MEMORANDUM DRAFT

DATE: December 7, 2015

TO: Commissioner Amanda Fritz
Commissioner Dan Saltzman

FROM: Tree Code Oversight Advisory Committee

RE: Recommendations on Preserving Large Trees and Fee in Lieu of Preservation (Development Situations)

Background
Commissioner Amanda Fritz asked the Tree Code Oversight Advisory Committee to consider means by which the rate of removal of very large, healthy trees in development situations could be reduced. A related question is whether the current fee in lieu of preservation is appropriate. The fee in lieu question was identified as an issue to be addressed by the Committee early in the process and is one of the potential tools available to address the preservation of large trees.

To address these issues, the Committee:

- Learned about the range of potential regulatory tools and the basis of the fee in lieu
- Participated in an online survey and responded to staff questions via email
- Heard from members of the public
- Discussed options and recommendations at four Committee meetings.

This memorandum summarizes the findings and recommendations of the Committee. Discussions on this topic began with a 12 member committee, however final discussion and adoption occurred with an 8 member committee after resignation of 4 members. The Committee recognizes that these recommendations may affect other parts of Title 11 and recommends a thorough review of the code to determine if other amendments are needed for consistency or to fully implement the intent of these recommendations.

1. Preservation of Large Trees
The current tree preservation requirement is to preserve at least one-third of the trees 12 inches and larger in diameter. For trees removed beyond the 2/3 allowance for tree removal, a fee in lieu of preservation is required (see discussion under #2 below). Concerns have been raised that all trees are treated the same, whether it is a 12 inch tree or an 80 inch tree, providing no incentive for large trees to be retained.

The Committee discussed a range of options to address large trees in development situations. This included establishing a new tree size threshold for "large" trees and applying different standards or discretionary criteria to those trees, changing the standard to encourage the preservation of large trees, and providing more flexibility in development regulations to make it easier to preserve trees. The ~~Most members of the~~ Committee is ~~are~~ supportive of making ~~some level of~~ changes to the current regulations~~, however, there are differences of opinion about how aggressive those changes should be~~.

Recommendations include:

A. Consider adding a new tree size threshold for very large trees with additional standards and discretionary land use review requirements. The Committee agreed that the current prescriptive tree preservation standard should be retained for smaller trees. However, additional requirements should apply for the removal of very large trees. A threshold of 3550 inches is recommended. This threshold was chosen based on tree size information provided by staff showing a break in the data for the number of trees at this size, as well as information from a Forestry Commission member about the value of large trees (see attached). ~~was suggested *[one member requested change to 35 inches].*~~

It is recommended that Zoning Code tree removal requirements that apply in certain Plan District and Overlay zones (Johnson Creek Basin Plan District, Rocky Butte Plan District, Scenic Overlay zone) be used as a model. This would include standards that allow tree removal only when the tree conflicts with proposed development. If standards aren't met, a discretionary land use review (i.e. Tree Review) would be required to determine whether the tree can be retained while allowing for reasonable development of the site and, if allowed, the appropriate level of mitigation. The Committee members also suggested the addition of a process to modify development standards as part of this review.

Some members of the Committee also suggested that there be an optional discretionary review to seek an alternative to the prescriptive tree preservation standards and/or mitigation requirements.

B. Explore options to change the standard to encourage preservation of large trees. The current standard is to preserve 1/3 of the trees on the site. This applies to all trees that are 12 inches or larger, which means there is no incentive to preserve larger trees over smaller trees. Committee members suggested changing the standard to include ~~be based on~~ a percentage of the total ~~diameter~~ inches of tree~~s~~ diameter, in addition to 1/3 of the trees. This would encourage the preservation of larger trees because the required number of inches would be satisfied with fewer trees, while ensuring that a minimum number of trees would still be required to be preserved to meet the standard. The Committee did not agree on a specific percentage of tree diameter that should be applied, but suggested that the Title 33 land division regulations, which include similar standards, be consulted for guidance. ~~One option discussed was 35% because it is used in Title 33 regulations for land divisions, however, some members thought that percentage was too low.~~

C. Explore options to add flexibility in the zoning code to make it easier to preserve trees. The Citywide Tree Project included several "flexible development options" available to projects that preserve trees. Most of that flexibility is available in multi-dwelling and commercial zones. The majority of the Committee is supportive of providing additional flexibility, including in single dwelling zones. The Committee recognizes that there may be trade-offs, such as impacts on adjacent properties. For this reason, some members suggested that this added flexibility only be available for preservation of trees over a certain threshold (20 inches was suggested). Concerns were expressed about allowing increased height or transfer of development rights. Support was expressed for reduced setbacks, waiving parking requirements in single-dwelling zones, and allowing parking and required outdoor area in the front setback. It was recommended that this issue be considered as part of the Bureau of Planning and Sustainability's Residential Infill Project that is currently underway.

