

Joint Timber Management Plan

For Andrea Casanova

For

Parcel B

In

Portions of Section 31, T1N, R1W, H. B. & M.

&

Portions of Section 36, T1N, R2W, H. B. & M.

Prepared by  
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**Casanova - McBride JTMP  
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## **I. Introduction:**

The properties owned by Andrea Casanova and McBride Properties are located ~11.75 miles southwest of Fortuna, California off of existing seasonal, private roads. This timber management guide was prepared to facilitate a lot line adjustment between two existing parcels in order to improve parcel configurations. Parcels A and B are a minimum of 160 acres. Parcel A is currently 310 acres (with < 1 acre of Agriculture Exclusive (AE)). Following the lot line adjustment, Parcel A will remain 310 acres with <1 acre of AE. Parcel B is currently 161 acres (with ~ 32 acres of AE). Following the lot line adjustment, Parcel B will be 161 acres with ~32 acres of AE. This timber management guide was prepared in order to facilitate the lot line adjustment.

### **Landowner's Name and Address:**

**Andrea Casanova**  
2778 SW Patton Ln.  
Portland, OR 97201

**McBride Properties**  
P.O. Box 457  
Ferndale, CA 95536-0457

### **Parcel B**

Parcel to be owned by Andrea Casanova

### **Parcel A**

Parcel to be owned by McBride Properties

## **I. Stocking**

The property (Parcel B) consists of three age classes of timber; regeneration, pole and small merchantable timber, and large saw timber. The parcel currently has 77% of the area stocked with conifers (to state standards) with the rest of the property containing hardwood species (see below) and/or open prairies. The hardwoods present on the subject property (Parcel B) are predominantly tan oak, madrone, pepperwood and other miscellaneous hardwoods. The predominant conifer species are Douglas-fir, grand fir and Monterey pine. The species composition, including the dominance of hardwood over portions of the parcels, is a result of historic harvests that predominantly targeted the conifers with minimal reforestation post harvest.

Parcel B – 77% Stocked with Conifers

Note: Stocking percentages represent the timbered portions of the parcel.

## II. Access

The parcel may be accessed by way of Mattole Road (County), Bear River Ridge Road (County), Upper Bear River Road (County), with various existing seasonal roads located within and adjacent to the parcels utilized in accessing the interior of the parcel (see Project Area Zoning Map: Page 14).

Parcel B is accessed via two existing seasonal roads. One of the previously mentioned roads (Road Section A) leaves Parcel B and crosses onto Parcel A before returning to Parcel B. This access shall be granted in the form of a right-of-way to Parcel B following the split. Two reaches of this same road (Road Sections B & B.1) shall be retained in the form of a right-of-way for Parcel A following the split. Another portion of this same road (Road Section C) shall have a right-of-way granted to the owner of Parcel A following the split, as it provides access to a large portion of Parcel A. Additional roads provide access to the interior of the parcel. (Please see Project Area Zoning Map for depictions of right-of-way road segments.)

The existing seasonal road which accesses Parcel B runs generally northwest to southeast. The roads accessing Parcel A run northwest to southeast and northeast to southwest. The boundaries of the parcels are located approximately 11.75 miles southwest of Fortuna, CA.

## III. Management Statement

These parcels are located approximately 11.75 miles southwest of Fortuna, CA.

The Zoning is Timber Production Zone (TPZ) and Agriculture Exclusive (AE).

Parcel B is made up of site II timberland (10%), as well as site III timberland (81%) and site IV timberland (9%). This parcel is located on a main ridgeline running northwest to southeast and northeast to southwest. The parcel is timbered with younger mixed stands of Douglas-fir, Monterey pine, grand fir, tan oak, madrone and pepperwood. 20% of Parcel B is considered agricultural lands (Agriculture Exclusive zoning).

**The Management Objectives** for the parcels are:

1. Improve timber growth through future selective harvests.
2. Create and maintain uneven aged stands using selective harvests.
3. Maximize recreational, aesthetic, and wildlife values through controlled harvests.
4. Maximize timber production by restocking under stocked areas.

## IV. Property Description

### A. Legal Description:

#### Parcel A

Portions of the E ½ of Section 36, T1N, R2W, H. B. & M.

Portions of the NW ¼ of Section 31, T1N, R1W, H. B. & M.

Assessor's Parcel Number: 102-092-004 & A Portion of 102-151-001

#### Parcel B

Portions of the NW ¼ of Section 31, T1N, R1W, H. B. & M.

Portions of the SW ¼ of Section 31, T1N, R1W, H. B. & M.

Portions of the NE ¼ of Section 36, T1N, R2W, H. B. & M.

Assessor's Parcel Number: 102-151-001 & A Portion of 102-092-004

B. Location and legal status of Right-of-Way and Easements:

The properties are accessed from private existing seasonal roads after leaving a county road (Upper Bear River Road).

Parcel B is accessed by way of an existing seasonal road that splits into two existing seasonal roads. One of the seasonal roads crosses an adjacent landowner's property (Parcel A – Road Section A) before returning to the parcel. This access route shall be granted in the form of a right-of-way following the split. Refer to the General Location Map and Project Area Zoning Map for road locations.

