



TO: Commission Chair and Commissioners
FROM: Steve Wagner, Public Works Director
SUBJECT: Goleta Urban Forest Management Plan Draft Annual Report 2012-13

RECOMMENDATION:

Review and comment on the Goleta Urban Forest Management Plan Draft Annual Report 2012-2013.

BACKGROUND:

The City of Goleta initiated the development of an Urban Forest Management Plan to provide a guide for the long term preservation and enhancement of the urban forest within the City's jurisdiction. The Conservation Element of the City of Goleta's General Plan calls for the development and maintenance of a Public Urban Forest Master Plan that:

1. Describes and maps the resources;
2. Provides a vision statement;
3. Establishes measurable urban forest management goals and performance standards;
4. Presents a timeline for managing the Goleta Urban Forest; and,
5. Includes any additional information the City deems appropriate.

With the aid of a grant from the California Department of Forestry and Fire Protection, the City embarked upon a process for developing the Goleta Urban Forest Management Plan in 2011. With input from the public, consulting certified arborists, landscape architects, landscape management professionals, homeowners and other interested parties, the plan was completed. The City Council approved the Goleta Urban Forest Management Plan (GUFMP) on June 7, 2011.

The GUFMP provides a five year policy framework for how trees within public areas will be managed. The Goleta Urban Forest consists of all public and private trees, however this plan, deals with City trees and focuses on those trees which line streets, walkways, parks and other city-owned areas. The plan recognizes the environmental, economic,

and social benefits of Goleta's public trees, and identifies the many ways that City policies can gradually reshape a public urban forest to reflect Goleta's Urban Forest goals.

The GUFMP includes an initial five year implementation program. The intent of adopting such a plan is to create a living document that can be revised and updated as conditions change. Each section of the UFMP has an objective, measurable goal. One of the recommendations of the UFMP is the creation of an annual report to recognize progress made toward these Urban Forest goals and to identify those portions of the plan which require modification to meet the changing needs of the City's urban forest. A copy of the draft Annual Report is presented herein for the Commissioner's review and input.

DISCUSSION:

This is the City's first annual report on the implementation of the GUFMP and covers the period from July 1, 2012 – June 30, 2013. Staff has reviewed each section of the GUFMP and provided information on implementation actions to date. This includes recommendations and changes to the report, as appropriate.

The objectives of the Annual Report, as stated, are:

1. Include a section in the report for each item of the GUFMP that requires it (specified in the Performance Standard of each item.)
2. Recommend the addition or removal of items from the annual report as necessary.
3. Identify necessary changes to item in the GUFMP, and recommend them to be made in the next version of the Plan.
4. Identify any items in the GUFMP that are no longer necessary, and recommend their removal in the next version of the Plan.
5. Identify new items that may be necessary, and recommend their inclusion in the next version of the GUFMP.

Staff recommends that the Commission review the draft annual report and submit any comments at the next scheduled meeting.

Review By:

Approved By:

Deborah S. Lopez
City Clerk

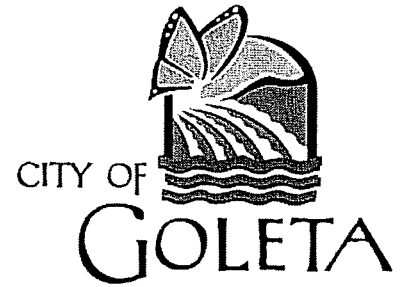
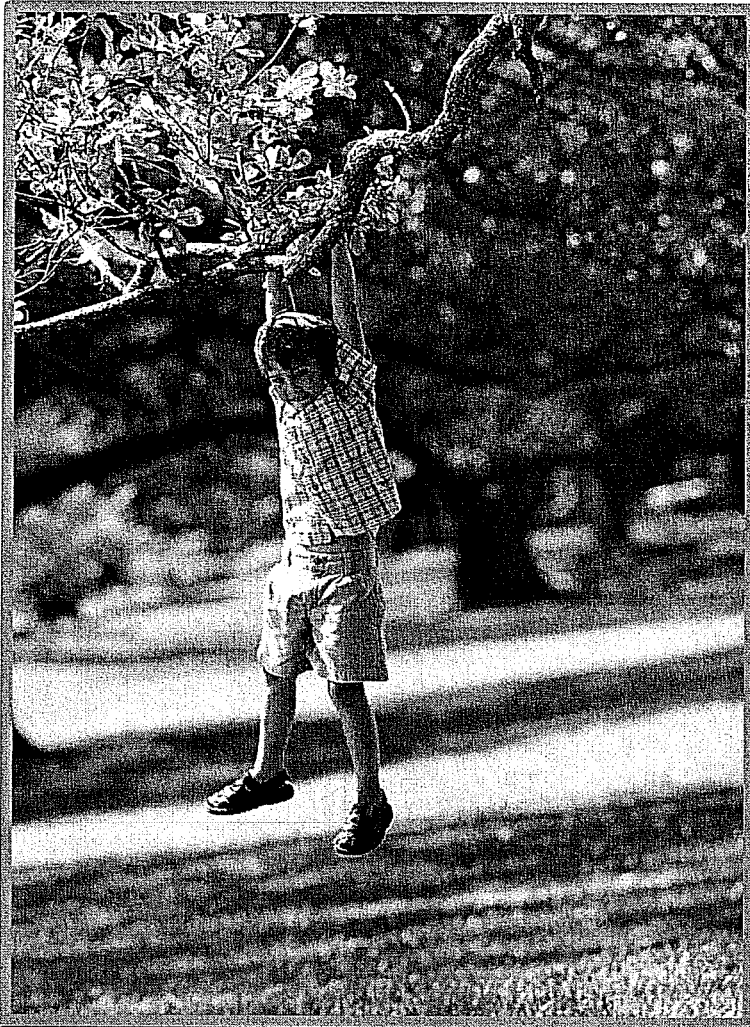
Steve Wagner
Public Works Director

