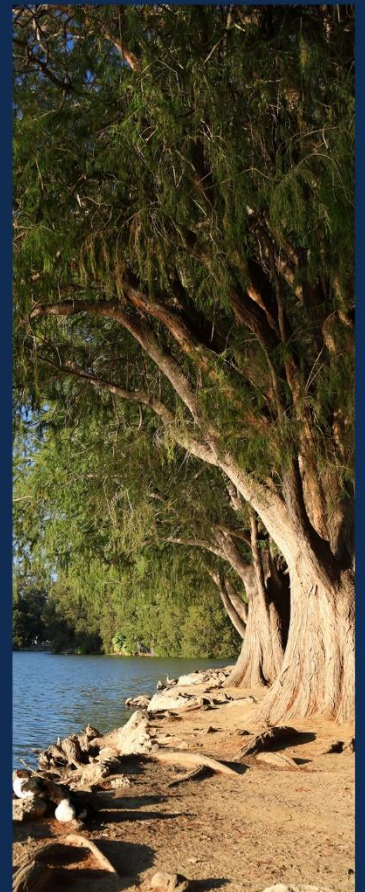


# URBAN FORESTRY POLICY





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## INTRODUCTION

The City of Riverside is known as a “City of Trees.” Trees beautify the landscape and enhance the quality of life for all residents. The National Arbor Day Foundation has recognized our City as a “Tree City, USA” since 1987 in honor of the care we provide for our trees. The purpose of the Urban Forestry Policy Manual (“Manual”) is to provide guidelines for the preservation and protection of our tree heritage and the Urban Forest of Riverside. This Urban Forestry Policy Manual supersedes the 2015 Urban Forestry Policy.

The following pages document guidelines for the planting, pruning, preservation and removal of all trees in city rights-of-ways. These specifications are based on national standards for tree care established by the International Society of Arboriculture (ISA), the National Arborists Association and the American National Standards Institute. This Manual incorporates input from Public Works Department staff, the Park and Recreation Commission, City Council, various other Commissions and the citizens of Riverside.

The 2022 Urban Forest Management Policy (UFPM) is a reference for use by City staff, private contractors, volunteer organizations and citizens when working in and around trees within City jurisdiction.



### What is the Urban Forest?

The UFPM uses the term “urban forest” to describe Riverside’s collection of trees and other vegetation. It extends across public property, private property, greenways, river bottoms, and rights-of-way including streets, parks and natural areas. Urban forests, through planned connections of green spaces, form the green infrastructure on which communities depend.

Our urban forest is primarily human-created - the result of tree planting and greening activities carried out by people rather than a native forest ecosystem. Given its location, it requires regular maintenance to keep roads, sidewalks and parks clear and safe. The concept of an “urban forest” allows us to think holistically about trees

and other vegetation found within the city, quantify their benefits, and manage this natural resource for the enjoyment of present and future generations.

## Benefits of Trees & Landscaping

Urban Forests are dynamic ecosystems that provide critical benefits to people and wildlife. Urban forests help to filter air and water, control storm water, conserve energy, and provide animal habitat and shade. They add beauty, form, and structure to urban design, beautify neighborhoods, and increase property values. By reducing noise and providing places to recreate, urban forests strengthen social cohesion, spur community revitalization, and add economic value to our communities.

## Purpose of the Policy

The UFPM provides a framework for policy and action that guides city government decision making to help Riverside maintain, preserve, enhance, and restore its urban forest. The core of the plan is a set of outcomes, strategies, actions, and indicators that may support a healthy and sustainable urban forest across Riverside's publicly and privately owned land.

## City Trees & Street Trees

It's important to note that the City of Riverside **does not** own all the trees within Riverside's borders. We generally own the trees and parkways on Magnolia, Tyler, Brockton, Victoria, and some of the other major streets in Riverside. However, most trees are, in fact, and as-a-matter-of-law owned by private entities. The City of Riverside is not able to make changes or effect street trees in any way shape or form.

## Policy Manual Update Process

This policy was developed by Public Works Staff who coordinated, as needed, with various other city departments. Public Works also worked closely and at the direction of an Ad-Hoc committee of the Parks & Recreation Commission.

The UFPM was last updated in 2015 and the City strives to update the plan every five years in conjunction with the American National Standards Institute (ANZI) and International Society of Arboriculture (ISA) updates.

## WHO CARES FOR THE URBAN AND COMMUNITY FOREST?

The approximately 150,000 street trees and 40,000 park and open space trees throughout Riverside are a community asset valued at more than \$454,567,420. The urban forest provides environmental benefits, adds to property value and provides an enhanced quality of life for all residents.

Unfortunately, Riverside's trees suffer from the rigors of urban life such as air pollution, limited water, vandalism, compacted soils, limited growing spaces, and the extremes of our Southern California climate. In order to reap the benefits of this valuable asset, the care of Riverside's Urban Forest should be a public/private partnership.

## City Council

Elected officials who provide leadership, at the request of citizens, ensure that trees are a priority in our community. The City Council oversees the General Fund, which supports the planting and care of the urban

forest. They also make decisions regarding policies and ordinances, which pertain to the care and protection of trees on public property and the development of private property as it pertains to our Urban Forest.

### **Park & Recreation Commission**

Appointed by the City Council, this nine-member Commission oversees the Urban and Community Forestry Program. The Commission has the power and duty to “Establish policies . . . for the planting, care and removal of City trees in parks and on streets, subject to the rights and powers of the city council.”

### **Urban and Community Forest Ad-Hoc Committee**

Appointed by the Park and Recreation Commission Chairperson, the Urban and Community Forest Ad-Hoc committee, together with Public Works staff, discusses issues and visits sites to make recommendations to the Park and Recreation Commission on tree issues in public landscapes.

An Ad-Hoc committee should review the Urban Forestry Policy Manual a minimum of every two years.

### **Public Works Departments**

The Department, under the guidance of the Public Works Director, provides the daily management and emergency services which sustain our urban forest and employs an experienced Urban Forester who specializes in the management of urban and community forests. The Public Works Department provides planting and maintenance services and also oversees contracted and permitted tree work on the urban forests.

### **Record Keeping**

It is a benefit to maintain accurate records of the City’s tree maintenance program to insure the overall health and safety of the urban forest. In order to do so, the Public Works Department encourages the public to contact the City’s CallCenter anytime they observe an issue or concern with a tree and if they have any questions. The CallCenter may collect and record the information in a database and the information is provided to the Urban Forestry and Landscape Division of Public Works for an inspection by the Tree Maintenance Inspectors.

{For more info on tree inventory management, see Section [Manage](#)}

### **Sustainability**

Urban forests provide important benefits such as biodiversity, heat index reduction, and our wildlife habitat. The preservation and expansion are essential to maintain and enhance these benefits for city residents and wildlife. Structures such as buildings, roads, and other infrastructure absorb and re-emit the sun’s heat more than natural landscapes such as trees and forest. When properly planned, these trees connect urban biodiversity to surrounding forests and ecosystems, bettering our wildlife preserves.

## **Riverside’s Urban Forest Today**



## History of the Urban Forest

Riverside, California, has a rich history when it comes to trees. The National Arbor Day Foundation has recognized our city as a "Tree City, USA™" since 1987 in honor of the care we provide for our trees.

Today, Riverside continues to prioritize its urban forest, and the city has been recognized for its efforts to protect and expand its tree canopy. The city's tree history serves as a reminder of the importance of trees in urban areas and the need for ongoing efforts to preserve and enhance the benefits they provide.

## Environmental Conditions

One of California's most populated cities, Riverside is located in the Inland Empire alongside the Santa Ana River (for which it was named). The city spreads across 81.4 square miles and is surrounded by small and large mountains. Known as the birthplace of the California citrus industry, Riverside typically experiences a semi-arid climate with hot, dry summers and mild, relatively wet winters.



