City of Seaside
Tree Maintenance and Inspection Policy

I. PURPOSE

This policy establishes guidelines and procedures needed to provide for the care and protection of trees in order to promote the health, safety, welfare, and quality of life for all City residents and visitors.

II. DEFINITIONS

For the purposes of this policy the following definitions shall apply:

A. Arborist: the person designated as such by the City who has demonstrated knowledge and competency through obtainment of the current International Society of Arboriculture arborist certification.

B. Tree Specialist: a person designated by the City having demonstrated knowledge and competency on tree related issues

C. Compaction: compression of the soil structure or texture by any means that creates an upper layer that is impermeable.

D. DCM: The Deputy City Manager of Resource Management Services, or the Deputy's designee, unless otherwise specified in the policy.

E. Disturbance: all of the various activities from construction or development that may damage trees.

F. Dripline Area: the suggested minimum area within X distance from the trunk of a tree in a typical location, measured from the perimeter of the trunk of the tree at 54 inches above natural grade, where X equals a distance ten times the diameter of the trunk at 54 inches above natural grade, or the distance to the outermost edge of the tree canopy, whichever is the lesser distance.

G. Excessive Pruning: removing in excess of 25 percent or greater of the functioning leaves and stems. Excessive pruning may include the cutting of any root two inches or greater in diameter. Exceptions are when clearance from overhead utilities or public improvements is required, or to abate a hazardous condition or a public nuisance.

H. Hazardous Condition: In this policy, any hazardous tree or related hazard that poses an imminent risk if the tree or part of the tree would fall on someone or something of value. The City shall provide warning or notice if the condition cannot be immediately corrected.

I. Injury: a wound resulting from any activity, including but not limited to excessive pruning, cutting, trenching, excavating, altering the grade, paving or compaction. Injury shall include bruising, scarring, tearing or breaking of roots, bark, trunk, branches or foliage, herbicide or poisoning, or any other action leading to the death or permanent damage to tree health.

J. Pest Control Operator: a person who performs the application and treatment of pest controls, and is licensed by the California Department of Pesticide Regulation.

K. Public Nuisance: something that is offensive to the community or that violates the rights of persons or the community, as determined by the DCM.

L. Public Tree: any tree growing within public property, easements, or the street right-of-way outside of private property.

M. Removal: complete tree removal, such as cutting to the ground or extraction of the tree.

N. Unintended Object: includes people, vehicles, structures or anything subject to damage by a tree.

O. Topping: the practice of cutting back large-diameter branches or truncating the main stem.

P. Trenching: any excavation to provide irrigation, install foundations, utility lines, services, pipe, drainage or other property improvements below grade.

III. Tree Inspections

Inspection of City trees identifies problems and provides hazard mitigation measures. On a regular basis, as determined by the DCM, all public trees shall be inspected for structural problems. Trees with such defects shall be noted in the City's tree inspection program, and assigned a formal inspection date based on the degree of risk associated with each tree's particular defects.

When inspecting trees, consistent procedures shall be used to inspect all trees in order to ensure that inspections are done in a consistent and regular manner.

While most tree hazard assessments can be conducted from the ground, there are times when an aerial inspection is necessary. Aerial inspections shall be done when adequate information cannot be gathered from the ground. When conducting aerial inspections, all safety considerations recommended by the American National Standards Institute Standards for Tree Care Operations, Standard Z133.1-1994.

A. The goals of the tree inspection program include:

- Document tree structure and health.

- Schedule tree maintenance work.
- Improve tree structure and health.
- Reduce tree loss and liability.

B. Trees shall be examined for the following:

- Unbalanced crown
- Weak or yellowing foliage
- Defoliation
- Dead or broken branches
- Poor branch attachment
- Lean
- Pruning scars
- Trunk scars
- Rot/cavity
- Cracks
- Girdling roots
- Exposed surface roots
- Trenching/grade change

IV. TREE MAINTENANCE GUIDELINES

These guidelines establish principles of care and maintenance for the City's public trees, and are set forth for pruning, planting, watering, soil and nutrient requirements, insect, disease, and fruit control.

