

## Urban Forest Planting BMP – Clarifying the guidelines and requirements

***~~Discussion Draft~~*** February 1, 2017

### Intro

The Urban Forest Planting BMP is distinct from the Urban Tree Canopy Expansion BMP in that it includes projects that create forest-like conditions. Trees must be planted in a contiguous area as specified in a documented planting and maintenance plan, and conform to the state's planting density and associated standards for forest conditions.

Urban Forest Planting BMP results in a change of land use from turf to forest land. The credit is calculated based on the difference in land use loading rate of each. The credit assigned is dependent upon the acreage of forest planted. The number of trees planted will vary depending on the recommended planting density. Unlike the Urban Tree Canopy Expansion BMP, other BMPs may not be used on land planted to urban forest.

### Required Planting and Maintenance Plan

*(We need to spell out minimum elements needed in plan (and/or have template we can provide))*

1. Planting Plan Elements:
  - Tree species list,
  - Tree size/stock
  - Stocking level/spacing,
  - Address of planting (or GPS lat/long), map/layout of planting plan;
  - Tree protection measures (stakes/shelters, etc.);
  - Site prep needed (mowing/spraying/invasives management/address soil condition/compaction);
2. Maintenance Plan: (2-3 years or longer?)
  - Irrigation, as needed
  - Minimal mowing schedule to aid establishment
  - Invasives management
  - Check shelters, etc.
  - Replanting as needed to achieve desired stocking

## State Stocking Guidelines

Most of these are recommendations, not requirements for cost-share programs, because details are approved through the site-specific planting plan required by the program and reviewed by agency staff.

State	Stocking Density	Program
Delaware	400-500/acre (10x10)	State Forest Stewardship Program
Maryland	Varies by tree size – see MD FCA info at end	Forest Conservation Act
New York		
Pennsylvania	150/acre (15x15?) – any size 100/acre (20x20) – large container/B&B trees	NRCS RFB Standard - PA
Virginia	300/acre (12x12)	DOF CREP Guidance
West Virginia	? None stated, but note cites Stroud 200/acre minimum guideline	NRCS RFB Standard - WV

## Review/Approval of Planting and Maintenance Plan - Options

- 1) Plan is submitted to State Forestry Agency (who? local/regional/state reviewer) prior to planting
  - a) Forester site visit before and/or after planting to advise and approve?
  - b) Office review/approval of plan?
- 2) Plans are submitted to State Forestry Agency after planting, when BMP data is submitted by local partner (provides documentation for approving BMP, no site visit)
- 3) Plans are held locally, not submitted to State Forestry Agency, but must be available upon request for any reported BMP acres

## BMP Verification Guidelines

Verify that Planting and Maintenance Plans were followed...

After planting, record date and any issues...

Check on site to see if maintenance plan was adequate and whether it is becoming forest...

State forestry agency provides oversight if local partner leads...

## Maryland FCA Requirements

### **08.19.04.04 Preliminary Forest Conservation Plan Submittal Procedures.**

(5) In the case of afforestation or reforestation, a **proposed afforestation or reforestation plan** which shows:

- (a) Locations of areas to be planted;
- (b) Specifications for conducting the afforestation or reforestation;
- (c) Construction sequence with notification for inspection;
- (d) Proposed maintenance and monitoring agreement;

(6) If the preliminary forest conservation plan designates off-site planting, the plan proposed in §C(5) of this regulation which contains a map of the proposed planting site showing:

- (a) Location;
- (b) Soils;
- (c) Environmental features which are priority planting areas as stated in Natural Resources Article, §5-1607(d), Annotated Code of Maryland;

(7) Proposed limits of disturbance delineated;

(8) Proposed long-term protection agreement; and

(9) Sufficient information for the Department to process the forest conservation plan.

### **COMAR 08.19.04.05 Forest Conservation Plan**

(a) A **binding minimum 2-year maintenance agreement** specified in COMAR 08.19.05.01A that details how the areas designated for afforestation or reforestation be maintained to ensure protection and satisfactory establishment of forest, including: (i) Watering, and (ii) **Reinforcement planting provisions** if survival falls below the required recommendations in the following chart:

<i>Size</i>	<i>Number Required Per Acre</i>	<i>Approximate Spacing Feet on Center</i>	<i>Survivability Requirement At the End of the Second Growing Season</i>
Bare Root Seedlings or Whips	700	8 x 8	55%/385 acres
Container Grown Seedling Tubes (Minimum Cavity Width 1.5")	450	10 x 10	65%/290 acres
Container Grown 1, 2, 3 Gallon	350	12 x 12	75%/260 acres
Container Grown 5, 7 Gallon or 1" Caliper B & B	200	15 x 15	85%/170 acres

Container Grown 15, 25 Gallon or 1.5 - 2" Caliper B & B	100	20 x 20	100%/100 acres
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**Notes:**

1. These stocking and survival requirements are the minimum numbers estimated to meet the definition of forest from bare land.
2. In certain circumstances, any combination of the above mentioned stocking options, dry seeding, tree shelters, transplants, and/or natural regeneration may be appropriate strategies to fulfill the requirements of an approved Forest Conservation Plan. They will be evaluated on a case-by case basis by the approving authority.
3. Spacing does not imply that trees or shrubs must be planted in a grid pattern.

(b) A **long-term binding protective agreement** specified in COMAR 08.19.05.02 that:

- (i) Provides protection for areas of forest conservation, including areas of afforestation, reforestation, and retention; and
- (ii) Limits uses in areas for forest conservation to those uses that are consistent with forest conservation, including recreational activities and forest management practices that are used to preserve forest; and
- (5) Other information the Department determines is necessary.

D. If critical root zone in the retention area is disturbed by clearing, grading, or construction, additional protective measures shall be required, including:

- (1) Root pruning;
- (2) Crown reduction; or
- (3) Watering.

### ***Short-Term Protective Agreements.***

#### **A. **Maintenance Agreements.****

(1) Application. A person required to conduct afforestation or reforestation under a local or State program shall include in the forest conservation plan a binding maintenance agreement for the minimum length of 2 years.

(2) Approval procedures and timing shall be consistent with the procedures provided in the local program or as provided in COMAR 08.19.04.04.

(3) The maintenance agreement shall detail how the areas designated for afforestation or reforestation will be maintained to ensure protection and satisfactory establishment of forest.

(4) The person required to conduct the afforestation or reforestation, after this referred to as the "obligee", shall present evidence of a legal right to implement the proposed maintenance agreement on a selected site by providing:

- (a) An executed deed conveying title to a selected site to the obligee;
- (b) An executed conservation easement agreement;
- (c) Written evidence of the landowner's consent to the use of a selected site;
- (d) A fully executed option agreement, long-term lease agreement, or contract of sale for a selected site; or
- (e) Other written evidence of a possessory or ownership interest in a selected site.

(5) The Department or the local authority shall be a signatory to the maintenance agreement, or shall be designated a third-party beneficiary of the agreement.

(6) The Department or local authority may not release a bond or end monitoring without receipt of a legally binding deed, long-term lease, or conservation easement agreement on those lands where afforestation or reforestation will occur.

(7) The maintenance agreement shall provide for access by the Department or local authority to the afforestation or reforestation site.