Parcel A is accessed by an existing seasonal road which requires an easement. Two reaches of existing seasonal road (Road Sections B & B.1) shall be retained in the form of a right-of-way following the split. Another stretch of this road (Road Section C) crosses parcel B before returning to Parcel A. Parcel B shall grant Parcel A a right-of-way on this road section. Refer to the General Location Map and Project Area Zoning Map for road locations.

All rights-of-way or easements granted or retained shall be for all legal purposes allowed by the county of Humboldt.

C. Location of Improvements and Non-Timber Production Uses:

As indicated above, a portion of Parcel B is zoned Agriculture Exclusive (20% of Parcel B). The balance of the parcel is zoned TPZ. The parcel currently has been developed and has springs for water supplies.

## **Domestic Water, Aspect, and Soils:**

### **Parcel B -**

There are domestic water supplies located within this parcel. There are no known domestic water supplies within 1,000 feet downstream of the parcel boundary.

The parcel is located on broad trending ridges running northeast to southwest and northwest to southeast. The parcel is located mainly on north and west facing slopes. Elevation ranges from approximately 1,400 feet to approximately 2,600 feet. The temperature extremes on the parcel are moderated by the proximity to the ocean but are characteristically hot and dry during the summer and cold and wet during the winter.

The soils within the parcel are made up of Hugo (812) and Wilder (840). The Hugo and Wilder soils occur individually. The Hugo soil series has a depth of 36 to greater than 48 inches. The Wilder soil series has a depth of 24 to greater than 48 inches. The Hugo soils are considered to have good drainage. The Wilder soils are considered to have excessive drainage. The Hugo soils are rated medium to very high for timber production, while the Wilder soils are rated questionable and medium to high for timber production based on the Soil-Vegetation Maps of California. The parcel contains site II, III, and IV timberland designation.

The following Stand and Stock Table was based on a variable plot cruise performed by James L. Able Forestry Consultants, Inc., in 2017 in which plots were systematically placed on a 2 ½ X 5 chain grid over the entire property. At each plot, data was collected to determine the growth and yield of the parcel. Current stand tables were generated utilizing the data collected during this variable plot cruise and a stand table projection growth model. These calculations were field verified utilizing basal area sampling and ring count growth evaluation.

**Parcel B – 2017 Stand Table**

DBH	DOUGLAS-FIR	GRAND FIR	MONTEREY PINE
6	7,380	0	0
8	3,774	0	0
10	2,174	0	246
12	3,690	0	513
14	1,602	0	754
16	566	0	337
18	522	0	152
20	483	31	0
22	100	25	0
24	42	0	0
26	179	0	0
28	62	0	0
30	54	0	0
32	24	0	0
34	21	32	0
36	37	0	0
38	33	0	0
40	30	15	0
42	0	0	0
44	25	0	0
46 +	63	0	0
T	20,859	103	2,003

Note: The above table indicates the total number of trees on Parcel B as a whole.

**CONIFER GROWTH PER ACRE PER YEAR**  
(Douglas-fir, grand fir, Monterey pine) 543 Board Feet

Conifer Stocking – 77%

Note: Conifer Growth and Conifer Stocking represents the timbered portion of the parcel.

## V. Management Description

### Management History:

The properties were harvested in the mid 1950's with some range land grazing taking place. Burning was a management tool that was also utilized on the properties. The previously mentioned harvests included a mix of conifer and hardwood management prescriptions using the selection method (single tree/group) in order to attain uneven aged stands of timber. The main private road system has been maintained and upgraded at various times.

### Recommended Silviculture:

Due to the overall gentle to moderate slopes, aspect, stocking, species mix, age classes present and site conditions (moderate to good) of the parcels, moderate amounts of timber management have taken place over the past 25 years. With the conditions present, and the desires of the owners, the timber would be best managed under uneven aged management. This type of silviculture would utilize single tree and group selections and would remove the hardwood as it becomes merchantable while increasing the conifer component over the area. Regeneration of the area would utilize artificial conifer regeneration in conjunction with natural conifer regeneration to ensure adequate site occupancy. Group selection units can be no larger than 2.5 acres in size and must be separated by areas of like size. This would mean that only a portion of the area would be harvested at any one time. The use of uneven aged management on these parcels will mean that merchantable volume could be harvested periodically, while maintaining a forested component. The retention of standing timber will act as shade and a seed source. This will be beneficial on the harsher sites.

### Cutting Cycle, Stand Regulation and Regeneration, and Intermediate Treatments:

Due to the current species composition, with much of the area having a large hardwood component and the size and age of the current stands, the initial entry (single tree/group selection) should occur within 10 – 20 years (by year 2038) on the parcel. On Parcel B, the majority of the area has merchantable Douglas-fir, grand fir, Monterey pine and hardwood which could be harvested at this time and it is anticipated that the initial entry will occur within the time frame indicated. This merchantable volume is, or will be present over the majority of the parcel. These areas could be harvested under a selection type harvest (single tree/group selection). This type of harvest would remove about one fourth to one third of the merchantable timber available at the time of harvest. Such harvests should be done favoring retention of conifer growing stock and removal of some of the larger hardwood component. Artificial regeneration should be used (conifer seedlings, Douglas-fir and/or redwood) to capture the site. If artificial regeneration is used, the seedlings will be planted to approximately 300 seedlings per acre.

