

FOREST STEWARDSHIP PLAN

for

MARY LOU BAUMHOVER  
12084 Twilight Street  
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Lyons, CO 80540  
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541-2380

Whittington Estates, Lot 3  
Located in the  
SW1/4 SE1/4, Sec 29, T3N, R70W, S.P.M.


(3.2 Acres)

Prepared By:

Douglas J. Stevenson  
Colorado State Forest Service  
936 Lefthand Canyon  
Boulder, CO 80302  
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December 30, 1992

This management plan has been prepared at my request to guide my Stewardship management activities which I voluntarily apply on my property. I believe that activities recommended in this plan are appropriate to meet my objectives and will benefit the natural resources on my property. I intend to apply the recommended practices and to maintain them for a period of at least ten years, thus helping me to be a good steward of the forest and associated resources entrusted to me on my property.



Mary Lou Baumhover

1-8-93  
Date

## OBJECTIVE

To obtain Stewardship Incentives Program cost-sharing for the purposes of:

1. Reconstructing three small ponds so they will hold water, serving as a water source for small animals.
2. Planting a food and cover thicket for birds and small animals.
3. Planting a small "forest" to serve as wildlife shelter and a future source of wood.
4. Planting a windbreak to protect the house and yard from direct attack by wind.

## DESCRIPTION

The property is located on the west side of the Foothills Highway (CO-36), about 1.5 miles south of the CO-66 intersection.

The ponds are fed by Wenzel Spring. The smallest is only fifteen feet across and barely holds water; it apparently held more several years ago, but does not do so now. There is a plastic liner covered by several inches of soil. The second was dry when the field work was done, but had a few cattails growing in it. It, too, has a plastic liner. A third pond was dry, containing nothing but dryland grasses. It also had a plastic liner; this pond has not held water in many years.

A dry, yucca-covered slope along the south property line could support a small stand of ponderosa pines. Weed barrier would be critical to success, and supplemental water during the first two years would be highly desirable.

In the front yard, near the dry ponds, or even on the bottom of the eastern-most pond, is a good site for a wildlife thicket. Because of the dryness of the site, a hardy species such as American plum should be used. There are three ponds at a distance of 0.8 miles to the north, one at 0.5 miles to the east-southeast, one at 0.6 miles to the east-northeast and Foothills Reservoir at 1.2 miles to the east. Need for an additional water source is moderate, at best.

The house stands on a small hill in the northwest corner of the lot where it is exposed to wind. There is only 26 feet between the house and the edge of the utility easement. A well and propane tank are located in the strip where a windbreak would have to go to provide any protection to the house.

Annual precipitation is about 15 inches. The plant cover is entirely grass, except at the south end of the property where yuccas grow. There is a natural willow clump around Wenzel Spring.

The soil is Baller stony sandy loam with a patch of colluvial soil in the front yard.

Baller stony sandy loam is a shallow, well-drained soil formed on uplands in loamy residuum weathered from sandstone (Dakota sandstone, in this case). The soil has rapid permeability and low available water capacity. The erosion hazard is high with hard sandstone at fifteen inches depth. There are no problems with alkalinity and gypsum. American plum, ponderosa pine and Rocky Mountain juniper are the best species.

Colluvial soils receive water and material from higher up the slope. They are usually stony and highly variable. Alkalinity problems frequently occur.

#### INVENTORY

Currently, there is only a small patch of native willows near the spring and a few ornamental trees in the yard.

#### WILDLIFE

Ducks have made use of the ponds in the past. Rabbits and other small animals still use them for water. The proximity to human activity limits the utility of the site.

#### PLANTING PROJECTS

Space is short on this lot. Only one of the following planting projects can be completed under cost-sharing; however, there would be no conflict if additional plantings were carried out at landowner's expense.

##### Shrub Thicket:

Purpose: To provide cover and a food source for song birds.

Description: A 1/10-acre shrub thicket are planned. It will occupy 0.1 acre and benefit 3.0 acres. It will be a cover strip between the house and the eastern pond.

STEWARDSHIP INCENTIVES PLAN

Rather than the usual square planting, a rectangular planting, or an arc could provide more lawn space and animal shelter at the same time. American plum is a hardy shrub and could provide both food and shelter. At a four-by-four spacing, 300 plants will be needed.

