SDCI | Director's Rule 17-2018

Applicant: City of Seattle Department of Construction and Inspections	**Page** 1 of 5	**Supersedes:** NA
	Publication: 12/08/17	**Effective:** 5/14/18
Subject: Calculating Tree Valuations and Civil Penalties for Tree Protection Code Violations	**Code and Section Reference:** SMC 25.11.100.I	
	Type of Rule: Code Interpretation	
	Ordinance Authority: SMC 3.06.040	
Index: Tree Protection Code SMC 25.11	**Approved** **Date** (signature on file) 5/14/2018 Nathan Torgelson, Director, SDCI	

BACKGROUND

SMC 25.11.100.I.1 states that

> "Any person, firm or corporation who is responsible for the removal, topping, or other action detrimental to a tree in violation of this chapter or any notice, decision or order issued by the Director pursuant to this chapter shall be subject to a civil penalty in the amount equal to the appraised value of the tree(s) affected in accordance with the Guide for Plant Appraisal, 9th Edition, or successor."

The Guide for Plant Appraisal (referred to as the "Guide" hereafter) provides three different methods for determining tree value: the Income Approach, the Market Approach, and the Cost Approach. Neither the Income nor the Market Approach is useful for the broad range of tree cutting or removal violations that SDCI encounters. For instance, the Income Approach measures a tree's contribution to income generated by a property, such as via timber sales. The Market Approach tries to isolate the value of trees based on a comparison of recent sales of comparable properties. This produces different values for the same tree depending on the neighborhood. The City's practice, therefore, has been to use the Cost Approach. Under the Cost Approach, we use the actual replacement cost as would be found at a local nursery for

trees that can be replaced in kind. For trees too large to be replaced in kind, we use the Trunk Formula method to calculate tree value.

This rule:

- Confirms that SDCI will continue to use the Cost Approach to calculate tree valuations and civil penalties;
- Clarifies how to use the Trunk Formula methodology within the Cost approach;
- Directs how to consistently administer and apply variables within the Trunk Formula methodology;
- Results in tree valuations and civil penalty amounts that are equitable, predictable, and consistent, regardless of where in Seattle a tree was located;
- Provides a method to determine valuations and penalties when trees have been removed from a site and SDCI is unable to fully evaluate the prior condition of the tree; and
- Provides a methodology for calculating valuations and penalties even if staff are viewing a tree or the remains of a tree from a distance.

RULE

A. Trunk Formula. When a tree has been damaged or removed in violation of SMC Chapter 25.11, Tree Protection, and the tree cannot be replaced in kind, SDCI will determine the value of the tree and the penalty amount using the Trunk Formula method, as follows:

Value / penalty =
(Basic Tree Cost) x (Species Rating %) x (Condition Rating %) x (Location Rating %)

1. **Basic Tree Cost** is calculated using the "base price" for a conifer or deciduous tree, as provided by the Pacific Northwest International Society of Arboriculture (Pacific Northwest ISA), multiplied by the area in square inches of a cross-section of the tree as measured 4.5 feet above the ground. The area of the cross section is calculated using the formula "*pi x (1/2 x diameter)^{2}"*.

    a) When possible, the area of the tree trunk will be determined using the diameter of the tree trunk measured at 4.5 feet above ground.
    b) If the tree has been cut below 4.5 feet above ground, SDCI will use the diameter of the tree trunk where it has been cut, but will reduce the diameter by 10% in recognition that trunk diameter typically shrinks with height of the trunk.
    c) If the trunk cannot be measured to establish the area of a cross section, the department will estimate trunk diameter taking into account distance, sight angles, nearby objects of known size, street views from online mapping tools, aerial photos, prior surveys or site plans, and any other information available.
    d) The Department will use the base price for a conifer or a deciduous tree in calculating Basic Tree Cost. When that distinction cannot be established, SDCI will use the higher of the base price for conifers or deciduous trees.

e) In the Western Washington region, the current base price for conifers is $57 per square inch and the current base price for deciduous trees is $72 per square inch. These prices may be adjusted using information provided by the Pacific Northwest Chapter of the International Society of Arboriculture (ISA).

2) **Species Rating** is the factor assigned to a given tree species, based on the value given in the publication *2007 Species Ratings for Landscape Tree Appraisal, 2nd Edition* (or the most recent version) published by the Pacific Northwest Chapter of the ISA. If SDCI cannot readily determine the tree species after reviewing online mapping tools, aerial photos, prior surveys or site plans, and any other information available, the Species Rating will be 70%, which balances the range of species ratings for many of the most common trees in the City.

3) Condition Rating is a rating of a tree's structural integrity and health. SDCI will review the remains of the tree, street views from online mapping tools, aerial photos, prior surveys or site plans, and any other information available to determine whether any evidence of disease or hazard exists. Absent clear indication of poor health or structural integrity in the tree, SDCI will use a 70% condition rating in calculating tree values for assessing penalties. This factor takes into account the challenges of estimating tree condition after-the-fact while also recognizing that failure to request a hazard determination could indicate lack of evidence of poor tree condition.

4) **Location Rating** is a rating of the quality of a site, the contribution of a tree to the landscape, and the appropriateness of the placement of the tree in its surroundings. SDCI will review street views from online mapping tools, aerial photos, prior surveys or site plans, and any other information available, taking into account factors such as other trees in the immediate vicinity, proximity to structures, solar availability, and provision of shade. Absent a clear positive or negative element tied to location, SDCI will use a 70% location rating in calculating tree values for assessing penalties. This factor takes into account the overall benefit of the urban tree canopy while also recognizing individual site characteristics and uses.

B. Additional Considerations

1) **Hazardous trees** that would be otherwise protected may be removed only with prior approval from SDCI (except in emergency situations where there is an immediate danger to life or property). Removing a hazardous tree in a non-emergency situation without prior approval from the Director is a violation of the Tree Protection code.
    a) Penalties for removing an otherwise protected, but hazardous tree without prior approval are calculated using the standard trunk formula system.
    b) The penalty amount may be reduced if a replanting plan is submitted, approved, and implemented.
2) **Tree groves** typically have greater environmental and aesthetic value than single trees. The condition and location ratings for trees in a grove will be set at 80% to reflect the greater value unless SDCI has clear evidence supporting a different rating.
3) **Willful or malicious cutting** may result in tripling of the penalty amount as provided in SMC 25.11.100.I.

a) Cutting for view enhancement is considered willful cutting.
b) Cutting within six months prior to submitting a building permit or development proposal, so as to avoid tree protection regulations, is considered willful cutting.
c) A repeat violation by the same responsible party is considered willful cutting.
d) Cutting within six months prior to the closing date of the sale of a property is considered willful cutting.

4) **Cutting or damaging trees in environmentally critical areas** is subject to a separate and additional penalty under the Critical Areas Code, SMC Chapter 25.09.
5) **Updates to prices and ratings:** SDCI may use revised base prices and species rating for trees as needed to remain consistent with current valuations provided by the Pacific Northwest ISA.