

**Public Review Draft
Initial Study / Mitigated Negative Declaration**

**Replacement of Chapters 12.04 and 12.16 – Tree Preservation and
Protection of the Pacific Grove Municipal Code with Chapters 12.10
to 12.90 – Trees and the Urban Forest and Adoption of Urban
Forestry Standards**



Prepared for



Prepared by



July 2012

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- A City of Pacific Grove Municipal Code Chapters 12.10 to 12.90 – Trees and the Urban Forest
- B City of Pacific Grove Urban Forestry Standards



Notice of Availability (NOA) / Notice of Intent (NOI) to Adopt a Mitigated Negative Declaration

Name of Project

Replacement of Chapters 12.04 and 12.16 – Tree Preservation and Protection of the Pacific Grove Municipal Code with Chapters 12.10 to 12.90 – Trees and the Urban Forest and Adoption of Urban Forestry Standards

Project Applicant's/Sponsor's Name and Address

City of Pacific Grove
300 Forest Avenue
Pacific Grove, CA 93950

Contact

Contact: Sarah Hardgrave
Environmental Programs Manager
Public Works Department
(831) 648-5722
Email: shardgrave@ci.pg.ca.us

Review Period

July 12, 2012 through August 10, 2012

Project Description

The proposed project is the replacement of Chapters 12.04 and 12.16 – Tree Preservation and Protection of the Pacific Grove Municipal Code with Chapters 12.10 to 12.90 – Trees and the Urban Forest. Additionally, the City Council will formally adopt a new set of *Urban Forestry Standards* designed to provide additional direction and clarification regarding the protection and management of the City of Pacific Grove's urban forest.

The purpose of the proposed project is to address urban forestry practices on a city-wide basis and to require a more comprehensive set of tree management standards that will apply to both private and public land. It is the intent of the City that the new tree ordinance and *Urban Forestry Standards* will retain and enhance the City's tree canopy and thereby improve the environmental benefits (improved air quality, carbon sequestration, stormwater infiltration, wildlife habitat, etc.) as well as the social and economic benefits (improved health, aesthetic quality, etc.) that can be derived from a healthy and diverse

urban forest.

Mitigated Negative Declaration

Notice is hereby given that the project described above has been reviewed in accordance with the State of California Public Resources Code, the California Environmental Quality Act, the City of Pacific Grove Local Coastal Program Land Use Plan and Chapter 23.77 of the Pacific Grove Municipal Code. Based on this review, a Proposed Mitigated Negative Declaration is hereby made on this proposed project. The reason for this determination is that, as mitigated, the project will not result in significant adverse impacts to the environment.

The Proposed Mitigated Negative Declaration, which includes the Initial Study, is on file at the Community Development Department, 300 Forest Avenue, Pacific Grove, California, 93950 (831) 648-3190. The Public Review Period for the Proposed Mitigated Negative Declaration begins on July 12, 2012 and will close at the close of business, 4:45 pm on August 10, 2012 (30 days).

The proposed Mitigated Negative Declaration shall be considered at a regular meeting of the City Council on July 18, 2012 at 6:00 PM at the City of Pacific Grove, City Hall, 300 Forest Avenue, Pacific Grove, California 93950. The proposed project shall be considered for a first reading of the draft ordinance at a regular meeting of the City Council on August 15, 2012 at 6:00 PM, also at City Hall.

Availability of the Initial Study / Mitigated Negative Declaration

A copy of the Initial Study / Mitigated Negative Declaration is available by contacting:

Sarah Hardgrave
Environmental Programs Manager
City of Pacific Grove
300 Forest Avenue
Pacific Grove, CA 93950

Tel: (831) 648-5722
Email: shardgrave@ci.pg.ca.us



Sarah Hardgrave
Environmental Programs Manager
Date: July 11, 2012

MITIGATED NEGATIVE DECLARATION

LEAD AGENCY:

City of Pacific Grove
300 Forest Avenue
Pacific Grove, CA 93950

Contact: Sarah Hardgrave
Environmental Programs Manager
(831) 648-5722

PROJECT SPONSOR:

City of Pacific Grove
300 Forest Avenue
Pacific Grove, CA 93950

PROJECT LOCATION:

The City limits of the City of Pacific Grove

NAME OF PROJECT:

Replacement of Chapters 12.04 and 12.16 – Tree Preservation and Protection of the Pacific Grove Municipal Code with Chapters 12.10 to 12.90 – Trees and the Urban Forest and Adoption of Urban Forestry Standards

PROJECT DESCRIPTION:

The proposed project is the replacement of Chapters 12.04 and 12.16 – Tree Preservation and Protection of the Pacific Grove Municipal Code with Chapters 12.10 to 12.90 – Trees and the Urban Forest. Additionally, the City Council will formally adopt a new set of *Urban Forestry Standards* designed to provide additional direction and clarification regarding the protection and management of the City of Pacific Grove's urban forest.

The purpose of the proposed project is to address urban forestry practices on a city-wide basis and to require a more comprehensive set of tree management standards that will apply to both private and public land. It is the intent of the City that the new tree ordinance and *Urban Forestry Standards* will retain and enhance the City's tree canopy and thereby improve the environmental benefits (improved air quality, carbon sequestration, stormwater infiltration, wildlife habitat, etc.) as well as the social and economic benefits (improved health, aesthetic quality, etc.) that can be derived from a healthy and diverse urban forest.

PUBLIC REVIEW PERIOD:

The 30-day review period is from July 12, 2012 through August 10, 2012.

COMMENTS:

Any individual, group, or agency disagreeing with this determination or wishing to comment on the proposed project may submit written comments to the City of Pacific Grove at the address listed above in the Community Development Department. All comments received by 4:45 PM on August 10, 2012 will be considered by the City of Pacific Grove.

FINDINGS & REASONS:

The Initial Study did not identify any potentially significant impacts on the environment. The proposed project will not have the potential to significantly degrade the environment; will have no significant negative impact on long-term environmental goals; will have no significant cumulative adverse effect upon the environment; and will not cause substantial adverse effects on human beings, either directly or indirectly.

The following reasons will support these findings:

1. The proposed project is consistent with the adopted goals and policies of the *City of Pacific Grove General Plan*, *City of Pacific Grove Local Coastal Program Land Use Plan (LUP)*, and the *City of Pacific Grove Municipal Code*.
2. The City Council independently reviewed the Initial Study and this negative declaration reflects the independent judgment of the City of Pacific Grove.
3. The replacement of Chapters 12.04 and 12.16 includes the following general findings regarding the relationship between health, safety, and general welfare, and the selection, planting, conservation, protection, and maintenance of trees in public and private areas as addressed in these chapters. These shall be the same findings as required to be made for a permit application for protected tree removal and replacement, as described in the Ordinance and *Urban Forestry Standards*.
 - a. Trees are a valuable long-term community asset, and tend to increase property values.
 - b. Trees protect us from climatic extremes. They recycle air and water, absorb carbon dioxide and release oxygen, provide shade and windbreak protection, and can moderate temperatures for an entire neighborhood or community.
 - c. Trees can improve human health by absorbing air pollution and trapping dust. In addition, they buffer noise from traffic and other sources.
 - d. Trees diffuse the effects of rain that weather houses, erode topsoil, and cause flooding. They provide enrichment of the soil for more plant growth.
 - e. Trees reduce the volume and slow the velocity of storm drainage and dry weather flows. They also are able to filter out many contaminants that would otherwise end up in the bay or ocean.
 - f. Trees, particularly those indigenous to the Monterey Peninsula, provide habitat for birds, butterflies, and other animals.

- g. Trees contribute to the pleasantness and serenity of neighborhoods.
- h. The presence of trees can do much to reduce the stress of modern living.
- i. Trees may enhance the architectural character of a neighborhood, accent or soften the effect of structures, promote visual formality and aesthetic interest, and screen undesirable views.

The above general findings are applicable when the health of trees is preserved and the safety and general welfare of the public is observed. Healthy trees are achieved when the right trees are planted in the right location and are properly maintained.

INITIAL STUDY

City of Pacific Grove

Initial Study / Environmental Checklist

Background & Project Description

Project Title

Replacement of Chapters 12.04 and 12.16 – Tree Preservation and Protection of the Pacific Grove Municipal Code with Chapters 12.10 to 12.90 – Trees and the Urban Forest and Adoption of Urban Forestry Standards

Lead Agency Name and Address

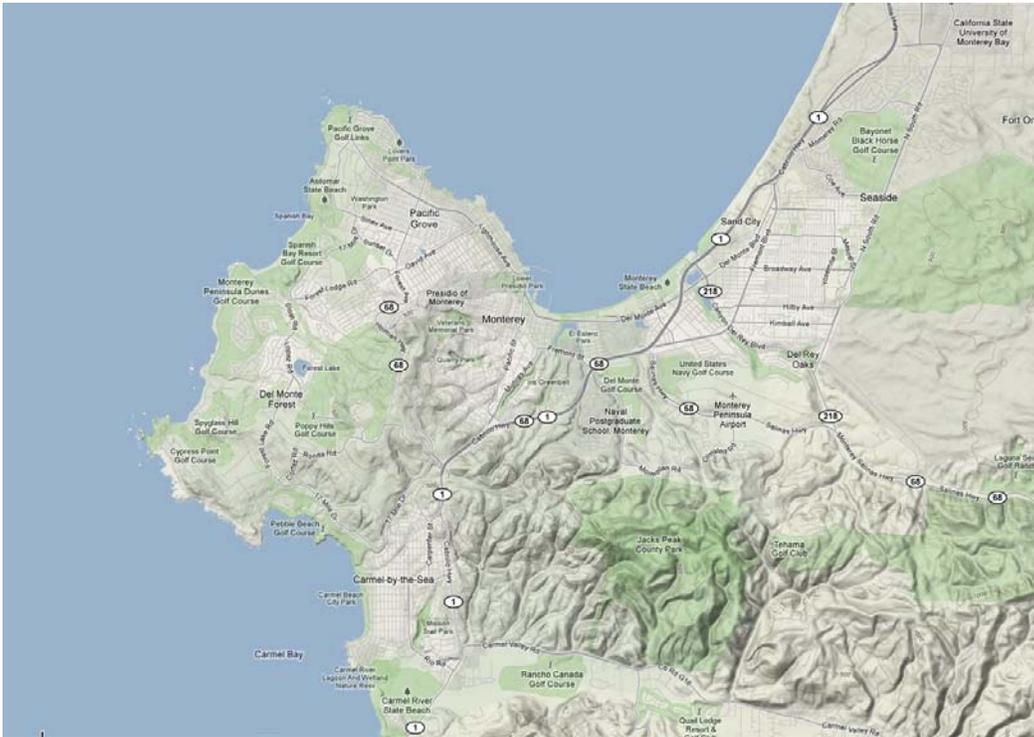
City of Pacific Grove
300 Forest Avenue
Pacific Grove, CA 93950

Contact Person and Phone Number

Sarah Hardgrave
Environmental Programs Manager
(831) 648-5722

Project Location

The City of Pacific Grove is located on the southern end of the Monterey Bay Peninsula, approximately 124 miles south of the City of San Francisco; approximately 76 miles south of the City of San Jose; and approximately 23 miles southwest of the City of Salinas. See Figure 1: Project Location below:



The project location includes the entire City of Pacific Grove.

Project Applicant’s/Sponsor’s Name and Address

City of Pacific Grove
 300 Forest Avenue
 Pacific Grove, CA 93950

General Plan Designation

Varies.

Zoning

Varies.

Project Description

Background and Intent

Chapters 12.04 and 12.16 of the Pacific Grove Municipal Code (existing ordinances) have been a source of highlighted community controversy for more than a decade. Numerous amendments to Chapter 12.16 (Tree Preservation and Protection) have been proposed from time to time, but with limited success due largely to divergent public opinions about the appropriate level of local regulations. Most of the current requirements of Chapter 12.16 were set by Ord. 02-13 § 3, 2002; these provisions have been in place for approximately ten years.

Key issues of concern with Chapter 12.16 include but are not limited to:

- Permitting requirements for removal and replacement on private property

- Removal and lack of maintenance on public property
- Hazards and risk management
- Canopy protection and enhancement
- Species diversity
- Management and enforcement

Previous urban forestry management practices have been approached more on a case-by-case basis through individual tree permits for removal and less with a comprehensive city-wide management perspective. Decreasing City budgets and staff resources have limited the City's ability to manage the urban forest adequately.

Regardless of the requirements, the trend in the loss of tree canopy has been consistent with that seen in other cities nationwide. Replanting requirements have not resulted in maintaining the level of canopy coverage. In reviewing historic records and aerial photographs of Pacific Grove, it is evident that the tree canopy has changed over time. Because of urbanization, the natural cycle of fires and forest regrowth have been eliminated. In some areas of the city, stands of native trees appear similar in size and age and are near or reaching maturity and the end of their lifespans, adding to concerns about tree risks and hazards to human habitation. The proposed project is intended to improve the current approach to management of tree resources and the urban forest.

Pacific Grove Tree Characteristics and Density

An assessment of the vegetation structure, function, and value of Pacific Grove's urban forest was conducted in late 2010. Data were collected from 126 field plots located throughout the city. These data were then analyzed using the Urban Forest Effects (UFORE) model developed by the U. S. Forest Service, Northern Research Station. The urban forest of the City of Pacific Grove has an estimated 25,900 trees with a tree canopy cover of between 19% and 23%. A significant portion of these trees comprises three dominant species, namely Monterey pine (34%), Coastal live oak (29%), and Monterey cypress (21%). (I-Tree Ecosystem Analysis for the City of Pacific Grove, June 2011)

The i-Tree Analysis found that trees with chest-height diameters less than six inches constitute 11.3% of the population, which indicates that a significant number of the trees are older, more mature trees. This would tend to indicate that there is a deficiency in the number of replacement trees that are needed to replace the older trees that will die in the not-too-distant future.

Tree Canopy Loss

Tree cover is constantly changing due to natural and anthropogenic forces. Natural forces include tree growth and mortality from disease, insects, and old age (Nowak and Greenfield, 1). Anthropogenic factors influencing tree populations are air pollution, human development such as buildings and roads, and human-caused transmission of invasive species. A recent study published in the journal of Urban Forestry & Urban Greening found that among 20 U.S. cities, 17 had statistically significant declines in tree cover and 16 of 20 cities experienced statistically significant increases in impervious cover. Overall, city tree cover in the 20 sample cities declined by 0.9 percent per year, over a range of 3 to 6 years.

Similarly, over the past 25 years, it appears a significant number of trees have been lost in Pacific Grove. As part of an analysis of Pacific Grove's tree canopy by Jake Williams and Katherine Keady (Keady/Williams, 2010), satellite imagery was used to compare tree coverage in most of the City between 1986 and 2010. As shown in Figure 2: Tree Canopy Loss – 1986 to 2010, tree cover made up approximately one-third of the City in 1986 (Note - image excludes a western portion of the City as the 1986 data were not available). By 2010, the amount of tree cover was reduced to about 20%, a net decrease of over 40% of the total tree coverage.

This rate of tree loss appears to be greater than the average 0.9% per year found in the above referenced study. Based on the i-Tree assessment and the review of tree removal permits described below the City of Pacific Grove is losing 1% to 2% of tree canopy per year despite the existing regulations. While tree loss occurred throughout the City, a significant amount of vegetation was lost in the western portions of the city in the Pacific Grove Acres neighborhood, consistent with residential development and infill that occurred in this area during the prior 25 years.

Figure 2: Tree Canopy Loss – 1986 to 2010

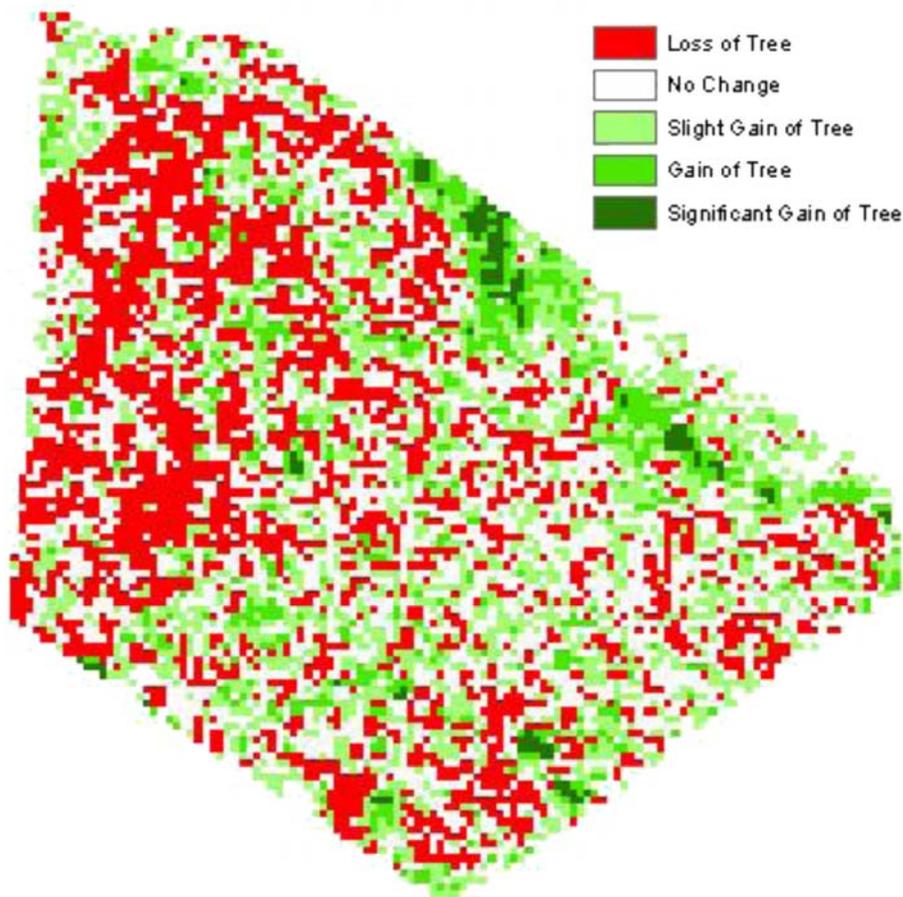
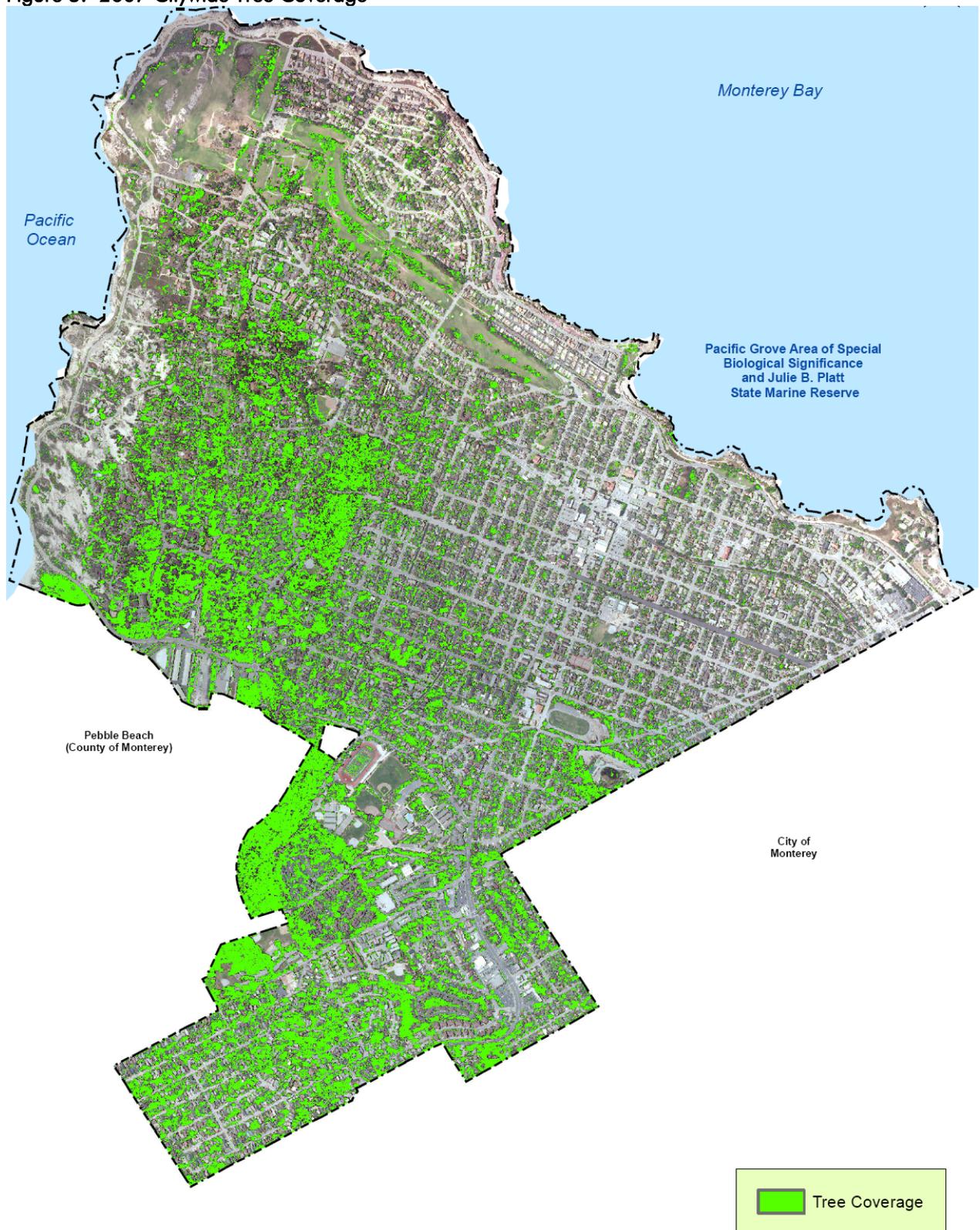


Figure 3: 2007 Citywide Tree Coverage



Source: Tess Harris, Monterey Institute of International Studies, Student Project, 2011.

