

# Draft Purpose Statement for Proposed Tree Ordinance

April 16, 2009

*This is the language that the majority of the Trees Task Force voted to approve at the April 9, 2009, meeting. Changes to the prior draft include the selection of the second (A) from that prior draft, as well as revisions to (D) and deletion of the staff comments.*

## 1020.01 PURPOSE

Section 1020 is adopted to:

- A. Balance the goal of maintaining, preserving, and enhancing the urban tree canopy with the reasonable removal of trees for development, solar access, view protection, health, and safety;
- B. Advance the County's sustainability objectives by protecting wildlife habitat, air and water quality, and ground water recharge; controlling surface water run-off; and reducing the urban heat island effect;
- C. Preserve trees for their contribution to property values, and for their natural beauty and historical significance;
- D. Encourage mitigation of negative impacts of authorized tree removal to maintain and enhance the tree canopy in urban unincorporated Clackamas County;
- E. Contribute to County compliance with federal, state, and regional environmental regulations;
- F. Increase public awareness of the benefits of a healthy urban tree canopy;
- G. Allow farming practices and farm uses in zoning districts where agricultural uses are a primary use;
- H. Allow the continued management of commercial forestlands for forest uses, including the harvesting of forest tree species; and
- I. Implement the Oregon Forest Practices Act inside the Portland Metropolitan Urban Growth Boundary.

# Draft Area of Application Subsection for Proposed Tree Ordinance

August 6, 2009

## 1020.02 AREA OF APPLICATION

Section 1020 applies to all land inside the Portland Metropolitan Urban Growth Boundary, including rights-of-way and easements, except:

A. A lot of record that is:

1. Located in an urban low density residential zoning district;
2. Developed with a single-family dwelling; and
3. Not divisible. A lot of record is “not divisible” if:
  - a. It is not divisible under Section 1012; or
  - b. It is not divisible because division is prohibited by a deed restriction, or by conditions, covenants, or restrictions; and

B. Land that is receiving a farm or forest property tax deferral, or a lot of record that complies with Subsections 1020.02(A)(1) and (2) but does not comply with Subsection 1020.02(A)(3), provided that:

1. If a tree that would otherwise be regulated under Section 1020 is removed pursuant to this exemption, no application for a partition, subdivision, or conditional use shall be approved on the subject property for a period of five **(10?)** years after the last such tree is removed, and the property shall be prohibited from being developed with anything other than a single-family dwelling, or a use accessory to a single-family dwelling, for a period of five **(10?)** years after the last such tree is removed; and
2. Prior to the removal of a tree that would otherwise be regulated under Section 1020, the property owner shall record a deed restriction acknowledging these development limitations.

# Draft Exempt Trees Subsection for Proposed Tree Ordinance

August 6, 2009

## 1020.04 EXEMPT TREES

The following trees are exempt from the requirements of Section 1020:

- A. Two trees on a lot of record, or 10 percent of the total number of trees on a lot of record, whichever is greater, per two-year period. The two-year period shall commence with the removal of the first tree. Trees exempt under Subsection 1020.04(A) shall be in addition to any that are exempt under Subsections 1020.04(B) through (I). However, this exemption shall not apply to tree removal by a utility company in a utility easement;
- B. Trees with a d.b.h. of less than eight inches. However, this exemption shall not apply to trees planted either to remedy a violation pursuant to Subsection 1020.05(C)(2) or as part of a mitigation plan approved pursuant to Subsection 1020.07;
- C. Trees required to be removed by state or federal law, or by a fire official;
- D. Orchard trees;
- E. Christmas trees;
- F. Trees planted on the site of a commercial nursery and grown for commercial purposes;
- G. Nuisance trees;
- H. Dead trees, where death resulted from an accident or non-human cause; and
- I. Diseased or hazardous trees, where the condition resulted from an accident or non-human cause, if the property owner first provides a report to the County Planning Division from an International Society of Arboriculture (ISA) Certified Arborist verifying that the tree qualifies under this exemption. If a hazardous tree is removed in response to an emergency, the property owner may provide the required arborist's report, or other credible evidence that the tree was hazardous, within 30 days after the tree's removal.