The second entry would occur when more of the timber, both conifer and hardwood, has become merchantable and where the crowns have closed out in the area that was previously harvested. A single tree or group selection type harvest should be used to remove more of the hardwood component and incidental conifers. This should take place approximately 10 to 15 years following the first entry. Artificial regeneration should be used (conifer seedlings, Douglas-fir and/or redwood) to capture the site. Seedlings should be planted to approximately 300 seedlings per acre.



The third entry should be anticipated on the parcel within 10 to 15 years following the second entry. This entry will be a single tree and/or group selection with a focus on removing merchantable hardwood and incidental conifers. After this entry much of the merchantable hardwood on the parcel should have been harvested. In areas where seedlings are planted, approximately 300 trees will be planted per acre.

The fourth entry should be anticipated within 10 to 15 years following the third entry. This harvest would be a single tree selection and/or thinning on the first area harvested and those areas that were young regeneration during the initial entry. The thinning will favor the best growing, most wind firm trees as leave trees. Approximately 30% of the basal area would be removed. The scattered residual conifers in the harvest area would also be removed in conjunction with the thinning of the new age class.

The fifth entry should be anticipated 10 to 15 years following the fourth entry. The harvest would be primarily a single tree selection and/or thinning on the second area harvested, favoring the best growing, most wind firm trees as leave trees. Approximately 30% of the basal area would be removed. The scattered residual conifers associated with the selection area would also be removed in conjunction with this harvest. Group selection harvest could be done on these larger scattered residual conifers and hardwoods and poorly stocked areas as well.

This type of harvesting would allow for an area to be entered while still maintaining growth and a forested component. The entries would be staggered due to the initial harvest dates. The initial thinning harvests would occur on an area over a possible 10 to 15 year period beginning at age 45 - 55 years with selections occurring at approximately age 60.

Expected Yields:

**Parcel B-**

The present growth rate for the parcel is approximately 543 board feet per acre per year. This is not indicative of the potential of this property. If the property were fully stocked with conifers, the growth rate would be approximately 793 board feet per year at the current, average, stand age of approximately 40 years. This would indicate, according to published Yield Tables, Site III lands should have approximately 31,700 board feet per acre at 40 years of age. These published tables were calculated for even aged stands. Uneven aged stands are the planned management objective for the parcel, and so the average volume per acre should be less than the projected volumes.

**Condition of Access System:**

The appurtenant access is made up of various seasonal roads. Parcels B contains various existing seasonal roads within its boundaries. These roads are in generally good condition. The majority of the roads are usable for vehicular traffic at this time. Some of the seasonal road system requires minor reconstruction and surface blading.

Harvesting System:

**Parcel B-**

The slopes on the parcel range from 0% to 80% with approximately half of the area in the 30% range and half in the 60% range. There are numerous existing skid trails and truck roads that would provide access into the majority of the parcel. The proposed yarding system is tractor-cable option. A tractor/rubber tired skidder would be used due to the gentle to moderate slopes present within the parcel and the existing road and skid road system, while a cable yarder could be used on the steeper slopes. (see Harvest System Map)

Protection from Fire:

During the summer months, the project area is hot and dry. During this season, fire may pose a serious threat, particularly in rural settings such as this one. Any housing structures should be constructed in accordance with PRC 4290 which mandates landowners to provide adequate access for fire trucks, the use of fuel brakes and fire resistant structures and building materials. The landowner should also strive to keep fuel loads to a minimum.

Logging slash should be treated as follows:

Within 100 feet of the edge of public roads, and within 50 feet of the edge of the traveled surface of permanent and seasonal private roads open for public use, where permission to pass is not required, slash created by timber operations or road construction should be treated by lopping for fire hazard reduction, piling and burning, chipping, burying or removal from the zone.

All woody debris created by timber operations greater than one inch but less than eight inches in diameter within 100 feet of permanently located structures maintained for human habitation should be removed or piled and burned. All slash created between 100-200 feet of permanently located structures maintained for human habitation should be lopped for fire hazard reduction, removed, chipped or piled and burned.

Local fire protection agencies are listed as follows:

Ferndale Fire Department  
436 Brown Street  
Ferndale, CA 95536  
(707) 786-9909

Or

CALFIRE  
Fortuna Station  
118 N. Fortuna Blvd.  
Fortuna, CA 95540  
(707) 725-4413

#### Emergency Vehicle Access and Emergency Egress:

The parcels can be accessed from the north (adjacent owner) by the existing seasonal road system for emergency vehicles (See Project Area Map). Roads constructed on the parcel should be in accordance with PRC 4290, which mandates road widths, turn around areas and other physical characteristics, which would accommodate emergency vehicles.

