

Appendix 9. Plot Data for Vegetative Unit A

The following plot data were collected on only one Vegetative Unit (A) as an example of the type of work that could be done for the rest of the Elk Creek Conservation Area.

These data are used to determine the volume of timber, the species diversity present and the total biomass on the land. It can also show growth. Now that this data is in the system we can show the Vegetation Unit on the Stand Visualization System (SVS). This is useful for showing how the stand looks now and what the desired future condition could be.

The plot data was cruised on a 20 basal area factor, and 10 plots were inserted at a 4 chain interval running in north south grid lines.

It is interesting that within Vegetation Unit A, there are two distinct cover type strata. There is 20 BA for lodgepole and 20 BA for Douglas-fir. Both of these are two different strata in one vegetative Unit.

Project Name: Elk Creek
Date of Run: 09/05/07

*** Individual Strata Appraisal Tables ***

All trees heights were not recorded.
Volume equations used were Western Montana.
All trees ages were not recorded.
Used general knowledge of user, trees are;
over 80 years for species: WP; WC; WH; CW
under 80 years for species: PP; DF; WL; ES; LP; AF; GF
Acres= 33
Cut /leave data not recorded.
Minimum DBH for data calculation was 6
Log length was 16 ft.
Options for Height/Age Regression
Minimum DBH for data calculation was 6 .
All trees.
Both cut/leave trees.

Average tarif number for species 202 = 21.9518 (Sample size = 8)
Average tarif number for species 73 = 34.4601 (Sample size = 3)
Average tarif number for species 108 = 21.69302 (Sample size = 7)

Section = 35 Township = 21 Range = 17
Location = Elk Creek Conservation Area

A Summary of Per Acre Estimates for Requested Variables
Both ALIVE and DEAD

VAR	SPECIES							TOTAL	%SE
	DF	WL	LP	AF	GF	DD			
CVTS	441.2	214.8	395.5	38.1	53.4	82.6	1225.6	26.81	
SV6	1497.4	920.0	372.8	0.0	236.9	141.9	3169.0	42.60	
BA	20.0	6.0	20.0	2.0	2.0	4.0	54.0	22.80	
TPA	29.0	7.3	75.2	10.2	1.4	11.5	134.5	22.00	
CV6	368.8	185.8	115.6	0.0	50.5	43.9	764.6	39.08	
NSV8	1047.1	622.6	45.2	0.0	186.6	0.0	1901.4	52.65	
NSV6	1334.8	777.7	359.6	0.0	189.5	128.5	2790.1	41.85	

Tract Totals for Requested Variables
Results are in Thousands
Both ALIVE and DEAD

VAR	SPECIES							TOTAL	%SE
	DF	WL	LP	AF	GF	DD			
CVTS	14.6	7.1	13.1	1.3	1.8	2.7	40.4	26.81	
SV6	49.4	30.4	12.3	0.0	7.8	4.7	104.6	42.60	
BA	0.7	0.2	0.7	0.1	0.1	0.1	1.8	22.80	
TPA	1.0	0.2	2.5	0.3	0.0	0.4	4.4	22.00	
CV6	12.2	6.1	3.8	0.0	1.7	1.4	25.2	39.08	
NSV8	34.6	20.5	1.5	0.0	6.2	0.0	62.7	52.65	
NSV6	44.0	25.7	11.9	0.0	6.3	4.2	92.1	41.85	

Report: CVTS - Gross Cubic Foot Volume includes top & stump per Acre
Both ALIVE and DEAD