ATTACHMENTS

1. Goleta Urban Forest Management Plan Draft Annual Report 2012-2013

ATTACHMENT 1

Goleta Urban Forest Management Plan Draft Annual Report 2012-2013



DRAFT
Annual Report
2012-2013

City of Goleta

Urban Forest
Management Plan

Date submitted: July 22, 2013

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1.0 Executive Summary

The City of Goleta initiated the development of the Urban Forest Management Plan to provide a guide for the long term preservation and enhancement of the urban forest within the City's jurisdiction. The Conservation Element of the City of Goleta's General Plan calls for the development and maintenance of a Public Urban Forest Master Plan that describes and maps the resources, provides a vision statement, establishes measurable urban forest management goals and performance standards, presents a timeline for managing the Goleta Urban Forest, and includes any additional information the city deems is appropriate.

With the aid of a grant from the California Department of Forestry and Fire Protection, the City embarked upon a process for developing the Goleta Urban Forest Management Plan. With input from the public, consulting certified arborists, landscape architects, landscape management professionals, homeowners and other interested parties, the plan was completed. The City Council approved the Goleta Urban Forest Management Plan on June 7, 2011.

The GUFMP provides a five year policy framework for how trees within public areas will be managed. The Goleta Urban Forest consists of all public and private trees, however this plan deals with City trees, focusing on those trees which line streets, walkways, parks and other city-owned areas. The plan recognizes the environmental, economic, and social benefits of Goleta's public trees, and identifies the many ways that City policies can gradually reshape a public urban forest to reflect Goleta's Urban Forest goals.

The UFMP includes an initial five year implementation program. The intent of adopting a UFMP is to create a living document that can be revised and updated as conditions change.

Each section of the UFMP has an objective, measurable goal. One of the recommendations of the UFMP is the creation of an annual report to recognize progress made towards these Urban Forest goals and to identify those portions of the plan which require modification to meet the changing needs of the City's urban forest.

The objectives of the Annual Report, as stated, are:

1. Include a section in the report for each item of the Urban Forest Management Plan that requires it (specified in the Performance Standard of each item.)
2. Recommend the addition or removal of items from the annual report as necessary.
3. Identify necessary changes to item in the Urban Forest Management Plan, and recommend them to be made in the next version of the Urban Forest Management Plan.
4. Identify any items in the Urban Forest Management Plan that are no longer necessary, and recommend their removal in the next version of the GUFMP.

5. Identify new items that may be necessary, and recommend their inclusion in the next version of the Urban Forest Management Plan.

As identified above, staff has reviewed each section, provided information on implementation to date and made recommendations and changes as appropriate. This is the city's first Annual Report on the implementation of the UFMP and covers the period from July 2012 through June 30, 2013.

2.0 Vision Statement

A vision statement was adopted as part of the Urban Forest Management Plan. Currently, this vision statement adequately reflects the future direction of the Goleta Urban Forest:

Goleta's urban forest is a thriving and sustainable mix of tree species and ages that creates a contiguous and healthy ecosystem that is valued and cared for by the City and all of its citizens as an essential environmental, economic and community asset.

3.0 City Tree Inventory

The last comprehensive street tree inventory was completed in 2004. An updated, comprehensive street tree inventory (surveying of every tree) is currently under way by the Citywide Tree Maintenance contractor, United Pacific Services (UPS). UPS is in the process of logging and entering all trees located in the City of Goleta's public right of way using ArborPro, a computerized database inventory system. Using standards recognized by the International Society of Arboriculture, UPS performs a visual inspection and measures the circumference of each tree's trunk and obtains a photograph of the tree. They also inspect for disease or pests that may affect the health of the tree. This process will be performed on an ongoing basis.

The ArborPro system will allow the city to map and track each tree's location, history, maintenance, removal, and replacement. By June 2014, all tree information will have been entered into this database and the database will be turned over to the City of Goleta for referencing the tree inventory. The maintenance of the tree database will be the responsibility of the current Citywide Tree Maintenance contractor as part of their contract.

Due to the surveying work in progress, the current number of public trees in Goleta was not available at the time of this report. Please refer to Table 1 of the UFMP for the number of trees in Goleta.

4.0 GUFMP Overall Goals

4.1 Canopy Coverage

The urban tree canopy is defined as the layer of leaves, branches and stems of trees that cover the ground when viewed from above. The most recent canopy coverage calculation was performed in 2009 and included both public and private areas for a total of 19% overall canopy coverage in Goleta. The UFMP recommended that this number be recalculated every five years. Therefore, the next canopy coverage review is scheduled to be completed in 2014, subject to available funding.

The UFMP recommends implementing a policy of no net loss of City public tree canopy and further, to consider implementing a policy to increase the total percentage of canopy within the City by 1% over a 10 year period, from the current 19% to 20%. Per the UFMP, this may be accomplished by planting approximately 3,000 trees over a ten year period with canopy coverage reviewed every 5 years. There are many considerations to planting this amount of trees – tree purchase and maintenance budget, water resources, and land availability based on size of tree growth.

Given the potential budget impacts associated with this recommendation, no formal tree planting and/or canopy coverage policy has been adopted by Council at this time. The city's tree maintenance contractor is in the process of conducting a street tree inventory which is scheduled to be completed by June 2014. Updated totals of street trees were not available for this report, however, listed below are the number of trees which have been added to our inventory from large projects.