Surrounded by three mountain ranges within a 20-mile radius (the Santa Ana Mountains, San Jacinto Mountains and San Bernardino Mountains), Within the City, surface elevations range from about 700 feet above sea level (near the Santa Ana River) to 2,000 feet in the Box Springs Mountain Reserve.

Much of the area is made up of granite and adamellite, Mesozoic granitic rock, granodiorite, Mesozoic basic intrusive rocks, and alluvium (located around the Santa Ana River). Most are dated from the Mesozoic period, except for the alluvium, which dated from the Quaternary.



With more than 40 types of soil in the City, most are variations of sandy loam that are susceptible to erosion. Most have a moderate level of permeability, meaning they allow liquids to pass through them.



What Is A Watershed? A watershed is an area of land that drains rainwater and melted snowfall into the same location or body of water, like a river, stream, lake, or the ocean. The Middle Santa Ana River Watershed drains into the Santa Ana River, the largest river in Southern California and the source of Riverside's name.

Keeping our watersheds clean is a team effort. We work in partnership with the member agencies, including the Riverside County Flood Control and Water Conservation District and participating cities, to protect, preserve and enhance the quality of the water and the natural environment of our watersheds. You are equally as

important to the health of Riverside watersheds. By being a good steward of our natural resources, you can help ensure that our watersheds are clean and beautiful for generations to come.

## Urban Conditions

In order to promote healthy urban forests, it is important to consider the built environment when planning and implementing tree planting and maintenance programs. This might involve selecting tree species that are well-suited to the specific environmental conditions of a particular urban area or designing streetscapes and public spaces that prioritize the preservation and integration of existing trees and other vegetation.



Many of the city's trees can be found planted along the grid of streets and sidewalks throughout Riverside. Trees planted here create green corridors throughout the city, help calm traffic and buffer pedestrians from vehicles. Regular maintenance is important to keep clearances over streets and sidewalks for vehicles and people and to ensure quick removal of hazardous or storm-felled trees.

People are an essential component of the urban forest. Almost all of the trees found in Riverside are the result of plantings and maintenance carried out by individuals or groups. Urban trees and landscaping connect people to nature.

Riverside's trees and vegetation support local wildlife by providing food, nectar, shelter and nesting areas for a variety of birds, insects and animals. Life thrives where the complex interactions between organisms and their surroundings are balanced. This wildlife can in turn provide pest control services in our gardens and agricultural areas.



## Canopy Cover

Canopy cover is one important measure of the health of the urban forest. The Canopy Cover is a good indicator of quantity and is an important starting point for understanding the urban forest.



## Challenges to the Urban Forest

As mentioned before, urban trees provide numerous benefits. However, the presence of trees in an urban environment should be balanced with other City and community goals such as property rights, growth

management, transportation, economic development, and urban design, as well as the goals of property owners. The City's urban forestry team may continue to work to find creative solutions to the major challenges faced by Riverside's urban forest. The challenges below are listed in alphabetical order:

- Overirrigation
- Trees on private property posing a threat to nearby structures
- Urban fauna near businesses perceived as over pruned
- Encroachment from development
- Difficult growing conditions
- Increasing temperatures affecting trees
- Incorrect or harmful pruning of trees
- Incorrect planting of trees

### Existing Management Approach

The UFPMM builds upon the Riverside Municipal Code and several policies, programs and initiatives focused on improving the city's ecological function, street design and mobility.

Oversight: Public vs. Private.

#### 6.14.020 – Landscaping Maintenance

- A. It should be unlawful for any person owning or having possession or control of any property subject to the provisions of Title 19 of this Code for which landscaping standards or requirements were established by the Zoning Administrator or Planning Commission to fail to maintain such landscaping that is visible from the public right-of-way in accordance with such conditions of approval imposed thereon and generally recognized horticultural standards.
- B. It should be unlawful for any owner and/or occupant of any property visible from the public right-of-way and used for commercial, office, industrial or residential purposes to:
  - a. Allow or permit on such property overgrown vegetation including trees, shrubbery, ground covers, lawns and other plantings.
  - b. Allow or permit on such property dead, decayed or diseased trees, shrubs, or other vegetation.
  - c. Fail to provide and properly maintain landscaping in required yard areas not covered by buildings, related structures, and driveways in a residential zone; provided, however, consideration should be given to the uses permitted in the underlying residential zone. Landscaping is grass, trees, plants, shrubs, flowers, or permitted decorative bark and decorative stones.
  - d. Fail to provide and properly maintain landscaping in required landscape areas on property zoned for commercial or industrial use. Landscaping on commercial and industrial properties cannot be decorative bark, concrete, or rock unless prior approval in writing is obtained from the Community & Economic Development Department Director or his or her designee or unless approved in accord with Title 19.

- C. It should be unlawful for any person owning or having possession or control of any property to maintain such property in violation of the following minimal standards:
  - a. Landscaped areas should be kept free from weeds and debris;
  - b. All plant materials should receive regular maintenance, including but not limited to, watering, fertilizing, mowing, and trimming;
  - c. Any damaged, dead, diseased, or decaying plant materials should be removed and replaced;
  - d. Irrigation systems should be kept in proper working order to provide proper amounts of water and proper coverage; and
  - e. Landscape screening materials, such as hedges, should be pruned to maintain their screening ability.
- D. Owners and/or occupants of properties fronting on, or adjacent to, any portion of a street should comply with the provisions of this [Section 6.14.020](#) as well as [Chapter 13.06](#) for any landscaping along the street or within the street right-of-way adjacent to their property, fronting on, or adjacent to, any portion of the street, that includes the care of public or private parkways.
- E. Nothing in this section should be interpreted to require removal of biological resources as described in the Western Riverside County Multi-Species Habitat Conservation Plan.
- F. Enforcement of landscape maintenance should consider applicable water shortage contingency stages declared by Resolution of the City Council and may be subject to [Section 6.14.040](#).

(Ord. 7341 § 5, 2016; Ord. 7289 § 1, 2015; Ord. 7182 § 9, 2012; Ord. 7152 § 1, 2012; Ord. 6970 § 2, 2007)

See additional Municipal Codes at this link: [Municode Library](#)

- Our In-house inventory management database allows for proper administration of trees that are routinely checked as well as fauna that residents request be inspected.
- The Tree Care Program allows residents to have trees trimmed more frequently by utilizing the services of the City’s tree maintenance contractor at the affordable flat rates listed under ‘Tree Care Program’ on the City of Riverside website.
- The Bicycle program ensures riders that their safety needs are met through incorporation of the ‘Three Feet for Safety Act’ which requires motorists overtaking and passing a bicycle in the same direction leave a minimum distance of three feet between the motor vehicle and the bicycle / bicyclist.

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When a person or entity owns land in fee simple, they have full ownership rights to the property, including the right to use, modify, and sell the property as they see fit. This means that they may make decisions about any trees that are growing on that property, whether they are located in a city right of way or on private land.

**FUNDING FOR THE URBAN AND COMMUNITY FOREST**



The primary source for funding is the General Fund. In an effort to augment limited City resources available for urban forestry, additional funding sources are often sought. Alternatives include a “Perpetual Tree Care Fund,” public grants, private donations, and the use of volunteer labor for tree plantings.

### Riverside’s Perpetual Tree Care Fund

This fund is separate from the General Fund. It is managed through the Riverside Chamber of Commerce solely for the enhancement of the community forestry program. Sources of revenue for the fund include contributions directly to the fund and other private donations. Tax-deductible contributions may be made to the Riverside Perpetual Tree Care Fund c/o the Greater Riverside Chambers of Commerce, 3985 University Avenue, Riverside, CA 92501. – **UNDER CONSTRUCTION**

### Adopt-a-Tree Program

This program enables individuals to sponsor tree plantings. Individuals may select a preapproved planting site within the City for which to sponsor a tree. The program is managed through the Riverside Chamber of Commerce. – **UNDER CONSTRUCTION**

### Grants

The staff of the Public Works Department actively researches the availability of grants for community forestry programs. Monies from these grants help to augment and sustain the urban forest.