Figure 3: Citywide Tree Coverage, shows the predominant locations where trees currently exist in portions of the City. This image was derived from an aerial photograph and interpolated in GIS. Due primarily to larger lot sizes and topography, the predominant tree coverage is located in the southern and western portions of the City.

Tree Removal and Replacement

To better understand the trends in tree removal permits, the City analyzed the number of tree permits issued and replanting over a three and a half year period. From January 2008, through July 2011, 708 permits were issued for the removal of 1,241 trees, for an average of 29 trees per month. Of the total trees removed, 222 (or 18%) were on public property and 1,019 (or 82%) on private property (see Figure 4: Tree Loss – 2008 to July 2011).

On private property, 586 permits were issued for the removal of 1,019 trees. Of these, 275 were removed without requirements to replant for the following reasons:

- 5 were removed by paying in lieu fees
- 107 were removed as part of an ongoing replanting program
- 78 were removed with a planting plan in conjunction with a development approval
- 18 were emergency removals that did not require replanting
- 18 permits were issued by the City Arborist not requiring replanting due to limited available space on the parcel
- 49 permits were issued without a requirement to replant by the City Arborist, with no specified reason

Of the remaining 744 tree removal permits that were issued, the total number of trees required for replanting by private property owners under the existing tree ordinance would have been 1,221 (an average of 1.6 trees to be replanted for each tree removed). However, at the time of the analysis, only 320 of these trees had been planted. Although the City has attempted to follow up and ensure that requirements to replace trees have been implemented, long term monitoring is not feasible with available resources or without mechanisms in place to track tree replacement on private properties over time.

On City property, 122 permits were issued for removal of 222 trees. Of the 222 trees removed on City-owned properties during this time period, the City Arborist did not require replanting for 74 (or 33%) of the trees. Nineteen were emergency removals, and one was removed as part of an ongoing replanting at Lovers Point Park. One hundred replacement trees were required by the City Arborist, however, none had been planted by July 2011. Some community efforts to replace public trees have been made, but a more comprehensive approach to the maintenance and replacement of public trees is needed.

Tree Planting Potential

Section 12.20.010 of the proposed project identifies an overall tree canopy coverage approach, with a goal to maintain the existing canopy with a total goal of a total canopy cover of 33%. In order to determine if the current density of public trees along city streets and the opportunities for new street tree planting (called a stocking level) could achieve this goal, an estimate was calculated

based on street miles and the an estimate of 25,900 existing trees citywide on both public and private property.

Approximately 24% of Pacific Grove's surface area is covered by streets (City General Plan, 1994), and there is a total road length of approximately 381,000 feet in the city (2006 GIS data). Assuming an even distribution of trees among land uses, similar distance between trees, and a canopy coverage of 23%, at this time there are approximately 6,190 street trees.

The Best Management Practices for Community Trees by Athens-Clarke County, Georgia recommends minimum tree spacing standards for road frontage areas of 30 feet for minor collectors, 50 feet for major collectors, and 75 feet for arterial roads. Using these standards, it is estimated that approximately 2,900 additional public trees could be planted to achieve the full stocking potential. This estimate assumes the following:

- Trees could be evenly distributed throughout the City
- Arterial roads need larger trees to achieve visual clearance for pedestrians and vehicle traffic
- Different size tree requirements per street type
- Curbside space would be available for new plantings

Calculating the number of street trees per capita is another important aspect of tree stocking. Assuming Pacific Grove has a population of 15,041 (U. S. Census Bureau, 2010), Pacific Grove's number of street trees per capita is 2.43. This is a good indicator, as the mean for 22 cities in the United States is approximately one tree for every 2.7 people (McPherson and Rowntree, 1989).

Additionally, the following series of calculations to determine the tree planting potential on public land were developed for this initial study. Due to some information gaps, some assumptions were required to complete this analysis, including an assumption that the data collected in the i-Tree urban forest assessment is representative of the city wide tree population, that trees are uniformly distributed throughout the City (there is 23% coverage in all land uses), and that there is an average size of trees on public property. The estimated numbers of existing publicly owned trees and street trees are:

- Total number of trees x % area of city in public parks and open space \approx 3,522 trees
- Total number of trees x % area of city in Public facilities \approx 3,082 trees
- Total number of trees x % area of city in Streets \approx 6,190 trees
- Total City-owned trees \approx 12,700 trees

Based on these calculations, at least 300 replacement trees would be required each year to replace and enhance canopy coverage on publicly owned property and open space over the 25 years, including an assumption of a fifty percent mortality rate of new tree plantings. For public property, the new ordinance requires a permit for the removal of any street trees, and replacement of trees

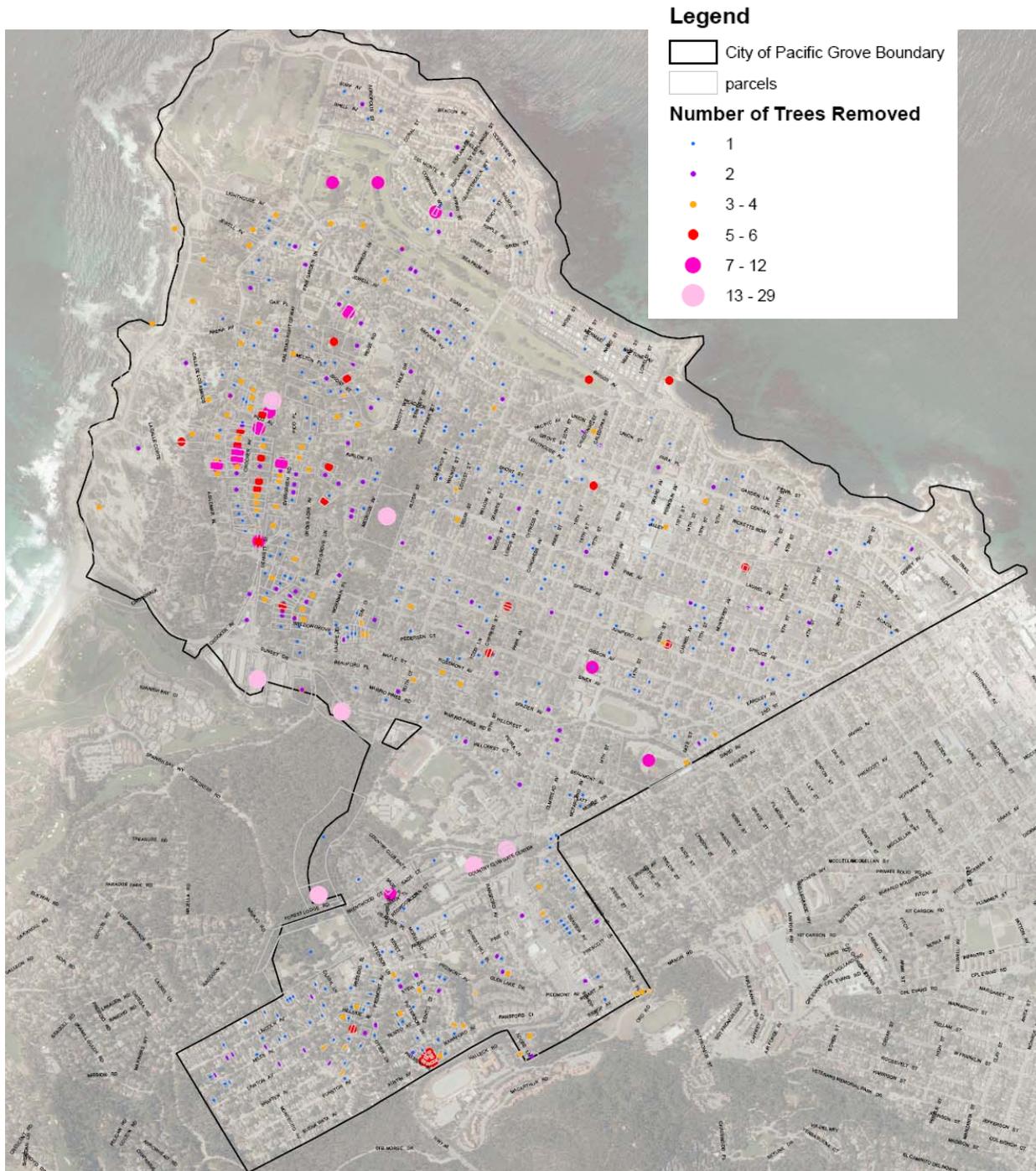
removed. On public properties one tree is required per every 30 feet of frontage with a minimum of two trees, if space is available. And on parking lots (which includes publicly owned lots), three trees per 25 parking spaces or 5,000 square feet of parking area are required. Both the private and public property requirements will increase the number of trees in the City and therefore result in a beneficial environmental impact on the urban forest.

On residential property, the analysis identifies that between 5,700 and 8,600 additional trees would be required to retain the current level of tree canopy coverage. Using the table of tree canopy coverage standards for private properties above, this could be achieved if the total potential trees if the standards are applied to all residential properties, even with the one to one replacement requirement, and the standard of approximately one tree per 2,000 or 3,000 square foot of lot area standard.

Conclusions

The existing tree ordinance and City management practices are not providing an effective means to maintain and enhance the tree canopy city-wide. The City's tree canopy has been steadily declining regardless of the requirements for removal permits. The City's effectiveness in replanting lost trees, even those on public property, has been deficient. The City's goals are to reverse this trend by increasing the number trees, the range in age of these trees, and the diversity of tree species. In order to effectively manage public trees and replace them over time, new strategies are needed other than a solely regulatory approach.

Figure 4: Tree Permits for Removal – 2008 to July 2011



Source: City of Pacific Grove, 2011.

Proposed Project

The proposed project is the replacement of Chapters 12.04 and 12.16 – Tree Preservation and Protection of the Pacific Grove Municipal Code with Chapters 12.10 to 12.90 – Trees and the Urban Forest. Additionally, the City Council will formally adopt a new set of *Urban Forestry Standards* designed to provide additional direction and clarification regarding the protection and management of the City of Pacific Grove’s urban forest.

Both the revised ordinance and Urban Forestry Standards can be found in Appendix A and B, respectively.

The purpose of the proposed project is to address urban forestry practices on a city-wide basis and to require a more comprehensive set of tree management standards that will apply to both private and public land. It is the intent of the City that the new tree ordinance and *Urban Forestry Standards* will retain and enhance the City’s tree canopy and thereby improve the environmental benefits (improved air quality, carbon sequestration, stormwater infiltration, wildlife habitat, etc.) as well as the social and economic benefits (improved health, aesthetic quality, etc.) that can be derived from a healthy and diverse urban forest.¹

Replacement of Title 12 – Trees & Vegetation of the Municipal Code

The primary component of the existing Title 12 is Chapter 12.16 (Tree Preservation and Protection). Chapter 12 is organized according to four primary topic areas (Articles), namely; 1) Street Trees, 2) Public Parks, 3) Trees on Private Property, and 4) Miscellaneous Provisions – Violations. Chapters 12.04 (Infected Trees, Plants and Shrubs) and 12.16 (Tree Preservation and Protection) have been revised and incorporated in the new tree ordinance and/or in the *Urban Forestry Standards* to provide more detailed guidance to the City and residents in the implementation of the ordinance.

The new Chapters 12.10 through 12.90 (Trees and the Urban Forest) are substantially reorganized into the following eight topic areas: 1) Desired Canopy, 2) Protected Trees, 3) Trees and Development, 4) High Risk Trees and Nuisance Trees, 5) Tree Service Contractors, 6) Permit Application and Processing, 7) Appeals, and 8) Enforcement.

A summary of each of the newly organized topic areas and changes relative to the existing ordinance (as required under CEQA) are discussed below:

I. Desired Canopy

The existing tree ordinance does not establish tree canopy goals for the City of Pacific Grove. The new tree ordinance takes a more holistic, city-wide approach to urban forestry management consistent with commonly accepted industry-wide professional urban forestry management practices.²

¹ The environmental and health benefits associated with urban forests are well documented throughout the arboriculture industry. For more information, see Dwyer J. et. al., *Assessing the Benefits and Costs of the Urban Forest*, Journal of Arboriculture, September 1992.

² See Swiecki, T.J. and Berhardt, E. A., *Guidelines for Developing & Evaluating Tree Ordinances* (for the International

Recognizing that Pacific Grove has lost over 40% of its tree canopy in the past 25 years with a current city-wide tree canopy of about 20%, the new tree ordinance sets a goal to achieve a total tree canopy to 33% in the next 25 years, the same as the level of estimated coverage 25 years ago. It also establishes a desired tree canopy on private property based on lot size as follows:

Table 1: Tree Canopy Requirements on Private Property

Lot Size (square Feet)	Upper Canopy Trees	Lower Canopy Trees
Up to 4,000	0-1	1-2
4,001-6,000	2	2-3
6,001-8,000	3	3-4
Over 8,000	Variable	Variable

On commercial and governmental properties, the requirement is one tree per 30 feet of frontage, with a minimum of two trees if possible. On parking lots, the requirement is three trees per 25 parking spaces of 5,000 square feet of parking area or in conjunction with low impact development landscaping for stormwater management.

A number of variations are included in the new tree ordinance to allow for the consideration of various site-specific conditions (e.g. existing canopy coverage, lot size and location of structures, topography, etc.).

Inclusion of a city-wide tree canopy goal will enable the City to manage its urban forest from a more comprehensive perspective and thereby provide the entire community with the environmental, social, and economic benefits that are derived from a healthy and full tree canopy and root system. This can be achieved by establishing programs to maximize opportunities for planting trees on public property (e.g. in parks and on public streets).

2. Protected Trees

Unless a permit is issued, the existing tree ordinance prohibits a person from cutting down, removing, substantially pruning, or relocating a tree that meets the following criteria:

- Four inches in trunk diameter or greater
- Ten feet or higher
- Five or more trees
- Existing live replacement trees

Where permitted, the existing ordinance requires that every tree removed is required to be replaced by a minimum of two trees (2:1 replacement ratio), preferably with native species.

Society of Arboriculture), 2001.

The new tree ordinance identifies four categories of protected trees:

- **Native Trees** – all Gowen cypress trees, regardless of size; all Coast live oak, Coast redwood, Monterey cypress, Shore Pine, and Monterey pine trees 6 inches or greater in trunk diameter, measured at 54 inches above native grade.
- **Monarch Butterfly Habitat Trees** – all Trees in or within 100 yards of designated Monarch Sanctuaries.
- **Public Trees**– all Trees on Public Property 6 inches or greater in trunk diameter, measured at 54 inches above native grade, and all Street Trees, regardless of size.
- **Designated Trees** – all Trees that are specifically designated to be saved and protected on a public or private property during Development and all Trees otherwise identified — during Development or otherwise—for special protection by the property owner.

Protected trees are required to be maintained according to the *City's Urban Forestry Standards* (addressed below).

It is permissible to remove a protected tree from a private lot so long as the minimum overall tree canopy coverage targets (as described in Table 1: Tree Canopy Requirements on Private Property) are still maintained after such tree has been removed. For the removal of all other protected trees, whether living or dead, as well as in those cases where the tree is being left as a snag, one replacement tree shall be required for each protected tree removed. Owners are encouraged to bring their parcel up to the overall canopy coverage standards whenever possible.

Consistent with the existing tree ordinance, the new tree ordinance includes specific provisions to protect trees within the Monarch Grove Sanctuary and in Washington Park. The new tree ordinance also includes additional wildlife protection provisions that preclude tree pruning and removal activities during the nesting season for listed special status, threatened, or endangered species.

3. Trees and Development

The existing tree ordinance generally discourages the removal or alteration of trees as part of any development unless it precludes the property owner the right to “reasonable development” due to site constraints such as topography, tree location and condition etc. When a tree is permitted for removal, new trees are required, where feasible, to be replaced at a 2:1 ratio under the current requirements.

The new tree ordinance requires the number of “suitable” trees on the lot to be consistent with the tree canopy targets identified in Table 1: Tree Canopy Requirements on Private Property, above. “Suitable” is defined as appropriate to the situation, taking into account: safety of persons and property; environmental values such as wind break, soil erosion prevention, and wildlife habitat; tree density; tree health; aesthetic results; and economic factors.

4. High Risk Trees and Nuisance Trees

The existing tree ordinance does not allow a tree to be removed solely because it is diseased if the disease is readily curable or not spreading. While there are provisions to have a certified arborist examine the tree for disease and seek its removal, the existing ordinance has been generally more

onerous to remove sick or diseased trees, resulting in a greater potential for harm to life and property due to falling limbs, etc.

The new tree ordinance allows for the partial or complete removal of “high-risk” trees consistent with risk assessment protocols of the International Society of Arboricultural (ISA) Hazard Tree Evaluation rating system, which are described in the *Urban Forestry Standards*. The new tree ordinance also allows for the removal of “nuisance” trees (e.g. limbs that can cause a potential hazard, trees with pitch canker, etc.).

5. Tree Service Contractors

The new tree ordinance expands the existing tree ordinance tree service contractor provisions by requiring all contractors to adhere to the new ordinance and the *Urban Forestry Standards*, or face possible revocation of their City business license.

6. Permit Application and Processing

Provisions for permit application and processing are not substantively different between the existing and new ordinance with the exception that the new ordinance requires the preparation of a tree report, consistent with requirements identified by the *Urban Forestry Standards*, for the removal of a protected tree.

7. Appeals

Provisions for appeals are not substantively different between the existing and new ordinance. They are procedural in nature and will have little-to-no bearing on the environment.

8. Enforcement

Provisions for enforcement are not substantively different between the existing and new ordinance. They are procedural in nature and will have little-to-no bearing on the environment.

Urban Forestry Standards

The *Urban Forestry Standards* (herein incorporated into this Initial Study by reference) are the City’s primary tool to provide for orderly protection of specified trees, to promote the health, safety, welfare, and quality of life for the residents of the City, to protect property values and to avoid significant negative impacts on adjacent properties. By ensuring preservation and protection through the described standards of care, the City’s tree resources will remain significant contributions to the landscape, streets, and parks, and will continue to help define the unique character of Pacific Grove.

The *Urban Forestry Standards* establish specific technical standards and specifications necessary to implement the city’s tree ordinance (Municipal Code Title 12) and to facilitate the City’s 25-year goal to increase the total tree canopy coverage from 23% to 33%.

The *Urban Forestry Standards* are intended to provide consistent care and serve as benchmark indicators to measure achievement in the following areas:

- Ensure and promote preservation and restoration of the existing tree canopy cover within the city limits.
- Provide standards of maintenance required for protected and city-owned trees.
- Provide a standardized content for tree reports required by the city.
- Establish criteria for determining when tree risk exceeds community tolerance thresholds and management strategies need to be implemented in order to preserve public health, safety and welfare.
- Provide standards for the replacement of trees that are permitted to be removed.
- Increase the survivability of trees during and after construction events by providing protection standards and best management practices.
- Enforcement of these standards and associated regulations by authorized City staff and public safety personnel.

The *Urban Forestry Standards* are organized into seven sections as listed below:

- Introduction
- Pacific Grove's Protected Trees
- Removal, Replacement, and Planting of Trees
- Tree Protection and Preservation During Development
- Management Framework
- Growth & Development of the Pacific Grove Urban Forest
- Tree Reports

Other public agencies whose approval is required

None

III. Environmental Checklist

Environmental Factors Potentially Affected by the Project

The environmental factors checked below would be potentially affected by this project, involving as indicated by the checklist on the following pages.

	Aesthetics	X	Agriculture and Forest Resources		Air Quality
	Biological Resources		Cultural Resources		Geology / Soils
	Hazards & Hazardous Materials		Hydrology / Water Quality	X	Land Use / Planning
	Mineral Resources		Noise		Population / Housing
	Public Services		Recreation		Transportation / Traffic
	Utilities / Service Systems		Mandatory Findings of Significance		

Instructions

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question (see Source List, attached). A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that any effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated: Applies where incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
5. Earlier Analysis may be used where, pursuant to the tiering, program EIR, or other CEQA

process, one or more effects have been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case a discussion should identify the following on attached sheets:

- a. Earlier analysis used. Identify earlier analyses and state where they are available for review.
- b. Impacts adequately addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
- c. Mitigation measures. For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				X
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?				X
<p>Discussion</p> <p>(a) and (c) The <i>City of Pacific Grove General Plan</i> primarily focuses on scenic resources located along the coastline, including visual resources located at Asilomar State Park and along Ocean View Boulevard and Sunset Drive. Goal 3 in the <i>City of Pacific Grove General Plan</i> states “Preserve public visual access along the ocean.” Policies in the City’s Local Coastal Program Land Use Plan (LUP) with respect to scenic resources primarily aims to maintain vacant private parcels west of Jewell Avenue on the seaward side of Sunset Drive as open space (LUP Policy 3.4.5.4) and control new development in the Asilomar Dunes in order to protect scenic values (LUP policy 3.4.4.1). LUP Policy 2.5.4.8 requires that new development within the scenic forest-front area along Asilomar Avenue be designed to minimize the loss of Monterey pine and oak forest and retain public views toward the inland face of the high dunes.</p> <p>The proposed project aims to minimize the loss of Protected Trees, as described in Chapter 12.30 of the proposed ordinance, and to retain the scenic quality and aesthetic resources associated with the urban forest throughout the City. The new ordinance and the <i>Urban Forestry Standards</i> will help to maintain the City’s existing tree resources and, over time, expand its tree canopy, which will improve the scenic vistas and overall scenic quality of the City, resulting in a beneficial environmental impact.</p> <p>(b) State Route (SR) 68 in the City of Pacific Grove is a designated state scenic highway. The proposed project would retain the existing visual quality of SR 68 by continuing to protect Monterey Pines and other native trees in this corridor. Therefore, the proposed project</p>				

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would have a beneficial impact on scenic resources within a state scenic highway.				
(d) The proposed project would not create a new source of substantial light or glare. To the contrary, the proposed project protects the tree canopy and would result in canopy coverage that would help to reduce existing sources of light and glare by covering light sources and thereby providing a beneficial impact, particularly on nighttime views.				
2. AGRICULTURE RESOURCES AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code section 4526) or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X
d) Result in loss of forest land or conversion of forest land to non-forest uses?		X		
e) Involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?		X		
Discussion				

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<p>(a-c, e) The proposed project would not occur on land designated for agricultural resources or designated forest land under a Williamson Act contract. As such, the proposed project would have no impact to agricultural resources</p> <p>(d and e) The proposed project includes a number of specific regulations and standards designed to protect and enhance the city's urban forest. The urban forest is distinct from forest land as typically conceived, but is nevertheless collectively results in canopy coverage. Over the past 25 years, the City's tree canopy has been reduced by over 40% (from 33% to between 19% and 23%). The primary purpose of the new tree ordinance and associated <i>Urban Forestry Standards</i> is to reverse this trend and to set a goal to restore the tree canopy to its previous level. To achieve this, the new ordinance establishes a minimum tree canopy coverage requirements on private property based on lot size (see Table I: Tree Canopy Requirements on Private Property).</p> <p>The estimated planting potential discussed in the project description indicates that it could be feasible for the City to achieve a 33% tree coverage goal over the next several decades, if additional management strategies are employed in addition to the proposed project. Therefore, additional mitigation is required to achieve this goal.</p> <p>Mitigation Measures:</p> <ul style="list-style-type: none"> Forestry 1 - Conduct an inventory of all trees growing on public property, including tree type, health/structure, risk and maintenance priority levels (Note: this project has been funded through a CA Strategic Growth Council Urban Greening Grant). Forestry 2 - Develop a standard methodology for tree canopy assessment to measure changes over the time, as part of the development of a public tree inventory. Forestry 3 – Using the public tree inventory, develop a public tree maintenance and monitoring program for city property, including a tree risk assessment, tree maintenance cycles, and performance metrics for tree maintenance operations. Forestry 4 – Develop an assessment of available tree planting sites on City owned property, including public rights of way and designated open space. Forestry 5 - Develop a public tree planting program to replace all trees removed and plant a minimum of an additional 300 trees per year on public property to achieve full stocking potential over the next twenty five year period. 				

