

FOREST STEWARDSHIP PLAN
FOR

Gary Mueller
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A Portion of
SW 1/4, Sec. 9
T1N, R69W of 6th PM
Boulder County

Prepared by:

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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 the 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.

Gary Mueller

4-2-92
DATE

STEWARDSHIP PLAN

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LANDOWNER OBJECTIVES

An initial visit was made with the landowner in January 1992. This visit was made in conjunction with a site visit with neighbor Wayne Bye to discuss the Forest Stewardship Program. It was determined at this time that the stewardship approach to managing the Mueller property was appropriate.

From this and subsequent visits, one with Colorado Division of Wildlife officer Tom Howard, and one with Rick Mullaney of the USDA Soil Conservation Service, the following objectives were identified.

1. Wildlife habitat improvement
2. Windbreak establishment
3. Soil protection
4. Pheasant raising (possibly for commercial use)
5. Aesthetic and recreation enhancement

GENERAL DISCUSSION

Location/Site Description

The Mueller property is located in east central Boulder County. It is located approximately six miles south of Longmont. The property is part of an "older" development known as Granja Este Estates. The development lies along the north "rim" of Boulder Creek about 3/4's of a mile from the drainage itself.

The land is characterized by flat terrain.

Climate

This portion of Boulder County lies within the Colorado Piedmont section of the Great Plains physiographic province. Elevations in this area are approximately 5000 feet. The Mueller property lies in the St. Vrain watershed - a tributary of the South Platte River Basin.

Climate in this portion is characterized by cold, dry winters and warm, relatively dry summers. Average precipitation is 13 inches per year with 80% occurring in the winter and spring months. Periods of drought are frequent, particularly in eastern Boulder County. Thunderstorm activity is prevalent and sometimes severe.

Mean annual air temperature is 48 to 52 degrees. The frost free season is about 140-155 days. The average January temperature in Longmont is 27 degrees. The average July temperature is 72 degrees. The area is characterized by generally low relative

humidity. The length of the growing season is approximately 140 days. In eastern Boulder County, the average date of the first killing frost is September 28. The average date of the last killing frost is May 11.

Land Use

Prior to the settlement of Boulder County, this area was characterized by short to mid-grass prairie. As settlement occurred, farming and ranching became the dominant land use practice. The most recent agricultural practice occurring on the property and general vicinity can be determined by 1) examining records with the ASCS and SCS and 2) discussions with local farmers/ranchers.

Current land use is primarily as a residence. Activities associated with maintaining a homesite constitute the primary impacts on the property. Future land use activities will include homesite maintenance activities, wildlife habitat improvement, pheasant production and recreational use.

INVENTORY

Woody vegetation is primarily associated with the landscape planting around the house. A Rocky Mtn. Juniper "windbreak" is located on the northwest corner of the property. Although not ideally located, the planting is well established. A shrub row of Lilac is located along the west property line with a small group (4-6) of Ash and Honeylocust situated at the south end of the shrub row.

Grasses both native and introduced cover the remainder of the property. Some weeds do exist as determined by Rick Mullaney, District Conservationist with the USDA Soil Conservation Service.

WILDLIFE

Current wildlife use on the property is limited due to its proximity to other lots and human habitation. Domestic animals also prohibits wildlife use as discussed during the February 13th visit with Tom Howard (DOW). Both small mammals and some large mammals do use the general area. Coyote, fox, skunk, raccoon, rabbit and small rodents are some of the wildlife species which use the surrounding area.

Wildlife habitat improvement is a major aspect of the Forest Stewardship Plan. Due to the size limitation and factors mentioned above, some objectives for game and non-game birds is possible, especially if adjacent landowners participate in a similar effort.

SOIL & WATER

Soil

Soil on the Mueller property is of the Ascalon-Otero Series. The specific soil is AoE. These soils are in Tree Suitability Group 4. See the soil map for soil location and description.

Water

No water resources (ditch, creek/drainage, pond, wetland) are located on the property. Boulder Creek lies approximately 3/4's of a mile to the south of the property. A catchment or small pond may be developed as part of the wildlife habitat enhancement effort.