## OUTCOMES & STRATEGIES

### Grow

The goal of the UFPM is to help grow the urban forest through new planting to maximize the social, economic and environmental benefits of trees and urban greening. The goal is to expand the city's street tree population by half (50%) from 130,000 street trees (2022) to 195,000 street trees (2042) - approximately 3,000 new trees per year. These new trees should help stem the decline of the urban forest and bring the many benefits of trees to more of the city's neighborhoods. In addition, they should help create a more equitable distribution of tree canopy and reduce greening inequities in different areas of the city. An associated funding and maintenance program is needed to carry out this expanded street tree planting program and ensure the long-term health of new trees.

To ensure a sustainable and livable urban environment, UFPM should continually research, evaluate, and implement new products and methods as they are introduced for urban forestry management and maintenance.

### Protect

The UFPM is designed to help protect the urban forest from threats and loss by preserving the city's existing trees. This can be done by stabilizing the existing canopy, reducing the impacts of development and promoting proper care and maintenance of street trees (see Engage in the section below).

## Manage

The UFPM recognizes the value of managing the urban forest through coordinated planning, design and maintenance to ensure its long-term health and sustainability. This includes making data-driven decisions and improving coordination and communication between agencies, policy makers and the community.

One of the ways in which we do this is by focusing on the entire life cycle of a tree from seeds to stumps and beyond. Riverside's street trees are sourced from local commercial growers. Aging or diseased trees near the end of their lifespan are identified for removal to prevent potential hazards and succession plantings are carried out to stabilize the tree canopy, ensure age diversity and reduce loss to the urban forest. Trees removed from streets are used to make furniture and musical instruments instead of being thrown into landfills or used as mulch.

Public Works is also looking into gleaning opportunities. Gleaning refers to the process of collecting excess produce to distribute to the community. Allowing volunteers to glean fruit from city owned orchards and street trees would help provide locally grown fruit to our own residents.

Public Works utilizes a dedicated inventory management database under categories such as work and order type, location, crew ID, data owner, as well as a progress bar for each job. The current system gives basic but crucial information to any arbor job. Moreover, our meta inventory search can also be filtered by risk level allowing prioritization of job orders. For a broad geographic understanding of the jobs required, there is a map view that can show any type or all jobs that are listed.

## Fund

The UFPM recognizes the need for continued long-term funding of the urban forest. Street tree maintenance is currently funded by the General Fund, while grid trimming is funded by Measure Z. However, Measure Z (a one-cent transaction and use tax coming directly to the City of Riverside) was only approved by voters through 2036 to help pay for critical unfunded City programs and services. These funds are allocated each budget cycle and are not guaranteed to be allocated to the urban forestry program. As such, Public Works may need to consider new and innovative funding sources, and seek ways in which dedicated long-term funding can be secured.

## Engage

The UFPM seeks to engage residents, public agencies, community groups and the private sector in caring for the urban forest and fostering their deeper connection to nature. Public Works plans on doing this by promoting urban forest education and experiential opportunities such as tree selection and proper tree care. The plan is to:

- reach out to schools, universities and other educational institutions for partnership and sponsorship opportunities to assist with research and education,
- reach out to small businesses and commercial districts to provide resources and information regarding the economic benefits of tree lined streets,
- continuing to foster participation of the private sector by organizing and/or participating in volunteer programs and events,
- developing strategies to support trees on private property,

- creating a Landmark Tree Program to celebrate and protect notable trees, such as the Parent Washington Navel Orange Tree which was designated a California Historic Landmark.
- developing an Urban Forest Awards Program that annually recognizes exemplary development projects that either protect existing trees or incorporate new trees in exceptional ways,
- consider development of an advertising budget to assist with public service announcements and other marketing initiatives that may guide and enhance practices set forth in the UFPM.

## TREE CARE GUIDELINES

The care and maintenance of the urban forest is both an investment and a very valuable resource. Trees in an urban environment are subject to many variables that affect their health: air pollution reduces a tree's ability to make food; compacted soils from road and structure development interfere with the uptake of nutrients and water; and sidewalks, curbs, streets and buildings limit the space for trees to spread their roots and branches. Tree care, such as deep watering, proper pruning and pest control help a tree maintain its health and stability.

The guidelines in this Manual were developed to help reduce the many negative impacts on the urban forest and to provide for effective management of the urban forest. Following the guidelines in this Manual may result in an increase in the value of our trees and a reduction in the costs to maintain them.

It is the goal of the City of Riverside to work closely with our residents and property owners to proactively remove problematic trees such as those with invasive root systems that are causing chronic infrastructure damages and replace these problematic trees with appropriate tree species that are suitable for the surrounding environment.

Practices such as deep watering, prevention of damage to bark from string trimmers and mowers, the use of mulch or wood chips and proper pruning and staking, provide preventative care for trees. These practices help keep a tree healthy so it can maintain its own natural defense system.

### Pest Control

Proper planting, pruning and care of trees are the best ways to prevent pest problems. A tree has a natural ability to withstand a certain amount of insects and disease. When a tree suffers from other impacts, which deplete its food-making capability (photosynthesis) and uptake of water and nutrients, its natural defenses are weakened.

When insect and/or disease infestations become a detriment to the tree, controls are used. When pest control is recommended, natural or biological substances are considered first, with chemical pesticides used only when warranted.

Pest control is based on the timing and intensity of the infestation. Inspections of trees are made based on the time of year and weather conditions that have favored the development of insect problems in past years. Not all problems are predictable and may not be treatable. If there are requests by residents, an inspection is conducted and recommendations are made based on the timing and effectiveness of the control.



## TREE PRUNING GUIDELINES



### Need for Pruning

Trees are pruned principally to preserve their health and appearance and to prevent damage to property and human life. Broken, dead, or diseased branches are pruned to prevent decay from spreading. Live branches are removed to permit penetration of sunlight and air circulation which helps maintain a strong and healthy tree.

All public trees should be completely pruned on a periodic basis based on the needs of the species. Frequency depends on funding levels.

Additional tree pruning is done on an "as needed" basis. Specific examples where as needed work is authorized are:

1. Pruning tree branches that interfere with City utility lines.
2. Pruning tree branches that interfere with street light illumination and are not scheduled for periodic pruning within two (2) years.
3. Pruning tree branches that interfere with buildings or other private or public facilities.
4. Pruning hazardous branches, such as large dead branches greater than two (2) inches in diameter, hangers and structurally unsound branches.
5. Pruning tree branches that interfere with safe vehicular or pedestrian traffic.
6. Sucker pruning.

### Property Owners Ability to Prune Trees

There are two options available to property owners who would like to have public tree(s) pruned more frequently than the scheduled trim cycle. First, a resident may pay a designated fee (see attached) to the City to have a tree trimmed outside the normal grid trim cycle. The City's contractor may prune the tree within 30 days of the request. Second, a resident may apply for a permit and hire a licensed and insured contractor to trim the tree(s) according to City standards. A property owner may raise mature trees to eight (8) feet for clearance without a permit.

## Tree Pruning Specifications

Any tree work performed should be completed according to the City's specifications. There are different criteria for pruning depending on the purpose for the pruning.

"Complete pruning specifications" are used when the entire tree needs to be fully pruned.

"Safety pruning specifications" require less pruning and are used when specific, possibly hazardous (dead/dying) branches need removal to eliminate all safety concerns. Safety pruning may be recommended in some circumstances instead of complete pruning. Safety pruning specifications are used for "as needed" pruning and address only safety concerns. Safety pruning includes only the basic requirements to address the problem.