300 Bare-root shrubs @ \$0.38 ea.:	\$ 114.00
757 Staples @ \$43.40/1000:	32.87
726' Weed Barrier @ \$108.50/300':	<u>262.57</u>
SUB-TOTAL	\$ 409.44
Sales Tax (3%)	<u>12.28</u>
TOTAL, MATERIALS:	\$ 421.72
LABOR, PLANTING; 300 trees @ \$1.00 ea.:	300.00
LABOR, WEED BARRIER; 300 trees @ \$1.125 ea.:	<u>337.50</u>
GRAND TOTAL, BARE-ROOT SHRUBS:	\$1059.22
COST-SHARING:	<u>280.00</u>
NET COST:	\$ 779.22

"Forest" Thicket:

Purpose: To provide small animal shelter, particularly nesting sites for mourning doves, if the ponds can be re-conditioned.

Description: This is a tenth-acre shrub thicket. It will occupy 0.1 acres and benefit 3.0 acres. It will be located on the hill along the south property line at its east end. Ponderosa pine will be the best species. Ninety trees will be needed.

90 Large-pot ponderosa pines @ \$0.90 ea.:	\$ 81.00
757 Staples @ \$43.40/1000:	32.87
726' Weed Barrier @ \$108.50/300':	<u>262.57</u>
SUB-TOTAL	\$ 376.44
Sales Tax (3%)	<u>11.29</u>
TOTAL, MATERIALS:	\$ 387.73
LABOR, PLANTING; 90 trees @ \$1.00 ea.:	90.00
LABOR, WEED BARRIER; 90 trees @ \$1.00 ea.:	<u>90.00</u>
GRAND TOTAL, BARE-ROOT SHRUBS:	\$ 567.73
COST-SHARING:	<u>280.00</u>
NET COST:	\$ 287.73

Windbreak:

Purpose: To provide a wind barrier to protect the house.

Description: This is a three-row planting consisting of a row of American plum, a row of Rocky Mountain junipers and a row of ponderosa pines. Gaps can be left in the pine row for the propane tank and well; protection will not be as good, but it seems to be the best compromise. The drive prevents the needed 100-foot overlap on the north side. If possible, the turning loop should be removed to allow the planting to be extended. Protection

900'

from northwest winds will be poor in the front yard. The back and side yards will have excellent protection. The planting will require 100 American plums, 60 Rocky Mountain junipers and 60 ponderosa pines.

100 American plums @ \$0.38 ea.:	\$ 38.00
60 Rocky Mtn. junipers @ \$0.90 ea.:	54.00
60 Ponderosa pines @ \$0.90 ea.:	54.00
1221 Staples @ \$43.40/1000:	52.99
1200' Weed Barrier @ \$108.50/300':	<u>434.00</u>
SUB-TOTAL	\$ 632.99
Sales Tax (3%)	<u>18.99</u>
TOTAL, MATERIALS:	\$ 651.98
LABOR, PLANTING; 220 trees @ \$1.00 ea.:	220.00
LABOR, WEED BARRIER; 220 trees @ \$1.00 ea.:	<u>220.00</u>
GRAND TOTAL:	\$1091.98
COST-SHARING:	<u>400.00</u>
NET COST:	\$ 691.98

#### THE PONDS

The Colorado State Forest Service does not employ hydrologists or engineers. The problem seems straight-forward: holes in the plastic letting water escape. This, however, may not be the case. In order to obtain cost-sharing for this practice, a written opinion from a hydrologist or engineer is needed to the effect that the problem can be corrected and what that correction would be.

Another approach, seeing as engineers are expensive and inclined to design an elephant when the client only wanted a mouse, is to contact the Soil Conservation Service in Longmont. They have had experience with this sort of thing and a written opinion from them could serve the same function.

Under the heading of "Spring Development" (SIP-8), the Federal government may reimburse 75% of total cost, up to \$750.00 (This will drop to 65% of total cost, up to \$750.00 on January 16, 1993.). As \$750.00 is likely to be a lot less than 65% of the total cost, you may have second thoughts on the subject.

#### MAINTENANCE

You can expect about 15% loss during the first year a planting is in the ground. One year after planting, seedlings usually look terrible. Tenth-acre shrub thickets can tolerate about 30% loss without replanting, but windbreaks must be replanted if they suffer even minor losses to keep from losing their effectiveness.

These maintenance plantings may be cost-shared and generally pay the entire 65%. By the third year of a planting, transplant losses should no longer be a problem. A seedling is considered established after surviving five years.

Gaps in a windbreak are disastrous - the wind blows harder through the gap than it does on the open plain. Gaps wider than 1.5 times the specified spacing should be filled with trees at the next maintenance planting.

There are a number of things that should be done to enhance seedling survival and growth:

Grass is a vigorous competitor with tree seedlings. It drinks up water and adds compounds to soil to poison competition. Seedlings grow much better if they don't have to compete with it.


