

# COLORADO SPRINGS URBAN FOREST MANAGEMENT PLAN EXECUTIVE SUMMARY

The urban forest for many cities across the nation includes remnants from naturally forested areas, but Colorado Springs' urban forest was, with a few exceptions, planted as the City developed and expanded. The City's urban forest continues to be created, modified, and removed primarily by people, and sustaining it will require ongoing human intervention. The goal of this intervention is a sustainable urban forest— an urban forest that optimizes the benefits of trees while meeting established safety and economic goals. Achieving this requires robust and diverse funding, adequate staffing and levels of service, appropriate and effective policies, and management actions consistent with best practices.

A sustainable urban forest can be defined as “the naturally occurring and planted trees in cities which are managed to provide the inhabitants with a continuing level of economic, social, environmental and ecological benefits today and into the future” (Clark and Matheny et al. 1997). Urban forests are increasingly important to urbanized areas and the people who live and work in these built landscapes. Trees offer many benefits, some of which are directly identifiable and quantifiable, and others that are experienced. Colorado Springs' urban forest canopy is living infrastructure that shades over **17 percent** of the community and provides economic, environmental, and aesthetic benefits: **\$100 million** annually in air filtration, **\$900 million** in stormwater

retention, **\$2 million** in carbon sequestration, and incalculable moments of beauty and serenity. The City's legacy of trees is 150 years old and continues to grow. Caring for Colorado Springs' urban forest is an important part of growing a sustainable, healthy, and vibrant city.

Urban forests and community health are inextricably linked; the better an urban forest, the greater a community's health. A community that is engaged with its urban forest will responsibly plant, care for, and nurture its trees, while inspiring others to do the same and supporting the City's urban forest management program. A thriving urban forest is only possible through a civic commitment and partnerships shared by all.

A team of urban forestry planners was assembled to develop the City of Colorado Springs' Urban Forest Management Plan (the Plan) to direct City resources towards the mission of growing a better Colorado Springs for all. This Urban Forest Management Plan supported by the City and its residents advises growth as it relates to the protection and enhancement of trees and associated benefits along streets and trails, parks and open space, riparian areas, and, to an extent, the trees on private property throughout Colorado Springs. Through the planning process, a shared vision for a healthy and thriving urban forest was established and supported by the City, its partners, and constituents.



### CITY FORESTRY’S MISSION

*To manage our urban forest in a healthy, safe, and sustainable state, which maintains our original forest legacy, manages risk, and increases the canopy coverage for shade, stormwater retention and property value.*

The purpose of this Urban Forest Management Plan is to achieve this vision and to implement the Forestry Mission Statement by addressing best management practices toward sustainability of the City’s urban forest. This plan should follow the recommended strategies and policies outlined in the City’s Comprehensive Plan and as summarized in the Urban Forest Management Plan’s Research Summary.

### A VISION FOR COLORADO SPRINGS’ URBAN FOREST

*Our City’s trees, forests, and other natural resources are recognized as integral to sustaining life and health for all City residents. A healthy, thriving, and sustainable urban forest is a community priority, to be thoughtfully managed and cared for by partnerships between the City and its residents to maximize public safety and benefits that include a thriving ecosystem, vibrant economy, and livable communities shared by all who live, work, and play in Colorado Springs.*

The overriding goals of the Urban Forest Management Plan and the Division of Forestry focus on preserving, maintaining, and managing the urban forest to ultimately benefit the residents of Colorado Springs. This plan outlines recommendations, projections, and procedures to achieve these goals for various management scenarios depending on resources.

### URBAN FOREST MANAGEMENT PLAN GOALS

- I. Tree Policies:** *Strengthen the foundation for sustainable urban forest management.*
- II. Staffing:** *Improve staffing levels for a healthy urban forest benefiting all citizens.*
- III. Budget and Funding:** *Secure adequate funding for proactive management.*
- IV. Assessments and Plans:** *Understand trends and risks to the urban forest.*
- V. Green Asset Management:** *Provide efficient management of the resource.*
- VI. Community Engagement:** *Develop community-wide urban forestry support.*



As the City continues to grow exponentially, the demand-loads on Forestry are untenable. According to research, to properly manage an urban forest, each tree should be pruned approximately every seven years. Colorado Springs has an estimated public tree population of 270,000 trees. This means approximately 38,600 trees per year should have maintenance performed on them. In recent years, City staff have been able to maintain less than 1,700 trees per year with current staffing, and another 2,000 with contracted services. Additional staffing is critical in order to increase the care provided to the growing urban forest. In addition to understaffing, there are budget shortcomings compared to the needs of the public trees and industry standards. A common budget comparison and measure is to look at the proportion of staff to public trees as well as the budget distributed across the public tree population. The results of this comparison are provided in the table on the next page.

