2020 Town of Taos
Community Tree Care Plan

PROPOSAL FOR SUSTAINING A HEALTHY AND VIBRANT COMMUNITY URBAN FOREST

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Special thanks to the Taos Tree Board and the members of the public, past and present, who have prioritized the planting and caring for trees within the Taos Valley. Without your dedicated efforts, the community landscape would look much different than it does today.

Executive Summary

The Town of Taos has taken the first step to secure a healthier tree canopy through the creation of a tree board, organized and appointed by the Taos Town Council in May 2015. The Taos Tree Board, composed of citizen volunteer members, is tasked with advocating for the care of trees in our community. The

This photograph shows a large cottonwood tree being removed after complete failure. Location: Burch Street April 5, 2016, Photographer Paul Bryan Jones

Taos Tree board is dedicated to the enhancement and protection of the urban forest and other public green spaces in Taos. The Taos Tree Board supports and promotes Taos' urban forest by acknowledging the major contributions that trees have on our everyday life such as public health and safety, increased economic and spiritual value, improved local food security, wildlife habitat, as well as climate change resiliency. By fostering a culture of collaboration and civic pride between both public and private stakeholders, the Town of Taos will prioritize educational outreach, progressive planning, and proactive maintenance in hopes of better informed decisions related to public trees and the greater urban tree canopy in Taos.

As of today, over 5000 trees have been identified, mapped, and categorized by size, location, and health through our plaza, parks, and historical districts. To further that effort, the Taos *Community Tree Care Plan* aims to be the key document for managing, maintaining, protecting, preserving, and planting trees within the Town of Taos.

Many of the trees in Taos have been standing for many years including a large number planted in 1912 by Alvin Burch. A number of these historical trees are considered over-mature for their species and residing in prominent locations of concern. In addition, the built environment has transitioned from open space and irrigated agricultural lands to impervious urban environments consisting of roads and buildings. Invasive tree species such as Siberian Elm and Russian Olive are hearty survivors in the semi-arid urban environment, yet their contributions to the Taos tree canopy are a mixed blessing. Many of the current management concerns are focused on the control of these aggressive species.

Acequias (irrigation canals) traditionally have been used in northern New Mexico to convey surface water from rivers to crop land in the valleys. This shared water system allowed for Taos to become an oasis in an otherwise dry arid region. Unfortunately, the acequia network in the town is threatened from encroaching development and transition of land from agricultural to residential and commercial. The town is actively working to preserve its acequia heritage, but the community must become more aware of a proactive approach that is now required to manage and care for trees in our town. A community-based tree care plan can provide the tools for sustainable management processes to help maintain our tree canopy into the future.

A Taos Community Conservation Planning Meeting; County residents, local government officials, NGO's, and stakeholders gather to learn about the Taos Community Conservation Plan, Photographer Paul Bryan Jones

Executive Summary

This community-based tree care plan will focus on two basic principles: caring for what we have, and planting for the future. This plan details specific goals and objectives for tree inventories, tree risk management, tree protection and tree pruning standards. In addition, this document will include a Tree Planting Program to address appropriate tree species and location, the importance of tree species diversity throughout an urban canopy, and how to prepare for a future changing climate.

This document has been created over the past two years, with support from the Taos Town Council, the Taos Planning Commission, and the Taos Planning and Zoning Department. The Taos Tree Board has conducted public meetings and interviews with community members and interested stakeholder groups who all provided input in order to better compile an effective community tree care plan. The partnerships with local businesses, community members, government agencies, green organizations and youth education groups are developing, and our journey for a community-based tree management plan is transpiring. Trees are now a focal point in government policies, school events, and community celebrations.

Taos Tree Board Vision Statement

The Taos Tree Board supports and promotes Taos' Urban Forest by acknowledging the major contributions that trees have on our everyday life such as public health and safety, increased economic and spiritual value, improved local food security, wildlife habitat, as well as climate change resiliency. By fostering a culture of collaboration and civic pride between both public and private stakeholders, the Taos Tree Board will prioritize educational outreach, progressive planning, and proactive maintenance in hopes of better informed decisions related to public trees and the greater urban tree canopy in Taos.

Taos Tree Board Mission Statement

The Taos Tree Board will support urban and community forestry in Taos through active research, management, education, and outreach.

State of the Community Forest

The goal of the Taos Community Tree Care Plan is to set the foundation for a sustainable community forestry program. **The plan focuses on protecting, preserving, and managing a vibrant and healthy tree resource for the benefit of the overall community by identifying administrative, educational, political, and best management goals surrounding tree canopy preservation.** The plan gives citizens and community decision makers a clear set of prioritized recommendations to accomplish these goals.

With the completion of recent tree surveys, the town now understands the locations and conditions of trees within our plazas, parks, and historical districts. With increasing predictions of long term and exceptional drought, our waterways and seasonal rains will remain unreliable in sustaining our old, large and water-demanding tree species. With growing public awareness towards the values and benefits of community trees and how they provide a better 'quality of life', citizens and stakeholders can utilize the community-based tree care plan to support healthier tree canopies within the Town of Taos.