**Draft Definitions Subsection for  
Proposed Tree Ordinance**  
July 30, 2009

1020.03 DEFINITIONS

Unless specifically defined in Subsection 1020.03, words or phrases used in Section 1020 shall be interpreted to give them the same meaning as they have in common usage and to give Section 1020 its most reasonable application.

- A. Christmas Tree: A tree of a marketable species and evidencing periodic maintenance practices of shearing for Douglas fir and pine species, weed and brush control, and one or more of the following practices: basal pruning, fertilizing, insect and disease control, and soil cultivation.
- B. Diameter Breast Height (d.b.h.): A tree's diameter measured by diameter tape at four and one-half feet above grade. On multi-stem trees, the largest diameter stem shall be measured.
- C. Emergency: Any manmade or natural event or circumstance causing or threatening loss of life, or injury to person or property.
- D. Hazardous Tree: A tree that, by reason of disease, infestation, age, or other condition, presents a known or immediate hazard to people or property.
- E. Nuisance Tree: Any tree of the following species: single seed hawthorn (*Crataegus monogyna*), English holly (*Ilex aquifolium*), plums (*Prunus* hybrids), sweet cherry (*Prunus avium*), English laurel (*Prunus laurocerasus*), and Portuguese laurel (*Prunus lusitanica*).
- F. Orchard Tree: A fruit or nut tree.
- G. Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purpose.
- H. Tree: Any woody plant with at least one well-defined stem of at least eight inches d.b.h., or any tree planted as a mitigation requirement of this ordinance.

**Ellen's notes from the last meeting indicate that this is the language that the Task Force approved for the definition of "tree." Staff suggests ending the definition after "stem." As drafted, we have defined a "tree" as a "tree" in**

**the second part of the definition. Also, everything after “stem” is covered under the Exempt Trees subsection of the proposed ordinance.**

- I. Tree Removal: The act of removing a tree by digging up or cutting down, or the effective removal through damage to a tree or its root system. Effective removal shall include any procedure the natural result of which is to cause the death or substantial destruction of a tree, including topping and severe cutting back of limbs to such a degree as to destroy or adversely affect the normal growth pattern of the tree. Tree removal does not include routine pruning or trimming.
- J. Tree Survey: Information provided by an arborist which describes size, species, health, and condition, and an accurate map that locates the trees on the property and descriptive text.

Tree Preservation and Protection Plan: A plan that indicates the locations of existing trees to be preserved and the methods to be employed to do so.

# Draft Tree Removal Permit Required Subsection for Proposed Tree Ordinance

August 6, 2009

## 1020.05 TREE REMOVAL PERMIT REQUIRED

- A. No tree shall be removed without a Tree Removal Permit (TRP), unless such removal is exempt pursuant to Subsection 1020.04.
- B. Removal of a non-exempt tree without first obtaining a TRP is a violation of this Ordinance. If more than one non-exempt tree is removed without a TRP, each removed tree shall constitute a separate violation.
- C. A violation resulting from the removal of a non-exempt tree without first obtaining a TRP shall be remedied by:

Staff is prepared to discuss monetary penalties that may be imposed under the County's current code compliance regulations. However, this subsection is intended to address how a violation is corrected, regardless of whether fines are imposed.

The first alternative would apply to a tree that meets the criteria for a permit but was removed prior to obtaining one. The second alternative would apply where the subsequent TRP application is denied or the owner opts not to apply for one. Should there be a penalty (aside from any fines that may apply) for someone who removes a tree without a permit and cannot qualify for a permit after the fact? Number 2, below, is the model used by the City of Wilsonville. The City also permits offsite replacement or payment to the Tree Fund.

Other alternatives could be: Requiring more than a one-to-one replacement (e.g. two trees for every one removed) without basing it on the d.b.h. of the removed tree, requiring larger trees to be used for replacement (e.g. 4-inch caliper instead of 2-inch caliper) or requiring the tree to be replaced in substantially the same location. We could prohibit offsite mitigation or payment into the Tree Fund or strictly limit where this would be possible.

Attached is some information from the Oregon State University extension office on transplanting large trees versus small ones. Also, costs associated with planting larger trees can be quite high (e.g. \$3000 plus for a 5-inch caliper tree).