Where overhead wires pass through trees, safety and reliability of service demand that tree trimming be done to clear wires of branches and foliage. The minimum clearance should be followed as established by the California Public Utilities Commission General Order No. 95.

All specifications are based on International Society of Arboriculture, National Arborist Association and American National Standards Institute criteria. This guarantees that Riverside's urban forest receive the best possible care.

The following trimming specifications are for the use of any permitted pruning.

### Method of Operation

1. Trim trees to lighten and balance the trees, according to current International Society of Arboriculture Western Chapter standards.
2. Remove dead wood and crossing branches.
3. Remove suckers.<sup>1</sup>
4. Remove diseased branches.
5. Encourage radial distribution of all branches to provide a sufficient number of scaffold branches to fill the circular spaces as concentrically as possible around the trunk.
6. Final trimming cuts may be made without leaving a stub. Cuts may be made just outside the branch collar. Extreme flush cuts, which produce large wounds and weaken the tree at the cut, should not be made.
7. Trimming should provide adequate clearance for any obstructed street sign, streetlight or other approved standard.
8. Over sidewalks, branches may be raised a minimum of nine (9) and a maximum of twelve (12) feet from grade to wood. Where sidewalks do not occur or are located on the street side of a parkway,

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<sup>1</sup> Vigorous, upright growth arising primarily from below the graft union or the ground from trunks or the roots.

branches may be retained below the minimum elevation, providing they conform to the natural shape of the species.

9. Over residential streets, branches may be raised gradually from 12 feet curb to 16 feet over traffic lanes from grade to wood giving the appearance of an arch rather than an angle. Near driveways where automated refuse containers are placed, it is imperative to have 15 feet of clearance.
10. Over arterial streets, branches should be raised a minimum of 14 feet and a maximum of 16 feet from grade to wood. A major arterial street may require a higher maximum over central traffic lanes for existing, mature, canopy-forming branches.
11. Whether over sidewalk or street, where the lowest branch is attached to a trunk above the desired elevation but extends below that elevation, it may be cut back to a large lateral near the desired elevation, if possible, rather than removed altogether, in order to avoid giving the trunk a skinned appearance.
12. Trimming may not exceed the amount necessary to achieve the specified elevation at the time of raising and to compensate for tree species and trim cycle. No branch over three inches in diameter may be removed without prior City approval.
13. No lion-tailing. An effect known as "lion-tailing" results from pruning out the inside lateral branches. Lion-tailing, by removing all the inner foliage, displaces the weight to the ends of the branches and may result in sunburned branches, water sprouts, weakened branch structure and branch breakage.
14. Topping, stub cutting, hat racking, pollarding etc. is not acceptable.

## General Requirements

1. Certified Tree Workers – All persons performing tree work should be trained according to tree care standards accepted by the International Society of Arboriculture, Western Chapter.
2. Certified to Work Around Electric Lines – All persons performing tree work in or around primary electrical lines should be trained to do so according to the "Electrical Safety Orders" of the State of California, including all amendments and revisions.
3. Certified Arborist – Any City contracted tree company should employ a full-time, permanent Certified Arborist, as accredited by the International Society of Arboriculture. This person is responsible for ensuring that the contractor's crew is performing work according to the City's specifications. It is also recommended that Riverside residents use a firm that employs a Certified Arborist for any tree work.
4. Contractor Qualifications – All contractors are required to have a state contractor's license for tree work (C-61). Contractors are required to adhere to the specifications provided in the bid documents.

## Safety Pruning Specifications

1. Proper disposal of all tree debris generated.
2. Adhere to proper traffic control standards as adopted by the American Public Works Association, latest adopted version.



3. Assure adequate safety of employees and the public in accordance with CalOSHA and Senate Bill 198

Safety tree pruning should consist of the total removal of those dead or living branches as may menace the future health, strength and attractiveness of trees. Specifically, trees should be pruned according to the Tree Pruning Specifications.

## TREE PRESERVATION GUIDELINES

Trees are an essential element of Riverside's image and quality of life. Hardscape elements, such as sidewalks, curbs, gutters and driveways, are also indicative of the City's commitment to maintain its infrastructure. Over the years, broken and damaged sidewalks, curbs, gutters and driveways may have to be replaced throughout the City. As a result, many trees may be involved. Whenever possible curbs, gutters and sidewalks should be meandered away from the tree thereby providing more growing space for roots. To manage this process and protect existing trees, the following departmental guidelines have been established.



### Root Pruning

- a. Whenever sidewalk, curb, gutter or driveway replacement occurs within four (4) feet of a tree, the Public Works Department may inspect the site for tree impact assessment. Root pruning may be performed on any tree that the Public Works Department determines can be safely performed without jeopardizing the life of the tree.
- b. All roots greater than two (2) inches in diameter should be cleanly cut to encourage good callus tissue. It is recommended that roots be pruned back to the next root node.

### Sidewalk Renovation

Trees that would be seriously impacted by root pruning during sidewalk replacements may be inspected by the Urban Forester in coordination with the Street Division to determine whether:

- a. The repair work can be deferred and a temporary patch used to eliminate any hazard until other steps can be reviewed and implemented.
- b. The tree can be saved by narrowing the sidewalk near the tree, while still leaving sufficient sidewalk width for disabled access. Standard disability access width is four (4) feet.
- c. The tree can be saved by relocating the sidewalk onto private property and negotiating the appropriate easement.

- d. The tree can be saved by replacing the sidewalk with minimal disruption of the roots (alternatives: a temporary sidewalk, rubberized sidewalk, use of root barrier fabric, raising the sidewalk grade over the roots, an informal walkway; etc.).
- e. To remove the tree and replace it with a minimum 15 gallon replacement tree.

## Curb and Gutter Replacement

Trees that would be seriously impacted by root pruning during curb/gutter replacement may be inspected by the Urban Forester in coordination with the Street Division to determine whether:

- a. Where six or more trees along one side of a block are severely affected, consideration is to be given to relocating the curb and gutter into the street along the entire block.
- b. The tree can be saved by replacing the curb and gutter with minimal disruption of the roots (alternatives: temporary curb and gutter; use of root barrier fabric; rubberized panels, or by other methods).

## Recovery Period

- a. When significant root pruning on two sides of a tree is required, there may be a 24-month separation between sidewalk and curb/gutter repair to allow time for tree roots to recover and work should be authorized by the urban forester.
- b. An exception to this policy may be made if the curb/gutter or sidewalk is relocated away from the tree, or other measures are employed that reduce or eliminate root involvement or it is otherwise determined by the Urban Forest Section that root involvement is minimal.

## Construction Projects on City Property

The following guidelines have been developed to protect trees on City property during construction projects:

- a. A root protection zone should be defined by a minimum 42" high barrier constructed around any potentially impacted tree. This barrier should be at the drip line or at a distance from the trunk equal to 6 inches for each inch of trunk diameter 4.5 feet above the ground if this method defines a larger area.
- b. Should it be necessary to install irrigation lines within this area, the line should be located by boring, or an alternate location for the trench is to be established. The minimum clearance between an open trench and a street tree should be one (1) foot, or six (6) inches for each inch of trunk diameter measured at 4.5 feet above existing grade if this method defines a larger distance. The maximum clearance should be ten (10) feet. The contractor should conform to these provisions unless otherwise directed by the City.
- c. At no time should any equipment, materials, supplies or fill be allowed within the prescribed root protection zone unless otherwise directed by Public Works Urban Forestry Division. The root protection

zone is defined as the larger of the drip line of 1) the tree or 2) the distance from the trunk equal to six (6) inches for each inch of trunk diameter measured at 4.5 feet above existing grade.

