



City of Eugene

URBAN

FOREST

MANAGEMENT

PLAN

DECEMBER 1992

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I. INTRODUCTION

“Trees are probably the single most important contributor to the health and beauty of the urban environment. Their presence brings physical, psychological and spiritual well-being to a community and helps to create a sense of peace and harmony with nature.”

“Trees temper climate and air quality. They take carbon dioxide and other pollutants from the air, and give oxygen in return. Their roots stabilize the soil and impede erosion.”

“Within an urban environment, trees give life by softening the geometric rigidity and hard surfaces of streets and buildings. With their infinite variety of form, texture, color, and mood, trees can be used to create diverse spatial configurations.”

“Why trees? Because trees bring life to a city. Trees inspire us and exemplify the continuity of time and space, and provide a sense of beauty for future generations to enjoy.”

Nena Lovinger, as quoted in *Trees for Eugene*
June, 1985

The Eugene Tree Commission developed the Urban Forest Management Plan. It contains goals and policies that will guide the City of Eugene in its actions and decisions affecting trees within the city limits. The plan will help the City effectively and equitably manage trees on both public and private property. Urban forest is defined as all trees and associated vegetation within the city limits. Though not readily quantifiable the urban forest also is comprised of the effects provided by the trees in total such as thermal regulation, hydrological buffering, food and shelter for wildlife, and the human experiences with fragrance, sound, and visual interest. This plan focuses on the tree component of an urban forest, including trees along streets, in parks, in yards, by rivers, creeks, streams, ponds, and on the hillsides.

The plan addresses many of the tree-related concerns voiced by citizens in the past few years. The City responded to some of the concerns by enhancing the urban forestry program, but it became apparent a management plan was needed to guide the future of the program.

In developing the plan, the following assumptions were made:

- The people of Eugene believe that an urban forest adds to the quality of life.
- Trees contribute to the vitality of the community and enhance its appearance and attractiveness.
- With sufficient information, the citizens of Eugene will make sound choices with regard to trees.
- Trees help offset the detrimental effects caused by the pollution of air, water, noise, and sight.
- Public safety is vital to the community. It is essential to remove deadwood, remove low limbs over traffic ways, clear critical visual zones at intersections, and control planting so that a tree’s growth does not interfere with safe traffic movement. It is also essential to protect the urban forest from its greatest danger: fire.

While this plan focuses on the overall management of urban trees, other documents also address this subject and were used as a starting point to develop this plan.

- **Oregon's Statewide Planning Goals.** Goal 5, Open Spaces, Scenic and Historic Areas, and Natural Resources, calls for the conservation of open space and the protection of natural and scenic resources. This goal also requires programs that promote healthy and visually attractive environments.
- **Eugene-Springfield Metropolitan Area General Plan.** Specific elements address environmental resources, river corridors and waterways, and environmental design.
- **The Eugene Parks and Recreation Plan.** Policies require maintaining and improving natural resources and minimizing damage to vegetation and wildlife habitats.
- **The draft Metropolitan Natural Resources Special Study.** This study proposes policies to manage riparian vegetation along riverbanks. It would restrict the removal of trees in areas ranging from riparian zones to uplands, except to gain solar access and for environmentally sensitive development. The study also recommends restoration of the natural riparian environment.
- **The South Hills Study.** The City's policy for trees on public property along the ridgeline is outlined in this adopted study. It recommends that land be acquired along the ridgeline to preserve its natural character.

Appendix B includes further information about these and other planning documents that affect the Urban Forest Management Plan.

The Urban Forest Management Plan should help raise citizen awareness of the benefits of a healthy and diverse urban forest, proper tree selection, and care. This should lead to an increase in the number, condition, and diversity of trees in the urban area. A strong management plan will also help the community retain trees that are links to Eugene's past.

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II. BACKGROUND

People's interest in city trees extends back to the development of cities. The earliest recorded urban plantings were the Hanging Gardens of Babylon. As some cities became wealthy through trade, nobles and business leaders could afford the space for landscaped courtyards. Examples of the privileged using landscaping to enhance their personal environments extend throughout history. Excavations at Pompeii uncovered remnants of flowers, shrubs, and trees in the private gardens of wealthy citizens. In time, and as some nations became more affluent, trees spread from the courtyards of the rich to public streets and parks. These public trees generally were maintained by the municipality.

The management of urban trees is a relatively new field of study. Most cities do not have the benefit of established standards for urban tree management. Some cities are beginning to develop their own methods for addressing tree issues. A few very large cities have formal tree-management programs; however, many cities only respond to crisis situations, such as removing a tree only when it has become a hazard. Eugene may be the first city to take a comprehensive approach to the management of trees on both public and private property.

The following summarizes the major events leading to the preparation of this plan. In 1947, the Bureau of Governmental Research and Services, University of Oregon prepared a document titled "Street Trees For Cities." It was prepared as a guide for cities in Oregon to use in developing tree programs. A quote from the document states that: "Although planting of street trees is common practice in many Oregon cities, full value has not generally been achieved from such planting because of the lack of a comprehensive community plan." The document provided a sample tree ordinance and several designs for street tree plantings.

In 1963, the City produced a report titled "A Street Tree Program for Eugene, Oregon." It offered a number of options to meet Eugene's tree maintenance and planting needs in street rights-of-way. The report recommended the City take responsibility for planting and maintaining trees in street rights-of-way and called for a tree inventory and a master plan. The City subsequently assumed the responsibility for tree planting and maintenance in all rights-of-way and conducted a partial inventory of trees.

Recent efforts at developing an integrated Urban Forest Management Plan began in 1985 with the formation of the Mayor's Tree and Beautification Commission. The commission assisted with the 1987 Entrance Beautification Study, which resulted in recommendations for landscaping the major entrance corridors into Eugene. After the completion of the Entrance Beautification Study, the Mayor's commission began examining street-tree issues.

In 1988, the Mayor's Tree and Beautification Commission prepared a report that expanded the traditional concept of tree planting and maintenance to include preservation of trees on both public and private property. Over the years, the community's concept of an urban forestry program has changed. Many citizens now believe both publicly owned and privately owned trees in the urban forest must be addressed in a coordinated fashion.

In 1989, the Eugene Parks and Recreation Plan recommended the development of a coordinated approach, which supported efforts leading to the Urban Forest Management Plan.

Also in 1989, the City Council formally changed the Mayor's Tree and Beautification Commission to the Eugene Tree Commission. The commission advises the council and staff on matters relating to trees. Its early and continuing efforts focus

on raising the public's and City government's awareness of the benefits of trees. The commission believes that a comprehensive management plan approach is needed to develop a community consensus on acceptable and coordinated approaches to all tree issues.

The Urban Forest Management Plan provides direction to develop regulations and incentives to manage tree-related issues in a proactive manner. The plan addresses trees on both public and private property. It also discusses planting, maintenance, and removal of trees along streets and on other public properties, such as parks and riparian areas; the retention and addition of trees on private property; and the preservation and maintenance of heritage trees on all properties.