1. Obtaining a TRP, in which case the TRP approval criteria will be applied as though the removed tree(s) were still in place; or
2. Replacing the removed tree(s), subject to the following criteria:
  - a. Replacement shall be on an inch-for-inch basis and shall be calculated by determining the d.b.h. of each illegally removed tree and adding the results. The total d.b.h. of the replacement trees shall equal or exceed the total d.b.h. of the illegally removed trees. For example, if two trees were illegally removed and each had a d.b.h. of eight inches, eight replacement trees could be planted, each with a d.b.h. of two inches. However, no replacement tree shall have a caliper of less than two inches.

- b. The County may use any reasonable means to estimate the tree loss if destruction of the illegally removed tree(s) prevents exact measurement.
  - c. Except as modified by Subsection 1020.05(C)(2)(a), compliance with Subsections 1020.07 and 1020.08 shall be required.
- D. Subsection 1020.05(C) applies in addition to any enforcement action the County may take pursuant to Subsection 102.03 of this Ordinance and Chapter 2.07 of the County Code.
- E. No building or grading permit shall be issued prior to the approval of a TRP if the proposed development requires removal of a nonexempt tree.
- F. Section 1020 shall be applied to an application for design review, a subdivision, a partition, or a conditional use. If a TRP is approved as a result of this review, it shall be issued as part of the design review, subdivision, partition, or conditional use approval.
- G. Except as provided in Subsection 1020.05(F), a TRP shall be subject to Planning Director Review pursuant to Subsection 1305.02.
- H. A TRP shall be valid for two years from the date of the final written decision, except that if a TRP is approved as part of a design review, subdivision, partition, or conditional use approval, it shall be valid for the same period of time as that approval, including any time extension thereof. If the tree is not removed prior to the expiration of the TRP, removal shall require the filing of a new TRP application.



## FAQ #36110

### **When transplanting trees, does it take a large caliper tree longer to re-establish compared to a small one?**

Yes, larger trees take longer to establish than smaller ones. Many people assume that the larger the tree, the better. While larger, more expensive trees create an instant landscape, they are slower to establish and grow.

There is a nursery axiom stating that a transplanted tree will take X number of years to re-establish the portion of the root system lost in the digging process. In that axiom, X equals the tree's trunk caliper. For example, a 2-inch-caliper tree will re-establish its root system and be "off and running" in two years; a 4-inch-caliper tree will take four years to recuperate.

Only 5 to 15 percent of a tree's roots are retained when it is dug up and burlapped; 85 to 95 percent of the total root system is left behind. You should not expect a 4-inch-caliper tree to do much growing in the first few years. During that time, it allocates all of its energy to root development. In most cases it is better to spend less money for a smaller tree that will quickly establish and grow to the size of the bigger, more expensive tree.

# Draft Tree Removal Permit Approval Criteria Subsection for Proposed Tree Ordinance

August 6, 2009

## 1020.06 TREE REMOVAL PERMIT APPROVAL CRITERIA

A Tree Removal Permit shall be approved if the applicant provides evidence substantiating compliance with at least one of the following criteria:

- A. Tree removal is necessary for the construction of a structure or other improvement, and there is no practicable and reasonable location alternative on the subject property for the proposed structure or other improvement. In considering whether tree removal is necessary, factors that may be considered include whether the tree is located within the footprint of the proposed structure or other improvement, whether it is too close to the proposed structure or other improvement, and whether it will violate the corner vision standards of this Ordinance or obstruct required sight distance under the County Roadway Standards. If tree removal is proposed in conjunction with an application for a subdivision or partition, it also must be demonstrated that there is no practicable and reasonable access, utility, or lot design alternative.

What is the intended distinction between practicable and reasonable? Based on the dictionary definitions previously provided for feasible and reasonable, practicable seems to be a hybrid of the two. It takes into account whether something is capable of being done (i.e. feasible) and provides for consideration of cost and logistics (i.e. "reasonable"). Staff recommends using either feasible and reasonable or practicable and using the same term(s) in B, below.

How should we deal with landscaping that includes tree removal? Should there be a limit on tree removal for this purpose? The issue is the use of the word "improvement," which could mean a driveway or utility line but could also mean a lawn or garden.

