

10.1 Land purchase. In the middle of the Brown Tract you may have noticed a piece of land that is managed or owned by someone else. Let's assume that the owners of the Brown Tract purchased this piece of land, in an effort to consolidate the ownership area. You have been asked to develop stand boundaries for this area, and incorporate them into the stands GIS database. Specifically, you need to delineate the stands into logical age or structural categories, although the only attribute you are asked to add to the GIS database is one for "land allocations" (even-aged or uneven-aged). The forest staff will eventually develop an inventory for these stands and produce age, timber volume, and other statistics. To accomplish this updating task, you decide to use the digital orthophotograph associated with the Brown Tract GIS databases as a backdrop, and to use heads-up digitizing techniques to delineate the new stands.

a. How many acres of even-aged stands will be added to the Brown Tract?

b. How many acres of uneven-aged stands will be added to the Brown Tract?

The answer to these two questions lies in how you digitized the landscape and the criteria you used to assign land allocations to the polygons. However, the total area of new even-aged and uneven-aged stands should not exceed (nor be less than) 241.9 acres (the size of the original opening in the middle of the Brown Tract).

In addition, the forest planning staff requires the following:

c. A map of the new stands; display the land allocation of each new stand and include the Brown Tract roads, streams, and digital orthophotograph.

We'll let you decide how to do this. If you feel you have a rather good map, send a .JPG file of the map to Pete Bettinger (pbettinger@smokey.forestry.uga.edu), and he may post it on the book's web site. Of course all of the maps sent to him cannot be posted, so Dr. Bettinger will be the final arbiter of the choice of example maps posted there.