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III. OVERVIEW AND TERMINOLOGY

Policies are the main component of this management plan. As stated earlier, these policies will guide the City in its decisions and actions affecting trees within the city. In this plan, policies are grouped into the following five basic elements:

1. **Tree Selection**
2. **Trees on Public Property**
3. **Trees on Private Property**
4. **Heritage Trees**
5. **Education**

Three elements in this plan, Tree Selection, Heritage Trees, and Education, affect both public and private property.

Associated with each element are *goals* that provide an overall framework and direction for the development of policies. Goals are broad statements of philosophy that describe the intent of each element. While all of the goals may not be completely reached, goal statements help establish a direction for action and serve to describe the desires of the community regarding trees.

Each element also includes *findings* that are used to identify issues to be addressed within the management plan. Findings are factual statements that result from investigations, analysis, or actual observations. Findings also provide support for policy statements.

Following each element's goals and findings are *policies* that address a wide range of issues. The City Council adopts the plan's *policies* to provide specific courses of action to attain the plan's goals. Due to budget constraints, it may not be possible to implement all policies in the short term.

Each policy is followed by a series of *proposed actions*. The proposed actions are recognized (but not adopted) by the City Council as possible ways to carry out policies. In some cases, proposed actions will require further analysis; others will require additional funding to be carried out.

The element that addresses trees on public property encompasses trees along public street rights-of-way and trees on all other publicly owned land, including parks, the downtown mall, publicly owned riparian areas, and land owned by public agencies other than the City.

The following terms add parameters to related policy and action statements.

Defensible space: The area between a building and an oncoming wildfire where the vegetation has been modified to reduce the wildfire threat and which provides an opportunity for firefighters to safely defend a building.

Significant tree: A tree that is healthy, structurally sound, environmentally appropriate for the site, and has the ability to successfully adjust to proposed changes to the site. If the tree lacks any of these factors, it is not a significant tree.

Well-sited tree: A tree that enhances the environmental and scenic quality of the site relative to nearby trees. In addition, the tree is not within the building envelope, solar access area, utility easements, or rights-of-way, and does not preclude fire prevention measures. If the tree does not meet all these criteria, it is not well-sited.

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Tree Selection

INTRODUCTION

Over one hundred years ago, a mixture of trees and grasslands were scattered throughout Eugene. In the intervening years, settlers changed the landscape by plowing under most of the grasslands and removing the trees. Houses were built and businesses developed, all requiring streets, parking lots, and the necessary utilities. Historically, people used trees to cool buildings and other areas by shading, but eventually trees were planted for their appearance alone. Tree selection varied from natives, such as Bigleaf Maple and Douglas Fir (i.e., trees found within the Willamette Valley before the early 1800s) to nonnative, with nonnative trees outnumbering native species for fashion and convenience.

The conditions under which trees now grow in Eugene are generally less than ideal. The soil is often a mixture of disturbed soils, construction debris, and assorted added chemicals. The trees generally have restricted rooting space, and what space they do have is often covered with concrete or asphalt. Some nonnative trees do well in a city environment because their native habitat had similar conditions, such as limited root zones or other restrictive conditions.

The urban environment is not the same as surrounding woodlands, nor does it mirror any other natural environment. The choice of trees used to create a stable urban environment should include a mixture of native and nonnative trees, with no single species dominating. Dutch Elm Disease in the eastern states demonstrates that the predominance of a single genus of trees can lead to biological and economic disaster for a community.

The use of fruit trees (trees that produce food for human consumption) in an urban environment is also worthy of consideration. As with any tree planting, care must be taken to carefully choose fruit trees in relation to soils (e.g., excessively wet or dry soils limit fruit tree selections), solar requirements, and maintenance needs.

GOALS

1. Increase the diversity of trees in the urban forest
2. Increase the use of native trees in the urban forest

FINDINGS

1. More diversity in the urban forest leads to greater stability and less wide-scale damage from insects or diseases.
2. Many people in Eugene expect street trees to be planted throughout the city.

3. Trees enhance the urban environment. For example:
 - a. Trees reduce air pollution by trapping dust on their leaves and in the bark, while also absorbing gaseous and liquid air pollutants in their leaves and roots.
 - b. Tree roots stabilize the soil and impede erosion.
 - c. Trees reduce summer heat by blocking direct sunlight and glare. Evaporation of moisture from the leaves cools the surrounding air and moderates temperatures.
 - d. Trees soften the geometric rigidity and hard surfaces of streets and buildings.
 - e. Trees muffle city noises.
4. Native trees have adapted to local environmental conditions, but are underutilized in the urban landscape.
5. Most local retail and wholesale nurseries do not carry a wide selection of native species.
6. By prohibiting broad classes of trees, the Eugene Code excludes some species that would be acceptable.
7. Fruit and nut trees can provide food for people and wildlife, but they require a high level of maintenance to be productive. However, the City currently does not have adequate resources to establish and maintain fruit trees.
8. Fruit trees may produce litter that can be a nuisance and a hazard to the public, depending on the placement of the trees (i.e., if not removed promptly, fallen apples can be a slipping hazard to the visually impaired).

Policies and Proposed Actions

POLICY

- 1.0 The City will plant trees on public property that have potential for good local performance and will, over time, achieve a diversity of species for greater stability of the urban forest. The City will recommend that trees with these characteristics be used in private developments as well.

PROPOSED ACTIONS

- 1.1 Monitor the composition and performance of existing trees on public property and assess their viability for future use.
- 1.2 Compile and distribute to the public a list of local tree species and their performance under known conditions.
- 1.3 Develop a long-range public tree planting plan that will result in a diversity of tree species.
- 1.4 Amend the Eugene Code to delete the prohibition of certain broad classes of trees.

-
- 1.5 Develop a recommended species/variety list based on local experience.

POLICY

- 2.0 The City will plant native tree species in appropriate locations on public land and encourage their use on private lands, but not to the detriment of species diversity.

PROPOSED ACTIONS

- 2.1 Compile and distribute to the public a list of recommended native tree species and their potential uses in the urban forest. The list would include notable traits and appropriate locations for planting individual species.
- 2.2 Work with representatives of the landscape industry (e.g., the Oregon Association of Nurserymen) and local tree retail outlets and wholesale firms to stock quality native trees.

POLICY

- 3.0 The City will encourage citizens to grow trees that produce food.

PROPOSED ACTIONS

- 3.1 Work with existing local programs and agencies to provide information and assistance to volunteers who maintain fruit trees in designated areas.
- 3.2 Study the feasibility of setting aside designated public land to provide an opportunity for citizens to grow trees that produce food.

Trees on Public Property

INTRODUCTION

The City plants and cares for trees along streets, in its parks, along City-owned riparian areas, and on other City property. Trees along streets have a greater effect on most citizens than do trees in all other public areas. People spend more time traveling along tree-lined streets than they spend on other public property. An estimated 75,000 trees line the approximately 445 miles of city streets. These trees range in size from sapling dogwoods to a big-leaf maple that has an 88-inch diameter breast height (dbh). (*NOTE: Diameter breast height is measured 45 feet from the ground.*) Each of these trees requires periodic maintenance throughout its life.

Many planting opportunities exist in the City, such as along underplanted arterials; on older, established neighborhood streets where trees may have been lost; and in new, treeless neighborhoods. Planting must follow landscaping standards that take into consideration current and future maintenance needs; ensure that selected trees have adequate room to grow; and ensure their mature size and placement adds to the community's quality of life.

