Wildlife Resource Studies for Cache La Poudre Basin Study Extension

Appendices Volume 2

Prepared for

Colorado Water Resource and
Power Development Authority

envirosphere
company

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APPENDIX VOLUME 2

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APPENDIX G
HSI CALCULATIONS

APPENDIX G.1

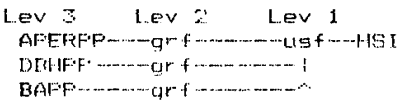
ABERT'S SQUIRREL

Library: C:CWRP.HLB
1-25-1988

Model # 11 Single covertype model.
Model name: ABERT SQUIRREL--FOOD
Verification level: Author Draft
Creation/modification date: 1-22-1988

McCullough, S. no date. Habitat Suitability Index Models: Abert Squirrel
Colorado State University, Fort Collins Colorado.

Covertypes:
CC : Closed canopy conifer forest
OC : Open canopy conifer forest



Habitat variables:
APERPP : Percent of ponderosa pine > 21cm dbh
BAPP : Average basal area of ponderosa pine (m2/ha)
DBHPP : Average dbh of ponderosa pine (cm)

GRAPH FUNCTION at level 2, position 1
Title: Percent of Ponderosa Pine > 21cm dbh

X:	0.000,	Y:	0.000
X:	10.000,	Y:	1.000
X:	100.000,	Y:	1.000

GRAPH FUNCTION at level 2, position 2
Title: Average dbh of Ponderosa Pine (cm)

X:	0.000,	Y:	0.000
X:	10.200,	Y:	0.200
X:	15.240,	Y:	0.500
X:	27.900,	Y:	1.000
X:	76.200,	Y:	1.000
X:	91.400,	Y:	0.500
X:	100.000,	Y:	0.200

GRAPH FUNCTION at level 2, position 3
Title: Average Basal Area of Pond. Pine (m2/h)

X:	0.000,	Y:	0.000
X:	10.000,	Y:	0.000
X:	23.000,	Y:	1.000
X:	35.000,	Y:	1.000
X:	46.000,	Y:	1.000

X: 57.000, Y: 1.000
X: 100.000, Y: 0.400

USER-SPECIFIED FUNCTION at level 1, position 1
(((X(2)*X(3))^.5)*X(1))^.5

Comments:
This model evaluates the quality of habitat for the food life requisite only. All of the graphs have been modified to reflect conditions in the Cache la Poudre area, based on conversations with D. Patton and the USFS in Fort Collins. Most of these changes increased the range of variable values considered optimal for the Abert Squirrel.

Library: C:CWRP.HLB
2-1-1988

Model # 12 Single covertype model.
Model name: ABERT SQUIRREL--REPRODUCTION
Verification level: Author Draft
Creation/modification date: 1-25-1988

McCullough, Steven. no date. Habitat Suitability Index Models: Abert Squirrel. Colorado State University. Fort Collins, Colorado.

Covertypes:
CC : Closed canopy conifer forest
OC : Open canopy conifer forest

```
                          Lev 3    Lev 2    Lev 1
                           VBAWO01--grf-------usf--HSI
                           VDBTRO1--grf--------|
                           ANUMTS---mnu--------|
                           ANUMIC---hst--------^
```

Habitat variables:
ANUMIC : Number of interlocking tree crowns
ANUMTS : Number of tree stories in nest areas
VBAWO01 : Basal area of trees (if cut at 1.4m high) (m^2/ha)
VDBTRO1 : Mean DBH of overstory trees (i.e., dia. 1.4m high) (cm)

GRAPH FUNCTION at level 2, position 1
Title: Aver. Basal Area of Trees in Nest Areas

X:	0.000,	Y:	0.000
X:	10.000,	Y:	0.000
X:	23.000,	Y:	0.500
X:	35.000,	Y:	1.000
X:	46.000,	Y:	1.000
X:	57.000,	Y:	0.500
X:	100.000,	Y:	0.200

GRAPH FUNCTION at level 2, position 2
Title: Average Tree dbh in Nest Area (cm)

X:	0.000,	Y:	0.000
X:	20.300,	Y:	0.500
X:	27.900,	Y:	1.000
X:	40.600,	Y:	1.000
X:	55.800,	Y:	0.500
X:	100.000,	Y:	0.000

MENU FUNCTION at level 2, position 3
Menu choice: 1 Output value: 0.400

Menu choice:	2	Output value:	0.800
Menu choice:	3	Output value:	1.000
Menu choice:	4	Output value:	1.000

HISTOGRAM FUNCTION at level 2, position 4

0.000	<	2.000	=	0.000
2.000	<	3.000	=	0.200
3.000	<	4.000	=	0.500
4.000	<	5.000	=	0.750
5.000	<	50.000	=	1.000

USER-SPECIFIED FUNCTION at level 1, position 1
USUB=(X(1)*X(2)*X(3)*X(4))^.25

Comments:
This model evaluates the suitability of habitat for reproduction for the Abert Squirrel. It has been modified for the Cache la Poudre Project Area based on comments from D. Patton.
Specifically, a parameter for number of interlocking crowns has been added to evaluate nesting habitat quality (all Abert Squirrel nest trees interlock with at least one other tree crown, so minimum number of interlocking trees in nesting area is 2).
The basal area and dbh graphs ahve been modified slightly.

ASMSE001 HABITAT DATA 2-10-1988

MAINSTEM EAST
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: ABERT SQUIRREL

	COVER TYPE / SUB-AREA:		
	CC	CC	CC
VARIABLE:	LA693	LA753	LA905
ANUMIC	10.000	10.000	2.000
ANUMTS	4.000	2.000	3.000
APERPP	53.846	27.959	35.714
BAPP	15.078	22.918	7.863
DBHPP	26.154	15.530	17.114
VBAW001	15.078	22.967	8.293
VDBTR01	26.154	15.435	16.444

Study: ASMSE001 Model: ABERT SQUIRREL--FOOD 2-10-1988

CoverType	SubArea	Area	HSI
CC	LA693	1.0	0.781
CC	LA753	1.0	0.897
CC	LA905	1.0	0.000
Overall:		3.0	0.559

Study: ASMSE001 Model: ABERT SQUIRREL--REPRODUCTION 2-10-1988

CoverType	SubArea	Area	HSI
CC	LA693	1.0	0.734
CC	LA753	1.0	0.000
CC	LA905	1.0	0.000
Overall:		3.0	0.245

Study name: ASMSE001 2-10-1988

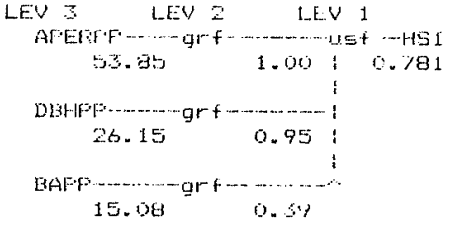
HSI Values For The Entire Study Area:

	Area	HSI
ABERT SQUIRREL--FOOD	3.0	0.559
ABERT SQUIRREL--REPRODUCTION	3.0	0.245

Study: ASMSE001 2-10-1988

Model: ABERT SQUIRREL--FOOD

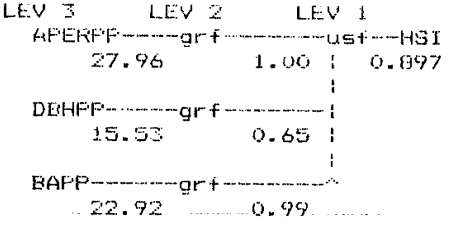
CoverType: CC SubArea: LA693



Study: ASMSE001 2-10-1988

Model: ABERT SQUIRREL--FOOD

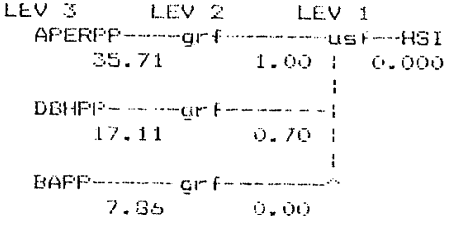
CoverType: CC SubArea: LA753



Study: ASMSE001 2-10-1988

Model: ABERT SQUIRREL--FOOD

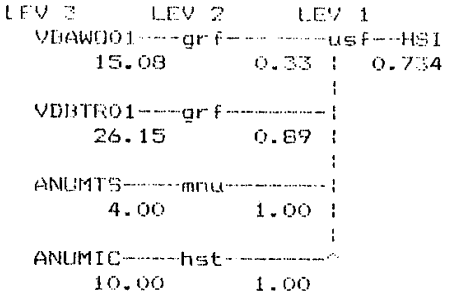
CoverType: CC SubArea: LA705



[redacted]dy: [redacted]E001 [redacted]198[redacted]

Model: ABERT SQUIRREL--REPRODUCTION

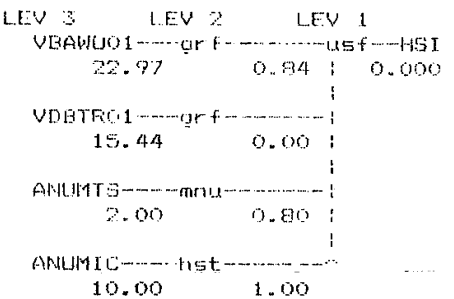
CoverType: CC SubArea: LA693



Study: ASMSE001 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

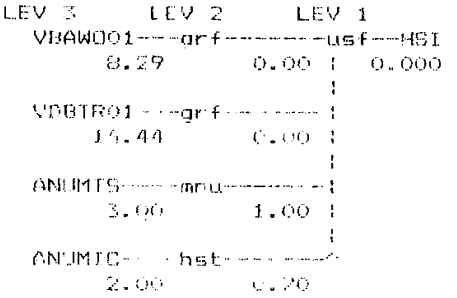
CoverType: CC SubArea: LA753



Study: ASMSE001 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

CoverType: CC SubArea: LA905



ASMSE002 HABITAT DATA 2-10-1986

MAINSTEM EAST
HABITAT: OPEN CANOPY CONIFER
SPECIES: ABERT SQUIRREL

	COVER TYPE / SUB-AREA:		
	OC	OC	OC
VARIABLE:	LA507	LA806	LA809
ANUMIC	0.000	16.000	2.000
ANUMTS	2.000	3.000	3.000
APERPP	66.667	63.636	28.654
BAPP	4.722	18.139	16.005
DBHPP	21.417	23.227	18.144
VBAW001	5.822	18.139	16.005
VDBTR01	21.237	23.227	18.144

Study: ASMSE002 Model: ABERT SQUIRREL--FOOD 2-10-1988

CoverType	SubArea	Area	HSI
OC	LA507	1.0	0.000
OC	LA806	1.0	0.859
OC	LA809	1.0	0.761
Overall:		3.0	0.540

Study: ASMSE002 Model: ABERT SQUIRREL--REPRODUCTION 2-10-1988

CoverType	SubArea	Area	HSI
OC	LA507	1.0	0.000
OC	LA806	1.0	0.777
OC	LA809	1.0	0.274
Overall:		3.0	0.350

Study name: ASMSE002 2-10-1988

HSI Values For The Entire Study Area:

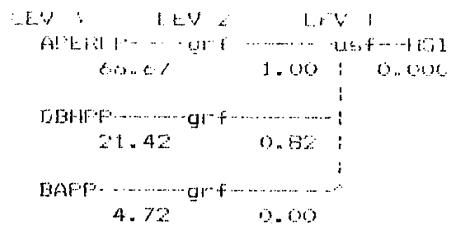
	Area	HSI
ABERT SQUIRREL--FOOD	3.0	0.540
ABERT SQUIRREL--REPRODUCTION	3.0	0.350

Study: ASMSE002

2-10-1988

Model: ABERT SQUIRREL--FOOD

CoverType: OC SubArea: LA807

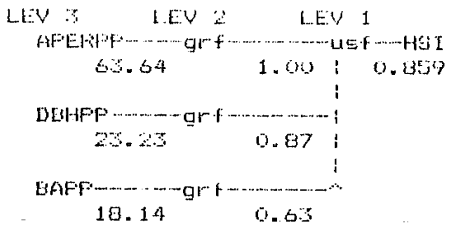


Study: ASMSE002

2-10-1988

Model: ABERT SQUIRREL--FOOD

CoverType: OC SubArea: LA806

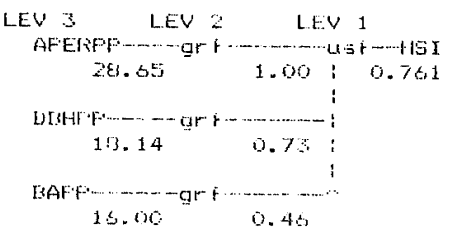


Study: ASMSE002

2-10-1988

Model: ABERT SQUIRREL--FOOD

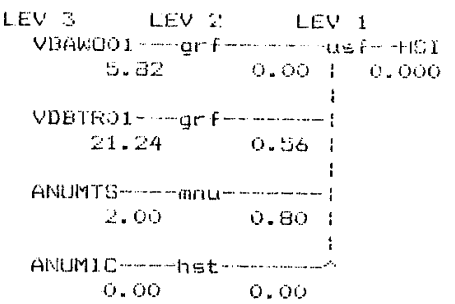
CoverType: OC SubArea: LA809



Study: ASMSE002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

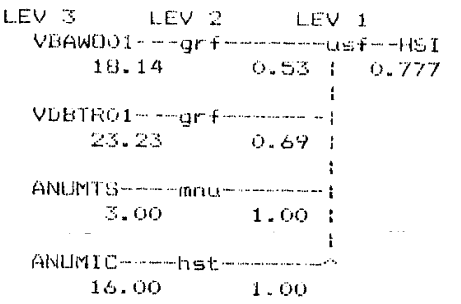
CoverType: OC SubArea: LA507



Study: ASMSE002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

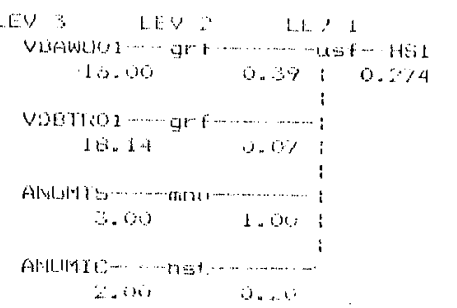
CoverType: OC SubArea: LA806



Study: ASMSE002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

CoverType: OC SubArea: LA809



ASEL1002 HABITAT DATA 2-10-1988

ELEVATION 1
HABITAT: OPEN CANOPY CONIFER
SPECIES: ABERT SQUIRREL

	COVER TYPE / SUB-AREA:		
	OC	OC	OC
VARIABLE:	LA310	LA317	LA458
ANUMIC	0.000	0.000	0.000
ANUMTS	1.000	2.000	2.000
APERPP	0.000	4.167	0.000
BAPP	0.000	1.114	0.000
DBHPP	0.000	8.250	0.000
VBAW001	0.591	1.151	1.310
VDBTR01	8.495	7.620	10.625

Study: ASEL1002 Model: ABERT SQUIRREL--FOOD 2-10-1988

CoverType	SubArea	Area	HSI
OC	LA310	1.0	0.000
OC	LA317	1.0	0.000
OC	LA458	1.0	0.000
Overall:		3.0	0.000

Study: ASEL1002 Model: ABERT SQUIRREL--REPRODUCTION 2-10-1988

CoverType	SubArea	Area	HSI
OC	LA310	1.0	0.000
OC	LA317	1.0	0.000
OC	LA458	1.0	0.000
Overall:		3.0	0.000

Study name: ASEL1002 2-10-1988

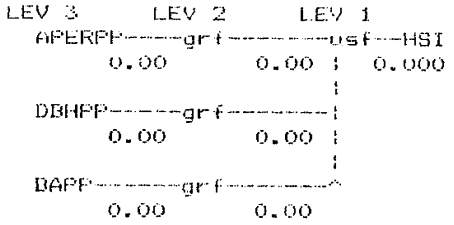
HSI Values For The Entire Study Area:

	Area	HSI
ABERT SQUIRREL--FOOD	3.0	0.000
ABERT SQUIRREL--REPRODUCTION	3.0	0.000

Study: ASEL1002 2-10-1988

Model: ABERT SQUIRREL--FOOD

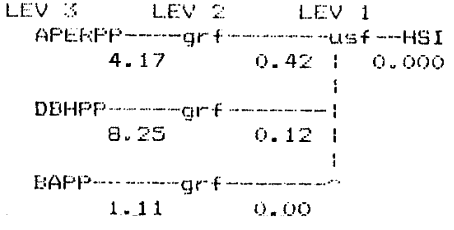
CoverType: OC SubArea: LA310



Study: ASEL1002 2-10-1988

Model: ABERT SQUIRREL--FOOD

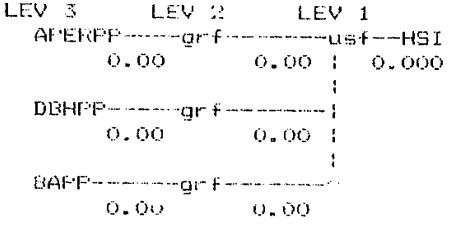
CoverType: OC SubArea: LA317



Study: ASEL1002 2-10-1988

Model: ABERT SQUIRREL--FOOD

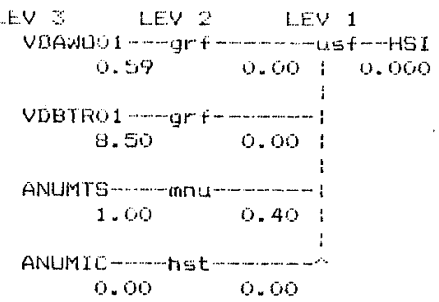
CoverType: OC SubArea: LA458



Study: ASEL1002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

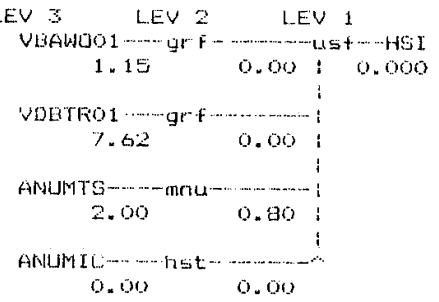
CoverType: OC SubArea: LA310



Study: ASEL1002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

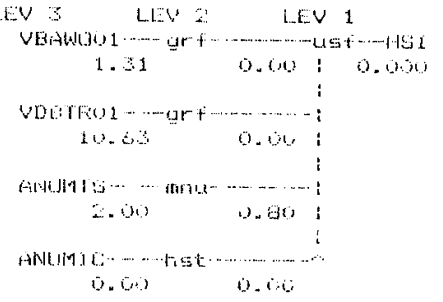
CoverType: OC SubArea: LA317



Study: ASEL1002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

CoverType: OC SubArea: LA458



ASEL2001 HABITAT DATA 2-10-1988

ELEVATION 2
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: ABERT SQUIRREL

	COVER TYPE / SUB-AREA:		
	CC	CC	CC
VARIABLE:	LA715	LA849	P087
ANUMIC	0.000	20.000	2.000
ANUMTS	2.000	3.000	3.000
APERPP	65.741	57.143	4.000
BAPP	6.641	14.223	4.248
DBHPP	27.685	21.690	10.020
VBAWD01	24.498	14.238	16.027
VDBTR01	17.190	20.864	12.762

Study: ASEL2001 Model: ABERT SQUIRREL--FOOD 2-10-1988

CoverType	SubArea	Area	HSI
CC	LA715	1.0	0.000
CC	LA849	1.0	0.719
CC	P087	1.0	0.000
Overall:		3.0	0.240

Study: ASEL2001 Model: ABERT SQUIRREL--REPRODUCTION 2-10-1988

CoverType	SubArea	Area	HSI
CC	LA715	1.0	0.000
CC	LA849	1.0	0.619
CC	P087	1.0	0.000
Overall:		3.0	0.206

Study name: ASEL2001 2-10-1988

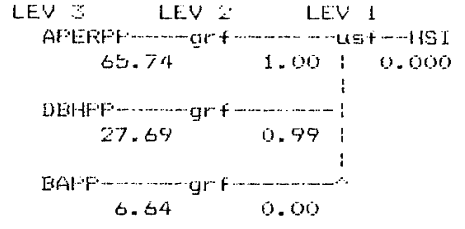
HSI Values For The Entire Study Area:

	Area	HSI
ABERT SQUIRREL--FOOD	3.0	0.240
ABERT SQUIRREL--REPRODUCTION	3.0	0.206

Study: ASEL2001 2-10-1988

Model: ABERT SQUIRREL--FOOD

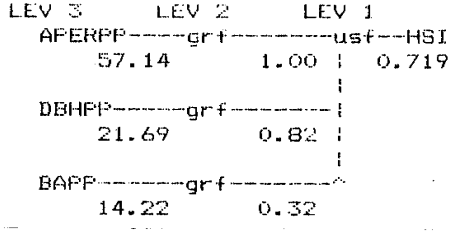
CoverType: CC SubArea: LA715



Study: ASEL2001 2-10-1988

Model: ABERT SQUIRREL--FOOD

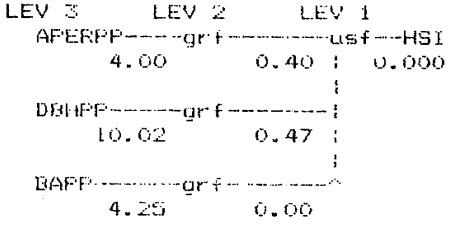
CoverType: CC SubArea: LA849



Study: ASEL2001 2-10-1988

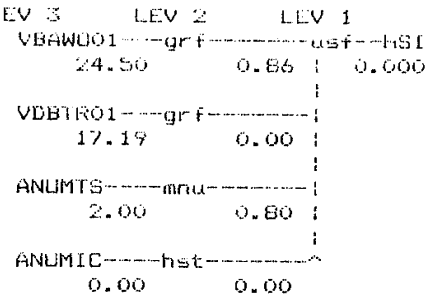
Model: ABERT SQUIRREL--FOOD

CoverType: CC SubArea: P037



Model: ABERT SQUIRREL--REPRODUCTION

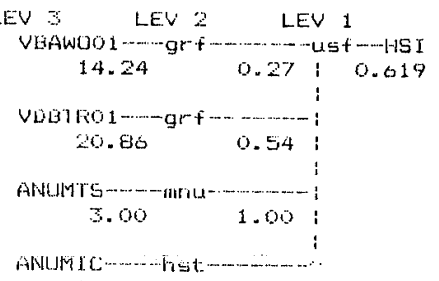
CoverType: CC SubArea: LA715



Study: ASEL2001 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

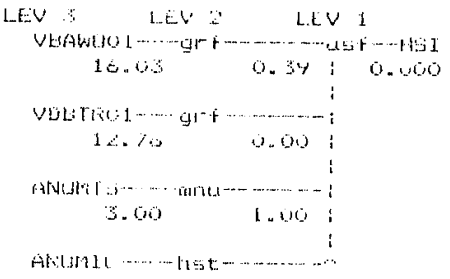
CoverType: CC SubArea: LA849



Study: ASEL2001 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

CoverType: CC SubArea: P087



ASMSN001 HABITAT DATA 2-10-1988

MAINSTEM NORTH
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: ABERT SQUIRREL

	COVER TYPE / SUB-AREA: CC
VARIABLE:	PO271
ANUMIC	5.000
ANUMTS	3.000
APERPP	12.159
BAPP	9.721
DBHPP	10.336
VBAW001	20.508
VDBTR01	9.523

Study: ASMSN001 Model: ABERT SQUIRREL--FOOD 2-10-1988

CoverType	SubArea	Area	HSI
CC	P0271	1.0	0.000
Overall:		1.0	0.000

Study: ASMSN001 Model: ABERT SQUIRREL--REPRODUCTION 2-10-1988

CoverType	SubArea	Area	HSI
CC	P0271	1.0	0.000
Overall:		1.0	0.000

Study name: ASMSN001 2-10-1988

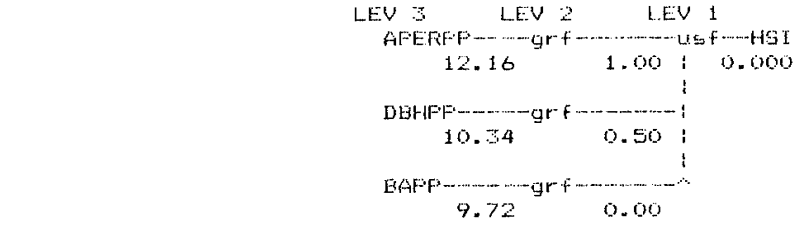
HSI Values For The Entire Study Area:

	Area	HSI
ABERT SQUIRREL--FOOD	1.0	0.000
ABERT SQUIRREL--REPRODUCTION	1.0	0.000

Study: ASMSN001 2-10-1988

Model: ABERT SQUIRREL--FOOD

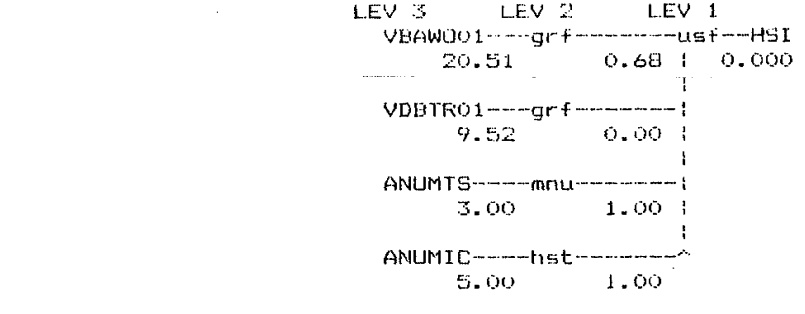
CoverType: CC SubArea: P0271



Study: ASMSN001 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

CoverType: CC SubArea: P0271



ASEL4001 HABITAT DATA 2-10-1988

ELEVATION 4
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: ABERT SQUIRREL

	COVER TYPE / SUB-AREA:				
	CC	CC	CC	CC	CC
VARIABLE:	P0102	P0109	P0114	P0209	P0397
ANUMIC	4.000	10.000	10.000	0.000	20.000
ANUMTS	3.000	3.000	3.000	2.000	3.000
APERPP	50.000	16.667	35.994	75.000	20.253
BAPP	21.672	15.025	18.620	4.212	23.206
DBHPP	22.720	13.204	17.443	27.800	13.475
VBAW001	23.327	20.565	21.126	18.074	23.571
VDBTR01	21.417	10.467	14.426	24.141	13.407

Study: ASEL4001 Model: ABERT SQUIRREL--FOOD 2-10-1988

CoverType	SubArea	Area	HSI
CC	P0102	1.0	0.936
CC	P0109	1.0	0.690
CC	P0114	1.0	0.827
CC	P0209	1.0	0.000
CC	P0397	1.0	0.878
Overall:		5.0	0.666

Study: ASEL4001 Model: ABERT SQUIRREL--REPRODUCTION 2-10-1988

CoverType	SubArea	Area	HSI
CC	P0102	1.0	0.701
CC	P0109	1.0	0.000
CC	P0114	1.0	0.000
CC	P0209	1.0	0.000
CC	P0397	1.0	0.000
Overall:		5.0	0.140

Study name: ASEL4001 2-10-1988

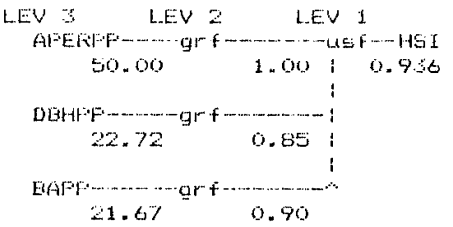
HSI Values For The Entire Study Area:

	Area	HSI
ABERT SQUIRREL--FOOD	5.0	0.666
ABERT SQUIRREL--REPRODUCTION	5.0	0.140

Study: ASEL4001 2-10-1988

Model: ABERT SQUIRREL--FOOD

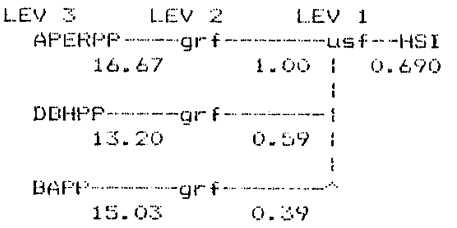
CoverType: CC SubArea: P0102



Study: ASEL4001 2-10-1988

Model: ABERT SQUIRREL--FOOD

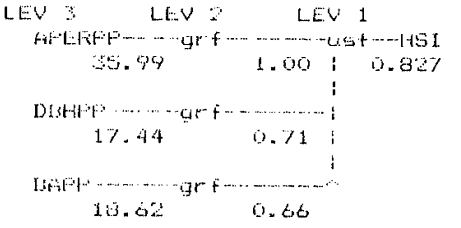
CoverType: CC SubArea: P0109



Study: ASEL4001 2-10-1988

Model: ABERT SQUIRREL--FOOD

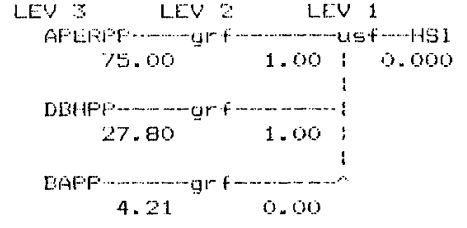
CoverType: CC SubArea: P0114



Study: ASEL4001 2-10-1988

Model: ABERT SQUIRREL--FOOD

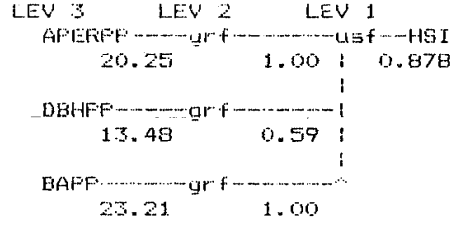
CoverType: CC SubArea: P0209



Study: ASEL4001 2-10-1988

Model: ABERT SQUIRREL--FOOD

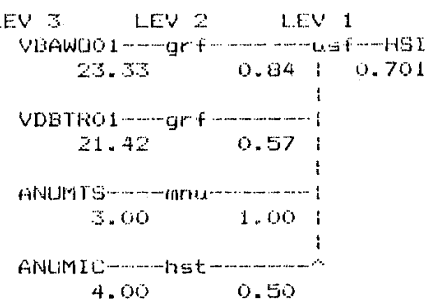
CoverType: CC SubArea: P0397



Study: ASEL4001 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

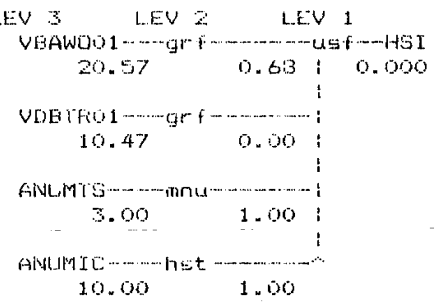
CoverType: CC SubArea: PO102



Study: ASEL4001 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

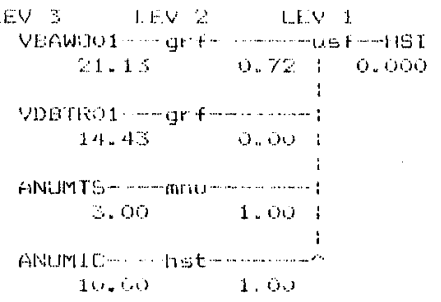
CoverType: CC SubArea: PO109



Study: ASEL4001 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

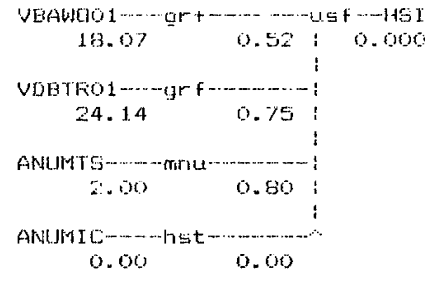
CoverType: CC SubArea: PO114



Study: ASEL4001 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

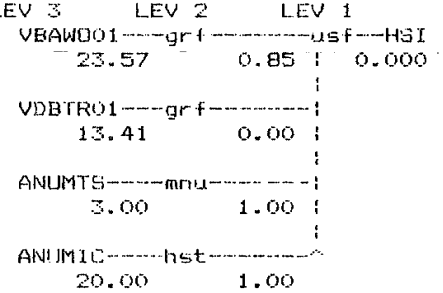
CoverType: CC SubArea: P0209



Study: ASEL4001 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

CoverType: CC SubArea: P0397



ASMSN002 HABITAT DATA 2-10-1988

MAINSTEM NORTH
HABITAT: OPEN CANOPY CONIFER
SPECIES: ABERT SQUIRREL

	COVER TYPE / SUB-AREA:		
	OC	OC	OC
VARIABLE:	LA757	P0273	P0324
ANUMIC	5.000	8.000	2.000
ANUMTS	2.000	3.000	1.000
APERPP	50.000	64.829	41.368
BAPP	5.303	9.537	7.031
DBHPP	24.667	22.953	16.471
VBAW001	5.303	9.608	7.581
VDBTR01	24.667	22.221	16.216

Study: ASMSN002 Model: ABERT SQUIRREL--FOOD 2-10-1988

CoverType	SubArea	Area	HSI
OC	LA757	1.0	0.000
OC	P0273	1.0	0.000
OC	P0324	1.0	0.000
Overall:		3.0	0.000

Study: ASMSN002 Model: ABERT SQUIRREL--REPRODUCTION 2-10-1988

CoverType	SubArea	Area	HSI
OC	LA757	1.0	0.000
OC	P0273	1.0	0.000
OC	P0324	1.0	0.000
Overall:		3.0	0.000

Study name: ASMSN002 2-10-1988

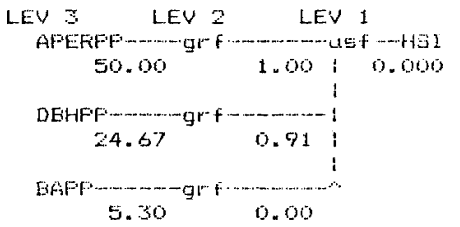
HSI Values For The Entire Study Area:

	Area	HSI
ABERT SQUIRREL--FOOD	3.0	0.000
ABERT SQUIRREL--REPRODUCTION	3.0	0.000

Study: ASMSN002 2-10-1988

Model: ABERT SQUIRREL--FOOD

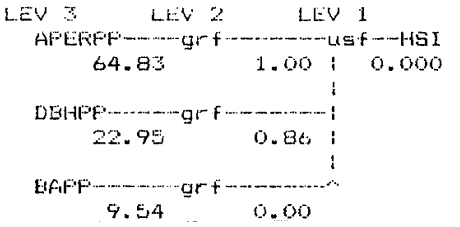
CoverType: OC SubArea: LA757



Study: ASMSN002 2-10-1988

Model: ABERT SQUIRREL--FOOD

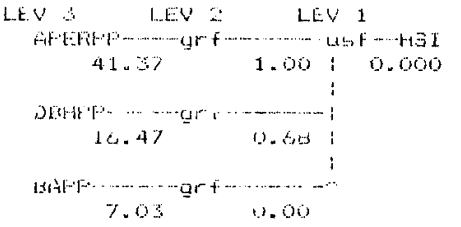
CoverType: OC SubArea: P0273



Study: ASMSN002 2-10-1988

Model: ABERT SQUIRREL--FOOD

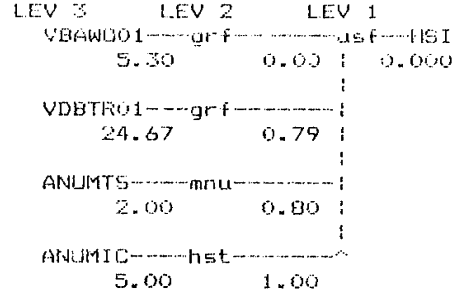
CoverType: OC SubArea: P0324



Study: ASMSN002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

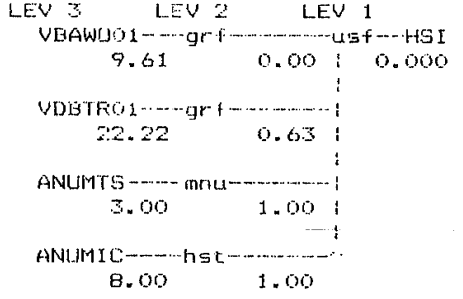
CoverType: OC SubArea: LA757



Study: ASMSN002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

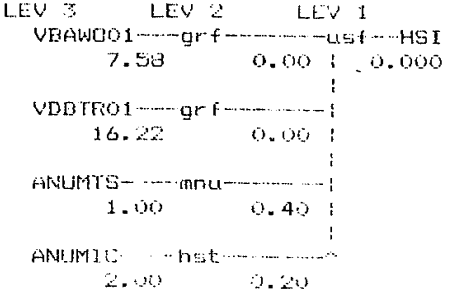
CoverType: OC SubArea: P0273



Study: ASMSN002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

CoverType: OC SubArea: P0324



ASEL2002 HABITAT DATA 2-10-1988

ELEVATION 2
HABITAT: OPEN CANOPY CONIFER
SPECIES: ABERT SQUIRREL

	COVER TYPE / SUB-AREA:		
	OC	OC	OC
VARIABLE:	LI132	P0307	P0357
ANUMIC	3.000	3.000	0.000
ANUMTS	2.000	2.000	2.000
APERPP	15.789	41.062	55.556
BAPP	5.121	15.701	7.276
DBHPP	13.168	21.703	23.467
VDAW001	6.192	15.060	13.060
VDBTR01	12.352	21.270	24.493

Study: ASEL2002 Model: ABERT SQUIRREL--FOOD 2-10-1988

CoverType	SubArea	Area	HSI
OC	LI132	1.0	0.000
OC	PO307	1.0	0.776
OC	PO357	1.0	0.000
Overall:		3.0	0.259

Study: ASEL2002 Model: ABERT SQUIRREL--REPRODUCTION 2-10-1988

CoverType	SubArea	Area	HSI
OC	LI132	1.0	0.000
OC	PO307	1.0	0.430
OC	PO357	1.0	0.000
Overall:		3.0	0.143

Study name: ASEL2002 2-10-1988

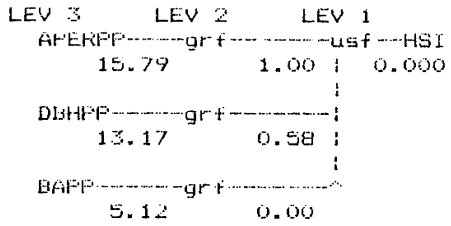
HSI Values For The Entire Study Area:

	Area	HSI
ABERT SQUIRREL--FOOD	3.0	0.259
ABERT SQUIRREL--REPRODUCTION	3.0	0.143

Study: ASEL2002 2-10-1988

Model: ABERT SQUIRREL--FOOD

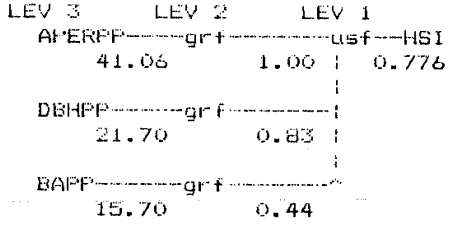
CoverType: OC SubArea: LI132



Study: ASEL2002 2-10-1988

Model: ABERT SQUIRREL--FOOD

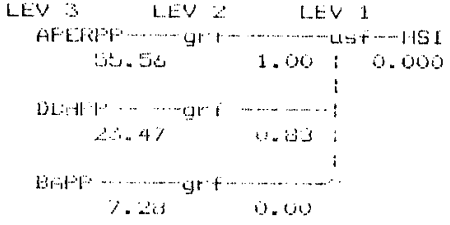
CoverType: OC SubArea: P0307



Study: ASEL2002 2-10-1988

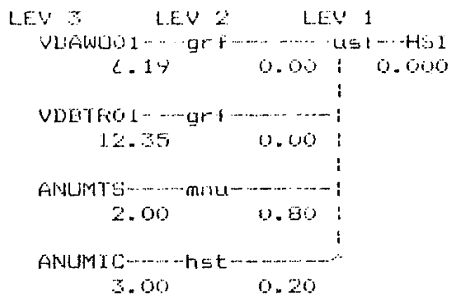
Model: ABERT SQUIRREL--FOOD

CoverType: OC SubArea: P0357



Model: ABERT SQUIRREL--REPRODUCTION

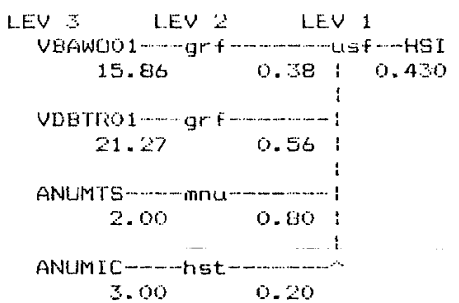
CoverType: OC SubArea: LI132



Study: ASEL2002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

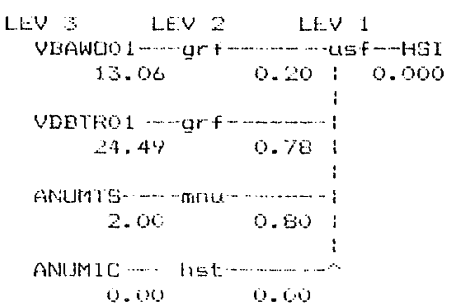
CoverType: OC SubArea: PO307



Study: ASEL2002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

CoverType: OC SubArea: PO357



ASEL4002 HABITAT DATA 2-10-1988

ELEVATION 4
HABITAT: OPEN CANOPY CONIFER
SPECIES: ABERT SQUIRREL

	COVER TYPE / SUB-AREA:			
	OC	OC	OC	OC
VARIABLE:	P0101	P0107	P0145	P0398
ANUMIC	3.000	0.000	5.000	5.000
ANUMTS	2.000	3.000	3.000	2.000
APERPP	85.714	37.500	100.000	57.143
BAPP	18.967	4.255	5.368	18.370
DBHPP	44.457	18.000	29.180	21.721
VBAW001	18.967	4.344	5.577	18.388
VDBTR01	44.457	16.933	23.429	21.103

Study: ASEL4002 Model: ABERT SQUIRREL--FOOD 2-10-1988

CoverType	SubArea	Area	HSI
OC	P0101	1.0	0.911
OC	P0107	1.0	0.000
OC	P0145	1.0	0.000
OC	P0398	1.0	0.854
Overall:		4.0	0.441

Study: ASEL4002 Model: ABERT SQUIRREL--REPRODUCTION 2-10-1988

CoverType	SubArea	Area	HSI
OC	P0101	1.0	0.533
OC	P0107	1.0	0.000
OC	P0145	1.0	0.000
OC	P0398	1.0	0.700
Overall:		4.0	0.308

Study name: ASEL4002 2-10-1988

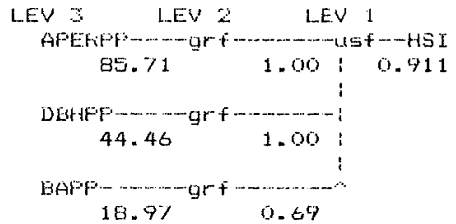
HSI Values For The Entire Study Area:

	Area	HSI
ABERT SQUIRREL--FOOD	4.0	0.441
ABERT SQUIRREL--REPRODUCTION	4.0	0.308

Study: ASEL4002 2-10-1988

Model: ABERT SQUIRREL--FOOD

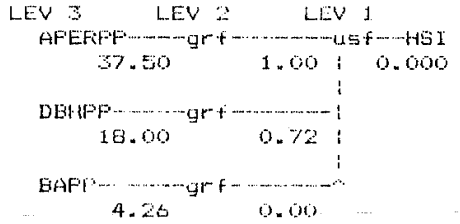
CoverType: OC SubArea: P0101



Study: ASEL4002 2-10-1988

Model: ABERT SQUIRREL--FOOD

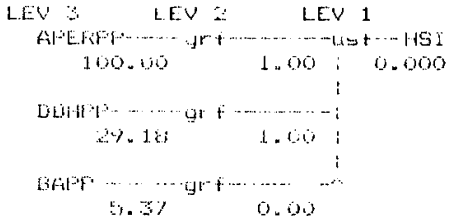
CoverType: OC SubArea: P0107



Study: ASEL4002 2-10-1988

Model: ABERT SQUIRREL--FOOD

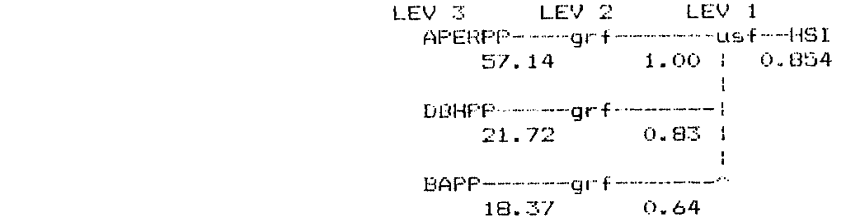
CoverType: OC SubArea: P0145



Study: ASEL4002 2-10-1988

Model: ABERT SQUIRREL--FOOD

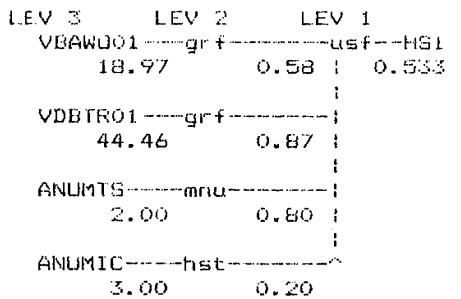
CoverType: OC SubArea: P0398



Study: ASEL4002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

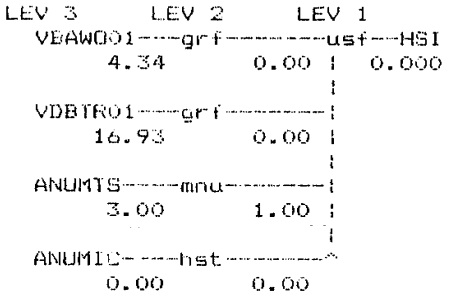
CoverType: OC SubArea: P0101



Study: ASEL4002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

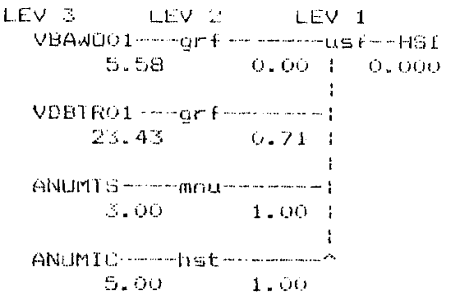
CoverType: OC SubArea: P0107



Study: ASEL4002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

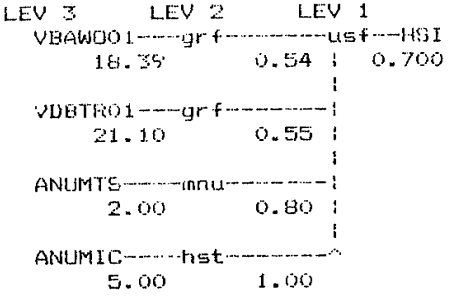
CoverType: OC SubArea: P0145



Study: ASEL4002 2-10-1988

Model: ABERT SQUIRREL---REPRODUCTION

CoverType: OC SubArea: P0398



ASMSS001 HABITAT DATA 2-10-1988

MAINSTEM SOUTH
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: ABERT SQUIRREL

	COVER TYPE / SUB-AREA:		
	CC	CC	CC
VARIABLE:	LA1000	PO310	PO351
ANUMIC	0.000	5.000	0.000
ANUMTS	4.000	3.000	3.000
APERPP	0.000	10.869	2.657
BAPP	1.146	6.035	4.769
DBHPP	8.222	11.468	8.951
VBAW001	10.065	26.072	24.527
VDBTR01	11.231	14.017	9.538

Study: ASMSS001 Model: ABERT SQUIRREL--FOOD 2-10-1988

CoverType	SubArea	Area	HSI
CC	LA1000	1.0	0.000
CC	PO310	1.0	0.000
CC	PO351	1.0	0.000
Overall:		3.0	0.000

Study: ASMSS001 Model: ABERT SQUIRREL--REPRODUCTION 2-10-1988

CoverType	SubArea	Area	HSI
CC	LA1000	1.0	0.000
CC	PO310	1.0	0.000
CC	PO351	1.0	0.000
Overall:		3.0	0.000

Study name: ASMSS001 2-10-1988

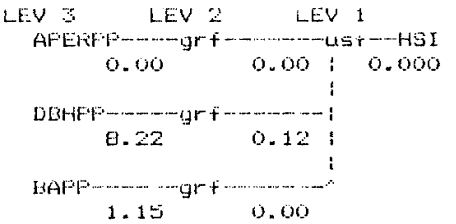
HSI Values For The Entire Study Area:

	Area	HSI
ABERT SQUIRREL--FOOD	3.0	0.000
ABERT SQUIRREL--REPRODUCTION	3.0	0.000

Study: ALMSS001 2-10-1988

Model: ABERT SQUIRREL--FOOD

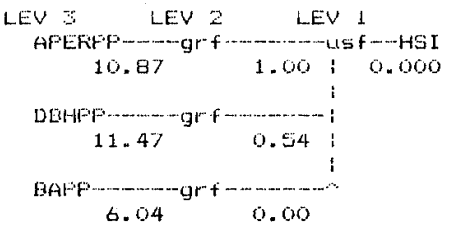
CoverType: CC SubArea: LA1000



Study: ASMSS001 2-10-1988

Model: ABERT SQUIRREL--FOOD

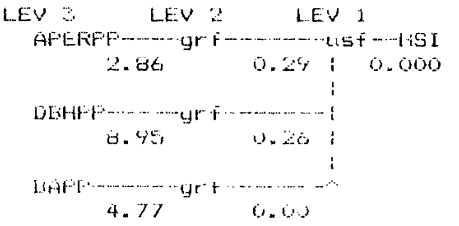
CoverType: CC SubArea: P0310



Study: ASMSS001 2-10-1988

Model: ABERT SQUIRREL--FOOD

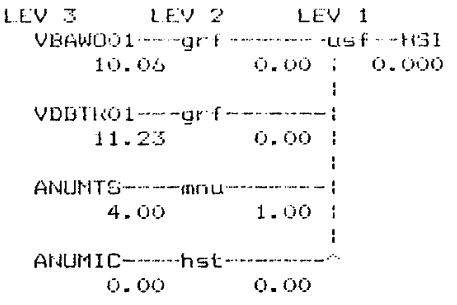
CoverType: CC SubArea: P0351



Study: ASMSS001 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

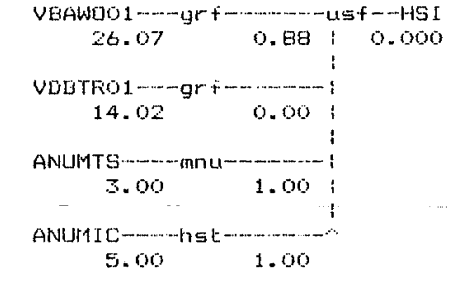
CoverType: CC SubArea: LA1000



Study: ASMSS001 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

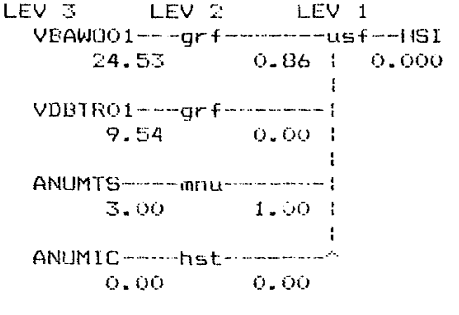
CoverType: CC SubArea: PO310



Study: ASMSS001 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

CoverType: CC SubArea: PO351



ASEL3001 HABITAT DATA 2-10-1988

ELEVATION 3
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: ABERT SQUIRREL

	COVER TYPE / SUB-AREA:			
	CC	CC	CC	CC
VARIABLE:	P0113	P0225	P0231	P0429
ANUMIC	19.000	0.000	0.000	0.000
ANUMTS	2.000	2.000	2.000	1.000
APERPP	5.607	0.000	0.000	20.000
BAPP	23.815	0.000	0.498	2.164
DBHPP	10.552	0.000	19.900	15.400
VBAW001	25.964	28.636	30.026	16.520
VDBTR01	10.603	12.675	15.548	10.387

Study: ASEL3001 Model: ABERT SQUIRREL--FOOD 2-10-1988

CoverType	SubArea	Area	HSI
CC	P0113	1.0	0.633
CC	P0225	1.0	0.000
CC	P0231	1.0	0.000
CC	P0429	1.0	0.000
Overall:		4.0	0.158

Study: ASEL3001 Model: ABERT SQUIRREL--REPRODUCTION 2-10-1988

CoverType	SubArea	Area	HSI
CC	P0113	1.0	0.000
CC	P0225	1.0	0.000
CC	P0231	1.0	0.000
CC	P0429	1.0	0.000
Overall:		4.0	0.000

Study name: ASEL3001 2-10-1988

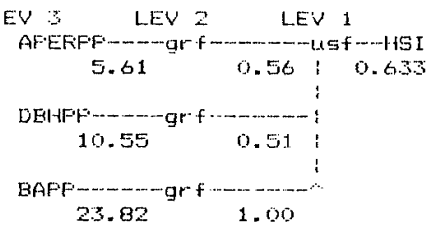
HSI Values For The Entire Study Area:

	Area	HSI
ABERT SQUIRREL--FOOD	4.0	0.158
ABERT SQUIRREL--REPRODUCTION	4.0	0.000

Study: ASEL3001 2-10-1988

Model: ABERT SQUIRREL--FOOD

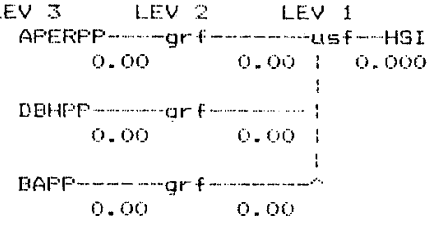
CoverType: CC SubArea: P0113



Study: ASEL3001 2-10-1988

Model: ABERT SQUIRREL--FOOD

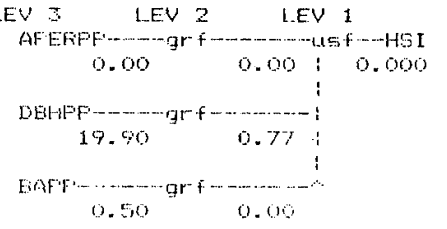
CoverType: CC SubArea: P0225



Study: ASEL3001 2-10-1988

Model: ABERT SQUIRREL--FOOD

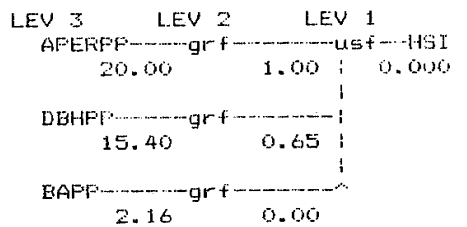
CoverType: CC SubArea: P0231



Study: ASEL3001 2-10-1988

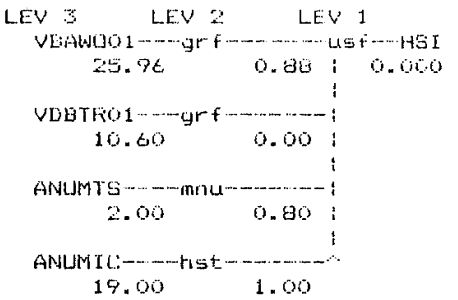
Model: ABERT SQUIRREL--FOOD

CoverType: CC SubArea: P0429



Model: ABERT SQUIRREL--REPRODUCTION

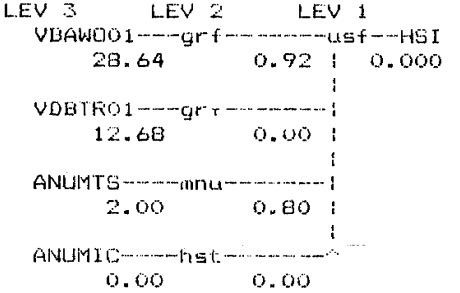
CoverType: CC SubArea: P0113



Study: ASEL3001 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

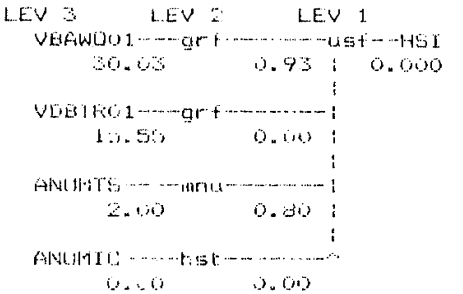
CoverType: CC SubArea: P0225



Study: ASEL3001 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

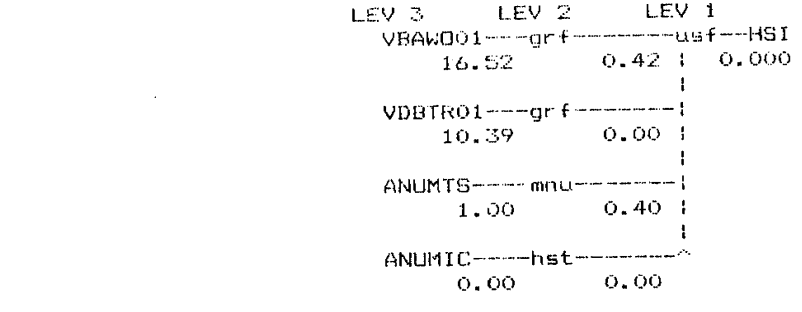
CoverType: CC SubArea: P0231



Study: ASEL3001 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

CoverType: CC SubArea: P0429



ASMSS002 HABITAT DATA 2-10-1988

MAINSTEM SOUTH
HABITAT: OPEN CANOPY CONIFER
SPECIES: ABERT SQUIRREL

	COVER TYPE / SUB-AREA:		
	OC	OC	OC
VARIABLE:	LA980	P0344	P0366
ANUMIC	0.000	2.000	4.000
ANUMTS	2.000	3.000	2.000
APERPP	50.000	14.286	56.264
BAPP	1.763	3.694	7.195
DBHPP	17.800	12.750	26.352
VBAWD01	5.642	3.702	7.650
VDBTR01	19.350	12.073	24.908

Study: ASMSS002 Model: ABERT SQUIRREL--FOOD 2-10-1988

CoverType	SubArea	Area	HSI
OC	LA980	1.0	0.000
OC	PO344	1.0	0.000
OC	PO366	1.0	0.000
Overall:		3.0	0.000

Study: ASMSS002 Model: ABERT SQUIRREL--REPRODUCTION 2-10-1988

CoverType	SubArea	Area	HSI
OC	LA980	1.0	0.000
OC	PO344	1.0	0.000
OC	PO366	1.0	0.000
Overall:		3.0	0.000

Study name: ASMSS002 2-10-1988

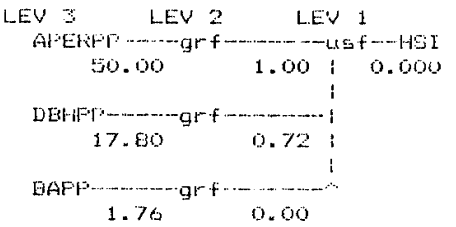
HSI Values For The Entire Study Area:

	Area	HSI
ABERT SQUIRREL--FOOD	3.0	0.000
ABERT SQUIRREL--REPRODUCTION	3.0	0.000

Study: ASMSS002 2-10-1988

Model: ABERT SQUIRREL--FOOD

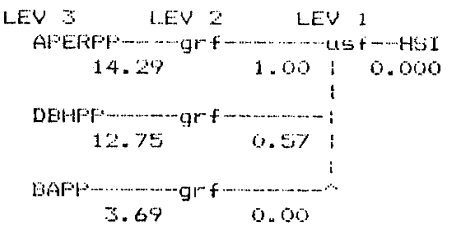
CoverType: OC SubArea: LA980



Study: ASMSS002 2-10-1988

Model: ABERT SQUIRREL--FOOD

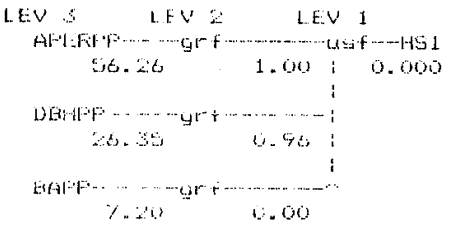
CoverType: OC SubArea: P0344



Study: ASMSS002 2-10-1988

Model: ABERT SQUIRREL--FOOD

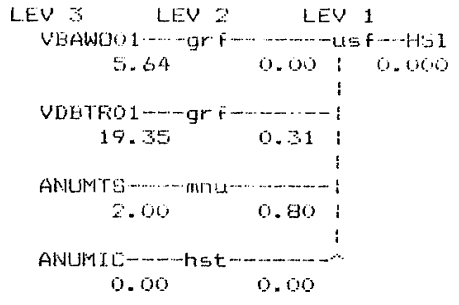
CoverType: OC SubArea: P0366



Study: ASMSS002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

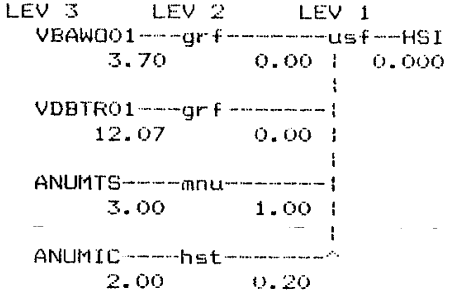
CoverType: OC SubArea: LA980



Study: ASMSS002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

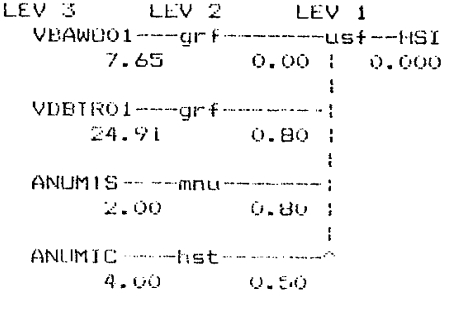
CoverType: OC SubArea: P0344



Study: ASMSS002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

CoverType: OC SubArea: P0366



ASEL3002 HABITAT DATA 2-10-1988

ELEVATION 3
HABITAT: OPEN CANOPY CONIFER
SPECIES: ABERT SQUIRREL

	COVER TYPE / SUB-AREA:				
	OC	OC	OC	OC	OC
VARIABLE:	LA788	PO101a	PO111	PO127	PO404
ANUMIC	4.000	7.000	2.000	10.000	0.000
ANUMTS	1.000	2.000	2.000	3.000	2.000
APERPP	76.667	70.000	42.121	46.154	6.250
BAPP	14.888	9.015	9.521	9.267	2.490
DBHPP	30.827	24.620	23.171	22.115	9.050
VBAW001	14.888	14.021	11.531	15.225	3.073
VDBTR01	30.827	20.395	21.371	21.533	9.583

Study: ASEL3002 Model: ABERT SQUIRREL--FOOD 2-10-1988

CoverType	SubArea	Area	HSI
OC	LA788	1.0	0.783
OC	PO101a	1.0	0.000
OC	PO111	1.0	0.000
OC	PO127	1.0	0.000
OC	PO404	1.0	0.000
Overall:		5.0	0.157

Study: ASEL3002 Model: ABERT SQUIRREL--REPRODUCTION 2-10-1988

CoverType	SubArea	Area	HSI
OC	LA788	1.0	0.501
OC	PO101a	1.0	0.570
OC	PO111	1.0	0.308
OC	PO127	1.0	0.666
OC	PO404	1.0	0.000
Overall:		5.0	0.409

Study name: ASEL3002 2-10-1988

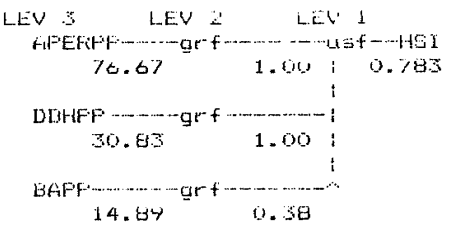
HSI Values For The Entire Study Area:

	Area	HSI
ABERT SQUIRREL--FOOD	5.0	0.157
ABERT SQUIRREL--REPRODUCTION	5.0	0.409

Study: ASEL3002 2-10-1988

Model: ABERT SQUIRREL--FOOD

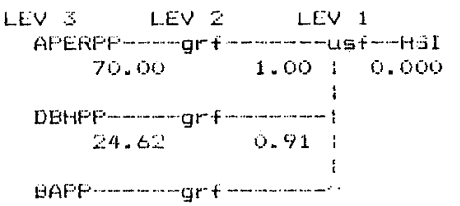
CoverType: OC SubArea: LA788



Study: ASEL3002 2-10-1988

Model: ABERT SQUIRREL--FOOD

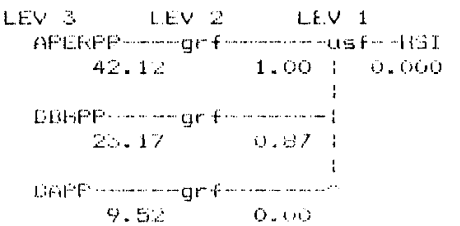
CoverType: OC SubArea: PO101a



Study: ASEL3002 2-10-1988

Model: ABERT SQUIRREL--FOOD

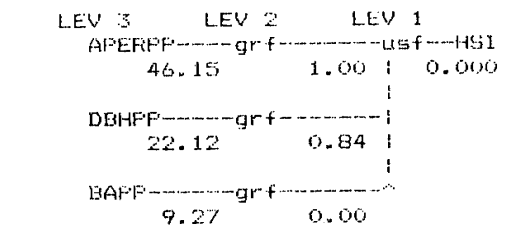
CoverType: OC SubArea: PO111



Study: ASEL3002 2-10-1988

Model: ABERT SQUIRREL--FOOD

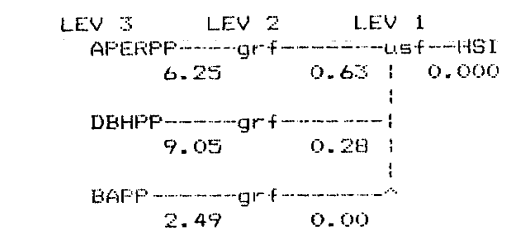
CoverType: OC SubArea: P0127



Study: ASEL3002 2-10-1988

Model: ABERT SQUIRREL--FOOD

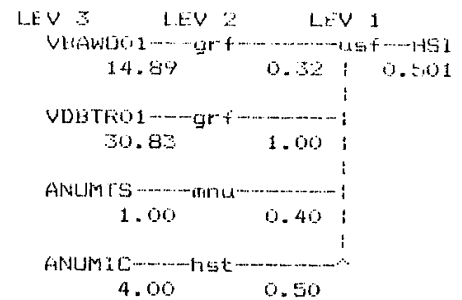
CoverType: OC SubArea: P0404



Study: ASEL3002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

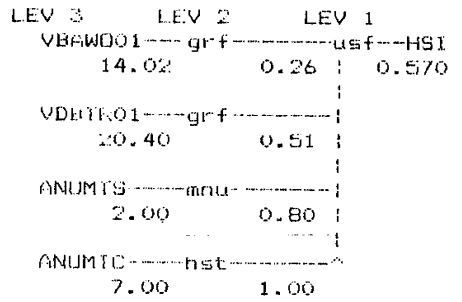
CoverType: OC SubArea: LA708



Study: ASEL3002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

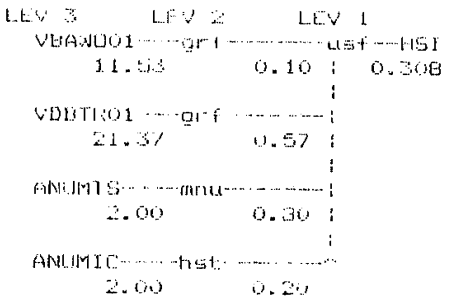
CoverType: OC SubArea: PO101a



Study: ASEL3002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

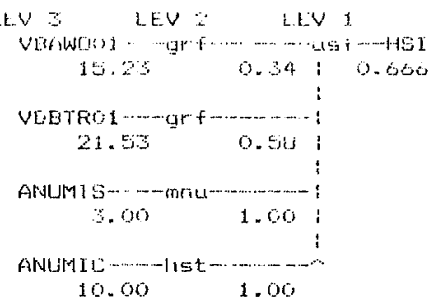
CoverType: OC SubArea: PO111



Study: ASEL3002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

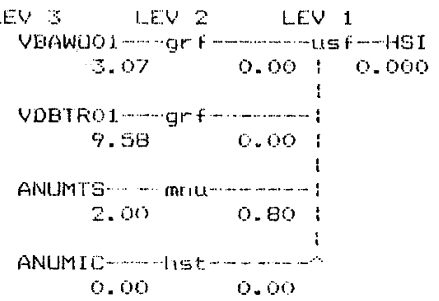
CoverType: OC SubArea: P0127



Study: ASEL3002 2-10-1988

Model: ABERT SQUIRREL--REPRODUCTION

CoverType: OC SubArea: P0404



APPENDIX G.2

BEAVER

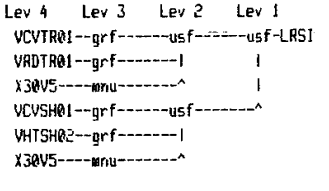
Library: C:EWRP.HLB
1-14-1988

Model # 1 Multi-covertype model.
Model name: BEAVER
Verification level: Expert Review
Creation/modification date: 3-31-1987

ALLEN, A. W. 1983.
HABITAT SUITABILITY INDEX MODELS: BEAVER.
U. S. FISH WILDL. SERV. FWS/OBS-82/10.30. REVISED. 20 pp.

Covertypes:
n30STR1 : 100m band around rivers & streams
n30STR2 : 100-200m band around rivers & streams
n30L(81 : 100m band around lakes (8ha
n30L(82 : 100-200m band around lakes (8ha
RIVERn : Streams, rivers, & other inland waters that are predominantly moving
n30L(8 : lakes, ponds, & reservoirs (8ha
PM : wet meadow/marsh
n30PM1 : 100m band around PM cover type
n30PM2 : 100-200m band around PM cover type
n30L)8 : Lakes, ponds, & reservoirs) 8ha
n30L)81 : 100m band around lakes) 8ha
n30L)82 : 100-200m band around lakes) 8ha

LIFE REQUISITE: WNTFOOD
Covertypes:
n30STR1, n30L)81, PM, n30PM1



Habitat variables:
VCVSH01 : Percent canopy cover of shrubs (i.e., all woody plants (6m tall) (%)
VCVTR01 : Percent canopy cover of trees (%)
VHTSH02 : Mean height of shrub canopy (not of individual shrubs) (m)
VADTR01 : % of the number of all trees that have 3-15cm DBH (%)
X30V5 :Spp. composition of woody veg. (Aspen,willow,cottonw=1,decid=2,coni=3)

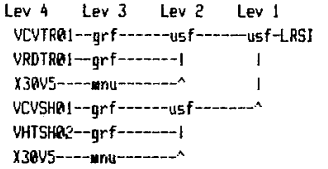
GRAPH FUNCTION at level 3, position 1
Title: Percent tree canopy closure
X: 0.000, Y: 0.000

```
     X:      40.000,   Y:   1.000
     X:      60.000,   Y:   1.000
     X:     100.000,   Y:   0.500

GRAPH FUNCTION at level 3, position 2
  Title:  % of trees that have 3 - 15 cm dbh
     X:       0.000,   Y:   0.200
     X:     100.000,   Y:   1.000

MENU FUNCTION at level 3, position 3
     Menu choice:       1      Output value:   1.000
     Menu choice:       2      Output value:   0.600
     Menu choice:       3      Output value:   0.200

GRAPH FUNCTION at level 3, position 4
  Title:  Percent shrub crown cover
     X:       0.000,   Y:   0.000
     X:      40.000,   Y:   1.000
     X:      60.000,   Y:   1.000
     X:     100.000,   Y:   0.000

GRAPH FUNCTION at level 3, position 5
  Title:  Ave. height shrub canopy
     X:       0.000,   Y:   0.000
     X:       2.000,   Y:   1.000
     X:       4.000,   Y:   1.000

MENU FUNCTION at level 3, position 6
     Menu choice:       1      Output value:   1.000
     Menu choice:       2      Output value:   0.600
     Menu choice:       3      Output value:   0.200

USER-SPECIFIED FUNCTION at level 2, position 1
USUB=((X(1)*X(2))^(1/2)*X(3))^(1/2)

USER-SPECIFIED FUNCTION at level 2, position 2
USUB=((X(1)*X(2))^(1/2)*X(3))^(1/2)

USER-SPECIFIED FUNCTION at level 1, position 1
USUB=X(1)+X(2)
```

IF USUB)1 THEN USUB =1

Comments:
Note: the cover types listed differ from those in the published model. This tree diagram considers the value of winter food within the wetlands themselves and within a 100 m band around the wetlands, and within a 100 m band around streams and lakes greater than 8 ha in size. These changes were made because the model requires measuring winter food in the lands adjacent to the wetlands and water. These bands will be different cover types and therefore should be sampled separately, as is suggested here.

LIFE REQUISITE: WNTFOOD
Covertypes:
n30STR2, n30L)82, n30PM2



Habitat variables:
VCVSH01 : Percent canopy cover of shrubs (i.e., all woody plants (6m tall) (%)
VCVTR01 : Percent canopy cover of trees (%)
VHTSH02 : Mean height of shrub canopy (not of individual shrubs) (m)
VRDTR01 : % of the number of all trees that have 3-15cm DBH (%)
X30V5 :Spp. composition of woody veg. (Aspen,willow,cottonw=1,decid=2,coni=3)

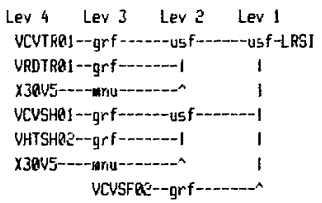
GRAPH FUNCTION at level 3, position 1
Title: Percent tree canopy closure
X: 0.000, Y: 0.000
X: 40.000, Y: 1.000
X: 60.000, Y: 1.000
X: 100.000, Y: 0.500

GRAPH FUNCTION at level 3, position 2
Title: % of trees that have 3 - 15 cm dbh
X: 0.000, Y: 0.200
X: 100.000, Y: 1.000

MENU FUNCTION at level 3, position 3

```
     Menu choice:       1      Output value:   1.000
     Menu choice:       2      Output value:   0.600
     Menu choice:       3      Output value:   0.200

GRAPH FUNCTION at level 3, position 4
  Title:  Percent shrub crown cover
     X:       0.000,    Y:   0.000
     X:      40.000,    Y:   1.000
     X:      60.000,    Y:   1.000
     X:     100.000,    Y:   0.800

GRAPH FUNCTION at level 3, position 5
  Title:  Ave. height shrub canopy
     X:       0.000,    Y:   0.000
     X:       2.000,    Y:   1.000
     X:       4.000,    Y:   1.000

MENU FUNCTION at level 3, position 6
     Menu choice:       1      Output value:   1.000
     Menu choice:       2      Output value:   0.600
     Menu choice:       3      Output value:   0.200

USER-SPECIFIED FUNCTION at level 2, position 1
USUB=((X(1)*X(2))^(1/2)*X(3))^(1/2)

USER-SPECIFIED FUNCTION at level 2, position 2
USUB=((X(1)*X(2))^(1/2)*X(3))^(1/2)

USER-SPECIFIED FUNCTION at level 1, position 1
USUB=X(1)+X(2)
IF USUB)1 THEN USUB =1
USUB = USUB * (0.5)

Comments:
Note: this tree diagram contains cover types somewhat different from those
in the published model. This diagram applies to the zone of habitat 100-
200 m around wetlands, streams, and lakes greater than 8 ha in size.
```

LIFE REQUISITE: WNTFOOD
Covertypes:
n30L (81



Habitat variables:
VCVSF02 : Percent canopy cover of yellow and white water lily (%)
VCVSH01 : Percent canopy cover of shrubs (i.e., all woody plants (6m tall) (%)
VCVTR01 : Percent canopy cover of trees (%)
VHTSH02 : Mean height of shrub canopy (not of individual shrubs) (m)
VRDTR01 : % of the number of all trees that have 3-15cm DBH (%)
X30V5 :Spp. composition of woody veg. (Aspen,willow,cottonw=1,decid=2,coni=3)

GRAPH FUNCTION at level 3, position 1
Title: Percent tree canopy closure
X: 0.000, Y: 0.000
X: 40.000, Y: 1.000
X: 60.000, Y: 1.000
X: 100.000, Y: 0.500

GRAPH FUNCTION at level 3, position 2
Title: % of trees that have 3 - 15 cm dbh
X: 0.000, Y: 0.200
X: 100.000, Y: 1.000

MENU FUNCTION at level 3, position 3
Menu choice: 1 Output value: 1.000
Menu choice: 2 Output value: 0.600
Menu choice: 3 Output value: 0.200

GRAPH FUNCTION at level 3, position 4
Title: Percent shrub crown cover
X: 0.000, Y: 0.000
X: 40.000, Y: 1.000
X: 60.000, Y: 1.000
X: 100.000, Y: 0.800

GRAPH FUNCTION at level 3, position 5
  Title: Ave. height shrub canopy
     X: 0.000,   Y: 0.000
     X: 2.000,   Y: 1.000
     X: 4.000,   Y: 1.000

MENU FUNCTION at level 3, position 6
     Menu choice: 1   Output value: 1.000
     Menu choice: 2   Output value: 0.600
     Menu choice: 3   Output value: 0.200

USER-SPECIFIED FUNCTION at level 2, position 1
USUB=((X(1)*X(2))^(1/2)*X(3))^(1/2)

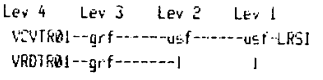
USER-SPECIFIED FUNCTION at level 2, position 2
USUB = ((X(1)*X(2))^(1/2)*X(3))^(1/2)

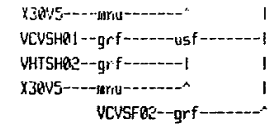
GRAPH FUNCTION at level 2, position 3
  Title: % of lake surf. dominated by water lily
     X: 0.000,   Y: 0.000
     X: 100.000,   Y: 0.400

USER-SPECIFIED FUNCTION at level 1, position 1
USUB=X(1)+X(2)
IF USUB)1 THEN USUB =1
USUB=USUB + X(3)
IF USUB)1 THEN USUB =1

Comments:
Note: this tree diagram applies to lakes less than 8 ha in size and a band 100 m surrounding such lakes.

LIFE REQUISITE: WNTFOOD
Covertypes:
    m30L(82, m30L)82





Habitat variables:
VCVSF02 : Percent canopy cover of yellow and white water lily (%)
VCVSH01 : Percent canopy cover of shrubs (i.e., all woody plants (6m tall) (%)
VCVTR01 : Percent canopy cover of trees (%)
VHTSH02 : Mean height of shrub canopy (not of individual shrubs) (m)
VRDTR01 : % of the number of all trees that have 3-15cm DBH (%)
X30V5 :Spp. composition of woody veg. (Aspen,willow,cottonw=1,decid=2,conif=3)

GRAPH FUNCTION at level 3, position 1
Title: Percent tree canopy closure
X: 0.000, Y: 0.000
X: 40.000, Y: 1.000
X: 60.000, Y: 1.000
X: 100.000, Y: 0.500

GRAPH FUNCTION at level 3, position 2
Title: % of trees that have 3 - 15 cm dbh
X: 0.000, Y: 0.200
X: 100.000, Y: 1.000

MENU FUNCTION at level 3, position 3
Menu choice: 1 Output value: 1.000
Menu choice: 2 Output value: 0.600
Menu choice: 3 Output value: 0.200

GRAPH FUNCTION at level 3, position 4
Title: Percent shrub crown cover
X: 0.000, Y: 0.000
X: 40.000, Y: 1.000
X: 60.000, Y: 1.000
X: 100.000, Y: 0.800

GRAPH FUNCTION at level 3, position 5
Title: Ave. height shrub canopy
X: 0.000, Y: 0.000
X: 2.000, Y: 1.000
X: 4.000, Y: 1.000

MENU FUNCTION at level 3, position 6

Menu choice:	1	Output value:	1.000
Menu choice:	2	Output value:	0.600
Menu choice:	3	Output value:	0.200

USER-SPECIFIED FUNCTION at level 2, position 1
USUB=((X(1)*X(2))^(1/2)*X(3))^(1/2)

USER-SPECIFIED FUNCTION at level 2, position 2
USUB=((X(1)*X(2))^(1/2)*X(3))^(1/2)

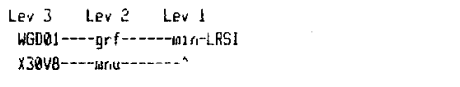
GRAPH FUNCTION at level 2, position 3
Title: % of lake surface dominated by lily

X:	0.000,	Y:	0.000
X:	100.000,	Y:	0.400

USER-SPECIFIED FUNCTION at level 1, position 1
USUB=X(1)+X(2)
IF USUB)1 THEN USUB=1
USUB=(USUB * 0.5) + X(3)

Comments:
Note: this tree diagram applies to a band 100-200 m around lakes of all sizes.

LIFE REQUISITE: WATER
Covertypes:
RIVERn



Habitat variables:
WGD01 : Stream gradient (m/km,n)
X30V8 : Avg. water fluctuation on annual basis (small=1,moderate=2,extreme=3)

GRAPH FUNCTION at level 2, position 1

```
  Title:  Percent stream gradient
     X:       0.000,    Y:   1.000
     X:       6.000,    Y:   1.000
     X:      15.000,    Y:   0.000
     X:      20.000,    Y:   0.000


MENU FUNCTION at level 2, position 2
     Menu choice:       1      Output value:   1.000
     Menu choice:       2      Output value:   0.500
     Menu choice:       3      Output value:   0.000


Comments:
     (none)
```

```
LIFE REQUISITE:  WATER
Covertypes:
   n30L)8


                    Lev 4    Lev 3    Lev 2    Lev 1
                              X30V8----mnu------min-LRSI
                   SED01----usf------grf-------^
                   SAR101----^
```

Habitat variables:
SAR101 : Surface area of lake or reservoir at listed elevation (ha,n)
SED01   : Length of shoreline (km,n)
X30V8   : Avg. water fluctuation on annual basis (small=1,moderate=2,extreme=3)

```
USER-SPECIFIED FUNCTION at level 3, position 2
USUB=X(1)*10 /(2*((X(2)*3.14)^(1/2))) 'correct for units


MENU FUNCTION at level 2, position 1
     Menu choice:       1      Output value:   1.000
     Menu choice:       2      Output value:   0.500
     Menu choice:       3      Output value:   0.000


GRAPH FUNCTION at level 2, position 2
  Title:  Shoreline development factor
     X:       1.000,    Y:   0.100
     X:       3.000,    Y:   1.000
     X:       5.000,    Y:   1.000
```

Comments:
(none)

LIFE REQUISITE: WATER
Covertypes:
n30L(8, PM

Lev 2 Lev 1
X30V8---smu-LRSI

Habitat variables:
X30V8 : Avg. water fluctuation on annual basis (small=1,moderate=2,extreme=3)

MENU FUNCTION at level 1, position 1

Menu choice:	1	Output value:	1.000
Menu choice:	2	Output value:	0.500
Menu choice:	3	Output value:	0.000

Comments:
(none)

LIFE REQUISITE: WATER2
Covertypes:
RIVERn, n30L(8, n30L)8, n30STR1, n30STR2, n30L(81, n30L(82, n30L)81
n30L)82, PM, n30PM1, n30PM2

Lev 2 Lev 1
BAREA2---sum-LRSI

Habitat variables:
BAREA2 : (AREA OF RIVERn+n30L(8+n30L)8+PM)/(area of all beaver cts)

Comments:
NOTE:this life requisite is not a part of the published model. It was added to allow the proper consideration of water values. The variable BEAV10 asks how much of the total beaver habitat is in cover types that can provide a water value. For example, if 50% (0.5) of the area being analyzed is in water providing cover types, this will be used in HSI calculations as a standard of comparison. Thus, since this model is being treated as a multi-cover type model, this variable will automatically set up a composition percentage for water that is dependent on the cover type mix in each study area. In effect, what this does is say that the best conditions occur when water habitat values (from SI graphs) are at

optimum (1.0), regardless of the amount of area present in water cover types. Without this life requisite, the model would require an estimate of how much of the area should be in water types compared to upland types that provide food only.

LIFE REQUISITE: WTFOOD2
Covertypes:
n30STR1, n30STR2, n30L(81, n30L(82, n30L)81, n30L)82, RIVERn, n30L(8
n30L)8, PM, n30PM1, n30PM2

```
                          Lev 2    Lev 1
                           X30V30---sum-LRSI
```

Habitat variables:
X30V30 : [(area of all beaver CT's)-~~STREAMn~~-n30L(8-n30L)8]/(area, beav. CT's)
RIVERn

Comments:
Note: the purpose of this tree diagram is to be sure that WNTFOOD is properly considered in HSI calculations.
Note: this life requisite was added for the same basic reasons as noted under the comments for the life requisite WATER2, except that this applies to food producing cover types.

DISTANCE FUNCTION:
(not used)

HSI TREE DIAGRAM:

```
                      Lev 3    Lev 2    Lev 1
                       WNTFOOD--usf------min--HSI
                       WTFOOD2---^         |
                       WATER----usf-------^
                       WATER2----^
```

USER-SPECIFIED FUNCTION at level 2, position 1
USUB=X(1)/X(2)

USER-SPECIFIED FUNCTION at level 2, position 2
USUB=X(1)/X(2)

Comments:
Note: this tree diagram does not appear in the published model. It is

necessary because the beaver has been entered as a multi-cover type species. WNTFOOD represents the percent of the area in equivalent optimum winter food. WTFOOD2 is the percent of the area that is in cover types that have the potential to provide winter food. The user specified function compares the amount of area in optimum food with the total amount of area potentially available in food producing types. The same process is used to scale the water life requisite value against the amount of area in water cover types.

BEAVER1 HABITAT DATA 2-25-1988

CACHE LA POUDRE PROJECT
without project--beaver
all target years

	COVER TYPE / SUB-AREA:	
	n30STR1	n30STR2
VARIABLE:	n30STR1	n30STR2
BAREA2	1.000	1.000
SAR101	*****	*****
SED01	*****	*****
VCVSF02	*****	*****
VCVSH01	16.770	16.270
VCVTR01	11.690	7.050
VHTSH02	1.900	1.650
VRDTR01	45.470	37.000
WGD01	*****	*****
X30V30	1.000	1.000
X30V5	1.000	2.000
X30V8	*****	*****

Study: BEAVER1 BEAVER 2-25-1988

Equivalent Optimum Areas (%)

	WNTFOOD	WATER	WATER2	WTFOOD2
n30STR1 n30STR1	50.000	0.000	50.000	50.000
n30STR2 n30STR2	25.000	0.000	50.000	50.000
Total:	75.000	0.000	100.000	100.000

BEAVER HSI is 0.000

Study name: BEAVER1 2-25-1988

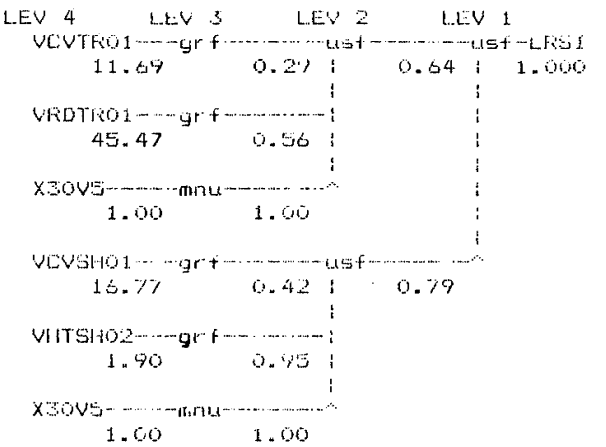
HSI Values For The Entire Study Area:

	Area	HSI
BEAVER	2.0	0.000

Study: BEAVER1 2-25-1988

Model: BEAVER Life requisite: WNTFOOD

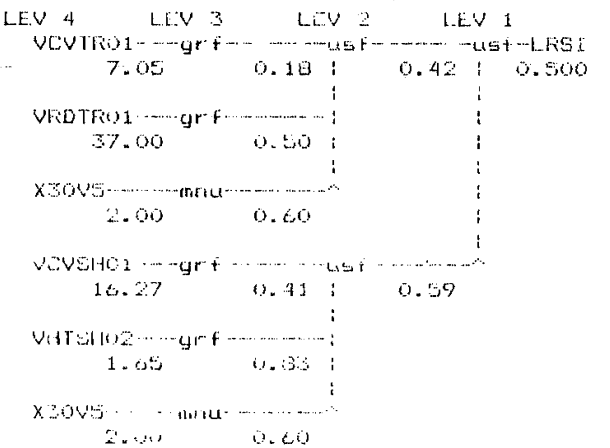
CoverType: n30STR1 SubArea: n30STR1



Study: BEAVER1 2-25-1988

Model: BEAVER Life requisite: WNTFOOD

CoverType: n30STR2 SubArea: n30STR2



BEAVER2 HABITAT DATA 2-25-1988

CACHE LA POUDRE PROJECT
river without project
all target years

	COVER TYPE / SUB-AREA:
	RIVERn
VARIABLE:	RIVERn
BAREA2	1.000
SAR101	*****
SED01	*****
VCVSF02	*****
VCVSH01	*****
VCVTR01	*****
VHTSH02	*****
VRDTR01	*****
WGD01	1.000
X30V30	1.000
X30V5	*****
X30V8	1.000

Study: BEAVER2 BEAVER 2-25-1988

Equivalent Optimum Areas (%)

		WNTFOOD	WATER	WATER2	WTFOOD2
RIVERn	RIVERn	0.000	100.000	100.000	100.000
Total:		0.000	100.000	100.000	100.000

BEAVER HSI is 0.000

Study name: BEAVER2 2-25-1988

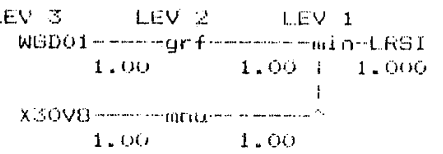
HSI Values For The Entire Study Area:

	Area	HSI
BEAVER	1.0	0.000

Study: BEAVER2 2-25-1988

Model: BEAVER Life requisite: WATER

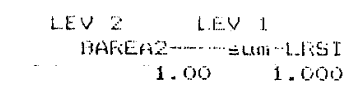
CoverType: RIVERn SubArea: RIVERn



Study: BEAVER2 2-25-1988

Model: BEAVER Life requisite: WATER2

CoverType: RIVERn SubArea: RIVERn



BEAVER3 HABITAT DATA 2-25-1988

CACHE LA POUDRE
WITH GREY MOUNTAIN----BEAVER
TARGET YEARS TY12 AND TY50

	COVER TYPE / SUB-AREA:		
	RIVERn	n30STR1	n30STR2
VARIABLE:	RIVERn	n30STR1	n30STR2
BAREA2	1.000	1.000	1.000
SAR101	*****	*****	*****
SED01	*****	*****	*****
VCVSF02	*****	*****	*****
VCVSH01	*****	15.200	11.340
VCVTR01	*****	23.230	19.460
VHTSH02	*****	2.180	2.270
VRDTR01	*****	56.400	44.530
WBD01	1.000	*****	*****
X30V30	1.000	1.000	1.000
X30V5	*****	1.000	2.000
X30V8	2.000	*****	*****

Study: BEAVER3 BEAVER 2-25-1933

Equivalent Optimum Areas (%)

		WNTFOOD	WATER	WATER2	WTFOOD2
RIVERn	RIVERn	0.000	16.667	33.333	33.333
n30STR1	n30STR1	33.333	0.000	33.333	33.333
n30STR2	n30STR2	16.667	0.000	33.333	33.333
Total:		50.000	16.667	100.000	100.000

BEAVER HSI is 0.167

Study name: BEAVER3 2-25-1986

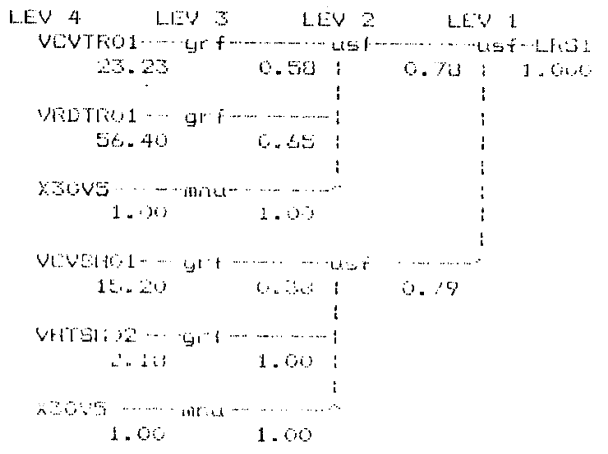
HSI Values For The Entire Study Area:

	Area	HSI
BEAVER	3.0	0.167

Study: BEAVER3 2-25-1983

Model: BEAVER Life requisite: WNTFOOD

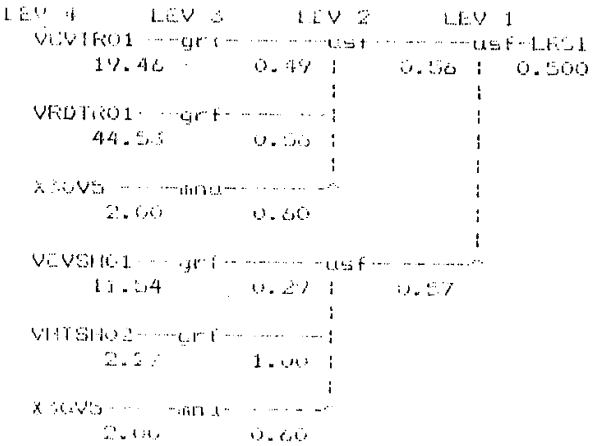
Cover Type: n30STR1 Subarea: n30STR1



Study: BEAVER3 2-25-1983

Model: BEAVER Life requisite: WNTFOOD

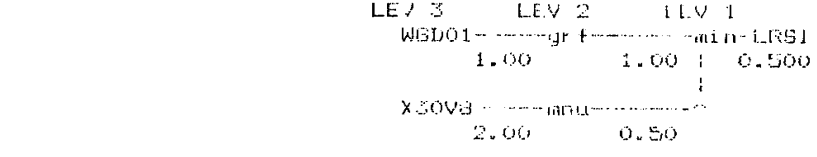
Cover Type: n30STR2 Subarea: n30STR2



Study: BEAVER3 2-25-1988

Model: BEAVER Life requisite: WATER

CoverType: RIVERn SubArea: RIVERn



Study: BEAVER3 2-25-1988

Model: BEAVER Life requisite: WATER2

CoverType: RIVERn SubArea: RIVERn

BEAVER4 HABITAT DATA 2-2o-1988

CACHE LA POUDRE HEP PROJECT
WITH POUDRE---BEAVER
TARGET YEARS TY12 AND TY50

	COVER TYPE / SUB-AREA:		
	RIVERn	n30STR1	n30STR2
VARIABLE:	RIVERn	n30STR1	n30STR2
BAREA2	1.000	1.000	1.000
SAR101	*****	*****	*****
SED01	*****	*****	*****
VCVSF02	*****	*****	*****
VCVSH01	*****	16.660	12.080
VCVTR01	*****	19.650	19.050
VHTSH02	*****	2.100	2.150
VRDTR01	*****	58.940	44.400
WGD01	1.000	*****	*****
X30V30	1.000	1.000	1.000
X30V5	*****	1.000	2.000
X30V8	2.000	*****	*****

Study name: BEAVER4

2-26-1988

HSI Values For The Entire Study Area:

	Area	HSI
BEAVER	3.0	0.167

Study: BEAVER4 BEAVER 2-26-1988

Equivalent Optimum Areas (%)

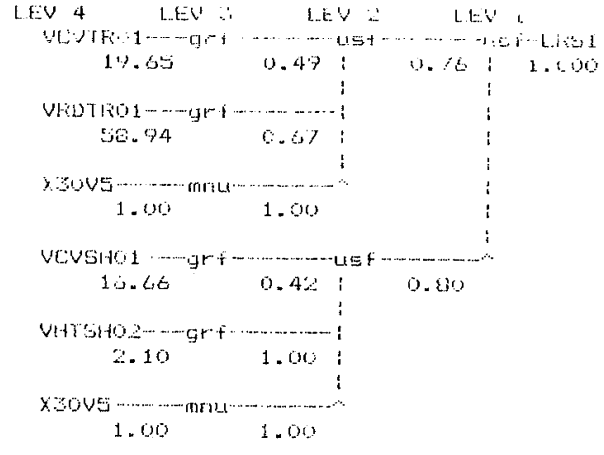
		WNTFOOD	WATER	WATER2	WTFOOD2
RIVERn	RIVERn	0.000	16.667	33.333	33.333
n30STR1	n30STR1	33.333	0.000	33.333	33.333
n30STR2	n30STR2	16.667	0.000	33.333	33.333
Total:		50.000	16.667	100.000	100.000

BEAVER HSI is 0.167

Study: BEAVER4 2-26-1988

Model: BEAVER Life requisite: WNTFOUD

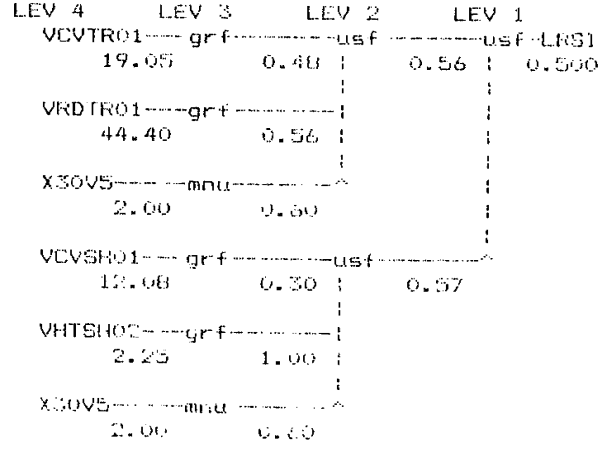
CoverType: n30STR1 SubArea: n30STR1



Study: BEAVER4 2-26-1988

Model: BEAVER Life requisite: WNTFOUD

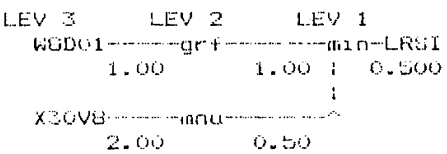
CoverType: n30STR2 SubArea: n30STR2



Study: BEAVER4 2-26-1988

Model: BEAVER Life requisite: WATER

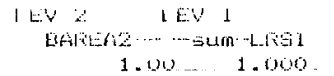
CoverType: RIVERn SubArea: RIVERn



Study: BEAVER4 2-26-1988

Model: BEAVER Life requisite: WATER2

CoverType: RIVERn SubArea: RIVERn



SPREADSHEET TO TRACK THE ACREAGES AND DATA OF EACH COVER-TYPE TO BE EVALUATED AS BEAVER HABITAT WITHOUT PROJECT

TY12 AND TY50 WITH GREY MOUNTAIN PROJECT

Cover Type/ Sub-area	Input Data								Intermediate HSIs							Cover Type			
	Acreage	% Tree Cover	% Shrub Cover	Shrub Height	% Small Trees	Stream Gradient	Water Fluctuation	Species Compostion	TC Average SI1	ST Average SI2	SpC Average SI3	SC Average SI4	SH Average SI5	WF Average SI6	SG Average SI7	Food	Food*	Food**	Water	Food HSI	Water HSI	HSI
riverine & tributary (nRIVER)	50.76	**********					1	**********	**********					0.50	1.00	**********			0.50	0.78	0.50	0.50
0-100M (n30STR1)		23.23	15.2	2.18	56.40	**********		1	0.53	0.65	1.00	0.38	1.00	**********		1.57	1.00	0.846	******			
100-200M (n30STR2)		19.46	11.54	2.27	44.53	**********		2	0.49	0.56	0.60	0.29	1.00	**********		0.56	0.56	0.325	******			

NOTES

The input data are wieghted averages from all MSE, MSN, MSS, and Glade.
total areas of the bands for riverine areas were calculated by multiplying the length of river by 100m (328 ft)
FOOD** is weighted by the proportion of the band that is considered beaver habitat, excluding >40% slope and roaded areas.

SPREADSHEET TO TRACK THE ACREAGES AND DATA OF EACH COVER-TYPE TO BE EVALUATED AS BEAVER HABITAT WITHOUT PROJECT

TY12 AND TY50 WITH POUDRE PROJECT

Cover Type/ Sub-area	Input Data							Intermediate HSIs							Cover Type		
	Acreage	% Tree Cover	% Shrub Cover	Shrub height	% Small Trees	Stream Gradient	Water Fluctuation	Species Composition	TC Average SI1	ST Average SI2	SpC Average SI3	SC Average SI4	SH Average SI5	WF Average SI6	SG Average SI7	Food	Food*	Food**	Water	Food HSI	Water HSI	HSI
riverine & tributary (nRIVER)	78.52	**********				:	1	**********	**********					0.50	1.00	**********			0.50	0.59	0.50	0.50
0-100M (n30STR1)		19.65	16.66	2.16	56.94	**********	1		0.49	0.67	1.00	0.42	1.00	**********		1.56	1.00	0.656	******			
100-200M (n20STR2)		19.05	12.08	2.25	44.40	**********	2		0.48	0.56	0.60	0.30	1.00	**********		0.57	0.57	0.227	******			

NOTES

The input data are weighted averages from all MSE, MSN, MSS, and Glade.
total areas of the bands for riverine areas were calculated by multiplying the length of river by 100m (328 ft)
FOOD** is weighted by the proportion of the band that is considered beaver habitat, excluding 40% slope and roaded areas.

HEP ANALYSIS OF BEAVER DATA

WITHOUT PROJECT AAHU's CALCULATIONS

TY0-TY1	TY1-TY12	TY12-TY50	total
126.56	1392.16	4809.26	126.56

WITH GREY MOUNTAIN ALTERNATIVE

TY0-TY1	TY1-TY12	TY12-TY50	total
126.56	785.81	964.44	37.56

WITH POUDRE ALTERNATIVE

TY0-TY1	TY1-TY12	TY12-TY50	total
126.56	873.75	1491.88	49.84

NET CHANGE IN AAHU'S

GREY MOUNTAIN VS. WITHOUT PROJECT	POUDRE VS. WITHOUT PROJECT
-89.00	-76.72

SPREADSHEET TO CALCULATE HABITAT VARIABLE AVERAGES FOR 0-100M AND 100-200M BANDS ADJACENT TO RIVERINE OR PALUSTRINE HABITAT

MAINSTEM EAST
TY0, TY1, TY12, & TY50 WITHOUT-PROJECT AND TY0, TY1 WITH-PROJECT--PALUSTRINE HABITATS (spreadsheet 1a)
100-200M BAND

Community Type	Acreage	Percent of Total	Percent of all Tree cts	Percent of all Shrub cts	Habitat Averages and Weighted Averages: % Tree Canopy Closure	Weighted Tree Closure	% Shrub Canopy Closure	Weighted Shrub Closure	Shrub Height	Weighted Shrub Height	% Trees 2.5-15.2 cm dbh	Weighted Small Trees
closed canopy conifer	25.72	12.49	32.32	13.14	37.84	4.73	2.68	0.33	1.50	0.20	58.58	18.94
open canopy conifer	52.94	25.71	66.53	27.05	39.96	10.27	6.75	1.74	1.56	0.37	39.74	26.44
mountain shrub	76.71	37.25	96.41	39.20	0.00	0.00	27.24	10.15	1.79	0.70	0.00	0.00
grassland	39.24	19.06	49.32	20.05	0.00	0.00	0.00	0.00		0.00	0.00	0.00
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
agriculture	8.02	3.89	10.08	4.10	0.00	0.00	0.00	0.00		0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
disturbed	2.23	1.08	2.80	1.14	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riparian forest	0.91	0.44	1.14	0.47	30.96	0.14	22.28	0.10	2.40	0.01	57.83	0.66
riparian shrub	0.16	0.08	0.20	0.06	0.00	0.00	55.76	0.04	2.03	0.00	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.00	1.23	0.00	0.00	0.00
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
TOTALS	205.93	100.00	100.00	100.00		15.14		12.36		1.28		46.04
	79.57											
	195.68											

MAINSTEM EAST
TY0, TY1, TY12, & TY50 WITHOUT-PROJECT AND TY0, TY1 WITH-PROJECT--PALUSTRINE HABITATS (spreadsheet 1b)
0-100M BAND

					Habitat Averages and Weighted Averages							
Community Type	Acreage	Percent of Total	Percent of all Tree cts	Percent of all Shrub cts	% Tree Canopy Closure	Weighted Tree Closure	% Shrub Canopy Closure	Weighted Shrub Closure	Shrub Height	Weighted Shrub Height	% Trees 2.5-15.2 cm dbh	Weighted Small Trees
closed canopy conifer	23.14	6.42	27.06	9.08	37.84	2.43	2.68	0.17	1.50	0.14	58.58	15.85
open canopy conifer	29.04	8.06	33.96	11.39	39.96	3.22	6.75	0.54	1.36	0.15	39.74	13.50
mountain shrub	110.29	30.60	128.98	43.27	0.00	0.00	27.24	8.34	1.79	0.77	0.00	0.00
grassland	57.8	16.04	67.59	22.68	0.00	0.00	0.00	0.00		0.00	0.00	0.00
rock and talus	2.92	0.81	3.41	1.15	0.00	0.00	0.00	0.00		0.00	0.00	0.00
agriculture	4.64	1.29	5.43	1.82	0.00	0.00	0.00	0.00		0.00	0.00	0.00
developed	2.86	0.79	3.34	1.12	0.00	0.00	0.00	0.00		0.00	0.00	0.00
disturbed	4.87	1.35	5.70	1.91	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riparian forest	33.33	9.25	38.98	13.08	30.96	2.86	22.28	2.06	2.40	0.31	57.83	22.54
riparian shrub	13.33	3.70	15.59	5.23	0.00	0.00	55.76	2.06	2.03	0.11	0.00	0.00
riparian grassland	7.44	2.06	8.70	2.92	0.00	0.00	0.55	0.01	1.23	0.04	0.00	0.00
palustrine marsh	38.31	10.63	44.80	15.03	0.00	0.00	6.95	0.74	2.24	0.34	0.00	0.00
palustrine pond	32.47	9.01	37.97	12.74	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
TOTALS	360.44	100.00	100.00	100.00		8.51		13.92		1.86		51.89
	85.51											
	254.88											

MAINSTEM EAST
TY12 & TY50 WITH PROJECT (GREY MOUNTAIN)--RIVERINE HABITATS (spreadsheet 1c)
100-200M BAND

					Habitat Averages and Weighted Averages							
Community Type	Acreage	Percent of Total	Percent of all Tree cts	Percent of all Shrub cts	% Tree Canopy Closure	Weighted Tree Closure	% Shrub Canopy Closure	Weighted Shrub Closure	Shrub Height	Weighted Shrub Height	% Trees 2.5-15.2 cm dbh	Weighted Small Trees
closed canopy conifer	0.00	0.00	0.00	0.00	37.84	0.00	2.68	0.00	1.50	0.00	58.58	0.00
open canopy conifer	0.00	0.00	0.00	0.00	39.96	0.00	6.75	0.00	1.36	0.00	39.74	0.00
mountain shrub	2.86	19.92	501.75	82.18	0.00	0.00	27.24	5.43	1.79	1.47	0.00	0.00
grassland	2.86	19.92	501.75	82.18	0.00	0.00	0.00	0.00		0.00	0.00	0.00
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
agriculture	8.02	55.85	1407.02	230.46	0.00	0.00	0.00	0.00		0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riparian forest	0.57	3.97	100.00	16.38	30.96	1.23	22.28	0.88	2.40	0.39	57.83	57.83
riparian shrub	0.05	0.35	8.77	1.44	0.00	0.00	55.76	0.19	2.03	0.03	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.00	1.23	0.00	0.00	0.00
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.24	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
TOTALS	14.36	100.00	100.00	100.00		1.23		6.50		1.89		57.83
	0.57											
	3.48											

MAINSTEM EAST
TY12 & TY50 WITH PROJECT (GREY MOUNTAIN)--RIVERINE HABITATS (spreadsheet 1d)
0-100M BAND

Community Type	Acreage	Percent of Total	Percent of all Tree cts	Percent of all Shrub cts	Habitat Averages and Weighted Averages: % Tree Canopy Closure	Weighted Tree Closure	% Shrub Canopy Closure	Weighted Shrub Closure	Shrub Height	Weighted Shrub Height	% Trees 2.5-15.2 cm dbh	Weighted Small Trees
closed canopy conifer	0.00	0.00	0.00	0.00	37.84	0.00	2.68	0.00	1.50	0.00	58.58	0.00
open canopy conifer	0.00	0.00	0.00	0.00	39.96	0.00	6.75	0.00	1.36	0.00	39.74	0.00
mountain shrub	2.66	7.01	14.60	10.05	0.00	0.00	27.24	1.91	1.79	0.18	0.00	0.00
grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
agriculture	4.64	11.37	23.69	16.31	0.00	0.00	0.00	0.00		0.00	0.00	0.00
developed	2.86	7.01	14.60	10.05	0.00	0.00	0.00	0.00		0.00	0.00	0.00
disturbed	4.87	11.93	24.86	17.12	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riparian forest	19.59	47.99	100.00	68.86	30.96	14.86	22.28	10.69	2.40	1.65	57.83	57.83
riparian shrub	4.46	10.93	22.77	15.68	0.00	0.00	55.76	6.09	2.03	0.32	0.00	0.00
riparian grassland	1.54	3.77	7.86	5.41	0.00	0.00	0.55	0.02	1.23	0.07	0.00	0.00
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.24	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
TOTALS	40.82	100.00	100.00	100.00		14.86		18.71		2.22		57.83
	19.59											
	28.45											

MAINSTEM EAST
TY12 & TY50 WITH PROJECT (POLDRE)--RIVERINE HABITATS (spreadsheet 1e)
100-100M BAND

Community Type	Acreage	Percent of Total	Percent of all Tree cts	Percent of all Shrub cts	Habitat Averages and Weighted Averages: % Tree Canopy Closure	Weighted Tree Closure	% Shrub Canopy Closure	Weighted Shrub Closure	Shrub Height	Weighted Shrub Height	% Trees 2.5-15.2 cm dbh	Weighted Small Trees
closed canopy conifer	0.00	0.00	0.00	0.00	37.84	0.00	2.68	0.00	1.50	0.00	58.58	0.00
open canopy conifer	0.00	0.00	0.00	0.00	39.96	0.00	6.75	0.00	1.36	0.00	39.74	0.00
mountain shrub	2.86	19.92	501.75	82.18	0.00	0.00	27.24	5.43	1.79	1.47	0.00	0.00
grassland	2.86	19.92	501.75	82.18	0.00	0.00	0.00	0.00		0.00	0.00	0.00
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
agriculture	8.02	55.85	1407.02	230.46	0.00	0.00	0.00	0.00		0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riparian forest	0.57	3.97	100.00	16.38	30.96	1.23	22.28	0.88	2.40	0.39	57.83	57.83
riparian shrub	0.05	0.35	8.77	1.44	0.00	0.00	55.76	0.19	2.03	0.03	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.00	1.23	0.00	0.00	0.00
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.24	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
TOTALS	14.36	100.00	100.00	100.00		1.23		6.50		1.89		57.83
	0.57											
	3.48											

MAINSTEM EAST
TY12 & TY50 WITH PROJECT (POUDRE)--RIVERINE HABITATS (spreadsheet 1e)
0-100M BAND

Community Type	Acreage	Percent of Total	Percent of all Tree cts	Percent of all Shrub cts	Habitat Averages and Weighted Averages: % Tree Canopy Closure	Weighted Tree Closure	% Shrub Canopy Closure	Weighted Shrub Closure	Shrub Height	Weighted Shrub Height	% Trees 2.5-15.2 cm dbh	Weighted Small Trees
closed canopy conifer	0.00	0.00	0.00	0.00	37.84	0.00	2.68	0.00	1.50	0.00	58.56	0.00
open canopy conifer	0.05	0.10	0.79	0.17	39.96	0.04	6.75	0.01	1.36	0.00	39.74	0.32
mountain shrub	20.22	41.04	321.46	67.81	0.00	0.00	27.24	11.18	1.79	1.21	0.00	0.00
grassland	9.04	18.35	143.72	30.32	0.00	0.00	0.00	0.00		0.00	0.00	0.00
rock and talus	0.40	0.81	6.36	1.34	0.00	0.00	0.00	0.00		0.00	0.00	0.00
agriculture	8.02	16.28	127.50	26.89	0.00	0.00	0.00	0.00		0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
disturbed	1.94	3.94	30.84	6.51	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riparian forest	6.24	12.66	99.21	20.93	30.96	3.92	22.28	2.82	2.40	0.50	57.83	57.37
riparian shrub	3.31	6.72	52.62	11.10	0.00	0.00	55.76	3.75	2.03	0.23	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.00	1.23	0.00	0.00	0.00
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.24	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riverine	0.05	0.10	0.79	0.17	0.00	0.00	0.00	0.00		0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
TOTALS	49.27	100.00	100.00	100.00		3.96		17.75		1.94		57.69
	6.29											
	29.82											

MAINSTEM NORTH
TY0, TY1, TY12, AND TY50 WITHOUT PROJECT--RIVERINE HABITATS (spreadsheet 2a)
100-200M BAND

Community Type	Acreage	Percent of Total	Percent of all Tree cts	Percent of all Shrub cts	Habitat Averages and Weighted Averages: % Tree Canopy Closure	Weighted Tree Closure	% Shrub Canopy Closure	Weighted Shrub Closure	Shrub Height	Weighted Shrub Height	% Trees 2.5-15.2 cm dbh	Weighted Small Trees
closed canopy conifer	0.80	0.28	4.54	0.28	63.40	0.18	1.00	0.00	1.51	0.00	86.86	3.94
open canopy conifer	13.86	4.89	78.62	4.91	16.84	0.82	18.26	0.89	1.58	0.08	21.05	16.55
mountain shrub	193.26	68.23	1096.20	68.48	0.00	0.00	33.07	22.56	1.74	1.19	0.00	0.00
grassland	71.33	25.18	404.59	25.27	0.00	0.00	0.00	0.00	1.71	0.43	0.00	0.00
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
developed	0.68	0.24	3.86	0.24	0.00	0.00	0.00	0.00		0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riparian forest	2.97	1.05	16.85	1.05	43.78	0.46	14.48	0.15	1.90	0.02	28.21	4.75
riparian shrub	0.00	0.00	0.00	0.00	0.00	0.00	65.16	0.00	2.54	0.00	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.08	0.00	0.00	0.00
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
lacustrine	0.34	0.12	1.93	0.12	0.00	0.00	0.00	0.00		0.00	0.00	0.00
TOTALS	283.24	100.00	100.00	100.00		1.46		23.61		1.73		25.24
	17.63											
	282.22											

MAINSTEM NORTH
TY0, TY1, TY12, AND TY50 WITHOUT PROJECT--RIVERINE HABITATS (spreadsheet 2b)
0-100M BAND

Community Type	Acreage	Percent of Total	Percent of all Tree cts	Percent of all Shrub cts	Habitat Averages and Weighted Averages: % Tree Canopy Closure	Weighted Tree Closure	% Shrub Canopy Closure	Weighted Shrub Closure	Shrub Height	Weighted Shrub Height	% Trees 2.5-15.2 cm dbh	Weighted Small Trees
closed canopy conifer	0.00	0.00	0.00	0.00	63.40	0.00	1.00	0.00	1.51	0.00	86.86	0.00
open canopy conifer	24.97	5.71	37.91	5.95	16.84	0.76	18.26	1.04	1.58	0.09	21.05	7.98
mountain shrub	224.09	51.24	340.29	53.46	0.00	0.00	33.67	16.95	1.74	0.93	0.00	0.00
grassland	121.30	27.74	184.15	28.90	0.00	0.00	0.00	0.00	1.71	0.49	0.00	0.00
rock and talus	7.72	1.77	11.72	1.84	0.00	0.00	0.00	0.00		0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
developed	4.12	0.94	6.25	0.98	0.00	0.00	0.00	0.00		0.00	0.00	0.00
disturbed	5.15	1.18	7.82	1.23	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riparian forest	40.90	9.35	62.09	9.75	43.78	4.09	14.48	1.35	1.90	0.19	28.21	17.52
riparian shrub	6.87	1.57	10.43	1.64	0.00	0.00	63.10	0.99	2.54	0.04	0.00	0.00
riparian grassland	1.54	0.35	2.34	0.37	0.00	0.00	0.00	0.00	1.08	0.00	0.00	0.00
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riverine	0.45	0.10	0.68	0.11	0.00	0.00	0.00	0.00		0.00	0.00	0.00
lacustrine	0.22	0.05	0.33	0.05	0.00	0.00	0.00	0.00		0.00	0.00	0.00
TOTALS	437.33	100.00	100.00	100.00		5.06		20.33		1.75		25.50
	65.87											
	419.67											

MAINSTEM NORTH
TY12 AND TY50 WITH PROJECT (GREY MOUNTAIN OR POUDRE)--RIVERINE HABITATS (spreadsheet 2c)
100-200M BAND

Community Type	Acreage	Percent of Total	Percent of all Tree cts	Percent of all Shrub cts	Habitat Averages and Weighted Averages: % Tree Canopy Closure	Weighted Tree Closure	% Shrub Canopy Closure	Weighted Shrub Closure	Shrub Height	Weighted Shrub Height	% Trees 2.5-15.2 cm dbh	Weighted Small Trees
closed canopy conifer	0.00	0.00	0.00	0.00	63.40	0.00	1.00	0.00	1.51	0.00	86.86	0.00
open canopy conifer	0.00	0.00	0.00	0.00	16.84	0.00	18.26	0.00	1.58	0.00	21.05	0.00
mountain shrub	34.32	84.66	6864.00	98.56	0.00	0.00	33.07	28.00	1.74	1.72	0.00	0.00
grassland	5.72	14.11	1144.00	16.43	0.00	0.00	0.00	0.00	1.71	0.28	0.00	0.00
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riparian forest	0.50	1.23	100.00	1.44	43.78	0.54	14.48	0.18	1.90	0.03	28.21	28.21
riparian shrub	0.00	0.00	0.00	0.00	0.00	0.00	63.10	0.00	2.54	0.00	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.08	0.00	0.00	0.00
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
TOTALS	40.54	100.00	100.00	100.00		0.54		28.17		2.02		28.21
	0.5											
	34.82											