A. Prohibited Acts

Prohibited maintenance practices for public trees include:

1. Excessive pruning, except for clearance pruning of utility lines, traffic or abating a public nuisance.

2. Topping.

3. Other action that could lead to the death of a tree or could permanently damage its health, including but not limited to cutting, poisoning, over-watering, unauthorized relocation or transportation of a tree, or trenching, excavating, altering the grade, or paving within the dripline area of a tree.

B. Standards For Pruning Public Trees

All work on public trees shall be in accordance with the most current edition of the following industry standards: ANSI A300-1995, Appendix G and ANSI Z133.1-1994, Appendix H.

C. Pruning Mature Trees

There are six types of pruning that may be appropriate for mature trees. They are crown cleaning, crown thinning, crown raising, crown restoration, crown reduction, and utility pruning. Climbing and pruning practices shall not injure the tree except for the pruning cuts.

To reduce the probability of insect infestation, disease, or infection, the following seasonal restrictions apply, except when public safety is a concern:

1. Pine (Pinus spp.) or Elm (Ulmus spp.): do not prune March through October.

2. All species: do not prune during the flush of spring shoot growth.

3. Trees with thin bark: do not prune in summer when sunscald injury may be a factor.

4. Deciduous trees: best pruned November through February.

5. Hazardous trees of any species may be pruned any time of the year for abatement reasons.

D. Pruning Distressed Trees

Distressed trees require as much leaf area as possible to overcome stressed conditions. To avoid additional injury, the following measures shall be followed for these trees:

1. If a tree has been damaged by injury or disturbance, pruning shall be delayed until deadwood becomes evident. Crown cleaning is then recommended.

2. Trees that have received little or no care or maintenance may need moderate crown thinning, reduction of end weights, or entire crown restoration.

E. Pruning Young Trees

Young trees shall be pruned during the second year after planting to improve their structure, and only minor crown cleaning every three to seven years thereafter. Branches shall be spaced at least 18 inches apart to alleviate tight grouping branches.

F. Wildlife Avoidance / Migratory Bird Treaty Act Compliance

For most species of trees, November through February is the optimal time to prune when considering the health interests of the trees. This time frame is also

the best time to prune when trying to avoid bird nests. State and federal regulations prohibit the disturbance and destruction of many active bird nests.

G. Fertilizing

All fertilizers shall only be applied if specified by the Arborist. Fertilizing may be specified for trees that will be impacted by an upcoming disturbance, grade change, or a modified environment. Fertilizing in these instances may aid the tree to overcome the stress caused by disturbance. The Arborist shall determine specifications for fertilizing trees on a case-by-case basis.

H. Watering Schedule

1. Newly installed trees, including drought tolerant species, are dependent upon supplemental irrigation until established, typically for two years. If a tree is native to areas of higher rainfall, then the tree will require supplemental water throughout its life cycle, unless the tree finds a subterranean water source. Periods of extreme heat, wind or drought may require more or less water than recommended in these specifications.

2. During the establishment period, new trees shall be watered thoroughly to their root depth as frequently as needed. The minimum standards shall be as follows:

    a. One to three months in the ground: four times per month, or as necessary.

    b. Four to six months in the ground: two times per month or, as necessary.

    c. Seven to 12 months in the ground: one time per month, or as necessary.

3. Most mature public trees in the City are established in areas without formal watering systems. These trees shall only receive manual irrigation when it is determined necessary by the Tree Specialist and/or an Arborist in order to restore the health of the tree. In this case, the Arborist shall also determine the watering specifications.

4. Trees planted in association with the construction of public improvements (medians, parkways, sidewalk tree wells, etc.) shall be irrigated by automated watering systems. The DCM in consultation with the Tree Specialist and/or an Arborist shall determine the type of automatic irrigation system used. Trees planted in public areas where no irrigation system exists shall be hand watered until established. After

that, a watering schedule determined by the Arborist shall be in effect until deemed no longer necessary.

I. Insect And Disease Control

If action against pests is warranted, the pest source shall be identified and targeted with a specific and timely treatment. If it appears that insects or disease may lead to the death of a public tree, then it is the responsibility of the City to evaluate the condition according to the following guidelines and treat the problem in a timely fashion to prevent further deterioration of the tree:

1. For treatment of insects, the pest control operator shall be consulted. Nontoxic materials shall be used whenever possible.