The Tree Care Plan strives to provide a better understanding for all property owners and managers regarding proper tree selection, planting, and care. This newly developed comprehensive tree care plan will also focus on administrative and management needs, education and training for citizens and public workers, alternative sources of program funding, and support for our recently established Town of Taos Tree Board.

Historical Photo of Paseo del Pueblo Norte—looking North towards Taos Pueblo

Introduction

Community Forests are vital to the health and beauty of public spaces and improve the overall quality of life for residents. A healthy thriving tree canopy helps to create a strong sense of place for residents and visitors alike. The Community Forest (or Urban Forest used interchangeably) consists of street trees, the landscaping around buildings and homes, the vegetation in commercial areas, and plants in our plaza and parks. Community Forests also include wetlands, vegetation along rivers and streams, wildlife habitats, and soils within our urban environments. Trees are prominent components of these systems and are proven to improve the quality of life, offering countless benefits for Taos and its residents including cooling buildings and pedestrian areas from the sun and wind, increasing property values, reducing air pollution, and adding beauty to the town (Silver City 2013). This document strives to demonstrate how changes can be made to improve the ability for the town to maintain this valuable resource.

History

Taos was settled by the Puebloan people over 5000 years ago. The Puebloans utilized the abundant water sources and traditional irrigation methods to increase agricultural production to a point that allowed settlements supporting thousands of people throughout the Rio Grande Valley. Spanish settlers arrived in 1540 with the Francisco Vasquez de Coronado Expedition searching for the Seven Golden Cities of Cibola. Although Coronado did not discover the golden cities, they did discover a valley rich with potential for agricultural production. These early Spanish settlers expanded systems of farming and ranching in the Taos valley, leading to a diverse culture of Hispano, Native American, and Anglo-European working to cultivate the land into agriculture. A focal point for this thriving activity occurred in the Taos Plaza; a place that functioned as a traditional community gathering place within the public domain since its creation in the 1880's.

From 1890 - 1920, community residents planted trees near the plaza and the acequias which ran along roads and through private estates. Seasonal rains provided the supplemental moisture to sustain a healthy community forest. Large beautiful cottonwoods including Lanceleaf, Lombardy, Rio Grande, and White Poplar species, were introduced and thrived under these moist conditions, yet these tree species demand large amounts of water for survival, leading to current conditions of stress and decline. The last major community tree plantings of Siberian Elm and White Poplar trees occurred in the 1960's. Siberian Elm is now considered an invasive species in the region, despite the mixed array of benefits the trees provide.

Taos became well known for its attractive trees and continues to attract artists and writers from around the world to this day. Many of these older trees are now very large, over-mature, and failing. More than 20 large trees have fallen in recent years, signaling an urgent need to address the problem. We are at a tipping point with temperatures increasing, winds blowing harder and for longer periods, and increasing levels of extended drought. There is now a strong need to implement a plan for public safety and tree replacement. With a community tree care plan we can be proactive in our community efforts and continue the efforts of the communities of the past.

Town of Taos Community Tree Care Plan for Public Trees

The Town of Taos recognizes that it needs to better manage its trees and community forest. Both Town staff and the community make the connection that it's necessary to maintain trees in order to realize the numerous benefits to the community.

- Provides shade and a cooling effect within our communities. Buildings are cooler, and pedestrian areas are more walkable for longer periods during hot months
- Mitigates seasonal wind effects and improves air quality
- Extends and improves wildlife habitat
- Increases property value
- Reduces storm-water runoff and erosion

For more information, see Appendices, Urban Tree Benefits.'

Intersection of Kit Carson Road and Dragoon Lane looking East

Goals

The goals of the community forestry strategic plan were developed based on feedback from members of the public at a number of open house sessions. Over 100 people participated in the development of the below goals with the aim of helping the Town and the Community prioritize and address steps for a healthier community forest.

There are currently six goals:

Goal 1: Grow a sustainable urban forest in the Town of Taos

Goal 2: Increase collaboration with regional stakeholders

Goal 3: Increase education programs available to the public

Goal 4: Develop heritage tree program

Goal 5: Connect with Taos' Agricultural Heritage

Goal 6: Establish a functional leadership structure for tree care decision makers

Goal 1

Grow a sustainable urban forest in the Town of Taos

Objectives and Strategies:

Objective 1: Increase and diversify the tree canopy though regular tree plantings and appropriate tree removal

Strategy 1: Implement bi-annual tree plantings on public property

Strategy 2: Develop programs to find creative ways to add trees (small or large) to existing developments and public landscapes

Strategy 3: Develop programs in conjunction with partner agencies to help encourage private tree plantings on properties adjacent to town owned lands

Strategy 4: Implement a tree removal program for hazard trees identified as high and medium priority and located on public property

Objective 2: Identify and protect high value trees by requiring that public tree maintenance adhere to ISA Best Management Practices (BMPs)

Strategy 1: Require that all public tree maintenance comply with ISA standards for tree care related to planting, pruning, inspections, disease, removal, replacement, etc.