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<p>Forestry 6 - Establish tree planting partnerships with local community groups and non-governmental organizations, establishing tree education programs with the Pacific Grove Unified School District, and pursuing grant funding opportunities.</p> <p>Implementation of these mitigation measures will result in a less than significant impact.</p>				
<p>3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:</p>				
a) Conflict with or obstruct implementation of the applicable air quality plan?				X
b) Violate any air quality standard or contribute to an existing or projected air quality violation?				X
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?				X
d) Expose sensitive receptors to substantial pollutant concentrations?				X
e) Create objectionable odors affecting a substantial number of people?				X
<p>Discussion (a-e)</p> <p>The proposed project would not result in the construction of any new development, nor would it increase traffic conditions.</p> <p>Trees exchange gases with the atmosphere and capture particulates that can be harmful to people. The rate at which trees remove gaseous pollutants such as ozone, carbon monoxide, and sulfur dioxide depends primarily on tree species, the amount of foliage, number and condition of the stomata, and meteorological conditions. Because urban forests can reduce summertime temperatures, they provide another means of improving air quality. By extrapolating from studies for non-urban forests, it has been inferred that a mature urban tree can intercept up to 50 pounds of particulates year (Dwyer et. al., 1992).</p> <p>The proposed project would result in an increase in the number and distribution of trees in the City. This would improve air quality and is therefore considered a beneficial air quality</p>				

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impact.				
4. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			X	
<p>Discussion</p> <p>(a-d)</p> <p>The proposed project would provide additional wildlife habitat by increasing the amount of tree canopy throughout the city over time. Additionally, the planting of additional trees, particularly native trees, would improve the diversity and amount of flora in the city. Planting of additional trees would not only improve wildlife habitat, it would also help</p>				

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<p>conserve soils, reduce stormwater runoff through natural infiltration, enhance biodiversity, and provide substantial long-term environmental benefits to the overall urban ecosystem in the City.</p> <p>The new ordinance and <i>Urban Forestry Standards</i> contain provisions to consult with the City Arborist or qualified biologists and prepare tree reports or assessments of tree resources for removal of protected trees. Such evaluations would address sensitive habitats and require mitigation on a case-by-case basis. Furthermore, the proposed project contains specific language to protect existing trees, protect sensitive habitat areas (e.g. the Monarch Grove Sanctuary and Washington Park) (Ch. 12.30.010) and requires that tree pruning and removal activities take place outside of nesting periods of listed special status, threatened, or endangered species.</p> <p>Therefore, the proposed project would improve the City's biological resources and is therefore considered a beneficial impact.</p> <p>(e) The proposed project is a replacement of the existing Title 12: Trees and Vegetation of the <i>City of Pacific Grove Municipal Code</i>. Therefore, upon approval by the City Council, the proposed project would not conflict with the City's tree preservation policy or ordinance.</p> <p>(f) The City has designated a Monarch Butterfly Habitat Area, and the proposed ordinance specifies that all trees in or within 100 yards of designated Monarch Sanctuaries as protected trees. Section 12.30.010(2)(A) of the proposed ordinance describe the geographic area of the Monarch Grove Sanctuary. Section 12.30.030(b) requires that pruning or removal of Monarch Butterfly Habitat Trees is only allowed in accordance within the approved Monterey Sanctuary Habitat Management Plan, and Section 12.30.030(c) does not allow pruning and removal from October through April unless deemed necessary for public health and safety.</p> <p>These provisions are presently adopted in the existing municipal code, therefore there is no change from existing policy.</p>				
5. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource				X

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pursuant to section 15064.5?				
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
d) Disturb any human remains, including those interred outside of formal cemeteries?				X
<p>Discussion</p> <p>(a-d)</p> <p>Historical resources include any resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR), a resource included in a local register of historical resources, or any object building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant.</p> <p>The proposed project is the replacement of an existing tree ordinance with a new ordinance and associated Urban Forestry Standards. As with the existing ordinance, any removal of trees (e.g. due to disease) under the new tree ordinance would result in minimal ground disturbance located in primarily urban areas. Therefore, there is no change from the existing condition and impacts to cultural resources are not anticipated to occur.</p> <p>Development project applications in the Archaeological Sensitivity Zone designated by the Coastal Land Use Plan require archaeological reports. Where significant resources are identified, mitigation is required for the site. Further, if construction activities were to result in ground-disturbing activities that affect undiscovered archeological resources during construction activities, project applicants would be required to comply with state laws regarding the disposition of Native American burials, which falls within the jurisdiction of the California Native American Heritage Commission (NAHC) (Public Resources Code, Section 5097.98).</p> <p>Because no changes are proposed to any historic structures, there would be no impact on the City's existing historic resources.</p>				
<p>6. GEOLOGY AND SOILS. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</p>				
a) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?				X

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b) Strong seismic ground shaking?				X
c) Seismic-related ground failure, including liquefaction?				X
d) Landslides?				X
e) Result in substantial soil erosion or the loss of topsoil?				X
f) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				X
g) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X
h) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.				X
<p>Discussion (a-h) The proposed project is a revision to the City's tree ordinance and would not involve the construction of any structures, infrastructure improvements, etc. Provisions for the treatment of soils and measures to minimize erosion associated with tree removal and/or replanting are specified in the <i>Urban Forestry Standards</i> (see Section 5.4.3 Construction Impact Analysis) and would be limited in area. Therefore, no impacts to geology and soils are envisioned.</p>				
<p>7. GREENHOUSE GAS EMISSIONS. Would the project:</p>				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?				X
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X
<p>(a-b) Climate change is an issue of global concern. Urban trees can help mitigate climate change by sequestering atmospheric carbon (from carbon dioxide) in tissue and by altering energy</p>				

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<p>use in buildings, and consequently altering carbon dioxide emissions from fossil-fuel-based power plants (Abdollahi, 2000).</p> <p>Trees reduce the amount of carbon in the atmosphere by sequestering carbon in new growth every year. The amount of carbon annually sequestered is increased with the species, size and health of the trees. According to a study prepared for the City of Pacific Grove by i-Tree in June of 2011, the current gross sequestration of City of Pacific Grove trees is about 890 metric tons of carbon per year with an associated value of \$18.1 thousand. Net carbon sequestration in the Pacific Grove urban forest is about 819 metric tons (PG urban forest assessment, i-Tree, 2011).</p> <p>As trees grow, they store more carbon as wood. As trees die and decay, they release much of the stored carbon back to the atmosphere. Thus, carbon storage is an indication of the amount of carbon that can be lost if trees are allowed to die and decompose. Trees in City of Pacific Grove are estimated to store a total of 10,900 metric tons of carbon (\$222 thousand). Of the species sampled, Coastal live oak stores and sequesters the most carbon (approximately 36.6% of the total carbon stored and 45.9% of all sequestered carbon) (Ibid.).</p> <p>And while the climate is temperate in Pacific Grove, trees can also contribute to energy conservation because they help to reduce the cost of heating and cooling buildings.</p> <p>Given these beneficial effects, the proposed changes/revisions to the ordinance would have a beneficial impact by reducing greenhouse gas emissions.</p>				
8. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as				X

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a result, would it create a significant hazard to the public or the environment? (V.13)				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X
<p>Discussion</p> <p>(a – d) The proposed project would not result in construction of any new buildings or facilities, nor would it change the business practices of any commercial operator using hazardous materials. Therefore, no impacts to the public resulting from the use or transport of hazardous materials.</p> <p>(e) The City is not located within an airport land use plan or within the vicinity of a private airstrip.</p> <p>(g) The proposed revisions to the code amendment would not increase traffic within the City and therefore would not impact any emergency response plan or evacuation route.</p> <p>(h) The potential for wildfires is a particularly acute issue in Pacific Grove. This is due in part to the predominant types of tree species, especially the Monterey pine, and the aging forested areas throughout the city (e.g. George Washington Park and Rip Van Winkle Park). Similar to other areas in California, management of vegetation at the wildland/urban interface to</p>				

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<p>reduce fire risk is an important issue.</p> <p>CalFire has developed a rating of wildland fire threat for the entire state. The rating is based on potential fire behavior (derived from weather, terrain and vegetative-fuel data) and expected fire frequency (derived from 50 years of fire-history data). Areas are assigned one of four fire threat ratings: moderate, high, very high and extreme. In Pacific Grove, areas along the southern portion of the city limits and adjacent to the Pebble Beach Del Monte Forest are designated as Very High Fire Hazard Severity Zones (VHFHSZ) of local responsibility.</p> <p>The California State Public Resources Code section 4291-4299 has requirements for creating defensible space for structures in lands covered by flammable vegetation. The guidelines created by CalFire to help landowners interpret these rules state: In general, fuel reduction means arranging the trees, shrubs and other fuels sources in a way that makes it difficult for fire to transfer from one fuel source to another. It does not require cutting down all trees and shrubs or creating a bare ring of earth across the property.</p> <p>The proposed project requires a minimum tree canopy coverage on residential lots based on lot size. It is permissible to remove a protected tree from a private lot so long as the minimum overall tree canopy coverage targets (as described in Table I: Tree Canopy Requirements on Private Property) is still maintained after such tree has been removed.</p> <p>Given the fact that areas designated VHFHSZ by CalFire already have significant tree canopy coverage, the number of trees, and thus potential wildland fire risk is not anticipated to increase. Furthermore, the CalFire code requirements stated above to create defensible space for structures in lands covered by flammable vegetation will remain unchanged. Section 12.30.030(a)(3) provides for tree removal within fuel management zones or within very High Fire Hazard Severity Zones to reduce risks due to wildfire.</p> <p>Therefore, the proposed project does not create a significant risk of loss, injury or death involving wildland fires.</p>				
9. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?				X
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local ground water table level (for example, the production rate of pre-existing nearby wells				X

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would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site.				X
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site.				X
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?				X
f) Otherwise substantially degrade water quality?				X
g) Place housing within a 100-year flood-hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood-hazard area structures, which would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by seiche, tsunami, or mudflow?				X
<p>Discussion (a – f) Stormwater management in urbanized settings faces special challenges: Paved surfaces and buildings generate high amounts of runoff while at the same time leaving little space for constructed stormwater management facilities or for the soil and vegetation combination that could reduce the need for these facilities.</p>				

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<p>Like their forestland counterparts, urban trees intercept rainfall, direct precipitation into the ground through trunk flow, and take up stormwater through their roots. In addition, urban tree roots penetrating through typically impermeable urban soil layers into more permeable zones have the beneficial effect of increasing stormwater infiltration rates, which would reduce runoff and improve groundwater supplies.</p> <p>The cities of the Monterey Peninsula, including Pacific Grove, created the Monterey Regional Stormwater Management Program (MRSWMP) to apply for a joint National Pollutant Discharge Elimination System (MPDES) permit to regulate the discharge of runoff from each city’s Municipal Separate Storm Sewer Systems (MS4). Pacific Grove has additional obligations to reduce pollutant loads within storm runoff flowing to near shore areas within the Monterey Bay National Marine Sanctuary designated as Areas of Special Biological Significance (ASBS).</p> <p>In the first quarter of 2011, the Central Coast Regional Water Quality Control Board (CC RWQCB) mandated that all local jurisdictions with storm water permits review their municipal codes and zoning to identify mechanisms for encouraging “low impact development” (LID). LID attempts to match predevelopment conditions with design features that compensate for losses of rainfall abstraction and changes in runoff concentration due to site development. LID design features include vegetation and landscape features, including trees, that maintain sites infiltration potential, evapotranspiration, and surface storage, as well as increased travel time to reduce rapid concentration of excess runoff.</p> <p>As an existing urbanized area, Pacific Grove has limited ability to implement LID design requirements into new development, and most redevelopment is too small in scale to meet the already established Mandatory Design Standards required by the Monterey Regional Storm Water Management Program (MRSWMP).</p> <p>Given their environmental benefits, trees are an important component of the City’s LID strategy that is being required by the CC RWQCB.</p> <p>Therefore, the proposed project would not substantially alter the existing drainage pattern or create or contribute to stormwater runoff, which would exceed the capacity of existing or planned storm drain facilities, or otherwise substantially degrade water quality. Planting more trees and incorporating trees into city-sponsored LID projects on public property (e.g. streets, parking lots, parks, the golf course, etc.) would have a beneficial effect on hydrology and water quality.</p> <p>(h-j) No built structures or facilities are proposed that could result in impacts in flood hazard areas nor inundation by seiche, tsunami, or mudflow, and therefore no impacts would</p>				

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occur.				
10. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable Habitat Conservation Plan or Natural Community Conservation Plan?				X
<p>Discussion</p> <p>(a) The proposed project is a revision of the tree ordinance. No new structures or facilities would be constructed. Because the goal of the ordinance is to increase the tree canopy and improve the urban forest throughout the City, the proposed project would likely have a beneficial effect on neighborhoods throughout the city by improving their aesthetic quality. Indeed, studies have shown that trees increase property value and make neighborhoods more desirable places to live (Dwyer 1992).</p> <p>(b) <u>Pacific Grove General Plan</u> The <i>City of Pacific Grove General Plan</i> provides a framework for future growth and development within the City. The Natural Resources element of the General Plan specifically identifies goals and policies related to the protection of tree resources and the preparation of an urban forest management plan, as described below:</p> <p><u>Goal 1</u> – Comprehensively manage Pacific Grove’s vegetation and wildlife habitat.</p> <p><u>Policy 3</u> – Actively promote tree planting to maintain and renew the urban forest. The Local Coastal Program Land Use Plan calls for the City to undertake and implement a tree management program to maintain and enhance the Monterey pine and cypress stands within the city. LUP 2.3.6.1 calls for a complete inventory of the trees within the city’s coastal zone to determine age, disease, and need for reforestation.</p> <p><u>Program B</u> – Prepare and adopt a comprehensive and city-wide urban forest management plan. Among other issues, the urban forest management plan will address aesthetics, forest</p>				

ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>renewal, and safety.</p> <p><u>Program C</u> – Work with citizens to encourage tree planting on private property.</p> <p><u>Program D</u> – Encourage the restoration and maintenance of native plants.</p> <p>The goal of the proposed project is to address urban forestry practices on a city-wide basis and to require a more comprehensive set of tree management standards that will apply to both private and public land. It is the intent of the City that the new tree ordinance and <i>Urban Forestry Standards</i> will expand the City's tree canopy and thereby improve the environmental benefits (improved air quality, carbon sequestration, stormwater infiltration, wildlife habitat, etc.) as well as the social and economic benefits (improved health, aesthetic quality, etc.) that can be derived from a healthy and diverse urban forest. However, mitigation measures are required to achieve consistency with the above described programs and policies in addition to the proposed ordinance and <i>Urban Forestry Standards</i>..</p> <p><u>Pacific Grove Municipal Code</u></p> <p>The proposed project is a replacement of the Title 12 – Tree and Vegetation. Adoption of the new tree ordinance by the City Council, by definition, would not result in a conflict in the Municipal Code.</p> <p><u>Pacific Grove Local Coastal Program Land Use Plan</u></p> <p>A portion of the City of Pacific Grove is located in the coastal zone as defined by the California Coastal Commission (CCC). The Local Coastal Program Land Use Plan (LUP) is required under the provisions of the California Coastal Act of 1976, as amended, for all areas within the state's coastal zone. The LUP for the City of Pacific Grove was adopted by the City Council on June 7, 1989, as an element of the City's General Plan and consists of a local government's land use plans, zoning ordinance, zoning district maps and other ordinances, which when taken together, meet the requirements of, and implement the provisions and policies of the Coastal Act at the local level. The LUP was certified by the CCC on January 10, 1991. The implementing regulations have not been certified to date. The LUP contains policies related to the Asilomar Dunes and Asilomar Forest, which are considered Environmentally Sensitive Habitat Areas.</p> <p>Mitigation Measures:</p> <p>LU-1: Develop a complete inventory of trees on public property and within the city's coastal zone to determine age, disease, and need for reforestation to implement LUP Policy 2.3.6.1. The City has recently been awarded an Urban Greening Grant by the CA Strategic Growth Council to prepare such an inventory (May 2012).</p>				

ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>LU-2: Subsequent to adoption of the proposed project, develop a city-wide tree management program to implement General Plan Program B, including programs for replacement plantings of Monterey pines, Monterey cypresses, and Coast live oaks.</p> <p>LU-3: To implement, General Plan Program D, develop and maintain a planting list of desirable and adaptable trees, and native drought resistant vegetation, as well as recommended landscape guidelines.</p> <p>LU-4: Periodically review and revise the existing <i>Landscape Trees for Pacific Grove</i>, as referenced in Section 12.30.050 of the proposed ordinance and in the <i>Urban Forestry Standards</i>.</p> <p>LU-5: Add a provision to Section 12.30.050 of the proposed project to clarify that if higher standards apply to Environmentally Sensitive Habitat Areas within the Coastal zone, as identified in the City's Local Coastal Program, the more restrictive policy shall apply.</p> <p>(c) The proposed project is a set of city-wide regulations. The majority of the City is not located in an area designated as a Habitat Conservation Plan or Natural Community Conservation Plan. The City has designated a Monarch Butterfly Habitat Area, and the proposed ordinance specifies that all trees in or within 100 yards of designated Monarch Sanctuaries as protected trees.</p> <p>Section 12.30.010(2)(A) of the proposed ordinance describe the geographic area of the Monarch Grove Sanctuary. Section 12.30.030(b) requires that pruning or removal of Monarch Butterfly Habitat Trees is only allowed in accordance within the approved Monterey Sanctuary Habitat Management Plan, and Section 12.30.030(c) does not allow pruning and removal from October through April unless deemed necessary for public health and safety.</p> <p>These provisions are presently adopted in the existing municipal code, therefore there is no change from existing policy.</p>				
II. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan,				X

ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
or other land use plan?				
Discussion (a-b) No known mineral resources are located within the City of Pacific Grove nor designated in the <i>City of Pacific Grove General Plan</i> or other land use plan. Therefore, the proposed project would have no impact to mineral resources.				
12. NOISE. Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?				X
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?				X
c) Substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X
Discussion (a, c, d) The proposed project would not include the construction of any new buildings or facilities. Activities associated with tree installation, maintenance, and removal (e.g. chain saws, stump grinders, etc.) would be short-term and would generally be similar to existing conditions. Furthermore, existing City noise regulations that control noise associated with construction				

ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
activities (including tree maintenance) would remain unchanged. Therefore, the proposed project would have no impact on noise levels within the City.				
(b) The proposed project would result in the planting and maintenance of trees throughout the City and is not anticipated to result in the exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels.				
(e, f) The proposed project is not located within an airport land use plan or within the vicinity of a private airstrip. Therefore, the proposed project would not expose additional people to excessive noise levels.				
13. POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X
Discussion (a-c) The proposed project is a code amendment that would address urban forestry practices on a city-wide basis and to require a more comprehensive set of tree management standards that will apply to both private and public land. It would not result in the addition of any new housing units or commercial development and therefore would not induce a substantial increase in population or housing in the area and therefore there would be no impact.				
14. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physical altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
a) Fire protection?				X
b) Police protection?				X

ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Schools?				X
d) Parks?				X
e) Other public facilities?				X
<p>Discussion (a-e) The proposed project is a code amendment that would address urban forestry practices on a city-wide basis and to require a more comprehensive set of tree management standards that will apply to both private and public land. It would not result in the addition of any new housing units or commercial development and therefore would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physical altered governmental facilities. Therefore, no impacts would occur.</p>				
<p>15. RECREATION. Would the project:</p>				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X
<p>Discussion (a-b) The proposed project is a code amendment that would address urban forestry practices on a city-wide basis and to require a more comprehensive set of tree management standards that will apply to both private and public land. It would not result in the addition of any new housing units or commercial development and therefore would not directly affect recreational amenities or facilities. Therefore, the proposed project would have no impact on recreation facilities in the City.</p>				
<p>16. TRANSPORTATION/TRAFFIC. Would the project:</p>				
a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation				X

ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				X
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (for example, sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment)?				X
e) Result in inadequate emergency access?				X
f) Conflict with adopted policies, plans, or programs supporting regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				X
<p>Discussion (a-f) The proposed project is a code amendment that would address urban forestry practices on a city-wide basis and to require a more comprehensive set of tree management standards that will apply to both private and public land. It would not result in the addition of any new housing units or commercial development and therefore would not increase traffic nor conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. Furthermore, no physical changes to the existing circulation system are proposed.</p> <p>Instead, by planting more trees, particularly on streets, traffic speeds are typically reduced resulting in safer conditions for pedestrians. This would improve traffic conditions and create more pedestrian-friendly communities throughout the City. Therefore, no impacts would occur.</p>				
<p>16. UTILITIES AND SERVICE SYSTEMS. Would the project:</p>				

ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction or which could cause significant environmental effects?				X
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects				X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project, projected demand in addition to the provider's existing commitments?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X
<p>Discussion</p> <p>(a – g)</p> <p>The proposed project is a code amendment that would address urban forestry practices on a city-wide basis and to require a more comprehensive set of tree management standards that will apply to both private and public land. It would not result in the addition of any new housing units or commercial development and therefore would not affect existing utilities and services.</p>				
<p>17. MANDATORY FINDINGS OF SIGNIFICANCE. Does the project:</p>				
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish				X

ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects.)				X
c) Have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?				X
<p>Discussion</p> <p>(a) No impact. See Biological Resources and Hydrology & Water Quality sections discussion above.</p> <p>(b) The proposed project is a code amendment that would address urban forestry practices on a city-wide basis and to require a more comprehensive set of tree management standards that will apply to both private and public land. It would not result in the addition of any new housing units or commercial development. Cumulatively over time, the proposed project would improve the environmental benefits (improved air quality, carbon sequestration, stormwater infiltration, wildlife habitat, etc.) as well as the social and economic benefits (improved health, aesthetic quality, etc.) that can be derived from a healthy and diverse urban forest.</p> <p>(c) As described throughout this environmental checklist, the proposed project would not result in substantial environmental effects on human beings either directly or indirectly.</p>				

IV. Determination

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	X
I find that the proposed project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a potentially significant or a potentially significant unless mitigated impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	



 Sarah Hardgrave
 Environmental Programs Manager
 City of Pacific Grove

July 11, 2012
 Date

Source List

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Appendices

- A** **City of Pacific Grove Municipal Code Chapters 12.10 to 12.90 – Trees and the Urban Forest**
- B** **City of Pacific Grove Urban Forestry Standards**

Appendix A

City of Pacific Grove Municipal Code Chapters 12.10 to 12.90 – Trees and the Urban Forest

Trees and the Urban Forest
[replacing existing chapters 12.04 and 12.16]

Chapters

- 12.10 Purpose, Definitions, Applicability, and Effect
- 12.20 Desired Canopy
- 12.30 Protected Trees
- 12.40 Trees and Development
- 12.50 High Risk Trees and Nuisance Trees
- 12.60 Tree Service Contractors
- 12.70 Permit Application and Processing
- 12.80 Appeals
- 12.90 Enforcement

Chapter 12.10 Purpose, Definitions, Applicability, and Effect

Sections:

- 12.10.010 Purpose
- 12.10.020 Findings
- 12.10.030 Definitions
- 12.10.040 Applicability, Conflicts, and Other Requirements
- 12.10.050 Authority and Responsibility
- 12.10.060 Interpretations and Exceptions, Language, and Time Limits

12.10.010 Purpose

A. The purpose of this title is to facilitate the protection, preservation, and restoration of Pacific Grove's urban forest and other vegetation; and enhance the visual and aesthetic uniqueness of Pacific Grove, in accordance with the City of Pacific Grove General Plan.

B. Accordingly, this title provides regulations relating to the removal and pruning of Trees in public and private areas, to safeguard life, limb, health, property and public welfare, by managing the urban forest pursuant to these regulations and the *Urban Forestry Standards*, and developing programs for the urban forest of the City of Pacific Grove.

C. This Code is adopted pursuant to the authority granted by Section 7 of Article XI of the State constitution to a City to make and enforce such local, police, sanitary and other regulations as are not in conflict with the general laws of the State.

12.10.020 Findings

The city council makes the following general findings regarding the relationship between health, safety, and general welfare, and the selection, planting, conservation, protection, and maintenance of trees in public and private areas as addressed in this chapter. These shall be the same findings as required to be made for a permit application for Protected Tree removal and replacement.

- (a) Trees are a valuable long-term community asset, and tend to increase property values.
- (b) Trees protect us from climatic extremes. They recycle air and water, absorb carbon dioxide and release oxygen, provide shade and windbreak protection, and can moderate temperatures for an entire neighborhood or community.
- (c) Trees can improve human health by absorbing air pollution and trapping dust. In addition, they buffer noise from traffic and other sources.
- (d) Trees diffuse the effects of rain that weather houses, erode topsoil, and cause flooding. They provide enrichment of the soil for more plant growth.
- (e) Trees reduce the volume and slow the velocity of storm drainage and dry weather flows. They also are able to filter out many contaminants that would otherwise end up in the bay or ocean.
- (f) Trees, particularly those indigenous to the Monterey Peninsula, provide habitat for birds, butterflies, and other animals.
- (g) Trees contribute to the pleasantness and serenity of neighborhoods.
- (h) The presence of Trees can do much to reduce the stress of modern living.
- (i) Trees may enhance the architectural character of a neighborhood, accent or soften the effect of structures, promote visual formality and aesthetic interest, and screen undesirable views.

The above general findings are applicable when the health of Trees is preserved and the safety and general welfare of the public is observed. Healthy Trees are achieved when the right Trees are planted in the right location and are properly maintained.

12.10.030 Definitions

For the purposes of this title, the definitions in the "*Urban Forestry Standards*" shall be the same as for the following regulations issued to implement this title.

12.10.040 Applicability, Conflicts, and Other Requirements

A. Applicability. This title applies to all trees and other vegetation within the City of Pacific Grove, except on Federal lands exempt from these standards.

B. Conflicts. If conflicts occur between this title and PGMC Title 18 (Building and Construction) or Title 23 (Zoning), the more protective requirements shall prevail. If conflicts occur between this title and other titles of the PGMC, or other City regulations, this title shall prevail.

C. Liability. Nothing contained in this title, within any adopted *Urban Forestry Standards*, other management programs, any Street Tree landscaping plan, or other city document, shall be

deemed to impose any liability for duty of care or for damages upon the city, its officers, or employees, nor shall it relieve the owner of private property from the duty to keep a Protected Tree on his property, or under his control in such condition as to prevent it from constituting a hazard or an impediment to travel or vision upon any street, park, boulevard, alley, or public place within the city.

D. Severability. Should any part or provision of this title be declared by a court of competent jurisdiction to be invalid, the same shall not affect the validity of the ordinance as a whole or any part thereof other than the part held to be invalid.

E. Adoption of Standards. The city hereby adopts the Urban Forestry Standards, which may be amended from time to time. The city may also adopt management programs, lists of appropriate tree and plant species, Public or Street Tree landscaping plans, and other standards for the planting, maintenance, and removal of trees, shrubs, and other landscaping on public and private lands. All work performed under this title shall be performed in accordance therewith.

12.10.050 Authority and Responsibility

A. Generally. The Person in possession of Public Property and the owner of any private property shall have a duty to keep the Protected Trees upon the property and under their control in a safe and healthy condition. The City is responsible for maintaining all Street Trees along City streets not planted by the property owner.

It is the responsibility of all Persons owning any land within the city to keep all private trees that extend over any public street or walkway pruned so as to remove any foliage encroaching into space above a street to a height of 14 feet, and above sidewalk areas to a height of eight feet. The City holds the same responsibility for Street Trees and other Public Trees.

The City shall be responsible for the maintenance of all Public and Street Trees, unless planted by the property owner or a prior owner of that parcel. Property owners may maintain, at their initiative, Street Trees on their property; such maintenance shall be in full conformance with the *Urban Forestry Standards*.

Any Person who determines a tree located on property possessed, owned, or controlled by them is a danger to the safety of themselves, others, or structural improvements on-site or off-site, shall have an obligation to secure the area around the tree or support the tree, as appropriate, to safeguard both Persons and improvements from harm. In determining the level of risk and urgency to address a potential danger, the requirements under Chapter 12.50 shall also apply.

Pruning, other maintenance, and replacement of trees shall generally be the responsibility of the property owner(s) and shall be at property owner's expense. Pruning, other maintenance, and the replacement of Street Trees shall generally be the responsibility of the city and shall be at city's expense.

B. City Staff. The city manager, through the departments of Public Works and Community Development, shall be responsible for the development and maintenance of standards necessary for implementation of this title, which shall be known as the Urban Forestry Standards found in

Chapter 5, Pacific Grove *Urban Forest Management*. The city arborist and public works director are charged primarily with the duty of administering and enforcing this title. Among other duties, the city arborist and public works director shall issue tree maintenance and removal permits, oversee implementation of the *Urban Forest Management Plan* as adopted by the city council and amended from time to time, and monitor and evaluate the effectiveness of this title.

The city manager or his designee may enforce the provisions of this title by the issuance of citations. The city attorney may bring a civil action in any court of competent jurisdiction to enforce and/or recover civil penalties for the city as may be allowed by this title.

C. Natural Resources Commission. The natural resources commission shall prepare a Street Tree landscaping plan setting forth the types and kinds of Trees and shrubs, especially recommending native species, Suitable and desirable for planting along public streets within the city.

The natural resources commission shall also develop lists of Trees and shrubs recommended for use on private property. The commission shall make such determinations after consultation with city staff, arborists, and nursery operators familiar with the subjects of such plantings.

Thereafter, the commission shall from time to time prepare updates covering the same subjects, each of which shall be complete in itself. Such lists shall be made available at City Hall and shall be posted on the city's website.

Chapter 12.20 Desired Canopy

Sections

- 12.20.010 Overall Canopy Coverage
- 12.20.020 Reasonable Variation

12.20.010 Overall Canopy Coverage. The entire community benefits from a healthy and full tree canopy and root system. The City of Pacific Grove hereby establishes a 25-year city-wide canopy cover target to maintain the existing canopy cover with the goal of a total canopy cover of 33%. Programs shall maximize opportunities for the planting of Public Trees. On private properties, the desired overall nature and scope of tree canopy to achieve a mixed, healthy urban forest, is as follows:

(a) Residential properties:		
<u>Lot Size (square Feet)</u>	<u>Upper Canopy Trees</u>	<u>Lower Canopy Trees</u>
Up to 4,000	0-1	1-2
4,001-6,000	2	2-3
6,001-8,000	3	3-4
Over 8,000	Variable	Variable

(b) Commercial and governmental properties. One Tree per 30 feet of frontage, with a minimum of two Trees, if space is available.

(c) Parking Lots. Three Trees per 25 parking spaces or 5,000 square feet of parking area, or in conjunction with low impact development landscaping for stormwater management.

12.20.020 Appropriate Variation for Individual Situations. While the overall canopy coverage standards shall serve as the community-wide desired levels of forest cover, the appropriate configuration (number, size, species, and placement) for a given parcel will depend on a series of interrelated factors:

- (a) Neighborhood, Zoning district, and parcel objectives and aesthetics;
- (b) Existing canopy coverage on the lot
- (c) Adjacent properties and land uses;
- (d) Lot size and location of structures;
- (e) Available space
- (f) Topography and soil conditions;
- (g) Stormwater management and erosion prevention;
- (h) Windbreak potential;
- (i) Viewshed protection;
- (j) Wildlife habitat protection
- (k) Long-term health potential of the replacement Tree; and
- (l) Existing infrastructure and potential for adverse impacts.

Chapter 12.30 Protected Trees

Sections

- 12.30.010 Categories of Protected Trees
- 12.30.020 Planting and Maintenance of Protected Trees
- 12.30.030 Pruning and Removal of Protected Trees
- 12.30.040 Wildlife Protection
- 12.30.050 Replacement of Protected Trees

12.30.010 Categories of Protected Trees

(a) Five categories of Trees are protected as specified below.

(1) **Native Trees** – all Gowen cypress trees, regardless of size; all Coast live oak, Coast redwood, Monterey cypress, Shore Pine, and Monterey pine trees 6 inches or greater in trunk diameter, measured at 54 inches above native grade.

(2) **Monarch Butterfly Habitat Trees** – all Trees in or within 100 yards of designated Monarch Sanctuaries. For the purposes of this title, the following sites are designated as Monarch Sanctuaries, serving as official Pacific Grove monarch butterfly over-wintering sites:

(A) **Monarch Grove Sanctuary.** That portion of land bordered on the east and west by Ridge Road and Grove Acre Avenue, respectively, on the south by Short Street, and on the north by the northerly boundary of assessor's parcel numbers 006-361-30-031, -032, -033, and

-034, extended from Grove Acre easterly to Ridge Road.

(B) **Washington Park Site.** That portion of land bordered on the east and west by Alder Street and Melrose Avenue, respectively, on the north by Pine Avenue, and on the south by the imaginary extension of Junipero Avenue westerly from Alder to Melrose.

(3) **Public Trees**– all Trees on Public Property 6 inches or greater in trunk diameter, measured at 54 inches above native grade, and all Street Trees, regardless of size.

Unless authorized by permit, no person shall:

- (a) Plant, Remove, Top, or in any way damage, destroy, injure, or mutilate a Public Tree.
- (b) Fasten any sign, wire, or injurious material to any Public Tree.
- (c) Excavate any ditch or tunnel, or place concrete or other pavement, within the Critical Root Zone of any Public Tree.

(4) **Designated Trees** – all Trees that are specifically designated to be saved and protected on a public or private property during Development and all Trees otherwise identified—during Development or otherwise—for special protection by the property owner. Trees that are proposed to be removed as part of a Development project shall be replaced in accordance with Chapter 12.20.

(b) Nothing in this title limits or modifies the existing authority of the city under Title 23 (Zoning) to require Trees and other plants not covered by this title to be identified, retained, protected, and/or planted as conditions of the approval of Development.

12.30.020 Planting and Maintenance of Protected Trees

(a) The city, its residents, and its property owners benefit by having the right Tree planted in the right place. Native trees are preferred, where Feasible. Trees to be planted should be selected from a list of appropriate landscape trees for Pacific Grove, whenever possible. The planting and maintenance of Protected Trees shall be in accordance with the city's *Urban Forestry Standards*.

(b) Planting of Public and Street Trees shall be in conformance with an approved management plan for Trees on public property, including a Street Tree landscaping plan, developed and updated from time to time by the natural resources commission and approved by the city council. Street Tree plantings shall be considered first from the viewpoint of the people passing on or using the Streets, the benefits to stormwater management, the extension of pavement life due to the shade they provide, and from the other broader community benefits. Of secondary consideration is the enhancement, embellishment, or other benefit of the properties abutting the Street or public property.

12.30.030 Pruning and Removal of Protected Trees.

(a) Substantial Pruning or Removal of any Protected Tree requires a permit, as described in Chapter 12.60 (Permit Application and Processing), except in an Emergency. All such work shall be done under the direction of the city arborist. A Tree that serves as part of a windbreak system, or assists in storm water drainage or the avoidance of soil erosion, or serves as a

component of a wildlife habitat, is to be preserved if Feasible. Acceptable criteria for Substantial Pruning or Removal of any Protected Tree are as follows:

(1) The Tree Risk Assessment Level is "High" or "Extreme" (see Section 12.50.010 (Actions To Be Undertaken for Trees Assessed as High Risk)) and there are not more cost-effective remedial solutions.

(2) The Tree is causing or is projected to cause significant damage to hardscape (house foundations, driveways, retaining walls, patios, etc.), utility service lines, or infrastructure (sidewalk, curb, storm drain, Street, etc) and there are not more cost-effective remedial solutions.

(3) The Tree is within the fuel management zone around an occupancy, or is within a Very High Fire Hazard Severity Zone, as defined by CalFire, and such work is necessary to reduce the risks due to wildfire (see Section 12.12.050 (Fire Fuel Management)).

(4) The Tree is determined to be a Nuisance (see Section 12.50.030), and there are not more cost-effective remedial solutions.

(b) Pruning or Removal of Monarch Butterfly Habitat Trees shall be prohibited except as prescribed in the approved *Monarch Sanctuary Habitat Management Plan* or upon a finding by the city council that such is necessary for proper maintenance of the site or for public health, safety, or welfare.

(c) Pruning or Removal of Trees within 100 yards of any boundary of a Monarch Sanctuary shall be prohibited during the months of October through April unless deemed necessary by the public works director for public health, safety, or welfare.

(d) No Protected Tree shall be pruned to an extent that destroys its identity as a tree, unless conditions for removal exist and the tree is to remain as a snag.

(e) A Protected Tree shall not be substantially pruned or Removed for the purpose of securing or improving a view, for acquiring more sunlight or air, or to reduce litter, unless the tree is to be replaced, subject to conditions determined by the city arborist. Protected Trees may be substantially pruned in order to provide a framed or filtered view. The city shall strive to preserve view corridors, as defined in the General Plan, through the maintenance and pruning of Public Trees and by encouraging private property owners to maintain and prune their trees.

(f) A Protected Tree shall not be Removed solely because it is diseased if the disease is readily curable or is not spreading. In cases where an applicant for a tree permit feels that the tree is diseased, the city arborist may require an analysis of the tree to determine the type, extent, and degree to which the disease directly affects the tree. Such testing shall be performed by an independent expert chosen by agreement of the applicant and city arborist. Cost of the analysis shall be borne by the applicant.

12.30.040 Wildlife Protection. Tree pruning and removal activities shall take place outside of nesting periods of listed special status, threatened, or endangered species. Property owners and contractors shall consult the city arborist or a qualified biologist for appropriate pruning and removal times, best management practices, and inspections to ensure wildlife protection measures are being followed upon discovering any large nest.

12.30.050 Replacement of Protected Trees. Removal of any Protected Tree on a property that will continue to meet the overall canopy coverage standards in Chapter 12.20 after the Removal shall not require replacement. For the removal of all other Protected Trees, whether living or dead, as well as in those cases where the tree is being left as a snag, one Replacement Tree shall be required for each Protected Tree Removed. Owners shall be encouraged to bring their parcel up to the overall canopy coverage standards.

Replacement trees shall be of a Suitable species and planted in a Suitable location, as agreed to by the city arborist and the property owner. If agreement cannot be reached, the natural resources commission will determine the matter. Owners are encouraged to select Replacement Trees from the approved list identified in the *Landscape Trees for Pacific Grove*. Invasive Trees will not be approved. For Upper Canopy Trees on lots in excess of 4,000 square feet, at least half of all replacement Trees shall be a Gowen Cypress, Coast live oak, Coast redwood, Monterey cypress, Monterey pine, or Torrey pine.

Removal of a Significant Tree of unusually large size, high visibility, or extraordinary aesthetic quality, identified on a list approved by the City Council, may be required to be replaced by specimen trees as deemed appropriate by the city arborist.

A Protected Tree that does not meet any of the Tree Removal criteria listed in Section 12.30.030 (Pruning and Removal of Protected Trees) above shall be replaced with a Tree of equal value based on the most recent edition of the *Guide for Plant Appraisal* published by Council of Tree and Landscape Appraisers or the *Form for Northern California* established by the International Society of Arboriculture.

The city arborist or designee shall inspect replacement Trees during the first two years after planting to monitor survivability and growth progress. Dead trees or trees in an irreversible decline shall be replaced by the property owner at the owner's expense. A new species and replacement planting location may be agreed to at that time.

12.30.060 Alternatives When Trees Cannot Be Replaced on Site. In some circumstances, crowding or other physical constraints make it impossible or undesirable to replace a Tree on site to meet the desired coverage levels.

(a) For replacement of Native Trees and Monarch Butterfly Trees, or removal of a Public Tree if initiated by a Private Party, a fee established by resolution of the city council shall be paid to the city of Pacific Grove and deposited into the Community Tree Program Fund.

(b) For replacement of Designated Trees, to be assessed at the time of a Building Permit, or removal of Significant Trees, the value of the Tree shall be determined using the most recent edition of the *Guide for Plant Appraisal* published by Council of Tree and Landscape Appraisers or the *Form for Northern California* established by the International Society of Arboriculture, and deposited into the Community Tree Program Fund.

(c) Once the value has been determined, that sum of money (an in-lieu fee) will be deposited in the Community Tree Program Fund, to be used as appropriate by the City Arborist.

Payment of in-lieu fees cannot be made as an alternative to replacement onsite unless findings can be made that the Tree replacement planting is not Feasible, based on the criteria identified in Section 12.50.020 (Appropriate Variation for Individual Situations).

Chapter 12.40 Trees and Development

12.40.010 Assessment of the Tree Resources. During the Development process, a Tree Resource Assessment shall be performed by a Qualified Professional, if deemed necessary by the City Arborist. This Qualified Professional will be designated the Project Arborist for the duration of the project, in accordance with the *Urban Forestry Standards*. All costs associated with the Project Arborist shall to be borne by the applicant.

The Development shall preserve, or mitigate for, the maximum number of Suitable individual Trees that exist on the site pre-development in accordance with the desired canopy in Chapter 12.20, and shall identify any Designated Trees that would be Removed as a result of Development. Designated Trees shall be replaced as required by this title.

12.40.020 Construction Impact Analysis. Prior to issuance of a planning or building permit, the Project Arborist shall review grading, drainage, utility, building and landscape plans to determine impacts to individual Trees. Recommendations for alternative construction methods and preconstruction treatments shall be made. Critical Root Zone specifications, including a protection-fencing plan, shall be completed. Mitigation requirements for Designated Trees Removed due to construction impacts shall be determined.

All Critical Root Zone specifications recommended by the Project Arborist through review of planning or building permits shall be Conditions of Project Approval and delineated on construction drawings for the Building Permit.