- d. It is recognized that failure to abide by these provisions may result in substantial root damage to trees that may not be immediately apparent. The City may therefore assess damages according to the International Society of Arboriculture standards and bill the responsible party.

### Construction Release Requirements

- a. In order for construction work to begin that may impact a tree, a signed release form should be issued by the Public Works Department. This release should be based on the condition of the tree and an assessment of the impact of the proposed construction. Mitigation measures necessary to protect the tree may also be stated.
- b. In the event a tree should be removed, Public Works Urban Forestry Division may issue a Tree Removal Permit.

### Protecting Tree Roots from Vehicular Compaction

In order to protect our urban forest, it should be unlawful for any vehicle to be parked in the public right of way, under the drip line of a tree in non-paved areas such as parkway strips.

## TREE REMOVAL GUIDELINES

The Public Works Department is responsible for the maintenance of the street tree system. Individual trees can affect the environment of the total community.

The Public Works Director or the Director's designee should have the authority to remove hazardous, diseased or declining trees, providing that the removals meet the existing criteria as stated in the policy and they are City of Riverside owned trees.

The Director or Designee should authorize tree removals with the authority granted in this policy and a quarterly report may be provided to the Park and Recreation Commission.

The Director should provide the Park and Recreation Commission with a quarterly listing of the tree removals for the Commission's review. The list should include the locations of the trees and the reason for removal.



### Public Notice of Tree Removals

Resi-pay is a program the City of Riverside offers that allows a resident to notify a Public Works worker that they'd like a stump removed. The resident may get a notification that a service worker has come to see the stump, and if eligible, the stump should be removed.

**UPDATE – see legal**

## Hazard Tree Removal

Hazardous tree inspections should be completed, including photo documentation of the condition of the tree(s).

A hazardous tree is one that is dying, dead or structurally weak; a traffic obstruction; or injurious to the health, safety, or welfare of the general public.

When a tree is determined by authorized staff to be a hazard, the tree should be removed and a replacement tree should be planted at the next appropriate planting cycle, unless inadequate parkway space exists or the location constitutes a hazard. Where long-term repairs can be made to sewer laterals, sidewalk or curb and gutter without endangering the stability of the tree, the tree should not be removed.

## Inappropriate Tree Removal

An inappropriate tree possesses undesirable characteristics significant enough to have caused their elimination from future planting of street trees, as determined by the Park and Recreation Commission. Undesirable tree species should be identified, approved by the Commission, and published.

There are three (3) types of inappropriate trees:

1. Class I Inappropriate - Tree species that cause chronic damage to infrastructure (i.e. curbs, gutters, sidewalks or other structures and trees) which, in the opinion of the Commission, are causing a nuisance to the property owner significant enough to necessitate removal of the tree.
2. Class II - Tree species that meet the general definition of an inappropriate tree, but the undesirable characteristics are not significant enough to necessitate removal of the tree (e.g., heavy fruit drop, susceptibility to wind damage, susceptibility to disease or insect infestation, etc.).
3. Non-conforming Trees - These are trees that may be in satisfactory health, but do not provide a benefit to the overall appearance of the community; trees that were started as volunteers and not removed; trees planted by residents/businesses without permits; or trees that may cause extensive damage to surrounding hardscape areas if allowed to mature.

## Removals Due to Economic Considerations

A tree considered for removal should meet Criteria #1 and three (3) of the remaining four (4) following criteria before a removal is considered because of economic considerations.

1. Cost of damage exceeds 1/3 of the value of the tree.
  - a. The problems caused by the street tree should exceed at least 1/3 the dollar value of the tree as established by the International Society of Arboriculture's Tree Replacement Book. For example, a tree valued at \$10,000 should have caused at least \$3,333.00 in damages.
2. Damages have caused potential liability issues.
3. A request made for removal that authorized staff concurs to be a legitimate request.
4. Recurring problems related to the tree within a 10-year period based on the City's fiscal year. The tree has lifted or broken the sidewalk more than once within 10 years, has broken the sewer lines more than once, (etc.), or other physical damage to hardscape.



5. Comparable problems or concerns in the surrounding area would lend themselves to removal of all the trees of similar species in that area.

**These criteria may not apply toward trees that are considered to be historical, landmark, or in a sensitive ecological and/or historical area.**

## Removal Process

1. When the verbiage 'trees' is used, it's in reference to City of Riverside trees (e.g. trees on Magnolia, Tyler, Brockton) and only trees owned by the city.
2. Tree removal reports, should be presented quarterly at the Park and Recreation Commission meeting.
3. Tree removal appeals should be reviewed by the Urban Forest Ad-Hoc committee of the Park and Recreation Commission For multiple requests from the same neighborhood each tree should be assessed individually and up to a maximum of 20% can be removed within a three-year period, unless the trees pose a potential safety hazard or if there is full community support and approval to remove all the trees that are considered problematic on one (1) street of a neighborhood and replace with an approved appropriate species. The Public Works Department may track removals to protect neighborhoods from excessive removals. Unless hazards exist or if there is full community support and approval to remove all the trees that are considered problematic on one (1) street of a neighborhood and replace with an approved appropriate species, additional removals from a neighborhood may not be considered for three years, to establish the replacement trees.
4. Inappropriate trees, i.e., Shamel Ash, (*Fraxinus Uhdei*) Carob (*Ceratonia siliqua*) and California Pepper (*Schinus Molle*) trees, that are approved for removal by the Park and Recreation Commission, may be removed within three years, contingent on funding. A property owner may choose to pay the City half of the removal cost and have the tree removed within 120 days, contingent on funding.
5. Trees approved for removal may be removed by a property owner through either of the following:
  - a. A payment to the City of Riverside to have the tree removed and replaced, per the approved fee schedule. If it is determined that a replacement tree is inappropriate, the replacement tree may be planted elsewhere on public right of way.
  - b. A property owner may obtain a Removal Permit from the Public Works Department for removal at the owner's expense and subject to payment of a fee for the removal and replacement of the tree.
6. Class II Inappropriate trees, i.e., Holly Oak and Evergreen Elm Trees, may be removed and replaced, at the property owner's expense provided that the total neighborhood removals do not exceed 20%.
7. Shamel Ash Trees may be removed and replaced with an approved 24" box tree, at the property owner's expense and provided that the total neighborhood removals do not exceed 20%.

## Programmed Tree Removals

1. Developed by the Director or his Designee based on the severity of overall deficiencies including width of parkway, species, conditions of trees, or extent and number of recurrences of chronic structural damage to improvements which should be approved by the Commission.
2. This program removal may, wherever practicable, be scheduled on a multiple year schedule and remove alternate/intermittent trees so as not to remove all trees at one time, as determined by the Park and Recreation Commission.

## Site Restriction

1. Trees located so as to prevent a legal improvement to the property.
2. Street improvement plans are subject to the conditional requirements imposed upon the approval by the Public Works Department.
3. The property owner should remove the tree(s) at owners expense upon issuance of a permit by the Public Works Department and subject to the conditional requirements imposed upon the approval (e.g., payment of fees)
  - 1.

## Specific Removal Policies

1. Consideration should be given to retain City owned trees by means of
  - a. Relocating sidewalk and/or any utilities
  - ~~b. Root pruning City trees~~
  - ~~c. Installation of root barriers where it is deemed appropriate and in the best interest of the City tree as determined by the Public Works Department.~~
  - d. Grid Trimming 8-9 years
2. City Trees should be replaced by the Public Works Department at the next appropriate planting cycle within one hundred and twenty (120) days, provided funding is available according to the Department Planting Guidelines.
3. When City street improvements mandate that palms or wood City trees be removed, if the species is adapted to replanting, every reasonable effort should be made to relocate said City trees.
4. Fees are required for replacement City trees and are set by the fee schedule. All replacement City trees may be a minimum of 24" box size.
5. City Trees may require relocation and preservation at the discretion of the Public Works Department.
- ~~6. One year of maintenance may be required by property owner or contractor for all trees relocated. The property owner may water the City tree, at owner's expense, to aid its survival a minimum of one year after relocation.~~

7. The Park and Recreation Commission should approve any request for the removal of four (4) or more City trees in a quarter mile square.