DBH	SPECIES							TOTAL	%SE
	DF	WL	LP	AF	GF	DD			
6	0.0	0.0	117.8	38.1	0.0	0.0	155.9	54.60	
7	0.0	0.0	121.1	0.0	0.0	0.0	121.1	70.27	
8	41.7	0.0	113.2	0.0	0.0	82.6	237.5	37.86	
9	38.7	65.2	0.0	0.0	0.0	0.0	103.9	69.33	
10	45.1	0.0	43.4	0.0	0.0	0.0	88.4	66.68	
11	43.7	0.0	0.0	0.0	0.0	0.0	43.7	100.00	
12	138.8	0.0	0.0	0.0	0.0	0.0	138.8	71.73	
15	46.5	0.0	0.0	0.0	0.0	0.0	46.5	100.00	
16	0.0	82.1	0.0	0.0	53.4	0.0	135.4	100.00	
17	40.1	67.5	0.0	0.0	0.0	0.0	107.6	69.33	
19	46.8	0.0	0.0	0.0	0.0	0.0	46.8	100.00	
TOTAL	441.2	214.8	395.5	38.1	53.4	82.6	1225.62		
%SE	48.38	72.18	37.49	100.00	100.00	66.67		26.81	

Report: SV6 - Gross Volume Board Ft to 6 in. Top per Acre
Both ALIVE and DEAD

DBH	SPECIES							
	DF	WL	LP	AF	GF	DD	TOTAL	%SE
7	0.0	0.0	73.3	0.0	0.0	0.0	73.3	66.74
8	74.9	0.0	183.3	0.0	0.0	141.9	400.0	39.39
9	85.7	172.7	0.0	0.0	0.0	0.0	258.4	71.23
10	133.1	0.0	116.2	0.0	0.0	0.0	249.3	66.86
11	136.4	0.0	0.0	0.0	0.0	0.0	136.4	100.00
12	503.4	0.0	0.0	0.0	0.0	0.0	503.4	71.88
15	191.2	0.0	0.0	0.0	0.0	0.0	191.2	100.00
16	0.0	416.2	0.0	0.0	236.9	0.0	653.0	100.00
17	164.3	331.2	0.0	0.0	0.0	0.0	495.5	71.23
19	208.5	0.0	0.0	0.0	0.0	0.0	208.5	100.00
TOTAL	1497.4	920.0	372.8	0.0	236.9	141.9	3168.98	
%SE	51.84	69.86	59.55	0.00	100.00	66.80		42.60

Report: BA - Basal Area per Acre
Both ALIVE and DEAD

DBH	SPECIES							
	DF	WL	LP	AF	GF	DD	TOTAL	%SE
6	0.0	0.0	6.0	2.0	0.0	0.0	8.0	55.26
7	0.0	0.0	6.0	0.0	0.0	0.0	6.0	71.14
8	2.0	0.0	6.0	0.0	0.0	4.0	12.0	36.86
9	2.0	2.0	0.0	0.0	0.0	0.0	4.0	66.67
10	2.0	0.0	2.0	0.0	0.0	0.0	4.0	66.67
11	2.0	0.0	0.0	0.0	0.0	0.0	2.0	100.00
12	6.0	0.0	0.0	0.0	0.0	0.0	6.0	71.15
15	2.0	0.0	0.0	0.0	0.0	0.0	2.0	100.00
16	0.0	2.0	0.0	0.0	2.0	0.0	4.0	100.00
17	2.0	2.0	0.0	0.0	0.0	0.0	4.0	66.67
19	2.0	0.0	0.0	0.0	0.0	0.0	2.0	100.00
TOTAL	20.0	6.0	20.0	2.0	2.0	4.0	53.98	
%SE	47.14	71.15	36.50	100.00	100.00	66.67		22.80

Report: NET SV6 - Net volume Board Ft to 6 in. Top per Acre
Both ALIVE and DEAD

DBH	SPECIES							
	DF	WL	LP	AF	GF	DD	TOTAL	%SE
7	0.0	0.0	71.6	0.0	0.0	0.0	71.6	66.85
8	71.1	0.0	177.6	0.0	0.0	128.5	377.2	40.26
9	77.1	146.8	0.0	0.0	0.0	0.0	223.9	70.58
10	119.8	0.0	110.4	0.0	0.0	0.0	230.2	66.74
11	122.7	0.0	0.0	0.0	0.0	0.0	122.7	100.00
12	435.9	0.0	0.0	0.0	0.0	0.0	435.9	71.20
15	191.2	0.0	0.0	0.0	0.0	0.0	191.2	100.00
16	0.0	332.9	0.0	0.0	189.5	0.0	522.4	100.00
17	139.7	298.1	0.0	0.0	0.0	0.0	437.8	71.91
19	177.2	0.0	0.0	0.0	0.0	0.0	177.2	100.00
TOTAL	1334.8	777.7	359.6	0.0	189.5	128.5	2790.10	
%SE	51.82	68.90	60.07	0.00	100.00	67.80		41.85