12.40.030 Minimum Tree Protection Standards during Construction. All Development projects shall adhere to the most current version of the "American National Standards Institute A-300 (Part 5) Management of Trees and Shrubs during Site Planning, Site Development and Construction".

To avoid beetle infestation, the lower six feet of Monterey pine Trees scheduled for preservation shall be sprayed with an appropriate pesticide as recommended by a licensed pest control adviser.

All improvement plans for the project shall include accurate trunk locations, Critical Root Zones (CRZ), and Canopy Extents of all Trees, or groups of Trees, to be preserved within the Development area. Tree Protection measures, fencing locations and Special Treatment Areas are to be clearly defined on approved architectural/site plans to be used in the field and to be on file with the Community Development Department.

The Project Arborist shall verify that all preconstruction conditions have been met (Tree fencing, erosion control, pruning, pre-construction treatments, etc.) and is in place. The Project Arborist may require the construction superintendent, or the demolition, grading, and underground contractors, to meet at the site prior to beginning work. This pre-construction site meeting shall

be held to review and agree on procedures and Tree protection measures, as well as to establish haul routes, staging areas, contacts, watering requirements, etc.

Chapter 12.50 High-Risk Trees and Nuisance Trees

Sections	
12.50.010	High-Risk Trees
12.50.020	Actions to Be Undertaken for Trees Assessed as High Risk
12.50.030	Nuisance Trees
12.50.040	Abatement of a Nuisance

12.50.010 High-Risk Trees. A Tree with both: 1) one or more defects (e.g., disease, significant lean, large cracks, a shallow root system); and 2) one or more targets (e.g., a use area or structure that would be struck or otherwise damaged in the event the Tree fell) imposes risks upon the community. Risk levels shall be determined using the International Society of Arboriculture (ISA) *Hazard Tree Evaluation* rating system, as detailed in the Urban Forestry Standards.

Protected Trees in the Moderate Risk category, with a Potential Failure Rating of 6 to 8, shall be monitored by the property owner at least annually, as well as upon any significant change in condition. Actions should be considered that will ameliorate the risk and that may extend the life of the Tree. The Property Owner shall develop a course of action for any Protected Tree in the High Risk category, with a Potential Failure Rating of 9 or higher.

12.50.020 Actions To Be Undertaken for Trees Assessed as High Risk. When a Protected Tree is assessed as high risk, the actions taken shall be those that Remove the risk while imposing the least impact on the Tree. Such actions may involve removing a critical limb, drastically reducing the Tree's overall height, or removing the Tree. If the situation is an Emergency, such that the Tree would be given a Potential Failure Rating of 12, Extreme, immediate action is necessary, including, for example, cordoning off the area, to ameliorate the risk, until the appropriate work can be completed.

All permit applications for dead Trees and High Risk Trees with a Potential Failure Rating of 9 or above shall be processed within 10 days and Removed in a timely manner, with a fee at half the amount of the permit fee for removal of a Protected Tree. Requirements for Tree Report, posting, etc. shall be adjusted, accordingly.

12.50.030 Nuisance Trees. A Tree meeting one or more of the following criteria may be determined to be a public nuisance:

(a) Containing one or more limbs that obscure and impair the view of passing motorists, cyclists, or pedestrians so as to create a safety hazard;

(b) Limiting access to a fire hydrant or other facility necessary for public safety;

(c) Being irretrievably infested or infected with insect, borer, pest or disease that result in mortality, and that may infect or attack adjacent Trees, which cannot be preventatively treated;

(d) Being infected with Pitch Canker and having crown damage that exceeds 50% of total canopy volume;

(e) Imposing a detriment to or crowding an adjacent Protected Tree;

(f) Being of an invasive species as identified by *Landscape Trees for Pacific Grove*, the California Invasive Plant Council, or the California Invasive Species Advisory Committee;

(g) Such other conditions as agreed to by the city arborist and the property owner.

12.50.040 Abatement of Nuisance. The property owner is responsible for addressing the nuisance, using appropriate techniques; if the Tree is a Protected Tree, the owner shall follow the processes detailed in Chapter 12.60 (Permit Application and Processing). When a Tree imposing a nuisance exists, for which the owner is not taking the appropriate action, the city arborist give written notice thereof to the property owner, in the manner provided in PGM 1.12.010 (Giving of Notice). Such notice shall describe the condition, state the work necessary to remedy the condition, and shall specify the time within which the work is to be performed. After the giving of such notice a copy shall be conspicuously posted on the property upon which such public nuisance is alleged to exist. If, at the end of the time specified, such work has not been performed, the city may perform such work, and the cost thereof shall constitute a charge against such owner, and if unpaid within 90 days of notice, shall be proposed to the city council as a lien on such property.

Chapter 12.60 Tree Service Contractors

12.60.010 Tree Service Contractors. All Tree service contractors providing Tree trimming and Removal services in the city of Pacific Grove shall:

(a) Hold a valid business license with the city of Pacific Grove, a current California State Contractors License, a C61-D49 classification, and sufficient liability insurance; be bonded; and participate in the state's workers' compensation program.

(b) As a condition of obtaining or renewing a business license, meet with the city arborist at least once a year, in meetings to be set by the arborist, to review written standards for Tree trimming and Removal services in the city of Pacific Grove, and agree in writing to abide by such standards.

(c) Visibly mark all truck(s) and/or other vehicles utilized by the Tree Service Contractor with the contractor's name, state contractor's license number, business address, and phone number, in letters at least two inches high.

12.60.020 Contractor Adherence to the Ordinance and Urban Forestry Standards. If the city arborist finds work by a licensed Tree service contractor to be in conflict with this title or the *Urban Forestry Standards*, the arborist will review the concerns with the contractor. Continued failure to abide by these standards shall be grounds for revocation of the contractor's city business license.

Chapter 12.70 Permit Application and Processing

Sections	
12.70.010	Permit Required for Certain Work
12.70.020	Application for Permit
12.70.030	Tree Report
12.70.040	Review of Application
12.70.050	Public Noticing Requirements
12.70.060	Findings
12.70.070	Issuance of Permit
12.70.080	Time Limits

12.70.010 Permit Required for Certain Work. It shall be a violation of this title for anyone to Remove or cause to be Removed or Substantially Pruned a Protected Tree, except as allowed in this section and as addressed by the *Urban Forestry Standards*.

In the absence of Development, Protected Trees shall not be removed unless determined by the city arborist. The City Arborist may require relevant information, including on the basis of a Tree Report prepared by a Qualified Professional for the applicant, if deemed necessary. The City Arborist may determine that a Tree Report is not necessary if the Tree should be removed because it is dead, is high risk, is a detriment to or crowding an adjacent Protected Tree, or constitutes a Nuisance under Section 12.50.030.

12.70.020 Application for Permit. Removal of a Protected Tree requires completion of a Tree removal application on forms provided by the city, accompanied by a fee as established in the city's master fee schedule. Any person desiring to do any of the work described in this section shall apply for such permit.

12.70.030 Tree Report. The application for Removal of one or more Protected Trees shall include a written Tree Report, as specified in the *Urban Forestry Standards*. The Report shall be prepared for the applicant by a Qualified Professional and shall be submitted to the city to provide accurate information and a professional opinion regarding the condition, welfare, maintenance, preservation, and value of a Protected Tree. The Qualified Professional signing the Tree Report shall not be a principal or employee of a Tree service or other contract service provider that has a vested interest or conflict of interest in the subject project.

12.70.040 Review of Application. The city arborist shall review each application and may inspect the Tree and the surrounding area to determine whether, and under what conditions, the permit is to be granted.

The city arborist may refer a permit application to the natural resources commission for review and recommendation.

Before approving any application, the city arborist shall be required to make the findings that the approved actions best further the purposes of this title, as specified in Section 12.70.070 (Findings).

12.70.050 Public Noticing Requirements. A permit to Remove or substantially alter any Protected Tree is not effective until the tenth day following the date of posting the property on which the Tree or Trees subject to the permit are located, unless it is a nuisance pursuant to Section 12.50.030. The posted notice shall state that the permit approval may be appealed by any interested person during the 10-calendar-day posting period. City personnel shall post one notice on the subject Tree(s), two identical notices on public property within 200 feet of the property on which the subject Tree or Trees are located, in positions clearly visible to the public, and on the city's website. The subject Tree(s) must also be marked with a bright chartreuse ribbon around the trunk, which shall remain on the Tree until work has begun. All notices shall remain posted until all work is completed.

12.70.060 Issuance of Permit. If approved, a permit shall be issued authorizing a scope of work, so long as it:

- a. Will not create, continue, or aggravate any hazardous condition or public nuisance;
- b. Will not prevent or interfere with the growth, location, or planting of approved Public Trees;
- c. Is consistent with the planting plan being followed by the city.

All work performed under a permit shall be performed according to the *Urban Forestry Standards*.

The city arborist shall include such conditions on a permit as are necessary to fulfill the standards set out herein.

Response will generally be mailed to the applicant within 10 days and in no case longer than 20 days.

Each Tree Permit shall expire 60 days after its effective date. The city arborist may grant up to one extension not to exceed 30 days.

12.70.080 Time Limits. Whenever a number of days are specified in this title, or in any permit, condition of approval, notice issued or given as provided in this title, the number of days shall be construed as calendar days. Where the last of the specified number of days falls on a weekend, holiday, or other day City Hall is closed, the time limit will extend to the following working day.

Chapter 12.80 Appeals

Sections	
12.80.010	Appeal of City Arborist Decision.
12.80.020	Notice of Commission Hearing
12.80.030	Decision of the Natural Resources Commission
12.80.040	Review by City Council
12.80.050	Notice of Council Hearing

12.80.060	Decision of the City Council
12.80.070	Further Action

12.80.010 Appeal of city arborist decision. Any Person aggrieved by or objecting to any exercise of authority by the city arborist under this title shall have the right of appeal to the natural resources commission. Filing a timely and complete appeal with the city clerk shall suspend any permit or approval until the hearing on the appeal has been completed. A complete appeal shall include the: action being appealed, property address or location of the Tree impacted by the action; name and contact information of the Person or Persons filing the appeal; reasons for the appeal; and any fee for such appeal as adopted by the city council and included in the city's master fee schedule, which is available at city hall and on the city's website.

(a) Appeals of the city arborist's action hereunder shall proceed as follows:

(1) Any applicant or interested person may, upon payment of a fee established by the council, appeal a permit decision to the Natural Resources Commission within the 10-day posting period. The appeal will suspend a permit approval pending the commission's hearing on the appeal.

(2) Within 60 days of receipt of an appeal, the Natural Resources Commission will hold a public hearing on the appeal unless the appeal is continued for good cause demonstrated. At least 10 calendar days prior to the hearing, the property on which the Tree or Trees subject to the appeal are located shall be posted with a notice of the date and time of the public hearing. Two identical notices shall be posted on public property within 200 feet of the property on which the subject Tree or Trees are located, in positions clearly visible to the public. The party appealing shall be notified by mail of the date and time of the hearing.

(3) The Natural Resources Commission may affirm, reverse, or modify the action of the city arborist, and in so acting, apply the standards set out in subsection (c) of this section.

(4) The action of the Natural Resources Commission may be appealed to the City Council within 10 calendar days.

(5) Once the City Council has considered an application for Removal or alteration of a Tree, all further applications relating to that Tree shall be made directly to the council.

12.80.020 Notice of Commission Hearing. Within 45 days of receipt of an appeal by the city clerk, the natural resources commission shall hold a public hearing on the appeal unless such time is continued by the commission for good cause demonstrated. At least 10 days prior to the hearing, the property on which the Tree or Trees subject to appeal are located shall be posted with notice of the time and date of the hearing at or near the subject Tree or Trees. Two identical notices shall be posted by the city arborist on public property within 200 feet of the property on which the Tree or Trees are located, in positions clearly visible to the public. The subject Tree or Trees shall be marked with a bright ribbon around the trunk. The property owner and party appealing shall be notified by mail of the date and time of the hearing.

12.80.030 Decision of the Natural Resources Commission. The natural resources commission may affirm, reverse, or modify the decision and/or the action of the city arborist and, in so doing, shall apply the findings set out in Section 12.10.020 of this title and the *Urban Forestry Standards*.

12.80.040 Review by City Council. The decision of the natural resources commission may be appealed to the city council within 10 days by filing the appeal in writing, together with the fee set forth in the city's master fee schedule, with the city clerk. Filing of this appeal shall suspend any permit or approval until the hearing on the appeal has been completed.

12.80.050 Notice of Council Hearing. Within 30 days of receipt of an appeal, or its next regular meeting, the City Council shall hold a public hearing on the appeal unless such time is continued for good cause demonstrated. At least 10 days prior to the hearing, the property on which the Tree or Trees subject to the appeal are located shall be posted with a notice of the date and time of the public hearing. Two identical notices shall be posted on public property within 200 feet of the property on which the subject Tree or Trees are located, in positions clearly visible to the public. The property owner and party appealing shall be notified by mail of the date and time of the hearing.

12.80.060 Decision of the City Council. The council may affirm, reverse, or modify the decision of the natural resources commission, and/or the action of the city arborist and, in so doing, shall apply the findings set out in Section 12.10.020 of this title and the *Urban Forestry Standards*.

12.80.070 Further Action. Once the natural resources commission or city council has considered, on appeal, an application for Removal or alteration of a Tree(s), all further applications relating to that Tree shall be made directly to that same appeal authority.

Chapter 12.90 Enforcement

Sections	
12.90.010	Violation
12.90.020	Stop Work Notice
12.90.030	Interference with Enforcement
12.90.040	Injunctive Relief
12.90.050	Penalty Assessment
12.90.060	Court Costs
12.90.070	Failure to Receive Notice

12.90.010 Violation. It shall be unlawful for any Person to violate any provision or fail to comply with any of the requirements of this title. Knowingly or negligently providing false or misleading information in response to any requirement of this title shall constitute a violation of this title. Any Person who violates any provision of this title, or any condition of a permit issued pursuant to this title, shall be subject to enforcement pursuant to PGMC Chapters 1.19 (Municipal Code and Ordinance

Enforcement). A specific fine for violations of this title shall be established in the city's master fee schedule, as adopted from time to time by the city council.

12.90.020 Stop Work Notice. If construction or work is performed contrary to the provisions of this title, the city manager or his designee may issue a written notice to the responsible party to stop work on the project on which the violation has occurred or upon which the danger exists. The notice shall state the nature of the violation. No work shall be allowed until the violation has been rectified, subject to approval by the city manager or his designee.

12.90.030 Interference with Enforcement. No person shall interfere with or delay the authorized representatives of the city from the execution and enforcement of this title, except as provided by law.

12.90.040 Injunctive Relief. A civil action may be commenced to abate, enjoin, or otherwise compel the cessation of such violation.

12.90.050 Penalty Assessment. If violation of this title results in the disfigurement or Damage to a Tree, or the unauthorized transplanting, destruction, or Removal of a Tree, the responsible Person shall, in addition to any other penalty, be liable for administrative penalties and mitigation. Any such fines, penalties, and charges shall accrue to the Community Tree Program Fund. Mitigation costs for damage to any Public Tree, caused by any act or omission by any Person, whenever such act or omission is prohibited by or not authorized pursuant to this title, shall be charged to such Person consistent with the city's master fee schedule. Mitigation may include planting one or more replacement Trees, either on site and off site, as well as protection and maintenance. Alternatively, a contribution to the Community Tree Program Fund, equal to the value of the disfigured, damaged, transplanted, destroyed, or Removed Tree, as well as the costs of replacing and maintaining a comparable tree, may be required. The appraised value of the disfigured, Damaged, transplanted, destroyed, or Removed Tree shall be based on the *Guide for Plant Appraisal* (latest edition as published by the International Society of Arboriculture) and on file at City Hall and on-line.

12.90.060 Court Costs. In any civil action brought pursuant to this title in which the city prevails, the court shall award to the city all costs of investigation and preparation for trial, the costs of trial, reasonable expenses including overhead and administrative costs incurred in prosecuting the action, and reasonable attorney fees.

12.90.070 Failure to Receive Notice. The failure of any Person to receive a duly mailed, posted, or delivered notice required under this title shall not affect the validity of any proceedings or actions taken by the city or its employees, agents, or contractors under this title.

Appendix B

City of Pacific Grove Urban Forestry Standards

CITY OF PACIFIC GROVE



URBAN FORESTRY STANDARDS

July 2012

Acknowledgements

CITY OF PACIFIC GROVE

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INTRODUCTION

1. INTRODUCTION

The following Urban Forestry Standards (standards) are the city's primary tool to provide for orderly protection of specified trees, to promote the health, safety, welfare, and quality of life for the residents of the city, to protect property values and to avoid significant negative impacts on adjacent properties. By ensuring preservation and protection through the following standards of care, these resources will remain significant contributions to the landscape, streets, and parks, and will continue to help define the unique character of Pacific Grove.

These Urban Forestry Standards establish specific technical standards and specifications necessary to implement the city's tree ordinance (Municipal Code Title 12), and to achieve the city's tree preservation goals. The City of Pacific Grove hereby establishes a 25-year city-wide canopy cover target to maintain the existing canopy cover with the goal of a total canopy cover of 33%. Programs shall maximize opportunities for the planting of Public Trees. These goals are intended to provide consistent care and serve as benchmark indicators to measure achievement in the following areas:

- Ensure and promote preservation and restoration of the existing tree canopy cover within the city limits.
- Provide standards of maintenance required for protected and city-owned trees.
- Provide a standardized content for tree reports required by the city.
- Establish criteria for determining when tree risk exceeds community tolerance thresholds and management strategies need to be implemented in order to preserve public health, safety and welfare.
- Provide standards for the replacement of trees that are permitted to be removed.
- Increase the survivability of trees during and after construction events by providing protection standards and best management practices.
- Enforcement of these standards and associated regulations by authorized City staff and public safety personnel.

1.1 REQUIRED PRACTICES

All of the standards described in this chapter are required practices unless noted otherwise (e.g. "recommended"). These required practices are to be implemented by the property owner, project applicant, contractor or designee - and are the minimum standards by which the care of a Protected Tree is to be administered. These Required Practices are considered reasonable measures that are consistent with best management practices in the tree care industry and are intended to promote healthy, structurally sound trees.

In all such cases, the Community Development Department, Public Works or City Arborist, if justified by field conditions such as conflict with utilities or a public nuisance, has the discretion to modify or add to any condition, practice or standard mentioned within the standards.

1.2 RECOMMENDED PRACTICES

The Recommended Practices identified in this chapter are not mandatory. It should be noted, however, that a recommended practice may be required if it is so specified within

INTRODUCTION

the 'conditions of approval' for a development project or mitigation for injury or disturbance.

In all cases, the Director of Community Development, Public Works or City Arborist, if justified by changing field conditions such as conflict with utilities, has the discretion to modify, re-designate or add to any condition, practice or Standard mentioned within the standards.

1.3 DEFINITIONS

Certain terms that are unique to the arboricultural or construction industry are defined to provide a uniform understanding of the terms and concepts used and mentioned in this document and Title 12 of the Municipal Code.

"Building Coverage" has the meaning assigned in Chapter 23.08 (Zoning—Definitions).

"Community tree program fund" means a dedicated city fund comprising donations, moneys appropriated by the city council, fines, tree damage assessments, and in-lieu fees collected under the authority of this title and established by the city council in the city's master fee schedule. Community Tree Program Fund expenditures shall be used for the following purposes: 1) to provide additional trees elsewhere on a site; 2) to plant and maintain of Public trees; 3) to assess and mitigate high-risk trees; and 4) to execute tree replanting consistent with goals and strategies in urban forest management programs.

"Critical Root Zone" shall mean the area that should be protected during construction to minimize impacts to a tree. To prevent construction damage, fence off the critical root zone. Estimate the Critical Root Zone by measuring the diameter of the trunk at breast height (dbh) in inches, multiplying that number by 1.5, and using that number in feet as the radius of the protected area. For example, a ten-inch tree would need to have tree protection fencing located 15 feet away from the trunk; while a 20-inch tree would need to have tree protection fencing located 30 feet away from the trunk.

"Development" has the meaning assigned in Chapter 23.08 (Zoning—Definitions).

"Discretionary development approval" has the meaning assigned in Chapter 23.08 (Zoning—Definitions).

"Emergency" means a sudden, usually unexpected, occurrence requiring immediate action to protect life and property.

"Feasible" means capable of being implemented, taking into account such factors as safety of persons and property, the environment, aesthetics, and economic considerations.

"Hedge" means and includes any plant material, shrub or plant, when planted in a dense, continuous line or area, as to form a thicket or barrier.

"High-Risk Tree" means an imminent hazard or threat to the safety of persons or property, with a Potential Failure Rating of 9 or higher.

"Invasive Tree" means a Tree that is not Native to the Monterey Peninsula and that has the ability to thrive and spread aggressively on the Peninsula. They tend to disrupt the natural habitat, squeeze out native plants and animals, and reduce biodiversity.

"Landscape Trees for Pacific Grove" means the approved list of trees in the City of Pacific Grove, which may be updated and amended from time to time by resolution of the City Council.

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“Lower Canopy Tree” means a tree of a species that tends to be less than 40 feet tall at maturity. Lower Canopy Trees tend to have leaves and needles larger and softer than those of Upper Canopy Trees, better able to catch the available light and with less need to defend against the buffeting of the wind and rain. Most Lower Canopy Trees, including the ornamentals and fruit trees, are not native to the Monterey peninsula.

“Native Tree” means a species that was common on the Monterey Peninsula prior to the arrival of Europeans. These Trees, such as the Monterey pine and Monterey cypress, co-evolved over a very long period with other plants, animals, fungi, and microbes, to form the complex network of mutually reliant relationships found in the Peninsula’s native ecosystems.

“Parks” means and includes all Parks to which names have been given by action of the city council.

“Person” and “Persons” means and includes any all individuals, partnerships, firms, associations, corporations, governmental agencies, and other legal entities, and the agents, employees, and representatives thereof.