Strategy 2: Identify private trees with high value in the Town limits and work with landowners to protect any such assets by advocating for preventative care

Strategy 3: Work with private landowners to facilitate the transfer of educational materials and recommendations for high value trees located on private property

Objective 3: Enhance existing trees by developing programs that encourage healthy growing environment

Strategy 1: Coordinate with local partners to develop policies related to water availability for landscaping projects, including traditional water conveyance methods such as the Taos Valley Acequia System

Strategy 2: Develop comprehensive land use policies to address soil drainage, soil compaction, site health, landscaping neglect, and other limiting factors that could affect tree growth for residential commercial properties within the Town

Goal 2

Increase Collaboration with Regional Stakeholders

Objectives and Strategies:

Objective 1: Work with prospective land and real estate developers to suggest specific trees to help diversify the urban canopy

Strategy 1: Identify areas of low canopy diversity located on public lands, as well as adjacent private properties

Strategy 2: Provide suggestions to developers related to trees and shrubs best suited for the area in question

Strategy 3: Develop additional Land Use Regulations for mitigation of invasive species for new development (Landscaping Ordinance)

Objective 2: Work with NMDOT and others to optimize and utilize the designated right-of-way to enhance tree canopy coverage

Strategy 1: Develop policies related to design of new facilities and retrofitting of existing facilities focused on design, tree plantings, storm water harvesting, etc.

Strategy 2: Work with nonprofit and local organizations to develop a tree planting organization to aid with tree plantings in Road and Utility ROW

Goal 3

Increase education programs available to the public

Objectives and Strategies:

Objective 1: Educate the public about the quantifiable and unquantifiable values of trees

Strategy 1: Implement public outreach campaign related to education and promotion of the societal benefit of trees

Strategy 2: Complete an economic study to better understand any potential increased land values associated with the planting of trees and shrubs

Objective 2: Develop a program to educate and encourage Best Management Practices for tree maintenance (pruning, thinning, removal, replacement, etc.) for both Public and Private Trees

Strategy 1: Provide quarterly training sessions related to the above issues

Strategy 2: Create a BMP document to distribute to landowners to discuss BMP for Private trees

Strategy 3: Develop joint training programs for regional stakeholders, including NMDOT, CenturyLink and KC Electric

Strategy 4: Continue free pruning events, with a renewed focus on fruit tree and orchard maintenance

Strategy 5: Encourage public attendance of tree board educational events by providing at least two free workshops per year

Objective 3: Identify possible educational opportunities surrounding eradication of invasive species

Strategy 1: Create a building permit handout for all residential and commercial construction, specifically addressing the voluntary or mandatory mitigation of invasive species

Strategy 2: Develop a rating system for Siberian Elm trees, which allow the value of the tree to be considered in relationship to the urban forest. Trees that are not considered valuable should be removed or addressed prior to issuance of building permit

Goal 4

Develop Heritage Tree Program

Objectives and Strategies:

Objective 1: Develop, in conjunction with partnering agencies and organizations, educational outreach programs for heritage trees

Strategy 1: With partners, develop an Adopt-a-Tree Program

Strategy 2: Analyze canopy and develop priority list of new heritage tree nominations

Strategy 3: With partners, develop a digital tree tour / walking map and signage

Strategy 4: Monitor neighborhood Heritage trees through an annual visit that will include a diameter measurement, photographs and a health assessment

Strategy 5: Design a web page to report historical or culturally significant trees in the community

Objective 2: Work with the Town and other partners, to develop a comprehensive list of possible Heritage Trees for future nomination

Goal 5

Connect With Taos Agricultural Heritage

Objectives and Strategies:

Objective 1: Work with partners to increase food security in the Taos Region

Strategy 1: With Partners, work to identify existing orchards and urban street fruit trees

Strategy 2: With Partners, work to identify broken links in the acequia system that may limit orchard irrigation or expansion

Strategy 3: Identify existing town properties that lack fruiting trees or shrubs entirely

Strategy 4: Research funding mechanisms and possible liabilities for additional fruit tree plantings on public property

Objective 2: Work with acequia associations to revitalize local ditches within the Town of Taos to help with natural irrigation methods

Strategy 1: Identify local partners within the acequia commissions, including mayordomos and parciantes

Strategy 2: Identify Town owned properties with water rights, which could function as an orchard or nursery for planting programs within the Town

Goal 6

Establish a functional leadership structure for tree care decision making

Objectives and Strategies:

Objective 1: Continue collaborative work between the Town, the Taos Tree board, and other local partners to help make decisions in relationship to development and building permits

Strategy 1: Continue quarterly meetings of the Taos Tree Board

Strategy 2: Empower the Taos Tree Board or create an Urban Forester Position within the town to implement this plan

Strategy 3: Modify Taos Tree Board decision making structure as necessary to accommodate Town of Taos zoning decisions.