#### Protection from Insects and Disease:

Disease and insect epidemics are not common in the area, and the parcels do not appear to have significant insect or disease problems. However, the proposed harvest should promote healthy, vigorous trees while eliminating those trees which might be the least resistant to attack by insects or diseases. The promotion of a healthy stand should decrease the chances of insect or disease problems.

It should be noted that these parcels are within the Sudden Oak Death "Zone of Infestation" declared by the California Board of Forestry. Any harvest or removal of timber or forest products must comply with the limitations set forth at the time of harvest by the California Department of Forestry and/or the California Department of Food and Agriculture to prevent the spread of the pathogen.

#### Erosion:

Erosion does not seem to be much of an issue on the parcels. However, as a means to prevent erosion problems, adequate drainage facilities such as waterbars, rolling dips and culverts should be installed wherever needed on the existing road system. Road cuts should be kept to a minimum and located in areas which will require the least amount of excavation. Tractors should be excluded from any watercourses, and skid trails and roads should have waterbars, rolling dips and/or cross drains placed in accordance to the Forest Practice Rules.

#### **VI. Management Organization**

There is no timber harvest permit currently in place for the property. Any future timber harvest operations must be under a timber harvest permit and must conform to the current Forest Practice Rules and will require the services of a Registered Professional Forester to prepare and review the management and harvest activities proposed in either a Timber Harvest Plan (THP) or Non-Industrial Timber Management Plan (NTMP). Timber Harvest Plans can cost upwards of \$20,000 - \$30,000, while NTMP's can cost upwards of \$40,000 - \$50,000. The cost to activate the NTMP can range from approximately \$2,000 to \$4,000. Once an approved NTMP or THP is activated, logging costs, road reconstruction and trucking can range from \$250 to \$350 or more per thousand board feet harvested. The Department of Fish and Wildlife and Water Quality also require a fee for review and issuance of permits for the project.

## VII. Management Schedule

As previously outlined in the Management Description, the first harvest could occur within approximately 10 to 20 years on the parcel. Harvesting should be conducted during the normal operating season (April 1st - October 15th). Planting activities should take place after November 1st or after at least 2" of rainfall has been recorded, whichever occurs first. Fire protection facilities should be installed before the commencement of fire season, or directly after harvesting or road building activities are complete.

The previously described management recommendations were provided to achieve high quality, conifer timber by maximizing their growth rate and growth potential. The proposed uneven aged management should provide protection for wildlife and watershed concerns. This parcel could be managed in a number of different ways to promote different types of wood products or it could be left unmanaged. The landowner should participate in every aspect of land management decision making. Management decisions should be based on the landowner's needs and desires. These decisions should be amended into this management guide.

This management plan must be updated every five years. Updates should reflect any changes in the Forest Practice Rules, current ownership's, stand conditions, or recommended treatments.