2. For disease and decay above ground that erode the health or weaken the structure, a public tree may compromise the safety of people or property.

3. Diseases below ground are often caused by poor landscape design surrounding old trees, which encourages harmful and often lethal ailments. The following conditions favor disease:

    a. Compacting of the soil within the tree's dripline;

    b. Removing soil from the tree root area;

    c. Watering on or near the tree trunk area; and

    d. Planting incompatible plants within the tree's dripline.

    Combined with poorly drained soil, these factors often activate normally dormant fungi to become opportunistic and infect the tree, which can lead to the decline and eventual death of the tree. This decline can be slow and may not be evident for many years.

    When planning landscaping around a public tree, an evaluation of the tree and soil must be performed to determine if there is a disease present. If the tree is diseased and it is reasonable to expect that landscaping will contribute to decline, permanent damage or render it hazardous, it is the obligation of the City to take reasonable measures to reduce or eliminate the conditions that may cause the decline of the public tree.

J. Fruit Control

While many trees produce flowers or fruit, some trees can be considered a nuisance if the use area is not compatible with the debris generated by the tree. For example, the dropping fruit of the European Olive (Olea europaea), American

Sweet Gum (Liquidamber styraciflua), or acorn drip of a Holly Oak (Quercus ilex) may be a safety hazard if it is in the proximity of a handicap ramp or other pedestrian area.

In such cases, control measures are warranted and must be administered by the pest control operator to ensure successful application of treatment materials.

V. TREE REMOVAL

A. Public trees are considered an important asset of the City. As such, it is the policy of the City to preserve trees whenever possible. There are certain conditions in which a tree must be removed, such as those in an emergency. Other conditions require the review and approval of the DCM and the Tree Specialist and/or an Arborist.

B. Trees will be removed only when one or more of the following criteria are met:

1. The tree is in a state of decline due to disease or insect pest for which there is no likelihood of a cure.

2. The tree poses a safety risk that cannot be corrected or where an unreasonable safety risk would be created by the construction process or root pruning.

3. Where work improvements required to be made around the tree will likely kill the tree or render it a hazardous tree.

4. Where tree preservation is not cost effective compared to the tree's monetary value.

5. The tree poses a public nuisance because of its species, size, location, fruit and seed drop, limb breakage or other objectionable conditions.

6. The aesthetic value of the tree is extremely low, or where the tree interferes with the growth and development of a more desirable tree.

C. If a public tree's root system has been found to be elevating the sidewalk to a degree greater than the City's policy where the tree's removal is not an option, the sidewalk repair will be made using an approved replacement or modification method which best corrects the sidewalk anomaly while minimizing harm to the tree.

D. A tree must be evaluated and determined to be hazardous before it can be removed for hazardous reasons. It is the responsibility of the City to mitigate or abate any known hazardous condition of a tree that may be of questionable structure or deemed as hazardous. The Tree Specialist and/or an Arborist shall

be responsible for hazard assessment of public trees, and will use the following criteria:

1. If a tree possesses a structural defect that may cause the tree or part of the tree to fall on unintended object, and the condition is determined to be imminent, the tree is considered hazardous.

2. If the hazardous condition or unintended object cannot be mitigated or reduced to a less than significant level, then the tree shall be authorized by the City to be removed to abate the condition.

E. Evaluation of other factors that contribute to tree failure shall be considered, including the following:

1. Structural defects in the tree, including branches, trunk and roots.

2. Potential unintended objects, including people, structures, or property use and occupancy.

Evaluation of structural defects shall employ the most current methods of internal decay inspection available; soil/slope and/or creek bank stability; individual species susceptibility to failure; pruning; history; decay weaknesses and any other compromising or pertinent factors considered.

Evaluation of unintentional objects shall consider structures or activities under or around the tree, e.g., building, parking, pedestrian, recreational, utility lines, hardscape, etc. Occupancy shall consider frequency of use, and whether the unintended object will be present when failure occurs. Consideration shall be given to whether the unintended object can reasonably be removed or isolated to mitigate the hazard.

