

## Chapter 12.36 - TREE CONSERVATION\*

### Sections:

#### 12.36.010 - Purpose.

- A. The city council finds that it is necessary and in the interest of the public, health, safety, and general welfare to enact an ordinance for the conservation and planting of trees on public and private property, and to prevent the indiscriminate removal of certain healthy trees, in a manner which allows for maximum reasonable use and enjoyment of property by its owners.
- B. Trees are recognized as important to the general well being of the citizens of the city for their shade, cooling, noise and wind reduction, soil stabilization, protection of surface water quality, aesthetic value, air filtering and release of oxygen, benefits to wildlife and the area's ecology, and their economic enhancement to property.
- C. It is the intent of this chapter to promote the conservation of a healthy tree population and to maintain and enhance tree canopy throughout the community. This is to be accomplished through (1) the preservation of existing native and nonnative trees where feasible; (2) the replacement or transplanting of trees removed where appropriate; and (3) the planting of new trees in locations, number, and kind compatible with local conditions.

(Ord. 04-165 § 1 (part))

#### 12.36.020 - Applicability.

This chapter applies to "protected trees" on developed, underdeveloped, and vacant parcels of land within the city. Protected trees may only be removed under specific circumstances as identified in Section 12.36.050 (Exemptions), and as provided for in Section 12.36.060 (Tree conservation and replacement). Trees which are not defined as protected trees are not covered by this chapter.

(Ord. 04-165 § 1 (part))

#### 12.36.030 - Definitions.

For the purposes of this chapter, the following words and phrases shall have the meanings respectively ascribed to them, unless the context otherwise requires.

"Arborist" means:

1. A person currently certified by the Western Chapter of the International Society of Arboriculture as an expert on the care of trees;
2. A consulting arborist who satisfies the requirements of the American Society of Consulting Arborists;
3. A registered professional forester; or
4. Such other qualified professionals who the director determines have gained through experience the qualifications to identify, remove or replace trees.

"Critical root zone" means a circular region measured outward from a tree trunk representing the essential area of the roots that must be maintained or protected for the tree's survival. The circumference of the critical root zone is established by drawing a circle around the base of the tree with one foot of radial distance for every inch of tree diameter at breast height (DBH), except that the minimum critical root zone shall be no less than eight-foot radius. The critical root zone shall extend to a depth of five feet beneath the surface ground level.

"Damage" means any action undertaken which may cause death or significant injury, or which places the tree in a hazardous condition or in an irreversible state of decline. This includes but is not limited to cutting, topping, girdling, or poisoning.

"DBH" (diameter at breast height) means the diameter of a tree trunk measured in inches at a height of 4.5 feet above ground. See Appendix A for a diagram that defines the measuring of DBH in various situations.

"Developed parcel" means any individual lot that is occupied by a principal building or use.

"Director" means the director of the development services department or his or her designee.

"Discretionary permit" means and includes, but is not limited to, those projects subject to: a use permit (including administrative use permit), a parcel map, a tentative subdivision map, a site-plan review, a variance, a rezone, or a planned development.

"Drip line" means a vertical line extending from the outermost edge of a tree's foliage to the ground.

"Fire department" means the Shasta Lake Fire Protection District or other fire protection agency providing mutual-aid during a fire event within the city.

"Major project," for purposes of this chapter, means any use of land requiring approval of a discretionary land use application leading to the issuance of permits for grading and/or construction, including but not limited to conditional use permit, variance, land subdivision, a modification to such project, or an extension of time for such project; and any project which is subject to environmental review under the California Environmental Quality Act.

"Mass clearing" means the removal of seventy-five (75) percent or more of the vegetation, including protected trees, within a total area.

"Minor project," for purposes of this chapter, means a project for which a grading permit and/or building permit is sought, but which does not require approval of a discretionary land use application. Such projects include but are not limited to single-family residences on existing lots of record, or modifications thereto, grading permits where no construction is proposed, encroachment permits, and demolition permits.

"Police" means any law enforcement agency with jurisdiction within the city limits, or an outside law enforcement agency providing mutual-aid during an emergency.

