

MINUTE ITEM
This Calendar Item No. C11
was approved as Minute Item
No. 11 by the State Lands
Commission by a vote of 3
to 0 at its 7/10/89
meeting.

INFORMATIVE
CALENDAR ITEM

C 11

A 1)

07/10/89

S 4)

PRC 6194

S. Jones

1988 ANNUAL REPORT OF CALIFORNIA DEPARTMENT OF FORESTRY
AND FIRE PROTECTION ON MANAGEMENT OF SCHOOL LANDS
THROUGH INTERAGENCY AGREEMENT

Through an interagency agreement between the State Lands Commission (SLC) and the California Department of Forestry and Fire Protection (CDF), dated July 1, 1980, and subsequently amended March 1, 1983, July 1, 1986, and March 2, 1988, CDF is authorized to manage surface resources of 18 State school lands parcels located in Shasta, Trinity, Lake, Alpine, Tulare, Santa Cruz, Tehama, and Fresno counties.

Under the terms of the agreement, CDF manages the parcels for:

- 1) experimentation
- 2) demonstration of sound and innovative forest management techniques to small private owners, and
- 3) acceleration of the sale and harvesting of merchantable timber from the parcels.

As part of the project, the full range of approved California Forest Improvement Plan (CFIP) practices are to be incorporated, as appropriate to the parcels.

In 1982, CDF prepared, circulated, and adopted an EIR for a project (SCH #81082617) covering ten of the parcels. Two supplemental EIRs covering six additional parcels were prepared in 1985 and in 1987 pursuant to Section 15163 of the State CEQA Guidelines. Road construction, timber harvesting, Christmas tree harvesting, forest land conservation measures, wildlife habitat improvement, and fuel reduction programs have been accomplished on various parcels to date.

Net revenue to the State Teachers Retirement System totaled \$167,005.38 during the report year.

CALENDAR ITEM NO. C11 (CONT'D)

SUMMARY OF 1988 ANNUAL REPORT

The specific program accomplishments in 1988 under the direction of Dan Higgins, CDF Forester, include:

1. Battle Creek Timber Sale (Shasta County): removed 1,242,840 board feet of timber and 108 cords of fuelwood for a net revenue of \$167,005.38. Crews from the Ishi Conservation Camp also thinned 40 acres of this parcel.
2. Viola parcel (Shasta County): a road use agreement was consummated between the State Lands Commission (SLC) and Roseburg Lumber Company providing SLC with access. Crews from the Ishi Conservation Camp thinned the parcel.
3. McCloud Arm Parcel (Shasta County): 1,061,100 board feet of the timber was marked for sale in 1989. Net revenue is expected to be \$153,000.000.
4. Summit City parcel (Shasta County): planted with Eucalyptus and Coulter pine in past years. In 1988, the competing vegetation removed by crews from the Crystal Creek Conservation Camp on a small area of test plots. A five-acre unit of Coulter pine was treated with herbicides to control the competing vegetation. Significant damage to the plantations resulted from snowfall.
5. Summit City Annex parcel (Shasta County): preparations were completed for Eucalyptus planting in 1989. The activities included burning brush piles and treating 21 acres with herbicides in May and September.

AB 884: N/A.

EXHIBIT: A. Annual Report

EXHIBIT A

1988 ANNUAL REPORT

CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION
STATE LANDS CONTRACT MANAGEMENT

SHASTA-TRINITY RANGER UNIT

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I. ABSTRACT

The Battle Creek Timber Sale removed 1,242,840 board feet of timber for a net revenue of \$165,344.08. Fuelwood totaling 108 cords was sold after the conifer harvest. Revenue from the fuelwood sale was \$1,661.30.

In September, 3 acres of logging and thinning slash were yarded to a landing using the Zig-Zag Monocable System. The special yarder was provided by the U.S. Forest Service in Seattle. Ed Miyata and Paul Clemens accompanied the equipment and put on an impressive 2 day demonstration.

Yshi Conservation Camp thinned and burned the slash on 40 acres. Material that can be used for fuelwood is being sold when possible.