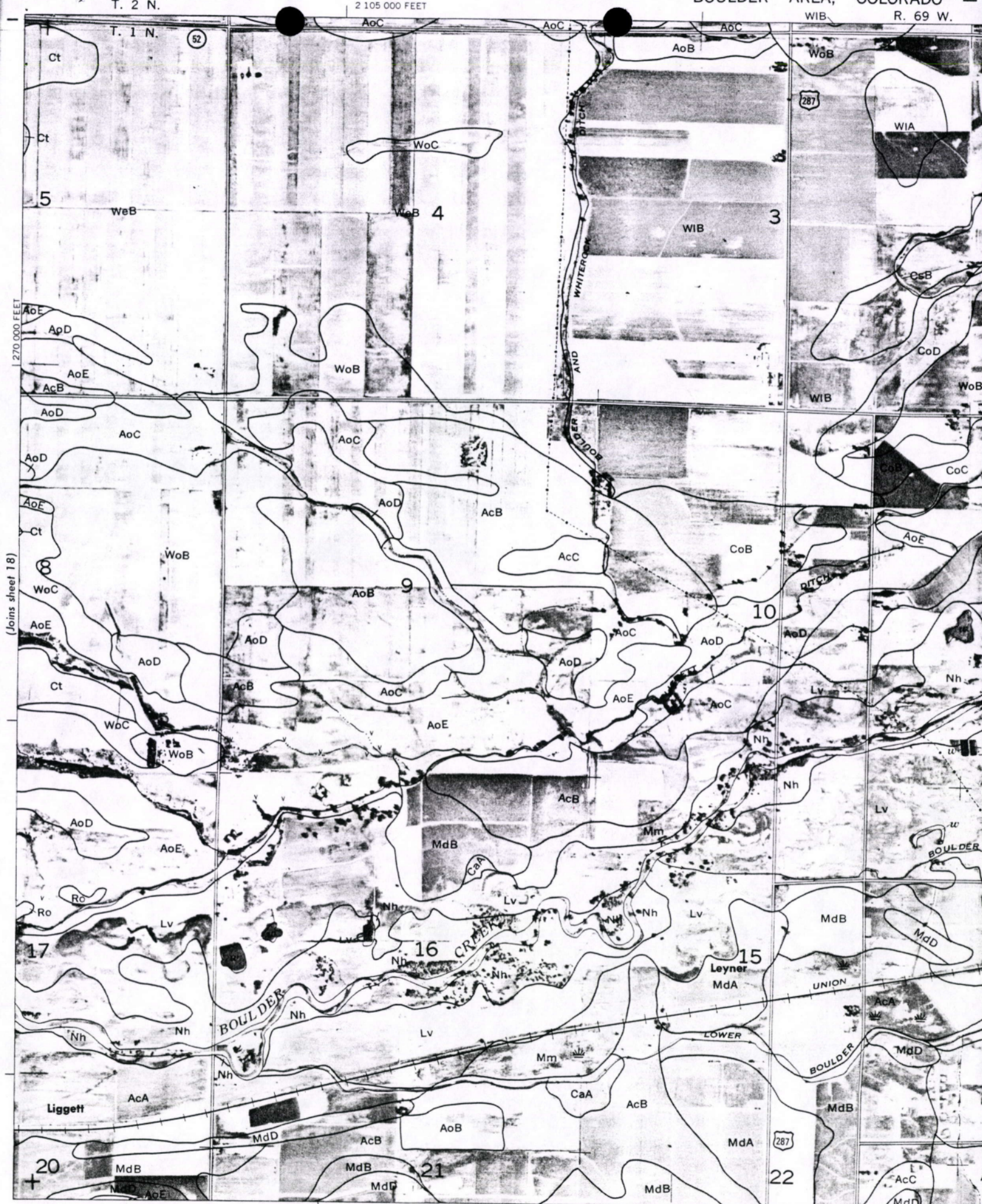
RECOMMENDATIONS

In order to implement the Forest Stewardship Plan and thus begin meeting the landowner's objectives, the following recommendations are being made.

1. Implement the first phase of planting to:
 - a) establish a homestead windbreak
 - b) establish initial wildlife habitat planting

Details of these plantings are shown on the Stewardship Project Plan in the appendix.

2. Conduct site visit with Herm Ball of "Pheasants Forever".
3. Implement subsequent plantings for wildlife habitat improvement.
4. Conduct weed control activities to promote existing grasses and supplement with seed as needed.
5. Add to and revise plan as landowner's goals change or as resource conditions warrant.



organic-matter content and tilth is important. (Capability units IIIe-6, irrigated, and IVe-7, nonirrigated; tree suitability group 4)

Ascalon-Otero complex, 5 to 9 percent slopes (AoD).—This complex is in the eastern part of the Area. It is about 50 percent Ascalon sandy loam and 35 percent Otero sandy loam. Ascalon sandy loam is less sloping than Otero sandy loam, which is on ridgetops and is steeper.