“Plant” means and includes all other plant material, non-woody, annual, or perennial in nature, not necessarily hardy.

“Protected Tree” means those Trees as defined in Municipal Code Chapter 12.30 and described in more detail in the Urban Forestry Standards.

“Prune” or “Pruning” means to Remove dead growth, tip live branches, thin live foliage, or a combination. Pruning does not include topping.

“Prune Substantially” or “Substantial Pruning” shall apply to both above-surface and underground cutting or Removal. With reference to branches, either term shall mean cutting or Removal of more than 25 percent of the live branches of the entire Tree within a 12-month period; or Removal of foliage so as to cause the unbalancing of a Tree; and/or cutting or Removal of any live limb with a diameter of 6 inches or greater or a circumference of 19 inches or greater at any point on such limb. With reference to roots, either term shall mean cutting or Removal of any root 4 inches or greater in diameter.

“Public property” means and includes all grounds, other than Streets or Parks, owned by or leased to and under the control of the city of Pacific Grove or other governmental agency.

“Public Trees” means all Street Trees and all other Trees located on Public Property.

“Qualified Professional” means a Person who possesses the credentials, degrees, or qualifications that support the resource-specific skill required to adequately prepare and submit Tree Reports, including:

- A Person designated by the International Society of Arboriculture as a: Certified Arborist; Municipal Specialist; Board Certified Master Arborist; or Certified Tree Risk Assessor.
- A Person designated by the American Society of Consulting Arborists as a: Registered Consulting Arborist.
- A degreed Forest Ecologist.

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“Remove” or “Removal” means any of the following:

- Complete Removal, such as cutting to the ground or extraction, of a Tree.
- Taking any action foreseeably leading to the death of a Tree or permanent damage to its health; including but not limited to excessive pruning, cutting, girdling, poisoning, overwatering, unauthorized relocation or transportation of a Tree, or trenching, excavating, altering the grade, or paving within the Critical Root Zone.

“Review Authority” means the city official or body responsible for reviewing and making decisions on permit requests, either initially or on appeal.

“Root Crown” means the zone of transition between the Tree trunk and supporting roots.

“Shrub” means and includes any woody perennial plant, normally low, several-stemmed, and capable of being shaped and pruned without injury, within the area planted.

“Snag” means mean a dead tree, generally ranging between 12 and 30 feet high, from which the top and a majority of the branches have been removed, in order to provide wildlife habitat.

“Street” means and includes all land lying between the boundaries of property abutting on all public Streets, boulevards, alleys and walks.

“Street Tree” means any Tree whose trunk is located all or primarily within the Street easement or on public property between the Street right of way and a Street-facing property.

“Substantial Pruning”—see “Prune substantially.”

“Suitable” shall mean appropriate to the situation, taking into account: safety of persons and property; environmental values such as wind break, soil erosion, and wildlife habitat; Tree density; Tree health; aesthetic results; and economic factors.

“Tree” means any woody plant that has a trunk four inches or more in diameter at four and one-half feet (54 inches) above natural grade level. For purposes of this title, a multi-trunk Tree shall be considered a single Tree and the circumference of that Tree shall be the sum of the circumferences of the trunks of that Tree.

“Tree Protection Zone” see “Critical Root Zone”.

“Tree Report” means a Tree assessment report meeting the standards specified in prepared by a Qualified Professional.

“Tree Service Contractor” means any Person providing tree trimming and removal services for a fee or other consideration.

“Upper Canopy Tree” means a Tree of a species that tends to be taller than 40 feet at maturity and is able to thrive (when mature) in circumstances providing greater direct exposure to the sun and wind. The leaves and needles of the upper canopy tree are often tough, to withstand drying without damage when moisture is less readily available. Upper Canopy Trees Native to the Monterey peninsula include Monterey pine, Monterey cypress, Monterey cypress, Monterey pine, and Torrey pine. Upper canopy trees provide shelter and shade for species lower in the canopy and on the ground.

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“Urban Forestry Standards” means the standards issued to implement Municipal Code .

1.4 COASTAL ZONE STANDARDS

The Local Coastal Program (LCP) Land Use Plan policies apply to tree management practices in the Coastal Zone. The LCP Land Use Plan is an element of the City's General Plan. Development of this Urban Forest Management Plan is a recommended action of both the General Plan and the LCP Land Use Plan. Within the coastal zone area of the City, the LCP Land Use Plan shall take precedence over the General Plan and Urban Forest Management Plan where policies are similar or conflict. All development projects must take into consideration the LCP Land Use Plan as well as the UFMP requirements. If policies within this plan overlap or conflict, the policy that is the most protective of coastal resources shall take precedence.

The coastal zone of Pacific Grove contains several land habitats that are considered environmentally sensitive in the LCP Land Use Plan, including the shoreline pine forest/sand dune association and the pine/eucalyptus overwintering habitat of the Monarch butterfly. Policies in the LCP Land Use Plan that address the urban forest include, but are not limited to:

- Designing new development in the Asilomar Dunes area (bounded by Asilomar Avenue, Lighthouse Avenue, and the boundary of Asilomar State Park) to protect existing and restorable native dune plant habitats, as well as the native oaks and pine forest which stabilize the inland edge of the high dunes along Asilomar Avenue southwards from the vicinity of its intersection with Pico Avenue.
- Designing new development within the scenic forest-front area along Asilomar Avenue to minimize loss of native Monterey pine and oak forest, and to retain public views towards the inland face of the high dunes.
- Retaining the scenic native forest within Asilomar Conference Grounds, along Asilomar Avenue, and within the abandoned railroad right-of-way, shall, to the maximum feasible degree.
- Protecting, or, when necessary, replanting, landscape trees which contribute to the scenic views in the City's coastal zone.

1.5 ASSUMPTIONS AND LIMITING CONDITIONS

- No responsibility is assumed by the City of Pacific Grove for matters legal in character regarding these standards. Any legal description that may be provided is assumed to be correct.
- Care has been taken to obtain reasonable information from reliable sources for these standards.
- Visual aids within the standards, such as sketches, diagrams, graphs, photos, are not necessarily to scale and should not be construed as engineered data for construction.
- These standards have been crafted to conform to current standards of care, best management practices, evaluation and appraisal procedures, diagnostic and reporting techniques and sound arboricultural practices.

2. PACIFIC GROVE'S PROTECTED TREES

2.1 PACIFIC GROVE MUNICIPAL CODE

Title 12 protects specific trees on public or private property from removal or disfigurement. The standards establishes procedures and regulations for the purpose of encouraging the preservation of trees. Trees that fall within the following categories are considered "Protected Trees", and must be maintained in accordance with the standards and regulations described in this chapter. A permit from the Planning or Public Works Department is required prior to Removal or Substantial Pruning of a Protected Tree. Trees that are not in any of these categories may be maintained or removed without city review or approval.

2.1.1 PROTECTED TREES

Trees of the most importance to the community, because of their species, heritage, location, significant benefits or other factor shall be designated in the community's interest as Protected Trees. In making this determination, the City recognizes that it is identifying a shared responsibility regarding these resources. Suitable species planted in appropriate sites benefit both the owner of the property they grow on and the community as a whole. All property owners – both public and private – share a common responsibility for management of the City's overall urban forest, with special reference to Protected Trees.

The following tree species are protected in the City of Pacific Grove. All Protected Trees that require a permit for substantial pruning or removal are 6 inches or greater in diameter (measured at 54 inches above natural grade).

OAK

All Coast live oak (*Quercus agrifolia*)

The Coast live oak leaf (left) is oval-shaped with stiff prickly points.



CYPRESS

All Monterey cypress (*Cupressus macrocarpa*)

Monterey cypress columnar or cone-shaped when young, but becomes broad and spreading with age. The bark is fibrous and rough. The leaves are lemon scented, bright green, scale-like, 2-5 mm long.



PINE

All Monterey pine (*Pinus radiata*) and Shore Pine

The Monterey pine grows to between 15–30 m (49–98 ft) in height in the wild, but up to 60 m (200 ft) in cultivation in optimum conditions, with upward pointing branches and a rounded top. The leaves ('needles') are bright green, in clusters of three. The bark is fissured and dark grey to brown.



COAST REDWOOD

All Coast redwood (*Sequoia sempervirens*)

The "leaves" of the Coast redwood are needle-like and flat, measuring about half an inch long. The bark is quite thick, has a reddish color and quite fibrous.



2.1.2 MONARCH BUTTERFLY HABITAT TREES

All trees growing in and within 100 yards of Monarch Grove Sanctuary and George Washington Park, defined as follows:

- Monarch Grove Sanctuary. That portion of land bordered on the east and west by Ridge Road and Grove Acre Avenue, respectively, on the south by Short Street, and on the north by the northerly boundary of assessor's parcel numbers 006-361-30-031, -032, -033, and -034, extended from Grove Acre easterly to Ridge Road.
- George Washington Park. That portion of land bordered on the east and west by Alder Street and Melrose Avenue, respectively, on the north by Pine Avenue, an on the south by the imaginary extension of Junipero Avenue westerly from Alder to Melrose Avenue.

Pruning or removal of trees in designated Monarch Butterfly Habitat Trees shall be prohibited except as prescribed in the Monarch Grove Sanctuary Management Plan or upon a finding by the City Council that such is necessary for proper maintenance of the site or for public health, safety or welfare.

Pruning or removal of trees in designated Monarch Butterfly Habitat Trees, or within 100 yards of any boundary of such site, shall be prohibited during the months of October through April unless deemed necessary by the city council for public health, safety or welfare, as required by City Code.

Private property owners surrounding the Monarch Grove Sanctuary are encouraged to plant trees to serve as windbreaks.

2.1.3 PUBLIC TREES

All trees growing six or greater inches in trunk diameter, measured at 54 inches above native grade, within the public street right-of-way, outside of private property. In some cases, property lines lie several feet behind the sidewalks. A permit from the Public Works Department is required prior to any work on or within the Critical Root Zone of a public tree.

Standards to be followed in planting, maintaining, pruning, and removing trees on public property (other than street trees) include the following:

1. Planting shall occur at reasonably constant rates over time so as to ensure continual renewal of the urban forest.
2. An appropriate variety of tree species shall be planted, so as to ensure no single event (e.g., species-specific disease) can harm a large proportion of the urban forest.
3. Native trees shall be preferred, except where special circumstances warrant otherwise (e.g., a proportion of eucalyptus trees in the Monarch Sanctuary).
4. Best management practices shall be employed at all times. The standards to which the city adheres shall be as high as or higher than the standards that owners of private property within the city are expected to adhere. Best management practices should avoid conflicts with utilities and infrastructure, further discussed in Section 6.6.

2.1.4 DESIGNATED TREES

All trees, regardless of species, when substantial pruning or removal is associated with a development project, that are specifically designated by the city to be saved and protected on a public or private property which is subject to discretionary development review; such as a variance, architectural review, site and design, subdivision, etc. Approval from the Community Development Department is required to remove a Designated Tree.

3. REMOVAL, REPLACEMENT, AND PLANTING OF TREES

A Protected Tree may not be removed without city review and approval, except in certain emergencies. The purpose of city review is to verify that the removal is allowed under city regulations and requirements, and to prevent unnecessary tree removal. For standards related to High Risk Trees, see Section 5.2.

This section describes the type and size of tree required for replacement, and the planting techniques to be used. It also describes how to determine the replacement value of a tree that cannot be replaced in its original location, and the circumstances in which the city may require an in lieu fee.

The substantial pruning of any Protected tree that does not conform to the most current American National Standards Institute (ANSI) A-300 Standards or International Society of Arboriculture Best Management Practices shall require a City permit.

3.1 TREE REMOVAL

3.1.1 ALLOWABLE REMOVAL

A permit is required to remove or substantially prune a Protected Tree, except in emergency situations outlined in high risk trees (see below).

3.1.2 TREE REMOVAL CRITERIA

Standards and criteria to be observed during tree removal and substantial pruning are as follows:

(a) Substantial Pruning or Removal of any Protected Tree requires a permit, as described in Chapter 12.60 (Permitting), except in an Emergency. All such work shall be done under the direction of the city arborist. A Tree that serves as part of a windbreak system, or assists in storm water drainage or the avoidance of soil erosion, or serves as a component of a wildlife habitat, is to be preserved if at all feasible. Acceptable criteria for Substantial Pruning or Removal of any Protected Tree are as follows:

(1) The Tree Risk Assessment Level is "High" or "Extreme" (see Section 12.80.010 (Actions To Be Undertaken for Trees Assessed as High Risk)) and there are not more cost-effective remedial solutions.

(2) The Tree is causing or is projected to cause significant damage to hardscape (house foundations, driveways, retaining walls, patios, etc.), utility service lines, or infrastructure (sidewalk, curb, storm drain, Street, etc) and there are not more cost-effective remedial solutions.

(3) The Tree is within the fuel management zone around an occupancy, or is within a Very High Fire Hazard Severity Zone, as defined by CalFire, and such work is necessary to reduce the risks due to wildfire (see Section 12.12.050 (Fire Fuel Management)).

(4) The Tree is determined to be a Nuisance (see Section 12.80.030), and there are not more cost-effective remedial solutions.

(b) Pruning or Removal of Monarch Butterfly Habitat Trees shall be prohibited except as prescribed in the approved *Monarch Sanctuary Habitat Management Plan* or upon a

finding by the city council that such is necessary for proper maintenance of the site or for public health, safety, or welfare. The plan is available at city hall and on the city's website.

(c) Pruning or Removal of Trees within 100 yards of any boundary of a Monarch Sanctuary shall be prohibited during the months of October through April unless deemed necessary by the public works director for public health, safety, or welfare.

(d) No Protected Tree can be pruned to an extent that destroys its identity as a tree, unless conditions for removal exist and the tree is to remain as a snag.

A Protected Tree shall not be substantially pruned or removed for the purpose of securing or improving a view, for acquiring more sunlight or air, or to reduce litter, unless the tree is to be replaced, subject to conditions determined by the city arborist. Protected Trees may be substantially pruned in order to provide a framed or filtered view. The city shall strive to preserve public and private view corridors, as defined in the General Plan, through the maintenance and pruning of Public Trees and by encouraging private property owners to maintain and prune their trees.

(e) A Protected Tree shall not be removed solely because it is diseased if the disease is readily curable or is not spreading. In cases where an applicant for a tree permit feels that the tree is diseased, the city arborist may require an analysis of the tree to determine the type, extent, and degree to which the disease directly affects the tree. Such testing shall be performed by an independent expert chosen by agreement of the applicant and city arborist. Cost of the analysis shall be borne by the applicant.

3.2 TREE REPLACEMENT

In order to maintain and enhance current benefits and canopy coverage levels, replacement of removed trees shall be required to restore the size, benefits and functions of the removed tree(s).

At the discretion of the City Arborist, replacement tree planting may occur offsite, on public lands when lot size or the property owner does not support tree planting.

Required tree replacement may also be achieved by paying in-lieu fees to the Pacific Grove Tree Fund.

Replacement trees species should be selected from the *Landscape Trees for Pacific Grove*.

3.2.1 WHEN TREE REPLACEMENT IS REQUIRED

The following conditions determine whether or not a protected or designated tree must be replaced:

PROTECTED TREES

If the city authorizes removal of a Protected Tree because it is dead, dangerous, or a nuisance, as verified and documented in the field, tree replacement is required.

MONARCH BUTTERFLY HABITAT TREES

Pruning or Removal of Monarch Butterfly Habitat Trees shall be prohibited except as prescribed in the approved *Monarch Sanctuary Habitat Management Plan* or upon a finding by the city council that such is necessary for proper maintenance of the site or for public health, safety, or welfare. The plan is available at city hall and on the city's website.

REMOVAL, REPLACEMENT, AND PLANTING OF TREES

PUBLIC TREES

If the city authorizes removal of a Public Tree in connection with a development project or city funded improvement project, it shall specify the replacement requirements in the permit authorizing removal. In no case shall the replacement be less than the existing number of trees.

DESIGNATED TREES

When authorizing removal of a Designated Tree, the City Arborist shall require tree replacement if it is necessary or desirable to implement the intent of the original site design. The number and nature of the replacement trees will be determined by the City Arborist, taking into consideration the value of the tree removed and the site design.

3.2.2 TREE REPLACEMENT CRITERIA

TREE SPECIES AND PLACEMENT

The right tree in the right place maximizes the net benefits to the property owner and community and minimizes the risks associated with trees. Inappropriate tree selection and placement is often the underlying cause for trees that become high risk, are prone to breakage, or develop recurring pest or disease problems. Inadequate planting sites are often responsible for poor tree growth and survival, or excessive hardscape damage.

NUMBER OF TREES

Residential Properties

The community benefits when properties -- both public and private -- share equitably in the burden of providing Protected Trees. Meeting the tree canopy coverage goals established in this UFMP applies to both public and private property owners. Thus, the following minimum standards are established as best representing the nature and scope of tree replacement:

Table 5-1: Tree Canopy Coverage Goals for Residential Properties

Lot Size (SF)	Upper Canopy Trees	Lower Canopy Trees
Up to 4,000	0-1	1-2
4,001-6,000	2	2-3
6,001-8,000	3	3-4
Over 8,000	Variable	Variable

Commercial and Public Properties

One tree per 30 feet of frontage, with a minimum of two trees, if space is available.

These tree density-per-lot standards are intended to achieve a mixed, healthy forest, and may be adjusted by the City Arborist or Review Authority in individual circumstances, taking into consideration individual site constraints and opportunities.

Parking Lots

Three trees per 25 spaces or in conjunction with low impact development landscaping for stormwater management.

REMOVAL, REPLACEMENT, AND PLANTING OF TREES

OTHER CONSIDERATIONS

While the above Standard shall serve as a general threshold for tree replacement, the City Arborist shall determine the final tree replacement requirements (number, size, species and placement) based on the following factors and taking into consideration the needs of the property owner:

- The tree canopy coverage target as described in this UFMP
- Neighborhood, use or district objectives
- Existing canopy coverage on the lot
- Land use
- Lot size
- Available space
- Topography and soil conditions
- Stormwater management
- Viewshed protection
- Long-term health potential of the replaced tree
- Existing infrastructure and potential for adverse impacts
- Adjacent properties and uses
- Condition of the removed tree.

Native species are required as replacement trees on lots greater than 4,000 square feet. On lots less than 4,000 square feet, replacement tree species should be selected from the most recent list of the appropriate landscape trees for Pacific Grove. The replacement trees may be the same species or may be another species that is considered by the City Arborist to be more suitable for the location.

In order to maintain the existing coniferous tree cover, particularly in the area between Sunset Drive and Seventeen Mile Drive, replacement plantings are required to be with pitch canker resistant Monterey pines if available and where feasible. Otherwise, Monterey cypresses and other species of pines as recommended by the City Arborist may be used.

3.2.3 ALTERNATIVES WHEN TREES CANNOT BE REPLACED ON SITE

In some circumstances, crowding or other physical constraints make it impossible or undesirable to replace a tree on site. In that case, the value of the tree shall be a fixed fee based on size.

Once the value has been determined, that sum of money (an in-lieu fee) will be deposited in the Community Tree Program Fund to be used, as approved by the City Arborist: 1) to provide additional trees elsewhere on the site; 2) to add or replace Public trees or other public landscaping in the vicinity, 3) to add trees or other landscaping to other city property, 4) to assess and mitigate high-risk trees, 5) to execute tree replanting consistent with goals and implementation strategies approved by the City Council.

REMOVAL, REPLACEMENT, AND PLANTING OF TREES

3.2.4 MAINTENANCE AND MONITORING OF REPLACEMENT TREES

The City Arborist shall verify replacement trees have been replanted or in-lieu fees collected within 60 days of permit issuance or prior to final building inspection, for tree removal associated with development projects.

Locations of replacement tree plantings for both public and private properties shall be verified, with photographic documentation or in the field, identified on map (in GIS) and input to the City Tree Inventory database by the City Arborist, or their designee.

To ensure the survivability, proper growth and maintenance in perpetuity of the replacement trees, success criteria are defined to meet an 100% survival rate, implemented as follows:

A qualified professional shall monitor the newly planted tree at a one year and two year interval.

- Tree health and growth rates will be assessed.
- Trees suffering poor growth rates or declining health will be identified.
- Invigoration treatments will be provided.
- Dead trees or trees in an irreversible state of decline will be replaced with the next larger container size.
- At the end of the five-year period the status of replacement plantings will be assessed to make certain that success criteria has been met and all mitigation trees planted are performing well.
- The "Qualified Professional" shall submit by annual monitoring reports to the City Arborist in order to verify replacement trees are viable.

3.2.6 TREE PLANTING IN NEW SUBDIVISIONS

Before any street improvements in any major development of real property in the city are accepted by the City Council, the applicant shall pay to the city the total cost for purchasing and planting of all trees to be planted along all streets. After receipt of payment, the city will plant the trees at the proper time as determined by the City Arborist, but not more than 3 months following issuance of the final building permit.

4. TREE PROTECTION AND PRESERVATION DURING DEVELOPMENT

4.1 INTRODUCTION

The objective of this section¹ is to preserve and protect existing trees by reducing negative construction impacts to a less than significant level. Trees vary in their ability to adapt to altered growing conditions. Mature trees have established stable biological systems in the preexisting physical environment. Disruption of this environment by construction activities interrupts the tree's physiological processes causing depletion of energy reserves and a decline in vigor, often resulting in the tree's death. Since construction impacts are cumulative and long term, this reaction may develop from one to twelve years or more after disruption. These standards define protocol to identify the condition of existing tree resources, distinguish trees suitable for preservation, inform design that retains and protects the maximum number of suitable trees, assess project impacts, preserve and protect trees during construction, maintain and monitor trees post construction.

These standards shall define criteria for tree protection to guide a construction project to insure that appropriate practices will be implemented in the field to eliminate negative impacts that may result from uninformed or careless acts, and preserve both trees and property values.

