



Steering Committee Meeting

May 25, 2017

Policy Options: Replacement Plantings

- When Replacement is Required**
 - Required Size & Species of Replacement Trees**
 - On-site vs. Off-site Mitigation**
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Project Goal

Amend the County's significant and heritage tree removal ordinances, and the Resource Management and Planned Agricultural District zoning ordinances to improve management of individual trees and the tree canopy in the County, and to improve tree removal and trimming permit process, consistent with the County's General Plan.



Steering Committee Goal

Collaborate with County staff by providing input and guidance that helps shape amendments to the County's ordinances governing tree protection and removal, in a manner consistent with the County's General Plan.



Meeting Purpose

Evaluate Policy Options for Tree Replacement Planting Requirements





Urban Tree Canopy Goals

- Should the County establish a goal of maintaining the current canopy cover of the urban forest?
- Are there areas in the County's urban forest that lack sufficient canopy cover?
- Are there areas with too much canopy cover?
- Should canopy cover goals vary in different areas of the County based on historical conditions, current capacity to support trees, or future climate change?



Aerial of San Mateo from: Flickr



When Should On-site Replacement be Required?

In Rural Areas, Zoned RM or PAD:

- Tree removal associated with an approved vegetation management plan should be exempt from tree replacement requirements and/or payment of in-lieu fees
- Tree removal within 100 feet of legal structures should be subject to urban tree removal and replacement policies.





When Should On-site Replacement be Required?



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Image from: blog.raptorrob.com

- Dead Tree Removal
- Diseased or Hazardous Tree Removal
- Healthy Tree Removal
- Defensible Space
- Timing of Removal and Replacement



betweennapsintheporch.net



What Size Replacement Stock Should be Required?



A minimum replacement size of 15-gal stock is common among City and County ordinances. 15-gal size trees are typically:

- 6-12' tall
- 0.5-1" trunk diameter
- Cost \$75-100 per tree
- Higher rate of survival after planting

Image from: Flickr



36" box

24" box

15-gal



What Size Replacement Stock Should be Required?

Replacement Ratio:

- In order to sustain and strengthen our urban forest, we could require replacement plantings on 2:1 or 3:1 basis
- If property owner prefers single replanting, County could require 24" box
- If large healthy native tree (heritage tree) is removed, County could require:
 - up to 48" box replacement; or
 - combination of on-site plantings and payment of in-lieu fee



Image from: davesgarden.com



What Size Replacement Stock Should be Required?

iTree is a suite of software tools that can be used to quantify various types of values derived from urban trees. Tools can be used to assess:

- Stormwater interception
- Energy savings
- Air quality benefits
- Property value benefits
- Percent canopy cover
- Urban forest structure and change
- Individual tree and community value
- Volume and quality of runoff
- Most appropriate species based on desired ecosystem services and geographic area
- Impervious cover
- Landscape design





What Size Replacement Stock Should be Required?

COLUMN 1	COLUMN 2	COLUMN 3
Canopy of the Removed Tree (Avg. dist. across the canopy*)	Replacement Trees	Alternative
4'-9'	Two 24" Box Size (minimum)	One 36" Box Size
10'-27'	Three 24" Box Size	Two 36" Box Size
28'-40'	Four 24" Box Size	Two 48" Box Size
40'-56'	Six 24" Box Size	Two 48" Box & Two 36" Box Size
56'-60'	Two 24" Box & Two 36" Box + Two 48" Box Size	**
60'+	**	**

Palo Alto established replacement tree requirements based on canopy replacement over a 10 year period. Whenever a protected tree is removed, the Tree Canopy – Replacement Standard table is used to determine replacement planting options.

** Replace the tree with a combination of both Tree Canopy and Tree Value Standards.



Should There be Specific Species Requirements for Replacement Trees?