"Protected tree" means:

1. Any living tree, except digger pine or gray pine (*pinus sabiniana*), having at least one trunk of ten inches or more DBH; or,
2. A tree that is required to be preserved under discretionary project approval or under a site development tree plan that is approved administratively by the director.

"Slash material" means any vegetation debris that has been cut for land clearing or other purposes.

"Tree" means a perennial plant having a self-supporting woody main stem or trunk usually characterized by the ability to grow to considerable height and size and to develop woody branches at some distance above the ground. It is usually distinguished from a bush or shrub by its size, manner of growth, and usual botanical nomenclature. Perennial shrubs are not classified as trees in this chapter.

"Tree removal" or "removal of a tree" means the physical removal of a tree, or causing the death of a tree through damage, poison, or other direct or indirect action.

"Underdeveloped parcel" means any parcel that can be more intensively developed under the zoning regulations of the city.

"Vacant parcel" means an individual lot that is not occupied by a principal building or use.

(Ord. 04-165 § 1 (part))

#### 12.36.040 - Prohibition on tree removal.

Any tree which qualifies as a protected tree shall not be removed from a property or damaged except as provided for in Section 12.36.050 (Exemptions), or as provided for in Section 12.36.060 (Tree conservation and replacement).

(Ord. 04-165 § 1 (part))

#### 12.36.050 - Exemptions.

The removal of a protected tree is allowable and exempt from the requirements of this chapter under the following circumstances:

- A. The property is developed with a single-family residence and the tree removal will not result in the mass clearing of more than twenty thousand (20,000) square feet.
- B. The tree removal is required to make way for improvements related to the construction of an allowable single-family residence, on a lot that existed prior to the initial adoption of the ordinance codified in this chapter and:
  1. Building permits have been issued;
  2. The trees proposed to be removed are not required to be preserved as part of a discretionary permit; and
  3. The construction work will not require the mass clearing of more than twenty thousand (20,000) square feet.
- C. The tree is in a condition that presents an immediate or imminent hazard to life or property and the city manager, development services director, public works director, electric department director, or a member of the police or fire department has ordered the tree removed.
- D. The removal of a tree has been determined necessary by the fire department for an existing structure to comply with local or state fire safe regulations.
- E. The removal or pruning of trees by the electric department, or other municipal, private, or public utility to maintain proper clearances from existing utility lines when necessary to comply with applicable city, state, or federal safety regulations, to prevent potential future interruption of service, to provide a residential service connection, to repair damage to facilities, or to restore interrupted service.
- F. The removal of a tree within the public right-of-way by the public works department when necessary to prevent damage to existing public improvements.
- G. Removal of trees on property owned by the federal government, the state of California, the county of Shasta, the city of Shasta Lake, or any school or special district.

(Ord. 04-165 § 1 (part))

#### 12.36.060 - Tree conservation and replacement.

- A. Subdivisions and other development projects subject to the provisions of this chapter shall be designed to the extent possible to minimize destruction or damage to protected trees. Project design shall recognize the desirability of conserving trees. Plans for grading and infrastructure improvements shall reflect this consideration, and shall include the following safeguards:
  1. Location of minimum growing areas as required by individual species.
  2. Minimal disruption or removal of structural or feeder roots.

