APPENDIX B:

VEGETATION CLASSIFICATION EXPLANATIONS

Classifying Vegetation

Classification Rules and Symbology

Vegetation on MRC's property is classified according to a stand's species composition, the dominant size of the trees in the stand, and the canopy closure, or density, of the stand.

Species Classification

Vegetation polygons that have 5 percent or more of their area covered by tree crowns are classified as forest and will be labeled with a three-part labeling system that includes species, size, and density. Definitions and symbols for each are as follows. A stand is labeled with an appropriate conifer or hardwood species symbol when 75 percent or more of the basal area in the stand can be attributed to that species. If no one species represents 75 percent or more of the basal area, a mixed-species symbol will be used.

Dominant-Conifer Species Symbols

At least 75 percent of the basal area is in the species classified.

RW	Coast redwood
DF	Douglas-fir
KP	Knobcone pine
WH	Western hemlock
GF	Grand fir

Dominant-Hardwood Species Symbols

At least 75 percent of the basal area is in the species classified.

AL	Alder
TO	Tanoak
LO	Live oak
BO	Black oak
MO	Madrone

Two-Species Symbols (Conifer)

No one conifer species has 75 percent of the stand's basal area, but two conifer species combined do have at least 75 percent of the basal area. At least 75 percent of the basal area is in the species mix classified.

RD	Redwood/Douglas-fir

Mixed-Species Symbols (Hardwoods)

Conifer species do not comprise 75 percent or more of the stand's basal areaThe stand is comprised of a mixture of species that make up 75% of the basal area.

CH	Conifer/Hardwood mix
MH	Mixed Hardwood

Non-Forest Symbols

Vegetation polygons that have less than 5 percent of their area covered by tree crowns should be classified as non-forest and will be labeled with one of the following symbols, depending on the predominant cover.

BR	Brush
GR	Grass and meadows
BG	Bare ground, including rocks and watercourse beds
WA	Water

<u>Size Classification</u>

A diameter size class label is assigned to each of MRC's forested stands. The division of size classes assists management in predictions of wildlife habitat and silvicultural activity. MRC's vegetation is classified into five Diameter at Breast Height (DBH) size classes. The size classes are as follows:

DBH Class

1	0- 8 inches
2	8-16 inches
3	16-24 inches
4	24-32 inches
5	>32 inches

Tree diameter is measured at breast height. Rules for assigning a size class label have been developed, since MRC's stands often contain many diameter classes resulting from uneven-aged management. Figure 1 describes the process for determining size class.

Is total tree cover greater than 5%? —No→ Are there at least 300 trees per acre? —No→ Non-forest

Yes

Are there at least 300 trees per acre? Yes

Estimate the relative basal area in each of the 5 tree size classes as percentages of the total basal area. Starting with size class 5, sum successively smaller classes until the sum exceeds 50% of the total basal area.

Size Class = 1

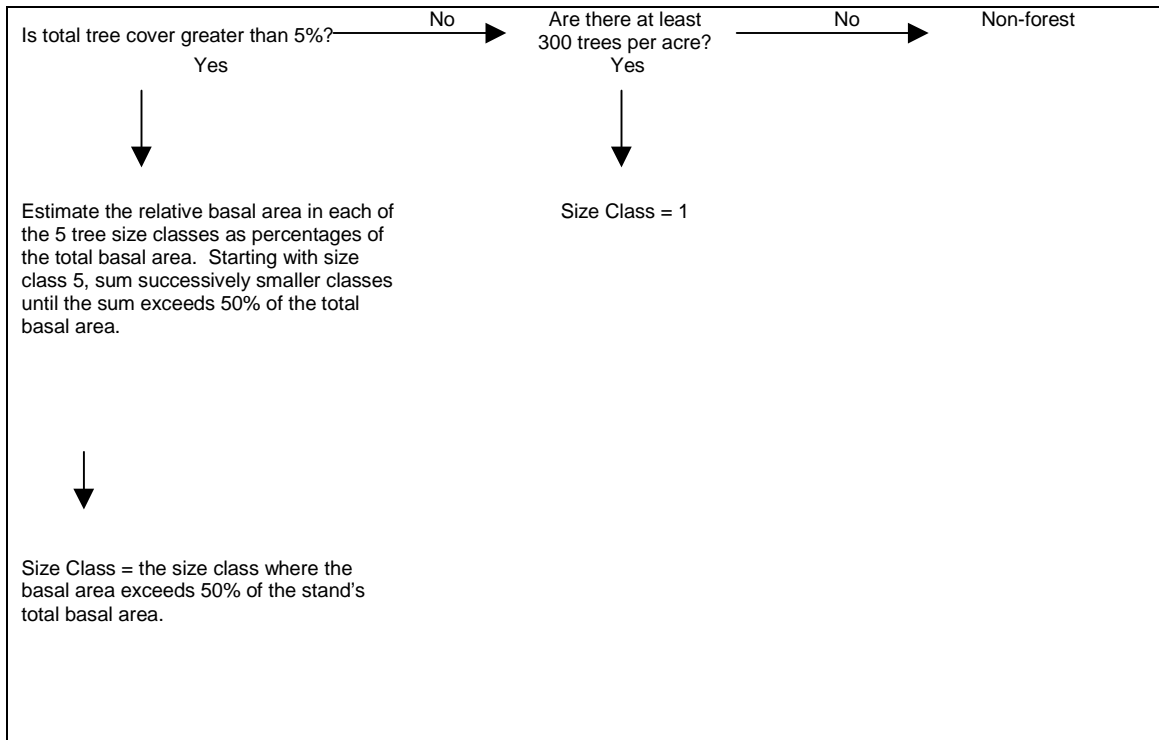Size Class = the size class where the basal area exceeds 50% of the stand's total basal area.