Report: CVTS - Gross Cubic Foot Volume includes top & stump -- Tract Totals
Both ALIVE and DEAD
Values are in Thousands

DBH	SPECIES							
	DF	WL	LP	AF	GF	DD	TOTAL	%SE
6	0.0	0.0	3.9	1.3	0.0	0.0	5.1	54.60
7	0.0	0.0	4.0	0.0	0.0	0.0	4.0	70.27
8	1.4	0.0	3.7	0.0	0.0	2.7	7.8	37.86
9	1.3	2.2	0.0	0.0	0.0	0.0	3.4	69.33
10	1.5	0.0	1.4	0.0	0.0	0.0	2.9	66.68
11	1.4	0.0	0.0	0.0	0.0	0.0	1.4	100.00
12	4.6	0.0	0.0	0.0	0.0	0.0	4.6	71.73
15	1.5	0.0	0.0	0.0	0.0	0.0	1.5	100.00
16	0.0	2.7	0.0	0.0	1.8	0.0	4.5	100.00
17	1.3	2.2	0.0	0.0	0.0	0.0	3.6	69.33
19	1.5	0.0	0.0	0.0	0.0	0.0	1.5	100.00
TOTAL	14.6	7.1	13.1	1.3	1.8	2.7	40.45	
%SE	48.38	72.18	37.49	100.00	100.00	66.67		26.81

Report: SV6 - Gross Volume Board Ft to 6 in. Top -- Tract Totals
 Both ALIVE and DEAD
 Values are in Thousands

DBH	SPECIES							TOTAL	%SE
	DF	WL	LP	AF	GF	DD			
7	0.0	0.0	2.4	0.0	0.0	0.0	2.4	66.74	
8	2.5	0.0	6.0	0.0	0.0	4.7	13.2	39.39	
9	2.8	5.7	0.0	0.0	0.0	0.0	8.5	71.23	
10	4.4	0.0	3.8	0.0	0.0	0.0	8.2	66.86	
11	4.5	0.0	0.0	0.0	0.0	0.0	4.5	100.00	
12	16.6	0.0	0.0	0.0	0.0	0.0	16.6	71.88	
15	6.3	0.0	0.0	0.0	0.0	0.0	6.3	100.00	
16	0.0	13.7	0.0	0.0	7.8	0.0	21.5	100.00	
17	5.4	10.9	0.0	0.0	0.0	0.0	16.4	71.23	
19	6.9	0.0	0.0	0.0	0.0	0.0	6.9	100.00	
TOTAL	49.4	30.4	12.3	0.0	7.8	4.7	104.58		
%SE	51.84	69.86	59.55	0.00	100.00	66.80		42.60	

Report: TPA - Trees -- Tract Totals
 Both ALIVE and DEAD
 Values are in Thousands

DBH	SPECIES							TOTAL	%SE
	DF	WL	LP	AF	GF	DD			
6	0.0	0.0	1.0	0.3	0.0	0.0	1.3	55.70	
7	0.0	0.0	0.8	0.0	0.0	0.0	0.8	72.06	
8	0.2	0.0	0.6	0.0	0.0	0.4	1.1	36.41	
9	0.2	0.2	0.0	0.0	0.0	0.0	0.3	66.67	
10	0.1	0.0	0.1	0.0	0.0	0.0	0.3	66.78	
11	0.1	0.0	0.0	0.0	0.0	0.0	0.1	100.00	
12	0.3	0.0	0.0	0.0	0.0	0.0	0.3	71.24	
15	0.1	0.0	0.0	0.0	0.0	0.0	0.1	100.00	
16	0.0	0.0	0.0	0.0	0.0	0.0	0.1	100.00	
17	0.0	0.0	0.0	0.0	0.0	0.0	0.1	66.67	
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.00	
TOTAL	1.0	0.2	2.5	0.3	0.0	0.4	4.44		
%SE	48.61	82.84	36.92	100.00	100.00	66.69		22.00	