3. Minimal filling, cutting, development, or compaction of soils within the drip line.
  4. Any other special measures as recommended by an arborist to ensure efforts to save a protected tree are adequate.
- B. It is recognized that the preservation of healthy trees will sometimes conflict with normal land development considerations such as proper drainage, grading, circulation, safety, lot configuration, and utilities. Within most developments it will not be practical to preserve all healthy trees given the necessity of addressing other design and public safety requirements. In such instances, the developer is required to utilize creative land-planning techniques to retain the most desirable and significant healthy trees, and notable stands of such trees. The set-aside of a natural area or areas within a project site which is particularly suitable for the planting, retention, and/or natural regeneration of trees is considered to be a desirable means of accomplishing the goals of this chapter. The area of any set-aside shall be roughly equivalent to or exceed the area which would be occupied within the drip line if individual trees had been preserved. Set-aside areas shall be in addition to any area classified as "open space" under the policies of the Shasta Lake general plan.
- C. If a protected tree must be removed from a property to facilitate development allowed by zoning, replacement trees shall be provided to compensate for the loss. Replacement trees shall be provided in accordance with the standards provided in Section 12.36.070.
- D. If a property owner desires to remove a protected tree from a vacant or underdeveloped parcel without the submittal of a site development plan to the city for establishment of a primary use, a use permit shall be required prior to the removal of the tree. The use permit shall include conditions requiring a tree inventory of the site, provisions for the removal of slash material, and appropriate replanting and erosion control measures. The type of use permit required pursuant to this section shall be as follows:
1. An administrative use permit shall be required if the proposed activity will not result in the loss of more than three protected trees.
  2. A planning commission issued use permit shall be required if the proposed activity would result in the removal of more than three protected trees.
- E. The planning commission may consider tree preservation as adequate grounds to approve variances associated with building setbacks, building separations, parking requirements, and driveway grades if the commission determines that (1) the preservation and retention of a protected tree outweighs the disadvantages associated with any variance granted to save it, and (2) there is a real expectation that the tree will survive for more than five years.

(Ord. 04-165 § 1 (part))

#### 12.36.062 - Pre-development review for major projects.

A. Pre-development Review.

1. For any major project where it is proposed to remove more than five protected trees, a pre-development review shall be required. The purpose of this review is to ensure that tree conservation is considered early in the planning process with respect to placement of buildings, roads and driveways, parking, utilities, and other site improvements.
2. A tree delineation map shall be required for the pre-development review meeting with the development services director or his or her designee. This map shall show existing grades, location and size of groups of similar trees (stands), and any trees which may be significant due to their size.
3. Conceptual development plans submitted at the pre-development review phase shall show one or more methods of ensuring that tree conservation has been considered in project design. In general, development plans shall consider the following:

- a. Stands of trees shall be preserved where feasible, rather than individual trees, as they provide better habitat and have a more likely chance of survival than individual trees surrounded by development. Where possible, stands of trees shall be left in place so as to connect with other stands of trees on adjacent properties, rather than separating natural treed areas with developed areas.
- b. For residential subdivisions, the development shall consider potential neighborhood park areas and subdivision entrance areas in designating set-aside areas for the purpose of preserving trees throughout the project boundaries.
- c. The development shall be designed such that suitable land will be set aside in an open space area which will (1) retain as many protected trees as are proposed to be removed; or (2) be particularly suitable for the planting and/or natural regeneration of trees. The set-aside area shall be in addition to any area classified as "open space" under the policies of the Shasta Lake general plan.
- d. In evaluating tree preservation with respect to building placement, the development shall consider the relative health and viability of trees. Healthy trees of varying ages shall be considered for preservation, rather than removing several younger trees in order to save an older specimen tree, which may be over-mature.
- e. Tree locations shall be reviewed in relation to planned roads, driveways, pavement, structures, overhead utility lines and underground utility trenches, to ensure that trees will not be damaged by construction or development. If the root system of any existing tree will be significantly damaged during construction, or if the tree will conflict with any structure or improvement, the site shall be redesigned or the tree shall be designated for removal. At least forty (40) percent of the critical root zone shall remain undisturbed from construction for any tree proposed to remain on site.
- f. The base of a tree shall not be paved over or encased in planters or other enclosures, which could change the grade at the base of the tree.
- g. Grading or landscaping techniques that involve backfilling of soil around trees shall be avoided.
- h. The design of structures, improvements and site grades shall conform to the natural topography of the site to the extent feasible, to ensure survival of remaining trees.
- i. The proposed site drainage plan shall be reviewed for changes to surface water runoff that would affect trees. Final site drainage shall not allow surface water to pond around the base of trees.
- j. Utility trenches shall avoid the critical root zone of any mature tree to be retained on site, or minimize encroachment to the extent feasible. The width or depth of utility trenches is not a consideration, since the cutting of roots for any size trench may damage a tree severely. To the extent feasible, utilities shall be run along the edge of driveways or other paved areas to minimize impacts to trees.
- k. Fire safety standards shall be considered in design of residential projects (i.e., setback from proposed main and accessory structures, fire breaks, clearance from the canopy of other trees on the property).

