



WORKSHEET WHAT'S THE SCORE?

FOREST USE

Identify how many acres you plan for each forest use. Remember the total must equal 400 acres.

	FOREST USE							TOTAL
	Wildlife	Timber	Trails	Campground	Hunting/ Foraging	Reservoir	Cultural Sanctuary	
Area (acres)								400 Acres

ENVIRONMENTAL FACTORS

STEP 1 – WILDLIFE CONSERVATION

Determine how this plan will affect the wildlife management indicator species. Put the number of planned acres for each forest use in all the blank boxes below for that use (a black space means that the species won't live in an area with that use). Multiply the total acres per species by the number of animals per acre. (For owls and wood rats, round down to the nearest whole animal.) Compare the new population totals you get to the original population of 8 owls, 400 wood rats, and 10,000 salamanders.

	FOREST USE							TOTALS		
	Wildlife	Timber Production	Trails	Campground	Hunting/ Foraging	Reservoir	Cultural Sanctuary	Total Acres Per Species	Animals Per Acre	New Population
Owls									.20	
Wood Rats									1.0	
Salamanders									25	



STEP 2 – FOREST COVER

Trees will need to be removed for any trails, roads, campground, or timber harvest and regeneration your plan includes. Put the number of planned acres for each forest use in the blank boxes below for that use. Multiply the total acres for each use by the number of trees removed per acre. Sum up the total trees removed. There are initially 37,000 trees in 400-Acre Wood. Calculate how many trees will remain with your plan.

	FOREST USE							TOTAL	
	Wildlife	Timber	Trails	Campground	Hunting/ Foraging	Reservoir	Cultural Sanctuary	Trees Removed	Trees Remaining
Area (acres)									
Trees Removed per Acre	0	40	10	20	10	150	0		
Total Trees Removed									
Total Trees Remaining Per Plan									

STEP 3 – STREAM PROTECTION

To protect the stream, timber harvest may not occur next to it. Check that your plan does not have any timber harvest and regeneration squares touching the stream.

SOCIAL FACTORS

STEP 4 – NUMBER OF VISITORS

Calculate the number of visitors your plan will attract to the forest each year. Multiply the number of acres for each forest use by the numbers below. Then, sum the totals.

	FOREST USE							TOTAL
	Wildlife	Timber	Trails	Campground	Hunting/ Foraging	Reservoir	Cultural Sanctuary	
Area (acres)								
Visitors per Acre per Year	5	5	25	50	2	60	0	
Visitors per Plan per Year								

STEP 5 – CULTURAL SITE PROTECTION

Calculate how well your plan safeguards the cultural site. For each forest use in your plan, measure on your map the nearest distance (in feet) to the cultural site, and place that distance in the table below. Assign points based on the distance from the site, with 1 point for each 500 feet in distance (rounded to the nearest whole number). Wildlife and Cultural Sanctuary are 10 points each as they do not affect the site. The final score is the lowest of the points that isn't 0.

	FOREST USE							SCORE
	Wildlife	Timber	Trails	Campground	Hunting/ Foraging	Reservoir	Cultural Sanctuary	
Area (acres)								
Distance (in feet)								
Points	10						10	

ECONOMIC FACTORS

STEP 6 – COST AND REVENUE: FOR DEVELOPMENT

Calculate the net cost of developing the site for your plan. To determine the construction cost, multiply the number of acres for each forest use by the dollar amounts below, and then sum the total. To calculate the revenue, multiply the number of trees removed for each forest use (from Step 2 above) by \$50 per tree, and then sum the total. Subtract the total revenue from the total construction cost to determine the net cost. (If the number is positive, it is a cost; if it is negative, it is a revenue.)

		FOREST USE							TOTALS
		Wildlife	Timber	Trails	Campground	Hunting/ Foraging	Reservoir	Cultural Sanctuary	
Area (acres)									
Costs	Construction Cost per Acre		\$2,025	\$1,200	\$6,000	\$2,025	\$16,200		
	Total Construction Cost								
Revenue	Revenue: Sale of Trees (\$50 per Tree)								
Net Cost	Net Cost (Total Construction Cost Minus Income)								

STEP 7 – COST AND REVENUE: EACH YEAR

Calculate the annual management cost for your plan. To calculate the management costs, multiply the management costs per acre by the number of acres for each forest use, and then sum the totals. To determine the income from fees, multiply the fees per visitor by the number of visitors for your plan (from Step 4), and then sum the totals. Subtract the Total Revenues from the Total Management Costs to determine the annual cost or revenue. (If the number is positive, it is a cost; if it is negative, it is a revenue.)

		FOREST USE							
		Wildlife	Timber	Trails	Campground	Hunting/ Foraging	Reservoir	Cultural Sanctuary	TOTALS
Area (acres)									
Costs	Management Costs per Acre	\$4	\$40	\$20	\$100	\$8	\$20	\$4	
	Total Management Costs								
Revenue	Revenues: Fees per Visitor	\$1	\$2	\$2	\$8	\$6	\$6	\$0	
	Total Revenues								
Net Cost	Net Cost or Revenue (Total Management Costs minus Total Revenue)								

Foresters use maps to make forest management decisions that ensure forest health and support culturally important areas.

Project Learning Tree