Once trees have been established, proper maintenance is critical to ensure that they remain a community asset. It is important that maintenance provided to public trees is of the highest quality, and that private citizens, public employees (City, County, and State), and utility companies use correct procedures when servicing public trees. This element addresses a reasonable level of maintenance for existing public trees, acceptable criteria for determining under what conditions public trees can and will be removed, and strategies for planting new trees and replacing others along street rights-of-way. Tree policies in connection with private development of public streets are discussed mainly in the Tree On Private Property element.

This City, like many other cities, has limited resources to address all the work needed to plant, maintain, and, when necessary, remove trees along streets. However, given the willingness of many Eugene citizens to volunteer their time to improve the urban environment, the City may be able to expand its resources by calling upon these citizens through a volunteer program.

GOALS

1. Monitor and improve the condition of public trees by improving the quality of maintenance provided.
2. Balance development needs with the physical needs of public trees.
3. Identify suitable planting locations for trees on public property and identify appropriate trees for those sites.

FINDINGS

1. Many people in Eugene place a high value on trees along streets and on public lands. They expect that these trees will receive quality maintenance, reach their full potential, and exhibit a natural form.
2. Some sites exist in the city that could be set aside as natural areas.
3. Some trees planted under utility lines eventually require extensive maintenance to provide adequate and safe clearance between their limbs and the wires.
4. Some procedures used in the installation and maintenance of underground facilities can severely damage the roots of established trees.

5. Roots of inappropriately placed trees can damage underground facilities and other infrastructure in and next to the street rights-of-way.
6. Poor maintenance and service provided to some public trees have reduced their longevity and value while increasing their future maintenance needs.

Policies and Proposed Actions

POLICY

- 4.0 The City will establish or enhance the character of its streets through the use of trees in rights-of-way.

PROPOSED ACTIONS

- 4.1 Inventory all trees and available planting spaces in street rights-of-way to determine composition and planting needs.
- 4.2 Work with neighborhood groups and residents to establish individual neighborhood street-tree planting plans. When preparing a street-tree planting plan consider the historic character of the area.
- 4.3 Work with interested groups and citizens to establish a street-tree planting plan for arterials that helps unify the diverse areas within the City.
- 4.4 Develop the street-tree planting plans in concert with appropriate plans and studies. (See Appendix B for a listing of policies from existing studies and plans that affect the Urban Forest Management Plan.)
- 4.5 Establish programs to implement the above tree planting plans.

POLICY

- 5.0 The City will enhance the quality of all developed public land by planting and maintaining appropriate trees.

PROPOSED ACTIONS

- 5.1 Inventory trees on developed public lands for species, number, condition, and maintenance needs.
- 5.2 Ensure that planting plans address tree conditions and incorporate National Uniform Fire Code requirements for access of fire equipment.
- 5.3 Work with the Downtown Commission to develop and implement a downtown planting plan. In conjunction with a building permit, development and major renovations in this district would require landscaping to meet the conditions of a downtown planting plan.

POLICY

- 6.0 The City will ensure that all work performed on public trees will enhance their natural attributes, maintain a safe environment, and minimize maintenance requirements.

PROPOSED ACTIONS

- 6.1 Amend the Eugene Code to require a permit to ensure that work performed on trees on public land or in street rights-of-way complies with City standards.
- 6.2 Develop standards for all work done on public trees, such as removing deadwood, crown elevation, pruning for public safety, fertilizing, and treating for insects or diseases.
- 6.3 Develop standards for pruning trees that interfere with above-ground utility lines.

POLICY

- 7.0 The City will adopt measures intended to ensure that new trees planted on public land and along street rights-of-way are of the highest quality, require low maintenance, and do not interfere with public safety.

PROPOSED ACTIONS

- 7.1 Amend the Eugene Code to require a permit to ensure that trees planted in street rights-of-way comply with City standards.
- 7.2 Develop planting standards addressing the quality of city trees, location criteria, and planting pit design.

POLICY

- 8.0 The City will amend the Eugene Code to protect trees on public land and street rights-of-way from the potential adverse impacts of construction-related activities.

PROPOSED ACTIONS

- 8.1 Amend the Eugene Code to require that adequate tree protection measures are employed while performing construction-related activities that may adversely impact trees on public land or street rights-of-way.
- 8.2 Develop public tree protection standards for trees in construction areas and furnish that information to applicants for building permits.
- 8.3 Require that accurate locations of trees within street rights-of-way be included on permit applications.

POLICY

- 9.0 The City will retain healthy public trees that do not compromise the defensible space around buildings and other structures for the health, safety, and welfare of the public.

PROPOSED ACTIONS

- 9.1 Amend the Eugene Code and develop standards to specify under what conditions public trees may be removed. The standards will address development, maintenance of infrastructure, nuisance factors, safety considerations including potential fire hazard, aesthetics, and solar access.

POLICY

- 10.0 Amend the Eugene Code to provide suitable space for trees to grow in new or reconstructed street rights-of-way to the maximum extent practical.

PROPOSED ACTIONS

- 10.1 Develop standards for minimum area requirements to ensure that trees of differing mature size classes can thrive along new and widened streets.
- 10.2 Develop standards for planting and spacing of trees in street rights-of-way.
- 10.3 Amend the Eugene Code to require that one percent of total dedicated Road Funds expended through the Capital Budget for street construction and reconstruction (excluding overlays) be set aside for associated landscaping on or near project locations.

Trees on Private Property

INTRODUCTION

Most trees within the city are on private property. They are in people's yards, on commercial and industrial properties, and on undeveloped lands. The status of these trees and the care they receive is dependent on the owners. This element addresses two major issues—retaining existing trees and adding more trees to the urban landscape. (Retaining a tree includes taking steps to assure it remains healthy throughout its normal life span.)

An area of concern within this community is the loss of trees within developments. Sometimes when development occurs, trees need to be removed and the ground disturbed. Trees that are weak and dying are an obvious choice for removal. Some healthy, vigorous trees also may need to be removed to accommodate construction. However, with forethought, many buildings, driveways, and utilities can be located to minimize tree removal, while allowing adequate clearance for building construction, solar access, and fire safety. With adequate planning, trees remaining after development can be healthy, vigorous, and well-sited.

Some construction practices that injure or destroy trees can be avoided. For example, when excavating for a new building, top- (fertile) soil may be moved to another location on the site where trees are to be retained. However, if poor-quality soil from deeper within the excavation is placed on top of the fertile soil, the landscape contractor may have to bring in topsoil to cover the infertile layer. Eventually, the additional layers of soil placed over the root system of the retained trees may kill them unless expensive corrective measures are taken.

Some actions by home owners can cause the loss of trees. For example, planting and maintaining annual flower beds under trees can kill tree roots. String trimmers used to cut the grass next to a tree often cut through the bark and eventually kill it.

Trees are removed for a variety of reasons, such as the desire for an open area to build on, to allow more sunlight to reach the ground, and to reduce a perceived nuisance caused by tree litter. These purposes are reasonable, but the methods used to achieve the desired effects are sometimes excessive.