1. In applying Subsection 1020.06(A), alternatives that also would result in tree removal shall be preferred where such alternatives would minimize the significance of the tree loss. Factors in determining relative significance include such characteristics as number of trees to be removed, tree health, tree size (i.e. height, trunk diameter, canopy spread), historic value of the trees to be removed, erosion prevention, preservation of wildlife habitat, and maintaining a diversity of tree species with an emphasis on retaining native trees appropriate to the proposed construction.

2. Application of Subsection 1020.06(A) shall not require a reduction of the square footage of a proposed structure or a loss of density.

- B. The tree proposed for removal interferes with the healthy growth of other trees, existing utility service or drainage, or utility work in an existing right-of-way or utility easement, or is located too close to an existing structure or other improvement, or violates the corner vision standards of this Ordinance, or obstructs required sight distance under the County Roadway Standards, and it is not feasible to preserve the tree.

Did the Task Force resolve the question regarding healthy growth of other trees? It may be helpful to narrow what we mean by “other trees” to avoid the problem of removing large, established trees to aid the growth of seedlings. For example, we could limit “other trees” to those with a d.b.h. of at least eight inches.

- C. Tree removal is reasonably necessary to allow solar access for the efficient operation of solar panels or collectors or other active or passive solar technology or design features.

The significant issues appear to be how to define the solar features to which we want to preserve access and the method for verifying that tree removal is necessary to provide meaningful access to those features.

As suggested by Eric Shawn, staff reviewed the solar code for the City of Claremont, CA. It defines “Solar Energy System” as “any solar collector or other solar energy device or any structural design feature of a building whose primary purpose is to provide for the collection, storage and distribution of solar energy for space heating or cooling, for water heating or for electricity.”

The Claremont code also provides, “No building permit shall be issued if the proposed building, wall, fence, or other structure shall shade more than ten (10) percent of the absorption area of an existing solar energy system located on any other property between the hours of 10:00 a.m. and 2:00 p.m. Pacific Standard Time on December 21, unless one or more of the following conditions exist:

- A. The building, wall, fence, or other structure is located more than 45 degrees off true south of the property on which the solar energy system is located.
- B. The property owner would be prevented from constructing a single story building not exceeding ten (10) feet in building height on the property for which the building permit is sought, if such building cannot be designed or located to avoid casting a shadow of more than ten (10) percent of the absorption area of an existing solar energy system located on any other property between the hours of 10:00 a.m. and 2:00 p.m. Pacific Standard Time on December 21.”

This likely could be adapted to the tree ordinance; however, we may wish to require the applicant to submit expert evidence in lieu of (or in addition to) defining solar access.

The City of Issaquah, WA, proposed (may have adopted) the following: “Removal of trees provides solar access to buildings incorporating active solar devices.”

The Oregon Dept. of Energy’s website has the following general information:

“Three Basic Types of Solar Energy Systems

1. Passive solar space heating and daylighting use building architecture, properly chosen and placed windows, and thermal storage (e.g., flooring materials that absorb and store radiant heat).
2. Solar domestic water heating systems preheat water so that less electricity or gas heat is needed.
3. Solar electric power systems, also called photovoltaic (PV) systems, generate electricity. If a utility customer’s PV system produces more power than the customer uses, “net metering” laws require that the customer receive credit at full retail value for the surplus electricity that flows back to the power grid.”

Staff has received some additional information from the Oregon Department of Energy and is in the process of reviewing the County’s solar regulations. Further clarification will be provided during the next Task Force meeting.

- D. Tree removal is reasonably necessary to preserve, protect or enhance the view from a building used by the property owners or their invitees. “View” shall mean a sight line from the affected property that is impaired by tree growth that adversely affects the fair market value or salability of the property. “View” includes but is not limited to sight lines to mountains, rivers, other water features, cityscapes and the like.

The Task Force voted to remove the view provision with an exception for view easements that predate the ordinance. However, some members began expressing second thoughts, and the issue was not resolved. As drafted, staff believes this provision would allow existing views to be maintained and new ones to be created, either for existing buildings or ones constructed in the future. If the provision is retained, what should the burden of proof be for proving fair market value or salability (e.g. appraisal, letter from real estate agent)? The use of “but is not limited to” makes the last sentence very broad.

- E. Tree removal is reasonable under the circumstances, as demonstrated by a report from an International Society of Arboriculture (ISA) Certified Arborist.