Typical negative impacts that may occur during construction include: mechanical injury to roots, trunk, or branches; soil compaction, which degrades the functioning roots, inhibits the development of new roots, and restricts drainage which desiccates roots and enables water mold fungi to develop; changes in existing grade which can cut or suffocate roots; alteration of the water table - either raising or lowering; microclimate change; exposing sheltered trees to sun or wind; and sterile soil conditions associated with stripping off topsoil. For these reasons it is imperative that the commitment to tree protection begins in the planning stages of a project.

These standards shall apply to all Protected Trees in the City of Pacific Grove. These standards do not apply to unprotected trees or trees previously approved for removal.

4.2 ASSESSMENT OF THE TREE RESOURCES

1. During the conceptual stages of a development project, prior to project design and submittal of a permit application, a Tree Resource Assessment is recommended be performed by a Qualified Professional, and may be required by the City Arborist. This Qualified Professional will be designated the Project Arborist for the duration of the project, from planning stages through final inspection. The Project Arborist should be familiar with the tree species affected and experienced with procedures necessary to construct the project. In the event the Project Arborist is desired to be replaced by the property owner or the City, the replacement arborist shall be approved by the City

¹ This section was adapted from City of Palo Alto Tree Technical Manual and Trees and Development. Adapted from County of Monterey Tree Report Requirements, City of Monterey Tree Protection Guidelines, James P. Allen & Associates and City of Scotts Valley Municipal Code Section 17.44.

- prior to replacement. All costs associated with the Project Arborist shall to be borne by the applicant.
2. The initial Tree Resource Assessment should be completed during the conceptual planning stage to inform the project design, prior to submittal of a permit application.
 3. Trees that are suitable for preservation, with Risk Ratings less than 5 and capability to tolerate moderate construction impacts, should be considered for incorporation into the final project design.
 4. The project shall preserve, or mitigate for, the maximum number of suitable individual trees that exist on the site pre-development.
 5. Tree Resource Assessment Report Requirements.
 6. Numerically tag, map and identify the location of individual trees on a site plan.
 7. Submit tree inventory table or spreadsheet, including the following information:
 - a) Assigned tree number, corresponding to mapped location
 - b) Common name
 - c) Botanical name
 - d) Tree Condition using an excellent/good/fair/poor rating system
 - e) Health
 - f) Structure
 8. Preservation Suitability rating system evaluating tree health, structure, species characteristics, age and potential longevity.
 - a) Trees with a "good" rating have adequate health and structure with the ability to tolerate moderate impacts and thrive for their safe, useful life expectancy.
 - b) A "fair" rating indicates health or structural problems that have the ability to be corrected. They will require monitoring with an expectation that their lifespan will be shortened by construction impacts.
 - c) Trees with a "poor" rating possess health or structural defects that cannot be corrected through treatment. Trees with poor suitability can be expected to continue to decline regardless of remedies provided. Species characteristics may not be compatible with redefined use of the area. Species which are non-native and unusually aggressive are considered to have a poor suitability rating.
 9. Factors to be considered or included:
 - a) Condition of root crown, base and roots.
 - b) Condition of trunk including decay, injury callusing or presence of fungus or spores.
 - c) Condition of limbs and twigs (identify) including strength of crotches, amount of deadwood, whether excessive weight is borne by limbs, and need for trimming.
 - d) Condition and growth rate history including pest damage and diseases.
 - e) Leaf appearance.
 10. Describe the surrounding site, forest composition.
 11. Critical Root Zone (CRZ) extents will be determined and mapped - Individual tree root systems provide anchorage, absorption of water/minerals, storage of food reserves and synthesis of certain organic materials necessary for tree health and stability. The

TREE PROTECTION AND PRESERVATION DURING DEVELOPMENT

Critical Root Zone is the tree-specific amount of roots necessary to continue to supply these elements essential for this tree to stand upright and maintain vigor. This distance (CRZ) reflects the minimum measurement from the trunk required for the protection of the tree's root zone.

12. Construction activities proposed within these CRZ areas are subject to specific review and the implementation of recommended special treatments.
13. Canopy extents will be mapped.
14. Risk Rating will be determined per Section 5.2.
15. A summary report shall be submitted to the Planning Division of the Community Development Department to be used to determine where improvements and utilities can be positioned to preserve or minimize impacts to suitable trees.
16. The Project Arborist shall work closely with the design team (architect, landscape architect, or project designer) prior to submittal of the permit application. Tree permits associated with development are reviewed and approved by the same Review Authority as for the related planning permit and processed concurrently.
17. Disclosure of Information Regarding Existing Trees: Any application for discretionary development approval, or for a building or demolition permit where no discretionary development approval is required, shall be accompanied by a statement by the property owner or authorized agent which discloses whether any Protected Trees exist on the property which is the subject of the application, and describing each such tree, its species, size, Critical Root Zone, and location. This requirement shall be met by including the information on plans submitted in connection with the application.
18. In addition, the location of all other trees on the site and in the adjacent public right-of-way which are within thirty feet of the area proposed for development, and trees located on adjacent property with canopies overhanging the project site, shall be shown on the plans, identified by species.
19. The city may require submittal of such other information as is necessary to further the purposes of this chapter including but not limited to photographs, and condition of the trees (e.g. structural deficiencies, disease, infrastructure impacts, etc.), as determined by a certified arborist.
20. Disclosure of information pursuant to this section shall not be required when the development for which the approval or permit is sought does not involve any change in building footprint nor any grading or paving.
21. Removal or substantial pruning of a tree(s) is considered development activity when it is for the purposes of: (1) erecting or adding to a structure, including, but not limited to, fences, sheds, decks and retaining walls, (2) providing parking, (3) grading, trenching, or lot clearance, or (4) any other activity requiring a building permit or any discretionary land use entitlement.

4.3 CONSTRUCTION IMPACT ANALYSIS

1. Prior to issuance of a planning or building permit, the Project Arborist must review grading, drainage, utility, building and landscape plans to determine impacts to individual trees.
2. Recommendations for alternative construction methods and preconstruction treatments shall be made.

TREE PROTECTION AND PRESERVATION DURING DEVELOPMENT

3. Tree protection and preservation specifications including a protection-fencing plan shall be completed.
4. Mitigation requirements for trees removed due to construction impacts shall be determined.
5. The appraised value of trees to be preserved shall be calculated.
6. A Construction Impact Assessment Report, accompanied by a Tree Location Map/Preservation Plan, may be required to be submitted to the Planning or Building Division of the Community Development Department, depending on the permits required, and reviewed by the City Arborist.
7. All procedures recommended by the Project Arborist through review of planning or building permits shall be Conditions of Project Approval or delineated on construction drawings for the Building Permit.

4.4 MINIMUM TREE PROTECTION STANDARDS DURING CONSTRUCTION

1. All development projects shall adhere to the most current version of the "American National Standards Institute A-300 (Part 5) Management of Trees and Shrubs During Site Planning, Site Development and Construction".
2. To avoid beetle infestation, the lower six feet of Monterey pine trees scheduled for preservation shall be sprayed with an appropriate pesticide as recommended by a licensed pest control adviser.
3. All improvement plans for the project shall include accurate trunk locations, Critical Root Zones (CRZ), and Canopy Extents of all trees, or groups of trees, to be preserved within the development area. Tree Protection measures, fencing locations, and Special Treatment Areas are to be clearly defined on approved architectural/site plans to be used in the field and to be on file with the Community Development Department.
4. The Project Arborist shall verify, in writing with photo verification, that all preconstruction conditions have been met (tree fencing, erosion control, pruning, pre-construction treatments, etc.) and is in place. Written verification shall be submitted to, and approved by, the Building Division of the Community Development Department prior to any demolition, grading or building permit issuance.
5. The demolition, grading, and underground contractors, construction superintendent, and other pertinent personnel are required to meet with the Project Arborist at the site prior to beginning work to review procedures, tree protection measures, and to establish haul routes, staging areas, contacts, watering requirements, etc.
6. All tree protection measures recommended in the Tree Resource Evaluation/Construction Impact Analysis are to be clearly presented in the building plans.
7. The City Arborist will inspect project specific Tree Protection measures.

5. MANAGEMENT FRAMEWORK

This section assigns responsibility for the care and management of the urban forest resources and defines responsible parties/departments, assessment protocol and best management practices.

5.1 STANDARDS OF CARE

Trees growing in the City of Pacific Grove require regular inspection to identify needs, assess condition, potential risk factors and provide a Due Standard of Care.

The City Arborist shall maintain all trees growing on public lands in order to provide a Due Standard of Care.

Private property owners should engage a Qualified Professional to assess the condition of trees growing on their property.

Tree removal or maintenance required on public or private lands shall be performed by a company with a valid Pacific Grove Urban Forest Tree Care license.

All trees in the City of Pacific Grove, public or private shall be maintained in adherence to the most current versions of the following industry standards and practices:

- American National Standards Institute (ANSI) A-300
- International Society of Arboriculture, Best Management Practices

5.1.1 CITY ARBORIST

The City shall hire a qualified professional City Arborist. This City Arborist will be responsible for the implementation of the Urban Forest Management Plan, including:

1. Promoting the value of trees within the community on both public and private properties.
2. Implementing the Tree Risk Management program and assessing and mitigating high-risk trees.
3. Managing the Urban Forestry Department (yet to be established).
4. Consulting with constituents on tree related matters.
5. Resolving (or administering the resolution of) tree related conflicts within the community.
6. Conducting public outreach and educational programs.
7. Overseeing the application of herbicides, pesticides and fungicides.
8. Managing the city tree inventory (yet to be compiled) to a "current" level.
9. Providing a Due Standard of Care (defined in Section 4.2) for all trees on public lands
10. Administration of the city Tree Ordinance.
11. Administer the tree permit process.
12. Maintaining all related records.
13. Producing reports when requested.
14. Giving presentations and submitting written reports to the City Manager, Natural Resources Commission and City Council.

15. Responding to tree related inquiries or requests for service.

16. Certification by the International Society of Arboriculture is the minimum qualification for this position. Preferred designations are:

- Certified Urban Forester, California Urban Forest Council
- Municipal Specialist, International Society of Arboriculture

A background in tree risk management, Urban Forestry and forest ecology is necessary.

5.1.2 URBAN FORESTRY DIVISION

The city shall authorize a budgeted Division to Provide a Due Standard of Care to all trees on city owned lands, manage tree inventories and administer the Urban Forest Management Plan.

The City Arborist staff the Urban Forestry Division with qualified professionals capable of meeting objectives defined in the Urban Forest Management Plan with a combination of city staff, volunteer services, and private sector contracting.

5.1.3 QUALIFIED PROFESSIONAL

The City Arborist shall compile and maintain a list of "Qualified Professionals" to review tree related issues and prepare and submit assessment reports when necessary.

The list of "Qualified Professionals" should be compiled through a review and screening process to determine experience, capability and demonstrated objective, unbiased behavior.

The "Qualified Professional" should possess resource specific skills and education to accurately opine on the issue at hand; if there is an assessment of a Native Monterey pine forest required, a forest ecologist may be the most "Qualified Professional." If a risk assessment is required, an ISA Certified Arborist/Board Certified Master Arborist or an ASCA Registered Consulting Arborist may be the most "Qualified Professional." If a timber harvest plan is required, a Registered Professional Forester is the most "Qualified Professional."

A "Qualified Professional" shall possess credentials, degrees or qualifications that supports the resource specific skill required to adequately prepare and submit assessment reports such as:

- International Society of Arboriculture
 - Certified Arborist
 - Municipal Specialist
 - Board Certified Master Arborist
 - Certified Tree Risk Assessor
- American Society of Consulting Arborists
 - Registered Consulting Arborist
- Forest Ecologist

"Qualified Professionals" shall not be a principal or employee of a tree service or other contract service provider that has a vested interest or conflict of interest in the subject project.

MANAGEMENT FRAMEWORK

5.1.4 PACIFIC GROVE URBAN FOREST TREE CARE LICENSE

All companies performing tree related work that are not a governmental or non-profit organization conducting work in the City of Pacific Grove shall be licensed by the City to perform tree work for hire, including landscaping crews performing young tree pruning and planting of trees. Personnel performing tree pruning shall be ISA certified arborists, certified tree workers or those with parallel professional designations/registrations/certifications. In order to obtain a Tree Care License, applicants shall pay the annual license fee and sign an agreement to perform work according to these Urban Forest Management Plan Urban Forestry Standards. Licensees shall provide proof of appropriate consumer protection standards such as workers compensation and liability insurance, business license, state contractor's license and identification of company vehicles and other responsible practices for their constituency.

Pacific Grove Urban Forest Tree Care License shall be valid for 1 year (or more). The licensing fee and timeline shall be set by resolution of the City Council.

5.1.5 TREE INVENTORY

The City shall compile and maintain an inventory of individual trees on all public lands. The inventory should be cataloged at a minimum by street trees, park trees, and facility trees segment-able by land use. The inventory shall objectively evaluate tree resources to aid in decision making for maintenance, planting, and budgeting.

The inventory should include a land use specific canopy analysis identifying current coverage levels. This baseline data will be used to determine existing canopy coverage, available planting sites and measure success of tree-growing objectives.

The inventory should include all vacant available planting sites, and should provide the data needed to calculate the costs and benefits of the community's tree resources.

The inventory should be updated and managed with the most recent information each time a tree is inspected or maintained.

The inventory should be developed as an online resource with mapping features depicting locations and specific information; attributes, weaknesses, age class, risk rating and photos. This can be used a community engagement and educational tool.

5.2 TREE RISK ASSESSMENT

The City intends to meet or exceed all arboricultural industry standards including *American National Standards Institute A-300 (Part) 9 Draft 1 Version 1 Tree Risk Assessment a. Tree Structural Assessment.*

The Pacific Grove Community Defined Risk Threshold is any tree with assigned Failure Potential Ratings of 9 or greater.

The City Arborist shall administer the Tree Risk Assessment Program and achieve a Due Standard of Care through the implementation of this policy as follows:

Qualified Professionals trained in tree risk assessment shall perform systematic inspections of all trees on City lands on a determined cycle.

5.2.1 LEVELS OF ASSESSMENT

The level of assessment required for Tree Risk Rating shall be determined by prominence of weak structural conditions according to the following assessment criteria.

MANAGEMENT FRAMEWORK

Level 1 assessment shall be a limited visual assessment of an individual tree or a population of trees near specified targets, such as along roadways or utility rights-of-way, to identify specified conditions or obvious defects. Assessment methodology shall be specified by the Qualified Professional.

Level 2 assessment shall include a 360-degree, ground-based visual inspection of the tree crown, trunk, trunk flare, above-ground roots, and site conditions around the tree in relation to targets. When sounding is specified, a mallet or equivalent tool should be used to detect large hollows and loose bark in the trunk, root collar, and above ground buttress roots Use of hand tools, trowels, binoculars, or probes, shall not be precluded from a Level 2 assessment. An assessment should include the identification of conditions indicating the presence of structural defects.

Level 3 assessment shall include, but are not limited to, one or more of the following tree assessment methods:

- Aerial assessment of branch or stem defects;
- Drilling;
- Evaluation of target risk;
- Increment boring;
- Investigation of tree or site history related to possible or defined defects;
- Lean assessment;
- Probing;
- Pull testing;
- Radiation assessment (e. g. radar, x-ray, gamma ray);
- Resistance drilling;
- Sonic assessment;
- Sounding; and,
- Sub-surface root and/or soil assessment.

Risk levels shall be rated using the PNW International Society of Arboriculture (ISA) *Hazard Tree Evaluation* form following PNW ISA Tree Risk Assessment Program criteria. The *Hazard Tree Evaluation* rating system is based on three categories:

- | | |
|-------------------------------|---------------|
| a. Failure potential | 1 to 5 points |
| b. Size of the Defective Part | 1 to 3 points |
| c. Target Area | 1 to 4 points |

Inspection results shall be documented within the City Tree Inventory. Risk levels that meet or exceed the Community Defined Risk Threshold of 6 shall be pro-actively managed using the following table:

Table-2: Overall Risk Rating and Action Thresholds

The Overall Risk Rating and Action Thresholds

Risk Rating	Risk Category	Interpretation and Implications
3	Low 1	Insignificant - no concern at all.
4	Low 2	Insignificant - very minor issues.
5	Low 3	Insignificant - minor issues not of concern for many years yet.
6	Moderate 1	Some issues but nothing that is likely to cause any problems for another 10 years or more.
7	Moderate 2	Well defined issues - retain and monitor. Not expected to be a problem for at least another 5 - 10 years.
8	Moderate 3	Well defined issues - retain and monitor. Not expected to be a problem for at least another 1 - 5 years.
9	High 1	The assessed issues have now become very clear. The tree can still reasonably be retained as it is not likely to fall apart right away, but it must now be monitored annually. At this stage it may be reasonable for the risk manager/owner to hold public education sessions to inform people of the issues and prepare them for the reality that part or the entire tree has to be removed.
10	High 2	The assessed issues have now become very clear. The probability of failure is now getting serious, or the target rating and/or site context have changed such that mitigation measures should now be on a schedule with a clearly defined timeline for action. There may still be time to inform the public of the work being planned, but there is not enough time to protracted discussion about whether or not there are alternative options available.
11	High 3	The tree, or a part of it has reached a stage where it could fail at any time. Action to mitigate the risk is required within weeks rather than months. By this stage there is not time to hold public meetings to discuss the issue. Risk reduction is a clearly defined issue and although the owner may wish to inform the public of the planned work, he/she should get on with it to avoid clearly foreseeable liabilities.
12	Extreme	This tree, or a part of it, is in the process of falling. Immediate action is required. All other, less significant tree work should be suspended, and roads or work areas should be closed off, until the risk issues have been mitigated. This might be as simple as removing the critical part, drastically reducing overall tree height, or taking the tree down and cordoning off the area until final clean up, or complete removal can be accomplished. The immediate action required is to ensure that the clearly identified risk of harm is eliminated. For areas hit by severe storms, where many extreme risk trees can occur, drastic pruning and/or partial tree removals, followed by barriers to contain traffic, would be an acceptable first stage of risk reduction. There is no time to inform people or worry about public concerns. Clearly defined safety issues preclude further discussion.

The Table shown above outlines the interpretation and implications of the risk ratings and associated risk categories. This table is provided to inform the reader about these risk categories so that they can better understand any risk abatement recommendations made in the risk assessment report.

5.2.2 STUMPS, SNAGS AND SLASH MANAGEMENT

Stumps, snags (dead and topped trees with trunks remaining standing) and slash may provide food storage and nesting structures for wildlife.

Stumps, snags (dead and topped trees with trunks remaining standing) and slash should be left if they do not increase fire hazard, create a risk to public safety or disturb view sheds.

Snags should be left no taller than the distance to of a target; use area, structure that would be struck in the event the snag fell.

Snags should be assessed at regular intervals to determine risk levels and managed when risk levels exceed 6, the Community defined Risk Tolerance Threshold.

5.2.3 WILDLIFE PROTECTION

Tree pruning and removal activities shall take place outside of nesting periods or other timeframes that disrupt wildlife.

No trees shall be pruned or removed in or within 100 yards of Monarch Sanctuaries between the months of April and October.

When tree work is proposed in areas where wildlife is present, it may be necessary for a qualified professional to conduct a survey and determine if negative wildlife impacts would result from the proposed pruning/removal

5.2.4 FLAMMABLE FUEL MANAGEMENT

Fuel management is the planned manipulation or reduction of living or dead vegetation to prevent the ignition of wildland fires and to reduce the spread and intensity of any wildfire.

The Rip Van Winkle Open Space area and southern and eastern boundaries of the Del Monte park district are identified as Very High Fire Hazard Severity Zone (VHFHSZ) by CalFire.

The City of Pacific Grove Urban Forestry Department and private property owners shall manage flammable fuel loads on their respective properties per the guidelines provided below and CalFire *General Guidelines for Creating Defensible Space*.

GRASSES

- Once annual grasses cure (beginning early to mid-June) they are to be maintained at or about 4 inches in length within the 100' fuel management zone.
- Multiple grass mowing/cutting may be necessary following wet winters.
- Technique used (mower v. weed eater) should be sensitive to slope and potential for erosion.

TREES

- Within the 100' fuel management zone, remove from mature trees: all vines, dead branches and all live branches less than 3 inches to 8 feet above the ground.
- Small trees and tree-form shrubs (to 15 feet) should be pruned-up 1/3 their height. The space between tree foliage and shrubs should be 3 times the height of the shrub. This can be accomplished by pruning the tree, shrub, or both.

SHRUBS AND SHRUB PATCHES

- Shrubs and shrub patches located under the canopy of trees should not exceed 18 inches in height.
- Dead limbs should be removed from shrubs.
- Individual shrubs and shrub patches outside of the canopy of trees should be managed to allow for adequate horizontal spacing. Individual shrubs or grouping of shrubs should be maintained in a form so their diameter does not exceed 2 times their height.
- Whenever possible it is recommended that Scotch Broom (*Genesta sp*) Coyote bush and invasive species be removed during the fuel management process to promote the restoration of native plant communities.

DISPOSITION OF PRUNED VEGETATION

- The preferred option should be to chip the native plant material on site and use for mulch in the landscape or distribute in the open in key erosion prone areas. Chipped material can also be spread within the landscaped areas where appropriate to reduce compaction and rebuild soil biota.
- The alternative option should be to haul plant material off site and dispose of properly. This procedure is required for non-native, invasive and disease affected material. These materials should be hand loaded onto a truck and tightly covered with tarps for transport and disposal off-site

6. GROWTH AND DEVELOPMENT OF THE PACIFIC GROVE URBAN FOREST

This section includes materials adapted from *Up by the Roots, James Urban*.

In order to develop trees that grow, reach maturity and provide maximum benefits, a comprehensive growing plan is necessary.

All tree growing elements in the City of Pacific Grove should adhere to the most current versions of *ANSI A-300 Standards and Landscape Trees for Pacific Grove, A Guide to Selection, Planting and Care*.

6.1 SITE SELECTION

A thorough site analysis should be performed for all proposed plantings on public and private lands.