The McCloud Arm parcel was contract cruised in preparation for the next timber sale. The harvest should yield approximately 1.0 MMBF. A road system will be developed on the parcel in conjunction with the harvest.

The Eucalyptus trees on Summit City parcel were physically damaged by the snows in December. A frost damage evaluation will be completed in the spring when the trees begin actively growing again. Chemicals were applied to the Coulter pine unit to control the competition from sprouting chaparral vegetation.

The Summit City Annex has 21 acres prepared for Eucalyptus planting in the spring of 1989. Sprouting vegetation was chemically treated in June with a September followup.

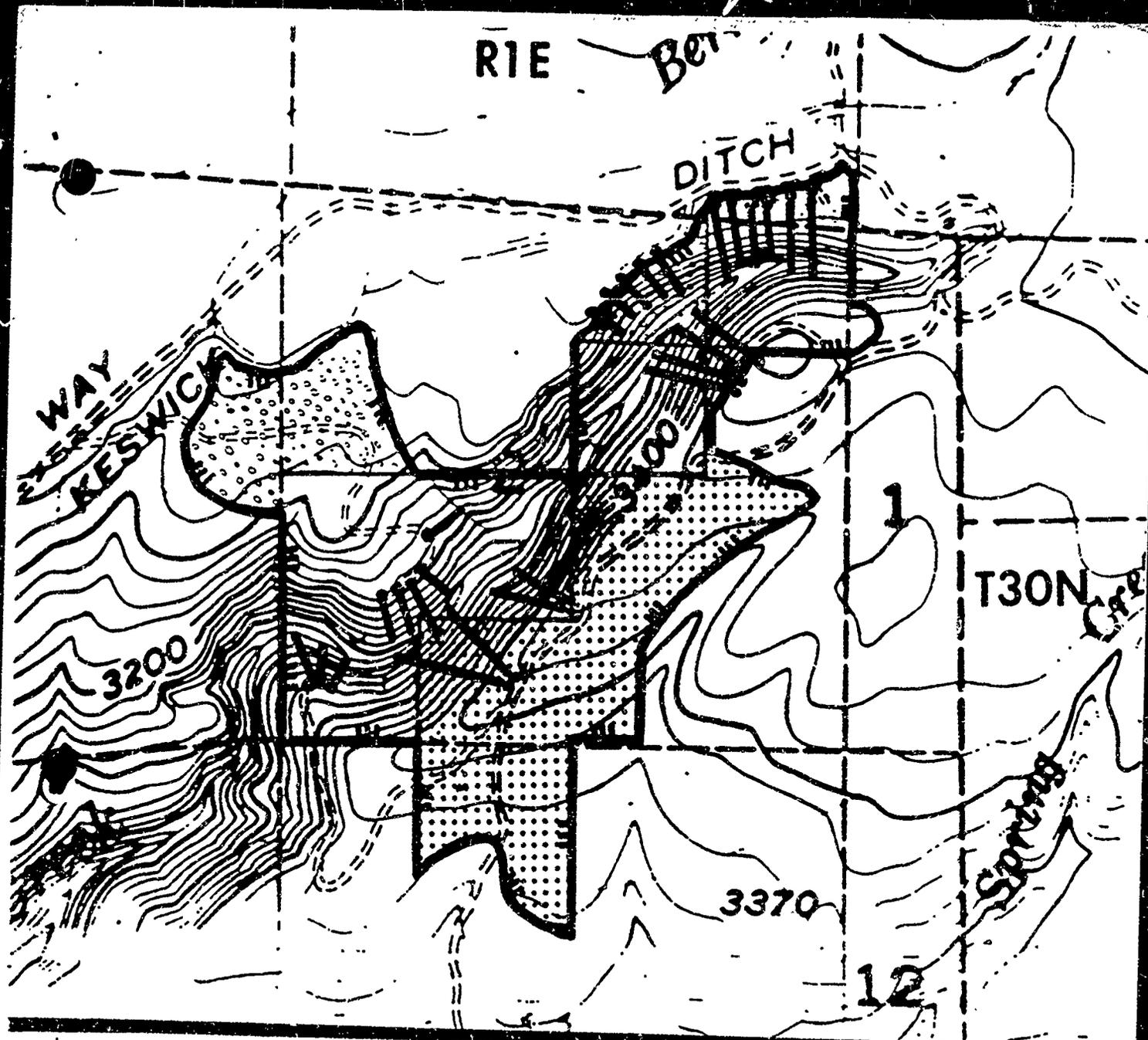
II. PARCEL ACTIVITY

A. Battle Creek Parcel

This parcel generated most of the work for the year. A timber sale began the first part of February and ended in April. Our unseasonably dry winter found the loggers operating between the January rains and late spring rains that commenced the middle of April.

The parcel lies primarily within the confines of the canyon created by the watercourse. Road use, road construction, and landing placement agreements from PG&E, Arden Glassburn, and the Schoenheide/Bebensee partnership were necessary prior to the commencement of logging. Landings were chosen for topographic and timber location considerations and not according to proper boundaries. Timber owned by two parties was often yarded to one landing and in several instances, timber from 3 ownerships was yarded to the same landing from one setting. Of the twenty-seven (27) total landings, only ten (10) were located on state property.

The accountability of logs was the responsibility of the CDF sale administrator. A volume of 1,242,840 board feet of timber was removed from the state land and the private ownerships contributed an additional 461,600 board feet. Neither of the private lands harvested had enough timber volume alone to economically utilize a standing skyline yarder. The combination of state and private timber volumes and opportune landing locations



BATTLE CREEK TIMBER SALE

- Timber Harvest Boundary (All Owners) 
- State Lands 
- P.G.& E. Lands 
- Bebensee - Schoenheide Lands 
- Cable Corridors 

Scale 4 inches : 1 mile
 Contour Interval : 40 feet