Objective 2: Determine which departments would be affected by the decision making process

Objective 3: Revisit existing Ordinance and Regulations

Strategy 1: Work with partners to identify regulatory weaknesses or inconsistencies in relationship to the Tree Care Plan and existing laws and regulations.

Possible Regional Partners:

Non-Profit Organizations (Amigos Bravos, Taos Land Trust, etc)

Garden Clubs
Civic Groups
Taos County Association of Realtors
Land developers and building contractors
Utility Companies (KC Electric, CenturyLink, etc)
NMDOT
New Mexico State Forestry
Taos Valley Acequia Association
Taos School District
Taos Pueblo

Conclusion

The Taos Community is not only enthusiastic about its culture and history, but also about its trees. The community forest has become a treasured asset while the community recognizes the need for perpetual care. The Town of Taos administration requested direction on how to build a sustainable community forest program. Adequate funding and resources, when committed to a well-organized management program, are critical to cultivating a sustainable community forest (Shoreline 2014). The Town is searching for ways to begin implementing strategies and further develop a program and budget proposal for the future. Bearing in mind all components and viewpoints of a proposal, Town staff, the Taos Tree Board, and interested citizens built a comprehensive set of goals for community forest management planning. Of the key objectives, Taos collaborators identified priorities to focus short-term strategies. These strategies are suggested here as short-term tasks that are relatively cost effective in moving Taos towards a successful and efficient community forestry program to support a healthy and sustainable community forest.

Tree Surveys

Obtain a comprehensive understanding of the public tree resource to properly direct its management.

Tree Planting Program

Establish a diverse tree population adapted to the requirements of the region and to the urban environment. Factor in climate change predictions when choosing appropriate species.

Community Forest Health Management Plan

Implement a comprehensive community forest management plan with specific maintenance schedules.

Education and Outreach

Maintain an active public outreach campaign to communicate the growth of benefits versus risks when trees are properly managed.

Appendices

Urban Tree Benefits

The benefits of urban trees, sometimes called "ecosystem services," include environmental, economic and social values. These are direct or indirect benefits provided by urban forests and individual trees that are often dismissed or underrepresented when valuing infrastructure because they don't readily have an associated dollar value. Types of tree benefits are listed and briefly described below. While none alone are a "silver bullet," when combined, trees and the collective urban forest are an impressive part of the solution for sustainability during urban planning and community development.

Environmental Services of Urban Trees:

· **Air Quality** – trees absorb, trap, offset and hold air pollutants such as particulate matter, ozone, sulfur dioxide, carbon monoxide and CO2.

· **Greenhouse Gases (GHGs) and Carbon** – trees store and sequester carbon through photosynthesis as well as offset carbon emissions at the plant due to energy conservation.

· **Water Quality and Stormwater Runoff Mitigation** – trees infiltrate, evapotranspire and intercept storm water, while also increasing soil permeability and groundwater recharge.

· **Erosion control** – tree roots hold soil together along stream banks and steep slopes, stabilizing soils and reducing sedimentation issues in water bodies.

· **Urban heat island effect** – trees cool the air directly through shade and indirectly through transpiration, reducing day and nighttime temperatures in cities.

· **Increased wildlife habitat** – Trees create local ecosystems that provide habitat and food for birds and animals, increasing biodiversity in urban areas.

Economic Services of Urban Trees:

· **Property value** – numerous studies across the country show that residential homes with healthy trees add property value (up to 15%).

· **Energy conservation** – trees lower energy demand through summer shade and winter wind block, additionally offsetting carbon emissions at the power plant.

· **Retail and Economic Development** – trees attract businesses, tourists, and increase shopping.

· **Storm water facilities** – trees and forests reduce the need for or size of costly gray infrastructure, and help to prevent flooding.

· **Pavement** – tree shade increases pavement life through temperature regulation (40-60% in some studies).

Urban Tree Benefits

Social Services of Urban Trees:

· **Public health** – trees help reduce asthma rates and other respiratory illnesses. Safe walking environments – trees reduce traffic speeds and soften harsh urban landscapes.

· **Crime and domestic violence** – urban forests help build stronger communities. Places with nature and trees provide settings in which relationships grow stronger and violence is reduced.

· **Connection to nature** – trees increase our connection to nature.

· **Noise pollution** – Trees reduce noise pollution by acting as a buffer and absorbing up to 50% of urban noise (U.S. Department of Energy study).