Figure 1. Determining vegetation size classes.

Density Classification

There are five density classes in this vegetation classification scheme, ranked by canopy-closure gradations of 20-percent intervals. Figure 2 demonstrates the rules for defining density classes.

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┌──────────────────────────┐              ┌──────────────────────────┐
│ Estimate the total canopy │              │                          │
│ cover for the assigned    │              │        Non-Forest         │
│ size class and all larger │              │                          │
│ size classes.             │              │                          │
└──────────────────────────┘              └──────────────────────────┘
              │                                        ▲
              ▼                                       No
                                                       
      Total tree canopy          Yes    Trees per Acre >= 300?    Yes    Density Class = O
      cover less than 5%?  ─────────►                       ─────────►
                                   
              No
              ▼
      Canopy Cover of             Yes    Density Class = O
      Assigned Size Class  ─────────►
      and Larger Size
      Classes Less the 20%
              No
              ▼
      Canopy Cover of Assigned    Yes    Density Class = L
      Size Class and Larger ─────────►
      Size Classes Less than 40%?
              No
              ▼
      Canopy Cover of Assigned    Yes    Density Class = M
      Size Class and Larger ─────────►
      Size Classes Less than 60%
              No
              ▼
      Canopy Cover of Assigned    Yes    Density Class = D
      Size Class and Larger ─────────►
      Size Classes Less than 80%
              No
              ▼
      Density Class = E
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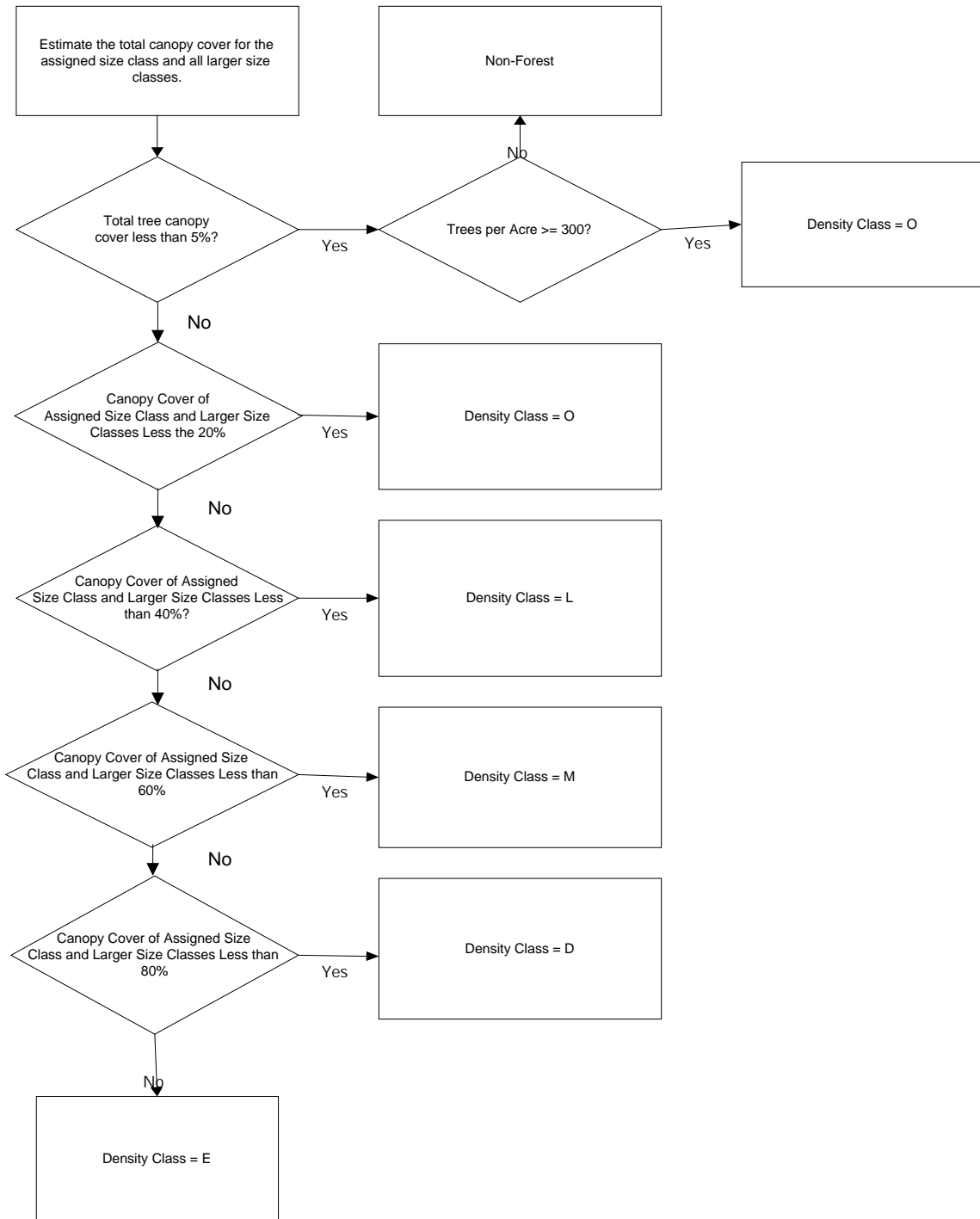
Figure 2. Rules for determining vegetation density classes.