Since the GUFMP was adopted, there have been the following changes:

- Number of public street trees added: **854** (July 1, 2011 – June 30, 2013)
- Number of public street trees removed: **132** (July 1, 2011 – June 30, 2013)

Project Name	Number of Trees Added
Stow House Arboretum	4
Haskell's Landing	Under construction
Los Carneros Roundabout	37
Los Carneros Interchange	225*
Cabrillo Business Park	93
Courtyard Hotel	3
Cathedral Oaks Interchange	391
Goleta Valley Beautiful	92
City of Goleta	9
Total additions	854

*City is responsible for care and maintenance of these trees.

4.2 Age Diversity

The Goleta Urban Forest is categorized from generally mature to very mature. The majority of street trees were planted during the post World War II building booms in the 1950's and 60's with recent efforts to revegetate Goleta's parkways and open spaces with moderately to very long lived trees to help reduce the overall average age. The GUFMP recommends emphasizing a variety of ages of trees within the inventory, with an emphasis on species with a long life expectancy (longevity).

A healthy urban forest should have a large percentage of tree species that have average to very long lives. Average is defined as 50-100 years and long is greater than 100 years. In addition, it should have a majority of trees in the mature to very mature status, as older trees are the most environmentally beneficial. It should also be noted, however, that older trees have higher preventative maintenance costs and increased safety risks associated.

The UFMP recommends that a reassessment of the age distribution of City-managed trees be performed every five years. This reassessment will be completed in 2016. Currently, the Citywide Tree Maintenance contractor, United Pacific Services (UPS), is conducting an inventory of all street trees which is scheduled to be completed by June 2014. This will include a measurement of the trunk circumference which can be an indicator of the age of a tree and will give us a better understanding of the age distribution of our trees. Over time, the age diversity of the city's urban forest will improve through annual removal of mature trees and planting of new trees.

4.3 Species Diversity

Species diversity is important for disease and pest resistance, calculating the environmental benefits of canopy coverage, identifying sustainable native trees, assessing tree longevity, and resolving tree conflicts with hardscape.

The GUFMP recommends considering citywide street/park species diversity goals of 10% Cultivar, 20% Genus, and 30% Family to help protect the Goleta Urban Forest against diseases and other pests. Assessment of the current species, genus, and family distribution of all public trees managed by the city is unknown at this time but will be available upon completion of the inventory by UPS, the Citywide Street Tree Maintenance contractor for Goleta.

On March 18, 2013, City Council adopted the City Street Tree Planting Guidelines dated 12-8-09 to provide a guide for future street tree plantings. However, given the limited types of trees on

the current approved Street Tree List, species diversity may continue to be a concern into the future. Staff recommends a review and reconsideration of the Street Tree List for Goleta's Urban Forest to expand for all public areas such that improved species diversity may be achieved. Staff will seek input from the Public Tree Advisory Commission for reassessment of the approved street tree list upon completion of the street tree inventory by the Citywide Street Tree Maintenance Contractor. This is a future goal.

4.4 Tree Species Eligibility List

The UFMP recommended an eligibility list be adopted to list approved tree species which have been authorized by the City Arborist for all City owned areas. The adopted eligibility list would review characteristics of tree species that are potentially workable in Goleta and take into maximum environmental benefit, canopy coverage, native tree emphasis, longevity, sustainability, and increasing the diversity of species.

On March 18, 2013, the City Council adopted policy for Street Trees with the 'Street Tree Subcommittee Recommended Street Tree Planting List' and 'Street Tree Subcommittee Recommendations Outline Revised 12-8-09' to provide a working document and framework for types of new trees to be planted and methods to be used for planting trees within the City right of way. In the future, staff will seek input from the Public Tree Advisory Commission for creation of an expanded tree eligibility list for all public areas as recommended in the UFMP.

Currently, Planning and Public Works have distributed the City Street Tree Planting Guidelines 12-8-09 information by posting it on our city website and making copies available to the public and developers of new projects as part of their packet.

4.5 Right Tree, Right Place

The UFMP identifies the following issues related to the planting of public trees:

- a. Soil volume- Volume of soil available for rooting must be sufficient to support intended tree size.
- b. Diversity vs. Monoculture – Diversification of plantings as insurance against catastrophic failures such as insect and/or disease vectors, and to provide a diverse habitat for the insect and animal world
- c. Natives vs. Exotics – The soil and drainage characteristics of urban environments are different than those of trees in their native environment, so most trees are considered exotics in urban conditions.
- d. Tree Spacing - The general rule is to space trees 25 to 35 feet apart.
- e. Time and Trees – Instead of planting a large tree, use small trees (5 to 25 gallon) to allow for greater diversity and less planting cost.

The UFMP recommended improving the current procedures from a 'one size fits all' policy to a policy which considers the long term health and viability of a tree, and to consider a policy to address lower and non-pollen producing trees to reduce litter.

On March 18, 2013, the City Council adopted the City Street Tree Planting Guidelines Dated 12-8-09 and the Recommended Street Tree Planting List Dated 2-11-09 to provide a guide for future street tree planting. These guidelines have been used by City staff since 2009 for installation of street trees. The list includes 47 types of trees that are grouped by the minimum parkway width (planting area) that the listed tree could be planted in. The list also includes 20 trees that are not recommended as street trees for various reasons. While 27 of the recommended street trees included on the UFMP list are also included on the Street Tree Subcommittee list, there are several that are not on the Street Tree Subcommittee list that may be considered for use in street areas and/or other public areas in the future.

Listed within the UFMP Tree Species Eligibility List are minimum parkway width measurements which correspond to the Soil Volume column on the Approved Street Tree list. The list and the measurements are focused primarily on the selection of trees for narrow parkways and center medians. Strict adherence to the list would not allow for the planting of some indigenous trees (the Coast Live Oak and California Sycamore) in areas with ample room that are not medians or narrow parkways because larger areas are not specifically addressed in the list.