MAINSTEM NORTH
TY12 AND TY50 WITH PROJECT (GREY MOUNTAIN OR POUDRE)--RIVERINE HABITATS (spreadsheet 2d)
0-100M BAND

					Habitat Averages and Weighted Averages							
Community Type	Acreage	Percent of Total	Percent of all Tree cts	Percent of all Shrub cts	% Tree Canopy Closure	Weighted Tree Closure	% Shrub Canopy Closure	Weighted Shrub Closure	Shrub Height	Weighted Shrub Height	% Trees 2.5-15.2 cm dbh	Weighted Small Trees
closed canopy conifer	0.00	0.00	0.00	0.00	63.40	0.00	1.00	0.00	1.51	0.00	86.86	0.00
open canopy conifer	0.00	0.00	0.00	0.00	16.84	0.00	18.26	0.00	1.58	0.00	21.05	0.00
mountain shrub	20.02	77.78	700.00	87.50	0.00	0.00	33.07	25.72	1.74	1.52	0.00	0.00
grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.71	0.00	0.00	0.00
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
developed	2.86	11.11	100.00	12.50	0.00	0.00	0.00	0.00		0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riparian forest	2.86	11.11	100.00	12.50	43.78	4.86	14.48	1.61	1.90	0.24	28.21	28.21
riparian shrub	0.00	0.00	0.00	0.00	0.00	0.00	63.10	0.00	2.54	0.00	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.08	0.00	0.00	0.00
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
TOTALS	25.74	100.00	100.00	100.00		4.86		27.33		1.76		28.21
	2.86											
	22.88											

MAINSTEM SOUTH
TY0, TY1, TY12, AND TY50 WITHOUT PROJECT--RIVERINE HABITATS (spreadsheet 3a)
100-200M BAND

Community Type	Acreage	Percent of Total	Percent of all Tree cts	Percent of all Shrub cts	Habitat Averages and Weighted Averages: % Tree Canopy Closure	Weighted Tree Closure	% Shrub Canopy Closure	Weighted Shrub Closure	Shrub Height	Weighted Shrub Height	% Trees 2.5-15.2 cm dbh	Weighted Small Trees
closed canopy conifer	0.05	0.14	3.52	0.15	57.48	0.08	5.32	0.01	1.39	0.00	76.62	2.70
open canopy conifer	1.37	3.76	96.48	4.08	14.08	0.53	10.28	0.39	1.99	0.08	32.95	31.79
mountain shrub	24.80	68.02	1746.48	73.92	0.00	0.00	43.94	29.89	1.56	1.15	0.00	0.00
grassland	7.33	20.10	516.20	21.85	0.00	0.00	1.40	0.28	2.19	0.48	0.00	0.00
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
developed	2.86	7.84	201.41	8.52	0.00	0.00	0.00	0.00		0.00	0.00	0.00
disturbed	0.05	0.14	3.52	0.15	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riparian forest	0.00	0.00	0.00	0.00	68.76	0.00	39.54	0.00	2.18	0.00	77.37	0.00
riparian shrub	0.00	0.00	0.00	0.00	0.00	0.00	63.18	0.00		0.00	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
TOTALS	36.46	100.00	100.00	100.00		0.61		30.56		1.71		34.49
	1.42											
	33.55											

MAINSTEM SOUTH
TY0, TY1, TY12, AND TY50 WITHOUT PROJECT--RIVERINE HABITATS (spreadsheet 3b)
0-100M BAND

Community Type	Acreage	Percent of Total	Percent of all Tree cts	Percent of all Shrub cts	Habitat Averages and Weighted Averages: % Tree Canopy Closure	Weighted Tree Closure	% Shrub Canopy Closure	Weighted Shrub Closure	Shrub Height	Weighted Shrub height	% Trees 2.5-15.2 cm dbh	Weighted Small Trees
closed canopy conifer	9.72	4.95	17.89	6.50	57.48	2.84	5.32	0.26	1.39	0.09	76.62	13.71
open canopy conifer	1.87	0.95	3.44	1.25	14.08	0.13	10.28	0.10	1.99	0.02	32.95	1.13
mountain shrub	66.63	33.92	122.64	44.57	0.00	0.00	43.94	14.90	1.56	0.70	0.00	0.00
grassland	28.52	14.52	52.49	19.08	0.00	0.00	1.40	0.20	2.19	0.42	0.00	0.00
rock and talus	1.03	0.52	1.90	0.69	0.00	0.00	0.00	0.00		0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
developed	6.69	3.41	12.31	4.48	0.00	0.00	0.00	0.00		0.00	0.00	0.00
disturbed	36.02	18.34	66.30	24.10	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riparian forest	42.74	21.76	78.67	28.59	68.76	14.96	39.54	8.60	2.18	0.62	77.37	60.86
riparian shrub	1.02	0.52	1.88	0.68	0.00	0.00	63.10	0.33		0.00	0.00	0.00
riparian grassland	2.17	1.10	3.99	1.45	0.00	0.00	0.00	0.00		0.00	0.00	0.00
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
TOTALS	196.41	100.00	100.00	100.00		17.94		24.40		1.85		75.71
	54.33											
	149.48											

MAINSTEM SOUTH
TY12 AND TY50 WITH PROJECT (GREY MOUNTAIN)--RIVERINE HABITATS (spreadsheet 3c)
100-200M BAND

Community Type	Acreage	Percent of Total	Percent of all Tree cts	Percent of all Shrub cts	Habitat Averages and Weighted Averages: % Tree Canopy Closure	Weighted Tree Closure	% Shrub Canopy Closure	Weighted Shrub Closure	Shrub Height	Weighted Shrub Height	% Trees 2.5-15.2 cm dbh	Weighted Small Trees
closed canopy conifer	0.05	0.19	11.90	0.19	57.48	0.11	5.32	0.01	1.39	0.00	76.62	9.12
open canopy conifer	0.37	1.38	88.10	1.38	14.08	0.19	10.28	0.14	1.99	0.03	32.95	29.03
mountain shrub	19.84	73.92	4723.61	74.06	0.00	0.00	43.94	32.48	1.58	1.16	0.00	0.00
grassland	6.53	24.33	1554.76	24.37	0.00	0.00	1.40	0.34	2.19	0.53	0.00	0.00
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
disturbed	0.05	0.19	11.90	0.19	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riparian forest	0.00	0.00	0.00	0.00	68.76	0.00	39.54	0.00	2.18	0.00	77.37	0.00
riparian shrub	0.00	0.00	0.00	0.00	0.00	0.00	63.10	0.00		0.00	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
TOTALS	26.84	100.00	100.00	100.00		6.30		32.97		1.72		38.15
	0.42											
	26.79											

MAINSTEM SOUTH
TY12 AND TY50 WITH PROJECT (GREY MOUNTAIN)--RIVERINE HABITATS (spreadsheet 3d)
0-100M BAND

Community Type	Acreage	Percent of Total	Percent of all Tree cts	Percent of all Shrub cts	Habitat Averages and Weighted Averages: % Tree Canopy Closure	Weighted Tree Closure	% Shrub Canopy Closure	Weighted Shrub Closure	Shrub Height	Weighted Shrub Height	% Trees 2.5-15.2 cm dbh	Weighted Small Trees
closed canopy conifer	7.33	7.50	22.22	8.51	57.48	4.31	5.32	0.40	1.39	0.12	76.62	17.02
open canopy conifer	0.45	0.46	1.36	0.52	14.08	0.06	10.28	0.05	1.99	0.01	32.95	0.45
mountain shrub	38.96	39.85	118.10	45.22	0.00	0.00	43.94	17.51	1.56	0.71	0.00	0.00
grassland	14.21	14.53	43.07	16.49	0.00	0.00	1.40	0.20	2.19	0.36	0.00	0.00
rock and talus	1.03	1.05	3.12	1.20	0.00	0.00	0.00	0.00		0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
developed	2.17	2.22	6.58	2.52	0.00	0.00	0.00	0.00		0.00	0.00	0.00
disturbed	6.87	7.03	20.82	7.97	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riparian forest	25.21	25.79	76.42	29.26	68.76	17.73	39.54	10.20	2.18	0.64	77.37	59.12
riparian shrub	0.57	0.58	1.73	0.66	0.00	0.00	63.10	0.37		0.00	0.00	0.00
riparian grassland	0.97	0.99	2.94	1.13	0.00	0.00	0.00	0.00		0.00	0.00	0.00
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
TOTALS	97.77	100.00	100.00	100.00		22.10		28.72		1.83	---	76.60
	32.99											
	86.16											

MAINSTEM SOUTH
TY12 AND TY50 WITH PROJECT (POUDRE)--RIVERINE HABITATS (spreadsheet 2e)
100-200K BAND

Community Type	Acreage	Percent of Total	Percent of all Tree cts	Percent of all Shrub cts	Habitat Averages and Weighted Averages: % Tree Canopy Closure	Weighted Tree Closure	% Shrub Canopy Closure	Weighted Shrub Closure	Shrub Height	Weighted Shrub height	% Trees 2.5-15.2 cm dbh	Weighted Small Trees
closed canopy conifer	0.05	0.16	11.90	0.16	57.48	0.09	5.32	0.01	1.39	0.00	76.62	9.12
open canopy conifer	0.37	1.15	88.10	1.15	14.08	0.16	10.28	0.12	1.99	0.02	32.95	29.03
mountain shrub	24.30	75.70	5785.71	75.82	0.00	0.00	43.94	33.26	1.56	1.18	0.00	0.00
grassland	7.33	22.83	1745.24	22.87	0.00	0.00	1.40	0.32	2.19	0.50	0.00	0.00
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
disturbed	0.05	0.16	11.90	0.16	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riparian forest	0.00	0.00	0.00	0.00	68.76	0.00	39.54	0.00	2.18	0.00	77.37	0.00
riparian shrub	0.00	0.00	0.00	0.00	0.00	0.00	63.10	0.00		0.00	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
TOTALS	32.10	100.00	100.00	100.00		0.25		33.71		1.71		38.15
	0.42											
	32.05											

MAINSTEM SOUTH
TY12 AND TY50 WITH PROJECT (FOUDRE)--RIVERINE HABITATS (spreadsheet 3+)
0-100M BAND

Community Type	Acreage	Percent of Total	Percent of all Tree cts	Percent of all Shrub cts	Habitat Averages and Weighted Averages: % Tree Canopy Closure	Weighted Tree Closure	% Shrub Canopy Closure	Weighted Shrub Closure	Shrub Height	Weighted Shrub Height	% Trees 2.5-15.2 cm dbh	Weighted Small Trees
closed canopy conifer	8.01	5.16	19.19	5.96	57.48	2.96	5.32	0.27	1.39	0.08	76.62	14.70
open canopy conifer	1.59	1.02	3.81	1.18	14.98	0.14	10.28	0.11	1.99	0.02	32.95	1.26
mountain shrub	64.74	41.67	155.10	48.20	0.00	0.00	43.94	16.31	1.56	0.75	0.00	0.00
grassland	27.84	17.92	66.70	20.73	0.00	0.00	1.40	0.25	2.19	0.45	0.00	0.00
rock and talus	1.03	0.66	2.47	0.77	0.00	0.00	0.00	0.00		0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
developed	3.31	2.13	7.93	2.46	0.00	0.00	0.00	0.00		0.00	0.00	0.00
disturbed	13.51	8.70	32.37	10.06	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riparian forest	32.14	20.69	77.00	23.93	68.76	14.22	39.54	8.18	2.18	0.52	77.37	59.58
riparian shrub	1.02	0.66	2.44	0.76	0.00	0.00	63.10	0.48		0.00	0.00	0.00
riparian grassland	2.17	1.40	5.20	1.62	0.00	0.00	0.00	0.00		0.00	0.00	0.00
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
TOTALS	155.36	100.00	100.00	100.00		17.33		27.53		1.83		75.53
	41.74											
	134.32											

ELEVATION BAND 1
TY0, TY1, TY12 AND TY50 WITH AND WITHOUT PROJECT--RIVERINE HABITATS (spreadsheet 4a)
100-200M BAND

Community Type	Acreage	Percent of Total	Percent of all Tree cts	Percent of all Shrub cts	Habitat Averages and Weighted Averages: % Tree Canopy Closure	Weighted Tree Closure	% Shrub Canopy Closure	Weighted Shrub Closure	Shrub Height	Weighted Shrub Height	% Trees 2.5-15.2 cm dbh	Weighted Small Trees
closed canopy conifer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
open canopy conifer	0.00	0.00	0.00	0.00	1.76	0.00	16.38	0.00	0.97	0.00	86.83	0.00
mountain shrub	7.62	5.58	41.96	18.74	0.00	0.00	34.46	1.92	1.26	0.24	0.00	0.00
grassland	14.49	10.61	79.79	35.63	0.00	0.00	1.26	0.13	1.61	0.57	0.00	0.00
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
agriculture	72.65	53.20	400.06	178.63	0.00	0.00	0.00	0.00		0.00	0.00	0.00
developed	1.48	1.08	8.15	3.64	0.00	0.00	0.00	0.00		0.00	0.00	0.00
disturbed	3.66	2.68	20.15	9.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riparian forest	18.16	13.30	100.00	44.65	61.56	8.19	6.88	0.91	2.67	1.19	48.44	48.44
riparian shrub	0.40	0.29	2.20	0.98	0.00	0.00	55.54	0.16	2.89	0.03	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
palustrine pond	18.10	13.25	99.67	44.50	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
TOTALS	136.56	100.00	100.00	100.00		8.19		3.13		2.03		48.44
	18.16											
	40.67											

ELEVATION BAND 1
TY0, TY1, TY12 AND TY50 WITH AND WITHOUT PROJECT--RIVERINE HABITATS (spreadsheet 4b)
0-100M BAND

					Habitat Averages and Weighted Averages							
Community Type	Acreage	Percent of Total	Percent of all Tree cts	Percent of all Shrub cts	% Tree Canopy Closure	Weighted Tree Closure	% Shrub Canopy Closure	Weighted Shrub Closure	Shrub Height	Weighted Shrub Height	% Trees 2.5-15.2 cm dbh	Weighted Small Trees
closed canopy conifer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
open canopy conifer	0.00	0.00	0.00	0.00	1.76	0.00	16.38	0.00	0.97	0.00	86.83	0.00
mountain shrub	4.98	3.03	6.47	5.22	0.00	0.00	34.46	1.04	1.26	0.07	0.00	0.00
grassland	13.46	8.19	17.48	14.10	0.00	0.00	1.26	0.10	1.61	0.23	0.00	0.00
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
agriculture	30.82	18.76	40.02	32.29	0.00	0.00	0.00	0.00		0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
disturbed	0.28	0.17	0.36	0.29	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riparian forest	77.01	46.87	100.00	80.63	61.56	28.85	6.88	3.22	2.67	2.15	48.44	48.44
riparian shrub	0.00	0.00	0.00	0.00	0.00	0.00	55.54	0.00	2.69	0.00	0.00	0.00
riparian grassland	2.46	1.50	3.19	2.58	0.00	0.00	0.00	0.00		0.00	0.00	0.00
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
palustrine pond	16.67	10.15	21.65	17.46	0.00	0.00	0.00	0.00		0.00	0.00	0.00
riverine	18.62	11.33	24.18	19.51	0.00	0.00	0.00	0.00		0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
TOTALS	164.30	100.00	100.00	100.00		28.85		4.37		2.45		48.44
	77.01											
	95.45											

WEIGHTED AVERAGES OF PARAMETERS
FOR USE IN BEAVER HSI CALCULATION

	TREE COVER	SHRUB COVER	SHRUB HEIGHT	PROPORTION SMALL TREES
WITHOUT PROJECT				
0-100	11.69	16.77	1.90	45.47
100-200	7.05	16.27	1.65	37.00
WITH GREY MOUNTAIN				
0-100	23.23	15.20	2.18	56.40
100-200	19.46	11.54	2.27	44.53
WITH POUDRE				
0-100	19.65	16.66	2.10	58.94
100-200	19.05	12.08	2.25	44.40

APPENDIX G.3

BLACK-CAPPED CHICKADEE

Library: C:CWRP.HLB
1-25-1988

Model # 2 Single covertype model.
Model name: BLACK-CAPPED CHICKADEE(1)-REP
Verification level: EXPERT REVIEW
Creation/modification date: 1-19-1988

SCHROEDER, R. L. 1982. HABITAT SUITABILITY INDEX MODELS:
BLACK-CAPPED CHICKADEE. U. S. FISH WILDL. SERV. BIOL. REP.
FWS/OBS-82/10.37. 12 PP.
Uses tree height & canopy cover option.
Applies to breeding habitats.
Range: throughout the breeding range of the species.

Covertypes:
CC : Closed canopy conifer forest
OC : Open canopy conifer forest
rF : Riparian forest

Lev 2	Lev 1
VDNSNO2	grf	HSI

Habitat variables:
VDNSNO2 : Density of snags that have 10-25cm DBH (#/ha)

GRAPH FUNCTION at level 1, position 1
Title: NUMBER OF SNAGS 10 TO 25 CM DBH/HA
X: 0.000, Y: 0.000
X: 5.000, Y: 1.000
X: 7.500, Y: 1.000

Comments:
Density of snags has been rescaled to #/ha.
L2P2 = reproduction
This model has been changed to evaluate the quality of the habitat for reproduction only. Both food and reproductive life requisites are met by different componants of the same habitat and either one may be limiting.

Library: C:CWRP.HLB
1-25-1988

Model # 5 Single covertype model.
Model name: BLACK-CAPPED CHICKADEE(1)-FOOD
Verification level: EXPERT REVIEW
Creation/modification date: 1-19-1988

SCHROEDER, R. L. 1982. HABITAT SUITABILITY INDEX MODELS:
BLACK-CAPPED CHICKADEE. U. S. FISH WILDL. SERV. BIOL. REP.
FWS/OBS-82/10.37. 12 PP.
Uses tree height & canopy cover option.
Applies to breeding habitats.
Range: throughout the breeding range of the species.

Covertypes:
CC : Closed canopy conifer forest
OC : Open canopy conifer forest
rF : Riparian forest

```
                        Lev 3    Lev 2    Lev 1
                         VCVTR01--grf-------gem--HSI
                         VHTTR01--grf-------^
```

Habitat variables:
VCVTR01 : Percent canopy cover of trees (%)
VHTTR01 :Mean height of overstory trees (i.e., >80% as tall as tallest tree)(m)

GRAPH FUNCTION at level 2, position 1
Title: % TREE CANOPY CLOSURE
X: 0.000, Y: 0.000
X: 50.000, Y: 1.000
X: 75.000, Y: 1.000
X: 100.000, Y: 0.600

GRAPH FUNCTION at level 2, position 2
Title: AVERAGE HEIGHT OF OVERSTORY TREES (M)
X: 0.000, Y: 0.000
X: 15.000, Y: 1.000
X: 16.000, Y: 1.000

Comments:
Density of snags has been rescaled to #/ha.
L2P1 = food
This model has been changed to evaluate the quality of feeding habitat only. Both food and reproduction life requisites are met by different componants of the same habitat and either one may be limiting.

BCMSS101 HABITAT DATA 1-28-1988

MAINSTEM SOUTH
HABITAT: RIPARIAN FOREST
SPECIES: BLACK-CAPPED CHICKADEE

	COVER TYPE / SUB-AREA:				
	rF	rF	rF	rF	rF
VARIABLE:	LA937	LA943	P0363	P0437	P0443
VCVTR01	56.000	79.800	76.000	59.800	72.200
VDNSN02	2.800	8.800	0.000	0.000	0.000
VHTTR01	16.098	14.453	13.917	10.653	15.363

Study: BCMSS101 Model: BLACK-CAPPED CHICKADEE(1)-REP 1-28-1988

CoverType	SubArea	Area	HSI
rF	LA937	1.0	0.560
rF	LA943	1.0	1.000
rF	P0363	1.0	0.000
rF	P0437	1.0	0.000
rF	P0443	1.0	0.000
Overall:		5.0	0.312

Study: BCMSS101 Model: BLACK-CAPPED CHICKADEE(1)-FOOD 1-28-1988

CoverType	SubArea	Area	HSI
rF	LA937	1.0	1.000
rF	LA943	1.0	0.943
rF	P0363	1.0	0.955
rF	P0437	1.0	0.843
rF	P0443	1.0	1.000
Overall:		5.0	0.948

Study name: BCMSS101 1-28-1988

HSI Values For The Entire Study Area:

	Area	HSI
BLACK-CAPPED CHICKADEE(1)-REP	5.0	0.312
BLACK-CAPPED CHICKADEE(1)-FOOD	5.0	0.948

Study: BCMSS101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: rF SubArea: LA937

LEV 2	LEV 1
VDNSNO2	grf--HSI
2.80	0.560

Study: BCMSS101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: rF SubArea: LA943

LEV 2	LEV 1
VDNSNO2	grf--HSI
8.80	1.000

Study: BCMSS101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: rF SubArea: PO363

LEV 2	LEV 1
VDNSNO2	grf--HSI
0.00	0.000

Study: BCMSS101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: rF SubArea: PO437

LEV 2	LEV 1
VDNSNO2	grf--HSI
0.00	0.000

Study: BCMSS101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: rF SubArea: P0443

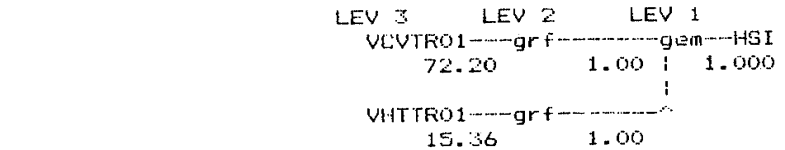
LEV 2	LEV 1
VDNSNO2	grf
0.00	0.000

HSI

Study: BCMSS101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

CoverType: rF SubArea: P0443



BCEL1002 HABITAT DATA 1-28-1988

ELEVATION 1
HABITAT: OPEN CANOPY CONIFER
SPECIES: BLACK-CAPPED CHICKADEE

	COVER TYPE / SUB-AREA:		
	OC	OC	OC
VARIABLE:	LA310	LA317	LA458
VCVTR01	0.000	1.100	6.600
VDNSN02	0.000	0.000	0.000
VHTTR01	6.000	6.000	7.428

Study: BCEL1002 Model: BLACK-CAPPED CHICKADEE(1)-REP 1-28-1988

CoverType	SubArea	Area	HSI
OC	LA310	1.0	0.000
OC	LA317	1.0	0.000
OC	LA458	1.0	0.000
Overall:		3.0	0.000

Study: BCEL1002 Model: BLACK-CAPPED CHICKADEE(1)-FOOD 1-28-1988

CoverType	SubArea	Area	HSI
OC	LA310	1.0	0.000
OC	LA317	1.0	0.094
OC	LA458	1.0	0.256
Overall:		3.0	0.116

Study name: BCEL1002 1-28-1988

HSI Values For The Entire Study Area:

	Area	HSI
BLACK-CAPPED CHICKADEE(1)-REP	3.0	0.000
BLACK-CAPPED CHICKADEE(1)-FOOD	3.0	0.116

Study: BCEL1002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: OC SubArea: LA310

LEV 2	LEV 1
VDNSNO2	grf--HSI
0.00	0.000

Study: BCEL1002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: OC SubArea: LA317

LEV 2	LEV 1
VDNSNO2	grf--HSI
0.00	0.000

Study: BCEL1002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

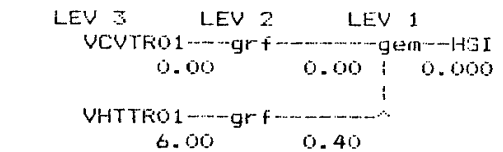
CoverType: OC SubArea: LA458

LEV 2	LEV 1
VDNSNO2	grf--HSI
0.00	0.000

Study: BCEL1002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

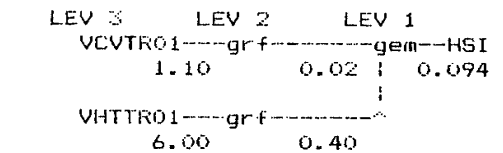
CoverType: OC SubArea: LA310



Study: BCEL1002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

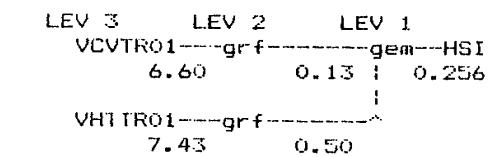
CoverType: OC SubArea: LA317



Study: BCEL1002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

CoverType: OC SubArea: LA458



BCEL1101 HABITAT DATA 1-28-1986

ELEVATION 1
HABITAT: RIPARIAN FOREST
SPECIES: BLACK-CAPPED CHICKADEE

	COVER TYPE / SUB-AREA:				
	rF	rF	rF	rF	rF
VARIABLE:	LA286	LA383	LA393	LA460	LA470
VCVTR01	100.000	75.400	15.200	73.600	43.600
VDNSN02	0.000	0.000	0.000	0.000	6.100
VHTTR01	23.470	15.816	13.649	18.451	17.350

Study: BCEL1101 Model: BLACK-CAPPED CHICKADEE(1)-REP 1-28-1988

CoverType	SubArea	Area	HSI
rF	LA286	1.0	0.000
rF	LA383	1.0	0.000
rF	LA393	1.0	0.000
rF	LA460	1.0	0.000
rF	LA470	1.0	1.000
Overall:		5.0	0.200

Study: BCEL1101 Model: BLACK-CAPPED CHICKADEE(1)-FOOD 1-28-1988

CoverType	SubArea	Area	HSI
rF	LA286	1.0	0.775
rF	LA383	1.0	0.997
rF	LA393	1.0	0.526
rF	LA460	1.0	1.000
rF	LA470	1.0	0.934
Overall:		5.0	0.846

Study name: BCEL1101 1-28-1988

HSI Values For The Entire Study Area:

	Area	HSI
BLACK-CAPPED CHICKADEE(1)-REP	5.0	0.200
BLACK-CAPPED CHICKADEE(1)-FOOD	5.0	0.846

Study: BCEL1101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: rF SubArea: LA286

LEV 2	LEV 1
VDNSNO2	grf--HSI
0.00	0.000

Study: BCEL1101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: rF SubArea: LA383

LEV 2	LEV 1
VDNSNO2	grf--HSI
0.00	0.000

Study: BCEL1101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: rF SubArea: LA393

LEV 2	LEV 1
VDNSNO2	grf--HSI
0.00	0.000

Study: BCEL1101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: rF SubArea: LA460

LEV 2	LEV 1
VDNSNO2	grf--HSI
0.00	0.000

Study: BCEL1101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

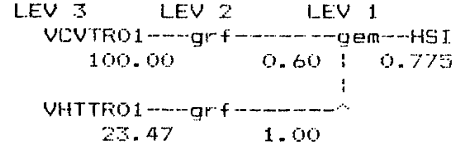
CoverType: rF SubArea: LA470

LEV 2	LEV 1
VDNSNO2	grf--HSI
6.10	1.000

Study: BCEL1101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

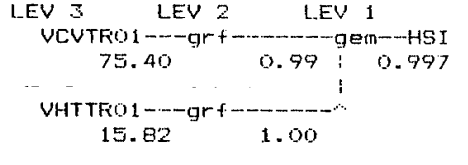
CoverType: rF SubArea: LA286



Study: BCEL1101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

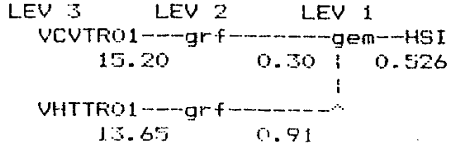
CoverType: rF SubArea: LA383



Study: BCEL1101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

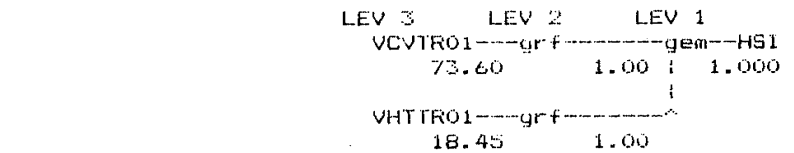
CoverType: rF SubArea: LA393



Study: BCEL1101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

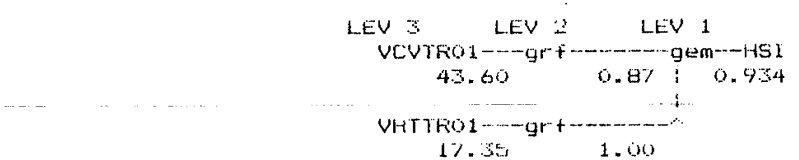
CoverType: rF SubArea: LA460



Study: BCEL1101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

CoverType: rF SubArea: LA470



BCEL2001 HABITAT DATA 1-28-1988

ELEVATION 2
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: BLACK-CAPPED CHICKADEE

	COVER TYPE / SUB-AREA:		
	CC	CC	CC
VARIABLE:	LA715	LA849	P007
VCVTR01	47.067	39.000	34.400
VDNSN02	16.000	0.000	0.000
VHTTR01	16.435	14.037	12.506

Study: BCEL2001 Model: BLACK-CAPPED CHICKADEE(1)-REP 1-28-1988

CoverType	SubArea	Area	HSI
CC	LA715	1.0	1.000
CC	LA849	1.0	0.000
CC	P087	1.0	0.000
Overall:		3.0	0.333

Study: BCEL2001 Model: BLACK-CAPPED CHICKADEE(1)-FOOD 1-28-1988

CoverType	SubArea	Area	HSI
CC	LA715	1.0	0.970
CC	LA849	1.0	0.854
CC	P087	1.0	0.757
Overall:		3.0	0.861

Study name: BCEL2001 1-28-1988

HSI Values For The Entire Study Area:

	Area	HSI
BLACK-CAPPED CHICKADEE(1)-REP	3.0	0.333
BLACK-CAPPED CHICKADEE(1)-FOOD	3.0	0.861

Study: BCEL2001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: CC SubArea: LA715

LEV 2	LEV 1
VDNSNO2	grf HSI
16.00	1.000

Study: BCEL2001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: CC SubArea: LA849

LEV 2	LEV 1
VDNSNO2	grf HSI
0.00	0.000

Study: BCEL2001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

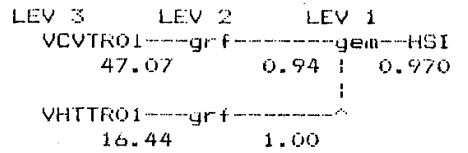
CoverType: CC SubArea: P087

LEV 2	LEV 1
VDNSNO2	grf HSI
0.00	0.000

Study: BCEL2001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

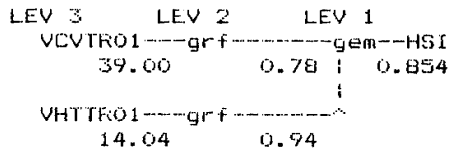
CoverType: CC SubArea: LA715



Study: BCEL2001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

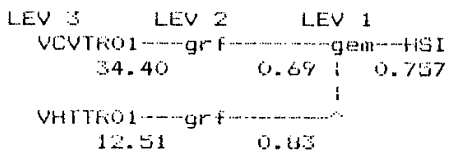
CoverType: CC SubArea: LA849



Study: BCEL2001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

CoverType: CC SubArea: P087



BCEL2002 HABITAT DATA 1-28-1988

ELEVATION 2
HABITAT: OPEN CANOPY CONIFER
SPECIES: BLACK-CAPPED CHICKADEE

	COVER TYPE / SUB-AREA:		
	OC	OC	OC
VARIABLE:	LI132	P0307	P0357
VCVTR01	24.400	23.967	14.000
VDNSNO2	0.000	0.000	0.000
VHTTR01	11.398	14.620	12.789

Study: BCEL2002 Model: BLACK-CAPPED CHICKADEE(1)-REP 1-28-1988

CoverType	SubArea	Area	HSI
OC	LI132	1.0	0.000
OC	PO307	1.0	0.000
OC	PO357	1.0	0.000
Overall:		3.0	0.000

Study: BCEL2002 Model: BLACK-CAPPED CHICKADEE(1)-FOOD 1-28-1988

CoverType	SubArea	Area	HSI
OC	LI132	1.0	0.609
OC	PO307	1.0	0.684
OC	PO357	1.0	0.489
Overall:		3.0	0.594

Study name: BCEL2002 1-28-1988

HSI Values For The Entire Study Area:

	Area	HSI
BLACK-CAPPED CHICKADEE(1)-REP	3.0	0.000
BLACK-CAPPED CHICKADEE(1)-FOOD	3.0	0.594

Study: BCEL2002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: OC SubArea: LI132

LEV 2	LEV 1
VDNSNO2	grf	HSI
0.00	0.000

Study: BCEL2002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: OC SubArea: PO307

LEV 2	LEV 1
VDNSNO2	grf	HSI
0.00	0.000

Study: BCEL2002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

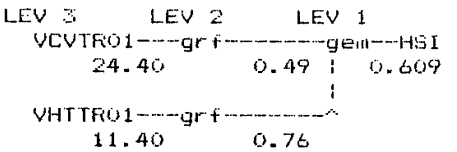
CoverType: OC SubArea: PO357

LEV 2	LEV 1
VDNSNO2	grf	HSI
0.00	0.000

Study: BCEL2002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

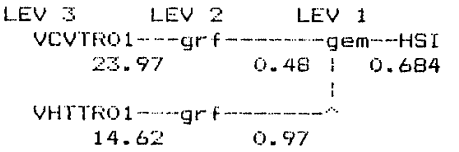
CoverType: OC SubArea: LI132



Study: BCEL2002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

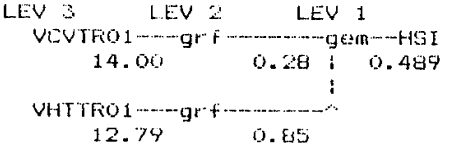
CoverType: OC SubArea: PO307



Study: BCEL2002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

CoverType: OC SubArea: PO357



BCEL2101 HABITAT DATA 1-28-1988

ELEVATION 2
HABITAT: RIPARIAN FOREST
SPECIES: BLACK-CAPPED CHICKADEE

	COVER TYPE / SUB-AREA:		
	rF	rF	rF
VARIABLE:	LI97	P0212	P0282
VCVTR01	99.000	36.000	78.600
VDNSN02	0.000	4.800	0.000
VHTTR01	17.124	10.134	9.451

Study: BCEL2101 Model: BLACK-CAPPED CHICKADEE(1)-REP 1-28-1988

CoverType	SubArea	Area	HSI
rF	LI97	1.0	0.000
rF	PO212	1.0	0.960
rF	PO282	1.0	0.000
Overall:		3.0	0.320

Study: BCEL2101 Model: BLACK-CAPPED CHICKADEE(1)-FOOD 1-28-1988

CoverType	SubArea	Area	HSI
rF	LI97	1.0	0.785
rF	PO212	1.0	0.697
rF	PO282	1.0	0.771
Overall:		3.0	0.751

Study name: BCEL2101 1-28-1988

HSI Values For The Entire Study Area:

	Area	HSI
BLACK-CAPPED CHICKADEE(1)-REP	3.0	0.320
BLACK-CAPPED CHICKADEE(1)-FOOD	3.0	0.751

Study: BCEL2101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: rF SubArea: LI97

LEV 2	LEV 1
VDNSNO2	grf--HSI
0.00	0.000

Study: BCEL2101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: rF SubArea: PO212

LEV 2	LEV 1
VDNSNO2	grf--HSI
4.80	0.960

Study: BCEL2101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

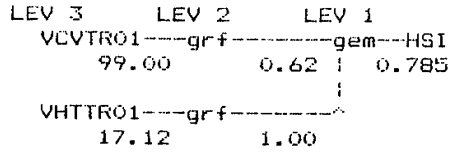
CoverType: rF SubArea: PO282

LEV 2	LEV 1
VDNSNO2	grf--HSI
0.00	0.000

Study: BCEL2101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

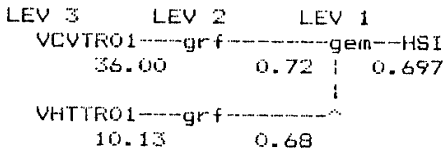
CoverType: rF SubArea: LI97



Study: BCEL2101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

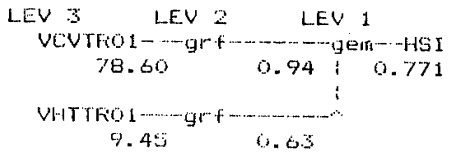
CoverType: rF SubArea: PO212



Study: BCEL2101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

CoverType: rF SubArea: PO282



G.3-28

BCEL3001 HABITAT DATA 1-28-1986

ELEVATION 3
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: BLACK-CAPPED CHICKADEE

	COVER TYPE / SUB-AREA:			
	CC	CC	CC	CC
VARIABLE:	PO113	PO225	PO231	PO429
VCVTR01	63.600	41.067	53.400	93.400
VDNSN02	0.000	58.667	112.000	48.000
VHTTR01	19.585	15.424	18.351	13.983

Study: BCEL3001 Model: BLACK-CAPPED CHICKADEE(1)-REP 1-28-1988

CoverType	SubArea	Area	HSI
CC	P0113	1.0	0.000
CC	P0225	1.0	1.000
CC	P0231	1.0	1.000
CC	P0429	1.0	1.000
Overall:		4.0	0.750

Study: BCEL3001 Model: BLACK-CAPPED CHICKADEE(1)-FOOD 1-28-1988

CoverType	SubArea	Area	HSI
CC	P0113	1.0	1.000
CC	P0225	1.0	0.906
CC	P0231	1.0	1.000
CC	P0429	1.0	0.811
Overall:		4.0	0.929

Study name: BCEL3001 1-28-1988

HSI Values For The Entire Study Area:

	Area	HSI
BLACK-CAPPED CHICKADEE(1)-REP	4.0	0.750
BLACK-CAPPED CHICKADEE(1)-FOOD	4.0	0.929

Study: BCEL3001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: CC SubArea: P0113

LEV 2	LEV 1
VDNSNO2	grf
0.00	0.000

HSI

Study: BCEL3001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: CC SubArea: P0225

LEV 2	LEV 1
VDNSNO2	grf
58.67	1.000

HSI

Study: BCEL3001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: CC SubArea: P0231

LEV 2	LEV 1
VDNSNO2	grf
112.00	1.000

HSI

Study: BCEL3001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: CC SubArea: P0429

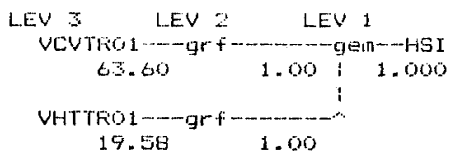
LEV 2	LEV 1
VDNSNO2	grf
48.00	1.000

HSI

Study: BCEL3001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

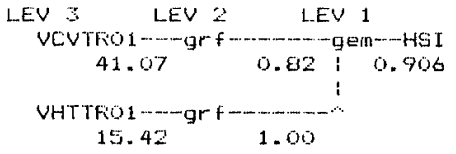
CoverType: CC SubArea: P0113



Study: BCEL3001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

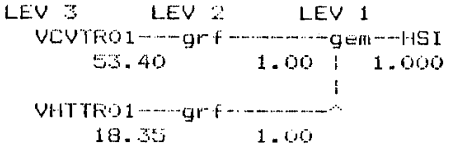
CoverType: CC SubArea: P0225



Study: BCEL3001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

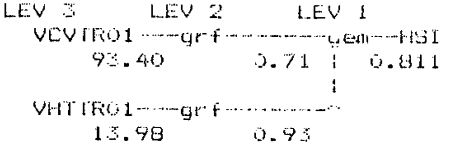
CoverType: CC SubArea: P0231



Study: BCEL3001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

CoverType: CC SubArea: P0429



BCEL3002 HABITAT DATA 1-28-1988

ELEVATION 3
HABITAT: OPEN CANOPY CONIFER
SPECIES: BLACK-CAPPED CHICKADEE

	COVER TYPE / SUB-AREA:				
	OC	OC	OC	OC	OC
VARIABLE:	LA788	P01010A	P0111	P0127	P0404
VCVTR01	27.600	21.600	21.600	18.200	0.000
VDNSN02	5.333	16.000	0.000	0.000	16.000
VHTTR01	14.052	15.646	15.318	14.365	13.532

Study: BCEL3002 Model: BLACK-CAPPED CHICKADEE(1)-REP 1-28-1988

CoverType	SubArea	Area	HSI
OC	LA788	1.0	1.000
OC	P01010A	1.0	1.000
OC	P0111	1.0	0.000
OC	P0127	1.0	0.000
OC	P0404	1.0	1.000
Overall:		5.0	0.600

Study: BCEL3002 Model: BLACK-CAPPED CHICKADEE(1)-FOOD 1-28-1988

CoverType	SubArea	Area	HSI
OC	LA788	1.0	0.719
OC	P01010A	1.0	0.657
OC	P0111	1.0	0.657
OC	P0127	1.0	0.590
OC	P0404	1.0	0.000
Overall:		5.0	0.525

Study name: BCEL3002 1-28-1988

HSI Values For The Entire Study Area:

	Area	HSI
BLACK-CAPPED CHICKADEE(1)-REP	5.0	0.600
BLACK-CAPPED CHICKADEE(1)-FOOD	5.0	0.525

Study: BCEL3002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: OC SubArea: LA780

LEV 2	LEV 1
VDNSNO2	grf-HSI
5.33	1.000

Study: BCEL3002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: OC SubArea: P01010A

LEV 2	LEV 1
VDNSNO2	grf-HSI
16.00	1.000

Study: BCEL3002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: OC SubArea: P0111

LEV 2	LEV 1
VDNSNO2	grf-HSI
0.00	0.000

Study: BCEL3002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: OC SubArea: P0127

LEV 2	LEV 1
VDNSNO2	grf-HSI
0.00	0.000

Study: BCEL3002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

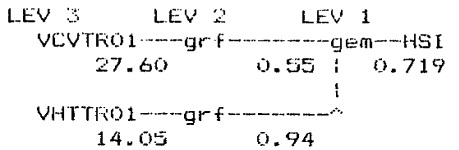
CoverType: OC SubArea: P0404

LEV 2	LEV 1
VDNSNO2	grf-HSI
16.00	1.000

Study: BCEL3002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

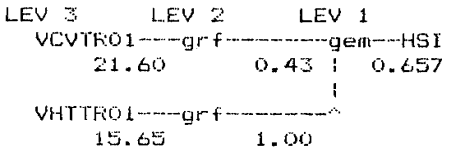
CoverType: OC SubArea: LA788



Study: BCEL3002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

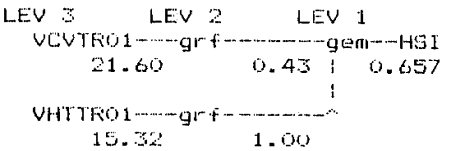
CoverType: OC SubArea: PO1010A



Study: BCEL3002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

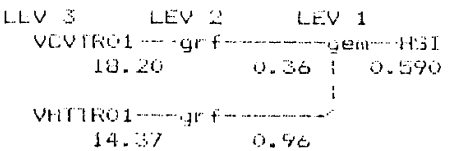
CoverType: OC SubArea: PO111



Study: BCEL3002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

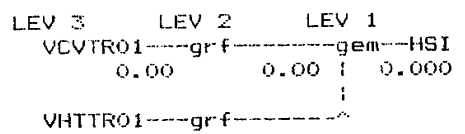
CoverType: OC SubArea: PO127



Study: BCEL3002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

CoverType: OC SubArea: P0404



BCEL4001 HABITAT DATA 1-28-1988

ELEVATION 4
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: BLACK-CAPPED CHICKADEE

	COVER TYPE / SUB-AREA:				
	CC	CC	CC	CC	CC
VARIABLE:	P0102	P0109	P0114	P0209	P0397
VCVTR01	19.400	31.600	45.000	49.800	30.800
VDNSN02	0.000	144.000	0.000	0.000	0.000
VHTTR01	18.209	15.171	15.278	14.667	11.194

Study: BCEL4001 Model: BLACK-CAPPED CHICKADEE(1)-REP 1-28-1988

CoverType	SubArea	Area	HSI
CC	P0102	1.0	0.000
CC	P0109	1.0	1.000
CC	P0114	1.0	0.000
CC	P0209	1.0	0.000
CC	P0397	1.0	0.000
Overall:		5.0	0.200

Study: BCEL4001 Model: BLACK-CAPPED CHICKADEE(1)-FOOD 1-28-1988

CoverType	SubArea	Area	HSI
CC	P0102	1.0	0.623
CC	P0109	1.0	0.795
CC	P0114	1.0	0.949
CC	P0209	1.0	0.987
CC	P0397	1.0	0.678
Overall:		5.0	0.806

Study name: BCEL4001 1-28-1988

HSI Values For The Entire Study Area:

	Area	HSI
BLACK-CAPPED CHICKADEE(1)-REP	5.0	0.200
BLACK-CAPPED CHICKADEE(1)-FOOD	5.0	0.806

Study: BCEL4001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: CC SubArea: P0102

LEV 2	LEV 1
VDNSNO2	grf	HSI
0.00	0.000

Study: BCEL4001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: CC SubArea: P0109

LEV 2	LEV 1
VDNSNO2	grf	HSI
144.00	1.000

Study: BCEL4001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: CC SubArea: P0114

LEV 2	LEV 1
VDNSNO2	grf	HSI
0.00	0.000

Study: BCEL4001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: CC SubArea: P0209

LEV 2	LEV 1
VDNSNO2	grf	HSI
0.00	0.000

Study: BCEL4001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

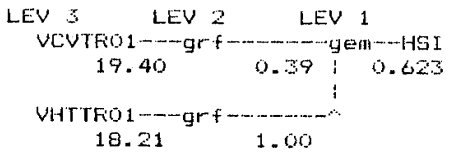
CoverType: CC SubArea: P0397

LEV 2	LEV 1
VDNSNO2	grf--HSI
0.00	0.000

Study: BCEL4001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

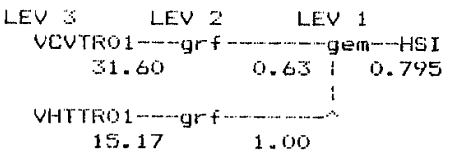
CoverType: CC SubArea: P0102



Study: BCEL4001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

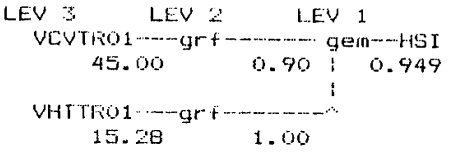
CoverType: CC SubArea: P0109



Study: BCEL4001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

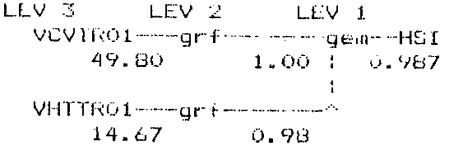
CoverType: CC SubArea: P0114



Study: BCEL4001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

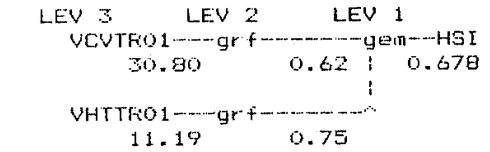
CoverType: CC SubArea: P0209



Study: BCEL4001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

CoverType: CC SubArea: P0397



BCMSE001 HABITAT DATA 1-28-1988

MAINSTEM EAST
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: BLACK-CAPPED CHICKADEE

	COVER TYPE / SUB-AREA:		
	CC	CC	CC
VARIABLE:	LA693	LA753	LA905
VCVTR01	28.800	47.133	19.000
VDNSN02	0.000	10.667	0.000
VHTTR01	22.231	16.098	22.270

Study: BCMSE001 Model: BLACK-CAPPED CHICKADEE(1)-REP 1-28-1988

CoverType	SubArea	Area	HSI
CC	LA693	1.0	0.000
CC	LA753	1.0	1.000
CC	LA905	1.0	0.000
Overall:		3.0	0.333

Study: BCMSE001 Model: BLACK-CAPPED CHICKADEE(1)-FOOD 1-28-1988

CoverType	SubArea	Area	HSI
CC	LA693	1.0	0.759
CC	LA753	1.0	0.971
CC	LA905	1.0	0.616
Overall:		3.0	0.782

Study name: BCMSE001 1-28-1988

HSI Values For The Entire Study Area:

	Area	HSI
BLACK-CAPPED CHICKADEE(1)-REP	3.0	0.333
BLACK-CAPPED CHICKADEE(1)-FOOD	3.0	0.782

Study: BCMSE001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: CC SubArea: LA693

LEV 2	LEV 1
VDNSNO2	grf	HSI
0.00	0.000

Study: BCMSE001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: CC SubArea: LA753

LEV 2	LEV 1
VDNSNO2	grf	HSI
10.67	1.000

Study: BCMSE001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

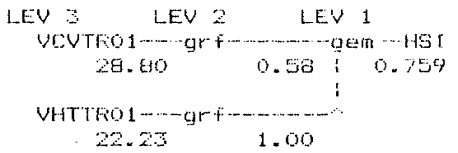
CoverType: CC SubArea: LA905

LEV 2	LEV 1
VDNSNO2	grf	HSI
0.00	0.000

Study: BCMSE001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

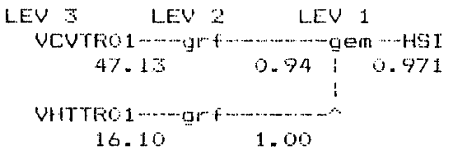
CoverType: CC SubArea: LA693



Study: BCMSE001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

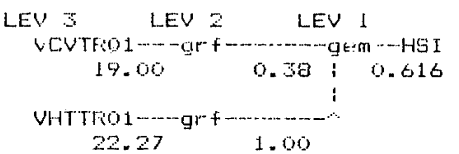
CoverType: CC SubArea: LA753



Study: BCMSE001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

CoverType: CC SubArea: LA905



BCMSE002 HABITAT DATA 1-28-1988

MAINSTEM EAST
HABITAT: OPEN CANOPY CONIFER
SPECIES: BLACK-CAPPED CHICKADEE

	COVER TYPE / SUB-AREA:		
	OC	OC	OC
VARIABLE:	LA507	LA806	LA809
VCVTR01	37.600	38.400	41.267
VDNSN02	0.000	0.000	0.000
VHTTR01	11.605	16.598	17.288

Study: BCMSE002 Model: BLACK-CAPPED CHICKADEE(1)-REP 1-28-1988

CoverType	SubArea	Area	HSI
OC	LA507	1.0	0.000
OC	LA806	1.0	0.000
OC	LA809	1.0	0.000
Overall:		3.0	0.000

Study: BCMSE002 Model: BLACK-CAPPED CHICKADEE(1)-FOOD 1-28-1988

CoverType	SubArea	Area	HSI
OC	LA507	1.0	0.763
OC	LA806	1.0	0.876
OC	LA809	1.0	0.908
Overall:		3.0	0.849

Study name: BCMSE002 1-28-1988

HSI Values For The Entire Study Area:

	Area	HSI
BLACK-CAPPED CHICKADEE(1)-REP	3.0	0.000
BLACK-CAPPED CHICKADEE(1)-FOOD	3.0	0.849

Study: BCMSE002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: OC SubArea: LA507

LEV 2	LEV 1
VDNSNO2	grf--HSI
0.00	0.000

Study: BCMSE002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: OC SubArea: LA806

LEV 2	LEV 1
VDNSNO2	grf--HSI
0.00	0.000

Study: BCMSE002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

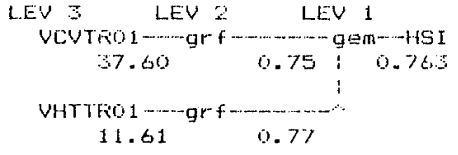
CoverType: OC SubArea: LA809

LEV 2	LEV 1
VDNSNO2	grf--HSI
0.00	0.000

Study: BCMSE002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

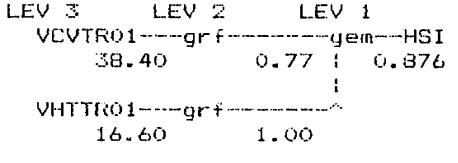
CoverType: OC SubArea: LA507



Study: BCMSE002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

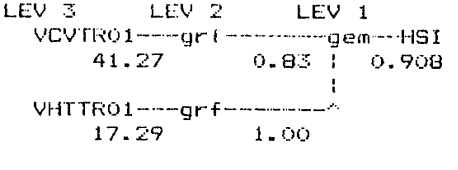
CoverType: OC SubArea: LA806



Study: BCMSE002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

CoverType: OC SubArea: LA809



BCEL4002 HABITAT DATA 2-02-1988

ELEVATION 4
HABITAT: OPEN CANOPY CONIFER
SPECIES: BLACK-CAPPED CHICKADEE

	COVER TYPE / SUB-AREA:			
	OC	OC	OC	OC
VARIABLE:	P0101	P0107	P0145	P0398
VCVTR01	33.200	27.200	35.200	32.000
VDNSN02	16.000	16.000	0.000	0.000
VHTTR01	15.860	14.968	12.285	10.922

Study: BCEL4002 Model: BLACK-CAPPED CHICKADEE(1)-REP 2-02-1988

CoverType	SubArea	Area	HSI
OC	P0101	1.0	1.000
OC	P0107	1.0	1.000
OC	P0145	1.0	0.000
OC	P0398	1.0	0.000
Overall:		4.0	0.500

Study: BCEL4002 Model: BLACK-CAPPED CHICKADEE(1)-FOOD 2-02-1988

CoverType	SubArea	Area	HSI
OC	P0101	1.0	0.815
OC	P0107	1.0	0.737
OC	P0145	1.0	0.759
OC	P0398	1.0	0.683
Overall:		4.0	0.748

Study name: BCEL4002 2-02-1988

HSI Values For The Entire Study Area:

	Area	HSI
BLACK-CAPPED CHICKADEE(1)-REP	4.0	0.500
BLACK-CAPPED CHICKADEE(1)-FOOD	4.0	0.748

Study: BCEL4002 2-02-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: OC SubArea: P0101

LEV 2	LEV 1
VDNSNO2	grf	HSI
16.00	1.000

Study: BCEL4002 2-02-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: OC SubArea: P0107

LEV 2	LEV 1
VDNSNO2	grf	HSI
16.00	1.000

Study: BCEL4002 2-02-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: OC SubArea: P0145

LEV 2	LEV 1
VDNSNO2	grf	HSI
0.00	0.000

Study: BCEL4002 2-02-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

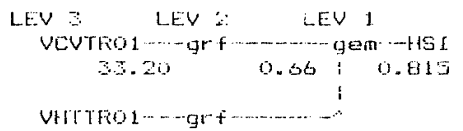
CoverType: OC SubArea: P0398

LEV 2	LEV 1
VDNSNO2	grf	HSI
0.00	0.000

Study: BCEL4002 2-02-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

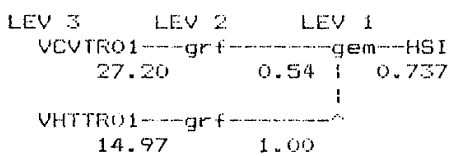
CoverType: OC SubArea: PO101



Study: BCEL4002 2-02-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

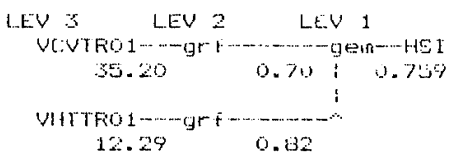
CoverType: OC SubArea: PO107



Study: BCEL4002 2-02-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

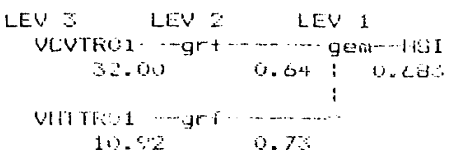
CoverType: OC SubArea: PO145



Study: BCEL4002 2-02-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

CoverType: OC SubArea: PO398



BCMSE101 HABITAT DATA 2-02-1988

MAINSTEM EAST
HABITAT: RIPARIAN FOREST
SPECIES: BLACK-CAPPED CHICKADEE

	COVER TYPE / SUB-AREA:		
	rF	rF	rF
VARIABLE:	LA1141	LI307	LI320
VCVTR01	42.000	29.800	26.600
VDNSN02	0.000	0.000	2.800
VHTTR01	11.510	22.749	17.667

Study: BCMSE101 Model: BLACK-CAPPED CHICKADEE(1)-REP 2-02-1988

CoverType	SubArea	Area	HSI
rF	LA1141	1.0	0.000
rF	LI307	1.0	0.000
rF	LI320	1.0	0.560
Overall:		3.0	0.187

Study: BCMSE101 Model: BLACK-CAPPED CHICKADEE(1)-FOOD 2-02-1988

CoverType	SubArea	Area	HSI
rF	LA1141	1.0	0.803
rF	LI307	1.0	0.772
rF	LI320	1.0	0.729
Overall:		3.0	0.768

Study name: BCMSE101 2-02-1988

HSI Values For The Entire Study Area:

	Area	HSI
BLACK-CAPPED CHICKADEE(1)-REP	3.0	0.187
BLACK-CAPPED CHICKADEE(1)-FOOD	3.0	0.768

Study: BCMSE101 2-02-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: rF SubArea: LA1141

LEV 2	LEV 1
VDNSNO2	grf--HSI
0.00	0.000

Study: BCMSE101 2-02-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: rF SubArea: LI307

LEV 2	LEV 1
VDNSNO2	grf--HSI
0.00	0.000

Study: BCMSE101 2-02-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

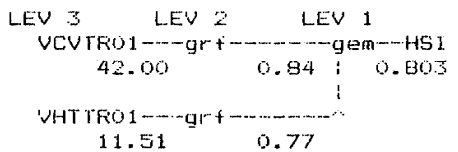
CoverType: rF SubArea: LI320

LEV 2	LEV 1
VDNSNO2	grf--HSI
2.80	0.560

Study: BCMSE101 2-02-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

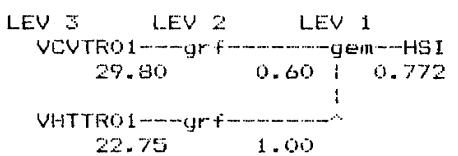
CoverType: rF SubArea: LA1141



Study: BCMSE101 2-02-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

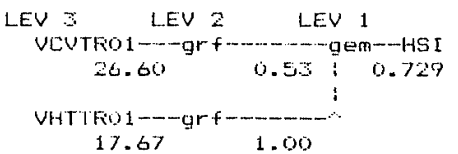
CoverType: rF SubArea: LI307



Study: BCMSE101 2-02-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

CoverType: rF SubArea: LI320



BCMSN001 HABITAT DATA 1-28-1988

MAINSTEM NORTH
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: BLACK-CAPPED CHICKADEE

	COVER TYPE / SUB-AREA:
	CC
VARIABLE:	P0271
VCVTR01	63.400
VDNSN02	42.667
VHTTR01	18.279

Study: BCMSN001 Model: BLACK-CAPPED CHICKADEE(1)-REP 1-28-1988

CoverType	SubArea	Area	HSI
CC	P0271	1.0	1.000
Overall:		1.0	1.000

Study: BCMSN001 Model: BLACK-CAPPED CHICKADEE(1)-FOOD 1-28-1988

CoverType	SubArea	Area	HSI
CC	P0271	1.0	1.000
Overall:		1.0	1.000

Study name: BCMSN001 1-28-1988

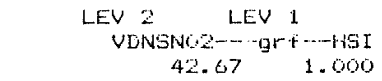
HSI Values For The Entire Study Area:

	Area	HSI
BLACK-CAPPED CHICKADEE(1)-REP	1.0	1.000
BLACK-CAPPED CHICKADEE(1)-FOOD	1.0	1.000

Study: BCMSN001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

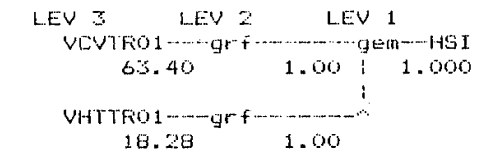
CoverType: CC SubArea: P0271



Study: BCMSN001 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

CoverType: CC SubArea: P0271



BCMSN002 HABITAT DATA 1-28-1986

MAINSTEM NORTH
HABITAT: OPEN CANOPY CONIFER
SPECIES: BLACK-CAPPED CHICKADEES

	COVER TYPE / SUB-AREA:		
	OC	OC	OC
VARIABLE:	LA757	PO273	PO324
VCVTR01	5.600	19.600	19.800
VDNSN02	0.000	0.000	0.000
VHTTR01	7.578	16.625	10.754

Study: BCMSN002 Model: BLACK-CAPPED CHICKADEE(1)-REP 1-28-1988

CoverType	SubArea	Area	HSI
OC	LA757	1.0	0.000
OC	PO273	1.0	0.000
OC	PO324	1.0	0.000
Overall:		3.0	0.000

Study: BCMSN002 Model: BLACK-CAPPED CHICKADEE(1)-FOOD 1-28-1988

CoverType	SubArea	Area	HSI
OC	LA757	1.0	0.238
OC	PO273	1.0	0.626
OC	PO324	1.0	0.533
Overall:		3.0	0.466

Study name: BCMSN002 1-28-1988

HSI Values For The Entire Study Area:

	Area	HSI
BLACK-CAPPED CHICKADEE(1)-REP	3.0	0.000
BLACK-CAPPED CHICKADEE(1)-FOOD	3.0	0.466

Study: BCMSN002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: OC SubArea: LA757

LEV 2	LEV 1
VDNSN02	grf	HSI
0.00	0.000

Study: BCMSN002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: OC SubArea: PO273

LEV 2	LEV 1
VDNSN02	grf	HSI
0.00	0.000

Study: BCMSN002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

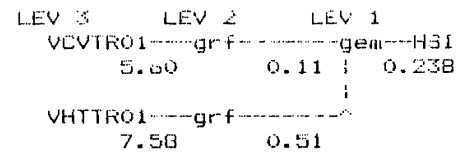
CoverType: OC SubArea: PO324

LEV 2	LEV 1
VDNSN02	grf	HSI
0.00	0.000

Study: BCMSN002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

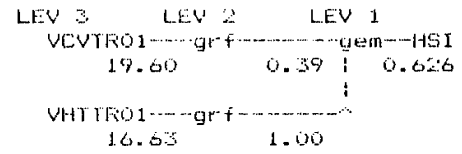
CoverType: OC SubArea: LA757



Study: BCMSN002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

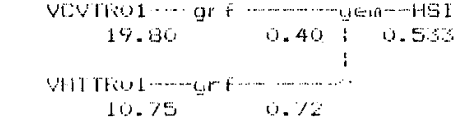
CoverType: OC SubArea: PO273



Study: BCMSN002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

CoverType: OC SubArea: PO324



BCMSN101 HABITAT DATA 1-28-1988

MAINSTEM NORTH
HABITAT: RIPARIAN FOREST
SPECIES: BLACK-CAPPED CHICKADEE

	COVER TYPE / SUB-AREA:				
	rF	rF	rF	rF	rF
VARIABLE:	LA1166	LA825	LA896	PU328	PU84
VCVTR01	31.200	28.600	53.600	79.400	48.800
VDNSN02	0.000	3.500	0.000	0.000	11.100
VHTTR01	11.963	15.947	13.586	15.000	21.278

Study: BCMSN101 Model: BLACK-CAPPED CHICKADEE(1)-REP 1-28-1988

CoverType	SubArea	Area	HSI
rF	LA1166	1.0	0.000
rF	LA825	1.0	0.700
rF	LA896	1.0	0.000
rF	PO328	1.0	0.000
rF	PO84	1.0	1.000
Overall:		5.0	0.340

Study: BCMSN101 Model: BLACK-CAPPED CHICKADEE(1)-FOOD 1-28-1988

CoverType	SubArea	Area	HSI
rF	LA1166	1.0	0.705
rF	LA825	1.0	0.756
rF	LA896	1.0	0.952
rF	PO328	1.0	0.964
rF	PO84	1.0	0.988
Overall:		5.0	0.873

Study name: BCMSN101 1-28-1988

HSI Values For The Entire Study Area:

	Area	HSI
BLACK-CAPPED CHICKADEE(1)-REP	5.0	0.340
BLACK-CAPPED CHICKADEE(1)-FOOD	5.0	0.873

Study: BCMSN101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: rF SubArea: LA1166

LEV 2	LEV 1
VDNSNO2	grf	HSI
0.00	0.000	

Study: BCMSN101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: rF SubArea: LA825

LEV 2	LEV 1
VDNSNO2	grf	HSI
3.50	0.700	

Study: BCMSN101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: rF SubArea: LA896

LEV 2	LEV 1
VDNSNO2	grf	HSI
0.00	0.000	

Study: BCMSN101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: rF SubArea: PO328

LEV 2	LEV 1
VDNSNO2	grf	HSI
0.00	0.000	

Study: BCMSN101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: rF SubArea: P084

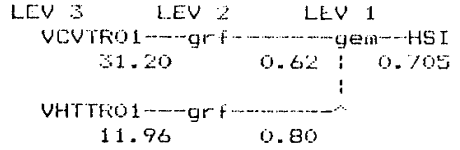
LEV 2	LEV 1
VDNSNO2	grf
11.10	1.000

HSI

Study: BCMSN101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

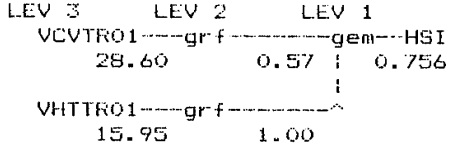
CoverType: rF SubArea: LA1166



Study: BCMSN101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

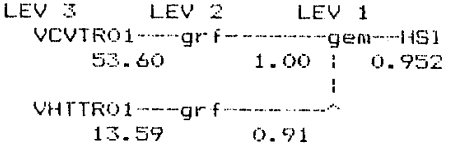
CoverType: rF SubArea: LA825



Study: BCMSN101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

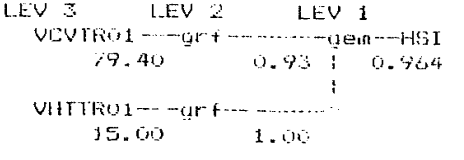
CoverType: rF SubArea: LA896



Study: BCMSN101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

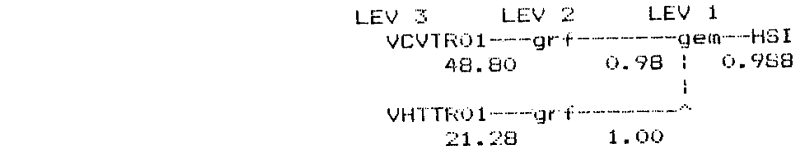
CoverType: rF SubArea: PO328



Study: BCMSN101 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

CoverType: rF SubArea: P084



BCMSS001 HABITAT DATA 2-02-1988

MAINSTEM SOUTH
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: BLACK-CAPPED CHICKADEE

	COVER TYPE / SUB-AREA:		
	CC	CC	CC
VARIABLE:	LA1000	P0310	P0351
VCVTR01	44.000	59.200	65.800
VDNSN02	0.000	85.333	32.000
VHTTR01	14.941	17.292	15.000

Study: BCMSS001 Model: BLACK-CAPPED CHICKADEE(1)-REP 2-02-1988

CoverType	SubArea	Area	HSI
CC	LA1000	1.0	0.000
CC	P0310	1.0	1.000
CC	P0351	1.0	1.000
Overall:		3.0	0.667

Study: BCMSS001 Model: BLACK-CAPPED CHICKADEE(1)-FOOD 2-02-1988

CoverType	SubArea	Area	HSI
CC	LA1000	1.0	0.936
CC	P0310	1.0	1.000
CC	P0351	1.0	1.000
Overall:		3.0	0.979

Study name: BCMSS001 2-02-1988

HSI Values For The Entire Study Area:

	Area	HSI
BLACK-CAPPED CHICKADEE(1)-REP	3.0	0.667
BLACK-CAPPED CHICKADEE(1)-FOOD	3.0	0.979

Study: BCMSS001 2-02-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: CC SubArea: LA1000

LEV 2	LEV 1
VDNSNO2	grf	HSI
0.00	0.000

Study: BCMSS001 2-02-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: CC SubArea: P0310

LEV 2	LEV 1
VDNSNO2	grf	HSI
85.33	1.000

Study: BCMSS001 2-02-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

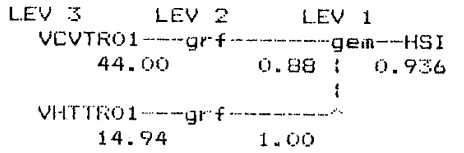
CoverType: CC SubArea: P0351

LEV 2	LEV 1
VDNSNO2	grf	HSI
32.00	1.000

Study: BCMSS001 2-02-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

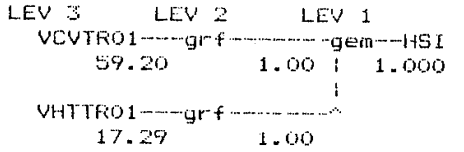
CoverType: CC SubArea: LA1000



Study: BCMSS001 2-02-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

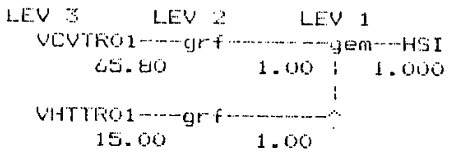
CoverType: CC SubArea: PO310



Study: BCMSS001 2-02-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

CoverType: CC SubArea: PO351



BCMSS002 HABITAT DATA 1-28-1988

MAINSTEM SOUTH
HABITAT: OPEN CANOPY CONIFER
SPECIES: BLACK-CAPPED CHICKADEE

	COVER TYPE / SUB-AREA:		
	OC	OC	OC
VARIABLE:	LA980	P0344	P0366
VCVTR01	0.400	10.200	19.933
VDNSN02	0.000	0.000	0.000
VHTTR01	13.733	13.241	15.013

Study: BCMSS002 Model: BLACK-CAPPED CHICKADEE(1)-REP 1-28-1988

CoverType	SubArea	Area	HSI
OC	LA980	1.0	0.000
OC	P0344	1.0	0.000
OC	P0366	1.0	0.000
Overall:		3.0	0.000

Study: BCMSS002 Model: BLACK-CAPPED CHICKADEE(1)-FOOD 1-28-1988

CoverType	SubArea	Area	HSI
OC	LA980	1.0	0.086
OC	P0344	1.0	0.424
OC	P0366	1.0	0.631
Overall:		3.0	0.380

Study name: BCMSS002 1-28-1988

HSI Values For The Entire Study Area:

	Area	HSI
BLACK-CAPPED CHICKADEE(1)-REP	3.0	0.000
BLACK-CAPPED CHICKADEE(1)-FOOD	3.0	0.380

Study: BCMSS002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: OC SubArea: LA980

LEV 2	LEV 1	
VDNSNO2	grf	HSI
0.00		0.000

Study: BCMSS002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

CoverType: OC SubArea: P0344

LEV 2	LEV 1	
VDNSNO2	grf	HSI
0.00		0.000

Study: BCMSS002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-REP

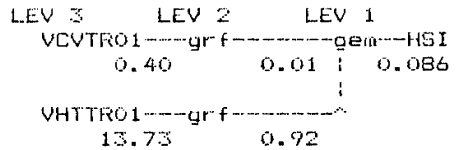
CoverType: OC SubArea: P0366

LEV 2	LEV 1	
VDNSNO2	grf	HSI
0.00		0.000

Study: BCMSS002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

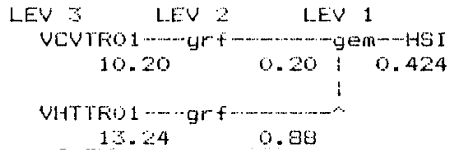
CoverType: OC SubArea: LA980



Study: BCMSS002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

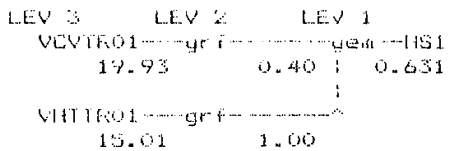
CoverType: OC SubArea: PO344



Study: BCMSS002 1-28-1988

Model: BLACK-CAPPED CHICKADEE(1)-FOOD

CoverType: OC SubArea: PO360



APPENDIX G.4

GREAT BLUE HERRON

Library : C:\LWKP.HLB
2-17-1988

Model # 4 Single covertype model.
Model name: GREAT BLUE HERON
Verification level: EXPERT REVIEW
Creation/modification date: 2-17-1988

SHORT, H. L. AND R. J. COOPER. 1985. HABITAT SUITABILITY INDEX MODELS:
GREAT BLUE HERON. U.S. FISH WILDL. SERV. BIOL. REP. FWS/OBS-82/10.79.
23 PP.
Applies to treeland habitats near water as potential heronry sites,
and aquatic habitats near potential heronry sites as foraging
habitats.
Range: throughout the species' range in the U.S.

Covertypes:
L2 : Lacustrine littoral subsystem
RSUB/ : Riverine shore & bottom classes (UB/RB/SB/US/RS)
OC : Open canopy conifer forest
rF : Riparian forest

Lev 3 Lev 2 Lev 1
X99V1-----grf-----usf--HSI
X99V2-----mnu-----|
X99V3-----mnu-----|
X99V4-----mnu-----|
X99V5-----mnu-----|
X99V6-----grf-----^

Habitat variables:
X99V1 : Distance between potential nest sites & foraging areas (km)
X99V2 :Pres. of water body with suitable prey pop. & forag. substr. (N=1,Y=2)
X99V3 : Pres. of disturb.-free zone of 100m around forag. area (N=1,Y=2)
X99V4 : Presence of treeland cover type within 250m of wetland (N=1,Y=2)
X99V5 : Presence of 250m (land) or 150m (water) disturb.-free zone (N=1,Y=2)
X99V6 : Proximity of potential nest site to an active nest (km)

GRAPH FUNCTION at level 2, position 1
Title: DIST. BETWEEN NEST & FORAGING SITES
X: 0.000, Y: 1.000
X: 1.000, Y: 1.000
X: 10.000, Y: 0.100
X: 15.000, Y: 0.100

MENU FUNCTION at level 2, position 2
Menu choice: 1 Output value: 0.000
Menu choice: 2 Output value: 1.000

```
MENU FUNCTION at level 2, position 3
     Menu choice:       1       Output value:    0.000
     Menu choice:       2       Output value:    1.000


MENU FUNCTION at level 2, position 4
     Menu choice:       1       Output value:    0.000
     Menu choice:       2       Output value:    1.000


MENU FUNCTION at level 2, position 5
     Menu choice:       1       Output value:    0.000
     Menu choice:       2       Output value:    1.000


GRAPH FUNCTION at level 2, position 6
  Title:  PROXIMITY OF POTENTIAL/ACTIVE NEST
     X:       0.000,    Y:    1.000
     X:       1.000,    Y:    1.000
     X:      20.000,    Y:    0.100
     X:      25.000,    Y:    0.100


USER-SPECIFIED FUNCTION at level 1, position 1
USUB = (X(1) * X(2) * X(3) * X(4) * X(5) * X(6))^.5


Comments:
     <none>
```

HERONWO HABITAT DATA 2-17-1988

WITHOUT-PROJECT
HABITAT: RIVERINE, LACUSTRINE, OPEN CANOPY CONIFER, AND RIPARIAN FOREST
SPECIES: GREAT BLUE HERON

	COVER TYPE / SUB-AREA:			
	L2	OC	RSUB/	rF
VARIABLE:	L2	OC	RSUB/	rF
X99V1	1.000	1.000	1.000	1.000
X99V2	2.000	2.000	2.000	2.000
X99V3	2.000	2.000	2.000	2.000
X99V4	2.000	2.000	2.000	2.000
X99V5	2.000	2.000	2.000	2.000
X99V6	25.000	25.000	25.000	25.000

Study: HERONWO Model: GREAT BLUE HERON 2-17-1988

CoverType	SubArea	Area	HSI
L2	L2	1.0	0.316
OC	OC	1.0	0.316
RSUB/	RSUB/	1.0	0.316
rF	rF	1.0	0.316
Overall:		4.0	0.316

Study name: HERONWO 2-17-1988

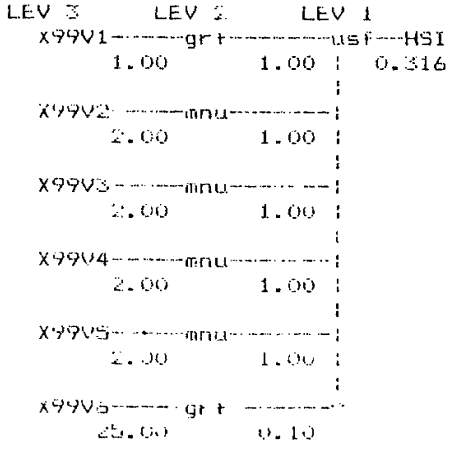
HSI Values For The Entire Study Area:

	Area	HSI
GREAT BLUE HERON	4.0	0.316

Study: HERONWO 2-17-1988

Model: GREAT BLUE HERON

CoverType: OC SubArea: OC



Study: HERONWO 2-17-1988

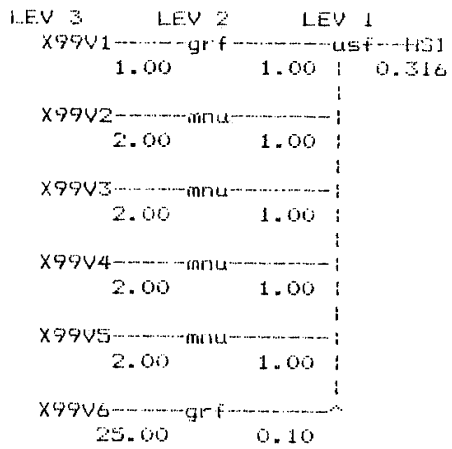
Model: GREAT BLUE HERON

CoverType: OC SubArea: OC

Study: HERONWO 2-17-1988

Model: GREAT BLUE HERON

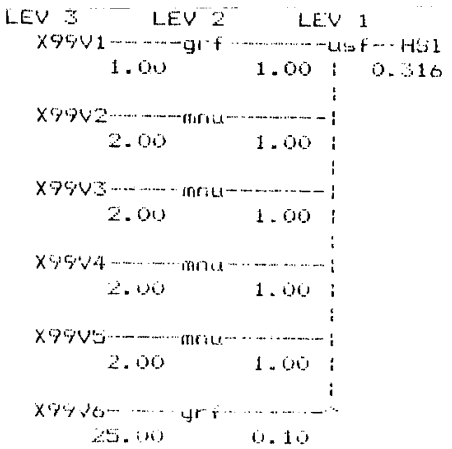
CoverType: RSUB/ SubArea: RSUB/



Study: HERONWO 2-17-1988

Model: GREAT BLUE HERON

CoverType: rF SubArea: rF



HERONGRM HABITAT DATA 2-17-1988

GREY MOUNTAIN ALTERNATIVE
HABITAT: RIVERINE, LACUSTRINE, OPEN CANOPY CONIFER, AND RIPARIAN FOREST
SPECIES: GREAT BLUE HERON

	COVER TYPE / SUB-AREA:			
	L2	OC	RSUB/	rF
VARIABLE:	L2	OC	RSUB/	rF
X99V1	4.110	4.110	4.110	4.110
X99V2	2.000	2.000	2.000	2.000
X99V3	2.000	2.000	2.000	2.000
X99V4	2.000	2.000	2.000	2.000
X99V5	2.000	2.000	2.000	2.000
X99V6	25.000	25.000	25.000	25.000

Study: HERONGRM Model: GREAT BLUE HERON 2-17-1988

Covertype	SubArea	Area	HSI
L2	L2	1.0	0.262
OC	OC	1.0	0.262
RSUB/	RSUB/	1.0	0.262
rF	rF	1.0	0.262
Overall:		4.0	0.262

Study name: HERONGRM 2-17-1988

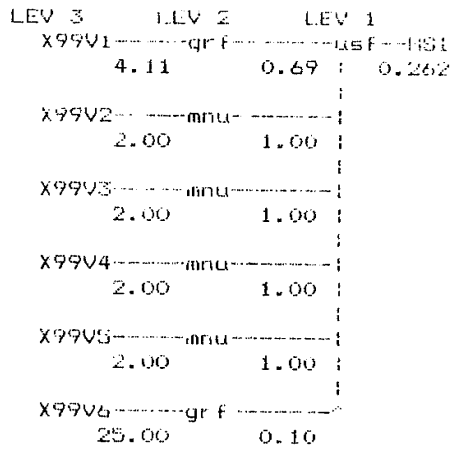
HSI Values For The Entire Study Area:

	Area	HSI
GREAT BLUE HERON	4.0	0.262

Study: HERONGRM 2-17-1988

Model: GREAT BLUE HERON

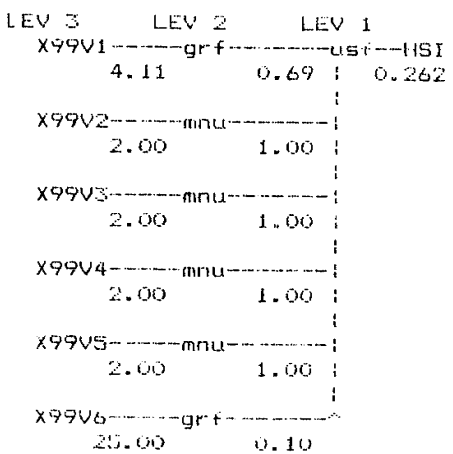
CoverType: L2 SubArea: L2



Study: HERONGRM 2-17-1988

Model: GREAT BLUE HERON

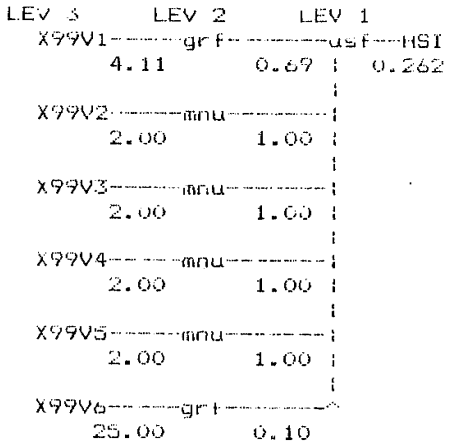
CoverType: OC SubArea: OC



Study: HERUNGRM 2-17-1988

Model: GREAT BLUE HERON

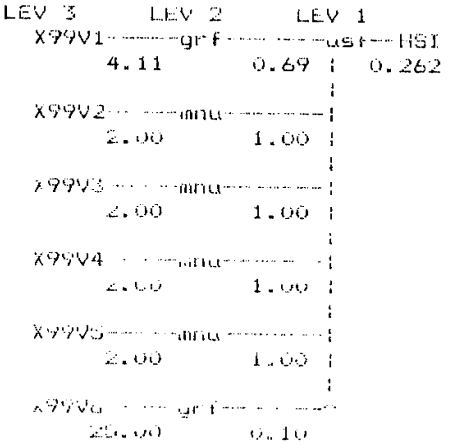
CoverType: RSUB/ SubArea: RSUB/



Study: HERONGRM 2-17-1988

Model: GREAT BLUE HERON

CoverType: rF SubArea: rF



Study: HERONPOU Model: GREAT BLUE HERON 2-17-1988

CoverType	SubArea	Area	HSI
L2	L2	1.0	0.275
OC	OC	1.0	0.275
RSUB/	RSUB/	1.0	0.275
rF	rF	1.0	0.275
Overall:		4.0	0.275

Study name: HERONPOU 2-17-1988

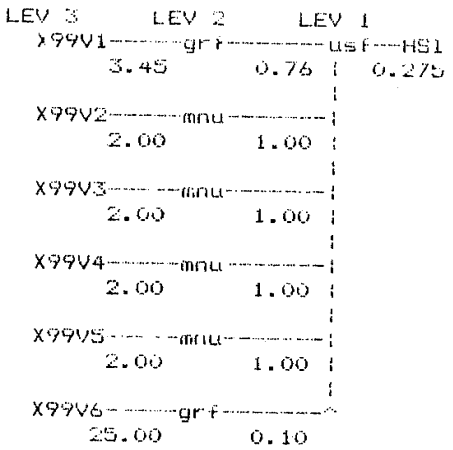
HSI Values For The Entire Study Area:

	Area	HSI
GREAT BLUE HERON	4.0	0.275

Study: HERONPOU 2-17-1988

Model: GREAT BLUE HERON

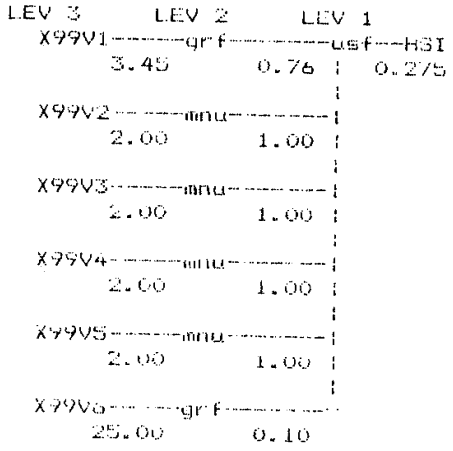
CoverType: L2 SubArea: L2



Study: HERONPOU 2-17-1988

Model: GREAT BLUE HERON

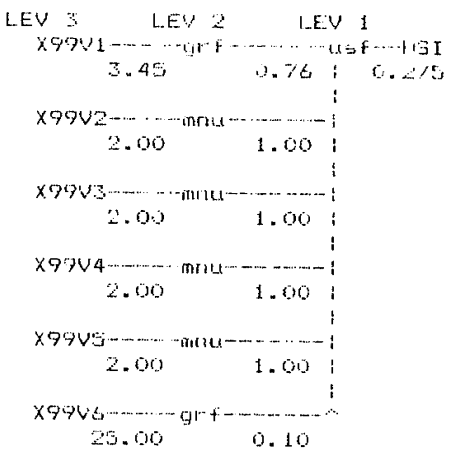
CoverType: OC SubArea: OC



Study: HERONPOU 2-17-1988

Model: GREAT BLUE HERON

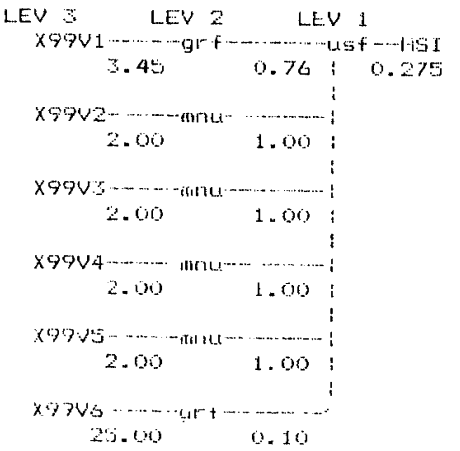
CoverType: RSUB/ SubArea: RSUB/



Study: HERONPOU 2-17-1988

Model: GREAT BLUE HERON

CoverType: rF SubArea: rF



HERONPOU HABITAT DATA 2-17-1988

POUDRE ALTERNATIVE
HABITAT: RIVERINE, LACUSTRINE, OPEN CANOPY CONIFER, AND RIPARIAN FOREST
SPECIES: GREAT BLUE HERON

	COVER TYPE / SUB-AREA:			
	L2	OC	RSUB/	rF
VARIABLE:	L2	OC	RSUB/	rF
X99V1	3.450	3.450	3.450	3.450
X99V2	2.000	2.000	2.000	2.000
X99V3	2.000	2.000	2.000	2.000
X99V4	2.000	2.000	2.000	2.000
X99V5	2.000	2.000	2.000	2.000
X99V6	25.000	25.000	25.000	25.000

APPENDIX G.5

MULE DEER

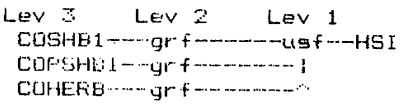
Library: C:CWRP.HLB
1-25-1988

Model # 9 Single covertype model.
Model name: MULE DEER--FOOD

Verification level: Author Draft
Creation/modification date: 1-22-1988

USFWS, Western Energy Land Use Team, Fort Collins, Colorado, 1982.

Covertypes:
CC : Closed canopy conifer forest
OC : Open canopy conifer forest
S : Shrubland
UG : Grassland
rF : Riparian forest
rS : Riparian Shrubland
PP : Pinyon pine forest
AP : Pasture or hayland
rUG : Riparian grassland



Habitat variables:
COHERB : Percent palatable herbaceous canopy cover
COPSHB1 : Percent canopy cover of preferred shrubs < 1.5m in height
COSHB1 : Percent shrub canopy cover < 1.5 m in height

GRAPH FUNCTION at level 2, position 1
Title: % Shrub Canopy Cover < 1.5 m in Height

X:	0.000,	Y:	0.000
X:	20.000,	Y:	0.300
X:	40.000,	Y:	1.000
X:	65.000,	Y:	1.000
X:	100.000,	Y:	0.700

GRAPH FUNCTION at level 2, position 2
Title: % Canopy Cover of Preferred Shrubs <1.5m

X:	0.000,	Y:	0.200
X:	6.250,	Y:	0.200
X:	30.000,	Y:	0.800
X:	40.000,	Y:	1.000
X:	60.000,	Y:	1.000
X:	100.000,	Y:	0.700

GRAPH FUNCTION at level 2, position 3
Title: % Palatable Herbaceous Canopy Cover

X:	0.000,	Y:	0.000
X:	10.000,	Y:	0.250
X:	20.000,	Y:	0.800
X:	30.000,	Y:	1.000
X:	100.000,	Y:	1.000

USER-SPECIFIED FUNCTION at level 1, position 1
USUB=((3*((X(1)*X(2))^.5))+X(3))/4

Comments:
Winter food model only
Data was collected on palatable herbaceous canopy cover not just herbaceous cover as stipulated in the printed version.

MDMSE002 HABITAT DATA 1-29-1988

MAINSTEM EAST
HABITAT: OPEN CANOPY CONIFER
SPECIES: MULE DEER -- FOOD

	COVER TYPE / SUB-AREA:		
	OC	OC	OC
VARIABLE:	LA507	LA806	LA809
COHERB	3.500	2.900	2.833
COPSHB1	14.000	11.300	5.067
COSHB1	14.800	18.600	10.300

Study: MDMSE002 Model: MULE DEER--FOOD 1-29-1988

Cover Type	SubArea	Area	HSI
OC	LA507	1.0	0.244
OC	LA806	1.0	0.245
OC	LA809	1.0	0.150
Overall:		3.0	0.213

Study name: MDMSE002 1-29-1988

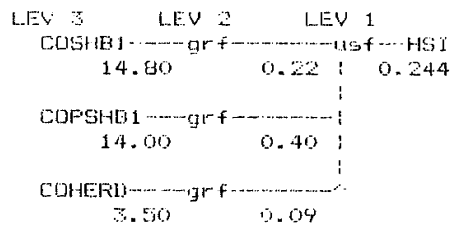
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.213

Study: MDMSE002 1-29-1988

Model: MULE DEER--FOOD

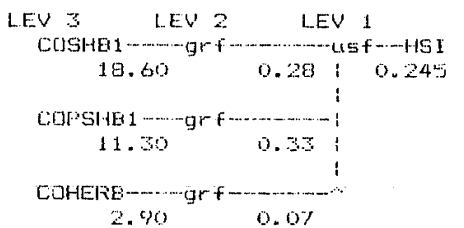
CoverType: OC SubArea: LA507



Study: MDMSE002 1-29-1988

Model: MULE DEER--FOOD

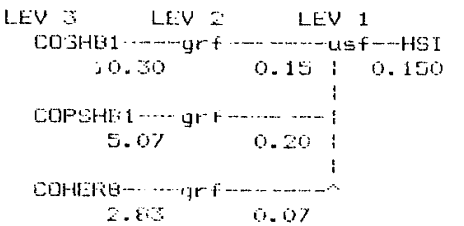
CoverType: OC SubArea: LA806



Study: MDMSE002 1-29-1988

Model: MULE DEER--FOOD

CoverType: OC SubArea: LA809



MDMSE005 HABITAT DATA

1-29-1988

MAINSTEM EAST
HABITAT: GRASSLAND
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	UG	US	UG
VARIABLE:	LA252	LI318	LI829
COHERB	60.000	38.000	51.000
COPSHB1	0.000	2.500	4.300
COSHB1	0.000	2.500	4.300

Study: MDMSE005 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
UG	LA252	1.0	0.250
UG	LI318	1.0	0.315
UG	LI829	1.0	0.335
Overall:		3.0	0.300

Study name: MDMSE005 1-29-1988

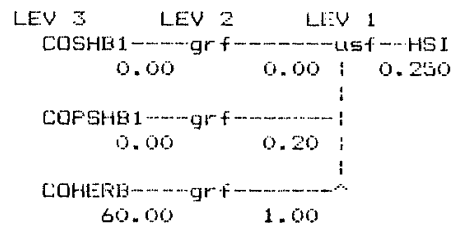
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.300

Study: MDMSE005 1-29-1988

Model: MULE DEER--FOOD

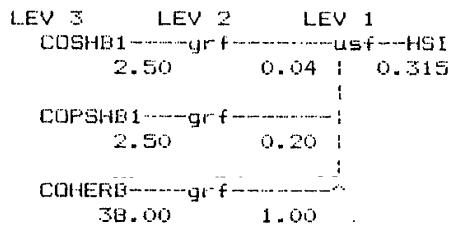
CoverType: UG SubArea: LA252



Study: MDMSE005 1-29-1988

Model: MULE DEER--FOOD

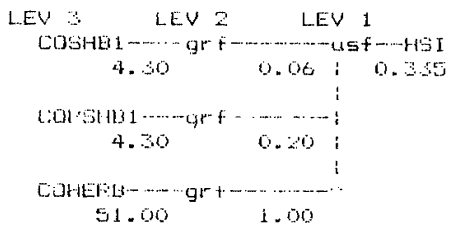
CoverType: UG SubArea: LI318



Study: MDMSE005 1-29-1988

Model: MULE DEER--FOOD

CoverType: UG SubArea: LI829



MDMSE001 HABITAT DATA 1-29-1988

MAINSTEM EAST
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	CC	CC	CC
VARIABLE:	LA693	LA753	LA905
COHERB	3.000	1.633	3.500
COPSHB1	5.100	0.600	11.700
COSHB1	5.100	6.033	22.600

Study: MDMSE001 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
CC	LA693	1.0	0.112
CC	LA753	1.0	0.111
CC	LA905	1.0	0.294
Overall:		3.0	0.172

Study name: MDMSE001 1-29-1988

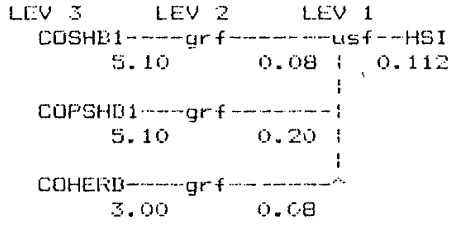
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.172

Study: MDMSE001 1-29-1988

Model: MULE DEER--FOOD

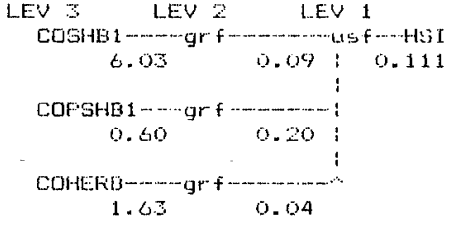
CoverType: CC SubArea: LA693



Study: MDMSE001 1-29-1988

Model: MULE DEER--FOOD

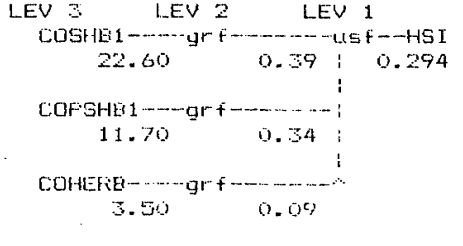
CoverType: CC SubArea: LA753



Study: MDMSE001 1-29-1988

Model: MULE DEER--FOOD

CoverType: CC SubArea: LA905



MDMSE101 HABITAT DATA 1-29-1988

MAINSTEM EAST
HABITAT: RIPARIAN FOREST
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	rF	rF	rF
VARIABLE:	LA1141	LI307	LI320
COHERB	1.100	0.133	0.155
COPSHB1	4.000	30.400	23.300
COSHB1	27.800	27.300	23.300

Study: MDMSE101 . Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
rF	LA1141	1.0	0.261
rF	LI307	1.0	0.503
rF	LI320	1.0	0.385
Overall:		3.0	0.383

Study name: MDMSE101 1-29-1988

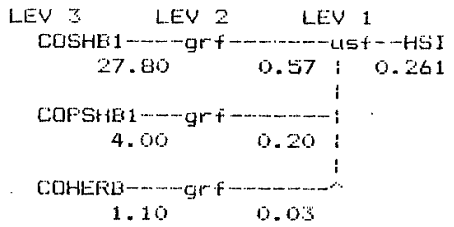
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.383

Study: MDMSE101 1-29-1988

Model: MULE DEER--FOOD

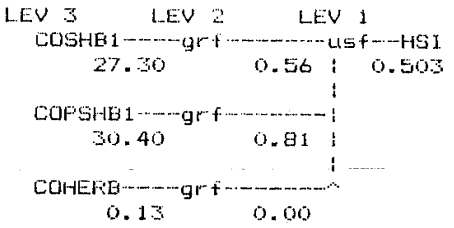
CoverType: rF SubArea: LA1141



Study: MDMSE101 1-29-1988

Model: MULE DEER--FOOD

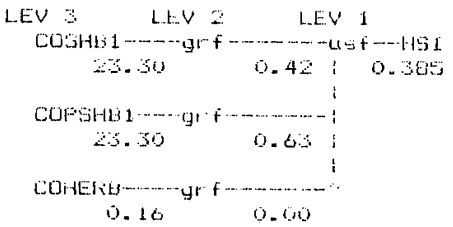
CoverType: rF SubArea: LI307



Study: MDMSE101 1-29-1988

Model: MULE DEER--FOOD

CoverType: rF SubArea: LI320



MDMSE104 HABITAT DATA 1-29-1988

MAINSTEM EAST
HABITAT: RIPARIAN SHRUBLAND
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	rS	rS	rS
VARIABLE:	LI302	LI304	LI310
COHERB	57.500	55.000	64.000
COPSHB1	31.900	56.400	63.900
COSHB1	52.800	58.100	71.700

Study: MDMSE104 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
rS	LI302	1.0	0.937
rS	LI304	1.0	1.000
rS	LI310	1.0	0.967
Overall:		3.0	0.968

Study name: MDMSE104 1-29-1988

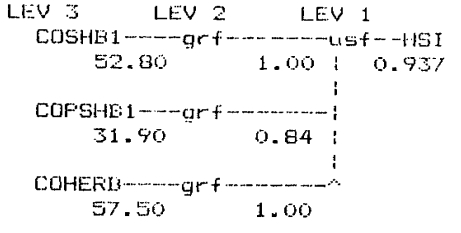
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.968

Study: MDMSE104 1-29-1988

Model: MULE DEER--FOOD

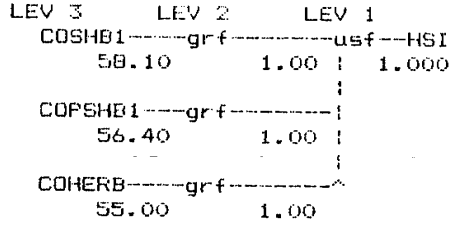
CoverType: rS SubArea: LI302



Study: MDMSE104 1-29-1988

Model: MULE DEER--FOOD

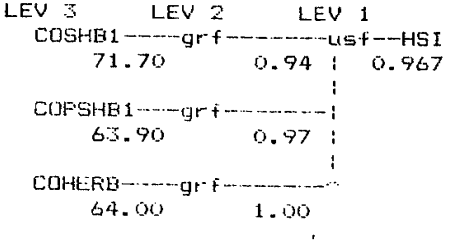
CoverType: rS SubArea: LI304



Study: MDMSE104 1-29-1988

Model: MULE DEER--FOOD

CoverType: rS SubArea: LI310



MDMSS001 HABITAT DATA 1-29-1988

MAINSTEM SOUTH
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	CC	CC	CC
VARIABLE:	LA1000	PO310	PO351
COHERB	1.600	0.767	1.000
COPSHB1	0.200	2.600	0.000
COSHB1	37.700	14.700	4.500

Study: MDMSS001 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
CC	LA1000	1.0	0.332
CC	P0310	1.0	0.162
CC	P0351	1.0	0.093
Overall:		3.0	0.196

Study name: MDMSS001 1-29-1988

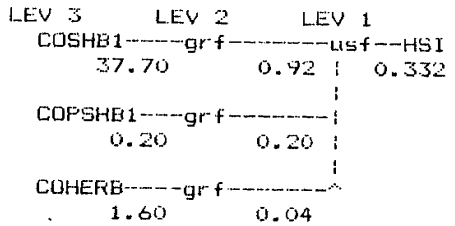
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.196

Study: MDMSS001 1-29-1988

Model: MULE DEER--FOOD

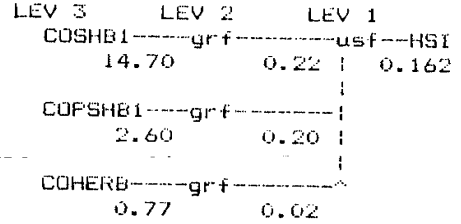
CoverType: CC SubArea: LA1000



Study: MDMSS001 1-29-1988

Model: MULE DEER--FOOD

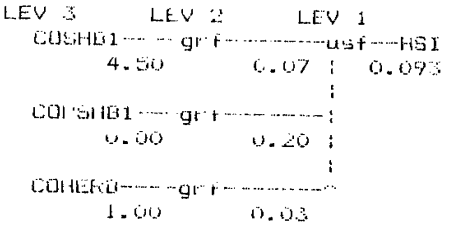
CoverType: CC SubArea: PO310



Study: MDMSS001 1-29-1988

Model: MULE DEER--FOOD

CoverType: CC SubArea: PO351



MDMSS002 HABITAT DATA 1-29-1988

MAINSTEM SOUTH
HABITAT: OPEN CANOPY CONIFER
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	OC	OC	OC
VARIABLE:	LA980	P0344	P036e
COHERB	4.200	4.700	12.367
COPSHB1	5.400	16.200	12.600
COSHB1	13.300	42.100	24.733

Study: MDMSS002 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
OC	LA980	1.0	0.176
OC	PO344	1.0	0.533
OC	PO366	1.0	0.402
Overall:		3.0	0.371

Study name: MDMSS002 1-29-1988

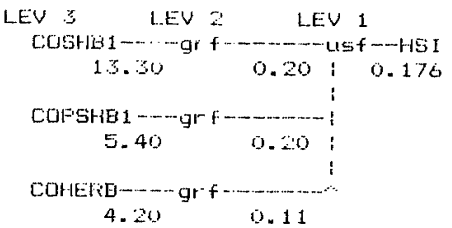
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.371

Study: MDMSS002 1-29-1988

Model: MULE DEER--FOOD

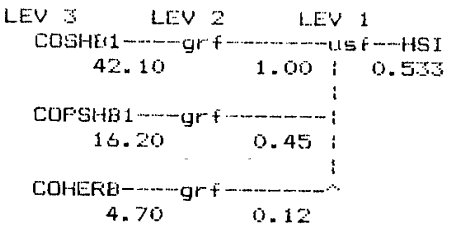
CoverType: OC SubArea: LA980



Study: MDMSS002 1-29-1988

Model: MULE DEER--FOOD

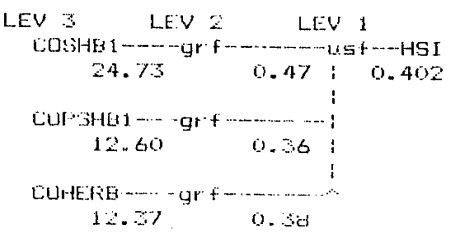
CoverType: OC SubArea: P0344



Study: MDMSS002 1-29-1988

Model: MULE DEER--FOOD

CoverType: OC SubArea: P0366



MDMSS004 HABITAT DATA 2-10-1988

MAINSTEM SOUTH
HABITAT: MOUNTAIN SHRUB
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	S	S	S
VARIABLE:	LA986	P0311	P0343
COHERB	43.185	32.000	63.500
COPSHB1	35.433	46.400	51.600
COSHB1	35.433	43.240	53.400

Study: MDMSS004 Model: MULE DEER--FOOD 2-10-1988

CoverType	SubArea	Area	HSI
S	LA986	1.0	0.905
S	PO311	1.0	1.000
S	PO343	1.0	1.000
Overall:		3.0	0.968

Study name: MDMSS004 2-10-1988

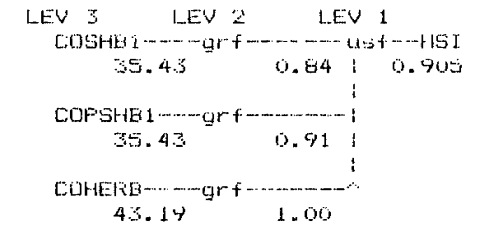
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.968

Study: MDMSS004 2-10-1988

Model: MULE DEER--FOOD

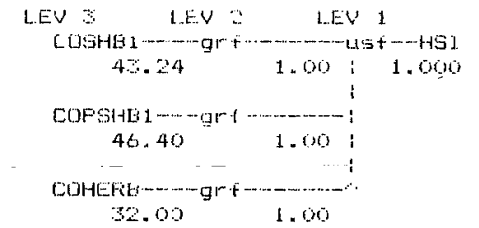
CoverType: S SubArea: LA986



Study: MDMSS004 2-10-1988

Model: MULE DEER--FOOD

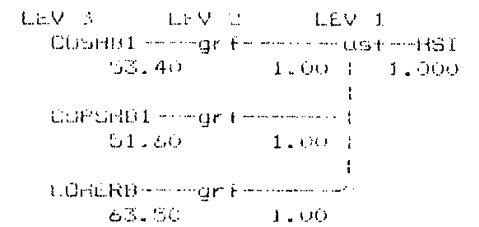
CoverType: S SubArea: PO311



Study: MDMSS004 2-10-1988

Model: MULE DEER--FOOD

CoverType: S SubArea: PO343



MDMSS005 HABITAT DATA 2-03-1988

MAINSTEM SOUTH
HABITAT: GRASSLAND
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	UG	UG	UG
VARIABLE:	LA1114	LA983	PD304
COHERB	24.367	81.000	71.500
COPSHB1	3.167	4.800	3.800
COSHB1	3.167	5.400	3.800

Study: MDMSS005 Model: MULE DEER--FOOD 2-03-1988

CoverType	SubArea	Area	HSI
UG	LA1114	1.0	0.295
UG	LA983	1.0	0.345
UG	PO304	1.0	0.330
Overall:		3.0	0.323

Study name: MDMSS005 2-03-1988

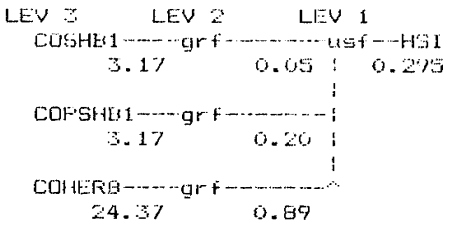
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.323

Study: MDMSS005 2-03-1986

Model: MULE DEER--FOOD

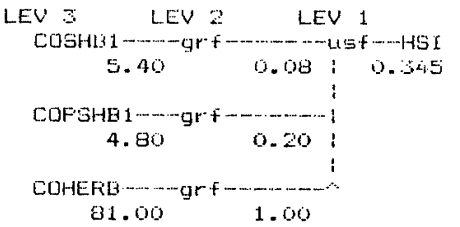
CoverType: UG SubArea: LA1114



Study: MDMSS005 2-03-1988

Model: MULE DEER--FOOD

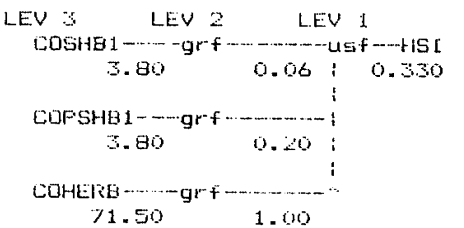
CoverType: UG SubArea: LA983



Study: MDMSS005 2-03-1988

Model: MULE DEER--FOOD

CoverType: UG SubArea: PO304



MDMSS101 HABITAT DATA 1-29-1988

MAINSTEM SOUTH
HABITAT: RIPARIAN FOREST
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:				
	rF	rF	rF	rF	rF
VARIABLE:	LA937	LA943	P0363	P0437	P0443
COHERB	4.600	3.600	5.900	9.100	4.300
COPSHB1	2.400	22.600	32.200	6.000	9.200
COSHB1	3.300	22.800	12.800	30.500	13.400

Study: MDMSS101 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
rF	LA937	1.0	0.103
rF	LA943	1.0	0.393
rF	PO363	1.0	0.339
rF	PO437	1.0	0.331
rF	PO443	1.0	0.203
Overall:		5.0	0.274

Study name: MDMSS101 1-29-1988

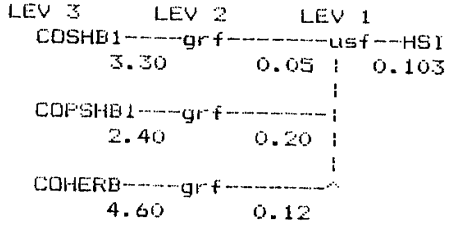
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	5.0	0.274

Study: MDMSS101 1-29-1988

Model: MULE DEER--FOOD

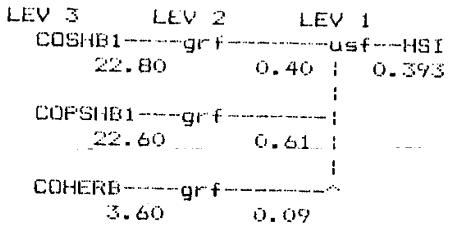
CoverType: rF SubArea: LA937



Study: MDMSS101 1-29-1988

Model: MULE DEER--FOOD

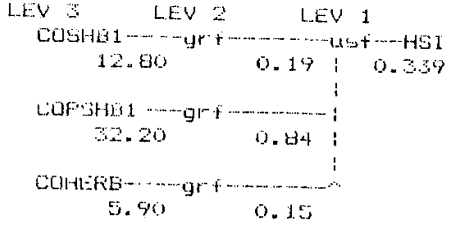
CoverType: rF SubArea: LA943



Study: MDMSS101 1-29-1988

Model: MULE DEER--FOOD

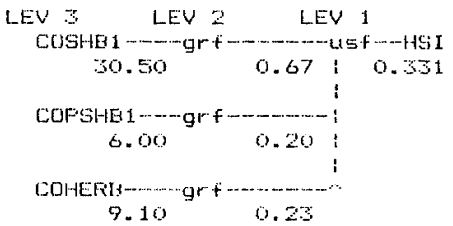
CoverType: rF SubArea: PO363



Study: MDMSS101 1-29-1988

Model: MULE DEER--FOOD

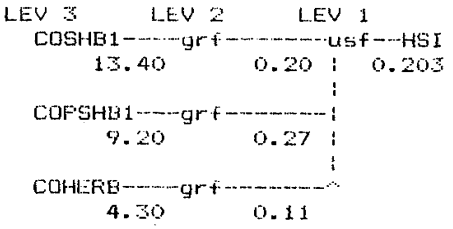
CoverType: rF SubArea: P0437



Study: MDMSS101 1-29-1988

Model: MULE DEER--FOOD

CoverType: rF SubArea: P0443



MDEL1002 HABITAT DATA 1-29-1988

ELEVATION 1
HABITAT: OPEN CANOPY CONIFER
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	QC	OC	OC
VARIABLE:	LA310	LA317	LA458
COHERB	1.850	2.200	13.100
COPSHB1	21.200	12.700	16.000
COSHB1	28.700	14.700	40.600

Study: MDEL1002 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
OC	LA310	1.0	0.455
OC	LA317	1.0	0.226
OC	LA458	1.0	0.606
Overall:		3.0	0.429

Study name: MDEL1002 1-29-1988

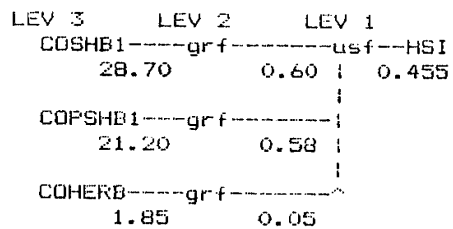
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.429

Study: MDEL1002 1-29-1988

Model: MULE DEER--FOOD

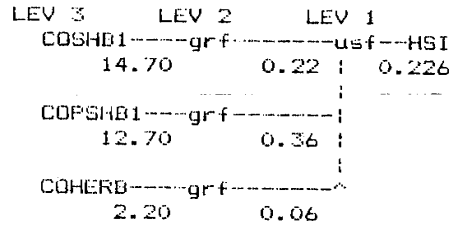
CoverType: OC SubArea: LA310



Study: MDEL1002 1-29-1988

Model: MULE DEER--FOOD

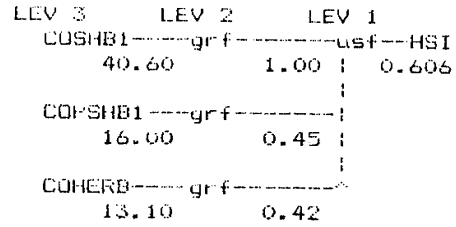
CoverType: OC SubArea: LA317



Study: MDEL1002 1-29-1988

Model: MULE DEER--FOOD

CoverType: OC SubArea: LA458



MDEL1005 HABITAT DATA 1-29-1988

ELEVATION 1
HABITAT: GRASSLAND
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	UG	UG	UG
VARIABLE:	LA375	LA472	LI60
COHERB	27.778	36.000	41.833
COPSHB1	1.400	4.900	0.767
COSHB1	1.400	4.900	0.767

Study: MDEL1005 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
UG	LA375	1.0	0.287
UG	LA472	1.0	0.341
UG	LI60	1.0	0.286
Overall:		3.0	0.305

Study name: MDEL1005 1-29-1988

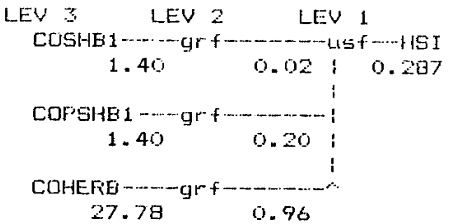
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.305

Study: MDEL1005 1-29-1988

Model: MULE DEER--FOOD

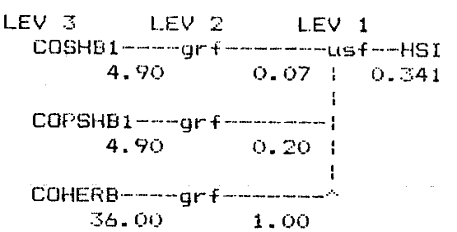
CoverType: UG SubArea: LA375



Study: MDEL1005 1-29-1988

Model: MULE DEER--FOOD

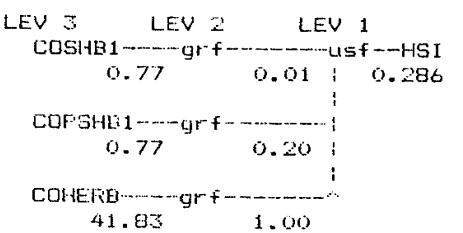
CoverType: UG SubArea: LA472



Study: MDEL1005 1-29-1988

Model: MULE DEER--FOOD

CoverType: UG SubArea: LI60



MDEL1101 HABITAT DATA 1-29-1988

ELEVATION 1
HABITAT: RIPARIAN FOREST
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:				
	rF	rF	rF	rF	rF
VARIABLE:	LA286	LA383	LA393	LA460	LA470
COHERB	2.400	10.400	6.200	3.700	7.100
COPSHB1	0.000	8.800	1.600	7.800	27.600
COSHB1	0.000	8.800	1.600	11.000	27.600

Study: MDEL1101 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
rF	LA286	1.0	0.015
rF	LA383	1.0	0.208
rF	LA393	1.0	0.091
rF	LA460	1.0	0.172
rF	LA470	1.0	0.530
Overall:		5.0	0.203

Study name: MDEL1101 1-29-1988

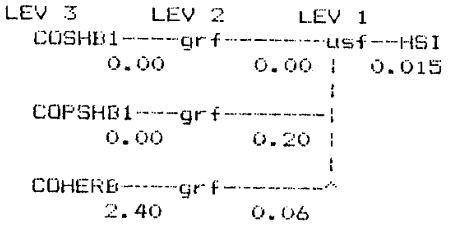
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	5.0	0.203

Study: MDEL1101 1-29-1988

Model: MULE DEER--FOOD

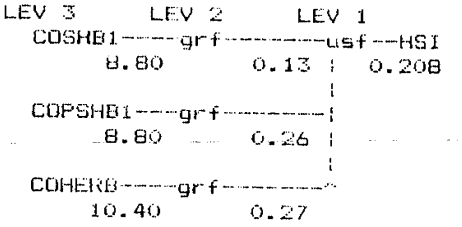
CoverType: rF SubArea: LA286



Study: MDEL1101 1-29-1988

Model: MULE DEER--FOOD

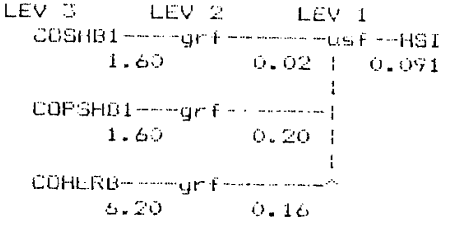
CoverType: rF SubArea: LA383



Study: MDEL1101 1-29-1988

Model: MULE DEER--FOOD

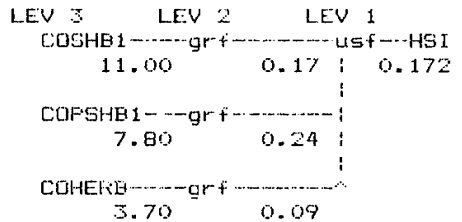
CoverType: rF SubArea: LA393



Study: MDEL1101 1-29-1988

Model: MULE DEER--FOOD

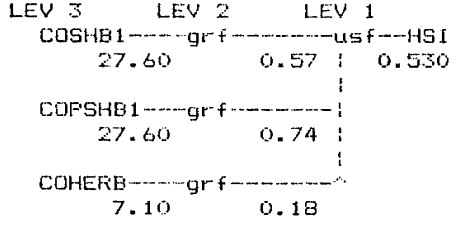
CoverType: rF SubArea: LA460



Study: MDEL1101 1-29-1988

Model: MULE DEER--FOOD

CoverType: rF SubArea: LA470



MDEL1104 HABITAT DATA 1-29-1988

ELEVATION 1
HABITAT: RIPARIAN SHRUBLAND
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	rS	rS	rS
VARIABLE:	LA372	LA398	LA399
COHERB	16.000	27.130	53.500
COPSHB1	51.000	48.267	65.100
COSHB1	36.000	49.400	65.300