Ascalon sandy loam has a profile much like the one described as representative for the series, but the surface layer is about 6 inches thick.

Otero sandy loam has a profile much like the one described as representative for the Otero series, but the surface layer is about 8 inches thick.

Included with these soils in mapping are small areas of Kim soils, a few small areas having sandstone at varying depths, outcrops of sandstone along some of the drainageways, and small gravelly knobs less than 2 acres in size on the ridgetops. These included soils, outcrops, and gravelly knobs make up about 15 percent of each mapped area.

Runoff is rapid on the soils of this complex. The erosion hazard is high.

All of the acreage of this soil complex is used for irrigated and dryland crops and for pasture. (Capability units IVe-3, irrigated, and IVe-7, nonirrigated; tree suitability group 4)

Ascalon-Otero complex, 9 to 20 percent slopes (AoE).—This complex is in the eastern part of the Area. It is about 45 percent Ascalon sandy loam and 35 percent Otero sandy loam. The Ascalon soils are less sloping than the Otero soils.

Ascalon sandy loam has a profile much like the one described as representative for the series, but the surface layer is about 6 inches thick. In some areas that have been plowed deeply, the sandy clay loam subsoil is mixed with the surface layer.

Otero sandy loam has the profile described as representative for the Otero series.

Included with this complex in mapping are small areas of Kim soils, areas of sandstone outcrop less than 2 acres in size along drainageways, and small gravelly knobs near ridgetops. These included areas make up about 20 percent of the acreage mapped as this complex.

Runoff is rapid on this complex. The erosion hazard is high.

All of the acreage of this complex is used for dryland crops and for pasture. A few small areas are in native grass. (Capability unit VIe-2, nonirrigated; tree suitability group 4)

Baller Series

The Baller series is made up of shallow, well-drained soils. These soils formed on upland ridges in loamy residuum weathered from sandstone. Slopes are 9 to 35 percent. Elevations are 5,500 to 6,500 feet. The native vegetation is mainly mid grasses and scattered ponderosa pine and Rocky Mountain juniper. Annual precipitation is 16 to 20 inches. Mean annual air temperature is 47° to 51° F., and the frost-free season is 140 to 155 days.

In a representative brown stony sandy loam lying layer, about 5 inches thick, very stony sandy loam is neutral.

Baller soils have capacity for the production of between 10 and 15 tons of hay per acre.

These soils are used for

Representative profile for 35 percent slopes, located west of the northeast

A1—0 to 10 inches
loam, very
moist; moist
friable; 50
smooth bottom

C—10 to 15 inches
stony sand
when moist
60 percent
boundary.

R—15 inches, hard

The A horizon is
Sandstone bedrock
rock fragment content
percent and is dominant
in diameter).

Baller stony sand (Baf).—This soil is in the western part of the Area. It covers more than 100 acres on the surface and the

Included with this complex in mapping are small areas near the bottoms of the layer and a sandy clay loam are areas that are developed near ridgetops, are included soils and Rock of each mapped area.

Runoff is rapid on

All of the acreage of some places there are (Capability unit V group 6)

Calkins Series

The Calkins series are drained soils. They are on terraces and bottomlands. Elevations are 4,900 to 5,500 feet. Mean annual precipitation is 16 to 20 inches. Mean annual frost-free season is 140 to 155 days.

In a representative profile, the surface layer is 4 to 6 inches thick, is gray to a depth of 1 inch, gray coarse sandy loam. Soil reaction is neutral.

Calkins soils have available water capacity high. Roots can penetrate and the seasonal high or less.

s from 6 to 11 inches in thickness. In some places. Depth to lime ranges

to 1 percent slopes (AcA).—This is the eastern part of the Area. It occurs in areas larger than 15 acres in size. It is much like the one described in the series, but the surface layer is

In mapping are areas less than 15 acres in size with a water table at a depth of 4 to 6 feet. It has been leveled, there are small areas of thicker topsoil. Also included are areas of sandy loam, 1 to 3 percent slopes. These included soils make up about 10 percent of

the soil. The erosion hazard is slight. This soil is used for irrigated and dryland crops. (Capability units I, irrigated; tree suitability

to 3 percent slopes (AcB).—This is the eastern part of the Area. It occurs in areas more than 20 acres in size.