Report: NET SV6 - Net volume Board Ft to 6 in. Top -- Tract Totals
 Both ALIVE and DEAD
 Values are in Thousands

DBH	SPECIES							TOTAL	%SE
	DF	WL	LP	AF	GF	DD			
7	0.0	0.0	2.4	0.0	0.0	0.0	2.4	66.85	
8	2.3	0.0	5.9	0.0	0.0	4.2	12.4	40.26	
9	2.5	4.8	0.0	0.0	0.0	0.0	7.4	70.58	
10	4.0	0.0	3.6	0.0	0.0	0.0	7.6	66.74	
11	4.1	0.0	0.0	0.0	0.0	0.0	4.1	100.00	
12	14.4	0.0	0.0	0.0	0.0	0.0	14.4	71.20	
15	6.3	0.0	0.0	0.0	0.0	0.0	6.3	100.00	
16	0.0	11.0	0.0	0.0	6.3	0.0	17.2	100.00	
17	4.6	9.8	0.0	0.0	0.0	0.0	14.4	71.91	
19	5.8	0.0	0.0	0.0	0.0	0.0	5.8	100.00	
TOTAL	44.0	25.7	11.9	0.0	6.3	4.2	92.07		
%SE	51.82	68.90	60.07	0.00	100.00	67.80		41.85	

Timber Appraisal Summary Table
 SV6 AND NET SV6 are Unit totals in MBF
 Both ALIVE and DEAD

SP	LOGS/MBF	SV6	DEF	NET SV6	XDBH	XLOG/TREE	TPA	QDBH
DF	28.5	49.4	0.11	44.0	10.92	1.48	29.0	11.3
WL	18.3	30.4	0.15	25.7	11.71	2.31	7.3	12.3
LP	48.8	12.3	0.04	11.9	6.92	0.24	75.2	7.0
AF	0.0	0.0	0.00	0.0	6.00	0.00	10.2	6.0
GF	15.5	7.8	0.20	6.3	16.00	2.56	1.4	16.0
DD	54.9	4.7	0.09	4.2	8.00	0.68	11.5	8.0
TOT	28.1	104.6	0.12	92.1	8.16	0.66	134.5	8.6

Statistical Summary for Tract Total Net SV6 bdft
 Confidence Level = 90 %

SP	SV6 M	Net SV6 M	A%AE at 90 %	CW at 90 %	CV%
DF	49.4	44.0	94.99	+/- 41.8	163.9
WL	30.4	25.7	126.30	+/- 32.4	217.9
LP	12.3	11.9	110.10	+/- 13.1	189.9
GF	7.8	6.3	183.30	+/- 11.5	316.2
DD	4.7	4.2	124.28	+/- 5.3	214.4
TOT	104.6	92.1	76.72	+/- 70.6	132.3

***** Unit Report *****

Setup Name: NSV6NORMAL
 Minimum DBH: 5.00
 Cut/Leave Not Coded.
 All Trees (Alive & Dead).