## Stump Grinding

1. Stump grinding may be limited to the immediate area of the City stump and all visible surface roots within the City right-of-way. Private property is not to be renovated for the removal of surface roots or sucker growth.
2. The void created by the grinding operation may be filled with materials slightly higher than grade to allow for settling. Where no replacement City tree is designated, the backfill should contain approximately 60% soil and overseeded with appropriate plantings.

## STREET TREE ASSET VALUE

The Street Tree Asset Value describes the asset value of any public tree. It is the dollar amount assigned to a public tree, as determined by the International Society of Arboriculture.

An asset value may be considered for any public tree. This value may be used:

1. When a public tree should be removed because of a construction project that impacts the public right-of-way
2. When the Park and Recreation Commission considers any public tree for Removal
3. When any public tree is damaged and should be removed or is illegally removed.

The Diameter at Shoulder Height (DSH) may be determined for the tree (s). The asset value should be established as \$50 per inch and rounded down to the nearest inch.

The asset value is based on the following formula:

*A 24" boxed tree is used as the standard size. The average DSH of a 24" box is 2 inches. The cost to purchase and plant a 24" boxed tree based on the current contract price is \$205.00. The cost for plant establishment of this new tree is \$40. Total cost for planting and establishing a 24" boxed tree is \$240.00 or \$100.00 per diameter inch.*

The City acknowledges that some trees are more valuable than others depending on species, location, tree health, etc. A 50% discount should be used to allow for these variables. Therefore, the standard assessed value of any tree should be \$50 per diameter inch at shoulder height (DSH).

## MASTER STREET TREE PLANTING PLAN

One of the most important aspects of caring for Riverside's trees is to ensure an ongoing heritage of appropriately planted trees for future generations. All trees planted should conform to the Master Urban Forest Plan, which designates the species of the tree to be planted on each street.

Tree planting requires planning. The Master Urban Forest Plan Guidelines were designed to provide optimum tree selection in order to reduce future problems and expense. The guidelines are used to facilitate the species selection based on a review of tree size at maturity as well as physical characteristics.

Each neighborhood block has been evaluated and designated species have been chosen and approved by the Park and Recreation Commission to ensure that the right tree is planted in the right place.



The Master Urban Forest Plan takes into consideration the full size of a tree at maturity and whether it should fit the growing space. Other characteristics considered are the tree's growth rate, litter from fruit or leaves, insect or disease problems, water needs, temperature hardiness, soil requirements, aesthetics and design criteria.

Another reason for a plan is to make certain that there are never too many trees of one species in an area of the City or Citywide. Large populations of one tree species may be lost during an insect or disease epidemic.

Many streets in Riverside are designated with more than one species. This should help reduce the spread of insects and disease on a block-by-block basis and decrease the potential for losing entire populations of a specific species in the case of a pest epidemic. Along streets which have mature trees of a single species which provide a closed canopy, such as Camphors, or otherwise provide a special aesthetic quality, the single designated species should be maintained whenever appropriate. The following pages describe the guidelines for determining a designated species for a street.

The following should be considered when designating species for a new City street or for revising the Master Urban Forest Plan:

1. No more than 5% of the total trees in Riverside should be any one species. Trees that currently comprise more than 5% of Riverside's public trees are:
  - Mexican Fan Palm (*Washingtonia robusta*)
  - California Fan Palm (*Washingtonia filifera*)
  - Crape Myrtle (*Lagerstroemia indica*)
  - Shamel Ash (*Fraxinus udei*)
  - Holly Oak (*Quercus ilex*)
2. General tree characteristics to be encouraged are (not listed by priority):
  - Drought tolerance
  - Heat tolerance



- Minimal allergy problems (pollen production)
- Native to California
- Minimal root damage potential
- Long life span
- Good branch strength and structure
- No major insect/disease problems
- Good cold tolerance
- Low maintenance
- Large shading potential
- Future wood utilization/recycling potential
- Low amount of natural hydrocarbon production
- No messy fruit/other plant parts
- Showy flowers

Replacement tree species should be selected by the Public Works Department based on site conditions and tree planting guidelines.

## TREE PLANTING GUIDELINES

The following guidelines have been developed to promote the health and safety of trees for years to come. These guidelines and specifications are required for any tree planting on City property or within City right-of-ways.

The City has a goal of planting all vacant sites on City property or within City right-of-way, which meet the requirements for an appropriate planting site (See Planting Site Specifications). The tree planted should be the designated species as per the most current Master Urban Forest Plan.



The City also has a goal of replacing all trees, which are removed, based on the Tree Removal Guidelines that meet the requirements for an appropriate planting site. Whenever a vacant site is considered for planting or whenever a tree is removed a replacement tree should be planted if the following conditions are met:

1. Adequate spacing (both aboveground and underground) is present to allow healthy growth to maturity.
2. Location is conducive to good management practices and does not overly disrupt maintenance activities or utilities.
3. Future maintenance, especially water, is available.
4. Funding is available for planting.

Standard replacement size would be an appropriate 24" box in commercial areas and 15-gallon in residential areas, unless limited by a grant for trees of a lesser size.

## Property Owner Plantings

If a property owner wants a tree planted sooner than the City schedule can accommodate, the conditions may be met:

1. Obtain a permit allowing the property owner to provide the planting at his or her own expense following the City of Riverside's planting specifications.
2. Request that volunteers be asked to schedule the planting when time is available.
3. Pay the City's fee to have the tree planted by the City's contractor.

## Care of Newly Planted Trees

Care of young trees should be a partnership between the City and residents. The City monitors newly planted trees for the first three years. This includes verifying that the tree is properly pruned, staked and tied and receiving deep watering by the resident. A potential method to deep water would be Soaker hoses which are made of porous material that allows water to seep out slowly, providing a slow and steady supply of water to the tree's roots. Another suggestion would be to use tree watering bags which are placed around the base of the tree and filled with water, which slowly drips out over several hours or days, providing a deep watering. It is important to note that the best method for deep watering should depend on the specific needs of the tree and the local environment, and that tree deep watering should be done carefully and with consideration of the tree's health and the surrounding ecosystem.

If you notice that a newly planted tree needs water, re-staking, or is otherwise not growing well, please notify the City immediately. Neighborhood trees need the attention of residents who live near them to make sure they grow healthy and strong.

A common cause of death among young trees is damage to the bark by string trimmers and lawn mowers. It is necessary to keep the ground around the trunk bare except for wood chip mulch. Wood chips may be used, however, neither wood chips nor bark should be placed against the tree's trunk. Any weeding or clipping around the base of the tree's trunk should be done by hand tools to prevent injury to the bark.

## PLANTING SPECIFICATIONS

### Street Tree Planting

The Urban Forester should be the responsible authority for determining the appropriate species or variety of trees planted within the public streets rights-of way or easements.



### Specific Planting Policies

1. Street trees may be planted according to the Master Plan and in accordance with Department Standard Specifications. The Master Plan maybe updated and revised as needed by the Public Works Department.
2. A minimum of one street tree may be planted per lot. Property with frontage of 65 feet or more may have trees planted at an average maximum spacing of 35 feet (tree to tree) on center. The actual

number and spacing for planting should be based on the established canopy width of the designated species as approved by the Park and Recreation Commission. To preserve the integrity of the street tree pattern, where site constraints preclude planting of a street tree within the rights-of-way, trees may be planted on private property in those instances where an easement for that purpose has been provided.