Study: MDEL1104 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
rS	LA372	1.0	0.841
rS	LA398	1.0	0.986
rS	LA399	1.0	0.985
Overall:		3.0	0.937

Study name: MDEL1104 1-29-1988

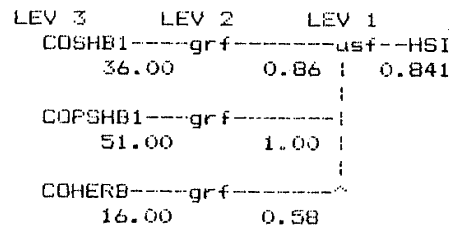
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.937

Study: MDEL1104 1-29-1988

Model: MULE DEER--FOOD

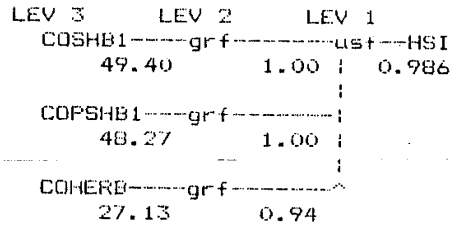
CoverType: rS SubArea: LA372



Study: MDEL1104 1-29-1988

Model: MULE DEER--FOOD

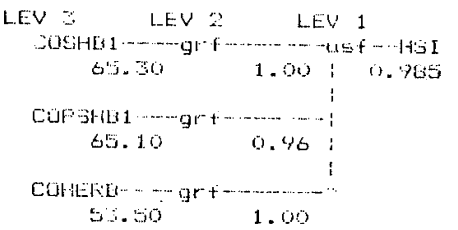
CoverType: rS SubArea: LA398



Study: MDEL1104 1-29-1988

Model: MULE DEER--FOOD

CoverType: rS SubArea: LA399



MDEL2001 HABITAT DATA 1-29-1988

ELEVATION 2
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	CC	CC	CC
VARIABLE:	LA715	LA849	P087
COHERB	1.967	3.500	6.600
COPSHB1	1.333	2.100	7.000
COSHB1	12.767	12.300	15.700

Study: MDEL2001 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
CC	LA715	1.0	0.159
CC	LA849	1.0	0.166
CC	P087	1.0	0.212
Overall:		3.0	0.179

Study name: MDEL2001 1-29-1988

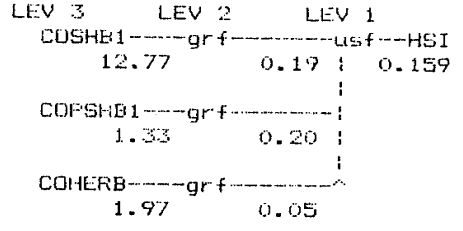
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.179

Study: MDEL2001 1-29-1988

Model: MULE DEER--FOOD

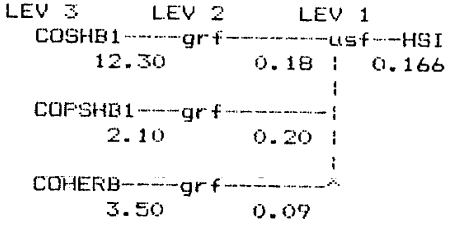
CoverType: CC SubArea: LA715



Study: MDEL2001 1-29-1988

Model: MULE DEER--FOOD

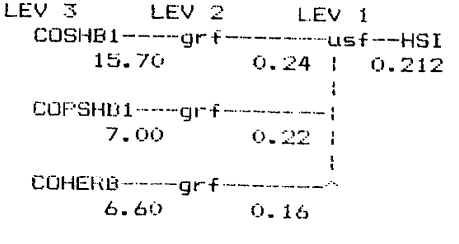
CoverType: CC SubArea: LA849



Study: MDEL2001 1-29-1988

Model: MULE DEER--FOOD

CoverType: CC SubArea: P087



MDEL2002 HABITAT DATA 1-29-1988

ELEVATION 2
HABITAT: OPEN CANOPY CONIFER
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	OC	OC	OC
VARIABLE:	LI132	PO307	PO357
COHERB	2.900	8.367	7.000
COPSHB1	27.900	13.600	16.700
COSHB1	31.800	17.467	30.700

Study: MDEL2002 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
OC	LI132	1.0	0.565
OC	P0307	1.0	0.291
OC	P0357	1.0	0.463
Overall:		3.0	0.440

Study name: MDEL2002 1-29-1988

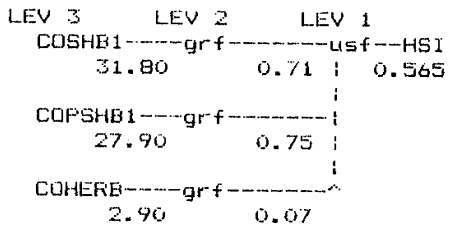
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.440

Study: MDEL2002 1-29-1988

Model: MULE DEER--FOOD

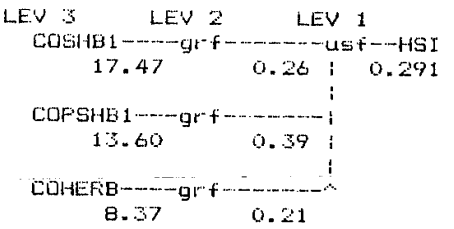
CoverType: OC SubArea: LI132



Study: MDEL2002 1-29-1988

Model: MULE DEER--FOOD

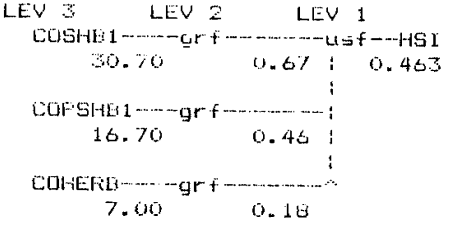
CoverType: OC SubArea: PO307



Study: MDEL2002 1-29-1988

Model: MULE DEER--FOOD

CoverType: GC SubArea: PO357



MDEL2005 HABITAT DATA

2-03-1988

ELEVATION 2
HABITAT: GRASSLAND
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	UG	UG	UG
VARIABLE:	LA510	LA554	LA769
COHERB	39.567	56.500	53.500
COPSHB1	7.067	2.800	0.900
COSHB1	7.067	2.800	2.900

Study: MDEL2005 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
UG	LA510	1.0	0.365
UG	LA554	1.0	0.319
UG	LA769	1.0	0.320
Overall:		3.0	0.334

Study name: MDEL2005 1-29-1988

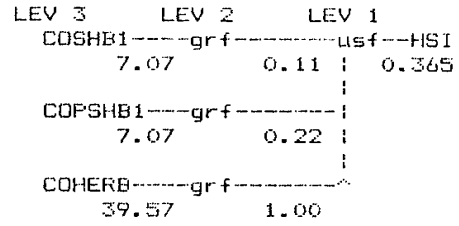
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.334

Study: MDEL2005 1-29-1988

Model: MULE DEER--FOOD

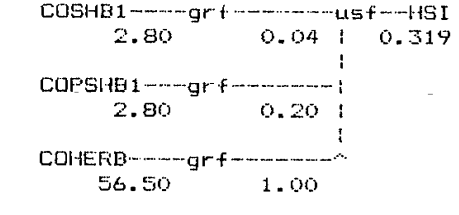
CoverType: UG SubArea: LA510



Study: MDEL2005 1-29-1988

Model: MULE DEER--FOOD

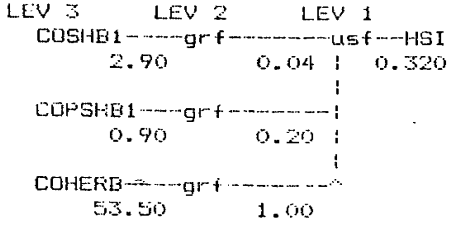
CoverType: UG SubArea: LA554



Study: MDEL2005 1-29-1988

Model: MULE DEER--FOOD

CoverType: UG SubArea: LA769



MDEL2101 HABITAT DATA 1-29-1988

ELEVATION 2
HABITAT: RIPARIAN FOREST
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	rF	rF	rF
VARIABLE:	LI97	PO212	PO282
COHERB	0.063	12.000	0.045
COPSHB1	4.200	3.700	13.300
COSHB1	4.200	22.400	20.500

Study: MDEL2101 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
rF	LI97	1.0	0.085
rF	PO212	1.0	0.298
rF	PO282	1.0	0.260
Overall:		3.0	0.214

Study name: MDEL2101 1-29-1988

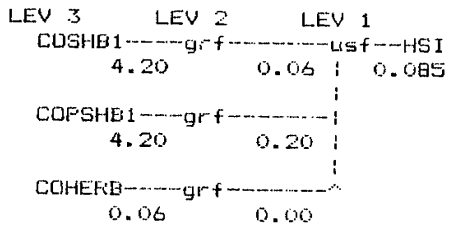
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.214

Study: MDEL2101 1-29-1988

Model: MULE DEER--FOOD

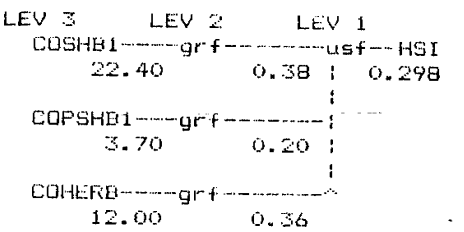
CoverType: rF SubArea: LI97



Study: MDEL2101 1-29-1988

Model: MULE DEER--FOOD

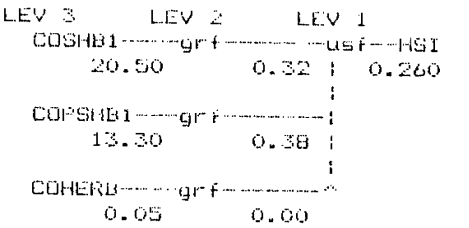
CoverType: rF SubArea: PO212



Study: MDEL2101 1-29-1988

Model: MULE DEER--FOOD

CoverType: rF SubArea: PO282



MDEL2104 HABITAT DATA 1-29-1988

ELEVATION 2
HABITAT: RIPARIAN SHRUBLAND
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	rS	rS	rS
VARIABLE:	LA417	LA624	LI72
COHERB	33.500	24.500	68.500
COPSHB1	61.200	36.400	70.000
COSHB1	61.200	46.200	70.000

Study: MDEL2104 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
rS	LA417	1.0	0.997
rS	LA624	1.0	0.945
rS	LI72	1.0	0.956
Overall:		3.0	0.966

Study name: MDEL2104 1-29-1988

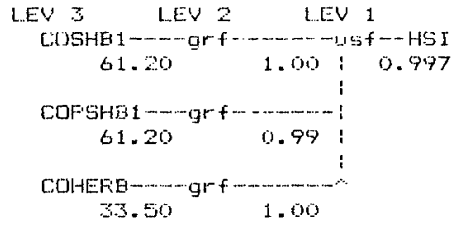
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.966

Study: MDEL2104 1-29-1988

Model: MULE DEER--FOOD

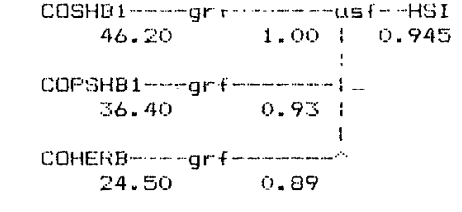
CoverType: rS SubArea: LA417



Study: MDEL2104 1-29-1988

Model: MULE DEER--FOOD

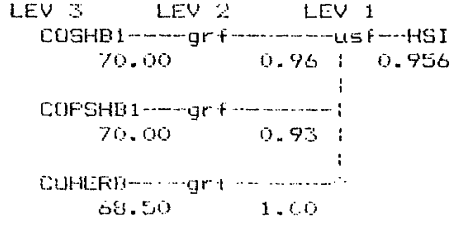
CoverType: rS SubArea: LA624



Study: MDEL2104 1-29-1988

Model: MULE DEER--FOOD

CoverType: rS SubArea: LI72



MDEL3001 HABITAT DATA 1-29-1986

ELEVATION 3
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:			
	CC	CC	CC	CC
VARIABLE:	P0113	P0225	P0231	P0429
COHERB	4.200	1.667	3.400	0.500
COPSHB1	1.800	0.233	0.000	4.600
COSHB1	4.000	8.933	7.300	20.300

Study: MDEL3001 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
CC	P0113	1.0	0.108
CC	P0225	1.0	0.133
CC	P0231	1.0	0.132
CC	P0429	1.0	0.190
Overall:		4.0	0.141

Study name: MDEL3001 1-29-1988

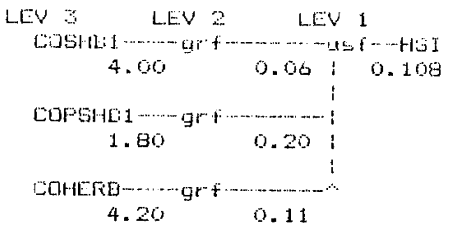
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	4.0	0.141

Study: MDEL3001 1-29-1988

Model: MULE DEER--FOOD

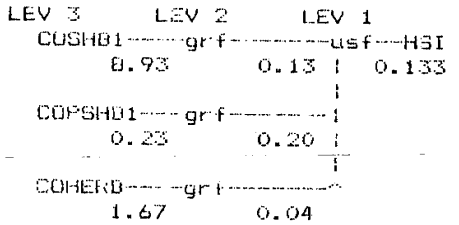
CoverType: CC SubArea: PO113



Study: MDEL3001 1-29-1988

Model: MULE DEER--FOOD

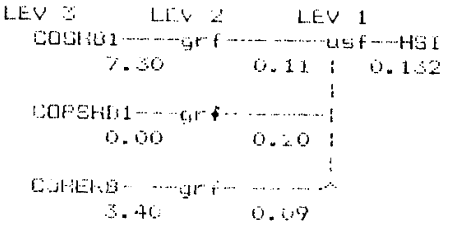
CoverType: CC SubArea: PO225



Study: MDEL3001 1-29-1988

Model: MULE DEER--FOOD

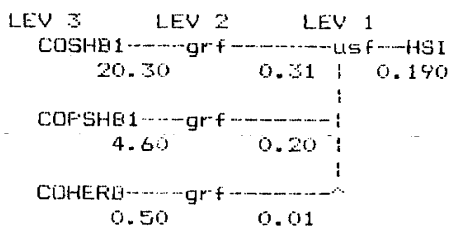
CoverType: CC SubArea: PO231



Study: MDEL3001 1-29-1988

Model: MULE DEER--FOOD

CoverType: CC SubArea: P0429



MDEL3002 HABITAT DATA 1-29-1988

ELEVATION 3
HABITAT: OPEN CANOPY CONIFER
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:				
	OC	OC	OC	OC	OC
VARIABLE:	LA788	P0101A	P0111	P0127	P0404
COHERB	6.600	4.100	3.167	1.900	6.300
COPSHB1	11.533	10.900	9.267	2.400	1.400
COSHB1	11.733	22.500	19.200	13.900	7.600

Study: MDEL3002 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
OC	LA788	1.0	0.223
OC	PO101A	1.0	0.289
OC	PO111	1.0	0.231
OC	PO127	1.0	0.165
OC	PO404	1.0	0.153
Overall:		5.0	0.212

Study name: MDEL3002 1-29-1988

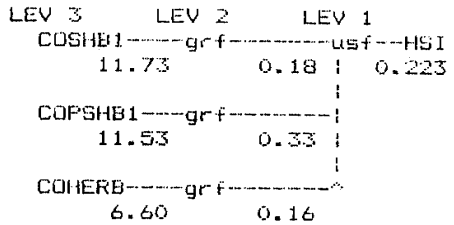
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	5.0	0.212

Study: MDEL3002 1-29-1988

Model: MULE DEER--FOOD

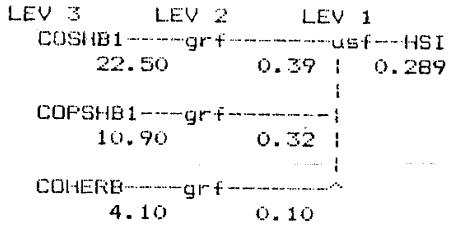
CoverType: OC SubArea: LA788



Study: MDEL3002 1-29-1988

Model: MULE DEER--FOOD

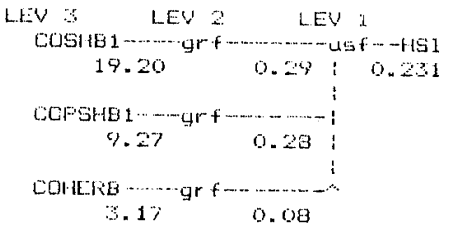
CoverType: OC SubArea: PO101A



Study: MDEL3002 1-29-1988

Model: MULE DEER--FOOD

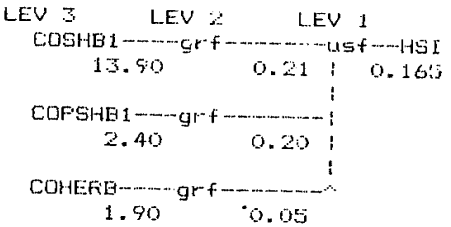
CoverType: OC SubArea: PO111



Study: MDEL3002 1-29-1988

Model: MULE DEER--FOOD

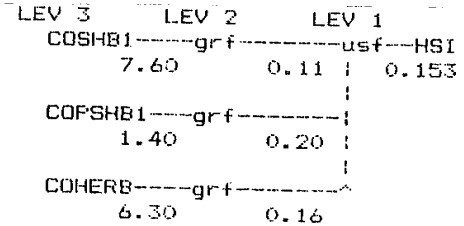
CoverType: OC SubArea: P0127



Study: MDEL3002 1-29-1988

Model: MULE DEER--FOOD

CoverType: OC SubArea: P0404



MDEL3005 HABITAT DATA 1-29-1988

ELEVATION 3
HABITAT: GRASSLAND
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:			
	UG	UG	UG	UG
VARIABLE:	LA629	LA637	P0118	P0207
COHERB	81.000	76.500	72.833	34.500
COPSHB1	0.000	3.800	0.000	0.900
COSHB1	0.000	3.800	0.000	0.900

Study: MDEL3005 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
UG	LA629	1.0	0.250
UG	LA637	1.0	0.330
UG	PO118	1.0	0.250
UG	PO207	1.0	0.289
Overall:		4.0	0.280

Study name: MDEL3005 1-29-1988

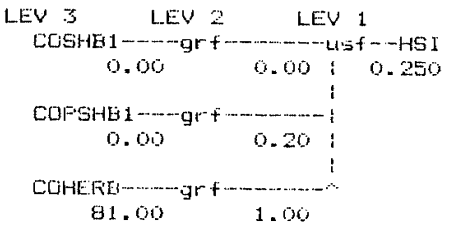
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	4.0	0.280

Study: MDEL3005 1-29-1988

Model: MULE DEER--FOOD

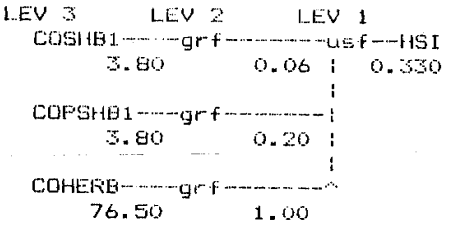
CoverType: UG SubArea: LA629



Study: MDEL3005 1-29-1988

Model: MULE DEER--FOOD

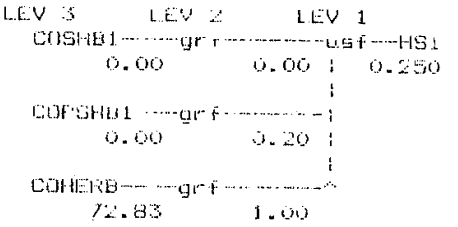
CoverType: UG SubArea: LA637



Study: MDEL3005 1-29-1988

Model: MULE DEER--FOOD

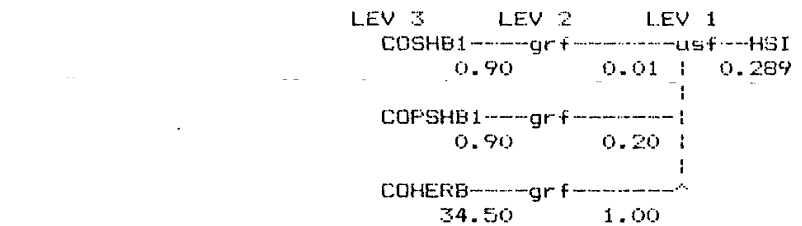
CoverType: UG SubArea: PD118



Study: MDEL3005 1-29-1988

Model: MULE DEER--FOOD

CoverType: UG SubArea: P0207



MDEL4001 HABITAT DATA 1-29-1988

ELEVATION 4
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:				
	CC	CC	CC	CC	CC
VARIABLE:	P0102	P0109	P0114	P0209	P0397
COHERB	2.600	2.400	1.067	1.300	3.900
COPSHB1	6.200	4.400	1.733	0.000	0.000
COSHB1	16.100	21.800	14.000	11.500	10.300

Study: MDEL4001 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
CC	P0102	1.0	0.181
CC	P0109	1.0	0.217
CC	P0114	1.0	0.160
CC	P0209	1.0	0.147
CC	P0397	1.0	0.156
Overall:		5.0	0.172

Study name: MDEL4001 1-29-1988

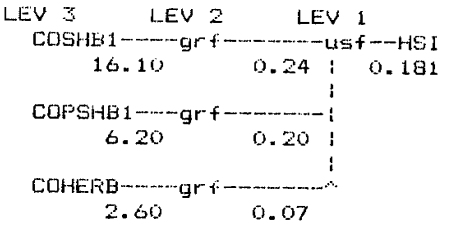
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	5.0	0.172

Study: MDEL4001 1-29-1988

Model: MULE DEER---FOOD

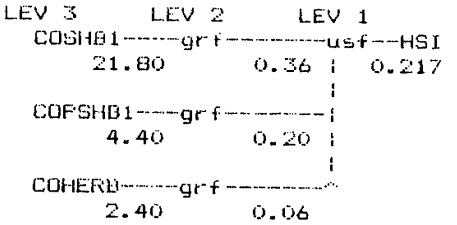
CoverType: CC SubArea: P0102



Study: MDEL4001 1-29-1988

Model: MULE DEER--FOOD

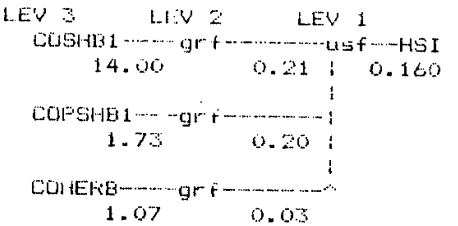
CoverType: CC SubArea: P0109



Study: MDEL4001 1-29-1988

Model: MULE DEER--FOOD

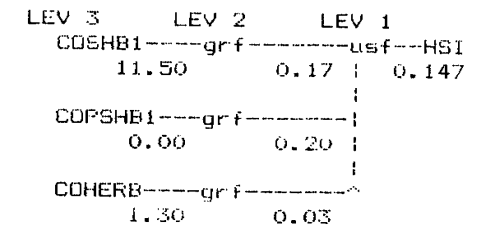
CoverType: CC SubArea: P0114



Study: MDEL4001 1-29-1988

Model: MULE DEER--FOOD

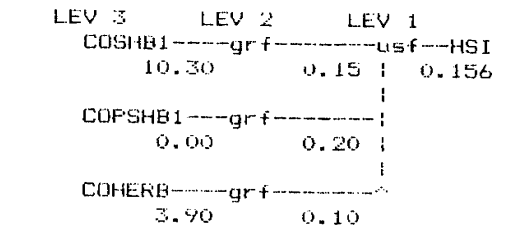
CoverType: CC SubArea: P0209



Study: MDEL4001 1-29-1988

Model: MULE DEER--FOOD

CoverType: CC SubArea: P0397



MDEL4002 HABITAT DATA 1-29-1988

ELEVATION 4
HABITAT: OPEN CANOPY CONIFER
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:			
	OC	OC	OC	OC
VARIABLE:	P0101	P0107	P0145	P0398
COHERB	5.600	3.700	2.900	7.400
COPSHB1	13.600	23.600	17.600	0.000
COSHB1	13.600	24.400	28.400	2.200

Study: MDEL4002 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
OC	P0101	1.0	0.245
OC	P0107	1.0	0.427
OC	P0145	1.0	0.421
OC	P0398	1.0	0.107
Overall:		4.0	0.300

Study name: MDEL4002 1-29-1988

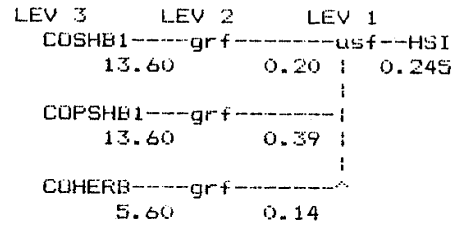
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	4.0	0.300

Study: MDEL4002 1-29-1988

Model: MULE DEER--FOOD

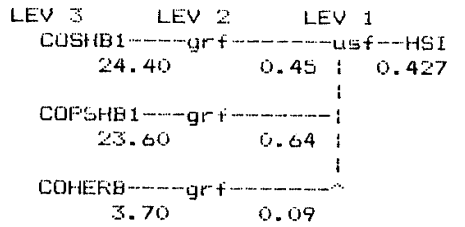
CoverType: OC SubArea: P0101



Study: MDEL4002 1-29-1988

Model: MULE DEER--FOOD

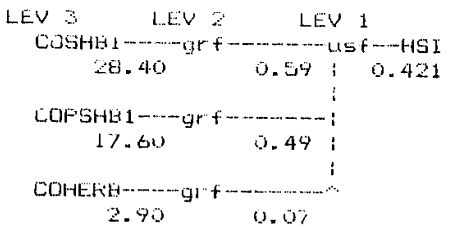
CoverType: OC SubArea: P0107



Study: MDEL4002 1-29-1988

Model: MULE DEER--FOOD

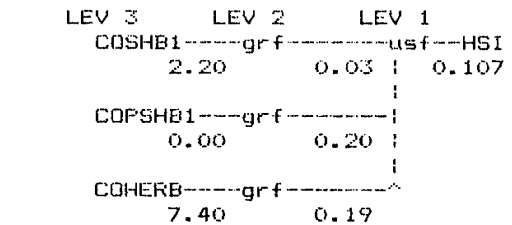
CoverType: OC SubArea: P0145



Study: MDEL4002 1-29-1988

Model: MULE DEER--FOOD

CoverType: OC SubArea: P0398



MDMSE105 HABITAT DATA 2-04-1988

MAINSTEM EAST
HABITAT: RIPARIAN GRASSLAND
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:	
	rUG	rUG
VARIABLE:	LA819	LA862
COHERB	75.500	43.500
COPSHB1	0.700	0.600
COSHB1	0.700	0.600

Study: MDMSE105 Model: MULE DEER--FOOD 2-04-1988

CoverType	SubArea	Area	HSI
rUG	LA819	1.0	0.284
rUG	LA862	1.0	0.282
Overall:		2.0	0.283

Study name: MDMSE105 2-04-1988

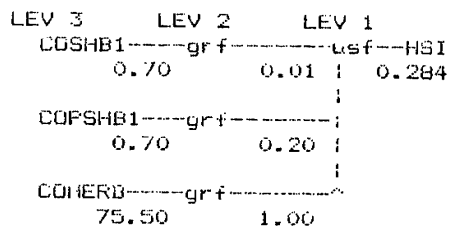
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER---FOOD	2.0	0.283

Study: MDMSE105 2-04-1988

Model: MULE DEER--FOOD

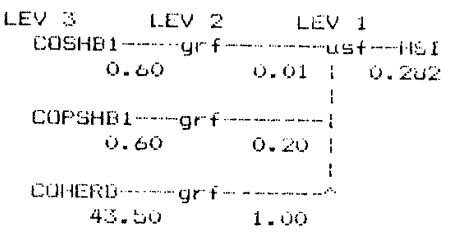
CoverType: rUG SubArea: LA819



Study: MDMSE105 2-04-1988

Model: MULE DEER--FOOD

CoverType: rUG SubArea: LA862



MDMSN105 HABITAT DATA 2-04-1988

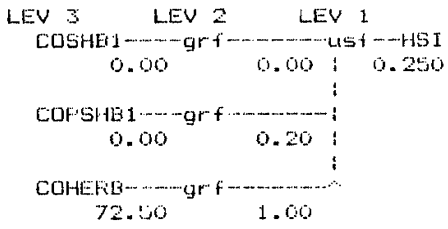
MAINSTEM NORTH
HABITAT: RIPARIAN GRASSLAND
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA: rUG
VARIABLE:	LI399
COHERB	72.500
COPSHB1	0.000
COSHB1	0.000

Study: MDMSN105 2-04-1988

Model: MULE DEER--FOOD

CoverType: rUG SubArea: LI399



MDMSE004 HABITAT DATA 2-04-1988

MAINSTEM EAST
HABITAT: MOUNTAIN SHRUB
SPECIES: MULE DEER -- FOOD

	COVER TYPE / SUB-AREA:		
	S	S	S
VARIABLE:	LA1132	LA701	LA706
COHERB	32.667	11.000	19.000
COPSHB1	27.633	31.300	31.000
COSHB1	29.967	35.800	31.000

Study: MDMSE004 Model: MULE DEER--FOOD 2-04-1988

CoverType	SubArea	Area	HSI
S	LA1132	1.0	0.770
S	LA701	1.0	0.706
S	LA706	1.0	0.748
Overall:		3.0	0.741

Study name: MDMSE004 2-04-1988

HSI Values For The Entire Study Area:

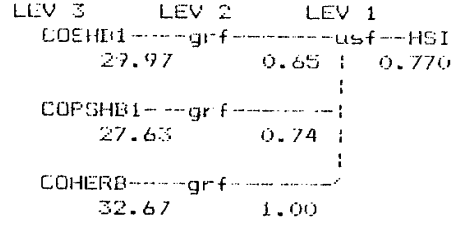
	Area	HSI
MULE DEER--FOOD	3.0	0.741

G.5-88

Study: MDMSE004 2-04-1988

Model: MULE DEER--FOOD

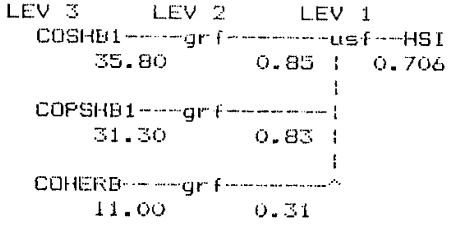
CoverType: S SubArea: LA1132



Study: MDMSE004 2-04-1988

Model: MULE DEER--FOOD

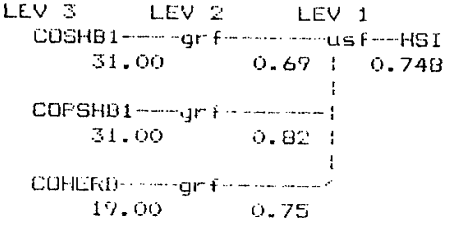
CoverType: S SubArea: LA701



Study: MDMSE004 2-04-1988

Model: MULE DEER--FOOD

CoverType: S SubArea: LA706



MDMSN004 HABITAT DATA 2-04-1988

MAINSTEM NORTH
HABITAT: MOUNTAIN SHRUB
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	S	S	S
VARIABLE:	LA829	LI283	PO279
COHERB	15.500	26.667	58.500
COPSHB1	36.900	33.800	29.200
COSHB1	38.100	33.800	29.600

Study: MDMSN004 Model: MULE DEER--FOOD 2-04-1988

CoverType	SubArea	Area	HSI
S	LA829	1.0	0.840
S	LI283	1.0	0.854
S	PO279	1.0	0.778
Overall:		3.0	0.824

Study name: MDMSN004 2-04-1988

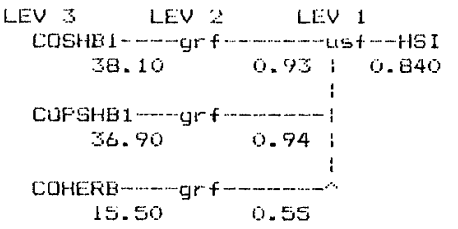
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.824

Study: MDMSN004 2-04-1988

Model: MULE DEER--FOOD

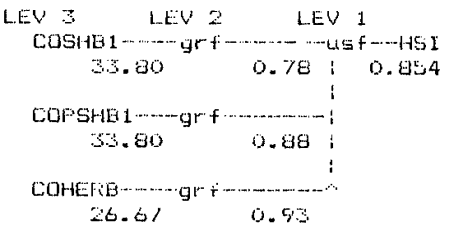
CoverType: S SubArea: LA329



Study: MDMSN004 2-04-1988

Model: MULE DEER--FOOD

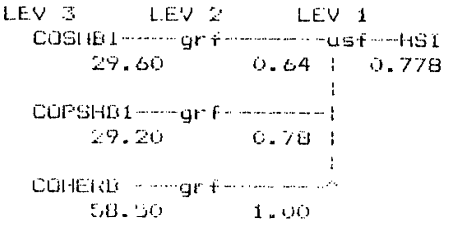
CoverType: S SubArea: LI283



Study: MDMSN004 2-04-1988

Model: MULE DEER--FOOD

CoverType: S SubArea: PO279



MDEL2004 HABITAT DATA 2-04-1988

ELEVATION 2
HABITAT: MOUNTAIN SHRUB
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	S	S	S
VARIABLE:	LA1166	LA1227	LI108
COHERB	43.167	26.500	38.000
COPSHB1	29.400	28.500	28.200
COSHB1	29.580	29.700	28.200

Study: MDEL2004 Model: MULE DEER--FOOD 2-04-1988

CoverType	SubArea	Area	HSI
S	LA1166	1.0	0.780
S	LA1227	1.0	0.756
S	LI108	1.0	0.749
Overall:		3.0	0.762

Study name: MDEL2004 2-04-1988

HSI Values For The Entire Study Area:

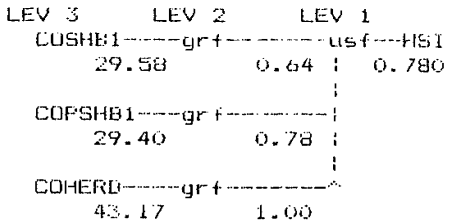
	Area	HSI
MULE DEER--FOOD	3.0	0.762

G.5-94

Study: MDEL2004 2-04-1988

Model: MULE DEER--FOOD

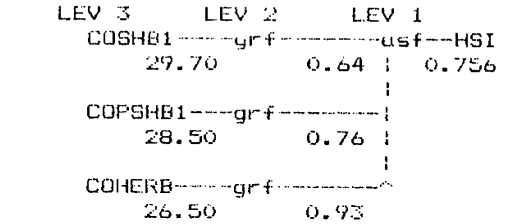
CoverType: S SubArea: LA1166



Study: MDEL2004 2-04-1988

Model: MULE DEER--FOOD

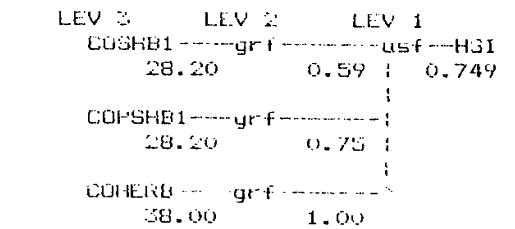
CoverType: S SubArea: LA1227



Study: MDEL2004 2-04-1988

Model: MULE DEER--FOOD

CoverType: S SubArea: LI108



MDEL1004 HABITAT DATA 2-04-1988

ELEVATION 1
HABITAT: MOUNTAIN SHRUB
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	S	S	S
VARIABLE:	LA336	LA453	LI62
COHERB	56.500	32.833	17.000
COPSHB1	30.600	37.900	39.600
COSHB1	30.600	37.900	39.600

Study: MDEL1004 Model: MULE DEER--FOOD 2-04-1988

CoverType	SubArea	Area	HSI
S	LA336	1.0	0.804
S	LA453	1.0	0.957
S	LI62	1.0	0.900
Overall:		3.0	0.887

Study name: MDEL1004 2-04-1988

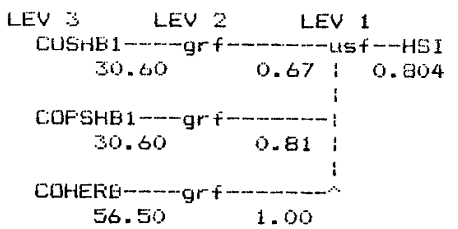
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.887

Study: MDEL1004 2-04-1988

Model: MULE DEER--FOOD

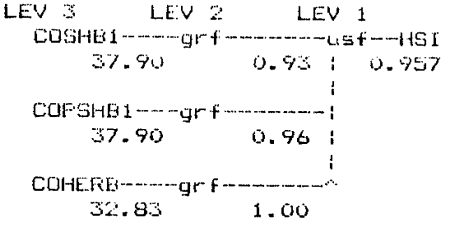
CoverType: S SubArea: LA336



Study: MDEL1004 2-04-1988

Model: MULE DEER--FOOD

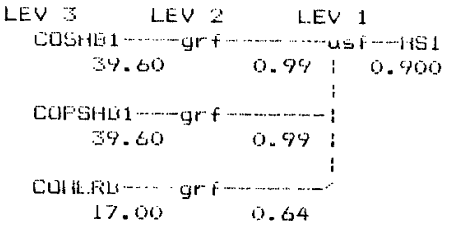
CoverType: S SubArea: LA453



Study: MDEL1004 2-04-1988

Model: MULE DEER--FOOD

CoverType: S SubArea: LI62



MDEL3004 HABITAT DATA 2-04-1988

ELEVATION 3
HABITAT: MOUNTAIN SHRUB
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	S	S	S
VARIABLE:	LA1201	LA790	PO230
COHERB	62.500	22.000	44.167
COPSHB1	41.700	22.300	38.600
COSHB1	41.700	22.300	40.633

Study: MDEL3004 Model: MULE DEER--FOOD 2-04-1988

CoverType	SubArea	Area	HSI
S	LA1201	1.0	1.000
S	LA790	1.0	0.570
S	P0230	1.0	0.989
Overall:		3.0	0.853

Study name: MDEL3004 2-04-1988

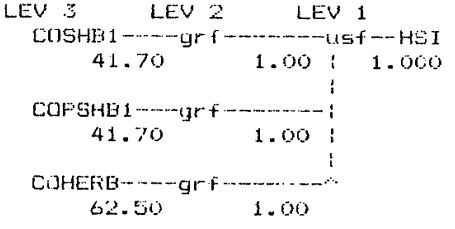
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.853

Study: MDEL3004 2-04-1988

Model: MULE DEER--FOOD

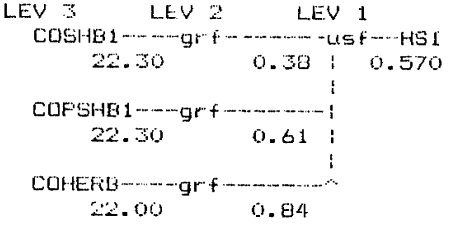
CoverType: S SubArea: LA1201



Study: MDEL3004 2-04-1988

Model: MULE DEER--FOOD

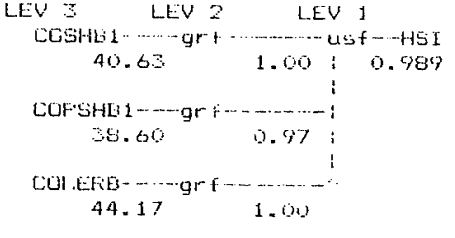
CoverType: S SubArea: LA790



Study: MDEL3004 2-04-1988

Model: MULE DEER--FOOD

CoverType: S SubArea: PO230



MDEL1006 HABITAT DATA 2-18-1988

ELEVATION 1
HABITAT: AGRICULTURE
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	AP	AP	AP
VARIABLE:	LA 112	LA 1171	LA 298
COHERB	93.000	84.500	63.667
COPSHB1	0.000	0.000	0.000
COSHB1	0.000	0.000	0.000

Study: MDEL1006 Model: MULE DEER--FOOD 2-18-1988

CoverType	SubArea	Area	HSI
AP	LA 112	1.0	0.250
AP	LA 1171	1.0	0.250
AP	LA 298	1.0	0.250
Overall:		3.0	0.250

Study name: MDEL1006 2-18-1988

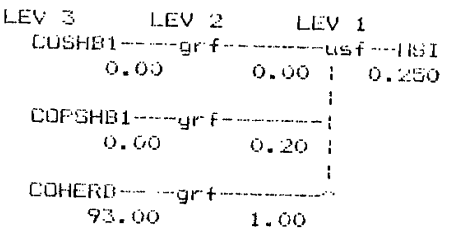
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.250

Study: MDEL1006 2-18-1988

Model: MULE DEER--FOOD

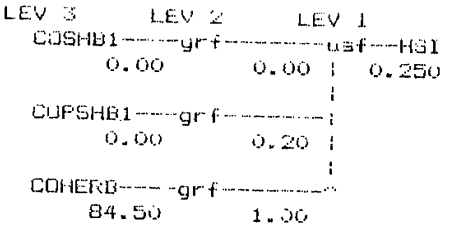
CoverType: AP SubArea: LA 112



Study: MDEL1006 2-18-1988

Model: MULE DEER--FOOD

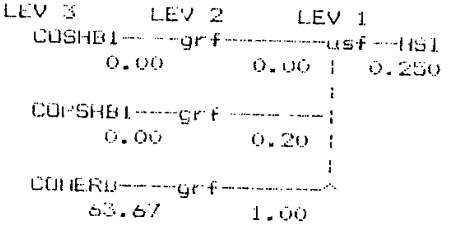
CoverType: AP SubArea: LA 1171



Study: MDEL1006 2-18-1988

Model: MULE DEER--FOOD

CoverType: AP SubArea: LA 298



MDMSNO01 HABITAT DATA 2-03-1988

MAINSTEM NORTH
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:
	CC
VARIABLE:	PO271
COHERB	1.300
COPSHB1	1.100
COSHB1	17.087

Study: MDMSN001 Model: MULE DEER--FOOD 2-03-1988

CoverType	SubArea	Area	HSI
CC	P0271	1.0	0.178
Overall:		1.0	0.178

Study name: MDMSN001 2-03-1988

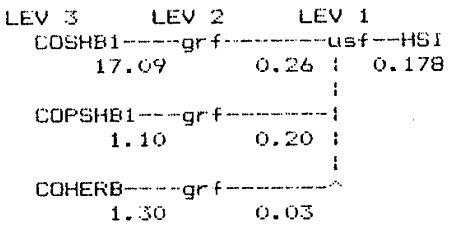
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	1.0	0.178

Study: MDMSNO01 2-03-1988

Model: MULE DEER--FOOD

CoverType: CC SubArea: P0271



MDMSN104 HABITAT DATA 2-03-1988

MAINSTEM NORTH
HABITAT: RIPARIAN SHRUBLAND
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	rS	rS	rS
VARIABLE:	LI303	LI305	LI311
COHERB	84.167	46.500	72.000
COPSHB1	44.400	37.500	70.800
COSHB1	49.000	69.500	74.200

Study: MDMSN104 Model: MULE DEER--FOOD 2-03-1988

CoverType	SubArea	Area	HSI
rS	LI303	1.0	1.000
rS	LI305	1.0	0.967
rS	LI311	1.0	0.940
Overall:		3.0	0.969

Study name: MDMSN104 2-03-1988

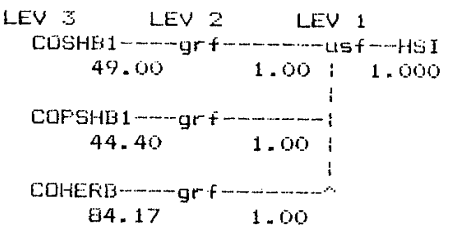
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.969

Study: MDMSN104 2-03-1988

Model: MULE DEER--FOOD

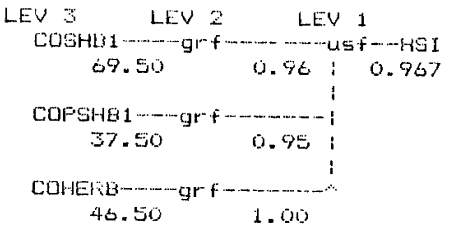
CoverType: rS SubArea: LI303



Study: MDMSN104 2-03-1988

Model: MULE DEER--FOOD

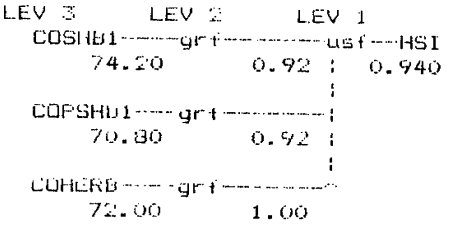
CoverType: rS SubArea: LI305



Study: MDMSN104 2-03-1988

Model: MULE DEER--FOOD

CoverType: rS SubArea: LI311



MDMSN002 HABITAT DATA 1-29-1988

MAINSTEM NORTH
HABITAT: OPEN CANOPY CONIFER
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	OC	OC	OC
VARIABLE:	LA757	PO273	PO324
COHERB	3.500	11.667	7.800
COPSHB1	6.600	8.633	37.100
COSHB1	16.000	16.233	43.100

Study: MDMSN002 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
OC	LA757	1.0	0.190
OC	PO273	1.0	0.274
OC	PO324	1.0	0.777
Overall:		3.0	0.414

Study name: MDMSN002 1-29-1988

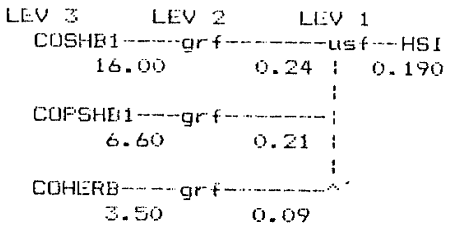
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.414

Study: MDMSN002 1-29-1988

Model: MULE DEER--FOOD

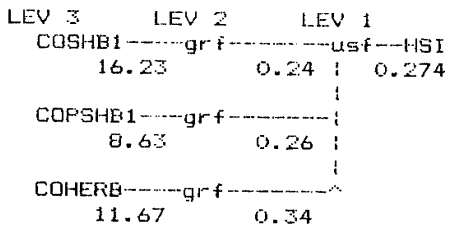
CoverType: OC SubArea: LA757



Study: MDMSN002 1-29-1988

Model: MULE DEER--FOOD

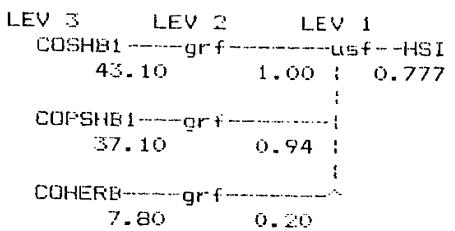
CoverType: OC SubArea: PO273



Study: MDMSN002 1-29-1988

Model: MULE DEER--FOOD

CoverType: OC SubArea: PO324



MDMSN005 HABITAT DATA 1-29-1988

MAINSTEM NORTH
HABITAT: GRASSLAND
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:		
	UG	UG	UG
VARIABLE:	LI298	LI316	PO276
COHERB	24.700	43.000	84.500
COPSHB1	2.200	2.600	0.000
COSHB1	7.200	3.100	0.600

Study: MDMSN005 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
UG	LI298	1.0	0.334
UG	LI316	1.0	0.322
UG	P0276	1.0	0.282
Overall:		3.0	0.313

Study name: MDMSN005 1-29-1988

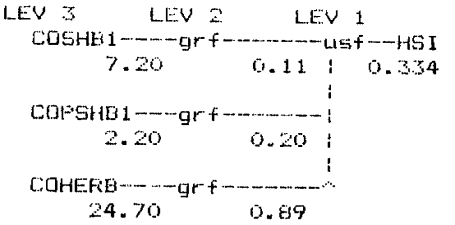
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	3.0	0.313

Study: MDMSN005 1-29-1988

Model: MULE DEER--FOOD

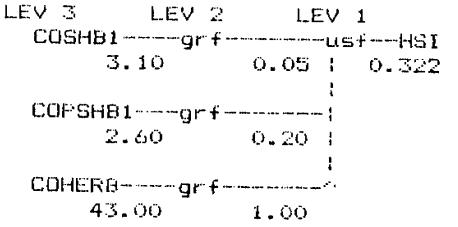
CoverType: UG SubArea: LI298



Study: MDMSN005 1-29-1988

Model: MULE DEER--FOOD

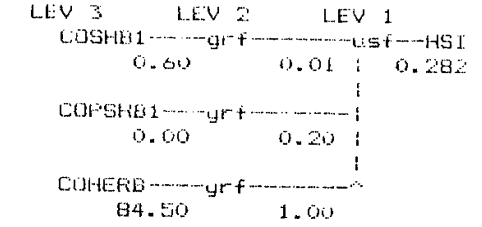
CoverType: UG SubArea: LI316



Study: MDMSN005 1-29-1988

Model: MULE DEER--FOOD

CoverType: UG SubArea: PO27b



MDMSN101 HABITAT DATA 1-29-1983

MAINSTEM NORTH
HABITAT: RIPARIAN FOREST
SPECIES: MULE DEER - FOOD

	COVER TYPE / SUB-AREA:				
	rF	rF	rF	rF	rF
VARIABLE:	LA1166	LA825	LA896	P0328	P084
COHERB	0.144	0.121	1.100	2.520	0.057
COPSHB1	0.000	1.000	0.400	26.400	41.900
COSHB1	11.900	1.400	8.700	41.800	45.100

Study: MDMSN101 Model: MULE DEER--FOOD 1-29-1988

CoverType	SubArea	Area	HSI
rF	LA1166	1.0	0.143
rF	LA825	1.0	0.049
rF	LA896	1.0	0.128
rF	PO328	1.0	0.647
rF	PO84	1.0	0.750
Overall:		5.0	0.344

Study name: MDMSN101 1-29-1988

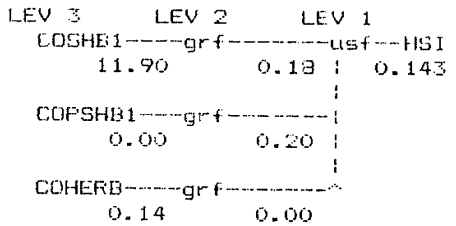
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--FOOD	5.0	0.344

Study: MDMSN101 1-29-1988

Model: MULE DEER--FOOD

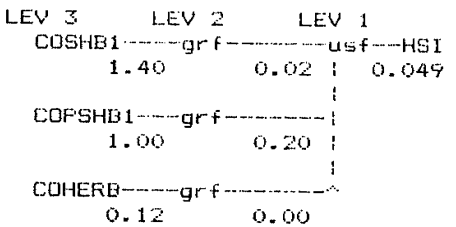
CoverType: rF SubArea: LA1166



Study: MDMSN101 1-29-1988

Model: MULE DEER--FOOD

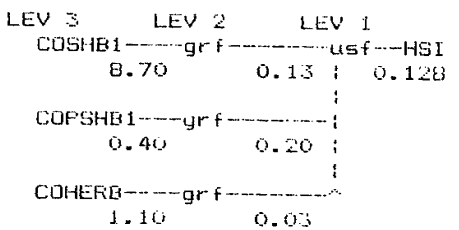
CoverType: rF SubArea: LA825



Study: MDMSN101 1-29-1988

Model: MULE DEER--FOOD

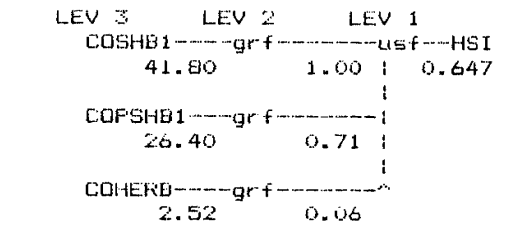
CoverType: rF SubArea: LA896



Study: MDMSN101 1-29-1988

Model: MULE DEER--FOOD

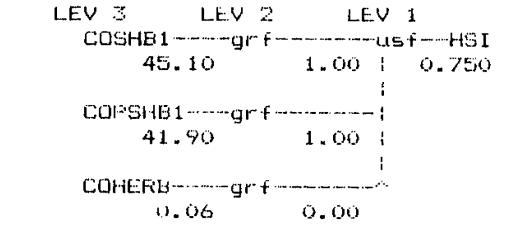
CoverType: rF SubArea: P0328



Study: MDMSN101 1-29-1988

Model: MULE DEER--FOOD

CoverType: rF SubArea: P084



Library: C:CWHR.HLB
1-25-1988

Model # 10 Single covertype model.
Model name: MULE DEER--COVER
Verification level: Author Draft
Creation/modification date: 1-22-1988

USFWS, Western Energy Land Use Team. Fort Collins, Colorado, 1982.

Covertypes:
CC : Closed canopy conifer forest
OC : Open canopy conifer forest
S : Shrubland
rS : Riparian Shrubland
PP : Pinyon pine forest
rF : Riparian forest

```
                        Lev 3    Lev 2    Lev 1
                         COEWV----grf------usf--HSI
                         DT-------mnu-------^
```

Habitat variables:
COEWV : Cover of evergreen woody vegetation > 3.0 m in height
DT : Topographic Diversity

GRAPH FUNCTION at level 2, position 1
Title: % Cover of Evergreen Woody Vegetation

X:	0.000,	Y:	0.000
X:	18.000,	Y:	0.300
X:	37.500,	Y:	1.000
X:	100.000,	Y:	1.000

MENU FUNCTION at level 2, position 2

Menu choice:	1	Output value:	0.300
Menu choice:	2	Output value:	0.900
Menu choice:	3	Output value:	0.500
Menu choice:	4	Output value:	1.000
Menu choice:	5	Output value:	0.700

USER-SPECIFIED FUNCTION at level 1, position 1
USUB=((2*X(1))+X(2))/3

Comments:
Winter cover model only.