The basic criterion for tree location should follow a flexible "right tree, right place" policy that selects species appropriate for the specific conditions in which they are to be planted so as to minimize ongoing maintenance by city staff. However, given the limited types of trees on the current approved street tree list, this may continue to be a concern into the future. Staff recommends a review and reconsideration of the street tree list for Goleta's Urban Forest to expand for all public areas such that improved species diversity may be achieved. This is a future goal.

4.6 Early Tree Care

Young trees should be viewed as an investment over time. Young trees reach their full value as they mature and become structurally sound shade trees. Proper techniques are required to ensure the young trees will reach the mature stage and the first 3 years of a tree's life are critical. Proper tree planting style greatly affects the establishment of a tree, but with proper training and technique, mortality rates of young trees can be less than 4%.

The UFMP recommends adopting an early tree care program which implements proper tree planting and training techniques so that young trees will become established within two years of

planting and not exceed a 4% mortality rate. (A 3 -5% mortality rate can be expected for new trees within the first year of planting and 1% annually after that.)

The Citywide Street Tree Maintenance Contractor, UPS, is in the process of logging and entering all trees located in the City of Goleta's public right of way using ArborPro, a computerized database inventory system. This will give us a starting point for age of the trees and to determine which street trees are still considered early age.

A policy is needed to ensure structural pruning for early tree care is done as a requirement for all new trees due to the high mortality rate of trees planted by non-profits. The City will also revise specifications for the Street Tree Maintenance Contract to include early tree care inspections and pruning as part of contract requirements. These items will become part of the contractor's responsibilities whenever new trees are planted.

4.7 Very Mature Tree Care

Very mature trees are trees which have lived longer than their species average lifetime. While these may require more preventative maintenance to maintain their health, these trees provide significant benefits including increasing property values, beautify surroundings, purify the air, saving energy by providing shade in summer and wind blocks in winter. A preventive care program should be viewed as an investment into these valuable trees with regular maintenance performed to help avoid addressing problems after they occur.

The UFMP recommends identifying very mature trees and sustaining their numbers through preventive maintenance, then tracking the number of trees which continue to thrive after implementing regular maintenance practices and determine whether or not the need for tree removals has decreased.

The Citywide Street Tree Maintenance Contractor, UPS, is in the process of logging and entering all trees located in the City of Goleta's public right of way using ArborPro, a computerized database inventory system. Once ArborPro is implemented, this will give us a starting point for age of the trees and to determine which street trees are considered Very Mature in age, as well as log the maintenance performed on each tree.

Once the city has this information, we will identify and implement a maintenance inspection program as recommended. The City Arborist may also implement recommendations for future action regarding mature tree care, as needed.

4.8 Professional Tree Care Standards

It is essential to have scientifically based pruning and tree care practices to ensure the health of trees, as is contracting with tree care companies that follow safe and environmentally sound practices.

The City of Goleta has and continues to contract with licensed, bonded and insured tree expert companies for the Citywide Street Tree contract. The contractor is required to follow the Pruning Standards of the International Society of Arboriculture (ISA) and the American National Standards Institute A 300-2008. The contractors are also required to have a licensed arborist on board. The City has also retained the services of a Contract Professional Arborist who verifies recommendations by the Street Tree Maintenance Contractor.

The City is in the process of preparing a Public Tree Ordinance. A section would likely include a prohibition and enforcement section for non-permitted pruning. This may be a future Public Tree Advisory Commission agenda item.

4.9 Urban Wood Reuse

Urban wood waste can include pruned branches, stumps, and whole trees from street and park maintenance. Since these items can be costly to remove, the UFMP recommends creating an environmentally sound policy for the removal of trees when necessary and how to utilize the end product (cut branches, logs, etc.)

Urban wood reuse is a method used to greatly decrease the amount of useful materials left to decompose in landfills, and may ultimately provide revenue for the community and reduce damage to the environment. Suggested reuse ideas are encouraging local mills to create saw logs and donating wood to the local woodworking community to convert the saw logs or wood into their hobby.

Currently, the City recycles the cut wood into chips to be used in city parks and open spaces for unimproved paths, water conservation around trees and shrubs, and to reduce slippage on dirt surfaces of natural trails. There is no policy currently enacted to utilize or require saw logs.

4.10 Infrastructure Coordination

It is important to integrate new and existing infrastructure within the urban forest. The UFMP recommends evaluating City policies and standards for construction and engineering of roads, sidewalks, parking lots, bus stops, and utility right-of-ways to identify conflicts with urban forests. The UFMP recommends administrative and policy changes using the following elements:

General Elements

- a. Integrate planned construction with existing and projected trees during the design stage to minimize impact to existing trees and ensure adequate space for future plantings.
- b. Install new utilities around the identified optimal locations of trees, so as not to negatively impact their growth.

Street Tree Elements

- a. Review the research on effectiveness of root shields with an effort to identify better methods of calculating root space needs and potential impacts on adjacent hardscape.
- b. Design parking lots of aesthetic curves, traffic islands, setback areas, pavement cutouts, turnarounds and other traffic-calming devices that allow for additional trees to be included.

Building Tree Elements

- a. Plant trees between 5 and 50 feet away from houses (depending on the size of the tree) to avoid conflicts with the building while still allowing them to effectively provide shade.

Surface Conditions

- a. When planting new trees adjacent to existing or proposed hardscape areas, permeable paving options such as open planting areas, porous pavers, and porous pavements should be considered.
- b. Permanent, non-permeable coverings are not recommended for use on parkways near trees.
- c. Identify infrastructure conflicts and costs.
- d. Produce an annual report outlining the results of this objective.

While no formal or administrative policy changes have been enacted, the city's existing tree planting guidelines and other informal administrative policies take into account the concerns raised in this section to the maximum extent practicable. As such, no changes to the policies are recommended at this time.