What would this be? We’ve already accommodated diseased, hazardous, dead, interfering with the healthy growth of other trees, new construction, too close to structures, interfering with drainage and utility service, obstructing driver vision, and solar access. Staff is concerned that this provision is overly broad. This provision establishes no limit on what “reasonable under the circumstances” means.

# Draft Mitigation for Removed Trees Subsection for Proposed Tree Ordinance

August 6, 2009

## 1020.07 MITIGATION FOR REMOVED TREES

If a Tree Removal Permit is approved pursuant to Subsection 1020.06, compliance with the following mitigation standards shall be required.

- A. Except as provided in Subsection 1020.07(C)(2), one tree shall be planted for each tree approved for removal. Planting shall occur within one year of removal.
- B. To the extent feasible and desirable, the replacement tree shall be planted on the subject property and within the same general area as the removed tree. In determining whether such planting is feasible and desirable, consideration shall be given to such factors as terrain, difficulty of replacement, and impact on adjacent property.
- C. When it is not feasible and desirable to relocate or replace the tree on the subject property, the applicant shall:
  1. Relocate or replace the tree at another location approved by the Planning Director. The alternate location shall be within the unincorporated portion of the County and inside the Portland Metropolitan Urban Growth Boundary; or
  2. Pay into the County Tree Fund, which fund is hereby created, an amount of money established by separate order of the Board of County Commissioners.
    - a. The County shall use the County Tree Fund within the unincorporated portion of the County that is inside the Portland Metropolitan Urban Growth Boundary for planting trees and for producing, maintaining, and preserving wooded areas and heritage trees.
    - b. In addition, and as funds allow, the County Tree Fund shall provide educational materials to assist with tree planting, mitigation, and relocation.
- D. A replacement tree shall have a minimum caliper of two inches. Alternatively, a removed tree may be required to be replaced on a per-caliper-inch basis, based on a finding that the large size of the tree being removed justifies an increase in the size of the replacement tree required,

except, however, that the use of replacement Oregon white oaks and other uniquely valuable trees with a smaller diameter may be allowed.

***Staff would prefer to limit the discretion in this provision. What are “large” trees? What are “uniquely valuable” trees? Consideration should be given to the cost and practical difficulty in planting large trees. This will be easier to administer if we establish a specific requirement. Also, it is staff’s understanding that evergreen trees are sold by height rather than caliper, so should there be an alternate size standard for evergreens? Finally, do we need to define caliper? It appears that caliper typically is measured six inches above the ground.***

C. A replacement tree shall:

1. Have shade potential or other characteristics comparable to the removed tree;
2. Be appropriately chosen for the site from an approved tree species list supplied by the County;
3. Be Oregon Department of Agriculture Nursery Grade No. 1 or better; and
4. Meet the requirements of the American Association of Nurserymen (AAN) American Standards for Nursery Stock (ANSI Z60.1) for top grade.

**What is the distinction between the Dept. of Ag. Standard and the AAN standard? Do we need both?**

D. A replacement tree shall be staked, fertilized, and mulched.

- E. A replacement tree shall be guaranteed by the applicant for two years after the planting date. A “guaranteed” tree that dies or becomes diseased during that time shall be replaced, and that replacement tree shall in turn be guaranteed by the applicant for two years after the planting date.
- F. Tree replacement shall provide optimum enhancement, preservation, and protection of wooded areas where such areas are present. Diversity of tree species shall be maintained where essential to preserving a wooded area or other habitat.

# Draft Tree Protection and Maintenance Subsection for Proposed Tree Ordinance

August 6, 2009

## 1020.08 TREE PROTECTION AND MAINTENANCE

If a Tree Removal Permit (TRP) is approved pursuant to Subsection 1020.06, compliance with the following tree protection and maintenance standards shall be required. In addition, if an application for design review, a subdivision, a partition, or a conditional use is approved, compliance with the following standards also shall be required, regardless of whether a TRP was required or approved.