GOALS

1. Retain healthy, well-sited trees that do not compromise the defensible space around buildings and other structures on private property.
2. Balance the need for development with the need for trees.
3. Provide incentives and information to owners and developers that encourage tree planting and retention.

FINDINGS

1. Nationwide, trees often add significantly to the value of property, and lots containing mature trees often sell more quickly than similar lots without trees.
2. The public's demand for tree planting and preservation is increasing as more of the natural spaces within the city are developed with large-scale residential and commercial developments.
3. Trees can take up to seven years to succumb to construction-related injuries.
4. Trees with overhanging limbs within 10 feet of dwellings and other structures can be a potential fire danger to those structures, particularly in the dry months of the year in the South Hills.
5. Information on tree-protection techniques is not readily available to the public.
6. The Eugene code does not regulate or provide protection for trees on developed residential properties of less than 20,000 square feet.
7. The Eugene Code does not regulate or provide protection for trees on properties larger than 20,000 square feet in size, unless more than five trees are to be removed in any single calendar year.
8. Many citizens believe that the City's regulation of tree removal on fully developed residential properties should be minimal unless the tree removal involves a heritage tree.

Policies and Proposed Actions

POLICY

- 11.0 The City will encourage the planting and retention of healthy, well-sited trees that do not compromise the defensible space around buildings and other structures on developed residential, commercial, and industrial sites.

PROPOSED ACTIONS

- 11.1 Prepare a list of public agencies and private organizations that offer advice on tree condition and maintenance.
-

POLICY

- 12.0 Except where adopted plans, special studies, and regulations apply, the City will encourage the retention and planting of healthy, well-sited trees that do not compromise the defensible space around buildings and other structures in connection with initial and subsequent residential, commercial, and industrial development. This policy and subsequent proposed actions will not negate current regulations associated with the development or building approval process. City Council will monitor the results in two years.

PROPOSED ACTIONS

- 12.1 In connection with some types of development the Eugene Code requires that disruption or removal of attractive vegetation is to be avoided. When Code provisions and regulations do not apply, encourage the protection of significant, healthy, well-sited trees that do not compromise the defensible space around buildings and other structures. Require that permit applications note the locations of all significant trees. Provide information for identifying healthy, well-sited trees in connection with permit applications.
 - 12.2 Encourage the retention of healthy, well-sited trees on development sites if it does not prevent reasonable use of the property or compromise the defensible space around buildings or other structures. Develop protection guidelines to provide methods and options for preserving trees.
 - 12.3 Offer education, information, and advice to construction personnel on methods for retaining and maintaining healthy, well-sited trees on development sites during construction.
 - 12.4 Provide incentives for retaining trees, such as flexible development standards, in connection with property development. For additional possibilities refer to the section titled Tree Protection Measures following the Heritage Tree element.
 - 12.5 Review the Eugene Code to determine if barriers to tree retention can be removed.
-

POLICY

- 13.0 The City will require an approved street-tree plan in developments involving the creation of streets. Assure that the party obtaining the approval provides for planting the street trees, according to the approved plan, as each lot or area is developed.

PROPOSED ACTIONS

- 13.1 Develop street-tree planting standards for proper siting, tree selection, and installation.

- 13.2 Provide incentives, such as flexible development standards, for planting street trees in new developments.
- 13.3 Develop flexible sidewalk standards that will accommodate a variety of mature-sized trees within street rights-of-way.

POLICY

- 14.0 The City will structure tree plan review and approval to work within existing development processing time frames for subdivision, planned unit development, and development permit approval. Criteria and information for approval will be available with all other permit information.

Heritage Trees

INTRODUCTION

Some trees on private and public lands reach back to our early days and are a major element in defining Eugene's personality. Their growth adds character, and their size and age have an awe-inspiring beauty. The loss of a tree from natural calamity is understandable. Even the loss for development is understandable if it fulfills a need and the tree's intrinsic value to the community has been considered. The unacceptable loss is that which results from personal whim or from poor site planning or maintenance practices.

Many citizens are concerned with this overlooked element of Eugene's heritage. This element focuses on the preservation of the vital part of Eugene's heritage that certain trees provide. Because these heritage trees occur throughout the community on public and private property, this element overlaps other elements in this plan.

In this section, policies and proposed actions are separated into those that apply to public and private lands. Some apply to both and are listed in both subsections.

GOAL

1. Retain trees that are links to Eugene's past.

FINDINGS

1. The Eugene Tree Commission has defined a "heritage tree" as: "Any tree of exceptional value to our community based on its size (relative to species), history, location, or species, or any combination of these criteria."
2. Heritage trees are found on both public and private property.
3. Heritage trees provide aesthetic and cultural value to the community.
4. An estimated 200,000 trees eight inches or greater in diameter breast height are in the city. An estimated one percent (2,000) may be heritage trees.

Policies and Proposed Actions

POLICY

15.0 The City will retain heritage trees on street rights-of-way, in parks, and on other City property, except when otherwise necessary for the public health, safety, or welfare.

PROPOSED ACTIONS

15.1 Amend the Eugene Code to prevent the removal of heritage trees (as defined in proposed action 15.2) on public property except when otherwise necessary for the public health, safety, or welfare.

- and -

15.2 Determine heritage tree status of any tree that is to be removed or otherwise affected by development. A tree may be a heritage tree if it is listed in the Heritage Tree Species Ratings (see Appendix C) and is at least 107 inches in circumference (34 inches in diameter) 4.5 feet above the ground for any oak and 138 inches in circumference (44 inches in diameter) 4.5 feet above the ground for other trees. To qualify as a heritage tree, it also must meet the minimum point value derived from the following formula:

$$\begin{matrix} \text{Location} & \times & \text{Condition} & \times & \text{Basal} & \times & \text{Historic} & = & \text{Point} \\ \text{factor} & & \text{factor} & & \text{area} & & \text{factor} & & \text{value} \end{matrix}$$

(See Appendix D.)

15.3 Adopt Eugene standards to require heritage tree preservation techniques that assure these trees are not damaged or destroyed.

15.4 Seek funding to identify heritage trees on public property throughout the city.

POLICY

16.0 The City will develop and distribute information on the special characteristics of heritage trees.

POLICY

17.0 The City will encourage retaining heritage trees on private property, except when otherwise necessary for the public health, safety, or welfare. Monitor results after two years. Revisit use of the word “require” at that time.

PROPOSED ACTIONS

17.1 Determine heritage tree status of any tree indicated below that is to be removed or otherwise affected by development on private property. A tree may be a heritage tree if it is listed in the Heritage Tree Species Ratings (see Appendix C) and is at least 107 inches in circumference (34 inches in diameter) 4.5 feet above the ground for any oak and 138 inches in circumference (44 inches in diameter) 4.5 feet above the ground for other trees. To qualify as a heritage tree, it also must meet the minimum point value derived from the following formula:

$$\begin{matrix} \text{Location} & \times & \text{Condition} & \times & \text{Basal} & \times & \text{Historic} & = & \text{Point} \\ \text{factor} & & \text{factor} & & \text{area} & & \text{factor} & & \text{value} \end{matrix}$$

(See Appendix D.)