4.11 Urban Heat Island Mitigation

When pavement is shaded by trees, its useful life may be extended which ultimately reduces the costs of replacement. External air temperatures are dramatically cooler when shaded by trees, which makes commercial and retail environments more comfortable for shoppers and can

stimulate visitation. Cooler areas also reduce the energy needs of buildings for air conditioning, especially in summer when demand is high.

The GUFMP recommends evaluating measures to increase shade coverage of new public parking lots and to consider measures for retrofitting existing public parking lots and large paved areas with shade trees. The City's few public parking lots are for the most part small and fully developed. This limits the city's ability to retrofit the existing lots. The city will incorporate appropriate shade tree coverage when and if any new public lots are proposed in the future.

4.12 Tree Risk Management

All trees have a potential element of risk, from roots pushing up sidewalk and creating trip hazards, fruit and debris dropping on walkways, or tree branches growing into overhead lines. An effective risk management program created by specialists and arborists ensures proper management of trees to allow for healthy and attractive communities while reducing risks associated with tree-infrastructure conflicts.

Certain areas within Goleta have also been designated as high wildland fire hazard areas, including areas north of Cathedral Oaks Road, portions of the Winchester Commons subdivision, and the Bacara Resort Property.

The UFMP recommends continuing tree risk assessment to evaluate potential risks to people or property and reduce tree risk, as well as implementing the recommendations of the City Wildland Fire Plan.

On October 19, 2010, the City Council authorized a contract with Geo Elements, LLC for preparation of a city-wide Wildland Fire Plan. In addition to gathering background information to develop an understanding of the City's fire history, the initial data collection work effort included an evaluation of the City policy considerations and management approaches, sensitive environmental resource areas, infrastructure locations, and critical data gaps.

Upon completion of the data collection effort, Geo Elements conducted a hazard assessment, risk assessment, and developed a fire hazard mitigation plan. Together, these elements formed the basis of the Community Wildfire Prevention Plan (CWPP). The City Council reviewed and approved the CWPP as a Programmatic Plan on March 20, 2012.

The City does not possess the personnel resources to conduct a comprehensive inspection of every park and city tree. City staff & contractors routinely inspect public street trees in the right of way and trees located in our developed parks as part of the tree maintenance. However, large parks and passive open spaces are not inspected as frequently. Staff does respond to complaints and will perform inspections as needed.

Currently, our tree risk assessment as related to sidewalks is performed by the Goleta City Inspector who inspects city sidewalks as a routine and in response to resident calls. He continually assesses risk for elevated panels and contracts to have the sidewalk repaired.

The Citywide Street Tree Maintenance Contractor, UPS, is in the process of logging and entering all trees located in the City of Goleta's public right of way using ArborPro, a computerized database inventory system as part of their contract. A visual inspection is being performed as the trees are documented for inventory and immediate danger risks will be addressed on-site as they perform their review. Lower-risk items will be noted and brought to the attention of the Public Works Manager. We do track tree damage claims through risk management (JPIA).

4.13 Pest and Disease Management

Although trees are adapted to coping with environmental stresses such as shading and competition for water and nutrients, these stresses can make trees more susceptible to insects and diseases. The use of a Plant Health Care Program is critical to maintaining & improving the health of the trees through environmentally sensitive practices and treatments.

The UFMP recommends inventorying the number of trees with instances of pest and disease-related problems on a regular basis. Currently, the City Street Tree Maintenance Contractor, UPS, is in the process of inspecting and trimming each tree as part of their yearly maintenance. As they collect information about each tree, it will be noted in Arbor Pro if they have pests or diseases. Upon receipt of this information, the City can then report annually the number of trees which have been successfully treated.

4.14 View Corridors

Section 6 of the Goleta General Plan, Visual and Historical Resources, stipulates that trees shall be planted and preserved in order to develop and maintain the aesthetic properties along roadways. Trees enhance the natural surroundings as well as enhance views by screening roads and buildings. Trees should be planted to avoid view blockage of natural surroundings as well as provide a clear view for motorists and avoid interference with large vehicles.

In the past 24 months, view corridor concerns have been raised on a few tree planting proposals volunteer groups. These view corridor conflicts were resolved by removal or relocation of problem trees.

Going forward, requests for large-scale tree planting efforts will be brought before the Public Tree Advisory Commission for review.

4.15 Heritage Trees / Historical Landmarks

The UFMP recommends implementing standards to protect Heritage trees. Heritage Trees are trees which are 100 years of age or more, which may have historical significance, a rare or unusual species, unique characteristics which contribute to the skyline, or have a 30" diameter at breast height (DBH).

The UFMP encourages establishing criteria without regard to tree location. Designation as a Heritage Tree would be subject to a resolution by City Council.

Currently, the city is in the process of discussing a tree protection ordinance. Heritage Trees may be incorporated into that ordinance. These issues will be presented to the Public Tree Advisory Commission for review.

4.16 Trees and Economic Development

Trees can greatly enhance the economic development of an area such as Old Town. Healthy and well-maintained trees within business districts send positive messages to consumers and increase the quality of their shopping experience by providing shade which attracts customers and projecting a positive view on maintenance and upkeep of a business.

The UFMP suggests effective pre-planning processes be put into place and enforced so the value of large trees can be maintained within the business district despite projects that may otherwise force the removal of large trees and to consider planting large shade trees in commercial and downtown areas as an economic development measure.

The placement of trees in and adjacent to private development projects is under the authority of the Design Review Board. For public projects in business districts (e.g. Hollister Avenue), the placement of trees where appropriate will be incorporated into the design.

4.17 Tree Advisory Board

The UFMP recommends establishing a Tree Advisory Board to provide advice to the Public Works Director and City Council on how to plan and implement a City urban forestry management program. This is an essential part of qualifying for an annual Tree City USA Award and associated grant funding.