- A. Unless a tree is exempt pursuant to Subsection 1020.04 or has been authorized for removal by a TRP, it shall be protected. If no trees that require protection pursuant to this provision exist on the subject property, the provisions of Subsection 1020.08 are not applicable.
- B. Trees that require protection shall be clearly labeled as such for the duration of construction activity.
- C. Construction activity likely to be injurious to a tree designated to remain, including, but not limited to, placing solvents, building material, construction equipment, or depositing soil, or placing irrigated landscaping, within the drip line, shall be prohibited, unless a plan for such construction activity has been approved by the Planning Director based upon the recommendations of an arborist.
- D. Notwithstanding the requirement of Subsection 1020.08(B), no device or wire shall be attached to any protected tree unless needed for tree protection.
- E. Prior to the commencement of construction activity, the developer shall erect suitable barriers as identified by an arborist to protect remaining trees. Protective barriers shall remain in place until the County authorizes their removal or issues a final certificate of occupancy, whichever occurs first. Barriers shall be sufficiently substantial to withstand nearby construction activities. Plastic tape or similar forms of markers do not constitute "barriers." The most appropriate and protective barrier shall be utilized. Barriers are required for all protected trees, except in the following cases:

1. Rights-of-Way and Easements. Street rights-of-way and utility easements may be cordoned by placing stakes a minimum of 50 feet apart and tying ribbon, plastic tape, rope, or similar material from stake to stake along the outside perimeters of areas to be cleared.
  2. Any property area separate from the construction or land clearing area and onto which no equipment will venture may also be cordoned off as described in Subsection 1020.08(E)(1), or by other reasonable means.
- F. Pruning of protected trees shall be guided by the most recent version of the ANSI 300 Standards for Tree, Shrub, and Other Woody Plant Maintenance. Information on these standards shall be available upon request from the Planning Director.

***Is this the right technical reference?***

**Draft Tree Removal Permit Application Submittal  
Requirements Subsection for  
Proposed Tree Ordinance**

August 6, 2009

1020.09 TREE REMOVAL PERMIT APPLICATION SUBMITTAL  
REQUIREMENTS

An application for a Tree Removal Permit shall include:

- A. A completed land use application on a form provided by the County Planning Division;
- B. A site plan of the subject property, drawn to scale and identifying the following:
  - 1. Location and type of existing and proposed development, including but not limited to, building footprints, roads, driveways, parking areas, utilities, onsite sewage disposal systems, wells, landscaping, and filling or grading. Label each element as existing or proposed;
  - 2. Location and width of existing adjacent roads and road rights-of-way;
  - 3. Location and purpose of existing or proposed easements;
  - 4. Location of any rivers, streams, wetlands, or areas of special flood hazard;
  - 5. The site ingress and egress proposed to be used by construction vehicles; and
  - 6. Proposed equipment and material staging and stockpile areas;
- C. A tree survey:
  - 1. Where three or fewer trees are proposed for removal, the tree survey shall include, as part of the required site plan, the location of the trees proposed for removal and a brief description of those trees, including common name, approximate height, d.b.h., and apparent health.
  - 2. Where more than three trees are proposed for removal, the tree survey shall be prepared by an International Society of Arboriculture (ISA) Certified Arborist. The tree survey shall include an accurate map of the subject property that locates all trees and identifies their common

name, botanical name, approximate height, approximate canopy spread, d.b.h., health, and condition. It also shall identify the tree(s) proposed for removal. The tree survey shall include an accurate topographic survey stamped by a surveyor or engineer registered in the State of Oregon. Where a stand of 20 or more contiguous trees exist on the subject property and the applicant does not propose to remove any of those trees, the tree survey may be simplified to accurately show only the perimeter area of that stand of trees, including its drip line;

- D. A statement explaining why tree removal is necessary and addressing one or more of the approval criteria identified in Subsection 1020.06;
- E. A mitigation plan that addresses the requirements of Subsection 1020.07;
- F. An itemized cost estimate for implementing the proposed mitigation plan and including the number, size and species of the proposed replacement trees; and
- G. A tree protection and maintenance plan that addresses the requirements of Subsection 1020.08.

*The above list is substantially similar to Wilsonville's requirements. Hiring an arborist and a surveyor (for topography) will represent a cost to the applicant. What should be the threshold (i.e. number of trees to be removed or type of development proposed) for requiring professional assistance to prepare the application? Do the required elements of the tree survey make sense? Should we specify that the threshold that mandates professional assistance is on a cumulative basis over, for example, a two-year period? (This would prevent someone from filing several applications, each of which proposes to remove fewer than the number of trees that require professional reports.)*