In mapping are a few wet areas at a depth of between 4 and 5 feet. These included soils make up about 10 percent of each mapped

area on this soil. The erosion hazard

The acreage of this soil is used for irrigated and dryland crops. The remaining third is used for dryland crops. (Capability units IIe-2, irrigated, and IIIe-8, nonirrigated; tree suitability group 4)

3 to 5 percent slopes (AcC).—This is the eastern part of the Area. It occurs in areas that are ordinarily more

like the one described in the series, but deep plowing has been done with the upper part of the subsoil. In mapping, where the land has been eroded, are areas that are near ridge crests. Some areas near ridge crests are also included are areas where the surface, and small areas of Ascalon-like soils. These included soils make up about 10 percent of each mapped area.

This soil. The hazards of water are moderate to high.

The acreage of this soil is used for irrigated and dryland crops. The remaining third is used for dryland crops. (Capability units, IIIe-6, irrigated; tree suitability group 4)

5 to 9 percent slopes (AcD).—This is the eastern part of the Area. In some places the surface layer is

The profile of this soil is much like the one described as representative for the series, but in places the surface layer is about 6 or 7 inches thick.

Included with this soil in mapping are small areas less than 2 acres in size having sandstone or shale at a depth of less than 30 inches. Also included is Otero sandy loam, Ascalon sandy loam, 3 to 5 percent slopes, and areas that have a surface layer of sandy clay loam. These inclusions make up about 20 percent of each mapped area.

Runoff is rapid on this soil. The erosion hazard is high.

Almost all of the acreage of this soil is cultivated. (Capability units IVe-3, irrigated, and IVe-7, nonirrigated; tree suitability group 4)

Ascalon-Otero complex, 0 to 3 percent slopes (AoB).—

This complex is in the eastern part of the Area. It is made up of about 60 percent Ascalon sandy loam and about 30 percent Otero sandy loam. Ascalon sandy loam is on the more nearly level part of the landscape that has received little or no leveling. Otero sandy loam is on the more sloping part that has been leveled with deep cuts.

Ascalon sandy loam has a profile much like the one described as representative for the series, but in some areas that have been leveled or eroded, the surface layer is thicker or thinner.

Otero sandy loam has a profile similar to the one described as representative for the Otero series, but the surface layer is about 17 inches thick.

Included with this complex in mapping are small areas of Kim soils and some areas of Ascalon-like soils that have a lighter colored surface layer. These included soils make up about 10 percent of each mapped area.

Runoff is slow to medium on this complex. The erosion hazard is moderate.

All of the acreage of this complex is used for irrigated and dryland crops. Maintenance of organic-matter content is important, particularly on areas where the surface layer has been removed by leveling. Some areas near the larger towns are being converted to urban uses. (Capability units IIe-2, irrigated, and IIIe-8, nonirrigated; tree suitability group 4)

Ascalon-Otero complex, 3 to 5 percent slopes (AoC).—

This complex is in the eastern part of the Area. It is about 55 percent Ascalon sandy loam and about 35 percent Otero sandy loam. Ascalon sandy loam is on the smoother slopes and below the crests of the ridges. Otero sandy loam is on the tops of the ridges and in areas that have been leveled.

Ascalon sandy loam has a profile similar to the one described as representative for the series, but the surface layer is about 6 inches thick. In some places the surface layer is lighter colored than typical.

Otero sandy loam has a profile similar to the one described as representative for the Otero series, but the surface layer is about 10 inches thick.

Included with this complex in mapping are small areas of Kim soils and a few small areas of Weld fine sandy loam, 1 to 3 percent slopes. These included soils make up about 10 percent of each mapped area.

Runoff is medium on the major soils of this complex. The erosion hazard is moderate to high.

All of the acreage of this complex is used for irrigated and dryland crops and for pasture. Maintenance of

PHILLIPS

ROAD

MUELLER PROPERTY
STEWARDSHIP PROJECT PLAN

Planting Plan
1993

LEGEND

Property Boundary ————
Driveway/House ————
Trail - - - -
Powerline — 0 — 0

Planting Plan Items

Row 1 Nanking Cherry 530 ft. 5 ft. spacing
Row 2 Honeylocust 132 ft. 10 ft. spacing
3 Thicket #1 Am. Plum
4 Thicket #2 D.-fir/CO Blue Spruce