- and -

- 17.2 Determine criteria under which heritage trees are to be maintained or may be removed (e.g. public safety).
- 17.3 Design and implement a volunteer program in which the City provides heritage tree care assistance. This may include providing information to property owners on how to record a deed restriction to better ensure retention of heritage trees.
- 17.4 Expand the Eugene Code provisions that allow flexible design standards to make it easier to retain heritage trees (See Tree Protection Measures in Appendix A.)
- 17.5 Seek funding to identify heritage trees on private property throughout the city.
- 17.6 Amend Eugene Code to include heritage tree preservation techniques that assure these trees are not damaged or destroyed.

Education

INTRODUCTION

Education is an integral and primary element of the Urban Forest Management Plan and overlaps all the other elements. Education tempers the use of regulations by empowering citizens. The City believes citizens will act responsibly if given the information they need to make sound choices.

Distinct educational strategies can be developed to reach a wide range of affected people, including the general public, the development community (property owners, architects, realtors, engineers, investors, builders, and contractors), public agencies, and educational institutions. The common factor in educating these groups is to provide them with information about how proper tree planting, maintenance, and protection can contribute to and enrich the quality of life. Educational programs stress:

- Ways property owners can avoid practices that damage or kill trees.
- Methods and examples of development designs that successfully integrate trees on a development or building site.
- Urban forest fire prevention.

- Construction practices that help to reduce the impact of construction on trees that will be retained on a building site.
- Approaches, standards, and practices that contribute to designs that include trees.
- Educational programs that include information about the benefits of trees. If students have positive early experiences with trees, it greatly reduces the need for ordinance enforcement in later years. By including information on the benefits of trees in curriculums, schools can have a long-term, positive effect on the urban environment.

GOALS

1. Raise public awareness of the benefits of planting and maintaining trees in the urban environment.
2. Increase the public's knowledge of proper tree care including measures to reduce potential fire hazard with the defensible space around buildings and other structures.
3. Increase the public's knowledge of proper tree selection and the benefits of species diversity in the urban landscape.

FINDINGS

1. The public, through the comments given at the scoping sessions, emphasized that the City should provide information on tree care and proper tree selection to its citizens.
2. Many citizens are unaware of how tree roots grow and how they can be damaged (e.g., rototilling beneath the crown of the tree can lead to the tree's death by destroying the fine tree roots near the surface).
3. Given adequate information regarding the mature size and growth habit of trees, citizens can avoid planting trees that grow too large for the given site or too close to utility lines, buildings, walks, and driveways.
4. Information on proper landscape practices can maximize tree longevity if it includes facts on how to avoid actions that injure trees (e.g., string trimmers can cut through the bark and eventually kill a tree).
5. Currently, there is no comprehensive mechanism in place to effectively provide information to the public on tree selection and care.

Policies and Proposed Actions

POLICY

- 18.0 The City will provide and distribute information to interested citizens, property owners, and the development community on proper tree selection relative to climate, solar aspect, soils, potential fire hazard, water regimen, and on proper tree siting and maintenance.

PROPOSED ACTIONS

- 18.1 Develop and distribute written material for the proper selection, siting, and maintenance of trees.
- 18.2 Coordinate with other public agencies to offer training in the selection, siting, end maintenance of trees.
- 18.3 Provide tree selection, siting, and maintenance information to citizens applying for a building permit.

POLICY

- 19.0 The City will distribute educational materials to the public and the development community on ways to minimize construction-related damage to trees that are to be retained on building sites.

PROPOSED ACTIONS

- 19.1 Develop written materials to be provided upon request and during the building permit process.
- 19.2 Coordinate with other public agencies to offer training that will reduce the impact of construction on trees.
- 19.3 Create an effective urban forestry educational program for use in the schools.

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Appendix A - TREE PROTECTION MEASURES

This appendix describes additional measures that might be used to protect trees on private property. They are measures that have been used by Eugene or other cities to address natural resource issues such as protection of waterways, wetlands, and wildlife habitat. They are presented with a brief explanation. Further analysis will be necessary to determine which of these measures could be crafted to apply to retaining trees on private property. Work being done on implementation of the West Eugene Wetlands Area Study and the Metropolitan Natural Resources Special Study will help in this effort.

RESOURCE PROTECTION MEASURES REVIEWED

- **Site Planning/Design Standards.** Develop design standards that can be used as incentives to retain trees.
- **Riparian Setbacks.** Options include a standard building setback that is applied to all streams and a variable building setback based on stream classifications or application of performance standards.
- **Best Management Practices (BMPs).** Develop a list of ideal management practices for developments or activities in sensitive areas, such as steep slopes or near waterways.
- **Environmental Or Natural Resources Zoning District.** Develop a new zoning district designed to limit uses on natural resource sites.
- **Acquisition By Outside Organizations.** The City could establish relationships with private nonprofit conservation organizations to encourage acquisition and cooperation for purchase and subsequent management. For example, a Eugene heritage tree conservancy or tree trust could be formed to raise and receive money for the acquisition of heritage trees.
- **Density Transfers.** Through planned unit development or cluster subdivision provisions, density within a development site could be transferred to nonwooded areas.
- **Strengthen Existing Regulations.**
 - Tree Preservation Ordinance
 - Hillside Development Regulations
 - Planned Unit Development Site Review and Land Division Regulations
 - Minimum Yard And Landscaping Requirements
- **Public Education.** All protection and planting programs could be accompanied by an educational program that discusses protection and planting, the value of trees, and those activities that damage trees.

- **Incentives For Gifts Or Donations.** These are usually tax incentives, such as rebates, lowered rates, credits, or deductions.
- **Limiting “As of Right” Development, Coupled with Development Incentives and Design Review Standards.** This is a complex approach that has been used to protect historic buildings in other areas. A set of design standards would be created. Restrictions would be placed on certain types of development that adversely affect trees. Density bonuses would be awarded to developers who meet the prescribed design standards.
- **Public Acquisition Purchase Options:** These options may be used to acquire trees identified as “to be retained” and the land necessary to support them.

Full Title, Willing Seller. The City would buy property outright from property owners who are willing to sell.

Full Title, Condemnation. The City would pay the fair market value for the property and force the sale through condemnation procedures.

Development Rights. The City would purchase the right to develop the property, similar to a conservation easement as listed below.

Covenants. The City would purchase property, attach a restrictive covenant to it, and resell the property on the open market. The covenant would specify allowed uses and management practices and would bind all subsequent owners.

Conservation Easements. The City would acquire easements through gifts or purchase. An easement would restrict the property owner’s right to conduct certain uses or activities on the property, or it would grant the City or some other party the right to conduct certain uses or activities. Easements that could be applied to significant tree areas include conservation easements and scenic easements.

- **Transfer Of Development Rights.** It may be possible to transfer the development rights from one tax lot to another tax lot under the same or different ownership.

Appendix B - ADOPTED AND PROPOSED TREE-RELATED POLICIES FROM EUGENE'S PLANS AND STUDIES

A number of policies are included in the draft Urban Forestry Management Plan. If adopted by the Eugene City Council, they will provide direction on how to achieve the stated goals and will help guide future tree-related decisions. These proposed policies, along with adopted tree-related policies from other studies and plans, will provide a comprehensive approach to tree issues.