MCMSE001 HABITAT DATA 2-01-1988

MAINSTEM EAST
HABITAT: CLOSED CANOPY CONIFER FORREST
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:		
	CC	CC	CC
VARIABLE:	LA693	LA753	LA905
COEWV	28.000	54.667	19.000
DT	4.000	4.000	4.000

Studv: MCMSE001 Model: MULE DEER--COVER 2-01-1988

CoverType	SubArea	Area	HSI
CC	LA693	1.0	0.773
CC	LA753	1.0	1.000
CC	LA905	1.0	0.557
Overall:		3.0	0.777

Study name: MCMSE001 2-01-1988

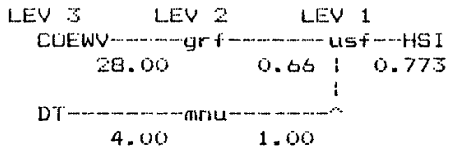
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	3.0	0.777

Study: MCMSE001 2-01-1988

Model: MULE DEER--COVER

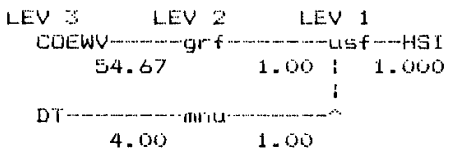
CoverType: CC SubArea: LA693



Study: MCMSE001 2-01-1988

Model: MULE DEER--COVER

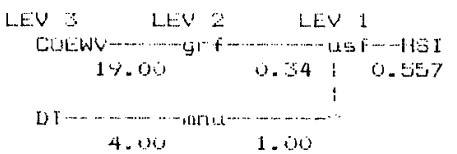
CoverType: CC SubArea: LA753



Study: MCMSE001 2-01-1988

Model: MULE DEER--COVER

CoverType: CC SubArea: LA905



MCMSE002 HABITAT DATA 2-03-1988

MAINSTEM EAST
HABITAT: OPEN CANOPY CONIFER
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:		
	OC	OC	OC
VARIABLE:	LA507	LA806	LA809
COEWV	37.600	1.000	23.767
DT	4.000	4.000	4.000

Study: MCMSE002 Model: MULE DEER--COVER 2-03-1988

CoverType	SubArea	Area	HSI
OC	LA507	1.0	1.000
OC	LA806	1.0	0.344
OC	LA809	1.0	0.671
Overall:		3.0	0.672

Study name: MCMSE002 2-03-1988

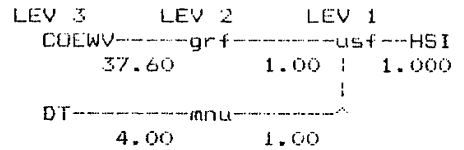
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	3.0	0.672

Study: MCMSE002 2-03-1988

Model: MULE DEER--COVER

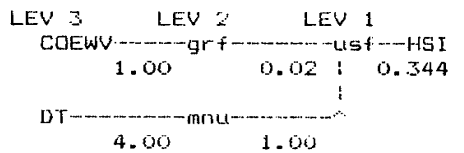
CoverType: OC SubArea: LA507



Study: MCMSE002 2-03-1988

Model: MULE DEER--COVER

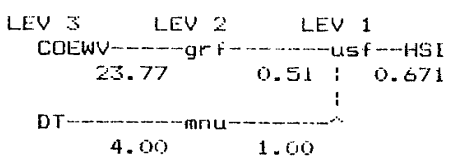
CoverType: OC SubArea: LA806



Study: MCMSE002 2-03-1988

Model: MULE DEER--COVER

CoverType: OC SubArea: LA809



MCMSE101 HABITAT DATA 2-01-1988

MAINSTEM EAST
HABITAT: RIPARIAN FOREST
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:		
	rF	rF	rF
VARIABLE:	LA1141	LI307	LI320
COEWV	53.400	0.000	0.000
DT	4.000	4.000	4.000

Study: MCMSE101 Model: MULE DEER--COVER 2-01-1988

CoverType	SubArea	Area	HSI
rF	LA1141	1.0	1.000
rF	LI307	1.0	0.333
rF	LI320	1.0	0.333
Overall:		3.0	0.556

Study name: MCMSE101 2-01-1988

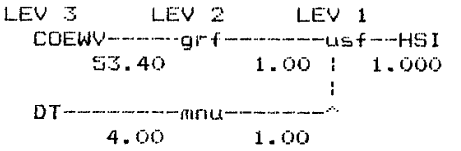
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	3.0	0.556

Study: MCMSE101 2-01-1988

Model: MULE DEER--COVER

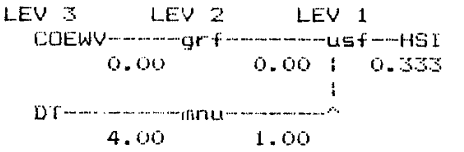
CoverType: rF SubArea: LA1141



Study: MCMSE101 2-01-1988

Model: MULE DEER--COVER

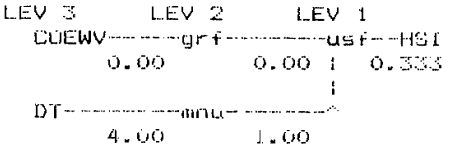
CoverType: rF SubArea: LI307



Study: MCMSE101 2-01-1988

Model: MULE DEER--COVER

CoverType: rF SubArea: LI320



MCMSN001 HABITAT DATA 2-01-1988

MAINSTEM NORTH
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA: CC
VARIABLE:	P0271
COEWV	55.867
DT	4.000

Study: MCMSN001 Model: MULE DEER--COVER 2-01-1988

CoverType	SubArea	Area	HSI
CC	P0271	1.0	1.000
Overall:		1.0	1.000

Study name: MCMSN001 2-01-1988

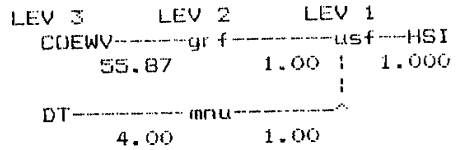
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	1.0	1.000

Study: MCMSNO01 2-01-1988

Model: MULE DEER--COVER

CoverType: CC SubArea: P0271



MCMSN002 HABITAT DATA 2-01-1988

MAINSTEM NORTH
HABITAT: OPEN CANOPY CONIFER
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:		
	OC	OC	OC
VARIABLE:	LA757	PO273	PO324
COEWV	2.400	20.000	28.800
DT	4.000	4.000	4.000

Study: MCMSN002 Model: MULE DEER--COVER 2-01-1988

CoverType	SubArea	Area	HSI
OC	LA757	1.0	0.360
OC	PO273	1.0	0.581
OC	PO324	1.0	0.792
Overall:		3.0	0.578

Study name: MCMSN002 2-01-1988

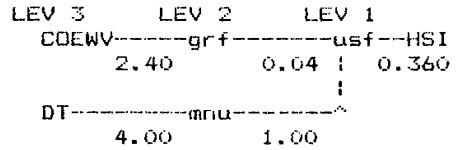
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	3.0	0.578

Study: MCMSN002 2-01-1988

Model: MULE DEER--COVER

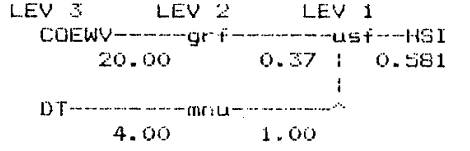
CoverType: OC SubArea: LA757



Study: MCMSN002 2-01-1988

Model: MULE DEER--COVER

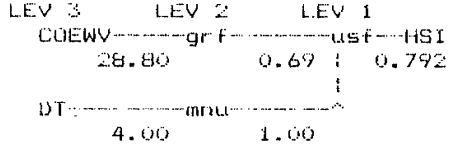
CoverType: OC SubArea: PO273



Study: MCMSN002 2-01-1988

Model: MULE DEER--COVER

CoverType: OC SubArea: PO324



MCMSN101 HABITAT DATA 2-01-1988

MAINSTEM NORTH
HABITAT: RIPARIAN FOREST
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:				
	rF	rF	rF	rF	rF
VARIABLE:	LA1166	LA825	LA896	P0328	P084
COEWV	0.000	0.000	0.000	6.000	0.000
DT	4.000	4.000	4.000	4.000	4.000

Study: MCMSN101 Model: MULE DEER--COVER 2-01-1988

CoverType	SubArea	Area	HSI
rF	LA1166	1.0	0.333
rF	LA825	1.0	0.333
rF	LA896	1.0	0.333
rF	P0328	1.0	0.400
rF	P084	1.0	0.333
Overall:		5.0	0.347

Study name: MCMSN101 2-01-1988

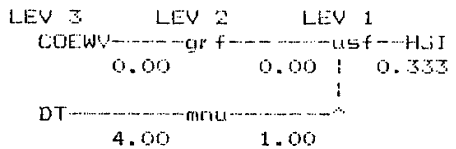
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	5.0	0.347

Study: MCMSN101 2-01-1988

Model: MULE DEER--COVER

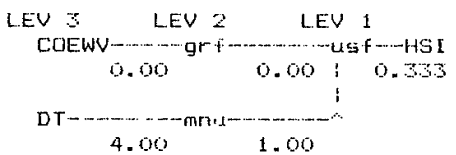
CoverType: rF SubArea: LA1166



Study: MCMSN101 2-01-1988

Model: MULE DEER--COVER

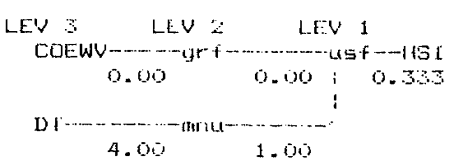
CoverType: rF SubArea: LA825



Study: MCMSN101 2-01-1988

Model: MULE DEER--COVER

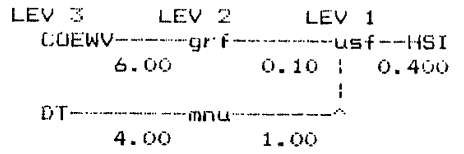
CoverType: rF SubArea: LA896



Study: MCMSN101 2-01-1988

Model: MULE DEER--COVER

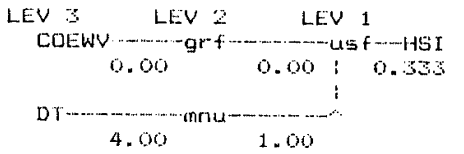
CoverType: rF SubArea: P032B



Study: MCMSN101 2-01-1988

Model: MULE DEER--COVER

CoverType: rF SubArea: P084



MCMSS001 HABITAT DATA 2-01-1988

MAINSTEM SOUTH
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:		
	CC	CC	CC
VARIABLE:	LA1000	P0310	P0351
COEWV	52.000	62.200	78.400
DT	4.000	4.000	4.000

Study: MCMSS001 Model: MULE DEER--COVER 2-01-1988

CoverType	SubArea	Area	HSI
CC	LA1000	1.0	1.000
CC	PO310	1.0	1.000
CC	PO351	1.0	1.000
Overall:		3.0	1.000

Study name: MCMSS001 2-01-1988

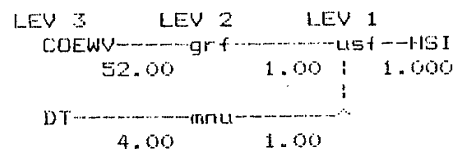
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	3.0	1.000

Study: MCMSS001 2-01-1988

Model: MULE DEER--COVER

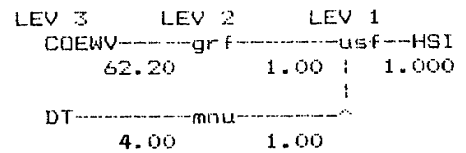
CoverType: CC SubArea: LA1000



Study: MCMSS001 2-01-1988

Model: MULE DEER--COVER

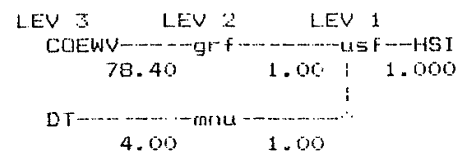
CoverType: CC SubArea: PO310



Study: MCMSS001 2-01-1988

Model: MULE DEER--COVER

CoverType: CC SubArea: PO351



MCMSS002 HABITAT DATA 2-01-1988

MAINSTEM SOUTH
HABITAT: OPEN CANOPY CONIFER
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:		
	OC	OC	OC
VARIABLE:	LA980	PO344	PO366
COEWV	0.000	14.200	17.667
DT	4.000	4.000	4.000

Study: MCMSS002 Model: MULE DEER--COVER 2-01-1988

CoverType	SubArea	Area	HSI
OC	LA980	1.0	0.333
OC	P0344	1.0	0.491
OC	P0366	1.0	0.530
Overall:		3.0	0.451

Study name: MCMSS002 2-01-1988

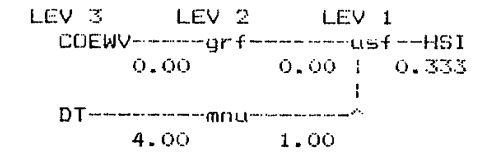
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	3.0	0.451

Study: MCMSS002 2-01-1988

Model: MULE DEER--COVER

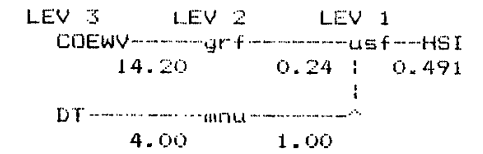
CoverType: OC SubArea: LA980



Study: MCMSS002 2-01-1988

Model: MULE DEER--COVER

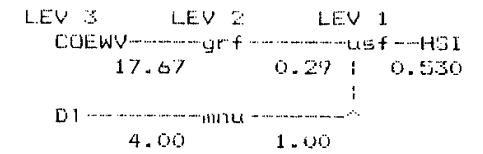
CoverType: OC SubArea: P0344



Study: MCMSS002 2-01-1988

Model: MULE DEER--COVER

CoverType: OC SubArea: P0366



MCMSS101 HABITAT DATA 2-01-1988

MAINSTEM SOUTH
HABITAT: RIPARIAN FOREST
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:				
	rF	rF	rF	rF	rF
VARIABLE:	LA937	LA943	P0363	P0437	P0443
COEWV	0.000	0.000	76.000	10.400	75.000
DT	4.000	4.000	4.000	4.000	4.000

Study: MCMSS101 Model: MULE DEER--COVER 2-01-1988

CoverType	SubArea	Area	HSI
rF	LA937	1.0	0.333
rF	LA943	1.0	0.333
rF	PO363	1.0	1.000
rF	PO437	1.0	0.449
rF	PO443	1.0	1.000
Overall:		5.0	0.623

Study name: MCMSS101 2-01-1988

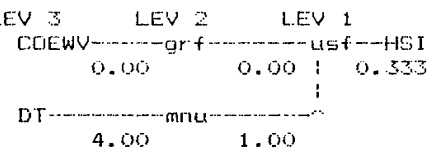
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	5.0	0.623

Study: MCMSS101 2-01-1988

Model: MULE DEER--COVER

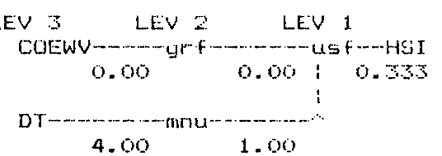
CoverType: rF SubArea: LA937



Study: MCMSS101 2-01-1988

Model: MULE DEER--COVER

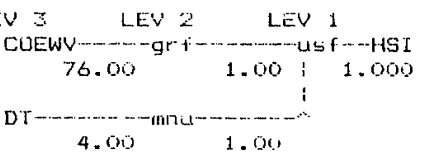
CoverType: rF SubArea: LA943



Study: MCMSS101 2-01-1988

Model: MULE DEER--COVER

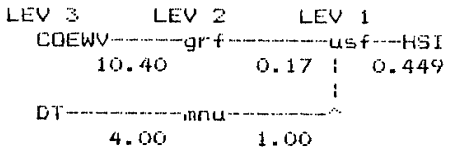
CoverType: rF SubArea: P0363



Study: MCMSS101 2-01-1988

Model: MULE DEER--COVER

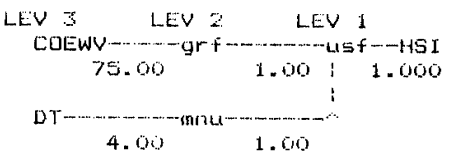
CoverType: rF SubArea: P0437



Study: MCMSS101 2-01-1988

Model: MULE DEER--COVER

CoverType: rF SubArea: P0443



MCEL1002 HABITAT DATA 2-01-1988

ELEVATION 1
HABITAT: OPEN CANOPY CONIFER
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:		
	OC	OC	OC
VARIABLE:	LA310	LA317	LA458
COEWV	0.000	1.100	6.600
DT	4.000	4.000	4.000

Study: MCEL1002 Model: MULE DEER--COVER 2-01-1988

CoverType	SubArea	Area	HSI
OC	LA310	1.0	0.333
OC	LA317	1.0	0.346
OC	LA458	1.0	0.407
Overall:		3.0	0.362

Study name: MCEL1002 2-01-1988

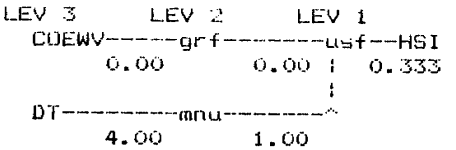
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	3.0	0.362

Study: MCEL1002 2-01-1988

Model: MULE DEER--COVER

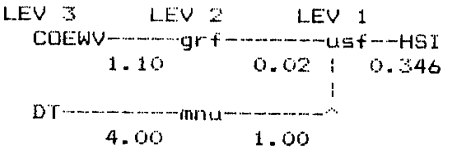
CoverType: OC SubArea: LA310



Study: MCEL1002 2-01-1988

Model: MULE DEER--COVER

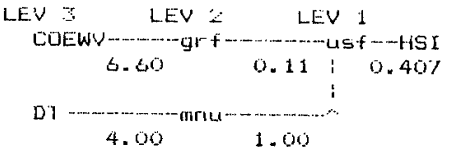
CoverType: OC SubArea: LA317



Study: MCEL1002 2-01-1988

Model: MULE DEER--COVER

CoverType: OC SubArea: LA458



MCEL1101 HABITAT DATA 2-01-1988

ELEVATION 1
HABITAT: RIPARIAN FOREST
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:				
	rF	rF	rF	rF	rF
VARIABLE:	LA286	LA383	LA393	LA460	LA470
COEWV	0.000	0.000	0.000	2.600	0.000
DT	4.000	4.000	4.000	4.000	4.000

Study: MCEL1101 Model: MULE DEER--COVER 2-01-1988

CoverType	SubArea	Area	HSI
rF	LA286	1.0	0.333
rF	LA383	1.0	0.333
rF	LA393	1.0	0.333
rF	LA460	1.0	0.362
rF	LA470	1.0	0.333
Overall:		5.0	0.339

Study name: MCEL1101 2-01-1988

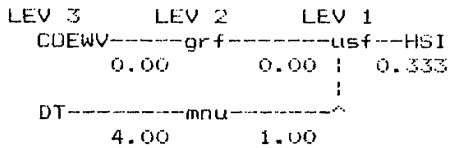
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	5.0	0.339

Study: MCEL1101 2-01-1988

Model: MULE DEER--COVER

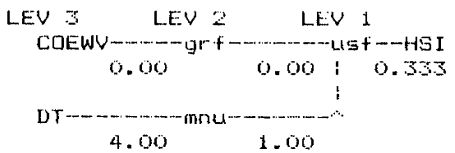
CoverType: rF SubArea: LA286



Study: MCEL1101 2-01-1988

Model: MULE DEER--COVER

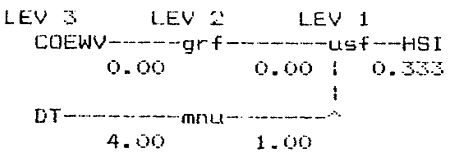
CoverType: rF SubArea: LA383



Study: MCEL1101 2-01-1988

Model: MULE DEER--COVER

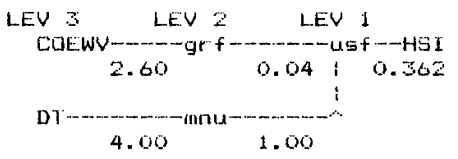
CoverType: rF SubArea: LA393



Study: MCEL1101 2-01-1988

Model: MULE DEER--COVER

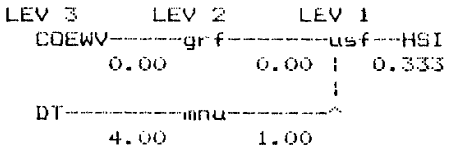
CoverType: rF SubArea: LA460



Study: MCEL1101 2-01-1988

Model: MULE DEER--COVER

CoverType: rF SubArea: LA470



MCEL2001 HABITAT DATA 2-01-1988

ELEVATION 2
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:		
	CC	CC	CC
VARIABLE:	LA715	LA849	P087
COEWV	49.467	2.800	41.600
DT	4.000	4.000	4.000

Study: MCEL2001 Model: MULE DEER--COVER 2-01-1988

CoverType	SubArea	Area	HSI
CC	LA715	1.0	1.000
CC	LA849	1.0	0.364
CC	PO87	1.0	1.000
Overall:		3.0	0.788

Study name: MCEL2001 2-01-1988

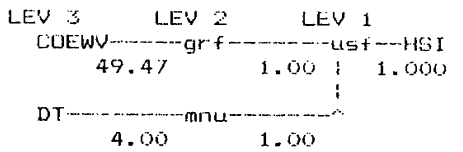
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER---COVER	3.0	0.788

Study: MCEL2001 2-01-1988

Model: MULE DEER--COVER

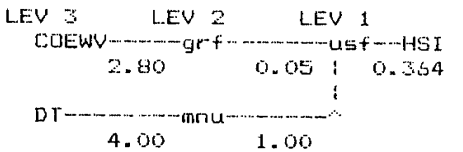
CoverType: CC SubArea: LA715



Study: MCEL2001 2-01-1988

Model: MULE DEER--COVER

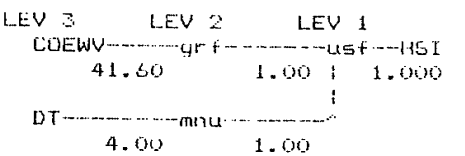
CoverType: CC SubArea: LA849



Study: MCEL2001 2-01-1988

Model: MULE DEER--COVER

CoverType: CC SubArea: P087



MCEL2002 HABITAT DATA 2-01-1988

ELEVATION 2
HABITAT: OPEN CANOPY CONIFER
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:		
	OC	OC	OC
VARIABLE:	LI132	PO307	PO357
COEWV	28.000	23.733	16.000
DT	4.000	4.000	4.000

Study: MCEL2002 Model: MULE DEER--COVER 2-01-1988

CoverType	SubArea	Area	HSI
OC	LI132	1.0	0.773
OC	P0307	1.0	0.671
OC	P0357	1.0	0.511
Overall:		3.0	0.651

Study name: MCEL2002 2-01-1988

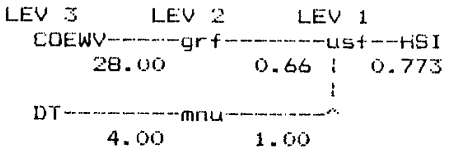
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	3.0	0.651

Study: MCEL2002 2-01-1988

Model: MULE DEER--COVER

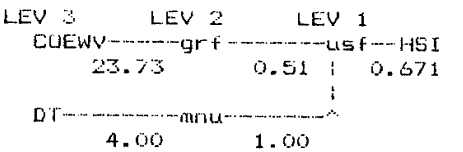
CoverType: OC SubArea: LI132



Study: MCEL2002 2-01-1988

Model: MULE DEER--COVER

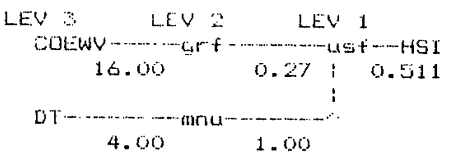
CoverType: OC SubArea: PO307



Study: MCEL2002 2-01-1988

Model: MULE DEER--COVER

CoverType: OC SubArea: PO357



MCEL2101 HABITAT DATA 2-01-1988

ELEVATION 2
HABITAT: RIPARIAN FOREST
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:		
	rF	rF	rF
VARIABLE:	LI97	P0212	P0282
COEWV	0.000	62.800	2.000
DT	4.000	4.000	4.000

Study: MCEL2101 Model: MULE DEER--COVER 2-01-1988

CoverType	SubArea	Area	HSI
rF	LI97	1.0	0.333
rF	P0212	1.0	1.000
rF	P0282	1.0	0.356
Overall:		3.0	0.563

Study name: MCEL2101 2-01-1988

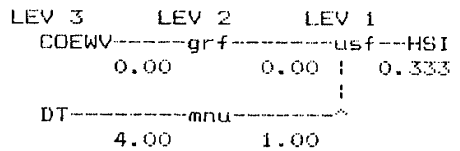
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	3.0	0.563

Study: MCEL2101 2-01-1988

Model: MULE DEER--COVER

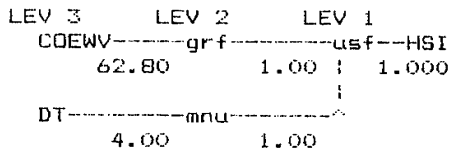
CoverType: rF SubArea: LI97



Study: MCEL2101 2-01-1988

Model: MULE DEER--COVER

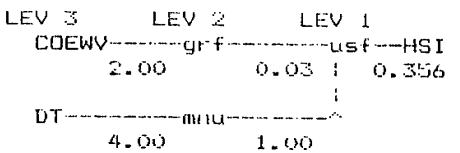
CoverType: rP SubArea: P0212



Study: MCEL2101 2-01-1988

Model: MULE DEER--COVER

CoverType: rF SubArea: P0282



MCEL3001 HABITAT DATA 2-01-1988

ELEVATION 3
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:			
	CC	CC	CC	CC
VARIABLE:	P0113	P0225	P0231	P0429
COEWV	69.200	45.833	62.400	93.400
DT	4.000	4.000	4.000	4.000

Study: MCEL3001 Model: MULE DEER--COVER 2-01-1988

CoverType	SubArea	Area	HSI
CC	P0113	1.0	1.000
CC	P0225	1.0	1.000
CC	P0231	1.0	1.000
CC	P0429	1.0	1.000
Overall:		4.0	1.000

Study name: MCEL3001 2-01-1988

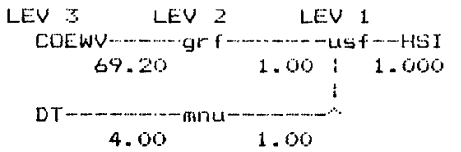
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	4.0	1.000

Study: MCEL3001 2-01-1988

Model: MULE DEER--COVER

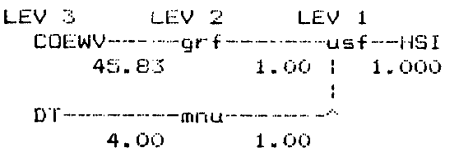
CoverType: CC SubArea: P0113



Study: MCEL3001 2-01-1988

Model: MULE DEER--COVER

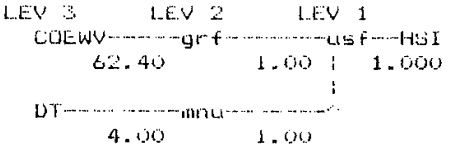
CoverType: CC SubArea: P0225



Study: MCEL3001 2-01-1988

Model: MULE DEER--COVER

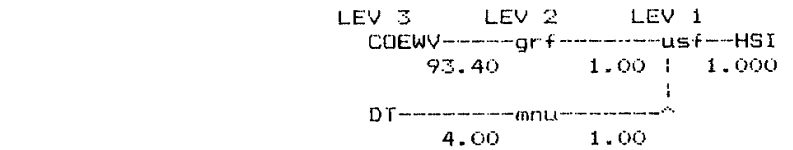
CoverType: CC SubArea: P0231



Study: MCEL3001 2-01-1988

Model: MULE DEER--COVER

CoverType: CC SubArea: P0429



MCEL3002 HABITAT DATA 2-01-1988

ELEVATION 3
HABITAT: OPEN CANOPY CONIFER
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:				
	OC	OC	OC	OC	OC
VARIABLE:	LA788	P0101A	P0111	P0127	P0404
COEWV	30.067	26.800	25.133	30.200	3.000
DT	4.000	4.000	4.000	4.000	4.000

Study: MCEL3002 Model: MULE DEER--COVER 2-01-1988

CoverType	SubArea	Area	HSI
OC	LA788	1.0	0.822
OC	P0101A	1.0	0.744
OC	P0111	1.0	0.704
OC	P0127	1.0	0.825
OC	P0404	1.0	0.367
Overall:		5.0	0.692

Study name: MCEL3002 2-01-1988

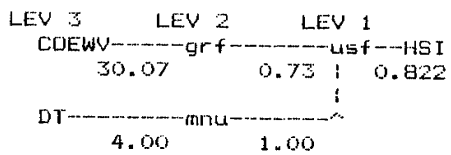
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	5.0	0.692

Study: MCEL3002 2-01-1988

Model: MULE DEER--COVER

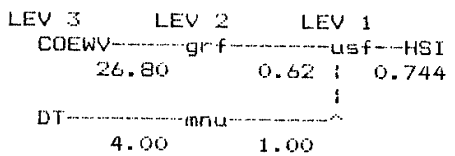
CoverType: OC SubArea: LA788



Study: MCEL3002 2-01-1988

Model: MULE DEER--COVER

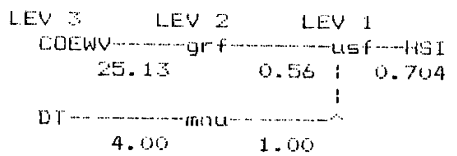
CoverType: OC SubArea: PO101A



Study: MCEL3002 2-01-1988

Model: MULE DEER--COVER

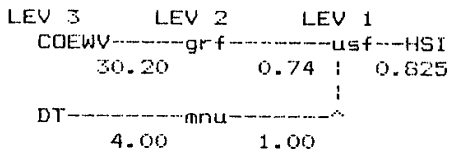
CoverType: OC SubArea: PO111



Study: MCEL3002 2-01-1988

Model: MULE DEER--COVER

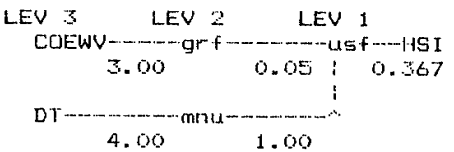
CoverType: OC SubArea: P0127



Study: MCEL3002 2-01-1988

Model: MULE DEER--COVER

CoverType: OC SubArea: P0404



MCEL4001 HABITAT DATA 2-01-1988

ELEVATION 4
HABITAT: CLOSED CANOPY CONIFER FOREST
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:				
	CC	CC	CC	CC	CC
VARIABLE:	P0102	P0109	P0114	P0209	P0397
COEWV	19.800	14.000	47.900	49.800	46.000
DT	4.000	4.000	4.000	4.000	4.000

Study: MCEL4001 Model: MULE DEER--COVER 2-01-1988

CoverType	SubArea	Area	HSI
CC	P0102	1.0	0.576
CC	P0109	1.0	0.489
CC	P0114	1.0	1.000
CC	P0209	1.0	1.000
CC	P0397	1.0	1.000
Overall:		5.0	0.813

Study name: MCEL4001 2-01-1988

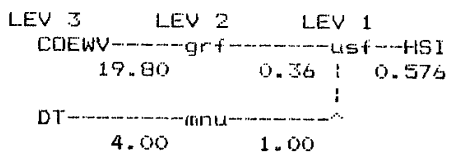
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	5.0	0.813

Study: MCEL4001 2-01-1988

Model: MULE DEER--COVER

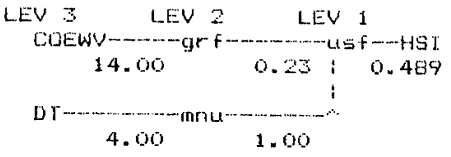
CoverType: CC SubArea: P0102



Study: MCEL4001 2-01-1988

Model: MULE DEER--COVER

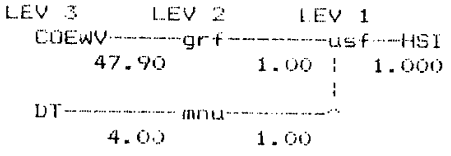
CoverType: CC SubArea: P0109



Study: MCEL4001 2-01-1988

Model: MULE DEER--COVER

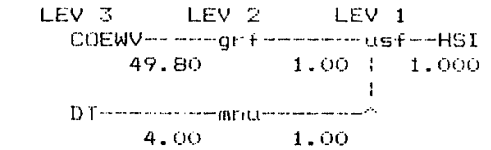
CoverType: CC SubArea: P0114



Study: MCEL4001 2-01-1988

Model: MULE DEER--COVER

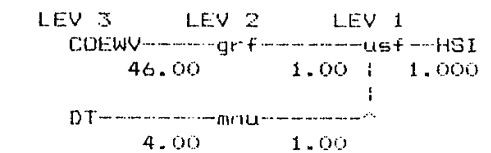
CoverType: CC SubArea: P0209



Study: MCEL4001 2-01-1988

Model: MULE DEER--COVER

CoverType: CC SubArea: P0397



MCEL4002 HABITAT DATA 2-01-1988

ELEVATION 4
HABITAT: OPEN CANOPY CONIFER
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:			
	OC	OC	OC	OC
VARIABLE:	P0101	P0107	P0145	P0398
COEWV	53.000	30.800	40.000	1.000
DT	4.000	4.000	4.000	4.000

Study: MCEL4002 Model: MULE DEER--COVER 2-01-1988

CoverType	SubArea	Area	HSI
OC	P0101	1.0	1.000
OC	P0107	1.0	0.840
OC	P0145	1.0	1.000
OC	P0398	1.0	0.344
Overall:		4.0	0.796

Study name: MCEL4002 2-01-1988

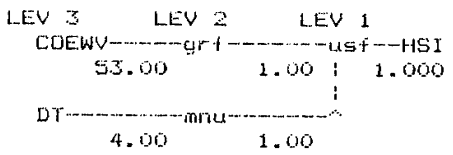
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	4.0	0.796

Study: MCEL4002 2-01-1988

Model: MULE DEER--COVER

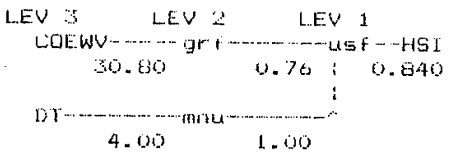
CoverType: OC SubArea: PO101



Study: MCEL4002 2-01-1988

Model: MULE DEER--COVER

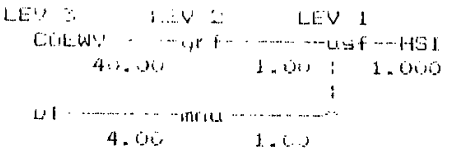
CoverType: OC SubArea: PO107



Study: MCEL4002 2-01-1988

Model: MULE DEER--COVER

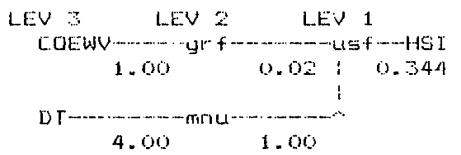
CoverType: OC SubArea: PO145



Study: MGEL4002 2-01-1988

Model: MULE DEER--COVER

CoverType: OC SubArea: P0398



MCMSE004 HABITAT DATA 2-05-1988

MAINSTEM EAST
HABITAT: MOUNTAIN SHRUB
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:		
	S	S	S
VARIABLE:	LA1132	LA701	LA706
COEWV	0.000	0.000	0.000
DT	4.000	4.000	4.000

Study: MCMSE004 Model: MULE DEER--COVER 2-05-1988

CoverType	SubArea	Area	HSI
S	LA1132	1.0	0.333
S	LA701	1.0	0.333
S	LA706	1.0	0.333
Overall:		3.0	0.333

Study name: MCMSE004 2-05-1988

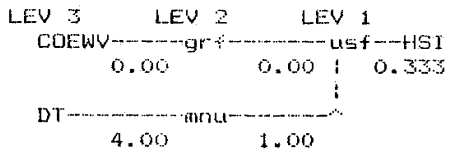
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	3.0	0.333

Study: MCMSE004 2-05-1988

Model: MULE DEER--COVER

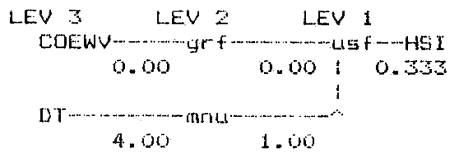
CoverType: S SubArea: LA1132



Study: MCMSE004 2-05-1988

Model: MULE DEER--COVER

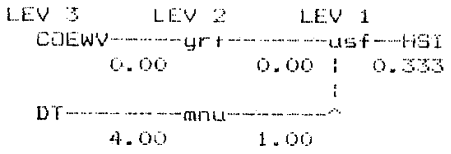
CoverType: S SubArea: LA701



Study: MCMSE004 2-05-1988

Model: MULE DEER--COVER

CoverType: S SubArea: LA706



MCMSN004 HABITAT DATA 2-05-1988

MAINSTEM NORTH
HABITAT: MOUNTAIN SHRUB
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:		
	S	S	S
VARIABLE:	LA829	LI283	PG279
COEWV	0.000	0.000	0.000
DT	4.000	4.000	4.000

Study: MCMSN004 Model: MULE DEER--COVER 2-05-1988

CoverType	SubArea	Area	HSI
S	LA829	1.0	0.333
S	LI283	1.0	0.333
S	PO279	1.0	0.333
Overall:		3.0	0.333

Study name: MCMSN004 2-05-1988

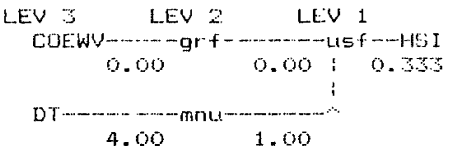
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	3.0	0.333

Study: MCMSN004 2-05-1988

Model: MULE DEER--COVER

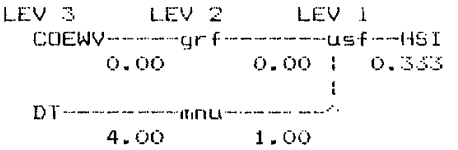
CoverType: S SubArea: LA829



Study: MCMSN004 2-05-1988

Model: MULE DEER--COVER

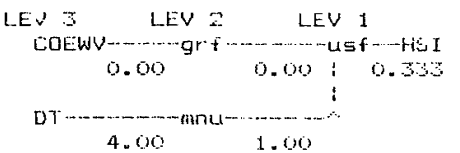
CoverType: S SubArea: LI283



Study: MCMSN004 2-05-1988

Model: MULE DEER--COVER

CoverType: S SubArea: PO279



MCMSS004 HABITAT DATA 2-05-1988

MAINSTEM SOUTH
HABITAT: MOUNTAIN SHRUB
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:		
	S	S	S
VARIABLE:	LA936	PU311	PU343
COEWV	0.200	0.000	0.000
DT	4.000	4.000	4.000

Study: MCMSS004 Model: MULE DEER--COVER 2-05-1988

CoverType	SubArea	Area	HSI
S	LA986	1.0	0.336
S	P0311	1.0	0.333
S	P0343	1.0	0.333
Overall:		3.0	0.334

Study name: MCMSS004 2-05-1988

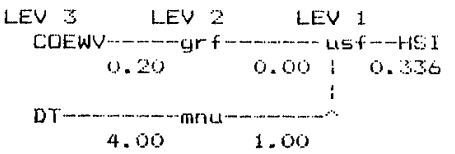
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	3.0	0.334

Study: MCMSS004 2-05-1988

Model: MULE DEER--COVER

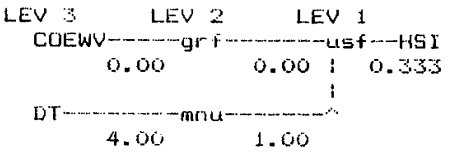
CoverType: S SubArea: LA986



Study: MCMSS004 2-05-1988

Model: MULE DEER--COVER

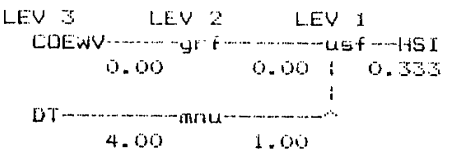
CoverType: S SubArea: PO311



Study: MCMSS004 2-05-1988

Model: MULE DEER--COVER

CoverType: S SubArea: PO343



MCEL1004 HABITAT DATA 2-05-1988

ELEVATION 1
HABITAT: MOUNTAIN SHRUB
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:		
	S	S	S
VARIABLE:	LA336	LA453	LI62
COEWV	0.000	0.000	0.000
DT	4.000	4.000	4.000

Study: MCEL1004 Model: MULE DEER--COVER 2-05-1988

CoverType	SubArea	Area	HSI
S	LA336	1.0	0.333
S	LA453	1.0	0.333
S	LI62	1.0	0.333
Overall:		3.0	0.333

Study name: MCEL1004 2-05-1988

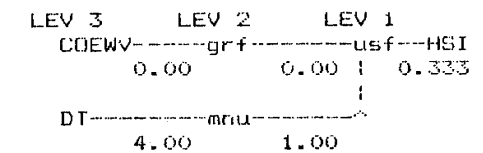
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	3.0	0.333

Study: MCEL1004 2-05-1988

Model: MULE DEER--COVER

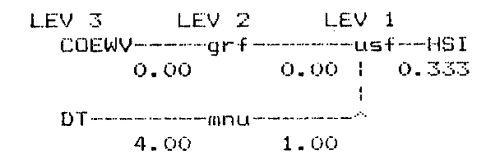
CoverType: S SubArea: LA336



Study: MCEL1004 2-05-1988

Model: MULE DEER--COVER

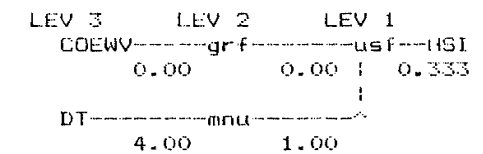
CoverType: S SubArea: LA453



Study: MCEL1004 2-05-1988

Model: MULE DEER--COVER

CoverType: S SubArea: LI62



MCEL2004 HABITAT DATA 2-05-1988

ELEVATION 2
HABITAT: MOUNTAIN SHRUB
SPECIES: MULE DEER -- COVER

	COVER TYPE / SUB-AREA:		
	S	S	S
VARIABLE:	LA1166	LA1227	LI108
COEWV	0.000	0.000	0.000
DT	4.000	4.000	4.000

Study: MCEL2004 Model: MULE DEER--COVER 2-05-1988

CoverType	SubArea	Area	HSI
S	LA1166	1.0	0.333
S	LA1227	1.0	0.333
S	LI108	1.0	0.333
Overall:		3.0	0.333

Study name: MCEL2004 2-05-1988

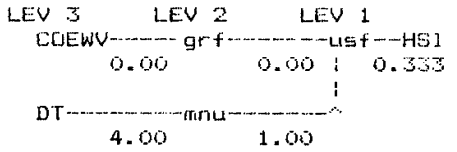
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	3.0	0.333

Study: MCEL2004 2-05-1988

Model: MULE DEER--COVER

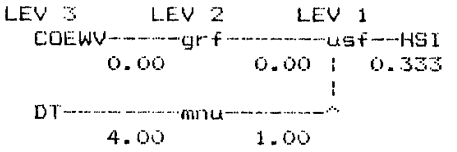
CoverType: S SubArea: LA1166



Study: MCEL2004 2-05-1988

Model: MULE DEER--COVER

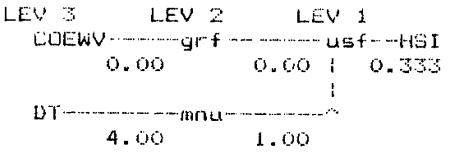
CoverType: S SubArea: LA1227



Study: MCEL2004 2-05-1988

Model: MULE DEER--COVER

CoverType: S SubArea: LI108



MCEL3004 HABITAT DATA 2-05-1988

ELEVATION 3
HABITAT: MOUNTAIN SHRUB
SPECIES: MULE DEER - COVER

	COVER TYPE / SUB-AREA:			
	S	S	S	S
VARIABLE:	LA1201	LA790	P0119	P0230
COEWV	0.000	0.000	0.000	0.000
DT	4.000	4.000	4.000	4.000

Study: MCEL3004 Model: MULE DEER--COVER 2-05-1988

CoverType	SubArea	Area	HSI
S	LA1201	1.0	0.333
S	LA790	1.0	0.333
S	P0119	1.0	0.333
S	P0230	1.0	0.333
Overall:		4.0	0.333

Study name: MCEL3004 2-05-1988

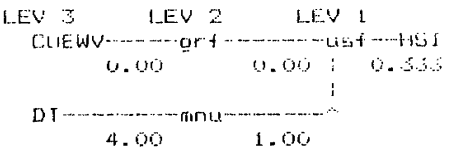
HSI Values For The Entire Study Area:

	Area	HSI
MULE DEER--COVER	4.0	0.333

Study: MCEL3004 2-05-1988

Model: MULE DEER--COVER

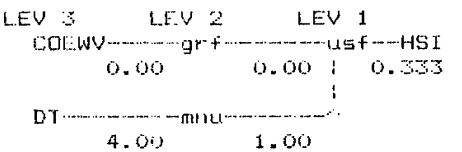
CoverType: S SubArea: LA1201



Study: MCEL3004 2-05-1988

Model: MULE DEER--COVER

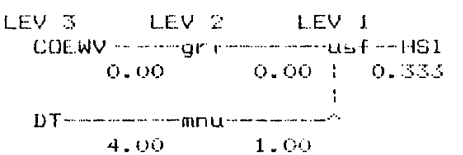
CoverType: S SubArea: LA790



Study: MCEL3004 2-05-1988

Model: MULE DEER--COVER

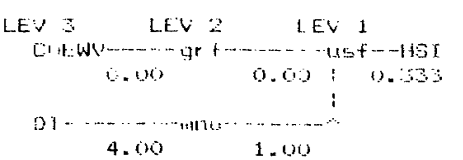
CoverType: S SubArea: PO119



Study: MCEL3004 2-05-1988

Model: MULE DEER--COVER

CoverType: S SubArea: PO230



APPENDIX G.6

SONG SPARROW

Library: C:CWRP.HLB
1-25-1988

Model # 6 Single covertype model.
Model name: SONG SPARROW--FOOD)
Verification level: Author Draft
Creation/modification date: 1-22-1988

USFWS, Western Energy Land Use Team, 1978. Fort Collins, Colorado.
Eco-Region 10.

Covertypes:
rF : Riparian forest
rS : Riparian Shrubland

Lev 2 Lev 1
VHTSH02--grf--HSI

Habitat variables:
VHTSH02 : Mean height of shrub canopy (not of individual shrubs) (m)

GRAPH FUNCTION at level 1, position 1
Title: Height of Lower Shrub Canopy (Meters)

X:	0.000,	Y:	0.000
X:	0.076,	Y:	0.050
X:	0.102,	Y:	0.100
X:	0.152,	Y:	0.200
X:	0.305,	Y:	1.000
X:	0.457,	Y:	1.000
X:	0.610,	Y:	1.000
X:	1.000,	Y:	1.000

Comments:
This model calculates the value of the habitat for the food life requisite only.
Graph values are in meters (rescaled from inches in printed copy).

Library: C:CWRP.HLB
1-25-1988

Model # 7
Model name: SONG SPARROW--COVER

Single covertype model.

Verification level: Author Draft
Creation/modification date: 1-22-1988

USFWS 1978. Western Energy Land Use Team. Fort Collins, Colorado.
Eco-Region 10.

Covertypes:
rF : Riparian forest
rS : Riparian Shrubland

```
                        Lev 3    Lev 2    Lev 1
                         VCVTR01--grf------usf--HSI
                         DISHB-----mnu--------^
```

Habitat variables:
DISHB : Shrub Distribution
VCVTR01 : Percent canopy cover of trees (%)

GRAPH FUNCTION at level 2, position 1
Title: Percent Tree Canopy Cover (%)

X:	0.000,	Y:	1.000
X:	25.000,	Y:	1.000
X:	50.000,	Y:	1.000
X:	75.000,	Y:	0.500
X:	100.000,	Y:	0.100

MENU FUNCTION at level 2, position 2

Menu choice:	1	Output value:	0.050
Menu choice:	2	Output value:	0.300
Menu choice:	3	Output value:	1.000
Menu choice:	4	Output value:	0.800

USER-SPECIFIED FUNCTION at level 1, position 1
USUB=(X(1)*X(2))^.5

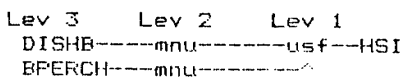
Comments:
This model evaluates the quality of the habitat for the cover life requiste only.

Library: C:\WRP.HLB
1-25-1988

Model # 8 Single covertype model.
Model name: SONG SPARROW--REPRODUCTION
Verification level: Author Draft
Creation/modification date: 1-22-1988

USFWS 1978. Western Energy Land Use Team, Fort Collins, Colorado.
Eco-Region 10.

Covertypes:
rF : Riparian forest
rS : Riparian Shrubland



Habitat variables:
BPERCH : Song Perch Site Availability
DISHB : Shrub Distribution

MENU FUNCTION at level 2, position 1

Menu choice:	1	Output value:	0.050
Menu choice:	2	Output value:	0.300
Menu choice:	3	Output value:	1.000
Menu choice:	4	Output value:	0.800

MENU FUNCTION at level 2, position 2

Menu choice:	1	Output value:	0.300
Menu choice:	2	Output value:	0.700
Menu choice:	3	Output value:	1.000

USER-SPECIFIED FUNCTION at level 1, position 1
USUB=(X(1)*X(2))^.5

Comments:
This model evaluates the value of the habitat for the reproductive life requisite only.

SSMSE101 HABITAT DATA 2-01-1988

MAINSTEM EAST
HABITAT: RIPARIAN FOREST
SPECIES: SONG SPARROW

	COVER TYPE / SUB-AREA:		
	rF	rF	rF
VARIABLE:	LA1141	LI307	LI320
BPERCH	3.000	3.000	3.000
DISHB	2.000	3.000	2.000
VCVTR01	42.000	29.800	26.600
VHTSH02	2.995	2.477	2.015

Study: SSMSE101 Model: SONG SPARROW--FOOD 2-01-1988

CoverType	SubArea	Area	HSI
rF	LA1141	1.0	1.000
rF	LI307	1.0	1.000
rF	LI320	1.0	1.000
Overall:		3.0	1.000

Study: SSMSE101 Model: SONG SPARROW--COVER 2-01-1988

CoverType	SubArea	Area	HSI
rF	LA1141	1.0	0.548
rF	LI307	1.0	1.000
rF	LI320	1.0	0.548
Overall:		3.0	0.698

Study: SSMSE101 Model: SONG SPARROW--REPRODUCTION 2-01-1988

CoverType	SubArea	Area	HSI
rF	LA1141	1.0	0.548
rF	LI307	1.0	1.000
rF	LI320	1.0	0.548
Overall:		3.0	0.698

Study name: SSMSE101 2-01-1988

HSI Values For The Entire Study Area:

	Area	HSI
SONG SPARROW--FOOD	3.0	1.000
SONG SPARROW--COVER	3.0	0.698
SONG SPARROW--REPRODUCTION	3.0	0.698

Study: SSMSE101 2-01-1988

Model: SONG SPARROW--FOOD

CoverType: rF SubArea: LA1141

LEV 2	LEV 1
VHTSH02	grf--HSI
3.00	1.000

Study: SSMSE101 2-01-1988

Model: SONG SPARROW--FOOD

CoverType: rF SubArea: LI307

LEV 2	LEV 1
VHTSH02	grf--HSI
2.48	1.000

Study: SSMSE101 2-01-1988

Model: SONG SPARROW--FOOD

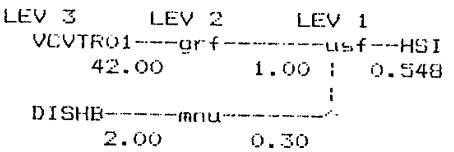
CoverType: rF SubArea: LI320

LEV 2	LEV 1
VHTSH02	grf--HSI
2.02	1.000

Study: SSMSE101 2-01-1988

Model: SONG SPARROW--COVER

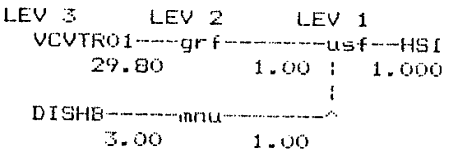
CoverType: rF SubArea: LA1141



Study: SSMSE101 2-01-1988

Model: SONG SPARROW--COVER

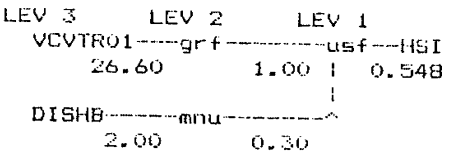
CoverType: rF SubArea: LI307



Study: SSMSE101 2-01-1988

Model: SONG SPARROW--COVER

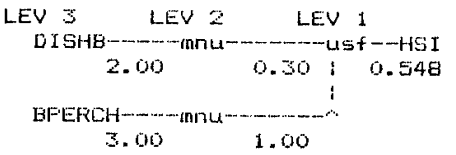
CoverType: rF SubArea: LI320



Study: SSMSE101 2-01-1988

Model: SONG SPARROW--REPRODUCTION

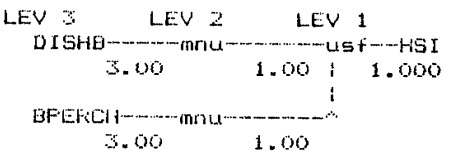
CoverType: rF SubArea: LA1141



Study: SSMSE101 2-01-1988

Model: SONG SPARROW--REPRODUCTION

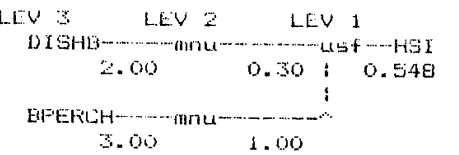
CoverType: rF SubArea: LI307



Study: SSMSE101 2-01-1988

Model: SONG SPARROW--REPRODUCTION

CoverType: rF SubArea: LI320



SSMSE104 HABITAT DATA 2-01-1988

MAINSTEM EAST
HABITAT: RIPARIAN SHRUBLAND
SPECIES: SONG SPARROW

	COVER TYPE / SUB-AREA:		
	rS	rS	rS
VARIABLE:	LI302	LI304	LI310
BPERCH	2.000	3.000	2.000
DISHB	3.000	4.000	4.000
VCVTR01	0.000	0.000	0.000
VHTSH02	1.895	1.965	2.330

Study: SSMSE104 Model: SONG SPARROW--FOOD 2-01-1988

CoverType	SubArea	Area	HSI
rS	LI302	1.0	1.000
rS	LI304	1.0	1.000
rS	LI310	1.0	1.000
Overall:		3.0	1.000

Study: SSMSE104 Model: SONG SPARROW--COVER 2-01-1988

CoverType	SubArea	Area	HSI
rS	LI302	1.0	1.000
rS	LI304	1.0	0.894
rS	LI310	1.0	0.894
Overall:		3.0	0.930

Study: SSMSE104 Model: SONG SPARROW--REPRODUCTION 2-01-1988

CoverType	SubArea	Area	HSI
rS	LI302	1.0	0.837
rS	LI304	1.0	0.894
rS	LI310	1.0	0.748
Overall:		3.0	0.826

Study name: SSMSE104 2-01-1988

HSI Values For The Entire Study Area:

	Area	HSI
SONG SPARROW--FOOD	3.0	1.000
SONG SPARROW--COVER	3.0	0.930
SONG SPARROW--REPRODUCTION	3.0	0.826

Study: SSMSE104 2-01-1988

Model: SONG SPARROW--FOOD

CoverType: rS SubArea: LI302

LEV 2	LEV 1	
VHTSH02	grf	HSI
1.90		1.000

Study: SSMSE104 2-01-1988

Model: SONG SPARROW--FOOD

CoverType: rS SubArea: LI304

LEV 2	LEV 1	
VHTSH02	grf	HSI
1.97		1.000

Study: SSMSE104 2-01-1988

Model: SONG SPARROW--FOOD

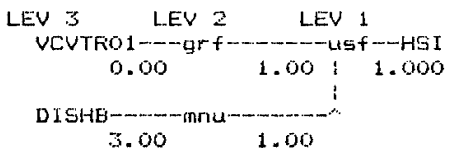
CoverType: rS SubArea: LI310

LEV 2	LEV 1	
VHTSH02	grf	HSI
2.33		1.000

Study: SSMSE104 2-01-1988

Model: SONG SPARROW--COVER

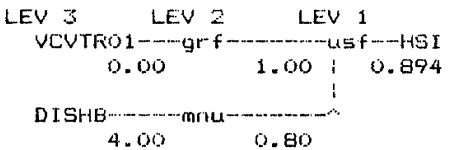
CoverType: rS SubArea: LI302



Study: SSMSE104 2-01-1988

Model: SONG SPARROW--COVER

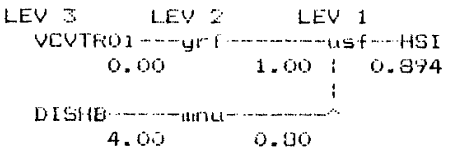
CoverType: rS SubArea: LI304



Study: SSMSE104 2-01-1988

Model: SONG SPARROW--COVER

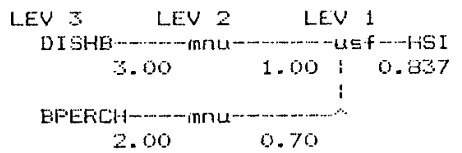
CoverType: rS SubArea: LI310



Study: SSMSE104 2-01-1988

Model: SONG SPARROW--REPRODUCTION

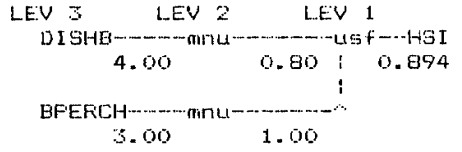
CoverType: rS SubArea: LI302



Study: SSMSE104 2-01-1988

Model: SONG SPARROW--REPRODUCTION

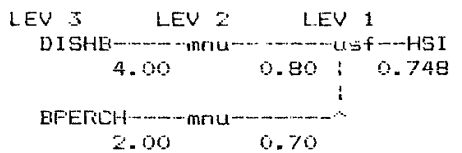
CoverType: rS SubArea: LI304



Study: SSMSE104 2-01-1988

Model: SONG SPARROW--REPRODUCTION

CoverType: rS SubArea: LI310



SSMSN101 HABITAT DATA 2-03-1988

MAINSTEM NORTH
HABITAT: RIPARIAN FOREST
SPECIES: SONG SPARROW

	COVER TYPE / SUB-AREA:				
	rF	rF	rF	rF	rF
VARIABLE:	LA1166	LA825	LA896	P0328	P084
BPERCH	2.000	2.000	2.000	2.000	2.000
DISHB	3.000	2.000	3.000	2.000	3.000
VCVTR01	31.200	28.600	53.600	79.400	48.800
VHTSH02	1.995	1.620	1.300	2.384	1.618

Study: SSMSN101 Model: SONG SPARROW--FOOD 2-03-1988

CoverType	SubArea	Area	HSI
rF	LA1166	1.0	1.000
rF	LA825	1.0	1.000
rF	LA896	1.0	1.000
rF	P0328	1.0	1.000
rF	P084	1.0	1.000
Overall:		5.0	1.000

Study: SSMSN101 Model: SONG SPARROW--COVER 2-03-1988

CoverType	SubArea	Area	HSI
rF	LA1166	1.0	1.000
rF	LA825	1.0	0.548
rF	LA896	1.0	0.963
rF	P0328	1.0	0.359
rF	P084	1.0	1.000
Overall:		5.0	0.774

Study: SSMSN101 Model: SONG SPARROW--REPRODUCTION 2-03-1988

CoverType	SubArea	Area	HSI
rF	LA1166	1.0	0.837
rF	LA825	1.0	0.458
rF	LA896	1.0	0.837
rF	P0328	1.0	0.458
rF	P084	1.0	0.837
Overall:		5.0	0.685

Study name: SSMSN101 2-03-1988

HSI Values For The Entire Study Area:

	Area	HSI
SONG SPARROW--FOOD	5.0	1.000
SONG SPARROW--COVER	5.0	0.774
SONG SPARROW--REPRODUCTION	5.0	0.685

Study: SSMSN101 2-03-1988

Model: SONG SPARROW--FOOD

CoverType: rF SubArea: LA1166

LEV 2	LEV 1
VHTSH02---grf--HSI	
2.00	1.000

Study: SSMSN101 2-03-1988

Model: SONG SPARROW--FOOD

CoverType: rF SubArea: LA825

LEV 2	LEV 1
VHTSH02---grf--HSI	
1.62	1.000

Study: SSMSN101 2-03-1988

Model: SONG SPARROW--FOOD

CoverType: rF SubArea: LA896

LEV 2	LEV 1
VHTSH02---grf--HSI	
1.30	1.000

Study: SSMSN101 2-03-1988

Model: SONG SPARROW--FOOD

CoverType: rF SubArea: PO328

LEV 2	LEV 1
VHTSH02---grf--HSI	
2.38	1.000

Study: SSMSN101 2-03-1988

Model: SONG SPARROW--FOOD

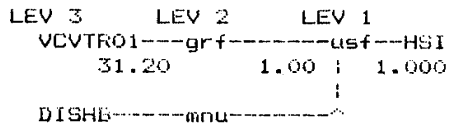
Covertype: rF SubArea: P084

LEV 2	LEV 1
VHTSH02	grf--HSI
1.62	1.000

Study: SSMSN101 2-03-1988

Model: SONG SPARROW--COVER

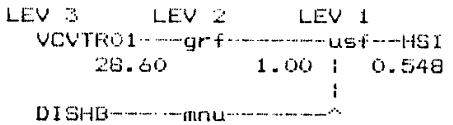
CoverType: rF SubArea: LA1166



Study: SSMSN101 2-03-1988

Model: SONG SPARROW--COVER

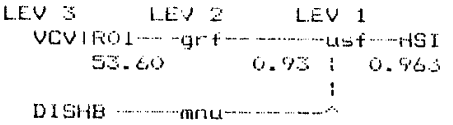
CoverType: rF SubArea: LA825



Study: SSMSN101 2-03-1988

Model: SONG SPARROW--COVER

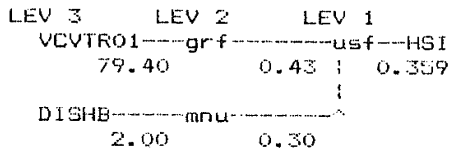
CoverType: rF SubArea: LA896



Study: SSMSN101 2-03-1988

Model: SONG SPARROW--COVER

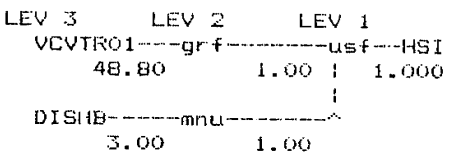
CoverType: rF SubArea: P032B



Study: SSMSN101 2-03-1988

Model: SONG SPARROW--COVER

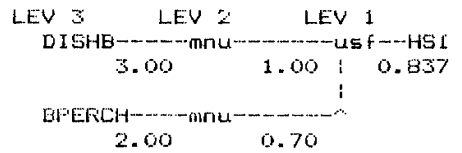
CoverType: rF SubArea: P084



Study: SSMSN101 2-03-1988

Model: SONG SPARROW--REPRODUCTION

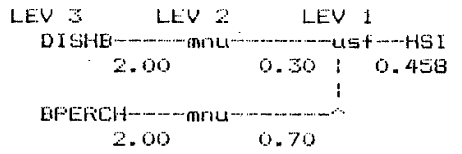
CoverType: rF SubArea: LA1166



Study: SSMSN101 2-03-1988

Model: SONG SPARROW--REPRODUCTION

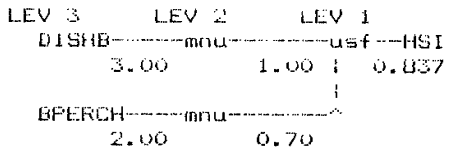
CoverType: rF SubArea: LA825



Study: SSMSN101 2-03-1988

Model: SONG SPARROW--REPRODUCTION

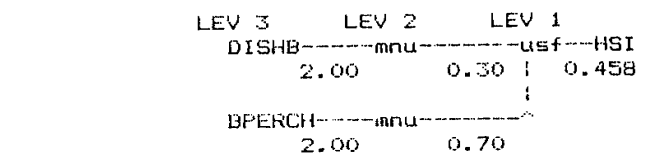
CoverType: rF SubArea: LA896



Study: SSMSN101 2-03-1988

Model: SONG SPARROW--REPRODUCTION

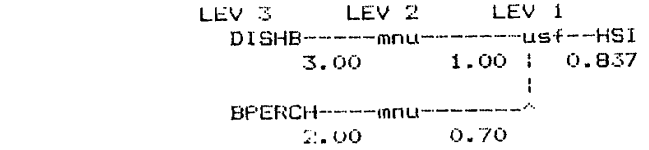
CoverType: rF SubArea: P0328



Study: SSMSN101 2-03-1988

Model: SONG SPARROW--REPRODUCTION

CoverType: rF SubArea: P084



SSMSN104 HABITAT DATA 2-01-1988

MAINSTEM NORTH
HABITAT: RIPARIAN SHRUBLAND
SPECIES: SONG SPARROW

	COVER TYPE / SUB-AREA:		
	rS	rS	rS
VARIABLE:	LI303	LI305	LI311
BPERCH	1.000	2.000	3.000
DISHB	4.000	3.000	4.000
VCVTR01	0.000	0.000	0.000
VHTSH02	2.241	2.909	2.285

