
Sacramento County Tax Payers League
Sacramento Metro Chamber of Commerce
Sacramento Metropolitan Air Quality Management District
Sacramento Municipal Utility District
Sacramento Valley Urban Forest Council
Tree DAVIS
TreeLink
Urban Land Institute
U. S. Forest Service, Center for Urban Forest Research
Valley Vision
WALK Sacramento
Woodland Tree Foundation

Call to Action

The Real Work Begins in Your Community

Securing the benefits of an expanded urban forest will require the concerted effort of each city and county in the Sacramento region, along with the attention of hundreds of thousands of volunteers, over the next several decades. This unprecedented undertaking begins with the ratification of this document.

The real work begins in your community. Education of the general public, government, businesses, and organizations is vital to building a strong support base for implementing the programs and partnerships in the Greenprint.

Stewarding five million trees to maturity is a massive undertaking far beyond the reach of any one city or county. By joining together, we will attract new investors and resources to the region, building the mutual support necessary to achieve the Greenprint.
GREENPRINT CLEARINGHOUSE

The Sacramento Tree Foundation will work with all 28 cities and counties in the Sacramento Area Council of Governments region to encourage and assist in the implementation of the Greenprint by creating the Greenprint Clearinghouse.

1 Information Resource Center

Collect and distribute new and existing urban forest information.

2 Regional Working Groups

Convene regional working groups to develop new policy models and urban forest initiatives.

3 Community Involvement

Sponsor community events and assist in the establishment of new nonprofit urban forest organizations.

4 Urban Forest Achievement Recognition

Highlight successes and acknowledge growth ring advancements and regional achievements.

5 Fundraising

Provide information and opportunities to fund new tree programs.

GREENPRINT TIMELINE

2001—2004

Draft Greenprint
Value of a Tree video and brochure
Meetings with staff and stakeholder groups
Initial meeting with elected officials

2005

Adoption by cities and counties
Final Greenprint
Elected officials summit
Public education and involvement campaign

2006 and BEYOND

Local urban forest master plans adopted
Greenprint implementation
Greenprint Clearinghouse established
SPECIAL THANKS TO:

Sacramento Regional Urban Forest Compact Signatories 2001
Tim Raney, City of Citrus Heights
Ken Wagstaff, City of Davis
Rusty Dupray, County of El Dorado
Rick Soares, City of Elk Grove
Kerri Howell, City of Folsom
Pam Pratt, City of Isleton
Tim Dant, City of Lincoln
Mel Wilkins, City of Live Oak
Miguel Ucovich, City of Loomis
Paul McNamara, City of Marysville
Ted Gaines, County of Placer
Ken Yorde, City of Rocklin
Gina Garbolino, City of Roseville
Bonnie Pannell, City of Sacramento
Illa Collin, County of Sacramento
Joan Bechtel, County of Sutter
Oscar Villegas, City of West Sacramento
Roy Crabtree, City of Wheatland
Harold Anderson, City of Winters
Jeff Monroe, City of Woodland
Lois Wolk, County of Yolo
Larry Carr, SMUD
Bruce Mangerich, Grant Joint Union High School District

Greenprint Designated Elected Officials 2005
Keith Nesbitt, City of Auburn
James Shelby, City of Citrus Heights
Sherrie Blackmun, City of Colfax
Don Saylor, City of Davis
Rusty Dupray, El Dorado County
Rick Soares, City of Elk Grove
Kerri Howell, City of Folsom
Darryl Clare, City of Galt
Michael Gomez, City of Isleton
Tom Cosgrove, City of Lincoln
Mel Wilkins, City of Live Oak
Miguel Ucovich, Town of Loomis
Christina Billeci, City of Marysville
Ted Gaines, Placer County
Marian Washburn, City of Placerville
Linda Bugge, City of Rancho Cordova
Ken Yorde, City of Rocklin
Gina Garbolino, City of Roseville
Bonnie Pannell, City of Sacramento
Illa Collin, Sacramento County
Dan Silva, Sutter County
Oscar Villegas, City of West Sacramento
Roy Crabtree, City of Wheatland
Harold Anderson, City of Winters
Jeff Monroe, City of Woodland
Helen Thomson, Yolo County
David Doolittle, Yuba City
Don Schrader, Yuba County

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Connie Gallippi
Rob Kerth
Judith Lamare
Ray Tretheway
Karen Wilson

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