**B. Tree Removal and Replacement Plan for Major Projects.**

1. For major projects on sites containing existing protected trees, a Tree Removal and Replacement Plan shall be submitted concurrently with the formal application. Failure to provide this information will result in a determination that the application is incomplete. The Tree Removal and Replacement Plan shall contain the following information, except as otherwise waived by the development services director or his or her designee, based on inapplicability to the proposed project:

- a. A plan showing the location of each tree ten inches or greater DBH on the site. In cases where a project site includes a stand or stands of trees closely grouped, having a common and unbroken canopy, the entire stand rather than individual trees may be depicted, provided that the total canopy is accurately delineated;
- b. A table keyed to the tree location plan, which indicates species, diameter, condition and health;
- c. The location of existing or proposed lot lines, buildings, roads, driveways and other improvements;
- d. Grading information of sufficient detail to ascertain whether proposed cuts and fills will affect trees proposed to be saved;
- e. Trees proposed to remain after development, and trees proposed for removal;
- f. Details on the species of trees to be used in replanting or the trees proposed to be transplanted and their proposed location. Include a timing schedule for replanting, any special irrigation or planting requirements, and provisions and responsibility for ongoing maintenance after construction;
- g. Except in cases of residential subdivisions where the information is not known at the time of tentative map submittal, locations of construction equipment staging and materials storage during construction;
- h. Except in cases of residential subdivisions where the information is not known at the time of tentative map submittal, locations of proposed underground utilities or other trenching, including storm drains, sewers, area drains, gas lines, electrical service, cable TV and water mains. All lateral lines serving the site shall be shown and shall be located so as not to damage remaining trees;
- i. Except in cases of residential subdivisions where the information is not known at the time of tentative map submittal, locations of overhead utility lines which could impact existing or proposed trees;
- j. Locations of proposed areas of new landscaping which could impact existing trees, including type of vegetation and irrigation proposed;
- k. Locations of streams, wetlands or drainage courses, and any proposed changes to drainage patterns, which could impact trees;
- l. If deemed appropriate by the development services director or his or her designee, a photographic record of trees affected by development may be required.

(Ord. 04-165 § 1 (part))

#### 12.36.065 - Findings required.

An application for a discretionary project shall also be considered an application for tree removal in those instances where trees will be affected by the development. Upon review of the application and consideration of the written and oral evidence received at the public hearing for a discretionary permit, the planning commission shall render its decision. The application shall be approved only if the applicant demonstrates and the commission affirmatively finds:

1. The condition of the trees, with respect to disease, form, general health, damage, public nuisance, danger of falling, proximity to existing structures, interference with utility services, good forestry practices, or damage to existing sidewalks and driveways, warrants their removal.
2. The preservation of the trees unreasonably restricts the economic potential of the property upon which the trees are situated.

3. The development has been designed such that suitable land will be set aside in an open space area which will:
  - A. Retain as many protected trees as are proposed to be removed; or
  - B. When the preservation of as many protected trees as are proposed to be removed unreasonably restricts the economic potential of the property upon which the trees are situated, the set-aside area is particularly suitable for the planting and/or natural regeneration of replacement trees required to be planted by the developer.

The set-aside area shall be in addition to any area classified as "open space" under the policies of the Shasta Lake general plan.

4. Trees proposed for removal interfere with utility services or streets and highways either within or outside of the subject property and no reasonable alternative to such interference exists other than removal of the tree(s).
5. Construction proposed within the drip line of any tree will not cause harm or damage to such tree and any construction on the property can be accomplished without endangering the health of the remaining trees on the subject property.
6. Tree removal as proposed will not result in soil erosion through the diversion or increased flow of surface waters that cannot be satisfactorily mitigated.
7. Tree removal will not result in the degradation of any scenic resource and will not substantially degrade the existing visual character or quality of the site or its surroundings.

(Ord. 04-165 § 1 (part))

12.36.070 - Tree-planting standards.