Eugene has developed a number of studies and plans in which trees have been singled out for special policy consideration. Each study includes policies that provide direction to enhance the role trees play in improving or maintaining the environment.

Listed below, under broad categories, are some locally adopted policies, as well as several proposed policies in draft plans that are now in the public review phase (July 1991). These policies affect how this community addresses tree issues. This is not an exhaustive list, but it is representative of all tree-related policies that have been adopted or are being considered for adoption.

The reference number after each policy refers to the page in its respective study or plan. If a study or plan includes the word "draft," it is currently under public review and has not yet been adopted by the council.

GENERAL DEVELOPMENT

1. Develop an urban forest management plan, (Eugene Parks and Recreation Plan, July 1989, Page 16.)
2. When planning for and regulating development, local governments shall each continue to consider the need for protection of open spaces, including those characterized by significant vegetation and wildlife. Means of protecting open space include but are not limited to outright acquisition, conservation easements, planned unit development ordinances, streamside protection ordinances, open space tax deferrals, donations to the public, and performance zoning. (Metro Plan -1987 Update, page III-C-10.)
3. Public and private facilities shall be designed and located in a manner that preserves and enhances desirable features of local and neighborhood areas and promotes their sense of identity. (Metro Plan - 1987 Update, page III-E-3.)
4. Carefully develop sites that provide visual diversity to the urban area and optimize their visual and personal accessibility to residents. (Metro Plan - 1987 Update, page III-E-3.)
5. Local jurisdictions shall carefully evaluate their development regulations to ensure that they address environmental design considerations, such as, but not limited to, safety, crime prevention, aesthetics, and compatibility with existing and anticipated adjacent uses (particularly considering high- and medium-density development locating adjacent to low density residential). (Metro Plan - 1987 Update, page III-E-3.)
6. Site planning standards developed by local jurisdictions shall allow for flexibility in design that will achieve site planning objectives while allowing for creative solutions to design problems. (Metro Plan - 1987 Update, page III-E-3.)
7. Develop a "Public Lands Policy" in conjunction with other jurisdiction to: Provide for the preservation and use of surplus public lands having recreational and open space potential through acquisition or management. (Eugene Parks and Recreation Plan, July 1989, page 15.)

8. Use the Trees for Eugene street tree planting guide when designing streetscape next to and within parks and other recreational facilities. (Eugene Parks and Recreation Plan, July 1989, page 16.)
9. Minimize the impact of park use on surrounding lands through:
 - a. Buffering borders shared with residential, commercial, industrial, and agricultural uses. (Eugene Parks and Recreation Plan, July 1989, page 16.)
10. Treat environmental enhancement as a component of recreational development. (Eugene Parks and Recreation Plan, July 1989, page 16.)
11. Include aesthetic amenities in parks and cultural events sites that create a memorable positive image. (Eugene Parks and Recreation Plan, July 1989, page 17.)
12. Natural resources zone - permanent protection of outstanding natural resources sites. (Metropolitan Natural Resources Special Study - Policy Report - March 1991 Draft, page 13.)
13. Retain existing significant vegetation whenever possible to provide buffering between residential and nonresidential uses, as well as between low-density and higher density residential uses. (Willakenzie Area Plan-Draft, June 1991, Page 15.)
14. The City shall require future developments on parcels abutting the unincorporated area to provide an effective transition between urban and rural land uses. This transition is intended to minimize potential conflicts with adjacent agriculture operations. (Willakenzie Area Plan - Draft, June 1991, page 73.)
15. Berms that are used to fulfill a noise-buffering requirement shall be landscaped and irrigated with a permanent irrigation system. (Willakenzie Area Plan - Draft, June 1991, page 16.)
16. The City shall work with developers and the State of Oregon to ensure that noise attenuation is provided for existing and proposed residential developments along State highways when improvements are made to those roads. (Willakenzie Area Plan -Draft, June 1991, Page 102.)
17. The City shall require new residential developments occurring along State highways and streets identified as Traffic Noise Control Corridors to use appropriate siting and design techniques to bring the development into compliance with State and Federal noise standards. (Willakenzie Area Plan - Draft, June 1991, page 102.)
18. Encourage growth and development patterns that are compatible with natural features and discourage the alteration of natural features. (Willakenzie Area Plan - Draft, June 1991, page 132.)
19. The City shall develop an overall design strategy for park areas which is consistent with the Natural Resources Special Study. (Willakenzie Area Plan - Draft, June 1991, page 136.)
20. Promote attractive and functional commercial areas that protect and enhance the quality of Eugene as a desirable community to live, work, and play, in and that will result in increased commercial property values. (Draft Eugene Commercial Lands Study, page III-25.)
21. Encourage parking lot design that is attractive and does not exceed a reasonable ratio of parking spaces per building area and use. (Draft Eugene Commercial Lands Study, page III-28.)

DEVELOPMENT OF UPLAND, HILLSIDES, AND THE SOUTH HILLS

22. Eugene shall maintain and improve and Springfield shall adopt hillside development regulations. (Metro Plan 1987 Update, page III-C-10.)
23. Site review criteria shall be applied to large vacant parcels on Gillespie Butte to protect vegetation and scenic values to the maximum extent practicable. (Metro Plan - 1987 Update, page III-C- 11. Zone Change 89-27, approved June 22, 1989, applied the Site Review subdistrict to all parcels on Gillespie Butte.)
24. That all vacant property above an elevation of 901 feet be preserved from an intensive level of development, subject to the following exceptions:
 1. Development of individual residences on existing lots; and
 2. Development under planned unit development procedures when it can be demonstrated that a proposed development is consistent with the purposes of this section. (South Hills Study - Exhibit A, page 1)
25. That the area specified for preservation be protected through a variety of techniques including but not limited to acquisition, scenic easements, density transfers, and dedication. (South Hills Study - Exhibit A, page 2.)
26. The City should adopt an ordinance concerning the removal of vegetation. (South Hills Study - Exhibit A, page 2.)
27. That the planned unit development procedures shall be utilized for the following purposes:
 1. To encourage clustering of development in areas characterized by:
 - a. Shallowest slopes;
 - b. Lowest elevations;
 - c. Least amount of vegetation; and
 - d. Least amount of visual impact.
 2. To encourage preservation as open space of those areas characterized by:
 - a. Intermediate and steep slopes;
 - b. Higher elevations;
 - c. Significant amount of vegetation; and
 - d. Significant visual impact. (South Hills Study - Exhibit A, page 4,5.)
28. That development be reviewed to encourage clustering of open space elements of different developments in order to preserve the maximum amount of continuous open area. (South Hills Study-Exhibit A page 5.)
29. That all proposed road locations be reviewed to insure minimum grade disturbance and minimum cut-and-fill activities, particularly in those areas most visible due to slope, topographic or other conditions. (South Hills Study - Exhibit A, page 5.)
30. That all developments (planned unit developments or subdivisions) in the south hills area be reviewed to insure maximum preservation of existing vegetation. (South Hills Study - Exhibit A, page 6.)
31. Preserve the character and habitat value of the South Hills by siting and developing recreational facilities and other improvements in a way that preserves and enhances the natural conditions of the area. (Eugene Parks and Recreation Plan. July 1989, page 21.)