3. Property owners may plant street trees at the owner's expense in accordance with Department standards and subject to prior written approval of the Department.
4. Planting of street trees may be required at the time the property abutting the rights-of-way is developed. The owner of the abutting property may be responsible for the costs of furnishing, installing and providing a minimum of the first year of maintenance for all street tree plantings.
5. To maximize the square footage of tree canopy and its benefit to the City, all new and redeveloped properties both residential and commercial may be required to provide funding for public trees. Fees are established by the City Council. The City, through its contractor, should schedule planting of the street trees on or before the time occupancy permits are issued.
6. Tree removal through a permit by other agencies may be subject to both mitigation and replacement fee and may be replaced by the City's Public Works Department within 120 days.
7. Fertilization and water of all street trees within the City may be the responsibility of the abutting property owner, except in reverse frontage and median strips that are maintained by the City. The Public Works Department is responsible for all other maintenance after completion of the maintenance period and written acceptance by the Department.
8. Tree planting is not required in street right-of-ways abutting undeveloped property. If the property owner desires to plant the street right-of-way abutting the owner's undeveloped property, the owner should provide an automatic irrigation system and may be responsible for the cost of installation and maintenance. The Public Works Director, upon approval by the Commission, may require the posting of a bond of a sufficient amount to guarantee installation and care of the appropriate improvements.
9. When the sidewalk is located next to the curb, the trees should be planted a minimum of one foot from the right-of-way line within the public street right-of-way line or easement. Where right-of-way is not available adjacent to the sidewalk, the trees should be planted in easements behind the sidewalk whenever possible. When a tree well in the sidewalk is the only possible solution, a tree should be selected that may not cause or result in long-range curb or sidewalk damage.
10. In the interest of public safety and maintenance, trees should be planted:
  - a. A minimum distance from the intersection, to provide adequate sight distance. Minimum distance should be 30 feet from beginning of curve at the curb return, except at secondary and arterial streets where the minimum should be 50 feet.
  - b. Five (5) feet minimum from fire hydrants, service walks, and driveways.
  - c. Ten (10) feet minimum from sewer laterals, other utility services laterals and water meters.
  - d. Fifteen (15) feet minimum from lamp standards.

- e. With consideration given to those varieties of trees that may not create a conflict with existing overhead electric utility lines.
11. All trees, other than palm trees, should be a minimum 15-gallon size in residential areas and 24" box size in commercial areas as determined by the American Association of Nurserymen. Smaller/larger sizes may be permitted/required by the Park and Recreation Commission.
12. A larger sized tree may be planted, provided that the property owner pays the difference in cost.
13. Palm trees planted in nonresidential areas may be at the discretion of the Public Works Department.
14. All newly planted trees (except palms) should be staked per Department standards.
15. All staked trees should be inspected during the regularly scheduled grid trimming cycle. Stakes are to be adjusted or removed as necessary.
16. All trees planted in tree wells should be installed and irrigated in a manner that promotes deep rooting per Department standards. All trees in wells should be installed with an automatic irrigation system, if funding is available.

## TREE/HARDSCAPE CONFLICTS GUIDELINES

In keeping with the City's policy to preserve and protect healthy trees and to provide for the safety of citizens, the following guidelines have been established for correcting hazardous situations that result from tree roots disturbing hardscape in the public right-of-way.

### Inspection

When tree roots are suspected of causing hardscape damage, the Public Works Department should inspect the tree and assess the potential damage. The size, species, structure/condition, and (external) environmental factors may be considered before a recommendation is made.

1. Trunk size (DSH) and height
2. Desirability of the species
3. Structure, condition and health of the tree
4. External or environmental factors such as proximity to overhead or underground utilities

### Recommendation

A tree may be recommended for removal or root pruning if it meets the conditions outlined in this Manual.



# TREE/UTILITY CONFLICTS GUIDELINES

## Sewer Lines

In keeping with the City's policy to preserve and protect healthy trees and to provide free flowing sewer lines, the following guidelines have been established for addressing situations that may result from tree roots invading sewer laterals.



Responsibility. City of Riverside Municipal Code 14.08.020 requires all residential and nonresidential customers should maintain their private sewer lateral line in good working order and free of defects (which includes the installation of a two-way clean out tee at the property line or City easement boundary of at least four inches in diameter for maintenance) at their own expense **and may be liable for damages which may result from failure to do so.** Private sewer lateral lines are required to be free of defects and any infiltration of tree roots into a private sewer lateral are presumed to be caused by improper installation and/or maintenance and should be repaired by the property owner at no cost to the City, unless determined otherwise by a City inspector and/or City contractor. The City may maintain the portion of residential sewer lateral lines from the property line or City easement boundary to the point of connection to the City's main sewer line and provided a property line or easement boundary cleanout is present for access.

If the property owner believes a City owned tree has caused a sewer lateral problem, the owner should contact the City's Call Center at (951) 826-5311 for instructions on dealing with the problem.

Procedure. Following notification of a potential sewer/City-owned tree conflict, the Public Works Department may forward all pertinent information to the Risk Manager and/or responding City technician. Provided a property line or City easement boundary cleanout is present as required in Riverside Municipal Code 14.08.020, the City may inspect the sewer line. If the required cleanout is absent, the responding City technician may provide guidance on next steps following a site visit and field assessment. The Public Works Department may conduct a site visit to determine if there is a public tree, the tree species, location and report back to Risk Management.

## Water Lines

In keeping with the City's policy to preserve and protect healthy trees and to provide uninterrupted water service, the following guidelines have been established for addressing conflict situations that result from tree roots.



Responsibility. Residential water lateral lines are the sole responsibility of the property/business owner. Owners are responsible for the lateral line beginning at the water meter, which is located in the right-of-way to the building. This includes sections of the lateral that may be under City sidewalks.

In the event of a leak or break in the lateral line, owners are responsible for determining the cause and repairing the line between the building and the City water meter. The City's Water Division is not responsible for determining the cause of, or repairing the residential/business lateral line.

If the property owner believes a City owned tree has caused the problem, the owner should contact the City's Call Center at (951) 826-5311 for instructions on dealing with the problem.

Procedure.

1. Notification: When notified of a potential water lateral line and City owned tree conflict, the Public Works Department is to take all of the pertinent information and forward that to the Risk Manager.
2. Inspection: The Risk Manger may assign a contractor to inspect the water line to determine damage and the City's responsibility if any. The Public Works Department may conduct a site visit to determine if there is a public tree, the tree species and its location in relation to the water meter and lateral line and report to Risk Management.
3. Follow Up: Risk Management should determine if the water lateral needs to be repaired.
4. If the lateral is to be repaired by the City's contractor and if the water line can be rerouted away from the tree, then the Risk Manager should coordinate repairs with Public Utilities.
5. If pruning, roots can repair the water lateral, then the Risk Manager should notify the Public Works Department to coordinate pruning with their contractor.
6. If the lateral is to be repaired by the City's contractor and if the repairs cannot be made without removing the tree, then the

## Electric Lines

In keeping with the City of Riverside's policy to preserve and protect healthy trees and the City of Riverside's Public Utility to provide reliable electric service, the following guidelines have been established for addressing conflict situations that result from tree branches and foliage that interfere with electric lines.



Responsibility. Residential and Commercial Electric Service lines affected by private trees are the sole responsibility of the property/business owner. Owners are responsible for the service line beginning at the power pole to the point of connection to the home or business unless strain or abrasion is present per General Order No. 95 Rule 35.

If the service wire shows signs of damage from contact with a private tree, Public Utilities should:

1. Repair the wires and install tree guard;
2. Re-route the service so that it does not contact the tree; or
3. Drop the service to allow the homeowner to trim the tree.

Due to the extensive requirements for Utility tree workers and the lack of qualified tree firms, the City has established a procedure that would allow residents the ability to use the City's tree maintenance contractor for service line clearances and private tree removals.