- A. The following tree-planting provisions shall apply to all new construction and to projects that result in the removal of a protected tree.
  1. New Construction Standards.

Property Zoned For:	Minimum Planting Standard:
a. Residential: (Subdivisions and Multifamily)	Three 15-gallon trees shall be planted for each proposed single-family unit/lot; and, two 15-gallon trees for each multifamily unit.
b. Commercial and Public	Two 15-gallon trees shall be planted for each 1,000 square feet of gross floor area or covered space.
c. Industrial	One 15-gallon tree shall be planted for each 2,000 square feet of gross floor area or covered space.

2. If the provisions in the table above do not apply to a project involving tree removal (such as clearing to expand a parking lot or to create a storage area), then as an alternative, a minimum of two fifteen (15) gallon trees shall be planted for every one protected tree removed.
3. In addition to the tree-planting standards set forth above, three fifteen (15) gallon trees shall be planted for each protected tree removed that exceeds ten inches DBH.

- B. The planning commission may allow for a different tree-planting requirement as a condition of a discretionary permit upon a finding that the alternate standard is consistent with the intent of this chapter. This could include credit towards the above noted planting standards for significant trees (such as mature valley oaks) that are preserved.
- C. Trees required pursuant to this section shall be planted prior to the issuance of a certificate of occupancy or final permit in those instances where planting is in conjunction with construction under a valid building permit, unless alternate timing for planting is recommended by an arborist.
- D. The species of any tree used for replacement pursuant to this section shall be suited to the city's climate zone and be chosen with consideration of any site specific limitations. The use of native shade trees is preferred but not required. A list of trees that are suitable to the area is included as Appendix B. The replacement tree shall be planted in a manner that is recognized as standard accepted practice unless a specific method is prescribed by an arborist.
- E. If the standards of this section conflict with any other tree-planting requirements applicable to the proposed development, such as those set forth in Section 17.84.040 (Landscaping) of the city zoning code, the most restrictive shall apply.

(Ord. 04-165 § 1 (part))

#### 12.36.080 - Construction standards.

The following standards shall be followed during construction activities to ensure preserved trees will not be damaged:

- A. Before the start of any clearing, excavation, construction, or other work on the site, every tree designated for preservation which is located outside of any existing or required open space area or dedication shall be clearly delineated in the field. The delineation markers shall remain in place for the duration of all work. Where deemed appropriate by the approving authority, a barrier of posts and flagging or other appropriate materials may be required to be erected around protected trees. A plan shall be established for the removal and disposal of brush, earth, and other debris in order to avoid injury to any protected tree which is to be saved.
- B. Where the approval of a proposed development or other site work will result in encroachment within the drip line of a protected tree, special measures shall be incorporated to allow the roots to obtain oxygen, water, and nutrients. The director may require the applicant to provide recommendations by an arborist setting forth the measures necessary to minimize impacts to the tree.
- C. No storage of materials or substances that may be harmful to trees shall occur within the drip line of any protected tree.

(Ord. 04-165 § 1 (part))

#### 12.36.090 - Maintenance.

The property owner or successors-in-interest shall be responsible thereafter for the care and maintenance of trees required to be planted under this chapter in a live and healthy condition. The replacement of trees which may die or otherwise be destroyed is explicitly a requirement of this chapter. However, developed single-family residential lots in a new subdivision that have been sold by the developer are subject to the exemption provided in Section 12.36.050(A).

(Ord. 04-165 § 1 (part))

#### 12.36.100 - Nonconforming developed parcels.

Developed commercial or industrial parcels that are nonconforming with the tree-planting standards of Section 12.36.070, shall provide tree-planting that satisfies these standards as a requirement for the issuance of a building permit, for any new construction on the property that is greater than fifteen (15) percent of the existing gross floor area or an equivalent expansion of use. The planning commission may reduce or waive this requirement based on a finding that conforming to the applicable tree-planting standards is not physically possible on the subject property.

(Ord. 04-165 § 1 (part))

12.36.110 - Enforcement and penalty.