From: Benefits of Trees and Urban Forests: A Research List http://www.actrees.org/files/Research/benefits_of_trees.pdf, Published August 2011

New Tree Planting

Developed by the International Society of Arboriculture (ISA), a non-profit organization supporting tree care research around the world and dedicated to the care and preservation of shade and ornamental trees. For further information, contact: ISA, P.O. Box 3129, Champaign, IL 61826-3129, USA. E-mail inquiries: isa@isa-arbor.com

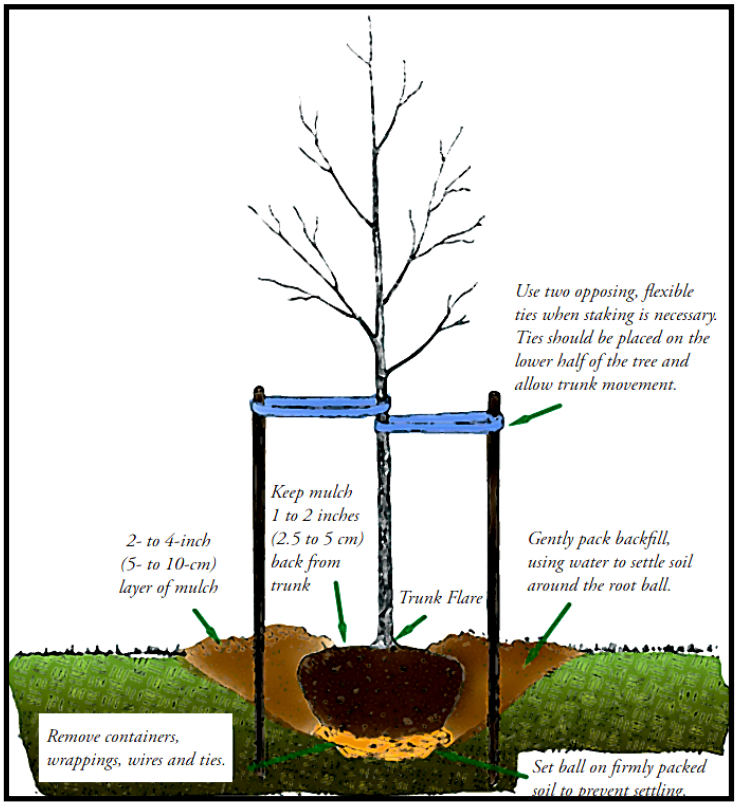
Purchasing a tree is a lifelong investment. How well this investment grows depends on the type of tree selected and the planting location, the care provided during planting, and the follow-up care after planting.

When to Plant

Ideally, trees are planted during the dormant season — in the fall after leaf drop or in early spring before budbreak. Weather conditions are cool and allow plants to establish roots in the new location before spring rains and summer heat stimulate new top growth. Healthy balled and burlapped or container trees, however, can be planted throughout the growing season if given appropriate care. In tropical and subtropical climates where trees grow year round, any time is a good time to plant a tree, provided that sufficient water is available.

Planting Stress

Planting Stress Balled and burlapped trees lose a significant portion of their root system when dug at the nursery. As a result, trees commonly exhibit what is known as "transplant shock." Transplant shock is a state of slowed growth and reduced vitality following transplanting. Container trees may also experience transplant shock, particularly if they have circling or kinked roots that must be cut. Proper site preparation, careful handling to prevent further root damage, and good follow-up care reduces transplant shock and promotes faster recovery. Carefully follow the nine simple steps below to help your tree establish quickly in its new location. Note: Before you begin planting your tree, be sure you have located all underground utilities prior to digging.



http://treesaregood.org/portals/0/docs/treecare/New_TreePlanting.pdf

1. **Identify the trunk flare.** The trunk flare is where the trunk expands at the base of the tree. This point should be partially visible after the tree has been planted (see diagram). Remove excess soil from the top of the root ball prior to planting if the root flare is not visible.
2. **Dig a shallow, broad planting hole.** Holes should be 2 to 3 times wider than the root ball, but only as deep as the root ball. Digging a broad planting pit breaks up the surrounding soil and provides newly emerging tree roots room to expand.
3. **Remove the containers or cut away the wire basket.** Inspect container tree root balls for circling roots. Straighten, cut, or remove them. Expose the trunk flare, if necessary.
4. **Place the tree at the proper height.** Take care to dig the hole to the proper depth — and no more. The majority of a tree's roots develop in the top 12 inches (30 cm) of soil. If the tree is planted too deep, new roots will have difficulty developing because of a lack of oxygen. In poorly drained or heavily clayed soils, trees can be planted with the base of the trunk flare 2 to 3 inches (5 to 7.5 cm) above grade. When placing the tree in the hole, lift it by the root ball, not the trunk.

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5. Straighten the tree in the hole. Before backfilling, have someone view the tree from several directions to confirm it is straight. Once planted, it is difficult to reposition the tree.

6. Fill the hole gently, but firmly. Pack soil around the base of the root ball to stabilize it. If the root ball is wrapped, carefully cut and remove any fabric, plastic, string, and/or wire from around the trunk and root ball to prevent girdling and to facilitate root growth (see diagram). Fill the remainder of the hole, firmly packing the soil to eliminate air pockets that may dry out roots. Further reduce air pockets by watering periodically while backfilling. Avoid fertilization at the time of planting.