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made this "conjunctive logging" effort a successful exercise in landowner cooperation.

An area six (6) acres in size, directly across from the yarder setting and on the far side of a class II watercourse, posed a technical difficulty for the operator. The area was flat, contained approximately 60,000 board feet of Douglas-fir, and the creek bed was 12 feet deep by 50 feet wide. A bridge or culvert were not economically feasible. With no deflection, only one end of a yarded log could be suspended. The following proposal was accepted by the Department of Fish and Game; a brow log would be felled on the far side of the creek and the creek bed



Personnel attending the Zig-Zag Monocable demonstration.

filled with logs whose length was oriented in the direction of stream flow. The brow logs would prevent soil being pulled into the creek by the drag end of the log. The logs in the creek would prevent damage to the stream banks. This mitigation measure resulted in no physical damage to the watercourse. The crossing was in place for 2 days and all debris was removed with the extraction of the logs. Riparian vegetation removed for this activity is vigorously sprouting back. The overall ecological impact was minimal.

Upon completion of timber harvesting in this area, crews from the Ishi Conservation Camp were used to thin competing trees. The crews then cut the thinning and logging slash into fuelwood. In September, the U.S. Forest Service Pacific Northwest Experimental Station in Seattle, Washington allowed Ed Miyata and Paul Clemens to bring the innovative Zig-Zag Monocable Yarding system to California for a demonstration. The monocable system utilizes the random attachment of a special "zig-zag" pulley block to standing trees. A 3/8" (inch) cable is then threaded through the pulley blocks and the cable ends spliced together to form a continuous loop cable. This loop is then driven by a capstan on a winch and pieces of fuelwood are secured to the moving cable with baling twine using a clove hitch knot. The fuelwood travels, suspended on the cable, until the twine is severed by a cutting bar at the landing. The demonstration was attended by 170 individuals, representing state and federal agencies, commercial woodcutters, private landowners, and forest industry personnel from California and Oregon.