On November 6, 2012, the City Council adopted Ordinance No. 12-16 establishing the Public Tree Advisory Commission. The ordinance includes, but is not limited to, provisions regarding the purpose and powers of the Commission, the number of members, the length and method of appointments, residency requirements, responsibilities, and authority. Along with the establishing ordinance, Council adopted Resolution No. 12-78 organizing the Public Tree Advisory Commission. The first meeting of the Public Tree Advisory Commission was held May 6, 2013. The PTAC has not been in existence long enough to determine whether it is discharging its duties as per its enacting Resolution and if there overlapping duties with another committee, board or agency. This item will be discussed in the next annual report.

To date, the commission is enacting its duties as per the ordinance. There are overlapping duties with the DRB Street Tree Subcommittee but the extent to which there may be conflicts between these two committees has yet to be determined.

5.0 Urban Forestry and Regional Planning

5.1 Air Quality

Trees are a very important part of maintaining air quality and are a significant part of any air quality program. Trees sequester carbon dioxide and remove particulate pollutants from our atmosphere to clean our air. The City of Goleta works with Santa Barbara County Air Pollution Control District to monitor and regulate air quality by submitting an air quality plan every three years.

The UFMP recommends determining the ability of the urban forest to sequester carbon emissions and particulates to provide better quality and cleaner air. To determine carbon sequestration, a calculation is made based on the tree species growth characteristics, the conditions for growth where the tree is planted, and the density of the tree's wood. Carbon sequestration is highest in the younger stages of tree growth (20-50 years). At this time, we are unable to calculate the carbon sequestration however, the City Street Tree Maintenance Contractor, UPS, is currently in the process of performing a street tree inventory of public trees which will include the tree species and approximate age. This information will be entered into our new tree inventory program, Arbor Pro, and we anticipate utilizing this information to perform the calculation.

5.2 Storm Water Management

Trees act as vertical rainwater filtration systems during storms as they collect the water around their radius through their roots and then transpire that water through their leaves back into the atmosphere. Trees dissipate the energy from rainfall to reduce runoff and erosion. The

integration of urban forestry techniques into urban watershed planning acknowledges the importance of trees and forests in protecting water resources.

The City of Goleta has a Storm Water Management Plan which was approved in 2010 by the Central Coast Regional Water Quality Control Board. This plan is currently being revised to meet new storm water regulations. Given the expected changes to the storm water requirements in process, staff recommends that this section of the plan be deleted.

5.3 Energy Conservation

Energy conservation occurs when shade from strategically placed trees helps to reduce air conditioning costs in the summer, block cold winds in winter and extend the life of buildings. Trees also reduce the greenhouse effect by shading houses and office buildings. This reduces the need for air conditioning by up to 30 percent which in turn reduces the amount of fossil fuels burned to produce electricity. The combination of CO₂ removal from the atmosphere, carbon storage in wood and the cooling effect makes trees extremely efficient tools in fighting the greenhouse effect. The City recognizes the importance of trees and encourages homeowners to plant trees around their homes and reduce energy costs. Energy saving tips are posted on the City website for residents to utilize.

The UFMP recommends increasing the canopy coverage of the urban forest to increase the shade provided to streets, buildings, parking lots, and pedestrians. It also asks to consider utilizing a computer model to calculate the amount of energy savings and amount of CO₂ removed by one tree planted.

The canopy coverage is scheduled to be reassessed in 2014 subject to budget availability. We can estimate if there has been an increase in our canopy coverage at that time and progress will be reported in our next annual report.

5.4 Greenhouse Gas Reduction

Urban forests help to improve our air quality. Heat from the earth is trapped in the atmosphere due to high levels of carbon dioxide (CO₂) and other heat-trapping gases that prohibit it from releasing the heat into space. This creates a phenomenon known today as the "greenhouse effect." Therefore, trees help by removing (sequestering) CO₂ from the atmosphere during photosynthesis to form carbohydrates that are used in plant structure/function and return oxygen back into the atmosphere as a byproduct. Roughly half of the greenhouse effect is caused by CO₂. Therefore, trees act as carbon sinks, alleviating the greenhouse effect.

The UFMP recommends recognizing the relationship between urban forestry and the Greenhouse Gas emission reduction goals by utilizing using national and state programs such as the California Climate Registry to estimate greenhouse gas emission reductions associated with the planting of new trees. This is a future project of the UFMP.

Due to the similarity of the two sections and objectives, staff recommends combining Sections 5.3 and 5.4.

5.5 Utilities

Southern California Edison (SCE) is responsible for maintaining a safe electrical grid by managing the trees closest to their power lines. The City also has responsibility for maintenance of city trees, so close coordination between SCE and the City is necessary to maintain effective working relationships.

The UFMP recommends working closely with SCE to ensure continued utility service while maintaining and supporting urban forestry by using correct pruning techniques, alternative line layouts, and forming partnerships and improving maintenance.

It is a challenge to coordinate with SCE as they are mandated by the Public Utilities Commission and not local cities. We are not allowed within 50 feet of their power lines to trim trees. However, we continue to work in conjunction with Southern California Edison regarding maintenance of trees that encroach near power lines. Power line inspection is performed prior to planting and trimming of trees by our contractors as well.

6.0 Goleta Urban Forest Resources

6.1 Public Works Urban Forestry Personnel and Budget

An effective management program will follow good risk management practices that use appropriate contract requirements for all tree care work and initiate an open and easy-to-use computerized tree inventory process.

The UFMP recommends encouraging certified arborists to assist in the implementation of Goleta's Urban Forestry program and insuring that the program funding will be sufficient to meet minimum standards for annual Tree City USA Awards.