It has been determined that trees within the city are valuable assets to the community. The removal or killing of any protected tree in violation of the terms of this chapter shall be punishable by either or a combination of the following means, at the discretion of the city:

- A. Payment of a fine of up to one thousand dollars (\$1,000.00) per tree for the unauthorized removal or damage to trees.
- B. Replacement of trees removed in a manner at a ratio of 4:1 (twenty-four (24) inch) box.
- C. Prohibition of further development of the property, other than corrective action measures, for a period of up to two years from the date notice of the violation is given by the city.

The penalty shall be determined initially by the director; however, appeals of his or her decision shall be available to the planning commission by filing a written appeal with the planning division within ten days of the date of delivery or mailing of the decision of the director. A decision of the planning commission may be appealed to the city council if the appeal is submitted in writing to the city clerk within five days following the planning commission's action. The fee for filing an appeal shall be the same as that required for appeals of actions related to a use permit pursuant to the zoning code.

(Ord. 04-165 § 1 (part))

12.36.120 - Nonliability of city.

Nothing in this chapter shall be deemed to impose any liability for damages, or a duty of care and maintenance, upon the city or upon any of its officers or employees. The person in possession of any private property shall have a duty to keep the trees upon the property and under his or her control in a safe and healthy condition.

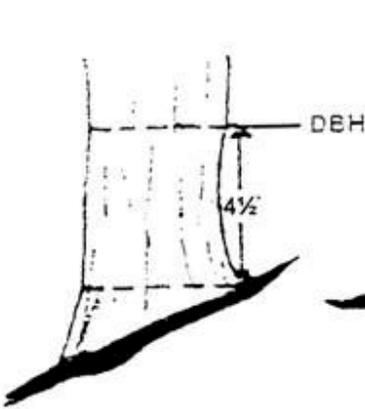
(Ord. 04-165 § 1 (part))

## **APPENDIX A**

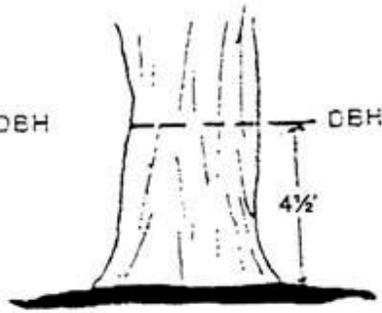
### **TREE DIAMETER MEASUREMENT**

Measure diameters with a diameter-tape at a point 4.5 feet above the ground level or root collar on the uphill side of the tree.

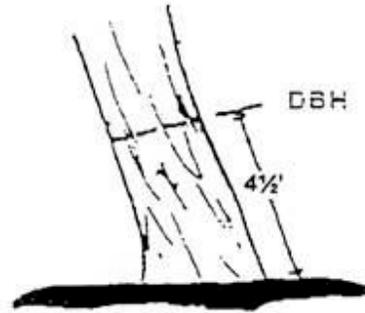
In the case of irregularities at DBH, such as swelling, bumps, depressions, branches, measure the diameter immediately above the irregularity at the place where it ceases to affect the normal stem form. (See Figure 1 Below).



1. Tree on Slope



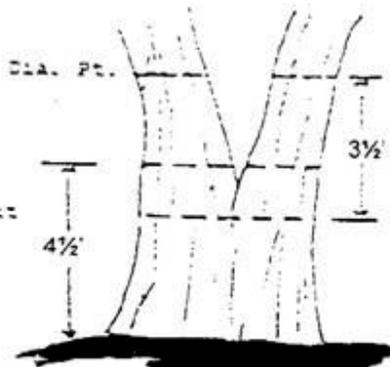
2. Tree on Level Ground



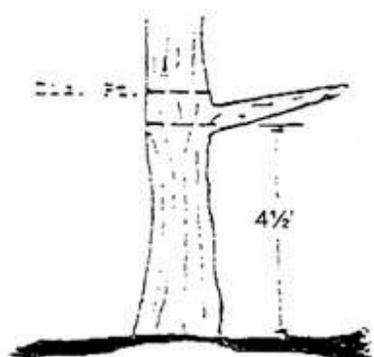
3. Leaning Trees



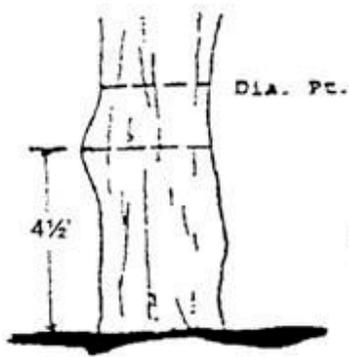
4. Tree Forks at or above 4.5 feet  
(Counts as one tree)