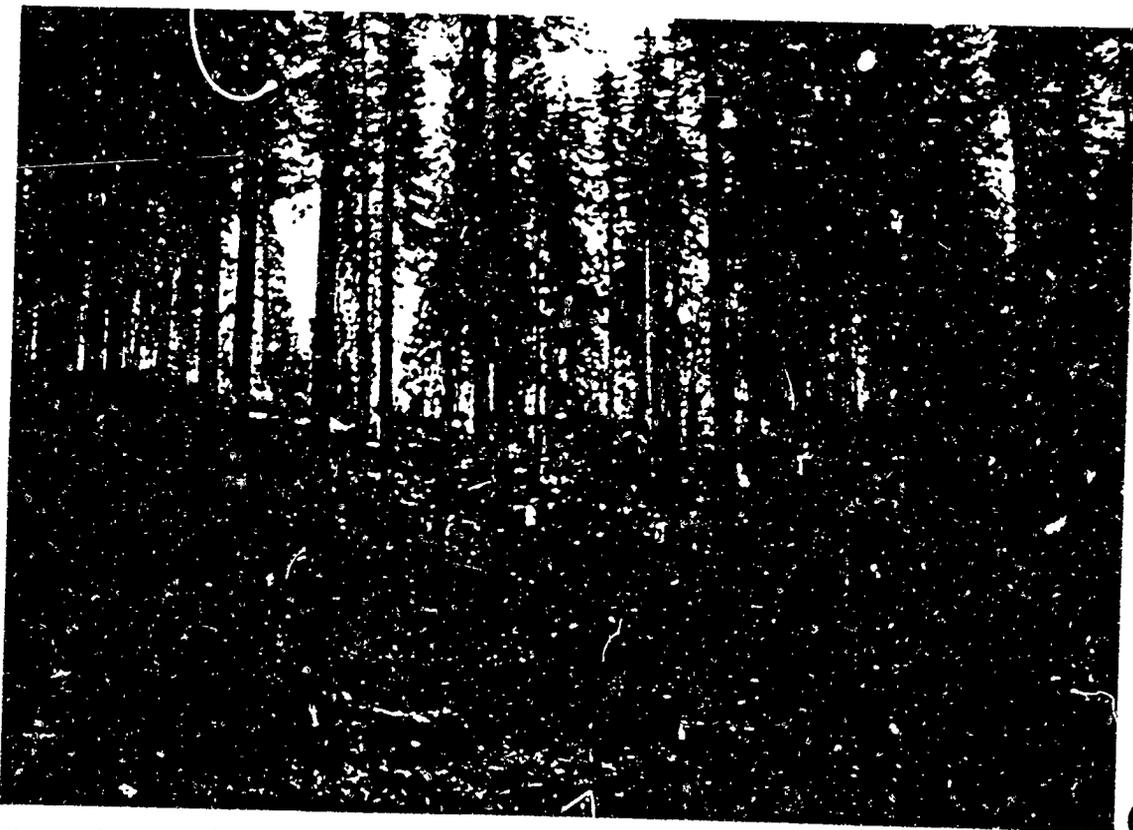
A video tape of the creek crossing and the zig-zag system will be prepared for viewing in 1989.

The parcel was opened to the public for fuelwood cutting in June; response was poor and the wood was then sold to a commercial woodcutter.

B. Viola Parcel

A road use agreement between the State Lands Commission and Roseburg Lumber company was signed in September. The state now has permanent access to the parcel for management activities.

A thinning project was begun in June. "Leave trees" were marked and crews from the Ishi Conservation Camp were used to cut all



Crew from Ishi Conservation Camp cleaning up harvest slash.

unmarked trees. Many of the cut trees were in the 6-8" diameter breast height (dbh) size class. The stems of the trees were processed into fuelwood products by a commercial woodcutter. Tops and limbs were piled and burned by camp crews. Firewood sales have been slow due to the difficulty of marketing white fir.