Property owners would contact the Public Works Department and request a written estimate for the work. Work should be scheduled by the Department if the property owner agrees to the price estimate and provides written authorization for services. All clearance trims should adhere to the City's standard for trimming.

Only transmission, primary and secondary electric lines are the responsibility of the City of Riverside; cable TV and telephone lines are the responsibility of those agencies or the tree owner. Based on the California Public Utilities Commission's General Order No. 95 Rule 35, Riverside Public Utilities is required to keep City owned utility wires clear of branches and foliage from nearby trees.

## Line Clearance Trimming Procedures

When possible, property owners should be notified at least 48 hours in advance, via a door hanger of scheduled line clearance services, with the exception of emergency and high priority situation.

It is the intent of the City to trim for line clearance on an annual cycle. Minimal trimming clearance standards should adhere to the California Public Utilities Commission General Order No. 95 Rule 35. Trimming practices should be outlined under the "Tree Pruning Specifications" of this policy. Trimming clearances should be based on tree species and circuit trimming cycles.

## Trees in the Public Right-of-Way

It is the goal of the City of Riverside to plant the right tree in the right space, with long-term objectives of gradually removing inappropriate trees in the public right of way. Inappropriate trees are those that grow too large to be compatible with the wires. They may be removed and replaced where warranted with appropriate species.

The Public Works Department may identify those trees under wires needing removal and establish a long-term removal and replacement program. Adjacent property owners may be notified of the City's intent to remove and replace a public tree that is interfering with overhead power lines. Removal of trees, grinding of stumps, and planting of new trees, may follow the specifications outlined in this policy.

## Trees on Private Property

It is the goal of the City of Riverside to remove trees on private property that grow too large to be compatible with the wires. The Public Works Department may identify those trees under wires needing removal and establish a long-term removal program. Trees may be flush cut according to the specifications outlined in this policy. If the species of tree is one that suckers from the base, the stump may be treated as much as possible to kill the tree.

Property owners may be notified of the City's intent to remove trees that are growing within the utility easement and that interfere with overhead power lines. Those property owners who do not want the tree removed may be notified of the City's intent to continue to keep the wires safe on a two year trimming cycle. The property owner may be billed for all additional trimming costs in excess of the two-year circuit trim cycle.

## Palm Trees that Interfere with Wires

Public Palm Trees. The City of Riverside recognizes the value of palm trees to the City's heritage. Every effort may be taken to preserve and protect palms where they have a significant impact on the public right-of-way. Public Utilities and Public Works staff may inspect palm tree wire conflicts to determine if the wires can be protected or rerouted without removing the tree.

Where appropriate, adjacent property owners may be notified of the City's intent to remove the tree. A hardwood tree or a small stature palm compatible with overhead wires should be replanted where appropriate.

Private Palm Trees. It is the goal of the City of Riverside to eliminate private palm trees that interfere with electric wires. Public Utilities and Public Works staff may inspect private palm tree wire conflicts to determine a course of action depending if the palm is directly under or to the side of the wires.



Palms located under the wires within the utility easement should be flush cut and removed dependent on funding. Those palms outside the easement should be cut six feet below the wire and the property owner should be responsible for removing the remainder of the tree.

When possible, property owners may be notified of the City's intent to cut or remove the tree. Where property owners do not want the palm removed, and where the palm can be trimmed to keep the wires safe, Public Utilities should continue to trim the tree. Once the palm reaches the wires and can no longer be trimmed, the heart of the palm should be removed. The property owner may be billed for all excess trimming costs necessary to increase the trimming frequency of the circuit.

### **Future Research Needs**





## APPENDIX B – Urban Forestry & Landscape Organizational Chart

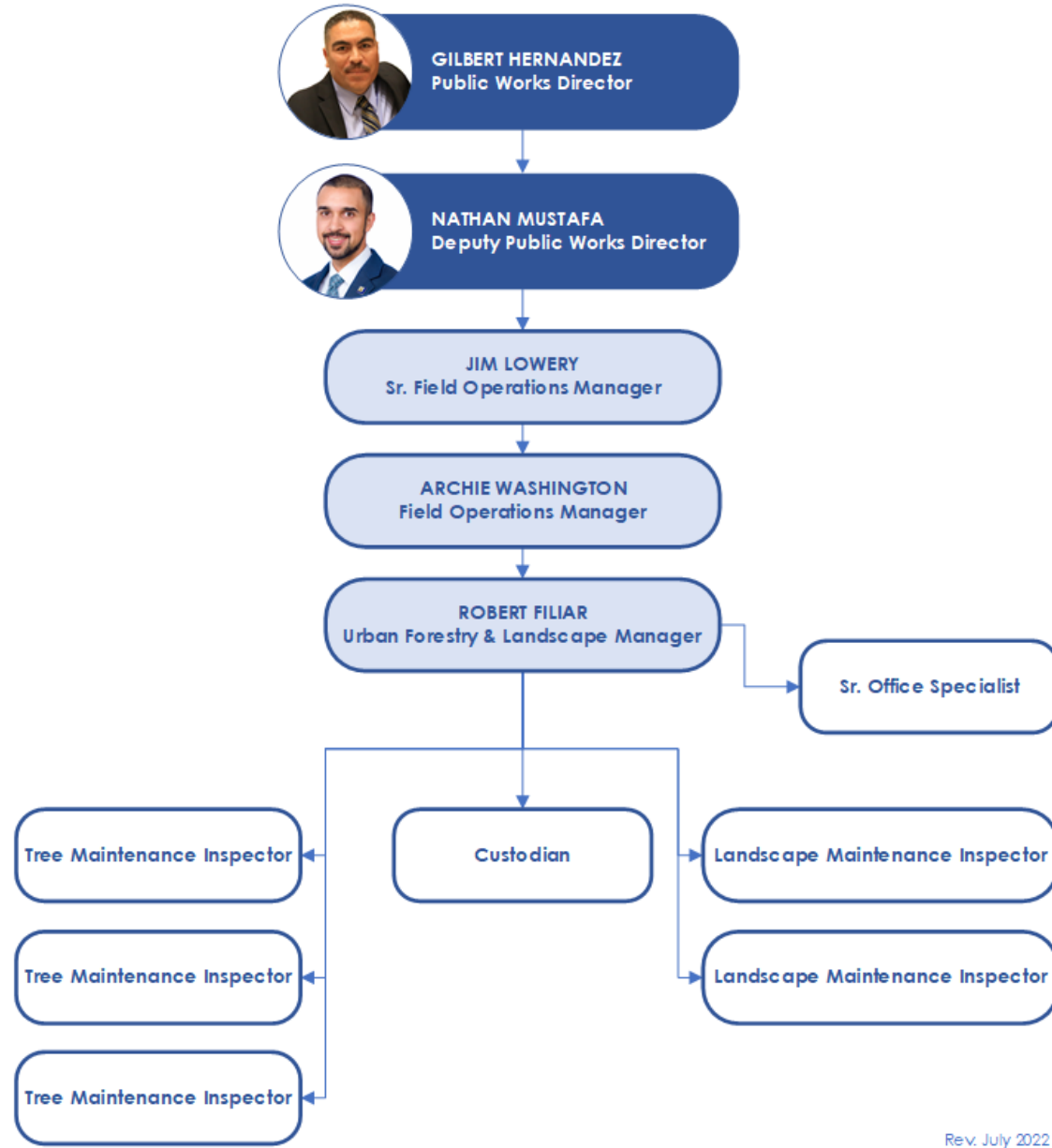
### PUBLIC WORKS, URBAN FORESTRY & LANDSCAPE

#### ORGANIZATIONAL CHART

The Urban Forestry Division is responsible for the oversight of landscape in public right-of-ways, reverse frontages and medians throughout the City of Riverside.

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## APPENDIX C – Grid Trimming Map

DRAFT