Species Code	LBS/Cuft
GF	60.00
SAF	55.00
WL	58.33
S	57.00
LPP	56.00
WWP	60.00
PP	62.00
BP	72.00
DF	61.70
WRC	44.00
WH	60.00
PF	56.00
WB	56.00
D&D	40.00

----- Name -----	Sample		
Unit	Stratum	Type	Acres
1	UNITA	PLOT	33.0

Table Title: Gross CV4 - Gross Cubic Foot Volume to 4 in. Top (M)

Unit #	DF	GF	LPP	SAF	WL	D&D	Total
1	13.6	1.7	12.6	0.9	8.0	2.4	39.2
TOTAL	13.6	1.7	12.6	0.9	8.0	2.4	39.2

Table Title: NET SV6 - Net volume Board Ft to 6 in. Top (M)

Unit #	DF	GF	LPP	SAF	WL	D&D	Total
1	44.1	6.3	11.9	0.0	25.7	4.2	92.1
TOTAL	44.1	6.3	11.9	0.0	25.7	4.2	92.1

Table Title: TPA - Trees

Unit #	DF	GF	LPP	SAF	WL	D&D	Total
1	29.0	1.4	116.6	10.2	18.2	11.5	186.8
TOTAL	29.0	1.4	116.6	10.2	18.2	11.5	186.8

Table Title: Greens Tons based on Gross CVT

Unit #	DF	GF	LPP	SAF	WL	D&D	Total
1	434.6	51.1	457.0	33.2	254.1	52.6	1282.6
TOTAL	434.6	51.1	457.0	33.2	254.1	52.6	1282.6

Unit Report for Project Name: Elk Creek
 Setup Name: NSV6NORMAL

Table Title: Difference between (CV3 -CV6)(M)

Unit #	DF	GF	LPP	SAF	WL	D&D	Total
1	1.7	0.0	10.3	1.0	2.2	1.0	16.2
TOTAL	1.7	0.0	10.3	1.0	2.2	1.0	16.2

Table Title: Difference in Tons between (Gross CV3 - Gross CV6)

Unit #	DF	GF	LPP	SAF	WL	D&D	Total
1	50.9	0.9	288.8	27.9	62.9	20.5	452.0
TOTAL	50.9	0.9	288.8	27.9	62.9	20.5	452.0

Appraisal Report for Project Name: Elk Creek
 Setup Name: NSV6NORMAL
 Minimum DBH: 5.00
 Cut/Leave Not Coded.
 All Trees (Alive & Dead).

Appraisal Report Stratum - UNITA

		DF	GF	LPP	SAF	WL	D&D	Total
Gross SV6	MBF	49	8	12	0	30	5	105
Defect %		10.9	20.0	3.5	0.0	15.5	9.4	12.0
Net SV6	MBF	44	6	12	0	26	4	92
QDBH		11	16	6	6	9	8	8
NSV6/acre	BF	1335	189	360	0	778	128	2790
Trees/acre		29	1	117	10	18	11	187

Stratum Statistics - UNITA Confidence Level = 90 %

NSV6						
Species	MBF	%CV	SE	-/+ CW	A%AE	
DF	44.1	163.9	22.8	41.8	95.0	
WL	25.7	217.9	17.7	32.4	126.3	
LPP	11.9	189.9	7.1	13.1	110.1	
GF	6.3	316.4	6.3	11.5	183.4	
D&D	4.2	214.4	2.9	5.3	124.3	
TOTAL	92.1	132.3	38.5	70.6	76.7	

Appraisal Report Stratum - TOTAL

		DF	GF	LPP	SAF	WL	D&D	Total
Gross SV6	MBF	49	8	12	0	30	5	105
Defect %		10.9	19.9	3.6	0.0	15.4	9.4	12.0
Net SV6	MBF	44	6	12	0	26	4	92
QDBH		11	16	6	6	9	8	8
NSV6/acre	BF	1335	189	360	0	778	128	2790
Trees/acre		29	2	117	10	18	12	187

Stratum Statistics - TOTAL Confidence Level = 90 %

NSV6						
Species	MBF	%CV	SE	-/+ CW	A%AE	
DF	44.1	163.9	22.8	41.8	95.0	
WL	25.7	217.9	17.7	32.4	126.3	
LPP	11.9	189.9	7.1	13.1	110.1	
GF	6.3	316.4	6.3	11.5	183.4	
D&D	4.2	214.4	2.9	5.3	124.3	
TOTAL	92.1	132.3	38.5	70.6	76.7	