C. McCloud Arm Parcel

This unit will be the site of the 1989 timber sale. A mark and cruise contract for \$6,250 was awarded to John Manwell, Registered Professional Forester (RPF) #2334. Sale preparation has been completed and all paperwork has been submitted to the Region II office for approval. the cruise produced the following data:

	<u>Gross Volume</u>	<u>Net Volume</u>
Douglas-fir	810.0 MBF	634.5
Ponderosa/Sugar pine	476.6	426.6

Approximately 25% of the volume can be yarded using ground skidding equipment and 75% will be cable yarded using a skyline system. The sale will initiate the construction of 2.2 miles of new roads and develop the parcel's accessibility. The new roads will provide easy access to a previously remote area. At the request of the California Department of Fish and Game, a gate will restrict the general public from driving on the new road system.

D. Summit City Parcel

Activities on this parcel began in May. Crews from the Crystal Creek Conservation Camp removed the competing vegetation from

the five Eucalyptus replication units with hand tools. The surviving trees were then measured for height growth. (See Summary Sheet). Without the benefits of fertilizer and irrigation these trees are growing very slowly.

The five acres of Eucalyptus camadulensis were damaged by a series of snows beginning December 24th. The first snowfall was wet and heavy and accumulated to a depth of 10" (inches). The weight of this snow on the crowns of the Eucalyptus caused 95% of the trees to bend completely over. Many of the stems broke under this extreme condition. Four more snowfalls with depths of 5", 5", 3", and 3" fell over the next 3 weeks keeping the trees in deformed positions. Low temperatures for this period



Snow damaged Red Gum Eucalyptus (*E. camaldulensis*).

May 1988 Eucalyptus Measurement Summary Sheet

<u>Tree Number</u>		<u># Trees as of 5-27-88</u>	<u>Avg. Ht. (Feet) of Surviving Trees</u>
104	E. amigadlena - Walduck	2	7.75
110	E. archeri - Walduck	1	2.25
112	E. globulus "Barnback" - Walduck	3	8.83
121	E. nitens - Tichnor	1	5.50
122	E. johnstonii - Tichnor	1	11.00
132	E. brionesiana 46NF3 - Petri	3	2.75
135	E. nova - anglica 7762 - CSIRO	2	3.25
137	E. rudis - CLH	3	5.75
140	E. camaldulensis 51NF3 - Petri	4	3.69
142	E. archeri 765RF3 - Petri	2	6.13
146	E. gunnii 154PF3 - Petri	0	—
149	E. camphora 12448 - North Carolina	2	7.25
201	E. urnigera	0	—
202	E. viminalis	3	3.75
204	E. camaldulensis (obtusa)	3	3.33
205	E. camaldulensis (subsineria)	4	5.19
206	E. nova anglica	4	6.78
207	E. archeri	0	—
210	E. trabuti	2	8.25
212	E. nitens 1W	1	6.25
214	E. urnigera 4W	1	8.00
218	E. johnstonii 7W	0	—
222	E. dalrympleana "Asny" Bothwell	0	—
225	E. camaldulensis #66	4	8.50
227	E. dunnii #47	2	5.88
228	E. malacoxylon #26	3	4.92
229	E. bodjensis #86	1	7.50
230	E. kartzoffiana #58	3	8.75
233	E. gunnii #96	2	3.88
238	E. bridgesiana	3	4.17
240	E. ovata #25	2	2.50
241	E. brookerana #646	0	—
244	E. chapmaniana #24	4	5.75