1. Adequate below and above-ground space should be required for the space to be identified as an appropriate planting site. If there is insufficient space to allow the tree to grow to full size, a different site or a smaller growing tree species should be chosen.
2. Tree planting sites should allow adequate distance between the tree trunk and hardscape elements that may be damaged by root development. A general distance to maintain is 10 to 20 feet for mature trees.
3. Tree planting sites should contain adequate soil volumes to allow tree root growth. Below ground space requirements should be twice the area of the above ground canopy coverage extents.
4. Soils shall have sufficient drainage capabilities as verified by a simple percolation test; dig a hole 24 inches in depth, fill with water, and monitor the time it takes for the water to drain. If water moves from the hole into the surrounding soil at a rate less than two inches per hour or pools at the bottom of the whole, drainage capabilities are poor.
5. Trees planting sites in poorly draining soils shall be dug shallow, to a depth that equals two-thirds to one-half the height of the container. This results in a "mounded" type-planting site.
6. Irrigation water supply should be tested to ensure there are no toxic elements or high salt concentrations.

6.2 SPECIES SELECTION

Species planted in the City of Pacific Grove shall be selected from the list of appropriate landscape trees for Pacific Grove.

The Natural Resources Commission in partnership with the City Arborist, and knowledgeable community members shall update the list of appropriate landscape trees for Pacific Grove as needed.

Tree species selected shall respect land use and rebuild native systems where space allows. Native Monterey pine shall be the species of choice for reforesting Rip Van Winkle Open Space and some sections of George Washington Park.

6.3 NURSERY STOCK SELECTION

The selection and procurement of high quality, nursery grown trees is of paramount importance in Growing the Urban Forest.

All nursery grown trees planted in the City of Pacific Grove shall adhere to criteria defined in *Guideline Specifications for Nursery Tree Quality* authored by The Urban Tree Foundation.

6.4 TREE PLANTING

Trees planted in the City shall adhere to the most current version of *American National Standards Institute (ANSI) A-300 (Part 6) Transplanting* (Tree Planting Cue card by the Urban Tree Foundation) and the list of appropriate landscape trees for Pacific Grove.

6.4.1 SELECTING QUALITY TREES

Planting quality trees begins by choosing vigorous, structurally sound trees from the nursery. Strong trees have straight roots, a thick trunk, and one central dominant leader growing straight to the top (see Appendix C, Figure 1) The root collar (the uppermost roots) should be in the top 2 inches of the root ball.

6.4.2 DIGGING THE HOLE

A firm flat-bottomed hole will prevent trees from sinking. Dig the hole only deep enough to position the root collar even with the landscape soil surface (see Appendix C, Figure 2) Use the rototiller or shovel to loosen soil in an area three times the size of the root ball. This loose soil promotes rapid root growth and quick establishment.

6.4.3 INSTALLING THE TREE

Remove soil and roots from the top of the root ball to expose the root collar; cut away any roots that grow over the collar (see Appendix C, Figure 3). Also cut any roots that circle or mat along the sides and bottom of the root ball (see Appendix C, Figure 4). The root collar should be even with the landscape soil after planting (see Appendix C, Figure 3). Backfill with soil removed from the hole. Minimize air pockets by applying water and packing gently. Build a berm 4 inches tall around the planting hole to help force water through the root ball.

6.4.4 STAKING

Staking holds trees erect and allows the root ball to anchor. Secure the trunk at the point where the tree stands straight. A second stake tied directly to the trunk made of bamboo may be required to straighten the upper trunk.

6.4.5 MULCHING

A layer of organic mulch, such as leaf litter, shredded bark, or wood chips, helps protect tree roots from temperature extremes and conserves soil moisture. Mulch also helps prevent grass from competing with the tree for water and nutrients. The mulched area makes it easier to operate mowers and weed eaters without hitting the trunk and compacting soil. Apply mulch to a depth of 3 to 4 inches (slightly thinner on top of the root ball).

6.4.6 IRRIGATING

Consistent irrigation is critical for establishment. 1. Apply about 3 gallons irrigation per inch of trunk diameter to the root ball 2 or 3 times a week for the first growing season. 2. Increase volume and decrease frequency as the tree becomes established. 3. Weekly

irrigation the second year and bimonthly irrigation the third year should be sufficient for establishment. 4. Once established irrigation requirements depend on species, climate and soil conditions. 5. Irrigation devises should be regularly checked for breaks and leaks.

6.4.2 AFTER PLANTING CARE

Aftercare is essential to ensure new plantings succeed and grow. Newly planted trees shall be monitored weekly for the first three months, monthly during the next year’s growth and then at six (6) month intervals for a period of five years or until they acclimate to their new environment.

6.4.7 PRUNING

Training young trees promotes structurally sound growth and overall tree health. Cut back or remove codominant stems (stems that compete with the central leader) to encourage growth in the central leader (below).

6.4.3 EARLY TRAINING PRUNING

1. Directing the growth of young trees is essential if mature trees are to perform properly in the landscape. Early training pruning will establish proper structure and form.
2. Shade trees that grow to be large should have one relatively straight central leader. Heading the tree is acceptable provided the central lead is retained.
3. Main branches should be well distributed along the central leader, not clustered together. They should form a balance crown appropriate for the cultivar or species.
4. The diameter of branches that grow3 from the central leader, or trunk, should be no larger than two-thirds (one-half is preferred) the diameter of the trunk measured just above the branch.
5. The largest branches should be free of bark that extends into the branch union, known as included bark (see A and B).
6. Temporary branches should be present along the lower trunk below the lowest main branch. These branches should be no larger than 3/8 inch in diameter. The trunk should be free of wounds, sunburned areas, conks (fungal fruiting bodies), wood cracks, bleeding areas, signs of boring insects, cankers, or lesions. Properly made recent pruning cuts are acceptable.
7. The trunk caliper (thickness) and taper should be sufficient so that the tree remains vertical without a stake.
8. The root collar (the uppermost roots) should be within the upper 2 inches of the solid media (substrate). The root collar and the inside portion of the root ball should be free of defects, including circling, kinked, and stem grinding roots. You may need to remove soil near the root collar to inspect for root defects.
9. The tree should be well rooted in the soil media. Roots should be uniformly distributed throughout the container. The tree’s structure and growth should be appropriate for the species or cultivar. When the container is removed, the root ball should remain intact. When the trunk is lifted, both the trunk and root system should move as one.
10. The root ball should be moist throughout at the time of inspection and delivery. The roots should show no signs of excess soil moisture as indicated by poor root growth,

root discoloration, distortion, death, or foul odor. The crown should show no signs of moisture stressed as indicated by wilted, shriveled, or dead leaves or branch dieback.

6.5 TREE MAINTENANCE

Tree Maintenance in the City of Pacific Grove shall be performed to specifications written in accordance with American National Standards Institute (ANSI) A300 (Part 1) Tree Management Standards in accordance with International Society of Arboriculture Best management Practices.

Trees on Public Property and within the city right-of-way shall be pruned by the Urban Forestry Department to maintain a Due Standard of Care. Vertical clearance shall be maintained at a minimum height of 13’6” for all roads, streets throughways etc. Tree with a Risk Rating of 6 or greater shall be managed.

Trees on Private Property shall be pruned to maintain a Due Standard of Care at the expense of the Property owner.

6.6 TREES AND INFRASTRUCTURE

Adapted from work by Jim Urban, Nina Bassuk and Jason Grabowsky.

6.6.1 INTRODUCTION

Trees and hardscape/infrastructure elements are often in conflict when tree roots damage curbs, gutters, sidewalks, utility/drainage lines, foundations and retaining walls on both public and private properties. The most effective long-term planning strategy to avoid these conflicts is to dedicate larger planting sites for tree planting. Since a mature tree requires a minimum distance of 10 to 20 feet between the trunk and hardscape elements, this distance is impossible to maintain in streetscape settings. Soil conditions affect tree root trajectory and depth. The required compaction and site stabilization beneath roads and sidewalks creates a perfect environment for small roots to penetrate the concrete/asphalt and base material interface and grow to cause damage.

6.6.2 LOCATING TREES

Large scale trees planted on private property, public rights of way, in public parks and open space shall be positioned a proper distance from hardscape elements in order to decrease damage potential from root development.

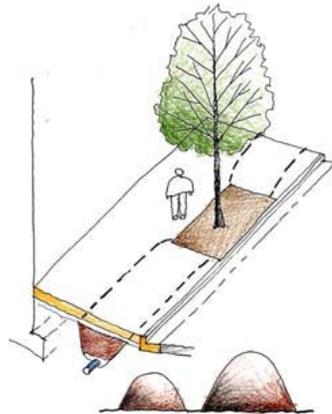
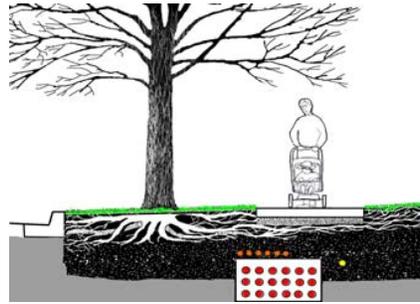
A standard detail, depicted at the right will result in significant damage to the sidewalk, curb/gutter and street as the tree grows.

As the tree develops, roots grow toward and beneath the sidewalk and street.

Street tree and right-of-way plantings near infrastructure shall be placed in locations where root /soil volumes can be expanded below or to the side of infrastructure elements. Some of the methodologies available include planting in the easiest places first. Make use of the spaces that currently have the largest soil volumes.

Expand "root paths" by extending and deepening the soil trench, creating more soil volume or root growth. This increases soil volume from 115 cubic feet to 365 cubic feet, two and one half times the volume

Soil trenches can be extended and connect street trees to further develop "root paths."



6.6.3 STRUCTURAL SOILS

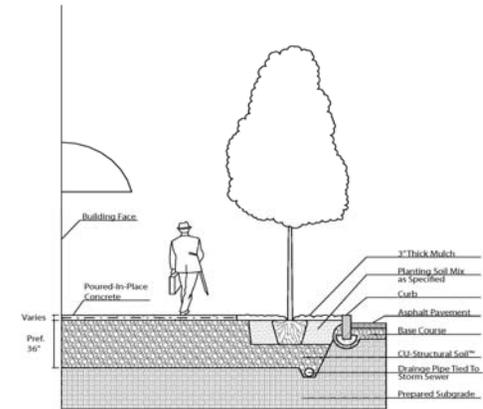
Another innovative concept is Structural Soil (CU-Structural Soil) developed at Cornell University about 15 years ago.

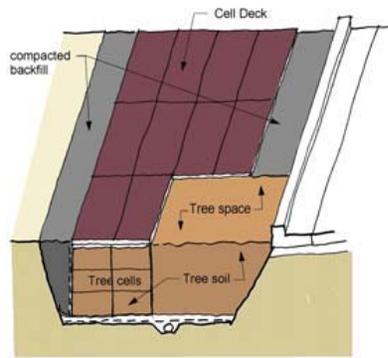
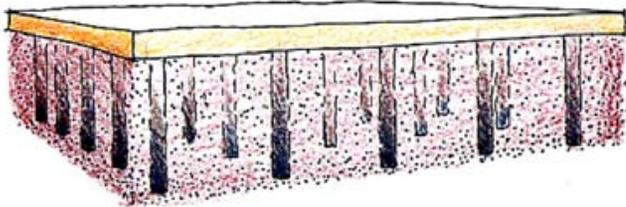
The development of CU-Structural Soil was driven by the need for a load-bearing soil under pavement that can be compacted to 100% dry density (proctor density or modified proctor density) to bear the load of a pavement while allowing tree roots to grow through it. Previously, soils compacted to meet engineering specifications for load bearing restricted tree root growth.

CU-Structural Soil is a mixture of crushed gravel and soil with a small amount of hydrogel to prevent the soil and stone from separating during the mixing and installation process. The keys to its success are the following: the gravel should consist of crushed stone approximately one inch in diameter, with no finer particles, to provide the greatest porosity. The soil needed to make structural soil should be loam to clay loam containing at least 20% clay to maximize water and nutrient holding capacity. The proportion of soil to stone is approximately 80% stone to 20% soil by dry weight, with a small amount of hydrogel aiding in the uniform blending of the two materials. This proportion insures that each stone touches another stone, creating a rigid lattice or skeleton, while the soil fills the large pore spaces that are created between the stone. This way, when compacted, any compactive load would be borne from stone to stone, and the soil in between the stones would remain uncompacted.

CU- Structural Soil requires, approximately 2 cubic feet of soil for every square foot of envisioned crown diameter. A 36" soil depth is recommended although several projects have been successful using as shallow as 24". We would not recommend any less than 24". CU-Structural Soil has an available water holding capacity between 7% and 12% depending on the level of compaction. This is equivalent to a loamy sand or sandy loam. (See the table below for soil volume recommendations). Because of its well-drained nature, trees that prefer well-drained soils do best in CU- Structural Soil. Depending on the stone type used to make it, the pH of the soil may be affected (e.g. limestone vs. granite). Good tree selection practices and establishment procedures should be used with CU-Structural Soil as would be done with any tree installation. It is important to maximize the water infiltration through the pavement to replenish CU-Soil as with any soil. This feature serves a dual purpose to expand stormwater infiltration functions and decrease hardscape damage.

Another system is a structural cell configuration that is engineered to support above ground elements while increasing soil volume by 80%.





Completed cell and backfill installation

6.6.4 STRATEGIES TO REDUCE INFRASTRUCTURE DAMAGE POTENTIAL

Adapted from *Strategies to Reduce Infrastructure Damage Potential*, Costello and Jones.

Alternative design methods to reduce tree/infrastructure conflicts include:

1. Curving sidewalks
2. Pop-outs
3. Reconfigured sidewalk alignment
4. Monolithic sidewalks
5. Increasing Right of Way
6. Build root paths, narrow trenches installed in compacted sub-grade material filled with root friendly material to encourage rooting
7. Root channels, directing root growth to areas of larger soil volume
8. Elimination of Sidewalks
9. Narrower Streets
10. Tree Islands
11. Bridges and Ramps
12. Lowered sites
13. Gravel layer between roots and concrete
14. Concrete with extra reinforcement/Thicker slabs
15. Pervious concrete promotes deeper rooting
16. Recycled rubber sidewalk panels
17. Root control diversion barriers

6.6.5 TREES AND INFRASTRUCTURE, REMEDIAL TREATMENTS

Once damage to infrastructure elements occurs, there are alternatives to tree removal including:

1. Grinding pavement to eliminate uplifted that cause trip hazards
2. Root pruning and the installation of root control diversion barriers
3. Mudjacking, lifting and resetting concrete slabs
4. Alternative materials for walkways that are either: thinner, modular, re-usable, easily replaced, and don't require complete root removal beneath the material

7. TREE REPORTS

7.1 INTRODUCTION

A tree report is needed for development projects and tree removal permits. The report must be prepared by a certified arborist for the applicant and submitted to the city for the purpose of providing accurate information and opinion regarding the condition, welfare, maintenance, preservation or value of a protected or designated tree.

7.1.1 WHEN A WRITTEN REPORT IS REQUIRED

Generally, there are two circumstances in which tree reports are required: 1) When a tree removal permit is sought, and 2) To complete and verify a site plan, assess tree impacts and establish tree protection for property development when within the Critical Root Zone of a protected or designated tree.

7.1.2 WHO MAY PREPARE THE REPORT

The tree report is to be prepared by a certified arborist retained by the applicant or property owner. This person shall possess a current ISA certification, be a member of the American Society of Consulting Arborists; or a member of good standing in another nationally recognized tree research, care, and preservation organization.

7.2 TYPES OF REPORTS

There are four types of reports, each of which are discussed below, namely:

1. Letter Report
2. Tree Survey Report
3. Tree Protection and Preservation Report
4. Tree Appraisal

7.2.1 LETTER REPORT

A brief format is acceptable for removal and development related activities (described below), and can generally be used for assessing one or two trees. The report is to be on letterhead stationery of the individual preparing the report, including their ISA Certification number.

REMOVAL

For a tree removal, not in connection with a property development, the report shall provide information and determination whether the tree is dead, High risk or constitutes a nuisance under the Pacific Grove Municipal Code Chapter 12.50.

DEVELOPMENT

For development on a single family residential lot (not a subdivision), the report shall also clearly indicate whether or not any Protected or Designated tree is so close to the building area or building footprint that it will be killed or permanently injured by disturbance. The report must make specific recommendations to protect and preserve the tree during the course of construction consistent with the specifications within these standards.

SUBMITTAL REQUIREMENTS

Standard information

All letter reports shall contain the following information:

- Arborist name and certification number;
- Purpose of the report and for whom;
- Site address; date of the inspection(s);
- A to-scale diagram of the tree(s) location;
- Accurate size of the trunk diameter (measurement taken at 54-inches above natural grade);
- Perimeter of leaf canopy;
- Proximity to structures;
- Condition of the tree health (and/or decay presence);
- Condition of the tree structure;
- Imminent danger of failing (ISA Hazard Rating, see High risk Trees, above);
- Interface with utility services;
- Conclusion and recommendation(s);
- Photographs (encouraged); and,
- Tree protection instructions (if applicable).

Specific Situations

Other conditions may require the following additional information on an as needed basis if requested by the reviewing city staff: tree protection plans; appraised value (see Tree Appraisal, below); and any other supporting information, photographs, diagrams, etc. that may be necessary.

7.2.2 TREE SURVEY REPORT

A more extensive Tree Survey Report is required for all development projects except those identified above (Letter Report). The Tree Survey Report shall inventory all trees that are greater than 4-inches in diameter (measured at 12-inches above natural grade) on site, including trees to be removed, relocated and retained on the property (including trees on neighboring properties that overhang the project site) and all Public trees in the right-of-way within 30-feet of the project site. In addition to the information required in a Letter Report, the Tree Survey Report shall also include an inventory of the trees, site plan, appraised value (see Appraisals, below) of the trees and any other information pertinent to the project.

SUBMITTAL REQUIREMENTS

Items to include:

All Tree Survey Reports shall contain all items required for a Letter Report (identified above) as well as the following information:

- Cover letter;

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- Title page;
- Table of contents (if necessary);
- Date of the inspection(s);
- Site plan (showing each tree location by number that correlates with the tree inventory on plans;
- A separate list of all Protected Trees with location numbers;
- Tree inventory data (include tree species, size, health, structure, etc. for all trees on the project site, including those to be removed (tables may be used);
- Condition of the trees (include information with respect to health, structure, decay, imminent danger of falling, existing property lines, structures and utility services);
- The monetary value that each tree contributes to the real estate value of the property shall be determined and listed separately. The formula used should be noted (see Tree Appraisal, below); and,
- Conclusion, recommendation(s) and ratings for suitability for preservation.

If necessary, other supporting information, photographs, diagrams, etc. may be required or provided.

7.2.3 TREE PROTECTION AND PRESERVATION PLAN

All Protected or Designated Trees to be retained on a development site shall be shown on approved sets of civil, building and landscape plans and shall be protected during the construction process. A Tree Protection and Preservation Plan submitted for review by the Community Development Department and the City Arborist is required when trees to be saved may be injured by disturbance.

The Tree Protection and Preservation Plan shall assume compliance with the standards described in this UFMP (see Protection of Trees During Construction, above). In addition, the following submittal information must be included in the report:

SUBMITTAL REQUIREMENTS

Disclosure of All Trees On and Near the Site

The property owner or designee shall provide accurate information to the project arborist to develop the tree protection measures and to enable accurate recommendations to insure their survival. This site plan shall accurately show the surveyed location, species, size of trunk and leaf canopy; show the Critical Root Zone of any neighboring trees that may overhang the site and Public trees that are within 30 feet on each side of the project. Failure to show a tree on the plans and later determined to be affected by construction may require the work to stop until mitigation can be agreed upon by the property owner and the city.

Final Improvement Plans

In addition to the above information, final improvement plans shall include and show the following information: show the Critical Root Zone of any tree to be retained and the protective fencing around the protected zone of each tree or group of trees (to be clearly identified as such on all plans as a bold-dashed line); permeable paving located within the Critical Root Zone area; approved utility pathways; grade changes; surface and subsurface drainage and aeration systems to be used; walls, tree wells, retaining walls and grade

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change barriers, both temporary and permanent; landscaping and irrigation within Critical Root Zone of trees.

7.3 TREE APPRAISAL

Landscape value may contribute from seven to 20 percent of the real estate property value. An individual tree has an inherent value to the real estate that can be determined by an appraisal prepared by a certified arborist.

An appraisal is a process for determining a monetary opinion of the value of a tree as it relates to either the property, a group of trees and/or the immediate community. A qualified certified arborist is required to determine this value, and must exercise good and fair judgment by adjusting the basic value by the tree's condition and location.

The certified arborist must prepare the appraisal by using the most current edition of the 'Guide for Plant Appraisal', published by the Council of Tree and Landscape Appraisers.

There are two methods to determine tree value; 1) the Replacement Method, based upon the size and availability of the replacement tree or, 2) the Trunk Formula Method, if the tree cannot be replaced (e.g. not sufficient room on site or it is too large to replace). In all cases, the type of formula used must be identified.

7.3.1 THE REPLACEMENT COST METHOD

This method applies to smaller trees with a trunk size up to 4 inches in diameter or, 48 inch box size trees replaceable. The appraised value is determined by combining: price quote + transportation + planting + other costs and applying the condition and location value to the tree. The sum of these is the appraised replacement cost.

7.3.2 THE TRUNK FORMULA METHOD

This method applies to trees that are too large for practical replacement (transplanting) and shall be appraised by: determining the basic tree value and adjusting this value by a condition and location ratings. The appraised value shall be determined by using the most recent edition of the 'Guide for Plant Appraisal', published by the Council of Tree and Landscape Appraisers.

The Trunk Formula or Replacement Method Forms for Northern California established by the International Society of Arboriculture must be used to compute the appraised value. All trees with a stem larger than 4 inches in diameter when measured at 12inches above natural grade shall be calculated in this manner.