2. Fee in Lieu of Preservation

The current fee in lieu of preservation is $1,200 per tree removed beyond the allowable 2/3 of trees from a site. This is based on the City's labor and supplies costs in 2009 to plant and maintain two trees for two years (11.50.040.C). The question as to whether the fee in lieu of preservation is set at an

appropriate level has been raised by Committee members, as well as the public. Some former members believe the current fee is appropriate and provides mitigation for tree removal, while not being an unreasonable burden to development. Current members~~Others~~ believe the fee should be much higher and reflect the environmental value of the trees. A number of options were considered, ranging from updating the fee schedule to reflect the current cost of planting and maintaining trees to full inch-for-inch mitigation. The Committee members felt it important to acknowledge that the current fee provides only partial mitigation for tree removal. In the short-term, ~~A majority of Committee members favored~~ a graduated fee in lieu of tree preservation schedule is recommended. In the long-term, the Committee would like to see the City develop an industry standard to fully compensate for the ecological, social and economic value of trees removed. ~~that would increase as the size of the removed tree increases.~~

Recommendations include:

A. Update fee schedule to reflect current cost of tree planting and maintenance. Recent estimates prepared by Urban Forestry suggest that the current fee is significantly lower than the cost to the City. Urban Forestry's estimate indicates that it costs approximately $1,200 to plant and maintain one tree for two years~~.~~, making the cost for two trees double that, or $2,400. The majority of the Committee agreed that the fee should be updated to reflect the true cost to the City to plant and maintain trees. Some former members indicated that the current fee is too high, particularly when compared with their experience of private costs to plant trees. It should also be noted that updating the cost estimates as suggested would likely affect fee in lieu payments for all situations (development and non-development). The Committee did not specifically review or recommend approval of specific cost estimates.

B. Implement a graduated fee schedule based on the size of trees removed now, with a shift to true mitigation cost long-term. The current fee in lieu of preservation requires the same fee be paid regardless of the size of the tree removed. In the short-term, t~~T~~he majority of committee members support a graduated fee schedule that would require a higher fee when larger trees are removed. This would allow for planting and establishment care of more replacement trees, providing a better correlation to the loss of canopy from removal of larger trees. ~~Several specific suggestions were provided by committee members, but none were supported by the majority of the Committee.~~ It is recommended that there be a minimum of three ~~mitigation~~ tiers in the fee schedule. ~~and a cap on the total number of replacement trees the fee would be based on~~. ~~Some members of Committee also suggested that the fee be based on a combination of the tree size and species to recognize the ecological value of smaller native trees.~~

Long-term, the Committee recommends that the City develop a methodology to calculate the true value of trees based on their environmental, social and economic benefits and apply this methodology when calculating fees in lieu of preservation. This methodology should consider the size, species and condition of trees, specifically recognizing the ecological value of smaller native trees. The Committee recognizes that developing this methodology will take time and robust community input. Therefore, a graduated fee schedule described above should be implemented while a true cost mitigation method is being developed. The Committee would also like to see valuable native tree species recognized in the short-term mitigation standards, but understands this may require a larger project.

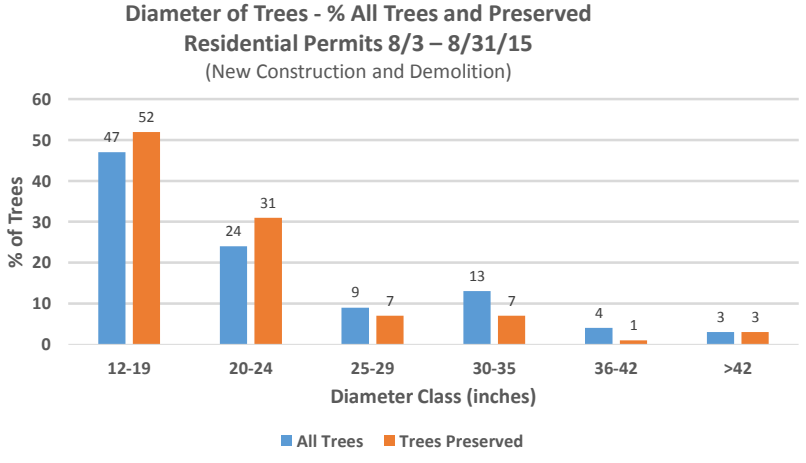
Tree Size Information – Residential Permits

- 110 permits (new construction and demolition; duplicates removed)
- 45 permits with trees over 12 inches (59%)
- 184 trees total, 75 preserved (41%)