32. Upland development design - allow development of upland areas while protecting environmentally and visually sensitive areas, e.g. stream corridors, ridgelines and steep slopes. (Metropolitan Natural Resources Special Study - Policy Report -March 1991 Draft, page 13.)

DEVELOPMENT WITHIN OR PRESERVATION OF RIPARIAN AREAS, WATERWAYS, RIVERS, PONDS, AND WETLANDS

33. New development that locates along river corridors and waterways shall be limited to uses that are compatible with natural, scenic, and environmental qualities of those water features. (Metro Plan - 1987 Update. page III-D-4.)
34. New industrial development that locates along the Willamette and McKenzie Rivers shall enhance natural, scenic, and environmental qualities. (Metro Plan - 1987 Update, page III-D-4.)
35. Natural vegetation, natural water features, and drainageways shall be protected and retained to the maximum extent practicable, considering the economic, social, environmental, and energy consequences in the design and construction of urban developments and landscaping shall be utilized to enhance those natural features. (Metro Plan - 1987 Update, page III-E-3.)
36. Preserve and enhance natural habitats and scenic corridors that deserve special merit along the rivers (i.e., Willamette and McKenzie Rivers). (Eugene Parks and Recreation Plan, July 1989, page 21.)
37. Prepare and observe measures that protect the environmental integrity of the Delta Ponds. (Eugene Parks and Recreation Plan July 1989, page 23.)
38. Encourage future urban development to be sensitive to the natural conditions, character, and habitat value of the ponds (i.e Delta Ponds). (Eugene Parks and Recreation Plan, July 1989, page 23.)
39. Protect natural stream courses, sloughs, and wetlands in connection with parks and recreational facilities. (Eugene Parks and Recreation Plan, July 1989, page 24.)
40. Develop and adopt ordinances to protect wetlands and waterways in the plan area. (West Eugene Wetlands Special Area Study - Draft Plan - 1991, page 16.)
41. Amend existing policies that conflict with protection of regulated wetland functions and values to make them consistent with WEWSAS goals and policies. (West Eugene Wetlands Special Area Study-Draft Plan 1991, page 17.)
42. Establish, maintain and protect physical and hydrologic linkages between protected wetlands and adjacent transitional and upland wildlife habitat and natural areas. (West Eugene Wetlands Special Area Study - Draft Plan 1991, page 17.)
43. Include rare plant protection in ordinances developed to protect wetlands and other resources. (West Eugene Wetlands Special Area Study - Draft Plan 1991, page 17.)
44. Create buffer areas between regulated wetlands boundaries and adjacent uses or developments. (West Eugene Wetlands Special Area Study - Draft Plan 1991, page 17.)

45. Mitigation efforts shall help to reestablish a connected system of wetlands, waterways and uplands resources. (West Eugene Wetlands Special Area Study - Draft Plan 1991, page 29.)
46. Mitigation efforts shall concentrate on restoring wetland type, habitat, functions and values that represent the historic, ecological landscape of the Amazon Creek basin. (West Eugene Wetlands Special Area Study - Draft Plan 1991, page 29.)
47. Mitigation efforts shall use local, native plants species. (West Eugene Wetlands Special Area Study - Draft Plan 1991, page 29.)
48. Mitigation efforts shall be designed and constructed to minimize the level of ongoing maintenance. (West Eugene Wetlands Special Area Study - Draft Plan 1991, page 29.)
49. Develop, adopt and implement a comprehensive wetland mitigation program. (West Eugene Wetlands Special Area Study -Draft Plan 1991, page 29.)
50. Amend applicable City codes, policies and maintenance operation procedures to comply with the provisions of this Plan and implementation measures. (West Eugene Wetlands Special Area Study - Draft Plan 1991, page 29.)
51. Develop performance standards corresponding to the stated mitigation goals of WEWSAS and utilize those standards in designing and evaluating an operation and maintenance program. (West Eugene Wetlands Special Area Study - Draft Plan 1991, page 38.)
52. Waterside protection - control development to maintain and protect water quality and wildlife habitat within minimum setback areas. (Metropolitan Natural Resources Special Study -Policy Report - March 1991 Draft, Page 13.)
53. Waterside development - balance environmental and development interests by allowing sensitive, creative development within or immediately adjacent to water features. (Metropolitan Natural Resources Special Study - Policy Report - March 1991 Draft, page 13.)
54. Significant wetland, riparian, waterway, and upland sites in the Willakenzie area shall be protected from encroachment and degradation in order to retain their important functions related to fish and wildlife habitat, flood control, sedimentation and erosion control, water quality control, and ground-water pollution control. (Willakenzie Area Plan - Draft June 1991, page 160.)

LANDSCAPE DESIGN, INSTALLATION, AND MAINTENANCE

55. The planting of street trees shall be strongly encouraged, especially for all new developments and redeveloping areas (where feasible) and new streets and reconstruction of major arterials within the urban growth boundary. (Metro Plan -1987 Update, page III E-3.)
56. Identify the most direct and attractive routes into the City, encourage their use, and maintain and improve the character and quality of the entrance experience along these routes. (Entrance Beautification Study, page 3.)
57. Design and implement improvements to Eugene's entrances which recognize the diversity and identity of the areas in which the entrances are located. (Entrance Beautification Study, page 3.)
58. When evaluating designs for entrance beautification projects, give preference to designs which reduce long-term maintenance costs. (Entrance Beautification Study, page 3.)

59. Involve private businesses and community groups in entrance beautification programs and projects. (Entrance Beautification Study, page 3.)
60. As development activities are proposed along designated entranceways, provide a mechanism for additional landscape and buffer treatments on the site and along the street to ensure that the proposed developments respond to Eugene's entrance beautification policies and projects. (Entrance Beautification Study, page 3.)
61. Identify attractive entrances to Eugene and take necessary steps to conserve their attractive qualities, with particular attention to maintaining significant views. (Entrance Beautification Study, page 4.)
62. Require street improvement projects located along designated entrances to include landscaping or other beautification treatments. (Entrance Beautification Study, page 4.)
63. Prepare general plans for major parklands and facilities prior to development or renovation in order to promote project coordination and to conserve and protect natural open spaces where appropriate. (Eugene Parks and Recreation Plan, July 1989, page 12.)
64. Insofar as funds are available for maintenance, provide parks from the neighborhood level to the metropolitan level as well as special purpose recreation facilities such as, but not limited to, bicycle paths, jogging trails, botanical gardens, and sports field complexes. (Eugene Parks and Recreation Plan, July 1989, page 13.)
65. Design maintenance and improvement programs that support natural resources and minimize damage to natural vegetation and critical wildlife habitats. (Eugene Parks and Recreation Plan, July 1989, page 17.)
66. Encourage the development of symbolic "gateways" to the Willakenzie area through the effective use of landscape materials in areas indicated on the Neighborhood Gateway map. (Willakenzie Area Plan - Draft June 1991, page 146.)
67. The City shall identify and encourage preservation of significant historic and cultural resources including buildings, sites, structures, objects, and landscape elements in the Willakenzie area. (Willakenzie Area Plan - Draft June 1991, page 162.)

