

### APPROVED TECHNICAL MANUAL

September, 1992

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APPROVED TECHNICAL MANUAL

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MONTGOMERY COUNTY, MARYLAND

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MONTGOMERY COUNTY HAS EXPERIENCED LOSS OF FOREST cover during the last 25 years, at a rate which is the highest among the Washington region's major jurisdictions. These losses are significant because forest and trees provide benefits to our increasingly urbanized environment which cannot be readily replaced. As development pressure continues, it is necessary to implement a program for conserving forest and tree resources.

The forest conservation law applies to applications for development, and sediment and erosion control permits. It requires that a plan for conservation of trees and forest on a site be reviewed and approved along with these applications. Action on these forest conservation plans is taken by the Planning Board for applications which otherwise need Board approval, or by the Planning Director for applications which do not go to the Board. All forest conservation plans must be prepared by a person who is qualified through their knowledge of forest and tree management and the forest conservation law.

This technical manual contains the methodology for working through the forest conservation program. It has been developed to give developers guidance for designing plans which are sensitive to forest and tree resources, and to specify how regulators will review this information.

## Introduction

This technical manual
is

mandated by existing state

county forest conservation legislation
which establish a forest
conservation program for future

The manual contains standards

protection & enhancement of forest

& trees on developing tracts.

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methodology for meeting the requirements of this program.

They
should be used by designers
during preparation of plans
to be submitted to the
planning department for review.

The
following is a summary
of the information
contained in this manual.

## Natural Resources Inventory (NRI) & Forest Stand Delineation (FSD)

The natural resources inventory is a description of the environmental features on a site. The forest stand delineation is a detailed description of on-site forest and trees. Together, these two plans form a blueprint of priority forest and tree save areas on the site. Therefore, they indicate the areas where development impacts should be avoided. The NRI and FSD should be developed and are to be submitted and reviewed prior to site planning, so that priority save areas are given consideration early in the development process.

## Forest Conservation Plans

The forest conservation plans are developed along with the site planning for a tract. Priority forest and tree save areas should be located outside the limits of disturbance for the construction elements of the plan. Since the development process may contain requirements for more than one plan approval, a forest conservation plan may be submitted in a preliminary or final form depending upon the type of development application it is submitted with. Regardless of whether a preliminary or final forest conservation plan is submitted, it must reflect forest retention areas, areas to be cleared and areas to be planted, as discussed below. The difference between the two lies in the amount of detail in which this information is presented.

Forest retention and planting requirements are determined by completing a forest conservation worksheet. The calculations are based on conservation and afforestation thresholds which are assigned according to land use. These thresholds are a percentage of the tract area which should be retained or planted as forest. They are also the basis for calculating the reforestation requirements when any portion of the existing forest on a tract is cleared.

When either reforestation or afforestation planting is required, there are priorities for planting areas and sequential planting methods which must be applied. The priority planting areas include stream valleys, steep slopes, critical habitat areas, and areas contiguous to existing forest or between incompatible uses. The method used in planting these areas is chosen by conducting a sequential evaluation of the preferred techniques. The sequence in order of priority consists of: on-site selective clearing and supplemental planting; on-site planting; off-site planting; on-site natural regeneration; and off-site natural regeneration.

When submitted in final form, the forest conservation plan

must contain the plan drawing showing retention and planting areas, and other supporting information which details how these measures will be carried out. The supporting information includes a planting plan, a maintenance agreement, the construction timetable, and provisions for long-term protection of forest conservation areas. The details of the supporting information, and the agreements which must be provided may be conditioned as part of the forest conservation plan approval, and provided prior to record plat and/or sediment control permit. In some instances however, they may be required prior to plan approval.

Protection of forest retention areas during construction is a responsibility of the developer. To ensure that proper measures are carried out to accomplish this, staff will review and approve the forest and tree protection plan. This plan will include measures to be taken before, during, and after construction and during a two year maintenance period for planted areas. Inspection staff from Park and Planning will monitor compliance with the protection plan throughout construction and the maintenance period. They will have the authority to issue fines or stop work orders for violations to, or non-compliance with the approved plan. Financial security will be required to cover the cost of planting all afforestation and/or reforestation areas. The security will be held until a final inspection has been conducted at the end of the maintenance period, and the survival of the planted trees is verified.

The appendices to the technical manual include definitions, supplemental information, specifications, and sample worksheets which will assist in preparing the plan. The glossary contains important terms from both the manual and legislation. Information on plant species includes: a table of common species within forest associations, a list of exotic and invasive species, state and county specimens and champions, and a list of 20-year assumed canopy and evaluation criteria by tree species. The appendices also include tree planting and protection specifications, information about Montgomery County soils, evaluation criteria for choosing afforestation and reforestation methods, sample worksheets, examples of protective agreements, and a complete reference list.

This summary has reviewed the process and content of the *Technical Manual for Trees* and the county forest conservation program. Implementation of the program will require the combined efforts of developers, designers and regulators. Through these efforts we can achieve the conservation goals established in the County Forest Conservation Law.

## Forest & Tree Protection

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#### ABSTRACT:

This Technical Manual is mandated by Existing State and County Forest Conservation Legislation. It contains Standards and Procedures for meeting the requirements of this legislation.

#### Note:

This technical manual relies heavily on information taken from the state Forest Conservation Manual. This document was prepared for the Maryland Department of Natural Resources under the 1991 Forest Conservation Act. Copies can be purchased from the Division of State Documents, P.P. Box 2249, Annapolis, MD 21404-2249. For further information, call 410. 974-2486.

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