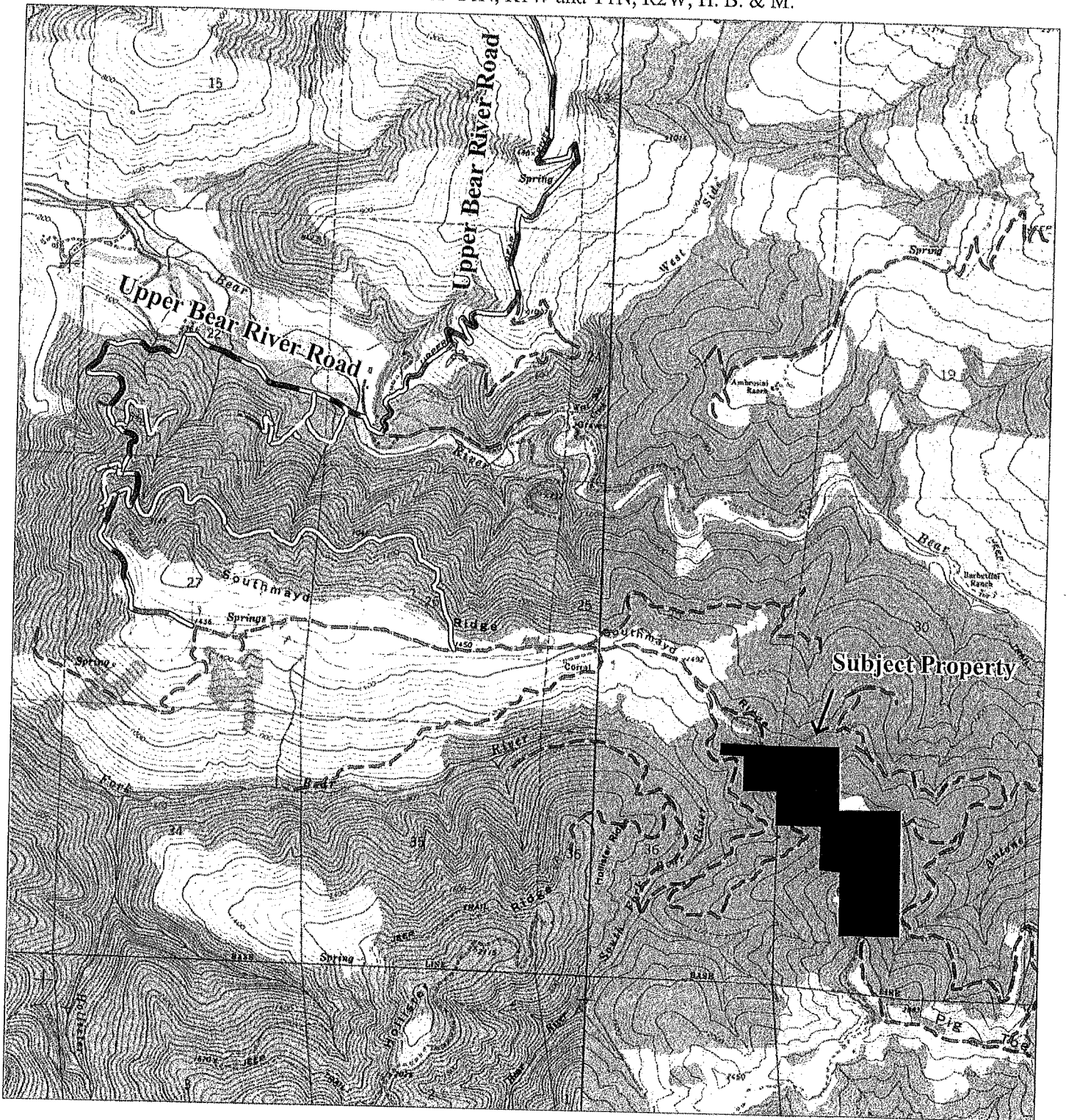
Eric C. Taft, RPF #3036

1/22/18  
Date

Casanova - McBride  
Joint Timber Management Plan  
General Location Map



Portions of T1N, R1W and T1N, R2W, H. B. & M.