EDUCATION

68. Provide natural areas, cultural amenities, and unique open spaces for educational and passive leisure use. (Eugene Parks and Recreation Plan, July 1989, page 13.)
69. Inform the public of its responsibilities for preserving the community's natural heritage when using its recreational resources. (Eugene Parks and Recreation Plan, July 1989, page 15.)
70. Inform the public about the recreational opportunities as well as its responsibility to preserve the environment in the South Hills. (Eugene Parks and Recreation Plan, July 1989, page 23.)

Appendix C - HERITAGE TREE SPECIES RATINGS

The two columns reflect different growth rates in selected species. Column "A" contains rapidly growing trees while "B" has the slower growing oaks. The number below each column heading was determined by using the minimum circumference for each class (107" for oaks and 138" for the other trees listed) then multiplying by the maximum rating for location and condition. The column numbers are then the minimum number of points necessary for each tree under that column to be rated as a heritage tree. These lists are expendable both with additional species added to any column or by addition of more columns as experience dictates.

A (MIN. 38,200 POINTS)	B (MIN. 22,800 POINTS)
Bigleaf Maple <i>Acer macrophyllum</i>	Shore Pine <i>Pinus contorta</i>
Incense Cedar <i>Calocedrus decurrens</i>	Ponderosa Pine <i>Pinus ponderosa</i>
Port Orford Cedar <i>Chamaecyparis lawsoniana</i>	Douglas Fir <i>Pseudotsuga menziesii</i>
Oregon Ash <i>Fraxinus latifolia</i>	Giant Sequoia <i>Sequoiadendron giganteum</i>
Butternut <i>Juglans cinerea</i>	Redwood <i>Sequoia sempervirens</i>
Black Walnut <i>Juglans nigra</i>	Western Red Cedar <i>Thuja plicata</i>
English Walnut <i>Juglans regia</i>	American Elm <i>Ulmus americana</i>
	Oregon White Oak <i>Quercus garryana</i>
	Red Oak <i>Quercus rubra</i>
	California Black Oak <i>Quercus kelloggii</i>

Appendix D - HERITAGE TREE FORMULA

Location X Condition X Basal Area X Historic Factor = Point Value

LOCATION

- 5 = street adjacent yard
- 4 = side yard
- 3 = back yard
- 2 = wooded lot within developed subdivision
- 1 = forested area

CONDITION

- 5 = excellent Perfect form, little to no deadwood, all limbs have good attachments, no sign of decay.
- 4 = very good Good form, multi-leader, but with good attachment, 10% or less large deadwood.
- 3 = good Unbalanced or incomplete crown, tight limb angles, 15% - 20% larger deadwood.
- 1 = poor Evidence of some decay, 20% - 30% larger deadwood, history of being topped.
- 0 = very poor Structurally unsound, extensive decay, dieback, poor form, unbalanced or greatly reduced crown.

BASAL AREA

Basal area is the measure of the surface area in square inches of the horizontal cross section of the trunk at four and a half feet from the ground.

HISTORIC FACTOR

Historic factor is determined by the tree’s relative historic significance. Historic significance is determined by the tree’s association with historic or famous events, the broad cultural history of the nation, state, or community, or a person or persons who have significantly contributed to the history of the nation, state, or community.

- 5 = very significant (definitions to be determined with assistance of the Historic Review Board)
- 4 = significant
- 3 = somewhat significant
- 2 = marginally significant
- 1 = not significant

The following is an example of the Heritage Tree formula:

$$5 \times 5 \times 916 \times 1 = 22,900 \text{ heritage tree points}$$

| (front yard tree)
| (excellent condition tree)
| (107" circumference tree squared X 0.08)
| (not significant)

Appendix E - CITIZEN INVOLVEMENT

PROCESS DESCRIPTION

The citizen involvement process enabled community individuals and interested groups to provide feedback and participate in the development of the Urban Forest Management Plan. The following steps culminated in a City Council hearing and plan adoption. They ensured that the public would have sufficient opportunity to provide input into the development of the plan. The process also offered the public and the Tree Commission insight into the broad range of public issues and concerns.

Specifically, this process helped determine those areas in which the public expressed consensus, as well as those issues where the public expressed differing solutions.

- City staff and the Tree Commission first identified groups that would have a special interest in the plan then outlined strategies for reaching them. Staff generated an interested parties list of approximately 5,000 names. The list included citizens and business organizations who asked to be kept informed and people who were involved in the development of the tree protection ordinance that Lane County adopted in 1990 for the area between the city limits and the urban growth boundary (UGB).
- The Tree Commission and the Citizen Involvement Committee (CIC) prepared and approved a citizen involvement process to use during the plan's preparation. The CIC oversees the citizen involvement process for all large City projects and plans.
- Once the citizen involvement process was adopted, staff prepared an Urban Forest Management Plan fact sheet, a project time line, and a comment form for citizen use during the scoping phase.
- The Tree Commission hosted two publicized scoping sessions to obtain feedback from the community and to identify critical elements to include in the plan. These sessions were held on April 9 and 11, 1991. About 5,000 letters were mailed out notifying the community of the sessions. Over 70 people attended, including property owners, environmental groups, and some members of the building community.
- City staff made eight presentations to targeted community groups to discuss the development of the plan and allow community residents and property owners to identify issues to address in the plan. These groups included:
 - the Lane County Home Builders Association;
 - the Eugene section of the American Institute of Architects;
 - the Eugene Chapter of the American Society of Landscape Architects;
 - the Eugene Joint Parks Committee;
 - the Eugene Neighborhood Leaders Group;
 - the Eugene Building Codes Advisory Committee;
 - the Lane Utilities Coordinating Council; and
 - the Eugene Citizen Involvement Committee.
- A Tree Commission subcommittee provided overall direction to the staff on the development of the plan and helped resolve critical issues. All meetings of the subcommittee were advertised in the local newspaper and were open to the public.
- The Tree Commission released the draft Urban Forest Management Plan for public review on September 3, 1991. On October 10, the Tree Commission held a public hearing on the Plan. Approximately 30 citizens attended the hearing, with 12 people testifying. After

taking into consideration over 100 written and oral comments obtained through the public input period, the Tree Commission revised the draft Plan. Recommendations were then sent to the Eugene City Council for adoption.

- Sixteen citizens testified at the Eugene Planning Commission public hearing on December 3, 1991, on the Urban Forest Management plan. On December 16, 1992, the Planning Commission reviewed all written and oral statements on the draft Plan and forwarded its recommendations to the City Council. The Planning Commission recommended that two policies for preserving trees on private property not be developed into ordinances.
- On January 6, 1992, the City notified the Department of Land Conservation and Development that if the Urban Forest Management Plan were adopted, the Metro Plan would possibly require modification.
- The Council Commission on Infrastructure reviewed the Plan and requested additional information and options be brought to Council. Thirty-four citizens testified at an April 13, 1992 public hearing. On October 14, 1992, the City Council adopted the attached Urban Forest Management Plan.
- The City notified the Department of Land Conservation and Development of the Plan's adoption on October 16, 1992.



City of Eugene
Public Works
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