



## Restoration Site Plan Answer Key

- 1. Site Characteristics:** (Based on the site description, describe the general characteristics of the site. Include the physiographic region; elevation; topography; moisture levels; and existing vegetation.)

The following is a sample of what responses should include: Alex Creek is three-and-a-half miles long, flowing west to east. It ranges in elevation from 200 to 800 feet above sea level. The site receives approximately three feet of rain per year and floods occasionally. Mostly pastureland, it includes a variety of grasses, shrubs, and trees (such as oaks, black willow, sycamore, and hackberry). Multiflora rose, an invasive species, is also present.

- 2. Soil Type:** (Circle the kind of soil found below the site's surface.)

Silt-loam

- 3. Suggested Tree Species:** (Referring to the "Green Thumb Nursery Catalog," list the species of trees that would be best suited for this site.)

- Green Ash (*Fraxinus pennsylvanica*)
- Persimmon (*Diospyros virginiana*)
- Pin Oak (*Quercus palustris*)
- Hackberry (*Celtis occidentalis*)

- 4. Number and spacing of proposed trees:**

a) 43,560 square feet per acre \* 2 acres = 87,120 square feet

b) 15 feet \* 15 feet = 225 square feet

c) Divide the site's total number of square feet (a) by the total square feet of spacing needed between trees (b) to determine how many trees to plant:

(a) 87,120 / (b) 225 = 387 Trees

- 5. Projected Outcome:**

The before-planting drawing should have fewer trees than the after-planting drawing.

- 6. Describe the benefits of planting trees at the restoration site:**

Answers may include: Since the site is mostly composed of pasture and dominated by agriculture, a riparian forest buffer is especially important because it will filter runoff from animal waste and reduce sedimentation. The trees will regulate the temperature of the stream and provide food and habitat for wildlife. Restoring the natural balance of the ecosystem prevents the site from becoming dominated by invasive species.