May 1988 Eucalyptus Measurement Summary Sheet

<u>Tree Number</u>		<u># Trees as of 5-27-88</u>	<u>Avg. Ht. (Feet) of Surviving Trees</u>
246	E. dendromorpha #82	0	--
248	E. subscrenulata #92	1	5.00
250	E. delegatensis #71	1	5.00
251	E. glaucescens #73	1	12.00
259	E. stellulata #87	1	4.25
261	E. johnstonii - Florentine Villy.	0	--
262	E. delegatensis - Mooyara 600m	1	11.25
263	E. delegatensis - Waddmania 950m	0	--
265	E. urnigera	4	7.06
266	E. agregata #10594	1	5.00
268	E. glaucescens - Austra Flora	0	--
269	E. cypellocarpa - Austra Flora	0	--
300	E. stellulata coussergues #78152	1	1.00
301	E. viminalis x camaldulensis #80067	3	7.83
302	E. viminalis x camaldulensis #80066	2	3.00
303	E. viminalis x camaldulensis #80065	1	6.00
304	E. johnstonii #79807	0	--
308	E. gunnii divinas 4 #82069	3	9.00
309	E. gunnii felines 17 #82118	2	4.88
311	E. dalrympleana #80024	-3	4.33
312	E. dalrympleana 3 sare #82058	3	4.83
313	E. cinera Herm 10 #82084	2	2.88
314	E. coccifera divinas 5 #82074	0	--
315	E. gunnii #9/0/81/302	0	--
316	E. ovata Rotura Railway	4	4.94
317	E. macarthurii #9/0/81/6	4	4.06
319	E. dalrympleana #130	1	10.50
320	E. dalrympleana #H131	1	6.00
321	E. nova - anglica #7206	2	3.25
322	E. diversicolor #79110	1	5.50

Total 109.

Avg. Ht. 5.68'

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EUCALYPTUS SURVIVAL STUDY - PLOT LAYOUT

#4

132 1 ² S			228 1 ¹ / ₄ S					
				308 3 ²				
						265 2 ² S		
						244 7 ²	317 5 ³ / ₄	
	110 2 ¹ / ₄ S					248 5 ²	311 7 ¹ / ₄	
						104 5 ³ / ₄	206 5 ¹ / ₂	225 16 ²
	137 8 ²	204 3 ²	227 4 ¹ / ₄	205 7 ¹ / ₄				230 8 ¹ / ₂

#5

			244 2 ¹ / ₄			238 6 ³ / ₄	227 7 ¹ / ₂
225 7 ²					210 11 ¹ / ₄	205 6 ¹ / ₄	228 13 ¹ / ₄ S
			140 4 ¹ / ₄	204 2 ³ / ₄	202 4 ²		206 9 ¹ / ₄
112 8 ²				135 1 ¹ / ₂ S	322 5 ¹ / ₂		
313 2 ¹ / ₄ S	317 1 ¹ / ₄ S				316 6 ²		321 4 ³ / ₄
		302 5 ²					320 6 ²
265 5 ³ / ₄						319 10 ¹ / ₂	308 15 ¹ / ₂
						311 1 ² S	

S
↑

- MEASURED 5-27-33

- UPPER NUMBER IN EACH CELL IS THE SPECIES CODE, LOWER NUMBER IS HEIGHT MEASURED TO NEAREST 1/4 FOOT.
- S NEXT TO HEIGHT DENOTES STUMP-SPROUT.

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CJA 6-6-33

#1
 S
 ↑

						112 4°	132 0 3/4
140 4°		205 1 1/4		225 3 3/4	238 0 1/2		
						250 5°	317 1 1/4
						301 4 1/4	206 1 3/4
		312 5°	313 3 1/4	316 3 1/4		302 1°	
202 3 1/4		262 1 1/4				ScP 4°	ScP 1 3/4

#2

214 8°	204 4 1/4			265 12°			
	308 8 1/2	309 1° S		312 7°			
		240 1 3/4 S	316 5 1/2		300 1° S		
228 11 3/4		259 4 1/4	202 4°			233 7 1/4	149 6°
230 8 1/2	301 7°		317 8°				
					244 11°		
			138 5°		104 9 3/4		
112 14 1/2	137 6°	140 4 1/4	142 6 3/4			121 5 1/2	X

#3

321 1 3/4 S				312 2 1/2	311 4 3/4		316 5°
	309 8 3/4	265 8 1/2		301 12 1/4			
		230 9 1/4		238 5 1/4		303 6°	
		266 5°	233 0 1/2 S	251 12°	240 3 1/4 S	132 6 1/2	
244 2 3/4 S			229 7 1/2		149 8 1/2		225 7 1/4
		140 2° S		122 11°			137 3 1/4
205 6°		142 5 1/2		206 11°			
	212 6 1/2	210 5 1/4					X

- MEASURED 5-17-98 (ScP = SCOTCH PINE)

- UPPER NUMBER IN EACH CELL IS THE SPECIES CODE, LOWER NUMBER IS HEIGHT MEASURED TO

- S NEXT TO HEIGHT DENOTES A

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were between 24 F and 32 F. The trees will be closely observed for cold damage due to the extended exposure.