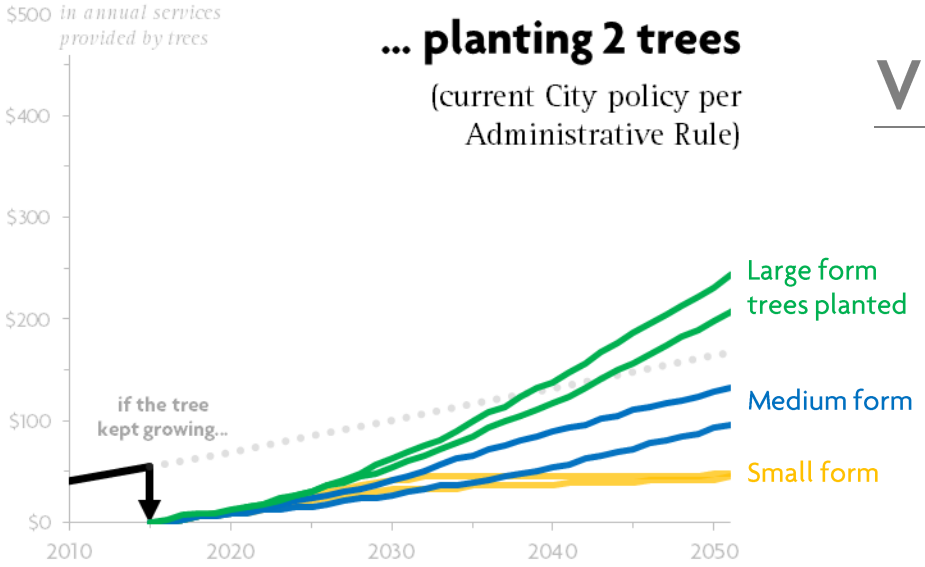
Diameter of Trees Residential Permits Issued 8/3 – 8/31/15*			
Diameter Class (inches	All Trees (# of Trees)	Trees Preserved (# of Trees)	% Preserved
12-19	86	39	45%
20-24	45	23	51%
25-29	17	5	29%
30-35	23	5	22%
36-42	7	1	14%
>42	6	2	33%
Total	**184**	**75**	**41%**

*New construction and demolition permits

Tree Size Information – Residential Permits



Choosing to mitigate for the removal of a 20” diameter Douglas-fir by…



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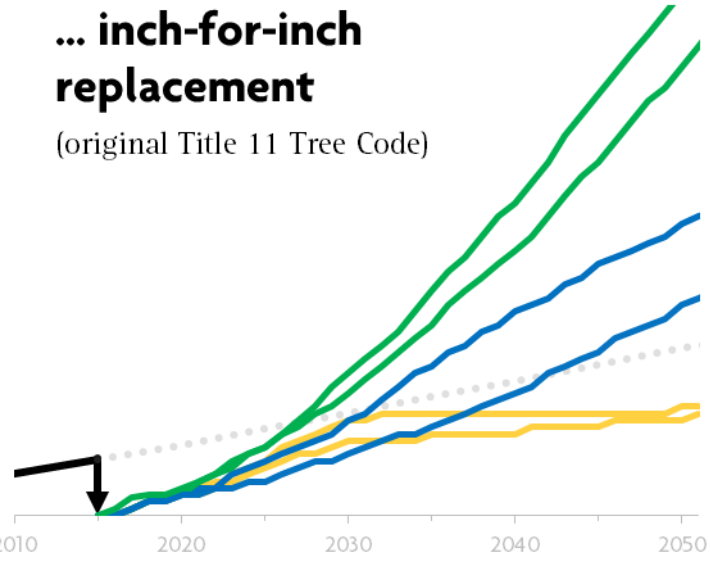

With two trees planted for each tree removed:

- It takes two newly-planted *large form* trees nearly 30 years to resume providing services at the rate the removed tree was already providing (and could have continued providing). Medium form trees take 50-60 years to match the rate of annual services lost, and *small form trees never match it.*
- There is a time lag in the provision of tree benefits. If the value of the services these trees provide for the next 100 years is discounted (5% per year), there are unmitigated losses in all planting scenarios. Each 20” Douglas-fir removed and replaced by planting two small trees results in a ***loss*** of present value of *$1,750-1,800*; a ***loss of $1,160-1,350*** if medium trees are planted; or *$270-290* ***lost*** with large trees planted.

From January-June 2015, more than 630 trees removed* in Portland were 20” diameter or larger. Only 210 trees planted for mitigation were large form trees.

With inch-for-inch replacement:

- If the 20 newly-planted 1.5” seedlings are from a large form tree species, it still takes at least 10 years before they will resume providing services at the rate of the removed tree; medium form trees take 12-15 years, and *small form trees still never match it.*
- Due to the time lag in replacing the services of the removed tree, it still takes large form trees 25-30 years to make up the present value lost by the original tree removal. Depending on which species of medium form tree is planted, the present value may never be recouped, or may take more than 60 years. *Even with inch-for-inch replacement, planting only small-form trees still results in $1,020-1,130 net loss of present value.*

Note: Storm water, air quality, and carbon sequestration benefits are factored into the value of the environmental services provided by trees (calculated using iTree). This does not capture the additional aesthetic value, reduction of urban heat islands, energy savings, or property value enhancements that trees provide.

* For permits on private property in non-development situations alone. Through Q3 2015, 654 additional trees were removed in development situations. They averaged 17.6” in diameter.