5.1. Daniel Pickett Forest Annual Report. For the Annual Report of the Daniel Pickett forest, you have been asked by Hugh Davenport (District Forester) to provide some information related to the forest's resources. Mr. Davenport poses his request as a series of questions:

a) How many acres of land have forests ≤ 20 years of age?
Result: 663.6 acres
b) How many acres of land have forests > 20 years of age and ≤ 40 years of age?
Result: 769.7 acres
c) How many acres of land have forests > 40 years of age?
Result: 1066.7 acres
d) How many acres of land are in vegetation type A?
Result: 999.8 acres
e) How many acres of land are in vegetation type B?
Result: 499.9 acres
f) How many acres of land are in vegetation type C?
Result: 1000.3 acres
g) How many acres of land have average timber volumes per acre ≥ 20 MBF (thousand board feet)?
Result: 1023.1 acres
h) How many acres of land have average timber volumes per acre ≥ 30 MBF?
Result: 435.4 acres
i) How many acres of land have average timber volumes per acre ≥ 40 MBF?
Result: 94.1 acres

<u>From the soils GIS database:</u>
j) How many acres might have a high response to fertilization?
Result: 844.9 acres
k) How many acres might have a medium response to fertilization?
Result: 942.2 acres
l) How many acres might have a low response to fertilization?
Result: 712.9 acres

<u>From the streams GIS database (map units are feet):</u>
m) How many *miles* of Class 1 streams are in the database?
Result: (17485.249 feet / 5280 feet per mile) = 3.31 miles
n) How many *miles* of Class 2 streams are in the database?
Result: 2.15 miles
o) How many *miles* of Class 3 streams are in the database?
Result: 2.03 miles
p) How many *miles* of Class 4 streams are in the database?
Result: 2.35 miles
q) Why might these values be misleading, and what caveat might you provide to Mr. Davenport?
The streams GIS database contains streams that lie outside of the Daniel Pickett forest boundary. For an accurate measurement of the length of streams by stream

class within the boundary of the Daniel Pickett forest, one would need to first develop a GIS database that contains only the streams that lie within the forest boundary.