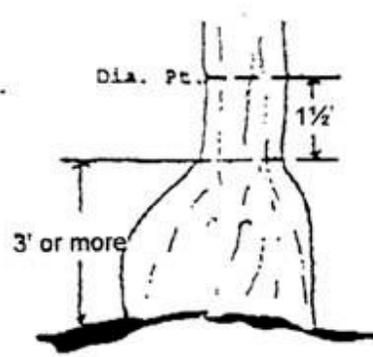
5. Tree Forks below 4.5 feet  
(Counts as two trees)



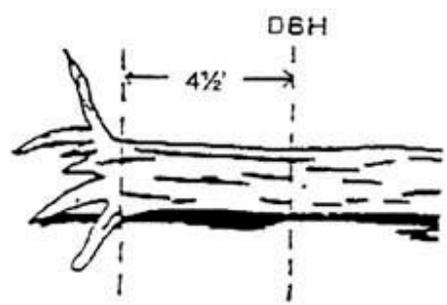
6. Tree with Branch



7. Tree With Swell at 4.5 feet  
(Counts as one tree)

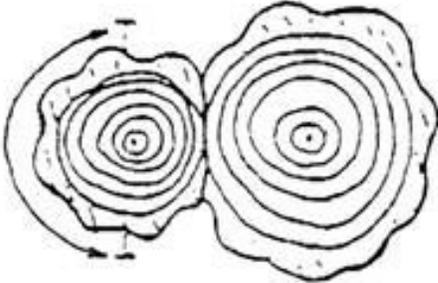


8. Bottleneck Tree



9. Windthrown/Dead Tree

When two trees have grown together, treat them as two trees. They sometimes will have the appearance of a forked tree. This is very common in coastal redwood and sprouting hardwood species. Such trees shall be treated as separate trees and recorded as such. Diameter will be determined by driving in two nails halfway around the circumference from each other, measuring the distance with a diameter tape, and doubling the results.



**Distance measured = 12.6 inches**  
 **$12.6 \times 2 = 25.2$  inches DBH**

If it is physically impossible to measure the diameter of a tree with a diameter tape because of forking or huge root collars, then the diameter will be estimated as follows:

1. Determine where the diameter should be measured and mark it.
2. Using a prism or angle gauge as a guide, move to a point on the ground at which the tree becomes borderline.
3. Measure the horizontal distance from this point on the ground to the center of the tree from that point (limiting distance).
4. Using diameter-limiting tables, look up the diameter for that limiting distance.
5. Record this diameter and note in comments that DBH was estimated for the tree.

Excerpt from Forest Inventory and Analysis User's Guide, May 1997

#### APPENDIX B

The following listing includes trees which are appropriate for the climate conditions of the area and do not require intensive maintenance. This listing is not all-inclusive, and other varieties of trees may be appropriate.

Common Name	Botanical Name
American Linden	<i>Tilia americana</i>
American Sweetgum	<i>Liquidambar</i>
Chinese Pistache	<i>Pistacia chinensis</i>
European Hackberry	<i>Celtis australis</i>

Goldenrain-tree	Koelreuteria paniculata
Green Ash	Fraxinus pennsylvanica
Honey Locust	Gleditsia triacanthos
Magnolia	Magnolia grandiflora
Norway Maple	Acer platanoides
Pin Oak	Quercus palustris
Raywood Ash	Fraxinus oxycalpat
Red Horsechestnut	Aesulus carnea
Scarlet Maple	Acer rubrum
Scarlet Oak	Quercus coccinea
Sycamore Maple	Acer pseudoplatanus
Shamel Ash	Fraxinus uhdei
Tulip Tree	Liriodendron tulipifera
Italian Alder	
Chinese Tallow Tree	