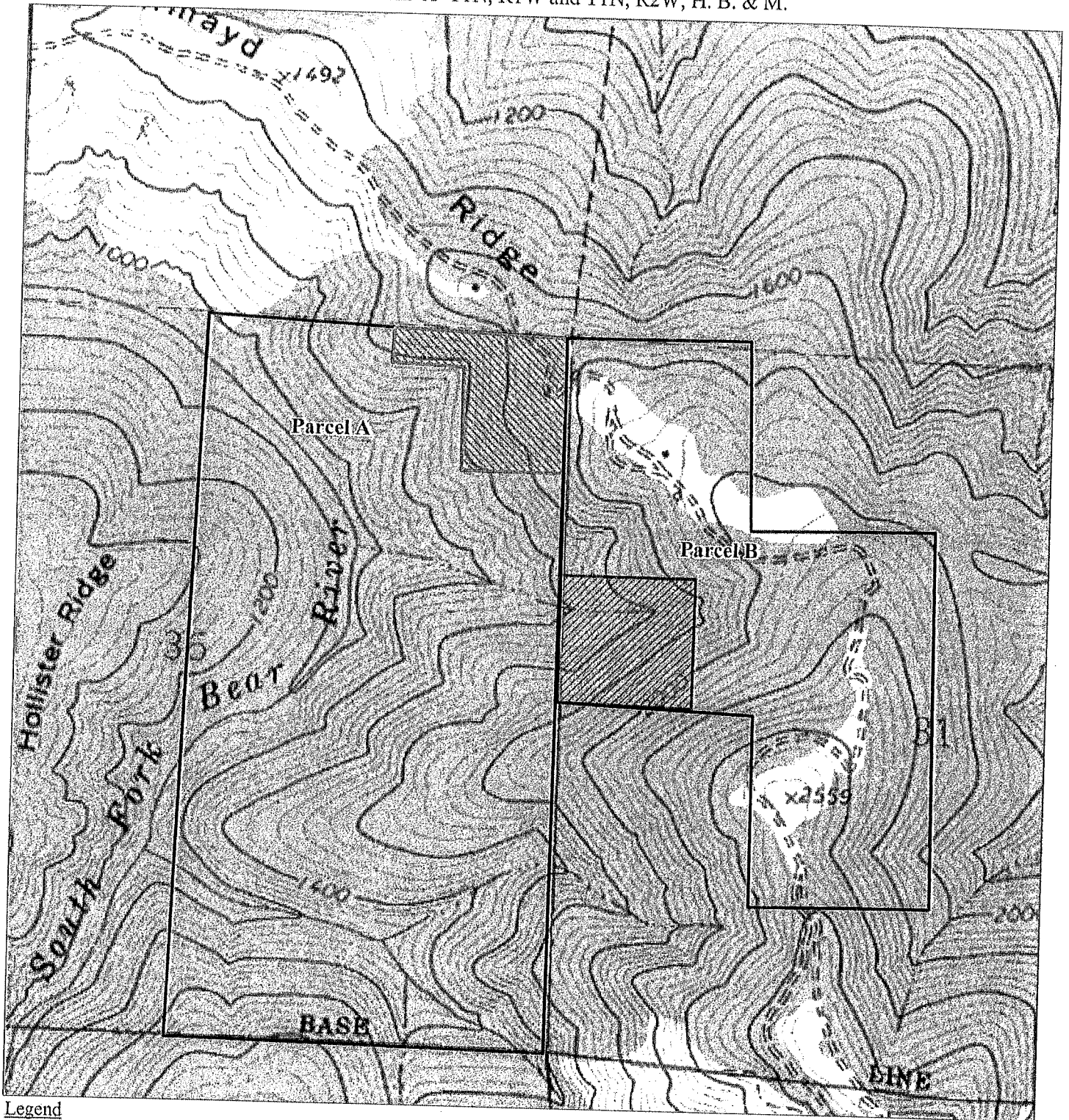


Scale 1" = 3,000'

Casanova - McBride  
Joint Timber Management Plan  
Project Area Map  
USGS Quad






Portions of T1N, R1W and T1N, R2W, H. B. & M.



Legend

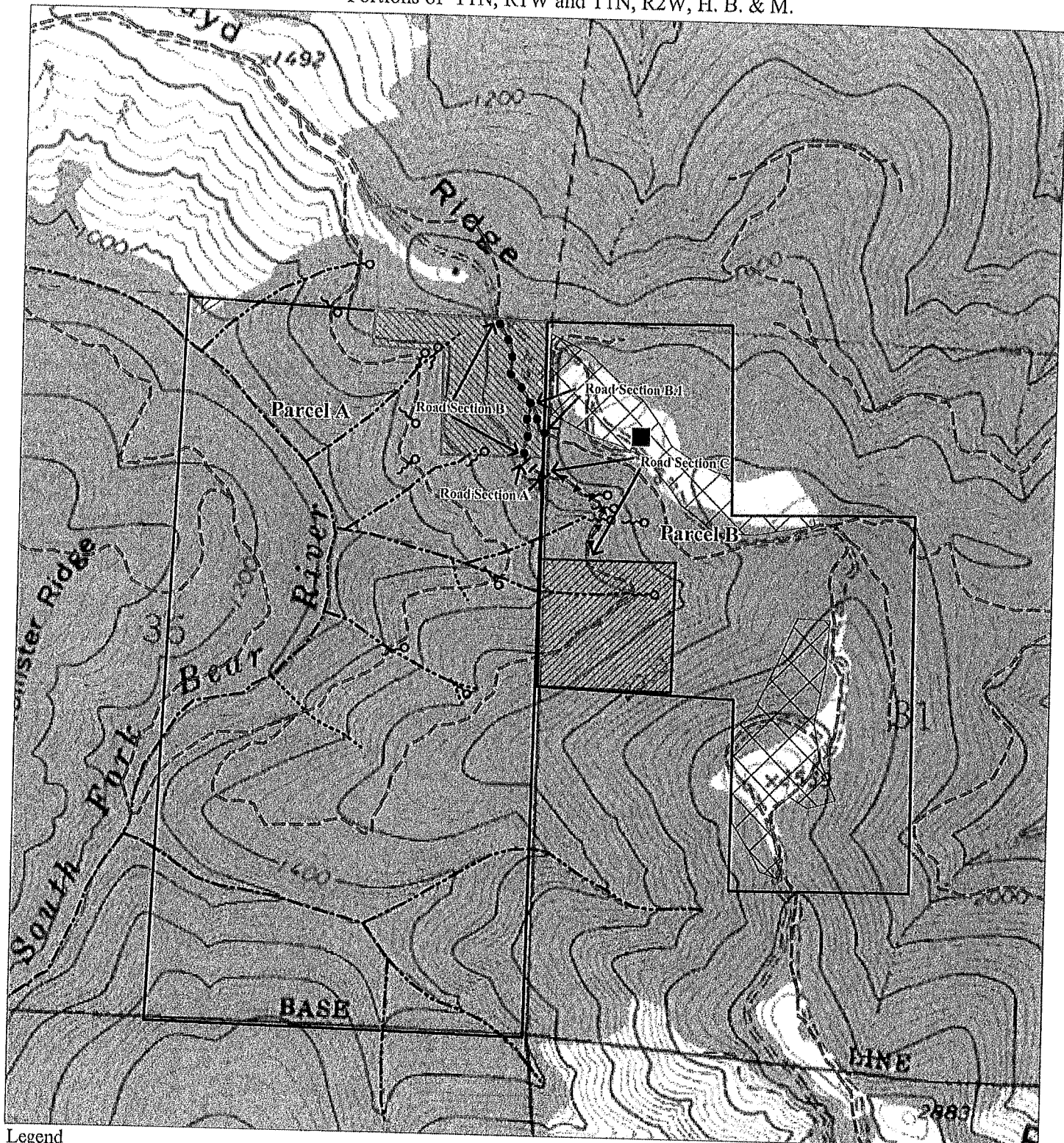
Scale 1" = 1,000'

-  Property Boundary/Parcel Boundary
-  Parcel A Transfer To Andrea Casanova
-  Parcel B Transfer To McBride Properties

Casanova - McBride  
 Joint Timber Management Plan  
 Project Area Zoning Map



Portions of T1N, R1W and T1N, R2W, H. B. & M.