7. Stake the tree, if necessary. Studies have shown that trees establish more quickly and develop stronger trunk and root systems if they are not staked at the time of planting. Staking may be required, however, when planting bare root stock or planting on windy sites. Stakes may also offer protection against lawn mower damage and vandalism. One or two stakes used in conjunction with a wide, flexible tie material on the lower half of the tree will hold the tree upright and minimize injury to the trunk (see diagram), yet still allow movement. Remove support staking and ties after the first year of growth.

8. Mulch the base of the tree. Mulch is organic matter spread around the base of a tree to hold moisture, moderate soil temperature extremes, and reduce grass and weed competition. Common mulches include leaf litter, pine straw, shredded bark, peat moss, or composted wood chips. A 2- to 4-inch (5- to 10-cm) layer is ideal. More than 4 inches (10 cm) may cause a problem with oxygen and moisture levels. Piling mulch right up against the trunk of a tree may cause decay of the living bark. A mulch free area, 1 to 2 inches (2.5 to 5 cm) wide at the base of the tree, reduces moist bark conditions and prevents decay.

9. Provide follow-up care. Keep the soil moist, but not waterlogged. Water trees at least once a week, barring rain, and more frequently during hot, windy weather. When the soil is dry below the surface of the mulch, it is time to water. Continue until mid-fall, tapering off as lower temperatures require less-frequent watering.

Other follow-up care may include minor pruning of branches damaged during the planting process. Prune sparingly after planting and delay necessary corrective pruning until a full season of growth in the new location has occurred.

Completing these nine simple steps will maximize the likelihood that your new tree will grow and thrive in its new home. When questions arise regarding your tree, be sure to consult your local ISA Certified Arborist or a tree care or garden center professional for assistance.

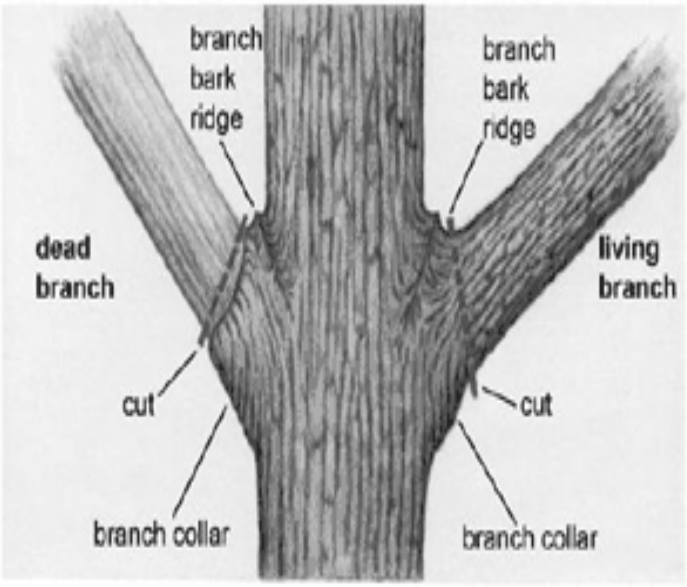
Tree Pruning Guide

Pruning

- Limit at planting time to removing broken, crossing, rubbing branches, alleviating structure problem
- Remove basal sprouts
- Encourage a central leader
- Leave lower branches on the tree to stimulate root and trunk diameter growth

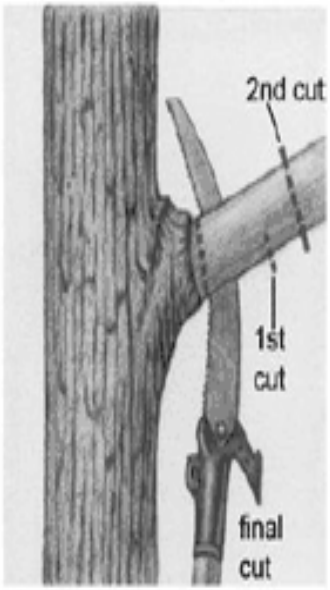
Common Pruning Mistakes

- Do not thin the tree to compensate for root loss
- Do not raise lower limbs, these will help add girth to trunk and root growth
- Pruning paints and sealers do not prevent decay or promote rapid closure, not recommended
- Pruning Flush cutting branch back to trunk is incorrect, it wounds the trunk and causes decay.
- Make the cut along branch collar.