Image from: Lazarlandscape.com

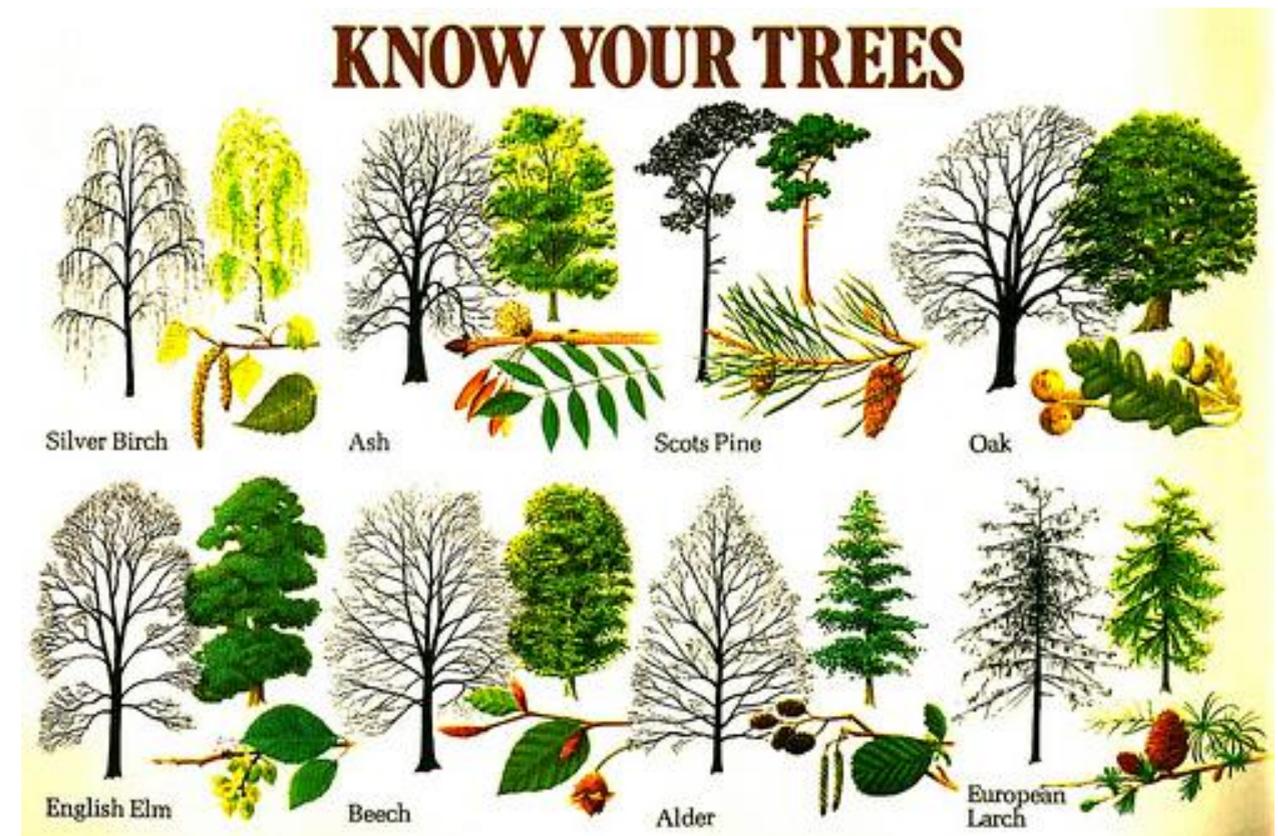
- WELO compliance and drought tolerance
- County-approved list
- County-prohibited list
- Region-specific lists



Should There be Specific Species Requirements for Replacement Trees?

- Menlo Park Approach
 - Selectree.calpoly.edu
 - Arborday.org/trees/righttreeandplace
- iTree – Species

These resources can be used to guide property owners in species selection





What Criteria Should be Used to Determine if a Site Can Accommodate Replacement Trees?



Image from: Midcityeast.com

- Right to open space
 - Site design preference
 - Want more sun in the yard
- Site utilities and soil type suitability
 - If interferes with successful replanting, triggers off-site mitigation?



What Criteria Should be Used to Determine if a Site Can Accommodate Replacement Trees?

- Tree density – Quantify on-site percent canopy cover
- Historic canopy & minimum cover – Urban canopy goals?