Legend

Scale 1" = 1,000'

- Property Boundary/Parcel Boundary
- Parcel A Transfer To Andrea Casanova
- Parcel B Transfer To McBride Properties
- Residence
- Watercourses
- Springs
- Existing Seasonal Road
- Right-of-way Retained by McBride Properties
- ▲▲▲▲▲▲▲▲ Right-of-way Granted to McBride Properties
- ||||| Right-of-way Granted to Andrea Casanova
- Agriculture Exclusive (AE)

Note: The balance of the areas are zoned TPZ.

Casanova - McBride  
Joint Timber Management Plan  
Project Area Photo

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Portions of T1N, R1W and T1N, R2W, H. B. & M.



Legend

Scale 1" = 1,000'

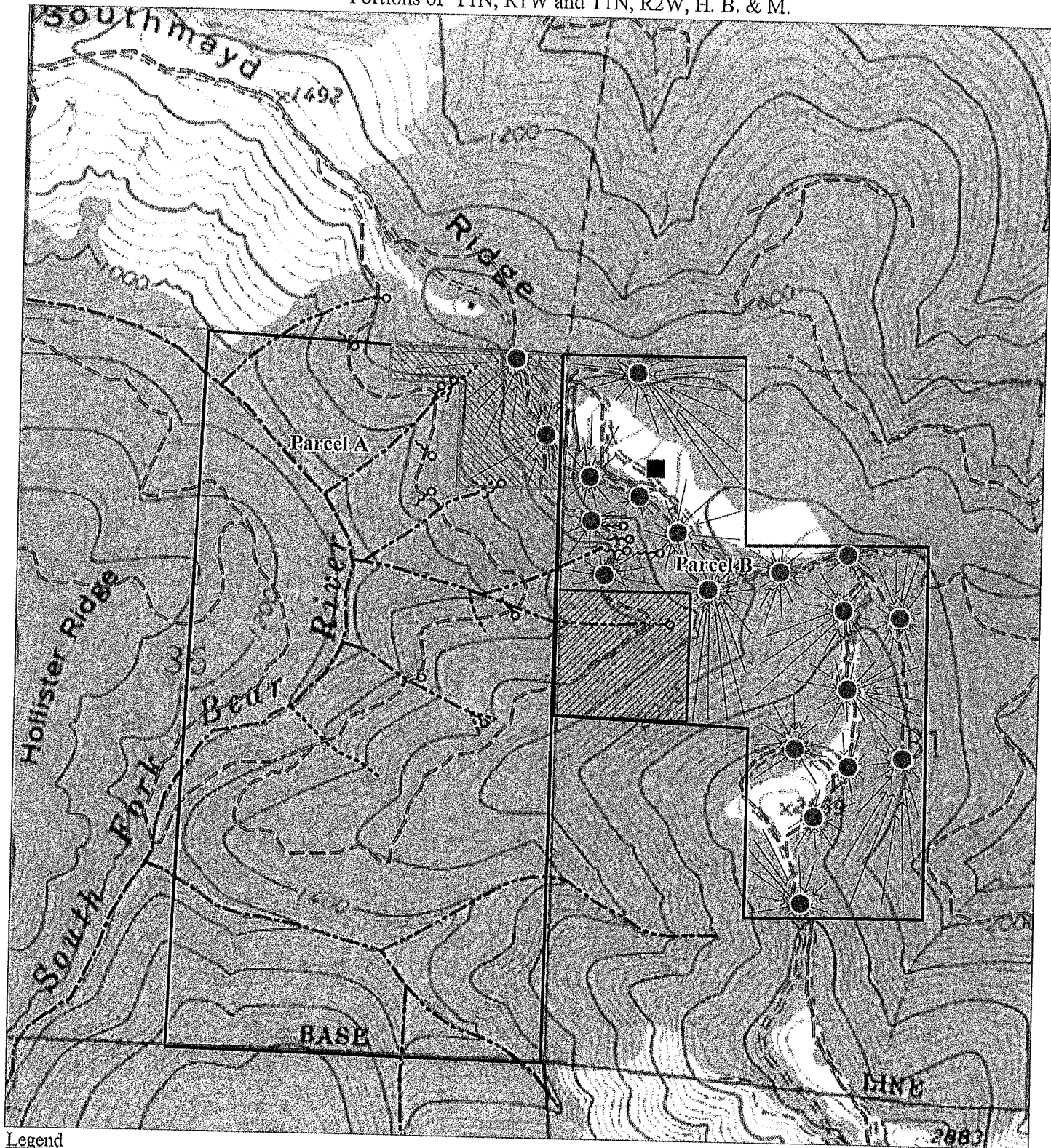
- Property Boundary/Parcel Boundary
- ▨ Parcel A Transfer To Andrea Casanova
- ▨ Parcel B Transfer To McBride Properties
- Residence
- - - - - Watercourses
- - - - - Existing Seasonal Road






Casanova - McBride  
 Joint Timber Management Plan  
 Harvest System Map




Portions of T1N, R1W and T1N, R2W, H. B. & M.