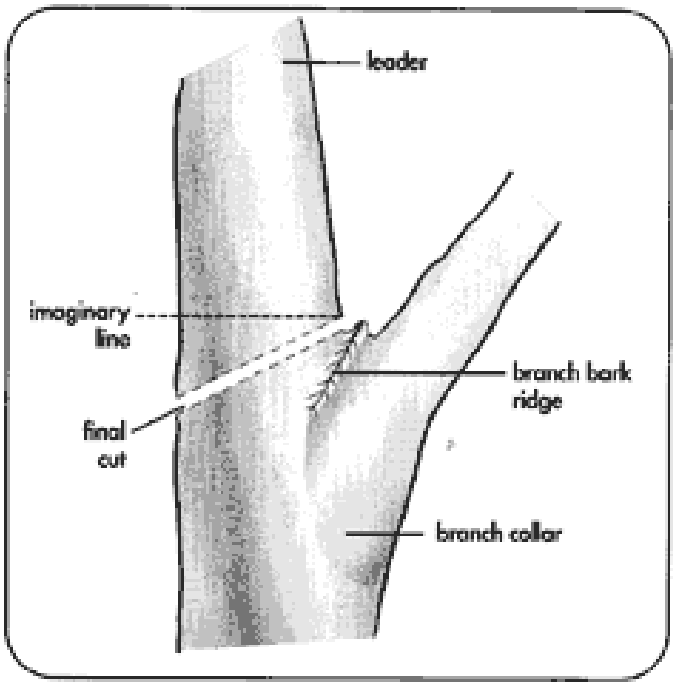


Targetting the cut

Cutting a small branch



Cutting a larger branch



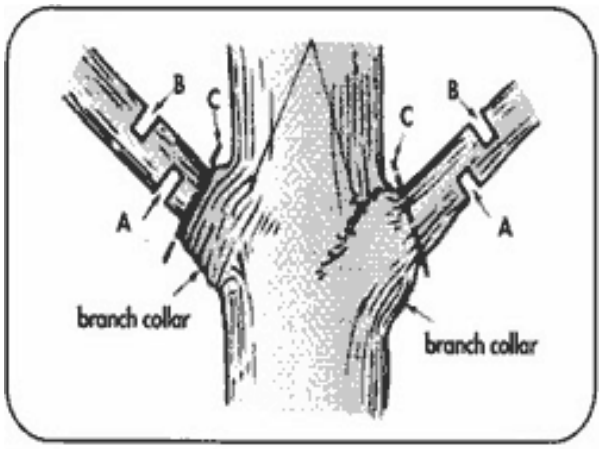


Figure 8.3 Pruning principles. The first cut (A) undercuts the limb. The second cut (B) removes the limb. The final cut (C) should be just outside the branch collar to remove the resultant stub.

Best Management Practices for Trees in Taos

This guidebook is key for: proper tree care, tree health and choosing the right trees in the right place, for the "life of the tree", and addressing different microclimates through the Taos Area.

Tree Selection and Placement

Why are you planting the tree?

Tree attributes: Shade, Color, Windbreak, Wildlife, and Beauty

Site walks- in every direction, human activities,

Site Conditions: soil moisture, drainage, soil compaction, soil profile, space constraints

View out the windows View around the property

Form, Size and Function- food, leaves, shape, thickness, barks, visualizing the mature size of the tree, exposure,

Tree species- recommended trees for Taos Area, personal preferences

Tree profiles – hardiness zone- microclimates with the Taos Area, Pest Problems

Buying Quality Trees

Tree structure

Tree root flare

Correcting root issues

Grafting site

Nursery care

Tree Planting

Depth of hole- measure from first primary root to the bottom of the container

Width of hole- two to three times the width of the container (2.5x)

Root ball from the container- cut container off

Ball & Burlap- cut bottom off the cage, remove at least half the cage; top 8-10 inches

Root pruning- look for broken or circling roots

Back filling the hole- bottom 2 to 3 inches' pack around base- stabilizes tree in hole

Staking- for the first and/or second year.

Irrigation- proper location

Mulching- 2 to 4 inches' deep and 8-12 inches from the trunk, out past the dripline

Recommended Trees for Taos

Other Deciduous Shade, Street, and Specialty Trees may be appropriate.

Alder:
New Mexico Alder-*Alnus oblongifolia*

Ash:
Autumn Purple Ash- F*raxinus americana "Autumn Purple*
Manchurian Ash (Mancana Ash)- *Fraxinus mandshurica* 'Mancana
White Ash- *Fraxinus Americana*

Birch:
European-*Betula pendula*, Water Birch- *Betula occidentalis*

Elms:
American Elm-*Ulmus americana*
Accolade Elm- *Ulmus 'Morton' Accolade*
Emerald Sunshine Elm- *Ulmus davidiana var. japonica 'JFS-Bieberich'*
Frontier Elm- *Ulmus × 'Frontier*
Lacebark Elm- *Ulmus parvifolia*

Flowering Ornamental Trees:
Flowering Apple-*Malus spp.,*
Flowering Cherry- *Prunus x yedoensis, Prunus virginiana* 'Canada Red'
Flowering Pear-*Pyrus calleryana* (I), *Pyrus calleryana* 'Chanticleer'
Flowering Plum- Purpleleaf Plum-*Prunus cerasifera*

Fruit Trees:
Apples, Apricot, Cherries, Chokecherries, Elderberry, Peaches, Pears, Plums,
Serviceberry- *Amelanchier spp*.