The City has retained the professional services of a licensed arborist to assist the Public Works Manager in making determinations regarding street trees in Goleta. In addition, the contractor who is selected to provide Street Tree Maintenance services is required to employ and provide a licensed arborist on the crew. As stated throughout this report, the current Street Tree

Maintenance contractor (UPS) is in the process of completing a computerized public tree inventory which should be completed by 2014.

The current funding for trees is adequate to qualify the City of Goleta for the Tree City USA Awards. City of Goleta applied for and was awarded the Tree City USA Award for 2012. We will continue to participate in and apply for the Tree City USA awards.

6.2 Goleta Urban Forestry Program Professional Standards

There are practical and symbolic benefits gained by accreditation and through following accepted industry standards in urban forestry.

The UFMP recommends the Tree City USA Award accreditation be maintained and to strive to achieve the Tree City USA Growth Award which is awarded to recognize a higher level of tree care above and beyond the Tree City USA Award requirements. The City of Goleta has maintained the Tree City USA award status for 2012.

The UFMP also recommends that the City should recognize city agencies and private companies which follow American National Standards Institute (ANSI) tree care standards and ensure standards adoption is recognized, ensure progress is made year to year by assessing the progress made in adopting the standards, and to develop further recommendations to ensure progress. Currently, we do not have the staff to implement this recommendation. This is a future goal.

6.3 City of Goleta Interdepartmental Coordination

Effective interdepartmental coordination requires various City departments to consider the impact of their projects on the urban forest and develop collaborative solutions. Ongoing identification of potential conflicts is recommended.

The UFMP recommends that departments within the City be provided with a copy of the UFMP and routine communications should take place between City departments regarding the planting, protection, and maintenance of the Urban Forest.

The UFMP has been distributed to all departments. Public Works, Legal, Neighborhood Services, and Planning are all involved with the implementation of the UFMP and work in conjunction with the public to distribute this information and decide the appropriate public trees for planting by developers.

6.4 Planting of New and Replacement Trees Annual Targets

An effective tree planting program sets annual targets, pursues good record-keeping practices to measure success, plants the right tree in the right place, and is supervised by a certified arborist.

The UFMP sets the guidelines for how the city will accomplish this and recommends setting annual target goals for a successful tree planting program. It recommends an annual target goal of 100 new public trees per year and to target vacant public tree sites to be planted within 24 years. It also recommends setting a goal to replant any failed trees within one year based on site availability. These plantings should be tracked and a record of trees planted during the year can be used to assess if the projected number of trees were planted.

Projected standards have not been established at this time. However, we do know that over the last two years, we have exceeded the recommended target of 100 trees planted per year. We are currently in the process of identifying failed trees and will then determine which trees will be replanted and the type of tree which will be utilized for replacement. The extent to which inventory will be accessible is yet to be determined.

7.0 Urban Forestry Education, Outreach and Partnerships

7.1 Public Outreach/Education

Public support for street trees and funding comes in the form of the public's perception regarding the Urban Forestry program. The public's perception is largely influenced by what they see in their own neighborhoods, which can include negative as well as positive. Public support is necessary in order to obtain the funding necessary to pay for street tree management.

The UFMP recommends getting the public involved with the implementation of the UFMP by personal outreach by staff, public information distribution through the website and at community events, and adopting an open and accessible computerized tree inventory system.

City Personnel perform outreach every day as our public works maintenance crew speaks with individual homeowners as part of their rounds in the neighborhoods and parks. In addition, the Public Tree Advisory Commission and public meetings give a voice to the public and allow them to see what is being done to make the city's urban forest grow. The public is also notified by the Street Tree Contractor any time maintenance is to take place near their home.

While we have not had the opportunity to engage the public in implementing the UFMP due to a lack of resources, in the future we plan to utilize the Public Information Office and other existing means of communication, such as the Monarch Press as well as the City of Goleta website and community events to notify the public of state, regional and local laws and opportunities to become involved and help the urban forest.

The UFMP recommends the benefits of adopting an open and accessible computerized tree inventory system. The City is currently in the process of having the street trees inventoried via our City Street Tree Contractor using the ArborPro inventory system. This process is scheduled to be completed in June 2014. This system will provide detailed tree information for the city's street tree maintenance purposes however, accessibility to the public has yet to be determined.

7.2 Nonprofit Urban Forestry Partnerships

The City of Goleta partners with numerous public and nonprofit organizations to support public trees. These groups serve as a catalyst to encourage active local urban forest resource management for the long term. Presence of advocacy and/or advisory groups actively operating within a community is used by the Forest Service Urban and Community Forestry program as a benchmark to measure community urban forest management performance.

In the past, Goleta Valley Beautiful has provided volunteers and tree planting. The City of Goleta values the support of nonprofits such as Goleta Valley Beautiful, however, there is no policy establishing standard requirements for non-profit organizations wishing to perform projects for the City of Goleta. The city attorney is currently in the process of defining eligibility requirements of volunteers.

The UFMP recommends the City identify the annual value of support from nonprofit organizations. We do not have this information calculated, however it is important to note the difficulty in attempting to quantify the value of volunteer support due to differing rates of labor based on a volunteer's skill level, experience, and hours worked.

7.3 Professional Urban Forestry Partnerships

Professional urban forestry groups, such as the Western Chapter of International Society of Arboriculture, Central Coast Urban Forest Council, and American Society of Consulting Arborists, provide support for establishing and upgrading professional standards among tree care professionals working within the City of Goleta. The UFMP recommends increasing community awareness and public support for urban forestry by utilizing volunteer labor for urban forestry programs.

While staff does not belong to these organizations, our city arborist is a Registered Consulting Arborist through the American Society of Consulting Arborists (ASCA), a board-certified Master Arborist with the International Society of Arborists (ISA), and an instructor of arboriculture at Santa Barbara City College.