Legend

- Property Boundary/Parcel Boundary
-  Parcel A Transfer To Andrea Casanova
-  Parcel B Transfer To McBride Properties
-  Residence
- Existing Seasonal Road
- Watercourses
- ~o Springs

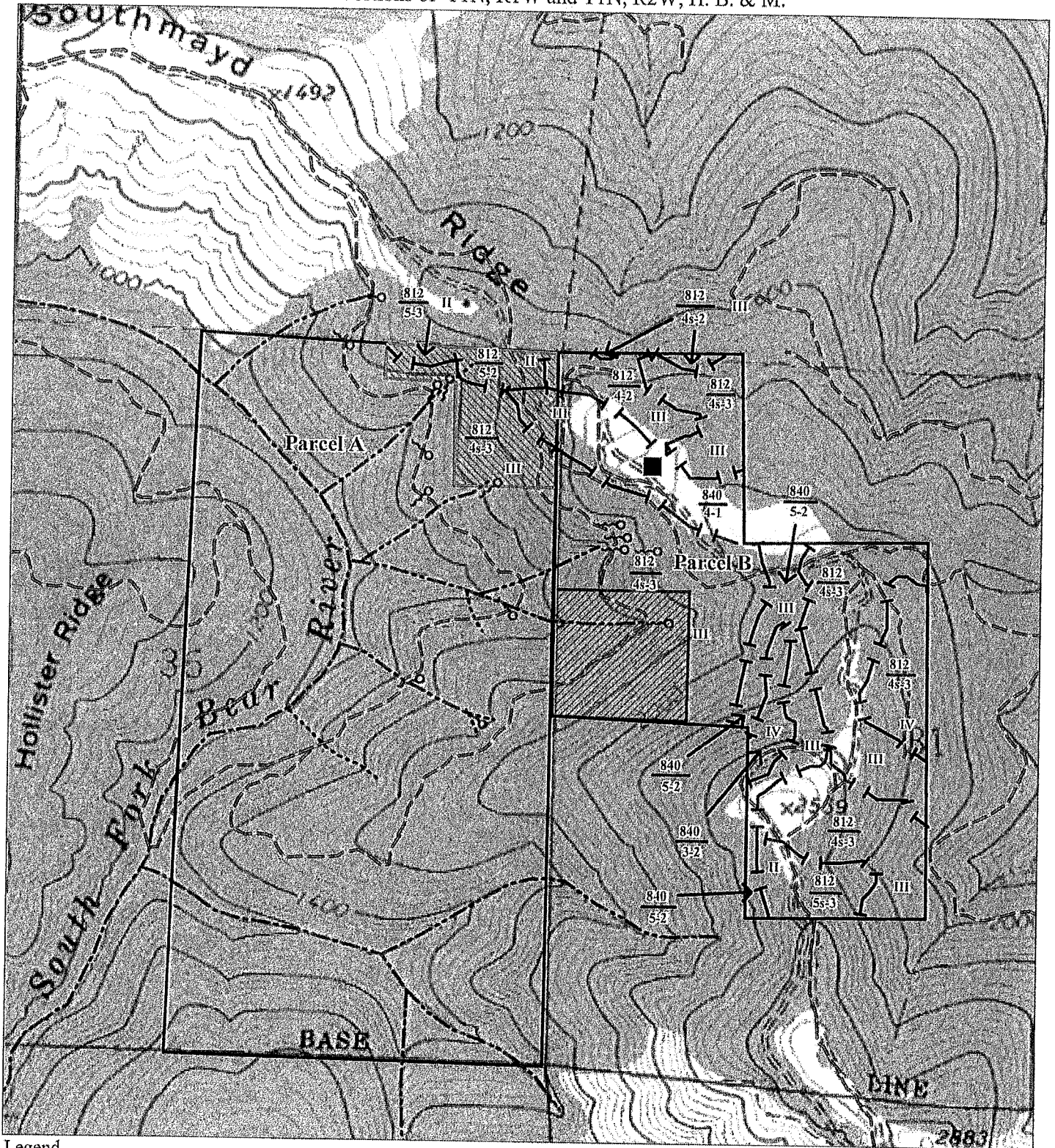
-  Landing Location
- Ground Based Skidding Pattern

Scale 1" = 1,000'

Casanova - McBride  
 Joint Timber Management Plan  
 Soils & Site Map

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1

Portions of T1N, R1W and T1N, R2W, H. B. & M.



Legend

- Property Boundary/Parcel Boundary
- ▨ Parcel A Transfer To Andrea Casanova
- ▨ Parcel B Transfer To McBride Properties
- Residence
- Existing Seasonal Road
- |— Soil/Site Boundary

- Watercourses
- ~o Springs

Scale 1" = 1,000'

Soil Types/Site

812/II	Hugo/Site II
812/III	Hugo/Site III
840/III	Wilder/Site III
840/IV	Wilder/Site IV