## RESOURCES FOR COLORADO SPRINGS' URBAN FOREST

Summary of Forestry's current and recommended staffing and budget. (Note: FTEs refers to full-time employees.)

|          | CURRENT                  | RECOMMENDED              | DIFFERENCE       |
|----------|--------------------------|--------------------------|------------------|
| STAFFING | 11 FTEs                  | 27 FTEs                  | 16 FTEs          |
|          | 1 staff per 24,545 trees | 1 staff per 10,000 trees | 16 FTEs          |
| BUDGET   | \$1.6 million            | \$7.4 million            | \$5.8 million    |
|          | \$5.77 per tree          | \$27.41 per tree         | \$21.64 per tree |

Due to the current disparity between City Forestry resources and industry standards, a series of management scenarios were developed for this Urban Forest Management Plan. Each scenario considers the level of funding and service to provide objectives and action steps to achieve the urban forestry goals.

## URBAN FOREST MANAGEMENT PLAN SCENARIOS

Summary of the urban forest management scenarios representing different levels of service.

| MANAGEMENT SCENARIO A                      | MANAGEMENT SCENARIO B                                     | MANAGEMENT SCENARIO C                      | MANAGEMENT SCENARIO D                    |
|--|---|--|--|
| (MSA)                                      | (MSB)   | (MSC)                                      | (MSD)                                    |
| "Baseline Conditions"                      | "Additional but Insufficient Funding"                     | "Tree Maintenance Responsibility Transfer" | "Optimal Support"                        |
| Minimum service level, reactive management | Improved service level, reactive and proactive management | High service level, proactive management   | High service level, proactive management |

- Management Scenario A:** The minimum service level, or reactive management, is characterized by responding only to emergencies and high priority complaints. At this level, known safety risks are addressed and the financial demands are the lowest, but it is the least efficient means of service delivery in the long run, generates low citizen satisfaction, does not comprehensively address risks, and usually is a result of the lack of a coherently developed urban forestry program.
- Management Scenario B:** An improved service level, or varied management approach, addresses emergency and request-driven work, but also has some resources to begin routine tree maintenance and scheduled planting programs.
- Management Scenario C or D:** A high service level, or proactive management, provides for frequent preventive tree maintenance cycles, a high level of tree planting, comprehensive emergency response and clean-up services, pest and disease treatment programs, and public outreach and education. This level has the highest annual costs but generally results in safer, more sustainable urban forests with less storm damage potential and insect and disease threats, maximum tree benefits, and the greatest level of citizen satisfaction.



### CALL TO ACTION

Trees are an integral part of the community and the ecological systems in which they exist. They provide significant economic, social and ecological benefits, such as carbon sequestration, reduction of the urban heat island effect, energy savings, reduction of stormwater runoff, improvement of water quality, provide healing and calming qualities, and increase the value of business and residential properties. Planting and maintaining trees will help Colorado Springs become more sustainable and reduce the negative impacts on the ecosystem from urban development. Trees are as necessary as water, infrastructure, and energy to sustaining healthy communities.

Implementation of the strategic actions described in the management scenarios in this Plan will achieve the urban forestry goals and associated co-benefits desired by the City and its residents to the extent possible with available resources. To be successful, plan implementation is heavily dependent upon

engagement between the City and its residents. Each management scenario contains goals, objectives, targets, and actions to improve urban forest sustainability, management, and equity. The framework of this strategic plan allows the City to take actions that build on previous work, effectively monitor progress, and efficiently adapt in an ever-changing environment.

It is City Forestry’s responsibility to facilitate the implementation of the Urban Forest Management Plan based on the status of resources and funding. Actions provided in each management scenario are prioritized based on resources needed, level of effort, co-benefits achieved, and implementation year(s) to propel the urban forestry program towards improved management. Successful implementation of one of the improved management scenarios in the Plan will bring Colorado Springs’ trees and forests to a higher level of service that is more equitably distributed across the City to benefit present and future generations.



*Photo courtesy of the City of Colorado Springs.*