Weed barrier is a woven plastic cloth. It kills grass. Laid around tree seedlings, it provides needed relief from competition. It is expensive (\$2.17 per tree for widely-spaced trees). It is cheaper if seedlings are placed close together (like plums). Weed barrier used in windbreaks can be cost-shared. In 1/10-acre shrub patches, the cost of weed barrier is included in the totals.

#### RECOMMENDATIONS

On a 3.2-acre lot, where there is only room for one cost-shared practice and no obvious need for a required practice, the choice of what to do is left up to the landowner. If this were my property, I would probably start with a mixed-species shrub thicket, being sure to include sand cherry and American plum as two of the species (You can have up to six different species in one shrub thicket.).

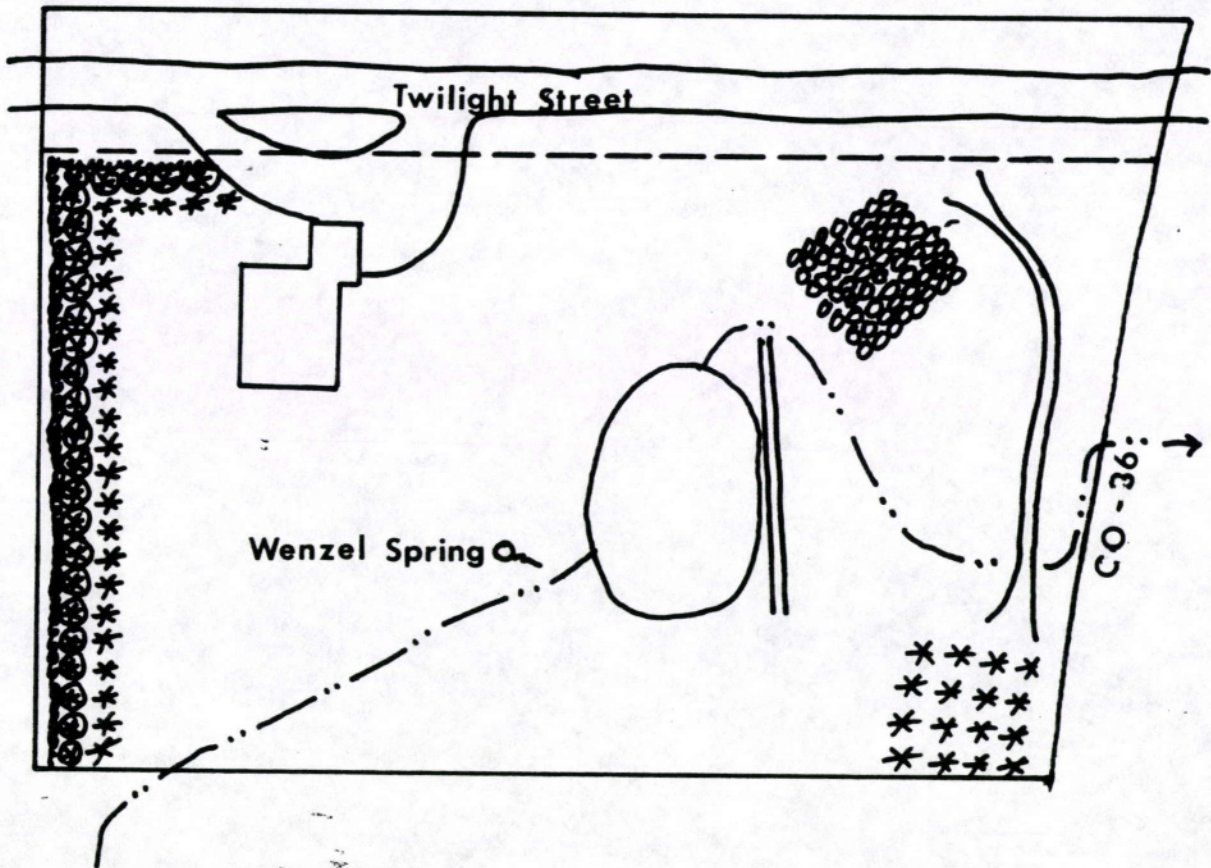
Mostly, which practice(s) you choose is a matter of personal preference. With care and effort, plantings here will provide many years of beauty and add to the pleasure of your home.

Respectfully Submitted By:

  
Douglas J. Stevenson  
Assistant District Forester

# MARY LOU BAUMHOVER

100 FEET



Drawn By: *Douglas J. Stevenson*

December 29, 1992