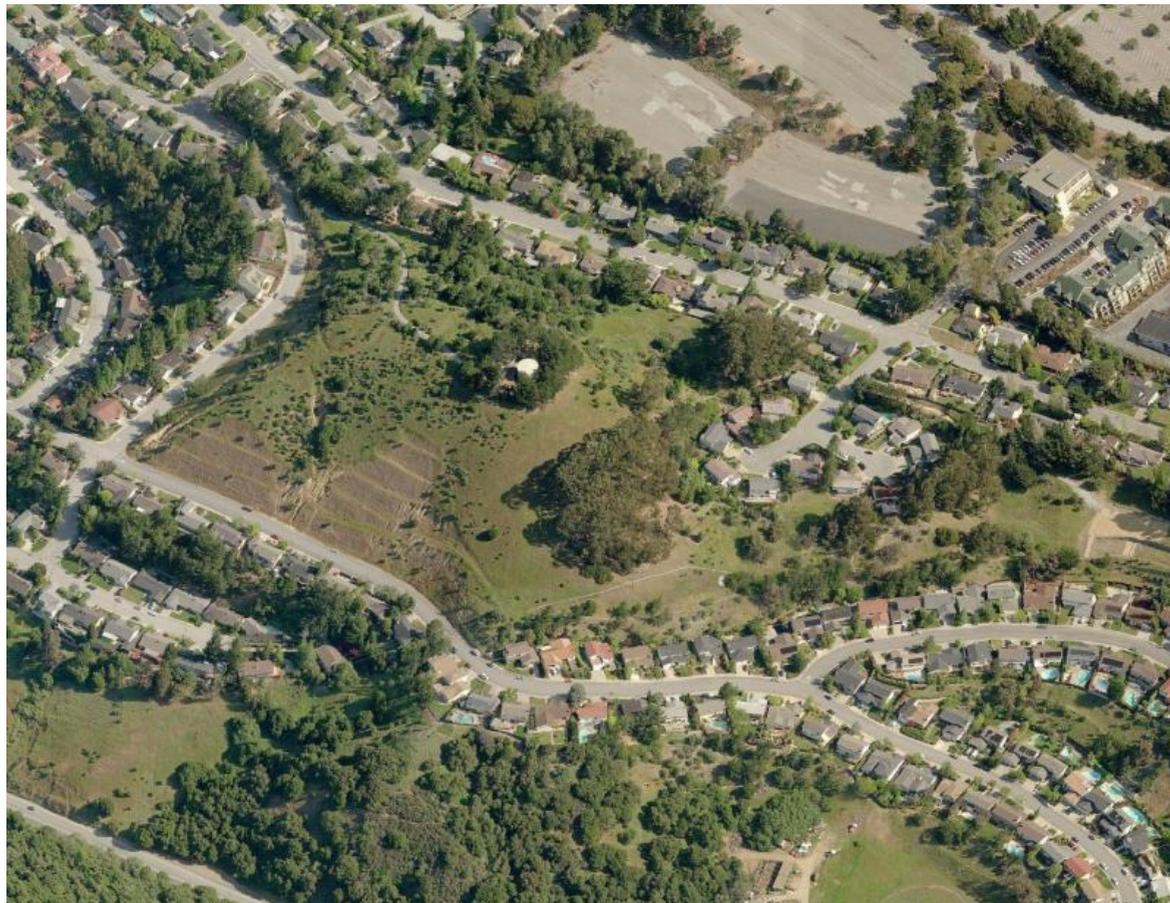


Image from: planning.smcgov.org





Should We Require Greater Mitigation for Construction-Related Tree Removal than for a Tree Removal Permit?

- Development projects often result in removal of significant and heritage trees
- Many City and County ordinances require a higher level of mitigation for construction-related tree removal
- Could provide incentive for developers to retain existing trees



Image from: atcoombes.com



Open-ended Questions

- What are the key considerations for successful replanting?
- To what degree should replanting be driven by canopy cover goals?
- What should Planning staff consider when crafting policies to establish required size of replacement trees?
- What considerations should guide policies intended to mitigate removal of large and healthy significant and heritage trees?
- What should staff consider when crafting policies that control the amount of replanting based on the size of tree(s) removed?
- What considerations should be made when creating a list of approved trees or a list of prohibited trees for replacement plantings? For region-specific lists?



Open-ended Questions

- Could the web resources promoted by Menlo Park be useful for selecting replacement tree species in San Mateo County?
- Should property owners desiring open yards be held to the on-site replacement requirement if replanting prevents creating a desired sunny space?
- What considerations should be reflected in a policy requiring a specific canopy cover percent?
- How should historic canopy cover be reflected in policies requiring replacement of removed trees?
- Should we set higher mitigation requirements for development projects to provide incentive to retain significant and heritage trees? Why or why not?



10 Minute Break



In Lieu Fees

- **Should the County Allow In Lieu Fees for Tree Replanting?**
- **What criteria should we establish to determine when payment of the in-lieu fee is appropriate over on-site replacement?**



Thank you.

For more information about this project, please contact:

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