VI. REPLACEMENT AND PLANTING OF TREES

A. Tree Planting Specifications

The following specifications pertain to all trees that are to be planted within the public right-of-way or on publicly owned property:

1. Replacement trees shall be of the same species unless the DCM determine through consultation with the Tree Specialist and/or an Arborist that another species would be more suitable for the location.

2. The location of a replacement tree shall be subject to the approval of the DCM. A replacement tree shall be planted in a reasonable location as close as possible to the removed tree, unless otherwise noted in an approved streetscape or master planting plan.

3. The minimum size planting area for the tree species.

B. Planting Stock And Materials

1. Quality

a. All plants and trees installed within the City shall conform to ANSI Z60.1-1996.

b. Plants shall be sound, healthy, vigorous, and free of plant disease and insect pests and their eggs

c. Container stock shall be grown for at least eight months in containers, and shall not be root bound or have girdling roots.

d. Trees shall not have been topped.

2. Miscellaneous Materials

When deemed necessary by the Tree Specialist and/or an Arborist, the following materials shall be used:

a. Support stakes shall be treated or untreated two-inch diameter lodge pole pine without the use of cross braces. After installation, stakes shall be trimmed so that the branches clear the top of the stake. Generally, the stakes shall have an installed height of two-thirds the height of the tree.

b. Tree ties shall be used and installed in a figure eight fashion to support the tree to the stakes at the bending point of the trunk.

c. Screened untreated wood chips shall be used that are one-half to one inch in size, and spread to a two-inch depth out to the edge of the root ball. The mulch shall be kept at least six inches away from the trunk and shall be applied to each tree at two times the diameter of the tree root ball.

d. Where appropriate for use along public sidewalks, 18-inch linear root barrier shall be used and shall be ten feet in length, and placed on center with the tree and on the sidewalk or curbside only. Root barrier boxes or barrier circles that encircle the tree are not approved.

e. For trees in turf areas requiring regular mowing, the tree trunk shall be protected with tree guards, and shall be four feet by four feet, unless approved otherwise by the DCM and/or the Tree Specialist.

f. Where sidewalk width is less than eight feet and new trees will be installed in a tree well, decomposed granite shall be used as a

mulch covering that is flush with the surrounding paving, as approved by the DCM and/or the Tree Specialist.

C. Planting Site Preparation

1. Soil Preparation and Conditioning 10

All debris, wood chips, pavement, concrete and rocks over two inches in diameter shall be removed from the planting pit to a minimum of 24-inch depth, unless approved otherwise by the Director.

2. Drainage

A planting percolation test is required, and shall be conducted by filling the planting hole with water and requiring that drainage is greater than two inches per hour. If percolation is less, one or more of the following mitigation measures shall be implemented for tree planting:

a. Install a French drain that is a minimum of 18 inches in depth filled with drain rock. The grade shall fall away from the tree trunk.

b. Install perforated pipe directing water away from the tree.

c. Install a drain chimney at the bottom of the planting pit, with a filter-fabric lined, perforated hollow pipe a minimum of four inches in diameter to ensure percolation of all water from the filled planter pit. Auger bore drain holes to penetrate hardpan or cileechee clay a minimum of 12 inches into undisturbed pervious soil. The boring angle shall be as close to vertical as possible.

3. Aeration Tubes For Trees

a. Trees planted in the City right-of-way, sidewalk planter pits, planting strip, medians or protected trees when specifically required in improvement plans, shall use four-inch diameter perforated aeration piping circling the bottom of the planter connected by a tee fitting to two riser tubes with grated caps and wrapped with filter fabric.

D. Planting In Difficult Soil Conditions

1. Trees planted in turf areas shall have a ring of mulch. The turf shall be maintained a minimum of one foot from the new tree stem, with mulch placed on top of the root ball. The mulch shall be six inches away from and not touching the tree stem.

2. Occasionally, tree planting must occur in poor or difficult soil where standard planting techniques will result in poor-to-average performance

or mortality. In this case, alternative or specified soils, such as engineered, amended or structural urban tree soil mix, including written specifications and physical samples, shall be submitted for approval by the DCM.

VII. REFERENCES

ANSI A300-1995 Appendix G

ANSI Z133.1-1994

ANSI Z60.1-1996