Prior to the snowfall, 2 trees had been selected for cloning. These trees expressed the desired characteristics of lush foliage, a single stem with rapidly increasing diameter, and height growth in excess of 5' per year. The snow bent one tree over and broke the stem of the other so their desirability for this area has become highly speculative. Another tree with good height growth (<5' per year), moderate diameter growth, and sparse foliage survived the snows without damage. If the cold damage is minimal, the traits of this tree may be more desirable for this area than those found in faster growing trees.

The 5 acre unit planted in Coulter pine is undergoing extreme competition from the sprouting vegetation species of black oak, live oak, toyon, and white leaf manzanita. These sprouts are emanating from chemically untreated stumps. In November, the chemical Pronone 10G (Hexazinone, active ingredient) was applied to the area for the control of the sprouts. An application rate of 35 lbs. per acre was used because of the clay content of the soil. Observations will be made during the summer of 1989 to determine vegetation mortality.

E. Summit City Annex

Preparations for the 1989 Eucalyptus planting were completed. They included the burning of brush piles by crews from the Crystal Creek Conservation Camp and the chemical treatment of root sprouts by a licensed contractor. The vegetation sprouts

were treated with a mix of Garlon 4 and Roundup in May and then resprayed in September to control any late sprouts or germinating seeds. The chemicals appear to have been effective, but results won't be confirmed until the end of the 1989 growing season.

III. HERBICIDES

Chemicals were utilized to control vegetation on both Summit City parcels. They were applied under contract by a licensed applicator. The following chemicals were used:

<u>Chemical</u>	<u>Restriction</u>	<u>Quantity</u>	<u>Acres</u>
Roundup	None	8 gallons	21
Garlon 4	None	8 gallons	21
Pronone 10G	None	150 pounds	5

IV. PERSONNEL

The State Lands program no longer hires seasonal Forestry Aides. The five (5) person months (PM) were combined with 7 PM's from Latour Demonstration State Forest to create a permanent full time position at the Forestry Assistant II level. Chuck Abshear, a district forester with the forest management firm of William Beaty and Associates, began working for the Department on April 1, 1988. Chuck will work for the State Lands program from March 1 to July 31 and Latour the rest of the year.

CALIFORNIA DIVISION OF FORESTRY

ANNUAL REPORT OF TIMBER CUT

State Lands Program STATE FOREST

PERIOD: FROM JANUARY 1, 19 88 TO DECEMBER 31, 19 88

COMMERCIAL SALES

FOREST PRODUCTS CONVERTIBLE TO BOARD FEET

PRODUCT (GIVE DIMENSIONS)	CONVERSION FACTOR (FEET B.M. PER PIECE)	NUMBER OF PIECES, CORDS, LIN. FEET, ETC.	M FEET B.M.	VALUE
M FEET B.M.	XXX	XXX	1,242,840	\$ 165,035.68
CORDS	500	128½	64,250	1,661.30
POSTS (SIZE)				
POSTS (SIZE)				
SHINGLE BOLTS				
POLES (SIZE)				
GRAPE STAKES				
SHAKES				
TOTALS	XXX	XXX		\$ 166,696.98

MISCELLANEOUS FOREST PRODUCTS - NOT CONVERTIBLE TO BOARD FEET
(CHRISTMAS TREES, FERNS, CONES, REDODENDRON, ETC.)

KIND	UNIT (TREE, LIN. FEET LBS., ETC.)	QUANTITY	VALUE
Log Truck Load	Tons	102.8	\$ 308.4
TOTALS		XXX	\$ 167,005.38

APPROVED _____

DISTRICT DEPUTY STATE FORESTER

SUBMITTED _____

Daniel J. Higgins

SIGNATURE
State Lands Manager
TITLE