Hawthorn:
Crataegus spp

Honey Locust:
Gleditsia triacanthos inermis varieties

Linden:
Little Leaf- *Tilia cordata*

Locust:
Black Locust-*Robinia pseudoacacia*
New Mexico Locust-*Robinia neomexicana*

Maples:

Rocky Mountain Maples-*Acer glabrum*, *Acer grandidentatum*

Box Elder-*Acer negundo*, *Acer negundo* 'Sensation'

Hot Wings- *Acer tataricum* 'GarAnn'

Oaks:

Quercus spp.

Bur Gambel Oak- *Quercus marcrocarpa x gambelli*

Gamble Oak- *Quercus gambelli*

Populus:

Lombardy Poplar-*Populus nigra* 'Italica'

Narrowleaf Cottonwood-*Populus angustifolia*

Lanceleaf Cottonwood- *Populus acuminata*

White (silver) Poplar Bigtooth Aspen-*Populus alba*

Sycamore:

London Plane Tree, *Platanus x acerifolia*

Willow:

Peachleaf willow-*Salix amygdaloides*
Weeping willow-*Salix babylonica* (and other x weeping willow species)
Globe Navajo willow-*Salix matsudana* 'Navajo'
Shining Willow- *Salix lucida*

Evergreen Trees

Douglas Fir

Pseudotsuga menziesii

True Firs:

White Fir-*Abies concolor*
Noble Fir- *Abies procera*

Juniper:

Single-seed (one-seed) juniper-*Juniperus monosperma*
Rocky Mountain juniper-*Juniperus scopulorum* varieties

Pines:

Bristlecone pine-*Pinus aristata*
Pinion Pine- *Pinus edulis*
Limber pine-*Pinus flexilis*
Austrian pine-*Pinus nigra* -
Ponderosa Pine- *Pinus ponderosa*
Southwest Pine- *Pinus strobes*

Spruce:

Blue spruce-*Picea pungens*
Engelmann spruce-*Picea engelmanni*

Prohibited Species:

Russian Olive- *Elaeagnus angustifolia*
Tamarisk- *Tamarix spp.*
Siberian Elm- *Ulmus pumila*

Town of Taos Tree Survey

Introduction:

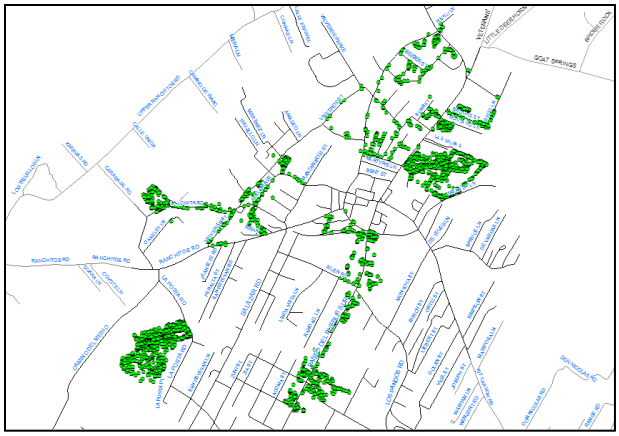
A tree survey is the first step in the process towards developing an Urban Forest Management Plan. If it is well organized and accurate, the data becomes a valuable assessment tool for managing the urban forest and can be used to address issues and hazards as well as guide long range planning. It is important to promptly continue with the work on the management plan while the data is still current. Follow up monitoring and periodic surveys are also necessary to keep the data current into the future.

Methods:

Between June of 2015 and July of 2017 data on over 5000 trees was collected on the Town of Taos urban tree canopy. The focus was in the historic district on publicly managed trees, but some data was collected on private trees to give a more comprehensive look at the condition of the community forest. The data collection was led by certified arborists employing both volunteers and paid assistants to walk around and measure and evaluate the trees. The survey projects were funded through grants from EMNRD and NM State Forestry, including participation in a statewide research project aimed at assisting communities in their tree care strategies. The Town of Taos has access to this data in a GIS platform to assist in the management of the tree canopy.

Data Collected:

- **Genus and Species**
- **Diameter and Breast Height (DBH)**
- **Crown Height**
- **Crown Width**
- **GPS Location**
- **Trunk Condition**
- **Leaf Condition**
- **Sidewalk Conflict**
- **Wire Conflict**
- **Hazard potential**



Each green dot above represents a tree surveyed in the Town of Taos. Included in the Surveyed areas are large portions of the Historic District, Kit Carson Park, Rio Fernando Park, as well as trees along the main commercial corridor of Paseo del Pueblo.

What do Taoseños love about their Urban Tree Canopy?

This word cloud was created using the public feedback that was received during 2017 outreach efforts. The larger the word appears, the more times it was used in the public comment phase.

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