



Resource Protection Area (RPA) Planting Density Requirements

Planning Commission Environment Committee

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RPA Planting Density Requirements

➤ Status

- In development
- The draft PFM amendment is posted on the LDS website
<https://www.fairfaxcounty.gov/landdevelopment/public-facilities-manual-and-code-amendments>

➤ Background

- Both the Chesapeake Bay Preservation Ordinance (Ch. 118) and the PFM include planting densities for RPAs. They are different.
- In 2019, the Board authorized an amendment to Ch. 118 that would have replaced the planting densities in Ch. 118 with a requirement that points to the PFM.

RPA Planting Density Requirements

➤ Background (continued)

- At the time, the plan was to adopt the Ch. 118 amendment and update the planting requirements in the PFM at a later date.
- At its' public hearing, the Board, on recommendation of the PC, directed that the amendment to Ch. 118 be re-advertised with related amendments to Chapter 12 (Tree Conservation) of the PFM.
- The main issue leading to withdrawal of the amendments was that the revised PFM standards were not available for review at the time.

RPA Planting Density Requirements

➤ Background (continued)

- The revised PFM standards were prepared in consultation with the Stormwater Planning Division of DPWES per the PC's request and with the Urban Forest Management Division.
- The revised PFM standards have been discussed with EQAC, ESRC, Chesapeake Bay ERC, and the Tree Commission.
- The revised standards have also been submitted to DEQ for review.

RPA Planting Density Requirements

➤ Goals

- Eliminate the differences between the Ordinance and the PFM requirements
- Locate all the requirements in one place
- Clarify the requirements and provide additional guidance

➤ Why locate the requirements in the PFM?

- PFM includes all the standards for field practice needed to implement RPA planting plans

RPA Planting Density Requirements

➤ Proposed Requirements

- Planting densities are based on local experience with DPWES stream restoration projects
- Five components: 1) overstory trees; 2) understory trees; 3) shrubs; 4) permanent groundcover; and 5) temporary groundcover
- There are multiple options for the size of trees that may be planted to meet the requirements

RPA Planting Density Requirements

➤ Proposed Requirements (continued)

- As the size decreases, the number of trees to be planted increases
- Largest size overstory tree option is reduced from 2 in. to 1.5 in.
- Largest size understory tree option is reduced from 2 in. to 3/4 in.
- Significant reduction in the number of shrubs required from 1089 to 645

RPA Planting Density Requirements

➤ Proposed Requirements (continued)

- Additional planting options in combination with the reduced number of shrubs will result in significant cost savings
- All plants except for temporary groundcover must be native species
- Digital Atlas of Virginia Flora is used for identifying native plant species
- County's Chesapeake Bay Preservation Ordinance web page will include guidance on how to perform the planting density computations and prepare planting plans to meet the requirements

RPA Planting Density Requirement

Available Planting Options for Achieving Coverage (all values per acre)

Pick one planting option per line

Element	Planting Density Options				
Overstory Trees	109 (1.5 in. caliper)	164 (3/4 in. caliper)	218 (1 gal. pot)	400 Tubelings	1,200 Bareroot Seedlings Dir. Approval only
Understory Trees	218 (3/4 in. caliper)		435 (1 gal. pot)	800 Tubelings	
Woody Shrubs	654 (18-in. tall)		491 Woody Shrubs (18-in. tall) + 654 Non-woody Shrub Equivalents (1 qt. pot)		
Permanent Ground Cover	30 lbs. Perennial Herbaceous Seed Mix (minimum 12 species)				
Temporary Ground Cover	60 lbs. Annual Herbaceous Cover Crop Seed Mix (minimum 3 species)				

RPA Planting Density Requirements

Comparison Table of Proposed versus Existing Densities

Element	Proposed PFM	Existing Ch. 118	Existing PFM	Existing DEQ Guidance
Overstory Trees	109 (1.5 in. caliper)	100 (2 in. caliper)	86 (2 in. caliper)	109 (1.5 in. caliper)
Understory Trees	218 (¾ in. caliper)	200 (2 in. caliper)	+ 327 seedlings	218 (¾ in. caliper)
Woody Shrubs	654 (18 in. tall)	1089 (18 in. tall)	436 (18 in. tall)	327 (18 in. tall)
Permanent Ground Cover	30 lbs. Perennial Herbaceous Seed	Type and application rate not specified	Mix of grasses and perennials application rate not specified	Type and application rate not specified
Temporary Ground Cover	60 lbs. Annual Herbaceous Cover Crop Seed Mix	Type and application rate not specified	Per VA E&S Handbook	Type and application rate not specified

RPA Planting Density Requirements

➤ Summary

- Planting densities from Ch. 118 and the PFM will be consolidated in the PFM
- Planting densities are based on local experience with DPWES stream restoration projects
- Planting densities were developed in co-ordination with Urban Forest Management and Stormwater Planning Divisions, as requested by the PC
- Additional planting options utilizing smaller sized trees in combination with the reduced number of shrubs will result in significant cost savings