The City of Goleta values utilizing volunteer labor for urban forestry programs, however, there is no policy establishing standard requirements for non-profit organizations and/or volunteers wishing to perform projects for the City of Goleta. The city attorney is currently in the process of defining eligibility requirements of volunteers.

The UFMP recommends the City identify the annual value of support from professional organizations. We do not have this information calculated, however it is important to note the difficulty in attempting to quantify the value of support due to differing rates of labor based on skill level, experience, and hours worked.

7.4 Government and Agency Partnerships

There are many government and public agencies which provide support for urban forestry in local areas including the United States Department of Agriculture's Urban and Community Forestry group and CalFire Urban Forestry's Urban and Community Forestry. These groups provide grants, expert support, and information to the local communities on urban forestry issues. The UFMP recommends acknowledging and encouraging the efforts of the government and public agency partnerships to provide urban forestry services and community outreach.

The City of Goleta has previously partnered with Goleta Valley Beautiful which is a proud recipient of a grant from California ReLeaf, a nonprofit organization which coordinates grants to local groups. The City has also won the Tree City USA award, which is sponsored by the National Arbor Day Foundation and coordinated with the CalFire State Urban Forester for the region. The Tree City USA Award provides significant recognition and community outreach for our city and residents through signage and requiring the City to enact a proclamation to gain public support for tree planting efforts. This award is a point of pride for our citizens, especially when they see the trees and enjoy the beautiful parks and open spaces every day. The signage also provides visual reminders as our residents drive through the city.

The UFMP recommends the City identify the annual value of support from governmental and public agency organizations. We do not have this information calculated, however it is important to note the difficulty in attempting to quantify the value of support due to differing rates of labor based on skill level, experience, and hours worked.

Staff recommends combining the above 3 sections (7.2, 7.3, 7.4) due to redundancy of 3 separate sections with similar objectives and performance standards.

8.0 Goleta Urban Forest Ordinances and Enforcement Program

Upon incorporation, Goleta adopted Santa Barbara County's tree ordinance. Ordinances provide effective enforcement of public policies and legal support to City staff in dealing with public trees. The City also has specific ordinances for the protection of native trees in environmentally sensitive habitat areas (ESHA). The current tree ordinance requires additional refining to provide specific enforcement for the policies identified in Goleta's General Plan.

The UFMP encourages the development of ordinances and policies to implement the Urban Forest Management Plan and enforce the ordinances. The current municipal codes prohibit cutting of public trees, injuring trees in parks, and unauthorized removal of trees. Title 12, Article 2 exists "to regulate and control all street trees along City roads in order to protect and preserve the existence thereof and thereby protect the public welfare." This includes protecting public trees from unlawful damage, cutting, or removal.

The City will need to undertake the task of reviewing the current policies to expand and encompass the development of ordinances and policies to protect our urban forest. Staff has initiated a review of the existing public tree ordinances and is in the process of developing a draft Tree Protection Ordinance for public trees to be brought to the Public Tree Advisory Commission. This is a future Public Tree Advisory Committee agenda item.

9.0 Financing Recommendations

The amount of funding available for urban forestry is subject to available funding from the City's limited financial resources. The UFMP encourages the monetary value of trees to be considered and incorporated into the City's decision making, as well as taking advantage of partnerships with nonprofits, developers and restoration specialists to create and expand the urban forest under current budget limitations.

The amount budgeted by the City of Goleta for the community forest per capita exceeds the minimum \$2 per capita required for Tree City USA status. The City of Goleta is currently at \$9 per capita which is sufficient to achieve the services identified in the plan. The budget for street trees is provided by the General Fund and Measure A as listed below:

Funding Source	Budgeted Amount
General Fund	\$39,999
Measure A	\$185,000
Total	\$224,999

In addition to budgeting, staff is always looking for special grants when available and for ways to

create partnerships within our local community to enhance our urban forest as resources allow. As of this time, the city has not created a City tree fund to accept in lieu mitigation payments.

10.0 Summary of Recommendations

The city is making efforts to move forward with expanding Goleta’s urban forest utilizing the recommendations of the UFMP as shown in this report. While the city has not completed all objectives, the inventory system and cataloging of trees will be a key asset in assisting the city with successful implementation.

During review of the report, staff assessed the current objectives and recommends the following modifications to the original UFMP:

RECOMMENDED CHANGES TO THE UFMP

- Combine two sections into one: Section 5.3 Energy Conservation and Section 5.4 Greenhouse Gas Reduction.
- Section 6.1 “Community Services” has been changed to Public Works.
- Section 6.1, Objective 2: It is recommended this objective be placed under 4.10 Infrastructure Coordination or 4.12 Tree Risk Management as it more closely fits the activities listed under these areas.

Objective 2: Applicants desiring to plant, remove or modify trees in public areas within the City are required to submit their planting plan to the City before obtaining a City encroachment permit. If the City determines the plan to be acceptable, the City approves the planting plan and forwards recommendations to the City Engineer for issuance of an encroachment permit.

- Sections 7.2, 7.3, and 7.4 under **Urban Forestry Education, Outreach and Partnerships**
 - 7.2 Nonprofit Urban Forestry Partnerships
 - 7.3 Professional Urban Forestry Partnerships
 - 7.4 Government and Public Agency Partnerships

Staff recommends combining these three sections into one section called “Partnerships” as the Recommendations, Objectives, and Performance Standards for each section are very similar and actions taken will be repetitive if listed out for each type of partnership.

RECOMMENDED ITEMS TO BE REMOVED:

- Section 5.2 Storm Water Management – Given the expected changes to stormwater requirements currently in process, staff recommends deletion of this section of the plan as the new stormwater requirements do not address the urban forest.

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