Study: SSMSN104 Model: SONG SPARROW--FOOD 2-01-1988

CoverType	SubArea	Area	HSI
rS	LI303	1.0	1.000
rS	LI305	1.0	1.000
rS	LI311	1.0	1.000
Overall:		3.0	1.000

Study: SSMSN104 Model: SONG SPARROW--COVER 2-01-1988

CoverType	SubArea	Area	HSI
rS	LI303	1.0	0.894
rS	LI305	1.0	1.000
rS	LI311	1.0	0.894
Overall:		3.0	0.930

Study: SSMSN104 Model: SONG SPARROW--REPRODUCTION 2-01-1988

CoverType	SubArea	Area	HSI
rS	LI303	1.0	0.490
rS	LI305	1.0	0.837
rS	LI311	1.0	0.894
Overall:		3.0	0.740

Study name: SSMSN104 2-01-1988

HSI Values For The Entire Study Area:

	Area	HSI
SONG SPARROW--FOOD	3.0	1.000
SONG SPARROW--COVER	3.0	0.930
SONG SPARROW--REPRODUCTION	3.0	0.740

Study: SSMSN104 2-01-1988

Model: SONG SPARROW--FOOD

CoverType: rS SubArea: LI303

LEV 2	LEV 1
VHTSH02---grf--HSI	
2.24	1.000

Study: SSMSN104 2-01-1988

Model: SONG SPARROW--FOOD

CoverType: rS SubArea: LI305

LEV 2	LEV 1
VHTSH02---grf--HSI	
2.91	1.000

Study: SSMSN104 2-01-1988

Model: SONG SPARROW--FOOD

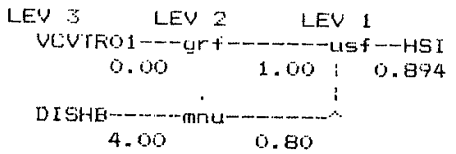
CoverType: rS SubArea: LI311

LEV 2	LEV 1
VHTSH02---grf--HSI	
2.29	1.000

Study: SSMSN104 2-01-1988

Model: SONG SPARROW--COVER

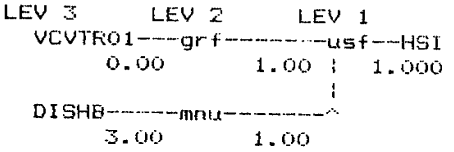
CoverType: rS SubArea: LI303



Study: SSMSN104 2-01-1988

Model: SONG SPARROW--COVER

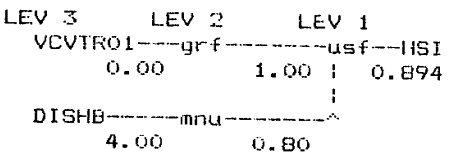
CoverType: rS SubArea: LI305



Study: SSMSN104 2-01-1988

Model: SONG SPARROW--COVER

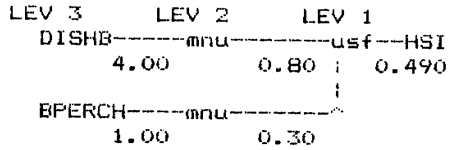
CoverType: rS SubArea: LI311



Study: SSMSN104 2-01-1988

Model: SONG SPARROW--REPRODUCTION

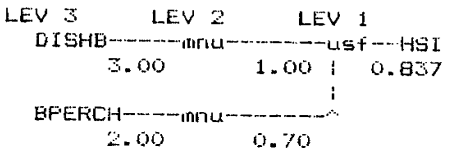
CoverType: rS SubArea: LI303



Study: SSMSN104 2-01-1988

Model: SONG SPARROW--REPRODUCTION

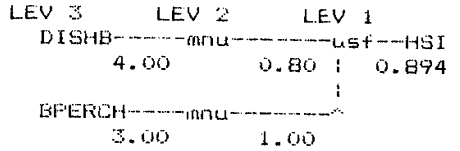
CoverType: rS SubArea: LI305



Study: SSMSN104 2-01-1988

Model: SONG SPARROW--REPRODUCTION

CoverType: rS SubArea: LI311



SSMSS101 HABITAT DATA 2-01-1988

MAINSTEM SOUTH
HABITAT: RIPARIAN FOREST
SPECIES: SONG SPARROW

	COVER TYPE / SUB-AREA:				
	rF	rF	rF	rF	rF
VARIABLE:	LA937	LA943	P0363	P0437	P0443
BPERCH	3.000	3.000	2.000	3.000	2.000
DISHB	3.000	3.000	4.000	3.000	3.000
VCVTR01	56.000	79.800	76.000	59.800	72.200
VHTSH02	0.800	1.542	1.705	3.169	2.270

Study: SSMSS101 Model: SONG SPARROW--FOOD 2-01-1988

CoverType	SubArea	Area	HSI
rF	LA937	1.0	1.000
rF	LA943	1.0	1.000
rF	P0363	1.0	1.000
rF	P0437	1.0	1.000
rF	P0443	1.0	1.000
Overall:		5.0	1.000

Study: SSMSS101 Model: SONG SPARROW--COVER 2-01-1988

CoverType	SubArea	Area	HSI
rF	LA937	1.0	0.938
rF	LA943	1.0	0.651
rF	P0363	1.0	0.622
rF	P0437	1.0	0.897
rF	P0443	1.0	0.746
Overall:		5.0	0.771

Study: SSMSS101 Model: SONG SPARROW--REPRODUCTION 2-01-1988

CoverType	SubArea	Area	HSI
rF	LA937	1.0	1.000
rF	LA943	1.0	1.000
rF	P0363	1.0	0.748
rF	P0437	1.0	1.000
rF	P0443	1.0	0.837
Overall:		5.0	0.917

Study name: SSMSS101 2-01-1988

HSI Values For The Entire Study Area:

	Area	HSI
SONG SPARROW--FOOD	5.0	1.000
SONG SPARROW--COVER	5.0	0.771
SONG SPARROW--REPRODUCTION	5.0	0.917

Study: SSMSS101 2-01-1988

Model: SONG SPARROW--FOOD

CoverType: rF SubArea: LA937

LEV 2	LEV 1
VHTSH02	grf--HSI
0.80	1.000

Study: SSMSS101 2-01-1988

Model: SONG SPARROW--FOOD

CoverType: rF SubArea: LA943

LEV 2	LEV 1
VHTSH02	grf--HSI
1.54	1.000

Study: SSMSS101 2-01-1988

Model: SONG SPARROW--FOOD

CoverType: rF SubArea: PO363

LEV 2	LEV 1
VHTSH02	grf--HSI
1.71	1.000

Study: SSMSS101 2-01-1988

Model: SONG SPARROW--FOOD

CoverType: rF SubArea: PO437

LEV 2	LEV 1
VHTSH02	grf--HSI
3.17	1.000

Study: SSMSS101 2-01-1988

Model: SONG SPARROW--FOOD

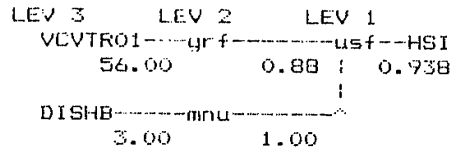
CoverType: rF SubArea: P0443

LEV 2	LEV 1
VHTSH02	grf	HSI
2.27	1.000

Study: SSMSS101 2-01-1988

Model: SONG SPARROW--COVER

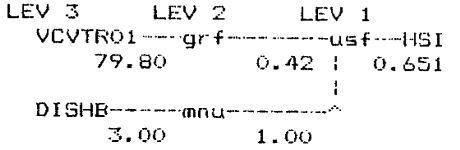
CoverType: rF SubArea: LA937



Study: SSMSS101 2-01-1988

Model: SONG SPARROW--COVER

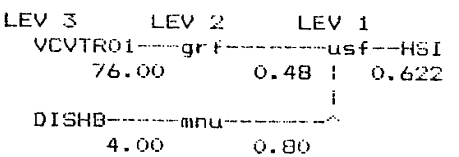
CoverType: rF SubArea: LA943



Study: SSMSS101 2-01-1988

Model: SONG SPARROW--COVER

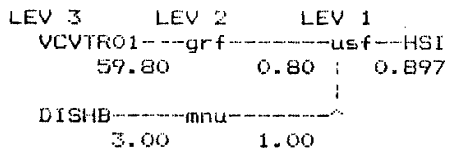
CoverType: rF SubArea: PO363



Study: SSMSS101 2-01-1988

Model: SONG SPARROW--COVER

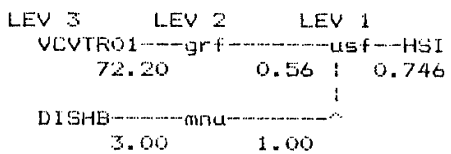
CoverType: rF SubArea: P0437



Study: SSMSS101 2-01-1988

Model: SONG SPARROW--COVER

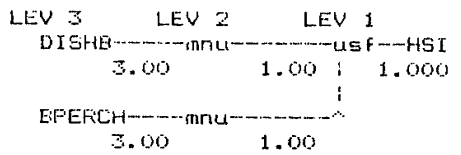
CoverType: rF SubArea: P0443



Study: SSMSS101 2-01-1980

Model: SONG SPARROW--REPRODUCTION

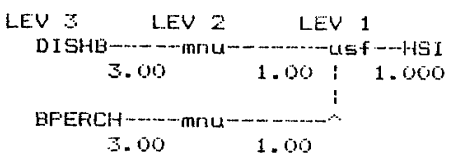
CoverType: rF SubArea: LA937



Study: SSMSS101 2-01-1988

Model: SONG SPARROW--REPRODUCTION

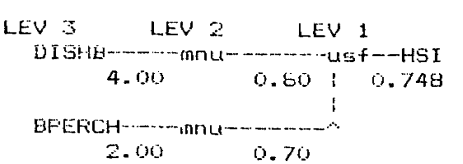
CoverType: rF SubArea: LA943



Study: SSMSS101 2-01-1988

Model: SONG SPARROW--REPRODUCTION

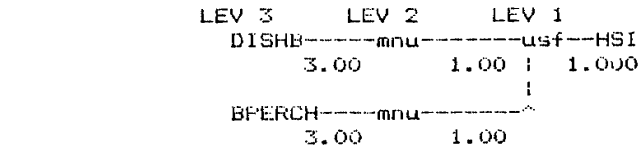
CoverType: rF SubArea: PO363



Study: SSMSS101 2-01-1988

Model: SONG SPARROW--REPRODUCTION

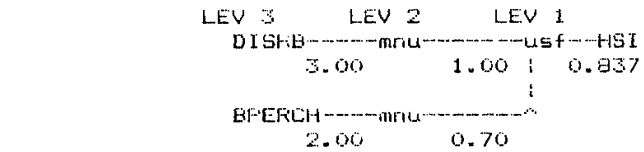
CoverType: rF SubArea: P0437



Study: SSMSS101 2-01-1988

Model: SONG SPARROW--REPRODUCTION

CoverType: rF SubArea: P0443



SSEL1101 HABITAT DATA 2-01-1988

ELEVATION 1
HABITAT: RIPARIAN FOREST
SPECIES: SONG SPARROW

	COVER TYPE / SUB-AREA:				
	rF	rF	rF	rF	rF
VARIABLE:	LA286	LA383	LA393	LA460	LA470
BPERCH	3.000	2.000	2.000	3.000	3.000
DISHB	2.000	3.000	3.000	2.000	3.000
VCVTR01	100.000	75.400	15.200	73.600	43.600
VHTSH02	1.924	2.010	1.640	2.343	2.680

Study: SSEL1101 Model: SONG SPARROW--FOOD 2-01-1988

CoverType	SubArea	Area	HSI
rF	LA286	1.0	1.000
rF	LA383	1.0	1.000
rF	LA393	1.0	1.000
rF	LA460	1.0	1.000
rF	LA470	1.0	1.000
Overall:		5.0	1.000

Study: SSEL1101 Model: SONG SPARROW--COVER 2-01-1988

CoverType	SubArea	Area	HSI
rF	LA286	1.0	0.173
rF	LA383	1.0	0.703
rF	LA393	1.0	1.000
rF	LA460	1.0	0.398
rF	LA470	1.0	1.000
Overall:		5.0	0.655

Study: SSEL1101 Model: SONG SPARROW--REPRODUCTION 2-01-1988

CoverType	SubArea	Area	HSI
rF	LA286	1.0	0.548
rF	LA383	1.0	0.837
rF	LA393	1.0	0.837
rF	LA460	1.0	0.548
rF	LA470	1.0	1.000
Overall:		5.0	0.754

Study name: SSEL1101 2-01-1988

HSI Values For The Entire Study Area:

	Area	HSI
SONG SPARROW--FOOD	5.0	1.000
SONG SPARROW--COVER	5.0	0.655
SONG SPARROW--REPRODUCTION	5.0	0.754

Study: SSEL1101

Model: SONG SPARROW--FOOD 2-01-1988

CoverType: rF SubArea: LA286

LEV 2	LEV 1
VHTSH02---grf--HSI	
1.92	1.000

Study: SSEL1101

Model: SONG SPARROW--FOOD 2-01-1988

CoverType: rF SubArea: LA383

LEV 2	LEV 1
VHTSH02---grf--HSI	
2.01	1.000

Study: SSEL1101

Model: SONG SPARROW--FOOD 2-01-1988

CoverType: rF SubArea: LA393

LEV 2	LEV 1
VHTSH02---grf--HSI	
1.64	1.000

Study: SSEL1101

Model: SONG SPARROW--FOOD 2-01-1988

CoverType: rF SubArea: LA460

LEV 2	LEV 1
VHTSH02---grf--HSI	
2.34	1.000

Study: SSEL1101 2-01-1988

Model: SONG SPARROW--FOOD

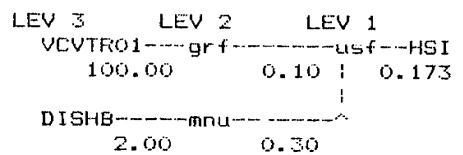
CoverType: rF SubArea: LA470

LEV 2	LEV 1
VHTSH02	grf--HSI
2.68	1.000

Study: SSEL1101 2-01-1988

Model: SONG SPARROW--COVER

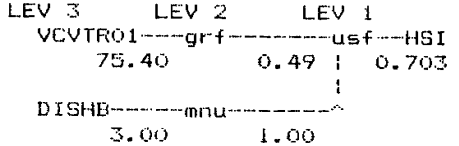
CoverType: rF SubArea: LA286



Study: SSEL1101 2-01-1988

Model: SONG SPARROW--COVER

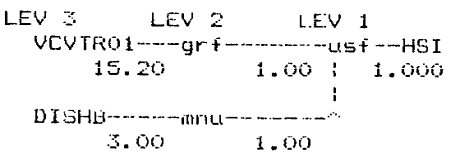
CoverType: rF SubArea: LA383



Study: SSEL1101 2-01-1988

Model: SONG SPARROW--COVER

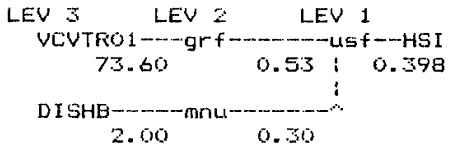
CoverType: rF SubArea: LA393



Study: SSEL1101 2-01-1988

Model: SONG SPARROW--COVER

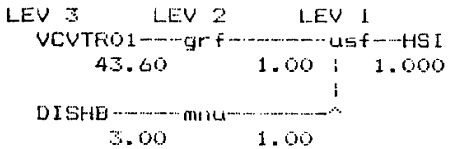
CoverType: rF SubArea: LA460



Study: SSEL1101 2-01-1988

Model: SONG SPARROW--COVER

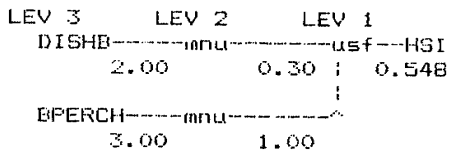
CoverType: rF SubArea: LA470



Study: SSEL1101 2-01-1988

Model: SONG SPARROW--REPRODUCTION

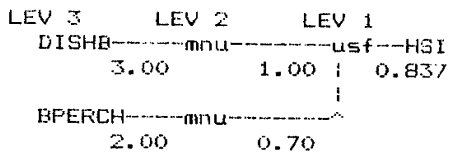
CoverType: rF SubArea: LA286



Study: SSEL1101 2-01-1988

Model: SONG SPARROW--REPRODUCTION

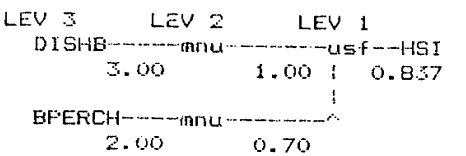
CoverType: rF SubArea: LA383



Study: SSEL1101 2-01-1988

Model: SONG SPARROW--REPRODUCTION

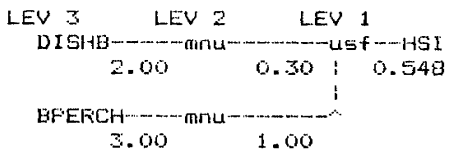
CoverType: rF SubArea: LA393



Study: SSEL1101 2-01-1988

Model: SONG SPARROW--REPRODUCTION

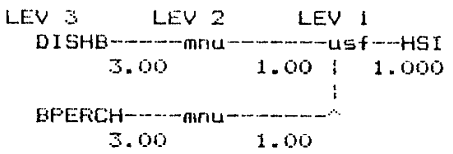
CoverType: rF SubArea: LA460



Study: SSEL1101 2-01-1988

Model: SONG SPARROW--REPRODUCTION

CoverType: rF SubArea: LA470



SSEL1104 HABITAT DATA 2-01-1988

ELEVATION 1
HABITAT: RIPARIAN SHRUBLAND
SPECIES: SONG SPARROW

	COVER TYPE / SUB-AREA:		
	rS	rS	rS
VARIABLE:	LA372	LA398	LA399
BPERCH	3.000	1.000	2.000
DISHB	3.000	3.000	3.000
VCVTR01	0.000	0.000	0.000
VHTSH02	2.690	1.474	1.605

Study: SSEL1104 Model: SONG SPARROW--FOOD 2-01-1988

CoverType	SubArea	Area	HSI
rS	LA372	1.0	1.000
rS	LA398	1.0	1.000
rS	LA399	1.0	1.000
Overall:		3.0	1.000

Study: SSEL1104 Model: SONG SPARROW--COVER 2-01-1988

CoverType	SubArea	Area	HSI
rS	LA372	1.0	1.000
rS	LA398	1.0	1.000
rS	LA399	1.0	1.000
Overall:		3.0	1.000

Study: SSEL1104 Model: SONG SPARROW--REPRODUCTION 2-01-1988

CoverType	SubArea	Area	HSI
rS	LA372	1.0	1.000
rS	LA398	1.0	0.548
rS	LA399	1.0	0.637
Overall:		3.0	0.795

Study name: SSEL1104 2-01-1988

HSI Values For The Entire Study Area:

	Area	HSI
SONG SPARROW--FOOD	3.0	1.000
SONG SPARROW--COVER	3.0	1.000
SONG SPARROW--REPRODUCTION	3.0	0.795

Study: SSEL1104 2-01-1988

Model: SONG SPARROW--FOOD

CoverType: rS SubArea: LA372

LEV 2	LEV 1
VHTSHO2	grf--HSI
2.69	1.000

Study: SSEL1104 2-01-1988

Model: SONG SPARROW--FOOD

CoverType: rS SubArea: LA398

LEV 2	LEV 1
VHTSHO2	grf--HSI
1.47	1.000

Study: SSEL1104 2-01-1988

Model: SONG SPARROW--FOOD

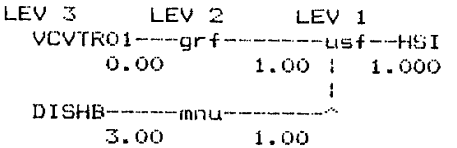
CoverType: rS SubArea: LA399

LEV 2	LEV 1
VHTSHO2	grf--HSI
1.61	1.000

Study: SSEL1104 2-01-1988

Model: SONG SPARROW--COVER

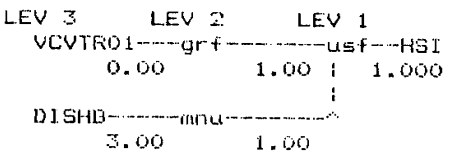
CoverType: rS SubArea: LA372



Study: SSEL1104 2-01-1988

Model: SONG SPARROW--COVER

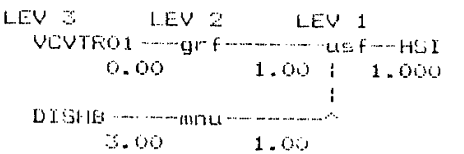
CoverType: rS SubArea: LA398



Study: SSEL1104 2-01-1988

Model: SONG SPARROW--COVER

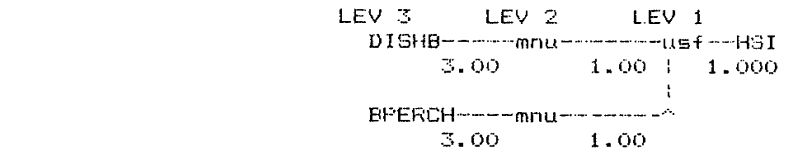
CoverType: rS SubArea: LA399



Study: SSEL1104 2-01-1988

Model: SONG SPARROW--REPRODUCTION

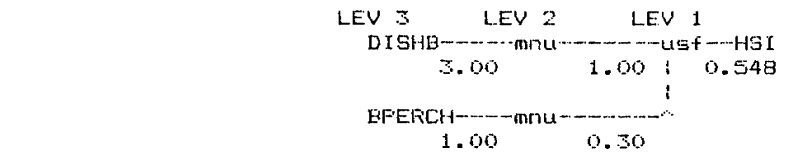
CoverType: rS SubArea: LA372



Study: SSEL1104 2-01-1988

Model: SONG SPARROW--REPRODUCTION

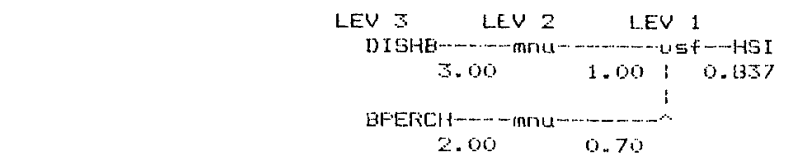
CoverType: rS SubArea: LA398



Study: SSEL1104 2-01-1988

Model: SONG SPARROW--REPRODUCTION

CoverType: rS SubArea: LA399



SSEL2101 HABITAT DATA 2-01-1988

ELEVATION 2
HABITAT: RIPARIAN FOREST
SPECIES: SONG SPARROW

	COVER TYPE / SUB-AREA:		
	rF	rF	rF
VARIABLE:	LI97	P0212	P0282
BPERCH	2.000	3.000	3.000
DISHB	3.000	3.000	3.000
VCVTR01	99.000	36.000	78.600
VHTSH02	2.993	2.468	2.300

Study: SSEL2101 Model: SONG SPARROW--FOOD 2-01-1988

CoverType	SubArea	Area	HSI
rF	LI97	1.0	1.000
rF	PO212	1.0	1.000
rF	PO282	1.0	1.000
Overall:		3.0	1.000

Study: SSEL2101 Model: SONG SPARROW--COVER 2-01-1988

CoverType	SubArea	Area	HSI
rF	LI97	1.0	0.341
rF	PO212	1.0	1.000
rF	PO282	1.0	0.665
Overall:		3.0	0.669

Study: SSEL2101 Model: SONG SPARROW--REPRODUCTION 2-01-1988

CoverType	SubArea	Area	HSI
rF	LI97	1.0	0.837
rF	PO212	1.0	1.000
rF	PO282	1.0	1.000
Overall:		3.0	0.946

Study name: SSEL2101 2-01-1988

HSI Values For The Entire Study Area:

	Area	HSI
SONG SPARROW--FOOD	3.0	1.000
SONG SPARROW--COVER	3.0	0.669
SONG SPARROW--REPRODUCTION	3.0	0.946

Study: SSEL2101 2-01-1988

Model: SONG SPARROW--FOOD

CoverType: rF SubArea: LI97

LEV 2	LEV 1
VHTSHO2	grf--HSI
2.99	1.000

Study: SSEL2101 2-01-1988

Model: SONG SPARROW--FOOD

CoverType: rF SubArea: P0212

LEV 2	LEV 1
VHTSHO2	grf--HSI
2.47	1.000

Study: SSEL2101 2-01--1988

Model: SONG SPARROW--FOOD

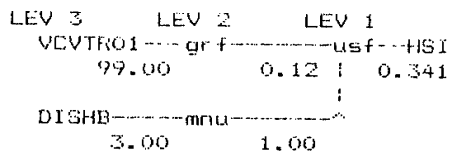
CoverType: rF SubArea: P0282

LEV 2	LEV 1
VHTSHO2	grf--HSI
2.30	1.000

Study: SSEL2101 2-01-1988

Model: SONG SPARROW--COVER

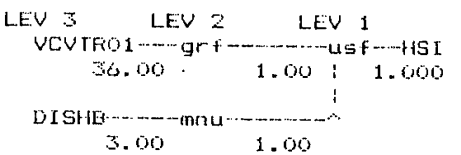
CoverType: rF SubArea: LI97



Study: SSEL2101 2-01-1988

Model: SONG SPARROW--COVER

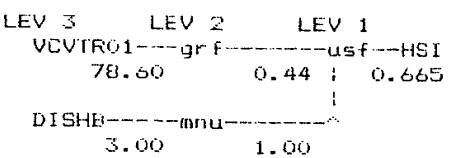
CoverType: rF SubArea: PO212



Study: SSEL2101 2-01-1988

Model: SONG SPARROW--COVER

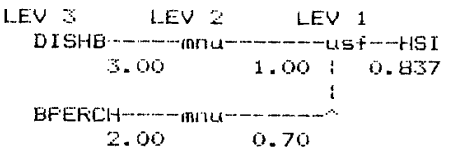
CoverType: rF SubArea: PO282



Study: SSEL2101 2-01-1988

Model: SONG SPARROW--REPRODUCTION

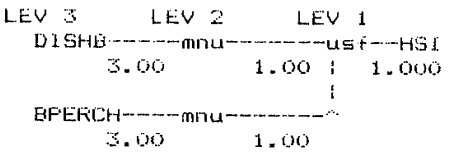
CoverType: rF SubArea: LI97



Study: SSEL2101 2-01-1988

Model: SONG SPARROW--REPRODUCTION

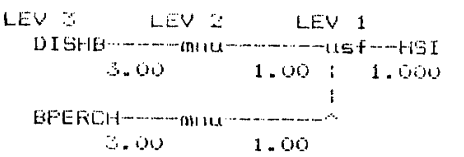
CoverType: rF SubArea: P0212



Study: SSEL2101 2-01-1988

Model: SONG SPARROW--REPRODUCTION

CoverType: rF SubArea: P0282



SSEL2104 HABITAT DATA 2-01-1988

ELEVATION 2
HABITAT: RIPARIAN SHRUBLAND
SPECIES: SONG SPARROW

	COVER TYPE / SUB-AREA:		
	rS	rS	rS
VARIABLE:	LA417	LA624	LI72
BPERCH	2.000	3.000	2.000
DISHB	3.000	4.000	3.000
VCVTR01	0.000	0.000	0.000
VHTSH02	1.699	3.185	1.690

Study: SSEL2104 Model: SONG SPARROW--FOOD 2-01-1988

CoverType	SubArea	Area	HSI
rS	LA417	1.0	1.000
rS	LA624	1.0	1.000
rS	LI72	1.0	1.000
Overall:		3.0	1.000

Study: SSEL2104 Model: SONG SPARROW--COVER 2-01-1988

CoverType	SubArea	Area	HSI
rS	LA417	1.0	1.000
rS	LA624	1.0	0.894
rS	LI72	1.0	1.000
Overall:		3.0	0.965

Study: SSEL2104 Model: SONG SPARROW--REPRODUCTION 2-01-1988

CoverType	SubArea	Area	HSI
rS	LA417	1.0	0.837
rS	LA624	1.0	0.894
rS	LI72	1.0	0.837
Overall:		3.0	0.856

Study name: SSEL2104 2-01-1988

HSI Values For The Entire Study Area:

	Area	HSI
SONG SPARROW--FOOD	3.0	1.000
SONG SPARROW--COVER	3.0	0.965
SONG SPARROW--REPRODUCTION	3.0	0.856

Study: SSEL2104 2-01-1988

Model: SONG SPARROW--FOOD

CoverType: rS SubArea: LA417

LEV 2	LEV 1
VHTSHO2	grf--HSI
1.70	1.000

Study: SSEL2104 2-01-1988

Model: SONG SPARROW--FOOD

CoverType: rS SubArea: LA624

LEV 2	LEV 1
VHTSHO2	grf--HSI
3.19	1.000

Study: SSEL2104 2-01-1988

Model: SONG SPARROW--FOOD

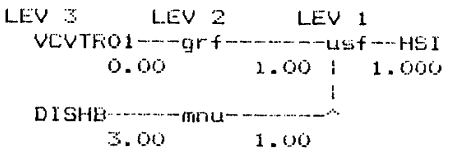
CoverType: rS SubArea: LI72

LEV 2	LEV 1
VHTSHO2	grf--HSI
1.69	1.000

Study: SSEL2104 2-01-1988

Model: SONG SPARROW--COVER

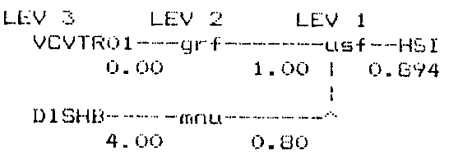
CoverType: rS SubArea: LA417



Study: SSEL2104 2-01-1988

Model: SONG SPARROW--COVER

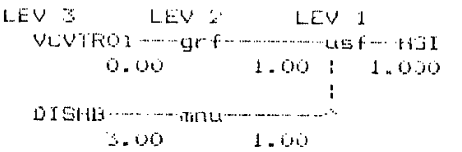
CoverType: rS SubArea: LA624



Study: SSEL2104 2-01-1988

Model: SONG SPARROW--COVER

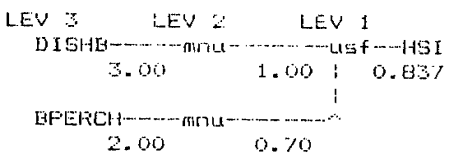
CoverType: rS SubArea: LI72



Study: SSEL2104 2-01-1988

Model: SONG SPARROW--REPRODUCTION

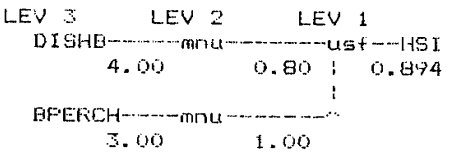
CoverType: rS SubArea: LA417



Study: SSEL2104 2-01-1988

Model: SONG SPARROW--REPRODUCTION

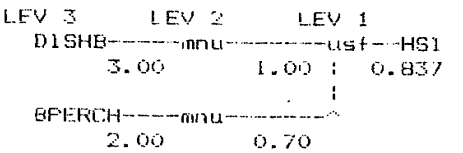
CoverType: rS SubArea: LA624



Study: SSEL2104 2-01-1988

Model: SONG SPARROW--REPRODUCTION

CoverType: rS SubArea: LI72



APPENDIX G.7

WESTERN MEADOWLARK

Library: C:CWRP.HLB
1-14-1988

Model # 3 Single covertype model.
Model name: WESTERN MEADOWLARK
Verification level: EXPERT REVIEW
Creation/modification date: 1-14-1988

SCHROEDER, R. L., AND P.J. SOUSA. 1982. HABITAT SUITABILITY INDEX MODELS: EASTERN MEADOWLARK. U.S. FISH WILDL. SERV. BIOL. REP. FWS/OBS-82/10.29. 9 PP.
Applies to breeding habitat.
Range: throughout the breeding range of the species.

Covertypes:
AP : Pasture or hayland
UG : Grassland
rUG : riparian grassland

```
                    Lev 3    Lev 2    Lev 1
                     VCVHE01--grf------usf--HSI
                     VRCGR01--grf-------!
                     VHTHE03--grf-------!
                     SDIPS01--grf-------!
                     VCVSH01--grf-------^
```

Habitat variables:
SDIPS01 : Mean distance to a perch site (e.g. tall plant, post, wire) (m,n)
VCVHE01 : Percent canopy cover of herbs (non-woody plants: grasses & forbs) (%)
VCVSH01 : Percent canopy cover of shrubs (i.e., all woody plants (6m tall) (%)
VHTHE03 : Mean height of herbaceous canopy during spring (cm)
VRCGR01 : % of herbaceous canopy cover that is grasses (%)

GRAPH FUNCTION at level 2, position 1
Title: % HERBACEOUS CANOPY COVER
X: 0.000, Y: 0.000
X: 20.000, Y: 0.000
X: 90.000, Y: 1.000
X: 100.000, Y: 1.000

GRAPH FUNCTION at level 2, position 2
Title: % OF HERB. CANOPY COVER THAT IS GRASS
X: 0.000, Y: 0.000
X: 20.000, Y: 0.000
X: 80.000, Y: 1.000
X: 100.000, Y: 1.000

GRAPH FUNCTION at level 2, position 3

Title: AVG. HEIGHT HERB. CANOPY SPRING/E.SUMMER

X:	0.000,	Y:	0.000
X:	2.500,	Y:	0.000
X:	12.500,	Y:	1.000
X:	35.000,	Y:	1.000
X:	76.000,	Y:	0.000
X:	80.000,	Y:	0.000

GRAPH FUNCTION at level 2, position 4

Title: DISTANCE TO PERCH SITE (M)

X:	0.000,	Y:	1.000
X:	30.000,	Y:	1.000
X:	60.000,	Y:	0.200
X:	100.000,	Y:	0.200

GRAPH FUNCTION at level 2, position 5

Title: % SHRUB CROWN COVER

X:	0.000,	Y:	1.000
X:	5.000,	Y:	1.000
X:	35.000,	Y:	0.000
X:	40.000,	Y:	0.000

USER-SPECIFIED FUNCTION at level 1, position 1

USUB = SQR (X(1)*X(2)*X(3)*X(4)) * X(5)

Comments:

(none)

WMMSE005 HABITAT DATA 1-28-1988

MAINSTEM EAST
HABITAT: GRASSLAND
SPECIES: WESTERN MEADOWLARK

	COVER TYPE / SUB-AREA:		
	UG	UG	UG
VARIABLE:	LA252	LI318	LI829
SDIPS01	27.700	5.600	4.933
VCVHE01	60.000	38.000	51.000
VCVSH01	0.000	2.500	4.300
VHTHE03	36.500	12.300	47.833
VRCGR01	95.000	66.800	96.833

Study: WMMSE005 Model: WESTERN MEADOWLARK 1-28-1988

CoverType	SubArea	Area	HSI
UG	LA252	1.0	0.742
UG	LI318	1.0	0.443
UG	LI829	1.0	0.552
Overall:		3.0	0.579

Study name: WMMSE005 1-28-1988

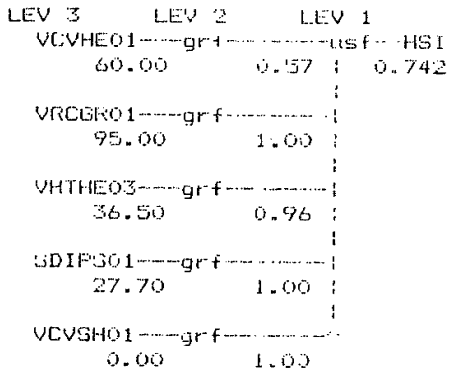
HSI Values For The Entire Study Area:

	Area	HSI
WESTERN MEADOWLARK	3.0	0.579

Study: WMMSE005 1-28-1988

Model: WESTERN MEADOWLARK

CoverType: UG SubArea: LA252

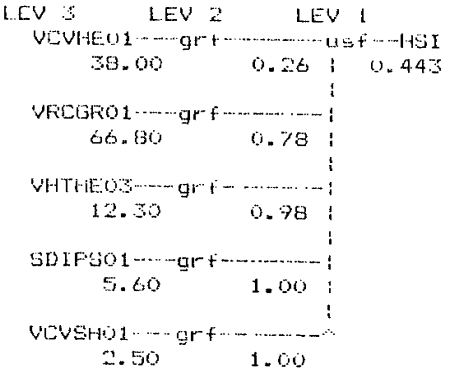


G/7-5

Study: WMMSE005 1-28-1988

Model: WESTERN MEADOWLARK

CoverType: UG SubArea: LI318

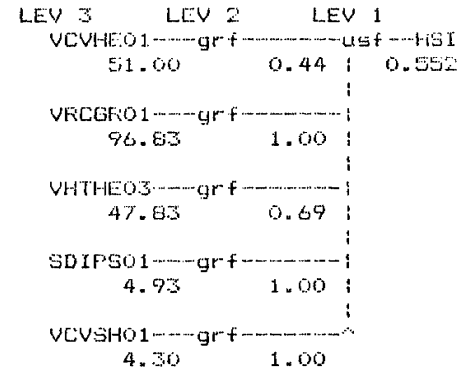


1-23-1988

Study: WMMSE005 1-28-1988

Model: WESTERN MEADOWLARK

CoverType: UG SubArea: LI829



WMMSE105 HABITAT DATA 2-02-1988

MAINSTEM EAST
HABITAT: RIPARIAN GRASSLAND
SPECIES: WESTERN MEADOWLARK

	COVER TYPE / SUB-AREA:	
	rUG	rUG
VARIABLE:	LA819	LA862
SDIPS01	1.300	5.150
VCVHE01	75.500	43.500
VCVSH01	0.700	0.600
VHTHE03	54.300	8.850
VRCGR01	89.000	58.500

Study: WMMSE105 Model: WESTERN MEADOWLARK 2-02-1988

CoverType	SubArea	Area	HSI
rUG	LA819	1.0	0.648
rUG	LA862	1.0	0.370
Overall:		2.0	0.509

Study name: WMMSE105 2-02-1988

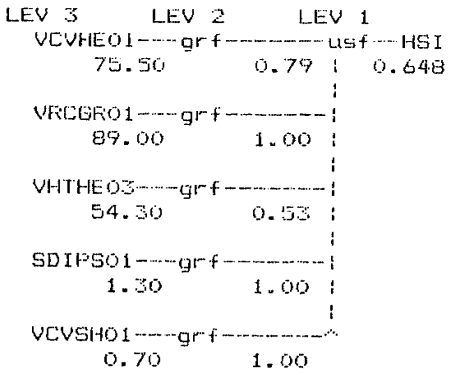
HSI Values For The Entire Study Area:

	Area	HSI
WESTERN MEADOWLARK	2.0	0.509

Study: WMMSE105 2-02-1988

Model: WESTERN MEADOWLARK

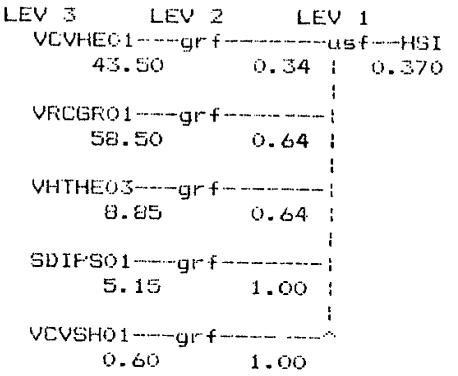
CoverType: rUG SubArea: LA819



Study: WMMSE105 2-02-1988

Model: WESTERN MEADOWLARK

CoverType: rUG SubArea: LA862



WMMSN005 HABITAT DATA 1-28-1988

MAINSTEM NORTH
HABITAT: GRASSLAND
SPECIES: WESTERN MEADOWLARK

	COVER TYPE / SUB-AREA:		
	UG	UG	UG
VARIABLE:	LI298	LI316	PO276
SDIPS01	5.400	1.533	6.400
VCVHE01	24.700	43.000	84.500
VCVSH01	7.200	3.100	0.600
VHTHE03	32.100	28.400	34.300
VRCGR01	95.000	76.500	86.000

Study: WMMSN005 Model: WESTERN MEADOWLARK 1-28-1988

CoverType	SubArea	Area	HSI
UG	LI298	1.0	0.240
UG	LI316	1.0	0.556
UG	PO276	1.0	0.960
Overall:		3.0	0.585

Study name: WMMSN005 1-28-1988

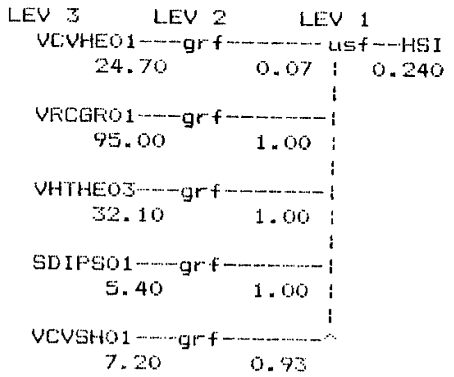
HSI Values For The Entire Study Area:

	Area	HSI
WESTERN MEADOWLARK	3.0	0.585

Study: WMMSN005 1-28-1988

Model: WESTERN MEADOWLARK

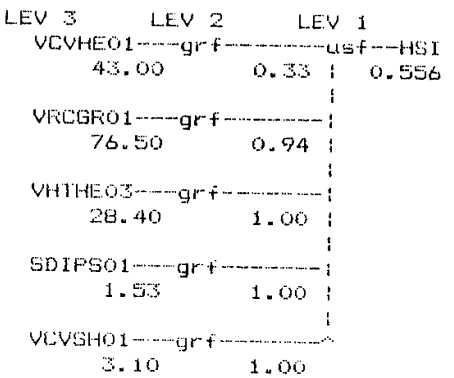
CoverType: UG SubArea: LI298



Study: WMMSN005 1-28-1988

Model: WESTERN MEADOWLARK

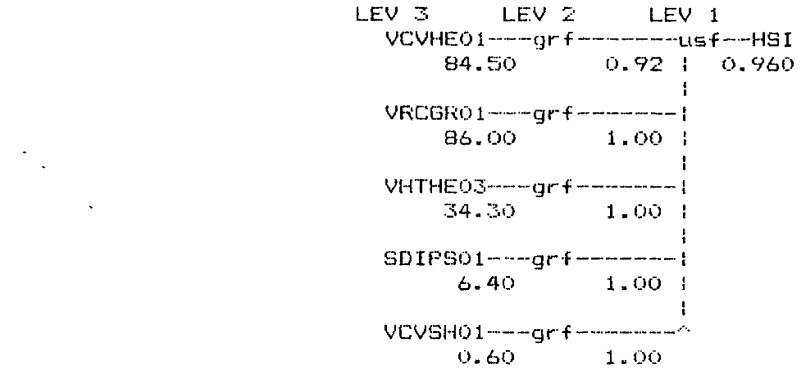
CoverType: UG SubArea: LI316



Study: WMMSN005 1-28-1988

Model: WESTERN MEADOWLARK

CoverType: UG SubArea: P0276



WMMSN105 HABITAT DATA 1-28-1988

MAINSTEM NORTH
HABITAT: RIPARIAN GRASSLAND
SPECIES: WESTERN MEADOWLARK

	COVER TYPE / SUB-AREA: rUG
VARIABLE:	LI399
SDIPS01	2.000
VCVHE01	72.500
VCVSH01	0.000
VHTHE03	31.250
VRCGR01	89.000

Study: WMMSN105 Model: WESTERN MEADOWLARK 1-28-1988

CoverType	SubArea	Area	HSI
rUG	LI399	1.0	0.866
Overall:		1.0	0.866

Study name: WMMSN105 1-28-1988

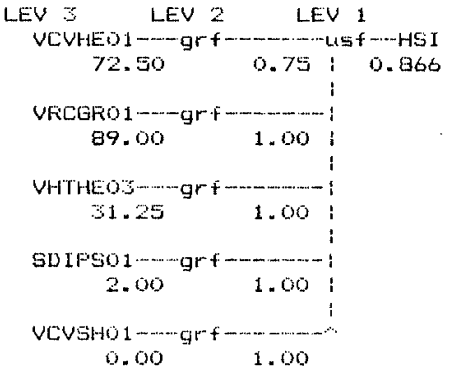
HSI Values For The Entire Study Area:

	Area	HSI
WESTERN MEADOWLARK	1.0	0.866

Study: WMMSN105 1-28-1988

Model: WESTERN MEADOWLARK

CoverType: rUG SubArea: LI399



WMMSS005 HABITAT DATA 1-28-1988

MAINSTEM SOUTH
HABITAT: GRASSLAND
SPECIES: WESTERN MEADOWLARK

	COVER TYPE / SUB-AREA:		
	UG	UG	UG
VARIABLE:	LA1114	LA983	PO304
SDIPS01	0.767	3.100	3.300
VCVHE01	24.367	88.000	71.500
VCVSH01	3.167	5.400	3.800
VHTHE03	23.833	31.500	38.500
VRCGR01	85.833	81.000	68.000

Study: WMMSS005 Model: WESTERN MEADOWLARK 1-28-1988

CoverType	SubArea	Area	HSI
UG	LA1114	1.0	0.250
UG	LA983	1.0	0.972
UG	P0304	1.0	0.734
Overall:		3.0	0.652

Study name: WMMSS005 1-28-1988

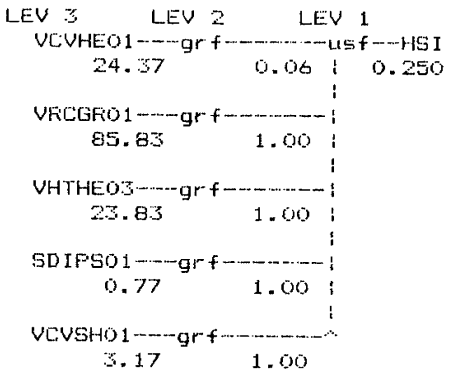
HSI Values For The Entire Study Area:

	Area	HSI
WESTERN MEADOWLARK	3.0	0.652

Study: WMMSS005 1-28-1988

Model: WESTERN MEADOWLARK

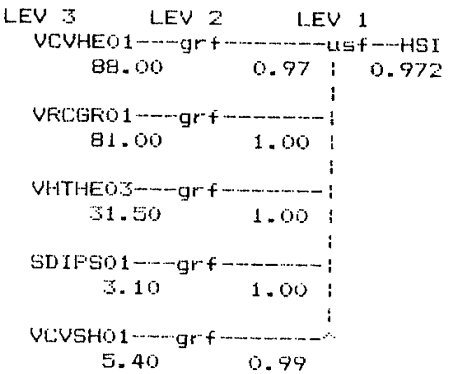
CoverType: UG SubArea: LA1114



Study: WMMSS005 1-28-1988

Model: WESTERN MEADOWLARK

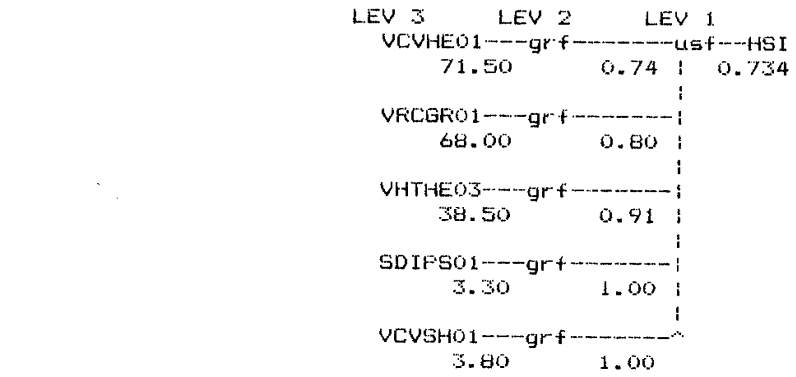
CoverType: UG SubArea: LA983



Study: WMMSS005 1-28-1988

Model: WESTERN MEADOWLARK

CoverType: UG SubArea: P0304



WMEL1005 HABITAT DATA 1-28-1988

ELEVATION 1
HABITAT: GRASSLAND
SPECIES: WESTERN MEADOWLARK

	COVER TYPE / SUB-AREA:		
	UG	UG	UG
VARIABLE:	LA375	LA472	LI60
SDIFS01	15.400	8.800	26.500
VCVHE01	27.778	36.000	41.833
VCVSH01	1.400	4.900	0.767
VHTHE03	33.000	19.900	23.700
VRCGR01	83.333	70.000	69.833

Study: WMEL1005 Model: WESTERN MEADOWLARK 1-28-1988

CoverType	SubArea	Area	HSI
UG	LA375	1.0	0.333
UG	LA472	1.0	0.436
UG	LI60	1.0	0.509
Overall:		3.0	0.426

Study name: WMEL1005 1-28-1988

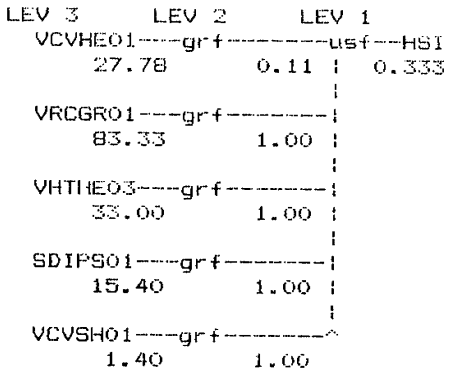
HSI Values For The Entire Study Area:

	Area	HSI
WESTERN MEADOWLARK	3.0	0.426

Study: WMEL1005 1-28-1988

Model: WESTERN MEADOWLARK

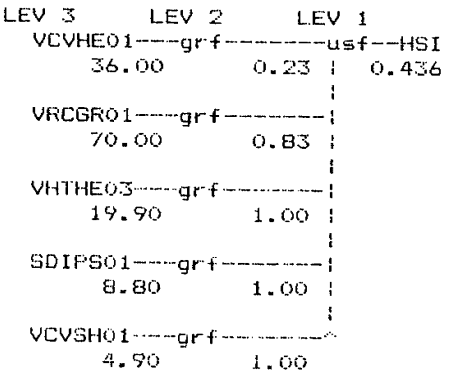
CoverType: UG SubArea: LA375



Study: WMEL1005 1-28-1988

Model: WESTERN MEADOWLARK

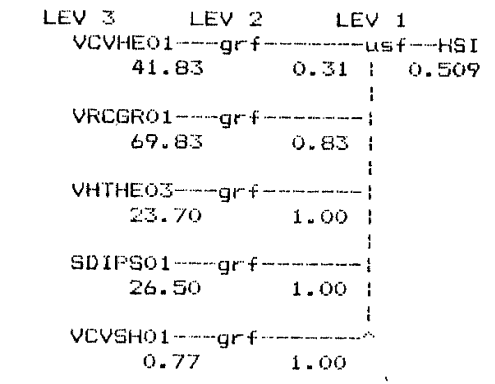
CoverType: UG SubArea: LA472



Study: WMEL1005 1-28-1988

Model: WESTERN MEADOWLARK

CoverType: UG SubArea: LI60



WMEL1006 HABITAT DATA 1-28-1988

ELEVATION 1
HABITAT: AGRICULTURE PASTURE/HAYLAND
SPECIES: WESTERN MEADOWLARK

	COVER TYPE / SUB-AREA:		
	AP	AP	AP
VARIABLE:	LA112	LA1171	LA298
SDIPS01	19.000	133.333	32.578
VCVHE01	93.000	84.500	63.667
VCVSH01	0.000	0.000	0.000
VHTHE03	55.500	15.500	45.167
VRCGR01	97.000	0.500	33.333

Study: WMEL1006 Model: WESTERN MEADOWLARK 1-28-1988

CoverType	SubArea	Area	HSI
AP	LA112	1.0	0.707
AP	LA1171	1.0	0.000
AP	LA298	1.0	0.312
Overall:		3.0	0.340

Study name: WMEL1006 1-28-1988

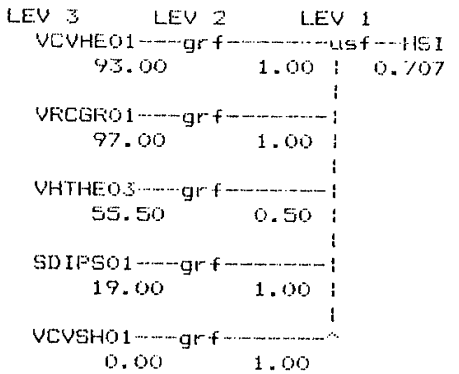
HSI Values For The Entire Study Area:

	Area	HSI
WESTERN MEADOWLARK	3.0	0.340

Study: WMEL1006 1-28-1988

Model: WESTERN MEADOWLARK

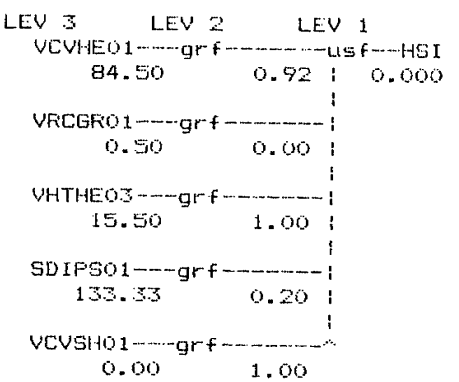
CoverType: AP SubArea: LA112



Study: WMEL1006 1-28-1988

Model: WESTERN MEADOWLARK

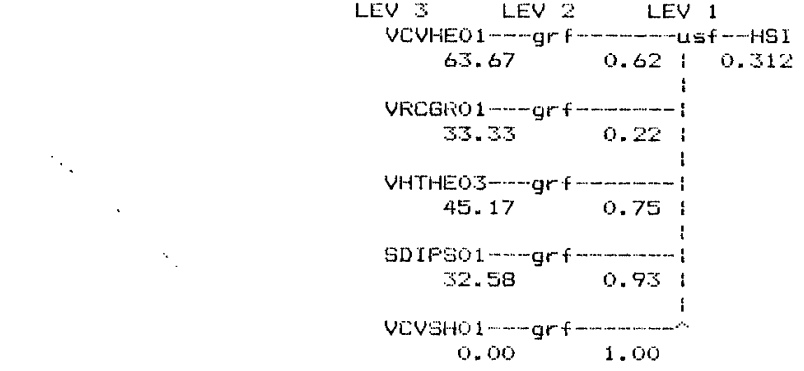
CoverType: AP SubArea: LA1171



Study: WMEL1006 1-28-1988

Model: WESTERN MEADOWLARK

CoverType: AP SubArea: LA298



WMEL2005 HABITAT DATA 1-28-1988

ELEVATION 2
HABITAT: GRASSLAND
SPECIES: WESTERN MEADOWLARK

	COVER TYPE / SUB-AREA:		
	UG	UG	UG
VARIABLE:	LA510	LA554	LA769
SDIPS01	3.267	0.200	5.200
VCVHE01	39.567	56.500	53.500
VCVSH01	7.067	2.800	2.900
VHTHE03	17.000	22.000	25.500
VRCGR01	70.667	74.500	86.500

Study: WMEL2005 Model: WESTERN MEADOWLARK 1-28-1988

CoverType	SubArea	Area	HSI
UG	LA510	1.0	0.452
UG	LA554	1.0	0.688
UG	LA769	1.0	0.692
Overall:		3.0	0.611

Study name: WMEL2005 1-28-1988

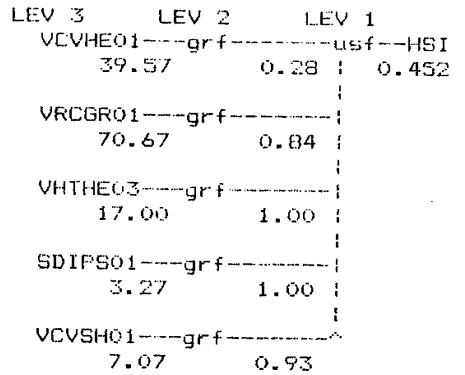
HSI Values For The Entire Study Area:

	Area	HSI
WESTERN MEADOWLARK	3.0	0.611

Study: WMEL2005 1-28-1988

Model: WESTERN MEADOWLARK

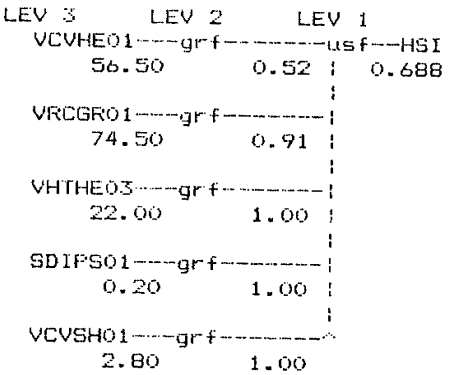
CoverType: UG SubArea: LAS10



Study: WMEL2005 1-28-1988

Model: WESTERN MEADOWLARK

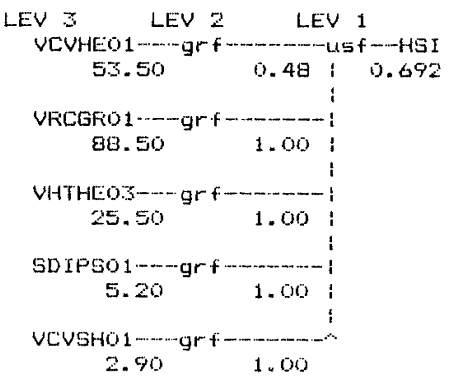
CoverType: UG SubArea: LA554



Study: WMEL2005 1-28-1988

Model: WESTERN MEADOWLARK

CoverType: UG SubArea: LA769



WMEL3005 HABITAT DATA 1-28-1988

ELEVATION 3
HABITAT: GRASSLAND
SPECIES: WESTERN MEADOWLARK

	COVER TYPE / SUB-AREA:			
	UG	UG	UG	UG
VARIABLE:	LA629	LA637	PO118	PO207
SDIPS01	9.800	3.800	14.333	2.900
VCVHE01	81.000	76.500	72.833	34.500
VCVSH01	0.000	3.800	0.000	0.900
VHTHE03	29.500	25.500	26.833	29.000
VRCGR01	66.000	88.000	79.500	59.000

Study: WMEL3005 Model: WESTERN MEADOWLARK 2-02-1988

CoverType	SubArea	Area	HSI
UG	LA629	1.0	0.817
UG	LA637	1.0	0.878
UG	P0118	1.0	0.865
UG	P0207	1.0	0.367
Overall:		4.0	0.737

Study name: WMEL3005 2-02-1988

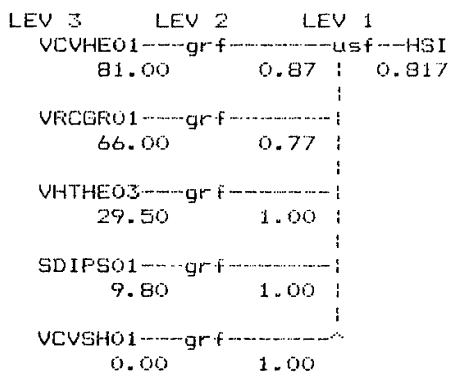
HSI Values For The Entire Study Area:

	Area	HSI
WESTERN MEADOWLARK	4.0	0.737

Study: WMEL3005 2-02-1988

Model: WESTERN MEADOWLARK

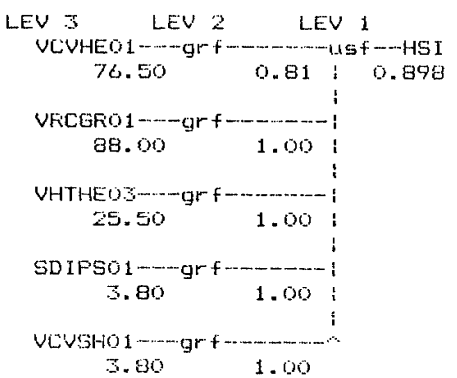
CoverType: UG SubArea: LA629



Study: WMEL3005 2-02-1988

Model: WESTERN MEADOWLARK

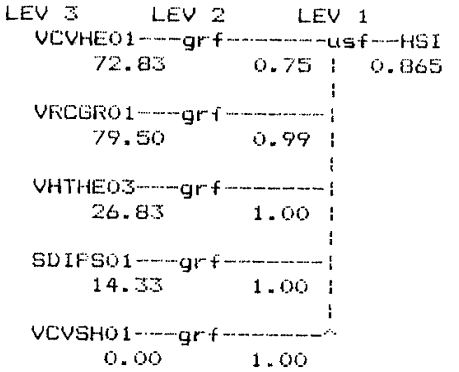
CoverType: UG SubArea: LA637



Study: WMEL3005 2-02-1988

Model: WESTERN MEADOWLARK

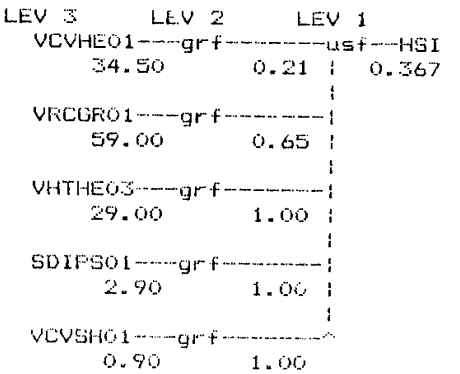
CoverType: UG SubArea: P0118



Study: WMEL3005 2-02-1988

Model: WESTERN MEADOWLARK

CoverType: UG SubArea: P0207



APPENDIX H
HEP ACCOUNTING

APPENDIX H.1

ABERT'S SQUIRREL
SONG SPARROW
BLACK-CAPPED CHICKADEE
WESTERN MEADOWLARK

GREY MOUNTAIN & POUDRE--TY12 (2005)
WITH-PROJECT & WITHOUT-PROJECT---ELEVATION 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark ^	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	0.00		0.00		0.00		0.00		0.00
open canopy conifer	31.57	0.000	0.00		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	2364.48		0.00		0.00		0.00		0.00
grassland	5625.43		0.00		0.00		0.00	0.426	2396.43
rock and talus	32.43		0.00		0.00		0.00		0.00
agriculture	893.19		0.00		0.00		0.00	0.340	303.68
developed	94.26		0.00		0.00		0.00		0.00
disturbed	757.96		0.00		0.00		0.00		0.00
riparian forest	168.29		0.00	0.655	110.23	0.200	33.66		0.00
riparian shrub	27.45		0.00	0.795	21.82		0.00		0.00
riparian grassland	2.46		0.00		0.00		0.00	0.509	1.25
palustrine marsh	46.18		0.00		0.00		0.00		0.00
palustrine pond	52.14		0.00		0.00		0.00		0.00
riverine	18.62		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	10114.46		0.00		132.05		33.66		2701.37

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* Abert's Squirrel, Song Sparrow and Black-capped Chickadee limiting life requisites change
^ riparian grassland HSI for western meadowlark from Mainstem East

GREY MOUNTAIN & POUDRE--TY50 (2043)
WITH-PROJECT & WITHOUT-PROJECT---GLADE

Community Type	Acreage	Abert's Squirrel #		Song Sparrow #		Black-capped Chickadee #		Western Meadowlark ^	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	0.00		0.00		0.00		0.00		0.00
open canopy conifer	31.57	0.000	0.00		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	2364.48		0.00		0.00		0.00		0.00
grassland	5625.43		0.00		0.00		0.00	0.426	2396.43
rock and talus	32.43		0.00		0.00		0.00		0.00
agriculture	893.19		0.00		0.00		0.00	0.340	303.68
developed	94.26		0.00		0.00		0.00		0.00
disturbed	757.96		0.00		0.00		0.00		0.00
riparian forest	168.29		0.00	0.655	110.23	0.200	33.66		0.00
riparian shrub	27.45		0.00	0.795	21.82		0.00		0.00
riparian grassland	2.46		0.00		0.00		0.00	0.509	1.25
palustrine marsh	46.18		0.00		0.00		0.00		0.00
palustrine pond	52.14		0.00		0.00		0.00		0.00
riverine	18.62		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	10114.46		0.00		132.05		33.66		2701.37

Abert's Squirrel, Song Sparrow and Black-capped Chickadee limiting life requisites change
^ riparian grassland HSI for western meadowlark from Mainstem East

GREY MOUNTAIN & POUDRE---WITH-PROJECT & WITHOUT-PROJECT
ELEVATION 1--AAHU SUMMARY

Community Type	Abert's Squirrel				Song Sparrow				Black-capped Chickadee				Western Meadowlark			
	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total
closed canopy conifer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
open canopy conifer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2396.43	26360.76	91064.46	2396.43
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	303.68	3340.53	11540.01	303.68
developed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian forest	0.00	0.00	0.00	0.00	110.23	1212.53	4188.74	110.23	33.66	370.24	1279.00	33.66	0.00	0.00	0.00	0.00
riparian shrub	0.00	0.00	0.00	0.00	21.82	240.05	829.26	21.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25	13.77	47.58	1.25
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	0.00	0.00	0.00	0.00	132.05	1452.58	5018.00	132.05	33.66	370.24	1279.00	33.66	2701.37	29715.07	102652.0	2701.37
			check	0.00			check	132.05			check	33.66			check	2701.37

ELEVATION 1	HSI*AAHU's			
Community Type	Abert's Squirrel	Song Sparrow	Chickadee	Meadowlark
closed canopy conifer	0.00	0.00	0.00	0.00
open canopy conifer	0.00	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	1020.88
rock and talus	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	103.25
developed	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00
riparian forest	0.00	72.20	6.73	0.00
riparian shrub	0.00	17.35	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.64
palustrine marsh	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00
TOTALS	0.00	89.55	6.73	1124.77
AVERAGE HSI FOR ELEVATION 1	ERR	0.68	0.20	0.42

TARGET YEAR ACREAGES AND HSIs
CACHE LA POUDRE DAM ORIGINAL IMPACTS

GREY MOUNTAIN & POUDRE--TYO (1993)
WITH-PROJECT & WITHOUT-PROJECT---ELEVATION BAND 2

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	2198.54	0.206	452.90		0.00	0.333	732.11		0.00
open canopy conifer	3080.79	0.143	440.55		0.00	0.000	0.00		0.00
Pinyon Pine forest	178.26		0.00		0.00		0.00		0.00
mountain shrub	8195.28		0.00		0.00		0.00		0.00
grassland	3446.71		0.00		0.00		0.00	0.611	2105.94
rock and talus	127.66		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	28.76		0.00		0.00		0.00		0.00
disturbed	61.08		0.00		0.00		0.00		0.00
riparian forest	93.23		0.00	0.669	62.37	0.320	29.83		0.00
riparian shrub	69.05		0.00	0.856	59.11		0.00		0.00
riparian grassland	1.49		0.00		0.00		0.00	0.600	0.89
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.80		0.00		0.00		0.00		0.00
riverine	11.69		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	17493.34		893.45		121.48		761.95		2106.83

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* Abert's Squirrel, Song Sparrow and Black-capped Chickadee limiting life requisites change

GREY MOUNTAIN & POUDRE--TY1 (1994)
WITH-PROJECT & WITHOUT-PROJECT---ELEVATION BAND 2

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	2198.54	0.206	452.90		0.00	0.333	732.11		0.00
open canopy conifer	3080.79	0.143	440.55		0.00	0.000	0.00		0.00
Pinyon Pine forest	178.26		0.00		0.00		0.00		0.00
mountain shrub	8195.28		0.00		0.00		0.00		0.00
grassland	3446.71		0.00		0.00		0.00	0.611	2105.94
rock and talus	127.66		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	28.76		0.00		0.00		0.00		0.00
disturbed	61.08		0.00		0.00		0.00		0.00
riparian forest	93.23		0.00	0.669	62.37	0.320	29.83		0.00
riparian shrub	69.05		0.00	0.856	59.11		0.00		0.00
riparian grassland	1.49		0.00		0.00		0.00	0.600	0.89
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.80		0.00		0.00		0.00		0.00
riverine	11.69		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	17493.34		893.45		121.48		761.95		2106.83

* Abert's Squirrel, Song Sparrow and Black-capped Chickadee limiting life requisites change

GREY MOUNTAIN & POUDRE--TY12 (2005)
WITH-PROJECT & WITHOUT-PROJECT---ELEVATION BAND 2

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	2198.54	0.206	452.90		0.00	0.333	732.11		0.00
open canopy conifer	3080.79	0.143	440.55		0.00	0.000	0.00		0.00
Pinyon Pine forest	178.26		0.00		0.00		0.00		0.00
mountain shrub	8195.28		0.00		0.00		0.00		0.00
grassland	3446.71		0.00		0.00		0.00	0.611	2105.94
rock and talus	127.66		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	28.76		0.00		0.00		0.00		0.00
disturbed	61.08		0.00		0.00		0.00		0.00
riparian forest	93.23		0.00	0.669	62.37	0.320	29.83		0.00
riparian shrub	69.05		0.00	0.856	59.11		0.00		0.00
riparian grassland	1.49		0.00		0.00		0.00	0.600	0.89
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.80		0.00		0.00		0.00		0.00
riverine	11.69		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	17493.34		893.45		121.48		761.95		2106.83

* Abert's Squirrel, Song Sparrow and Black-capped Chickadee limiting life requisites change

GREY MOUNTAIN & POUDRE--TY50 (2043)
WITH-PROJECT & WITHOUT-PROJECT---ELEVATION BAND 2

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	2198.54	0.206	452.90		0.00	0.333	732.11		0.00
open canopy conifer	3080.79	0.143	440.55		0.00	0.000	0.00		0.00
Pinyon Pine forest	178.26		0.00		0.00		0.00		0.00
mountain shrub	8195.28		0.00		0.00		0.00		0.00
grassland	3446.71		0.00		0.00		0.00	0.611	2105.94
rock and talus	127.66		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	28.76		0.00		0.00		0.00		0.00
disturbed	61.08		0.00		0.00		0.00		0.00
riparian forest	93.23		0.00	0.669	62.37	0.320	29.83		0.00
riparian shrub	69.05		0.00	0.856	59.11		0.00		0.00
riparian grassland	1.49		0.00		0.00		0.00	0.600	0.89
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.80		0.00		0.00		0.00		0.00
riverine	11.69		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	17493.34		893.45		121.48		761.95		2106.83

* Abert's Squirrel, Song Sparrow and Black-capped Chickadee limiting life requisites change

GREY MOUNTAIN & POUDRE---WITH-PROJECT & WITHOUT-PROJECT
ELEVATION BAND 2--AAHU SUMMARY

Community Type	Abert's Squirrel				Song Sparrow				Black-capped Chickadee				Western Meadowlark			
	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total
closed canopy conifer	452.90	4981.89	17210.17	452.90	0.00	0.00	0.00	0.00	732.11	8053.25	27820.33	732.11	0.00	0.00	0.00	0.00
open canopy conifer	440.55	4846.08	16741.01	440.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2105.94	23165.34	80025.71	2105.94
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian forest	0.00	0.00	0.00	0.00	62.37	686.08	2370.09	62.37	29.83	328.17	1133.68	29.83	0.00	0.00	0.00	0.00
riparian shrub	0.00	0.00	0.00	0.00	59.11	650.17	2246.06	59.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89	9.83	33.97	0.89
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	893.45	9827.97	33951.18	893.45	121.48	1336.25	4616.15	121.48	761.95	8381.42	28954.00	761.95	2106.83	23175.17	80059.68	2106.83
			check	893.45			check	121.48			check	761.95			check	2106.83

ELEVATION BAND 2	HSI*AAHU'S			
Community Type	Abert's Squirrel	Song Sparrow	Chickadee	Meadowlark
closed canopy conifer	93.30	0.00	243.79	0.00
open canopy conifer	63.00	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	1286.73
rock and talus	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00
riparian forest	0.00	41.73	9.55	0.00
riparian shrub	0.00	50.60	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.54
palustrine marsh	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00
TOTALS	156.30	92.32	253.34	1287.27
AVERAGE HSI FOR ELEVATION 2	0.17	0.76	0.33	0.61

TARGET YEAR ACREAGES AND HSIs
CACHE LA POUDRE DAM ORIGINAL IMPACTS

GREY MOUNTAIN & POUDRE--TY0 (1993)
WITH-PROJECT & WITHOUT-PROJECT---ELEVATION BAND 3

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	2345.52	0.000	0.00		0.00	0.750	1759.14		0.00
open canopy conifer	2497.76	0.157	392.15		0.00	0.525	1311.32		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	1232.58		0.00		0.00		0.00		0.00
grassland	324.66		0.00		0.00		0.00	0.737	239.27
rock and talus	15.13		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	0.00		0.00		0.00		0.00		0.00
disturbed	0.00		0.00		0.00		0.00		0.00
riparian forest	4.18		0.00	0.669	2.80	0.320	1.34		0.00
riparian shrub	0.23		0.00	0.856	0.20		0.00		0.00
riparian grassland	0.00		0.00		0.00		0.00		0.00
palustrine marsh	7.28		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	6427.34		392.15		2.99		3071.80		239.27

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* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change
# HSI's for riparian habitats are from elevation band 2

GREY MOUNTAIN & POUDRE--TY1 (1994)
WITH-PROJECT & WITHOUT-PROJECT---ELEVATION BAND 3

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	2345.52	0.000	0.00		0.00	0.750	1759.14		0.00
open canopy conifer	2497.76	0.157	392.15		0.00	0.525	1311.32		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	1232.58		0.00		0.00		0.00		0.00
grassland	324.66		0.00		0.00		0.00	0.737	239.27
rock and talus	15.13		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	0.00		0.00		0.00		0.00		0.00
disturbed	0.00		0.00		0.00		0.00		0.00
riparian forest	4.18		0.00	0.669	2.80	0.320	1.34		0.00
riparian shrub	0.23		0.00	0.856	0.20		0.00		0.00
riparian grassland	0.00		0.00		0.00		0.00		0.00
palustrine marsh	7.28		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	6427.34		392.15		2.99		3071.80		239.27

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* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change
* HSI's for riparian habitats are from elevation band 2

GREY MOUNTAIN & POUDRE--TY12 (2005)
WITH-PROJECT & WITHOUT-PROJECT---ELEVATION BAND 3

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	2345.52	0.000	0.00		0.00	0.750	1759.14		0.00
open canopy conifer	2497.76	0.157	392.15		0.00	0.525	1311.32		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	1232.58		0.00		0.00		0.00		0.00
grassland	324.66		0.00		0.00		0.00	0.737	239.27
rock and talus	15.13		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	0.00		0.00		0.00		0.00		0.00
disturbed	0.00		0.00		0.00		0.00		0.00
riparian forest	4.18		0.00	0.669	2.80	0.320	1.34		0.00
riparian shrub	0.23		0.00	0.856	0.20		0.00		0.00
riparian grassland	0.00		0.00		0.00		0.00		0.00
palustrine marsh	7.28		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	6427.34		392.15		2.99		3071.80		239.27

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* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change
* HSI's for riparian habitats are from elevation band 2

GREY MOUNTAIN & POUDRE--TY50 (2043)
WITH-PROJECT & WITHOUT-PROJECT---ELEVATION BAND 3

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	2345.52	0.000	0.00		0.00	0.750	1759.14		0.00
open canopy conifer	2497.76	0.157	392.15		0.00	0.525	1311.32		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	1232.58		0.00		0.00		0.00		0.00
grassland	324.66		0.00		0.00		0.00	0.737	239.27
rock and talus	15.13		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	0.00		0.00		0.00		0.00		0.00
disturbed	0.00		0.00		0.00		0.00		0.00
riparian forest	4.18		0.00	0.669	2.80	0.320	1.34		0.00
riparian shrub	0.23		0.00	0.856	0.20		0.00		0.00
riparian grassland	0.00		0.00		0.00		0.00		0.00
palustrine marsh	7.28		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	6427.34		392.15		2.99		3071.80		239.27

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* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change
# HSI's for riparian habitats are from elevation band 2

GREY MOUNTAIN & POUDRE---WITH-PROJECT & WITHOUT-PROJECT
ELEVATION BAND 3--AAHU SUMMARY

Community Type	Abert's Squirrel				Song Sparrow				Black-capped Chickadee				Western Meadowlark			
	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total
closed canopy conifer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1759.14	19350.54	66847.32	1759.14	0.00	0.00	0.00	0.00
open canopy conifer	392.15	4313.63	14901.64	392.15	0.00	0.00	0.00	0.00	1311.32	14424.56	49830.31	1311.32	0.00	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	239.27	2632.02	9092.43	239.27
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian forest	0.00	0.00	0.00	0.00	2.80	30.76	106.26	2.80	1.34	14.71	50.83	1.34	0.00	0.00	0.00	0.00
riparian shrub	0.00	0.00	0.00	0.00	0.20	2.17	7.48	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	392.15	4313.63	14901.64	392.15	2.99	32.93	113.75	2.99	3071.80	33789.82	116728.4	3071.80	239.27	2632.02	9092.43	239.27
			check	392.15			check	2.99			check	3071.80			check	239.27

Community Type	HSI*AAHU's			
	Abert's Squirrel	Song Sparrow	Chickadee	Meadowlark
closed canopy conifer	0.00	0.00	1319.36	0.00
open canopy conifer	61.57	0.00	688.45	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	176.35
rock and talus	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00
riparian forest	0.00	1.87	0.43	0.00
riparian shrub	0.00	0.17	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00
palustrine marsh	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00
TOTALS	61.57	2.04	2008.23	176.35
AVERAGE HSI FOR ELEVATION 3	0.16	0.68	0.65	0.74

TARGET YEAR ACREAGES AND HSIs
CACHE LA POUDRE DAM ORIGINAL IMPACTS

GREY MOUNTAIN & POUDRE--TYO (1993)
WITH-PROJECT & WITHOUT-PROJECT---ELEVATION BAND 4

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	637.06	0.140	89.19		0.00	0.200	127.41		0.00
open canopy conifer	678.26	0.308	208.90		0.00	0.500	339.13		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	25.73		0.00		0.00		0.00		0.00
grassland	5.73		0.00		0.00		0.00	0.737	4.22
rock and talus	64.46		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	0.00		0.00		0.00		0.00		0.00
disturbed	0.00		0.00		0.00		0.00		0.00
riparian forest	0.00		0.00	0.669	0.00	0.320	0.00		0.00
riparian shrub	0.00		0.00	0.856	0.00		0.00		0.00
riparian grassland	0.00		0.00		0.00		0.00		0.00
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	1411.24		298.09		0.00		466.54		4.22

* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change

GREY MOUNTAIN & POUDRE--TY1 (1994)
WITH-PROJECT & WITHOUT-PROJECT---ELEVATION BAND 4

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	637.06	0.140	89.19		0.00	0.200	127.41		0.00
open canopy conifer	678.26	0.308	208.90		0.00	0.500	339.13		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	25.73		0.00		0.00		0.00		0.00
grassland	5.73		0.00		0.00		0.00	0.737	4.22
rock and talus	64.46		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	0.00		0.00		0.00		0.00		0.00
disturbed	0.00		0.00		0.00		0.00		0.00
riparian forest	0.00		0.00	0.669	0.00	0.320	0.00		0.00
riparian shrub	0.00		0.00	0.856	0.00		0.00		0.00
riparian grassland	0.00		0.00		0.00		0.00		0.00
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	1411.24		298.09		0.00		466.54		4.22

* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change

GREY MOUNTAIN & POUDRE--TY12 (2005)
WITH-PROJECT & WITHOUT-PROJECT---ELEVATION BAND 4

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	637.06	0.140	89.19		0.00	0.200	127.41		0.00
open canopy conifer	678.26	0.308	208.90		0.00	0.500	339.13		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	25.73		0.00		0.00		0.00		0.00
grassland	5.73		0.00		0.00		0.00	0.737	4.22
rock and talus	64.46		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	0.00		0.00		0.00		0.00		0.00
disturbed	0.00		0.00		0.00		0.00		0.00
riparian forest	0.00		0.00	0.669	0.00	0.320	0.00		0.00
riparian shrub	0.00		0.00	0.856	0.00		0.00		0.00
riparian grassland	0.00		0.00		0.00		0.00		0.00
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	1411.24		298.09		0.00		466.54		4.22

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* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change

GREY MOUNTAIN & POUDRE--TY50 (2043)
WITH-PROJECT & WITHOUT-PROJECT---ELEVATION BAND 4

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	637.06	0.140	89.19		0.00	0.200	127.41		0.00
open canopy conifer	678.26	0.308	208.90		0.00	0.500	339.13		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	25.73		0.00		0.00		0.00		0.00
grassland	5.73		0.00		0.00		0.00	0.737	4.22
rock and talus	64.46		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	0.00		0.00		0.00		0.00		0.00
disturbed	0.00		0.00		0.00		0.00		0.00
riparian forest	0.00		0.00	0.669	0.00	0.320	0.00		0.00
riparian shrub	0.00		0.00	0.856	0.00		0.00		0.00
riparian grassland	0.00		0.00		0.00		0.00		0.00
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	1411.24		298.09		0.00		466.54		4.22

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* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change

GREY MOUNTAIN & POUDRE---WITH-PROJECT & WITHOUT-PROJECT
ELEVATION BAND 4--AAHU SUMMARY

Community Type	Abert's Squirrel				Song Sparrow				Black-capped Chickadee				Western Meadowlark			
	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total
closed canopy conifer	89.19	981.07	3389.16	89.19	0.00	0.00	0.00	0.00	127.41	1401.53	4841.66	127.41	0.00	0.00	0.00	0.00
open canopy conifer	208.90	2297.94	7938.36	208.90	0.00	0.00	0.00	0.00	339.13	3730.43	12886.94	339.13	0.00	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.22	46.45	160.47	4.22
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian shrub	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	298.09	3279.02	11327.51	298.09	0.00	0.00	0.00	0.00	466.54	5131.96	17728.60	466.54	4.22	46.45	160.47	4.22
			check	298.09			check	0.00			check	466.54			check	4.22

ELEVATION BAND 4

Community Type	HSI*AAHU's			
	Abert's Squirrel	Song Sparrow	Chickadee	Meadowlark
closed canopy conifer	12.49	0.00	25.48	0.00
open canopy conifer	64.34	0.00	169.57	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	3.11
rock and talus	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00
riparian forest	0.00	0.00	0.00	0.00
riparian shrub	0.00	0.00	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00
palustrine marsh	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00
TOTALS	76.83	0.00	195.05	3.11
AVERAGE HSI FOR ELEVATION 4	0.26	ERR	0.42	0.74

TARGET YEAR ACREAGES AND HSIs
CACHE LA POUDRE DAM ORIGINAL IMPACTS

GREY MOUNTAIN & POUDRE--TY0 (1993)
WITHOUT-PROJECT---MAINSTEM EAST ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	115.00	0.245	28.18		0.00	0.333	38.30		0.00
open canopy conifer	224.50	0.350	78.57		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	778.42		0.00		0.00		0.00		0.00
grassland	575.81		0.00		0.00		0.00	0.579	333.39
rock and talus	11.06		0.00		0.00		0.00		0.00
agriculture	74.26		0.00		0.00		0.00	0.340	25.25
developed	25.73		0.00		0.00		0.00		0.00
disturbed	61.48		0.00		0.00		0.00		0.00
riparian forest	36.39		0.00	0.698	25.40	0.187	6.80		0.00
riparian shrub	14.15		0.00	0.826	11.69		0.00		0.00
riparian grassland	7.45		0.00		0.00		0.00	0.509	3.79
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	1924.25		106.75		37.09		45.10		362.43

* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change

GREY MOUNTAIN & POUDRE--TY1 (1994)
WITHOUT-PROJECT---MAINSTEM EAST ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	115.00	0.245	28.18		0.00	0.333	38.30		0.00
open canopy conifer	224.50	0.350	78.57		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	778.42		0.00		0.00		0.00		0.00
grassland	575.81		0.00		0.00		0.00	0.579	333.39
rock and talus	11.06		0.00		0.00		0.00		0.00
agriculture	74.26		0.00		0.00		0.00	0.340	25.25
developed	25.73		0.00		0.00		0.00		0.00
disturbed	61.48		0.00		0.00		0.00		0.00
riparian forest	36.39		0.00	0.698	25.40	0.187	6.80		0.00
riparian shrub	14.15		0.00	0.826	11.69		0.00		0.00
riparian grassland	7.45		0.00		0.00		0.00	0.509	3.79
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	1924.25		106.75		37.09		45.10		362.43

* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change

GREY MOUNTAIN & POUDRE--TY12 (2005)
WITHOUT-PROJECT---MAINSTEM EAST ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	115.00	0.245	28.18		0.00	0.333	38.30		0.00
open canopy conifer	224.50	0.350	78.57		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	778.42		0.00		0.00		0.00		0.00
grassland	575.81		0.00		0.00		0.00	0.579	333.39
rock and talus	11.06		0.00		0.00		0.00		0.00
agriculture	74.26		0.00		0.00		0.00	0.340	25.25
developed	25.73		0.00		0.00		0.00		0.00
disturbed	61.48		0.00		0.00		0.00		0.00
riparian forest	36.39		0.00	0.698	25.40	0.187	6.80		0.00
riparian shrub	14.15		0.00	0.826	11.69		0.00		0.00
riparian grassland	7.45		0.00		0.00		0.00	0.509	3.79
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	1924.25		106.75		37.09		45.10		362.43

* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change

GREY MOUNTAIN & POUDRE--TY50 (2043)
WITHOUT-PROJECT---MAINSTEM EAST ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	115.00	0.245	28.18		0.00	0.333	38.30		0.00
open canopy conifer	224.50	0.350	78.57		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	778.42		0.00		0.00		0.00		0.00
grassland	575.81		0.00		0.00		0.00	0.579	333.39
rock and talus	11.06		0.00		0.00		0.00		0.00
agriculture	74.26		0.00		0.00		0.00	0.340	25.25
developed	25.73		0.00		0.00		0.00		0.00
disturbed	61.48		0.00		0.00		0.00		0.00
riparian forest	36.39		0.00	0.698	25.40	0.187	6.80		0.00
riparian shrub	14.15		0.00	0.826	11.69		0.00		0.00
riparian grassland	7.45		0.00		0.00		0.00	0.509	3.79
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	1924.25		106.75		37.09		45.10		362.43

* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change

GREY MOUNTAIN & POUDRE---WITHOUT-PROJECT
MAINSTEM EAST ELEVATION BAND 1--AAHU SUMMARY

Community Type	Abert's Squirrel				Song Sparrow				Black-capped Chickadee				Western Meadowlark			
	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total
closed canopy conifer	28.18	309.93	1070.65	28.18	0.00	0.00	0.00	0.00	38.30	421.25	1455.21	38.30	0.00	0.00	0.00	0.00
open canopy conifer	78.57	864.32	2985.85	78.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	333.39	3667.33	12668.97	333.39
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.25	277.73	959.44	25.25
developed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian forest	0.00	0.00	0.00	0.00	25.40	279.40	965.21	25.40	6.80	74.85	258.59	6.80	0.00	0.00	0.00	0.00
riparian shrub	0.00	0.00	0.00	0.00	11.69	128.57	444.14	11.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.79	41.71	144.10	3.79
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	106.75	1174.25	4056.50	106.75	37.09	407.97	1409.35	37.09	45.10	496.10	1713.80	45.10	362.43	3986.78	13772.51	362.43
			check	106.75			check	37.09			check	45.10			check	362.43

WITHOUT-PROJECT MAINSTEM EAST	HSI*AAHU's			
Community Type	Abert's Squirrel	Song Sparrow	Chickadee	Meadowlark
closed canopy conifer	6.90	0.00	12.75	0.00
open canopy conifer	27.50	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	193.04
rock and talus	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	8.58
developed	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00
riparian forest	0.00	17.73	1.27	0.00
riparian shrub	0.00	9.65	0.00	0.00
riparian grassland	0.00	0.00	0.00	1.93
palustrine marsh	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00
TOTALS	34.40	27.38	14.02	203.55
AVE HSI MSE--WITHOUT PROJECT	0.32	0.74	0.31	0.56

GREY MOUNTAIN--TY12 (2005)
WITH-PROJECT---MAINSTEM EAST ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	0.00	0.245	0.00		0.00	0.333	0.00		0.00
open canopy conifer	2.55	0.350	0.89		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	460.22		0.00		0.00		0.00		0.00
grassland	467.43		0.00		0.00		0.00	0.579	270.64
rock and talus	0.02		0.00		0.00		0.00		0.00
agriculture	74.26		0.00		0.00		0.00	0.340	25.25
developed	25.73		0.00		0.00		0.00		0.00
disturbed	26.06		0.00		0.00		0.00		0.00
riparian forest	21.20		0.00	0.698	14.80	0.187	3.96		0.00
riparian shrub	4.53		0.00	0.826	3.74		0.00		0.00
riparian grassland	1.34		0.00		0.00		0.00	0.509	0.68
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	841.43		0.00		0.00		0.00		0.00
TOTALS	1924.77		0.89		18.54		3.96		296.57

* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change

GREY MOUNTAIN--TY50 (2043)
WITH-PROJECT---MAINSTEM EAST ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	0.00	0.245	0.00		0.00	0.333	0.00		0.00
open canopy conifer	2.55	0.350	0.89		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	460.22		0.00		0.00		0.00		0.00
grassland	467.43		0.00		0.00		0.00	0.579	270.64
rock and talus	0.02		0.00		0.00		0.00		0.00
agriculture	74.26		0.00		0.00		0.00	0.340	25.25
developed	25.73		0.00		0.00		0.00		0.00
disturbed	26.06		0.00		0.00		0.00		0.00
riparian forest	21.20		0.00	0.698	14.80	0.187	3.96		0.00
riparian shrub	4.53		0.00	0.826	3.74		0.00		0.00
riparian grassland	1.34		0.00		0.00		0.00	0.509	0.68
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	841.43		0.00		0.00		0.00		0.00
TOTALS	1924.77		0.89		18.54		3.96		296.57

* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change

GREY MOUNTAIN---WITH-PROJECT
MAINSTEM EAST ELEVATION BAND 1--AAHU SUMMARY

Community Type	Abert's Squirrel				Song Sparrow				Black-capped Chickadee				Western Meadowlark			
	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total
closed canopy conifer	28.18	154.96	0.00	3.66	0.00	0.00	0.00	0.00	38.30	210.62	0.00	4.98	0.00	0.00	0.00	0.00
open canopy conifer	78.57	437.07	33.92	10.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	333.39	3322.20	10284.39	278.80
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.25	277.73	959.44	25.25
developed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian forest	0.00	0.00	0.00	0.00	25.40	221.09	562.31	16.18	6.80	59.23	150.65	4.33	0.00	0.00	0.00	0.00
riparian shrub	0.00	0.00	0.00	0.00	11.69	84.86	142.19	4.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.79	24.61	25.92	1.09
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	106.75	592.03	33.92	14.65	37.09	305.95	704.50	20.95	45.10	269.85	150.65	9.31	362.43	3624.54	11269.75	305.13
			check	14.65			check	20.95			check	9.31			check	305.13

GREY MOUNTAIN MAINSTEM EAST	HSI*AAHU's			
Community Type	Abert's Squirrel	Song Sparrow	Chickadee	Meadowlark
closed canopy conifer	0.90	0.00	1.66	0.00
open canopy conifer	3.85	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	161.43
rock and talus	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	8.58
developed	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00
riparian forest	0.00	11.29	0.81	0.00
riparian shrub	0.00	3.94	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.55
palustrine marsh	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00
TOTALS	4.74	15.23	2.47	170.56
AVE HSI MSE--WITH G. MTN	0.32	0.73	0.27	0.56

POUDRE--TY12 (2005)
WITH-PROJECT---MAINSTEM EAST ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	0.00	0.245	0.00		0.00	0.333	0.00		0.00
open canopy conifer	15.41	0.350	5.39		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	619.19		0.00		0.00		0.00		0.00
grassland	488.00		0.00		0.00		0.00	0.579	282.55
rock and talus	8.54		0.00		0.00		0.00		0.00
agriculture	74.26		0.00		0.00		0.00	0.340	25.25
developed	25.73		0.00		0.00		0.00		0.00
disturbed	34.69		0.00		0.00		0.00		0.00
riparian forest	27.48		0.00	0.698	19.18	0.187	5.14		0.00
riparian shrub	8.15		0.00	0.826	6.73		0.00		0.00
riparian grassland	1.34		0.00		0.00		0.00	0.509	0.68
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	621.99		0.00		0.00		0.00		0.00
TOTALS	1924.78		5.39		25.91		5.14		308.48

* Abert's Squirrel, Song Sparrow and Black-capped Chickadee limiting life requisites change

POUDRE--TY50 (2043)
WITH-PROJECT---MAINSTEM EAST ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	0.00	0.245	0.00		0.00	0.333	0.00		0.00
open canopy conifer	15.41	0.350	5.39		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	619.19		0.00		0.00		0.00		0.00
grassland	488.00		0.00		0.00		0.00	0.579	282.55
rock and talus	8.54		0.00		0.00		0.00		0.00
agriculture	74.26		0.00		0.00		0.00	0.340	25.25
developed	25.73		0.00		0.00		0.00		0.00
disturbed	34.69		0.00		0.00		0.00		0.00
riparian forest	27.48		0.00	0.698	19.18	0.187	5.14		0.00
riparian shrub	8.15		0.00	0.826	6.73		0.00		0.00
riparian grassland	1.34		0.00		0.00		0.00	0.509	0.68
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	621.99		0.00		0.00		0.00		0.00
TOTALS	1924.78		5.39		25.91		5.14		308.48

* Abert's Squirrel, Song Sparrow and Black-capped Chickadee limiting life requisites change

POUDRE---WITH-PROJECT
MAINSTEM EAST ELEVATION BAND 1--AAHU SUMMARY

Community Type	Abert's Squirrel				Song Sparrow				Black-capped Chickadee				Western Meadowlark			
	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total
closed canopy conifer	28.18	154.96	0.00	3.66	0.00	0.00	0.00	0.00	38.30	210.62	0.00	4.98	0.00	0.00	0.00	0.00
open canopy conifer	78.57	461.83	204.95	14.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	333.39	3387.70	10736.98	289.16
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.25	277.73	959.44	25.25
developed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian forest	0.00	0.00	0.00	0.00	25.40	245.20	728.88	19.99	6.80	65.69	195.27	5.36	0.00	0.00	0.00	0.00
riparian shrub	0.00	0.00	0.00	0.00	11.69	101.31	255.81	7.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.79	24.61	25.92	1.09
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	106.75	616.79	204.95	18.57	37.09	346.51	984.69	27.37	45.10	276.31	195.27	10.33	362.43	3690.04	11722.33	315.50
			check	18.57			check	27.37			check	10.33			check	315.50

POUDRE MAINSTEM EAST

Community Type	HSI*AAHU'S			
	Abert's Squirrel	Song Sparrow	Chickadee	Meadowlark
closed canopy conifer	0.90	0.00	1.66	0.00
open canopy conifer	5.22	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	167.42
rock and talus	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	8.58
developed	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00
riparian forest	0.00	13.95	1.00	0.00
riparian shrub	0.00	6.09	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.55
palustrine marsh	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00
TOTALS	6.11	20.05	2.66	176.56
AVE HSI MSE--WITH POUDRE	0.33	0.73	0.26	0.56

TARGET YEAR ACREAGES AND HSIs
CACHE LA POUDRE DAM ORIGINAL IMPACTS

GREY MOUNTAIN & POUDRE--TY0 (1993)
WITHOUT-PROJECT---MAINSTEM NORTH ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark ^	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	5.56	0.000	0.00		0.00	1.000	5.56		0.00
open canopy conifer	68.53	0.000	0.00		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	467.51		0.00		0.00		0.00		0.00
grassland	178.37		0.00		0.00		0.00	0.585	104.35
rock and talus	8.60		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	3.15		0.00		0.00		0.00		0.00
disturbed	41.77		0.00		0.00		0.00		0.00
riparian forest	38.10		0.00	0.685	26.10	0.340	12.95		0.00
riparian shrub	6.88		0.00	0.740	5.09		0.00		0.00
riparian grassland	1.55		0.00		0.00		0.00	0.866	1.34
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	76.78		0.00		0.00		0.00		0.00
TOTALS	896.80		0.00		31.19		18.51		105.69

* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change
^ HSI for riparian grassland is form Mainstem East

GREY MOUNTAIN & POUDRE--TY1 (1994)
WITHOUT-PROJECT---MAINSTEM NORTH ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark ^	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	5.56	0.000	0.00		0.00	1.000	5.56		0.00
open canopy conifer	68.53	0.000	0.00		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	467.51		0.00		0.00		0.00		0.00
grassland	178.37		0.00		0.00		0.00	0.585	104.35
rock and talus	8.60		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	3.15		0.00		0.00		0.00		0.00
disturbed	41.77		0.00		0.00		0.00		0.00
riparian forest	38.10		0.00	0.685	26.10	0.340	12.95		0.00
riparian shrub	6.88		0.00	0.740	5.09		0.00		0.00
riparian grassland	1.55		0.00		0.00		0.00	0.866	1.34
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	76.78		0.00		0.00		0.00		0.00
TOTALS	896.80		0.00		31.19		18.51		105.69

* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change
^ HSI for riparian grassland is form Mainstem East

GREY MOUNTAIN & POUDRE--TY12 (2005)
WITHOUT-PROJECT---MAINSTEM NORTH ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark ^	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	5.56	0.000	0.00		0.00	1.000	5.56		0.00
open canopy conifer	68.53	0.000	0.00		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	467.51		0.00		0.00		0.00		0.00
grassland	178.37		0.00		0.00		0.00	0.585	104.35
rock and talus	8.60		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	3.15		0.00		0.00		0.00		0.00
disturbed	41.77		0.00		0.00		0.00		0.00
riparian forest	38.10		0.00	0.685	26.10	0.340	12.95		0.00
riparian shrub	6.88		0.00	0.740	5.09		0.00		0.00
riparian grassland	1.55		0.00		0.00		0.00	0.866	1.34
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	76.78		0.00		0.00		0.00		0.00
TOTALS	896.80		0.00		31.19		18.51		105.69

* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change
^ HSI for riparian grassland is form Mainstem East

GREY MOUNTAIN & POUDRE--TY50 (2043)
WITHOUT-PROJECT---MAINSTEM NORTH ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark ^	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	5.56	0.000	0.00		0.00	1.000	5.56		0.00
open canopy conifer	68.53	0.000	0.00		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	467.51		0.00		0.00		0.00		0.00
grassland	178.37		0.00		0.00		0.00	0.585	104.35
rock and talus	8.60		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	3.15		0.00		0.00		0.00		0.00
disturbed	41.77		0.00		0.00		0.00		0.00
riparian forest	38.10		0.00	0.685	26.10	0.340	12.95		0.00
riparian shrub	6.88		0.00	0.740	5.09		0.00		0.00
riparian grassland	1.55		0.00		0.00		0.00	0.866	1.34
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	76.78		0.00		0.00		0.00		0.00
TOTALS	896.80		0.00		31.19		18.51		105.69

* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change
^ HSI for riparian grassland is form Mainstem East

GREY MOUNTAIN & POUDRE---WITHOUT-PROJECT
MAINSTEM NORTH ELEVATION BAND 1--AAHU SUMMARY

Community Type	Abert's Squirrel				Song Sparrow				Black-capped Chickadee				Western Meadowlark			
	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total
closed canopy conifer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.56	61.16	211.28	5.56	0.00	0.00	0.00	0.00
open canopy conifer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104.35	1147.81	3965.17	104.35
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian forest	0.00	0.00	0.00	0.00	26.10	287.08	991.74	26.10	12.95	142.49	492.25	12.95	0.00	0.00	0.00	0.00
riparian shrub	0.00	0.00	0.00	0.00	5.09	56.00	193.47	5.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.34	14.77	51.01	1.34
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	0.00	0.00	0.00	0.00	31.19	343.09	1185.21	31.19	18.51	203.65	703.53	18.51	105.69	1162.58	4016.17	105.69
			check	0.00			check	31.19			check	18.51			check	105.69

WITHOUT-PROJECT MAINSTEM NORTH

Community Type	HSI*AAHU's Abert's Squirrel	Song Sparrow	Chickadee	Meadowlark
closed canopy conifer	0.00	0.00	5.56	0.00
open canopy conifer	0.00	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	61.04
rock and talus	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00
riparian forest	0.00	17.88	4.40	0.00
riparian shrub	0.00	3.77	0.00	0.00
riparian grassland	0.00	0.00	0.00	1.16
palustrine marsh	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00
TOTALS	0.00	21.64	9.96	62.21
AVE HSI MSN--WITHOUT PROJECT	ERR	0.69	0.54	0.59

GREY MOUNTAIN--TY12 (2005)
WITH-PROJECT---MAINSTEM NORTH ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	0.07	0.000	0.00		0.00	1.000	0.07		0.00
open canopy conifer	0.00	0.000	0.00		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	0.36		0.00		0.00		0.00		0.00
grassland	0.00		0.00		0.00		0.00	0.585	0.00
rock and talus	0.00		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	0.00		0.00		0.00		0.00		0.00
disturbed	0.16		0.00		0.00		0.00		0.00
riparian forest	0.00		0.00	0.685	0.00	0.340	0.00		0.00
riparian shrub	0.00		0.00	0.740	0.00		0.00		0.00
riparian grassland	0.02		0.00		0.00		0.00	0.866	0.02
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	897.60		0.00		0.00		0.00		0.00
TOTALS	898.21		0.00		0.00		0.07		0.02

* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change

GREY MOUNTAIN--TY50 (2043)
WITH-PROJECT---MAINSTEM NORTH ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	0.07	0.000	0.00		0.00	1.000	0.07		0.00
open canopy conifer	0.00	0.000	0.00		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	0.36		0.00		0.00		0.00		0.00
grassland	0.00		0.00		0.00		0.00	0.585	0.00
rock and talus	0.00		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	0.00		0.00		0.00		0.00		0.00
disturbed	0.16		0.00		0.00		0.00		0.00
riparian forest	0.00		0.00	0.685	0.00	0.340	0.00		0.00
riparian shrub	0.00		0.00	0.740	0.00		0.00		0.00
riparian grassland	0.02		0.00		0.00		0.00	0.866	0.02
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	897.60		0.00		0.00		0.00		0.00
TOTALS	898.21		0.00		0.00		0.07		0.02

* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change

GREY MOUNTAIN---WITH-PROJECT
MAINSTEM NORTH ELEVATION BAND 1--AAHU SUMMARY

Community Type	Abert's Squirrel				Song Sparrow				Black-capped Chickadee				Western Meadowlark			
	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total
closed canopy conifer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.56	30.96	2.66	0.78	0.00	0.00	0.00	0.00
open canopy conifer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104.35	573.91	0.00	13.57
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian forest	0.00	0.00	0.00	0.00	26.10	143.54	0.00	3.39	12.95	71.25	0.00	1.68	0.00	0.00	0.00	0.00
riparian shrub	0.00	0.00	0.00	0.00	5.09	28.00	0.00	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.34	7.48	0.66	0.19
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	0.00	0.00	0.00	0.00	31.19	171.54	0.00	4.05	18.51	102.21	2.66	2.47	105.69	581.38	0.66	13.75
			check	0.00			check	4.05			check	2.47			check	13.75

GREY MOUNTAIN MAINSTEM NORTH	HSI*AAHU's			
Community Type	Abert's Squirrel	Song Sparrow	Chickadee	Meadowlark
closed canopy conifer	0.00	0.00	0.78	0.00
open canopy conifer	0.00	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	7.94
rock and talus	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00
riparian forest	0.00	2.32	0.57	0.00
riparian shrub	0.00	0.49	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.16
palustrine marsh	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00
TOTALS	0.00	2.81	1.36	8.10
AVE HSI MSN--WITH G. MTN.	ERR	0.69	0.55	0.59

POUDRE--TY12 (2005)
WITH-PROJECT---MAINSTEM NORTH ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	0.07	0.000	0.00		0.00	1.000	0.07		0.00
open canopy conifer	0.00	0.000	0.00		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	0.36		0.00		0.00		0.00		0.00
grassland	0.00		0.00		0.00		0.00	0.585	0.00
rock and talus	0.00		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	0.00		0.00		0.00		0.00		0.00
disturbed	0.16		0.00		0.00		0.00		0.00
riparian forest	0.00		0.00	0.685	0.00	0.340	0.00		0.00
riparian shrub	0.00		0.00	0.740	0.00		0.00		0.00
riparian grassland	0.02		0.00		0.00		0.00	0.866	0.02
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	897.60		0.00		0.00		0.00		0.00
TOTALS	898.21		0.00		0.00		0.07		0.02

* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change

POUDRE--TY50 (2043)
WITH-PROJECT---MAINSTEM NORTH ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	0.07	0.000	0.00		0.00	1.000	0.07		0.00
open canopy conifer	0.00	0.000	0.00		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	0.36		0.00		0.00		0.00		0.00
grassland	0.00		0.00		0.00		0.00	0.585	0.00
rock and talus	0.00		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	0.00		0.00		0.00		0.00		0.00
disturbed	0.16		0.00		0.00		0.00		0.00
riparian forest	0.00		0.00	0.685	0.00	0.340	0.00		0.00
riparian shrub	0.00		0.00	0.740	0.00		0.00		0.00
riparian grassland	0.02		0.00		0.00		0.00	0.866	0.02
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	897.60		0.00		0.00		0.00		0.00
TOTALS	898.21		0.00		0.00		0.07		0.02

* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change

POUDRE---WITH-PROJECT
MAINSTEM NORTH ELEVATION BAND 1--AAHU SUMMARY

Community Type	Abert's Squirrel				Song Sparrow				Black-capped Chickadee				Western Meadowlark			
	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total
closed canopy conifer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.56	30.96	2.66	0.78	0.00	0.00	0.00	0.00
open canopy conifer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104.35	573.91	0.00	13.57
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian forest	0.00	0.00	0.00	0.00	26.10	143.54	0.00	3.39	12.95	71.25	0.00	1.68	0.00	0.00	0.00	0.00
riparian shrub	0.00	0.00	0.00	0.00	5.09	28.00	0.00	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.34	7.48	0.66	0.19
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	0.00	0.00	0.00	0.00	31.19	171.54	0.00	4.05	18.51	102.21	2.66	2.47	105.69	581.38	0.66	13.75
			check	0.00			check	4.05			check	2.47			check	13.75

POUDRE MAINSTEM NORTH

Community Type	HSI*AAHU's			
	Abert's Squirrel	Song Sparrow	Chickadee	Meadowlark
closed canopy conifer	0.00	0.00	0.78	0.00
open canopy conifer	0.00	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	7.94
rock and talus	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00
riparian forest	0.00	2.32	0.57	0.00
riparian shrub	0.00	0.49	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.16
palustrine marsh	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00
TOTALS	0.00	2.81	1.36	8.10
AVE HSI MSN--WITH POUDRE	ERR	0.69	0.55	0.59

TARGET YEAR ACREAGES AND HSIs
CACHE LA POUDRE DAM ORIGINAL IMPACTS

GREY MOUNTAIN & POUDRE--TY0 (1993)
WITHOUT-PROJECT---MAINSTEM SOUTH ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *^		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	214.88	0.000	0.00		0.00	0.667	143.32		0.00
open canopy conifer	199.12	0.000	0.00		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	387.75		0.00		0.00		0.00		0.00
grassland	103.14		0.00		0.00		0.00	0.652	67.25
rock and talus	3.61		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	5.56		0.00		0.00		0.00		0.00
disturbed	52.20		0.00		0.00		0.00		0.00
riparian forest	43.03		0.00	0.771	33.18	0.312	13.43		0.00
riparian shrub	1.03		0.00	0.826	0.85		0.00		0.00
riparian grassland	2.18		0.00		0.00		0.00	0.600	1.31
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	1012.50		0.00		34.03		156.75		68.56

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* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change
^ Riparian grassland HSI is from Mainstem East

GREY MOUNTAIN & POUDRE--TY1 (1994)
WITHOUT-PROJECT---MAINSTEM SOUTH ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *^		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	214.88	0.000	0.00		0.00	0.667	143.32		0.00
open canopy conifer	199.12	0.000	0.00		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	387.75		0.00		0.00		0.00		0.00
grassland	103.14		0.00		0.00		0.00	0.652	67.25
rock and talus	3.61		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	5.56		0.00		0.00		0.00		0.00
disturbed	52.20		0.00		0.00		0.00		0.00
riparian forest	43.03		0.00	0.771	33.18	0.312	13.43		0.00
riparian shrub	1.03		0.00	0.826	0.85		0.00		0.00
riparian grassland	2.18		0.00		0.00		0.00	0.600	1.31
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	1012.50		0.00		34.03		156.75		68.56

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* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change
^ Riparian grassland HSI is from Mainstem East

GREY MOUNTAIN & POUDRE--TY12 (2005)
WITHOUT-PROJECT---MAINSTEM SOUTH ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *^		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	214.88	0.000	0.00		0.00	0.667	143.32		0.00
open canopy conifer	199.12	0.000	0.00		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	387.75		0.00		0.00		0.00		0.00
grassland	103.14		0.00		0.00		0.00	0.652	67.25
rock and talus	3.61		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	5.56		0.00		0.00		0.00		0.00
disturbed	52.20		0.00		0.00		0.00		0.00
riparian forest	43.03		0.00	0.771	33.18	0.312	13.43		0.00
riparian shrub	1.03		0.00	0.826	0.85		0.00		0.00
riparian grassland	2.18		0.00		0.00		0.00	0.600	1.31
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	1012.50		0.00		34.03		156.75		68.56

* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change
^ Riparian grassland HSI is from Mainstem East

GREY MOUNTAIN & POUDRE--TY50 (2043)
WITHOUT-PROJECT---MAINSTEM SOUTH ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *^		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	214.88	0.000	0.00		0.00	0.667	143.32		0.00
open canopy conifer	199.12	0.000	0.00		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	387.75		0.00		0.00		0.00		0.00
grassland	103.14		0.00		0.00		0.00	0.652	67.25
rock and talus	3.61		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	5.56		0.00		0.00		0.00		0.00
disturbed	52.20		0.00		0.00		0.00		0.00
riparian forest	43.03		0.00	0.771	33.18	0.312	13.43		0.00
riparian shrub	1.03		0.00	0.826	0.85		0.00		0.00
riparian grassland	2.18		0.00		0.00		0.00	0.600	1.31
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	0.00		0.00		0.00		0.00		0.00
TOTALS	1012.50		0.00		34.03		156.75		68.56

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* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change
^ Riparian grassland HSI is from Mainstem East

GREY MOUNTAIN & POUDRE---WITHOUT-PROJECT
MAINSTEM SOUTH ELEVATION BAND 1--AAHU SUMMARY

Community Type	Abert's Squirrel				Song Sparrow				Black-capped Chickadee				Western Meadowlark			
	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total
closed canopy conifer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	143.32	1576.57	5446.35	143.32	0.00	0.00	0.00	0.00
open canopy conifer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.25	739.72	2555.40	67.25
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian forest	0.00	0.00	0.00	0.00	33.18	364.94	1260.69	33.18	13.43	147.68	510.16	13.43	0.00	0.00	0.00	0.00
riparian shrub	0.00	0.00	0.00	0.00	0.85	9.36	32.33	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31	14.39	49.70	1.31
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	0.00	0.00	0.00	0.00	34.03	374.30	1293.02	34.03	156.75	1724.25	5956.51	156.75	68.56	754.11	2605.10	68.56
			check	0.00			check	34.03			check	156.75			check	68.56

WITHOUT-PROJECT MAINSTEM SOUTH

Community Type	HSI*AAHU's			
	Abert's Squirrel	Song Sparrow	Chickadee	Meadowlark
closed canopy conifer	0.00	0.00	95.60	0.00
open canopy conifer	0.00	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	43.85
rock and talus	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00
riparian forest	0.00	25.58	4.19	0.00
riparian shrub	0.00	0.70	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.78
palustrine marsh	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00
TOTALS	0.00	26.28	99.79	44.63
AVE HSI MSS--WITHOUT PROJECT	ERR	0.77	0.64	0.65

GREY MOUNTAIN--TY12 (2005)
WITH-PROJECT---MAINSTEM SOUTH ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *^		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	102.15	0.000	0.00		0.00	0.667	68.13		0.00
open canopy conifer	93.39	0.000	0.00		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	200.68		0.00		0.00		0.00		0.00
grassland	56.05		0.00		0.00		0.00	0.652	36.54
rock and talus	1.30		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	0.00		0.00		0.00		0.00		0.00
disturbed	4.49		0.00		0.00		0.00		0.00
riparian forest	21.98		0.00	0.771	16.95	0.312	6.86		0.00
riparian shrub	0.58		0.00	0.826	0.48		0.00		0.00
riparian grassland	0.83		0.00		0.00		0.00	0.600	0.50
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	531.12		0.00		0.00		0.00		0.00
TOTALS	1012.57		0.00		17.43		74.99		37.04

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* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change
^Riparian shrub HSI is from Mainstem East

GREY MOUNTAIN--TY50 (2043)
WITH-PROJECT---MAINSTEM SOUTH ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow *^		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	102.15	0.000	0.00		0.00	0.667	68.13		0.00
open canopy conifer	93.39	0.000	0.00		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	200.68		0.00		0.00		0.00		0.00
grassland	56.05		0.00		0.00		0.00	0.652	36.54
rock and talus	1.30		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	0.00		0.00		0.00		0.00		0.00
disturbed	4.49		0.00		0.00		0.00		0.00
riparian forest	21.98		0.00	0.771	16.95	0.312	6.86		0.00
riparian shrub	0.58		0.00	0.826	0.48		0.00		0.00
riparian grassland	0.83		0.00		0.00		0.00	0.600	0.50
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	531.12		0.00		0.00		0.00		0.00
TOTALS	1012.57		0.00		17.43		74.99		37.04

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* Abert's Squirrel, Song Sparrow, and Black-capped Chickadee limiting life requisites change
^Riparian shrub HSI is from Mainstem East

GREY MOUNTAIN---WITH-PROJECT
MAINSTEM SOUTH ELEVATION BAND 1--AAHU SUMMARY

Community Type	Abert's Squirrel				Song Sparrow				Black-capped Chickadee				Western Meadowlark			
	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total
closed canopy conifer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	143.32	1163.02	2589.09	77.91	0.00	0.00	0.00	0.00
open canopy conifer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.25	570.86	1388.69	40.54
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian forest	0.00	0.00	0.00	0.00	33.18	275.67	643.97	19.06	13.43	111.56	260.59	7.71	0.00	0.00	0.00	0.00
riparian shrub	0.00	0.00	0.00	0.00	0.85	7.31	18.21	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31	9.93	18.92	0.60
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	0.00	0.00	0.00	0.00	34.03	282.99	662.18	19.58	156.75	1274.58	2849.69	85.62	68.56	580.79	1407.62	41.14
			check	0.00			check	19.58			check	85.62			check	41.14

GREY MOUNTAIN MAINSTEM SOUTH	HSI*AAHU's			
Community Type	Abert's Squirrel	Song Sparrow	Chickadee	Meadowlark
closed canopy conifer	0.00	0.00	51.97	0.00
open canopy conifer	0.00	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	26.43
rock and talus	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00
riparian forest	0.00	14.69	2.41	0.00
riparian shrub	0.00	0.44	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.36
palustrine marsh	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00
TOTALS	0.00	15.13	54.37	26.79
AVE HSI MSS--WITH GREY MTN.	ERR	0.77	0.64	0.65

POUDRE--TY12 (2005)
WITH-PROJECT---MAINSTEM SOUTH ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow*^		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	118.21	0.000	0.00		0.00	0.667	78.85		0.00
open canopy conifer	156.00	0.000	0.00		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	315.89		0.00		0.00		0.00		0.00
grassland	99.94		0.00		0.00		0.00	0.652	65.16
rock and talus	1.30		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	1.17		0.00		0.00		0.00		0.00
disturbed	12.89		0.00		0.00		0.00		0.00
riparian forest	29.27		0.00	0.771	22.57	0.312	9.13		0.00
riparian shrub	1.03		0.00	0.826	0.85		0.00		0.00
riparian grassland	2.18		0.00		0.00		0.00	0.600	1.31
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	274.66		0.00		0.00		0.00		0.00
TOTALS	1012.54		0.00		23.42		87.98		66.47

* Abert's Squirrel, Song Sparrow and Black-capped Chickadee limiting life requisites change
^ The HSI for riparian shrub is from Mainstem east

POUDRE--TY50 (2043)
WITH-PROJECT---MAINSTEM SOUTH ELEVATION BAND 1

Community Type	Acreage	Abert's Squirrel *		Song Sparrow*^		Black-capped Chickadee *		Western Meadowlark	
		HSI	HUs	HSI	HUs	HSI	HUs	HSI	HUs
closed canopy conifer	118.21	0.000	0.00		0.00	0.667	78.85		0.00
open canopy conifer	156.00	0.000	0.00		0.00	0.000	0.00		0.00
Pinyon Pine forest	0.00		0.00		0.00		0.00		0.00
mountain shrub	315.89		0.00		0.00		0.00		0.00
grassland	99.94		0.00		0.00		0.00	0.652	65.16
rock and talus	1.30		0.00		0.00		0.00		0.00
agriculture	0.00		0.00		0.00		0.00	0.340	0.00
developed	1.17		0.00		0.00		0.00		0.00
disturbed	12.89		0.00		0.00		0.00		0.00
riparian forest	29.27		0.00	0.771	22.57	0.312	9.13		0.00
riparian shrub	1.03		0.00	0.826	0.85		0.00		0.00
riparian grassland	2.18		0.00		0.00		0.00	0.600	1.31
palustrine marsh	0.00		0.00		0.00		0.00		0.00
palustrine pond	0.00		0.00		0.00		0.00		0.00
riverine	0.00		0.00		0.00		0.00		0.00
lacustrine	274.66		0.00		0.00		0.00		0.00
TOTALS	1012.54		0.00		23.42		87.98		66.47

* Abert's Squirrel, Song Sparrow and Black-capped Chickadee limiting life requisites change
^ The HSI for riparian shrub is from Mainstem east

POUDRE---WITH-PROJECT
MAINSTEM SOUTH ELEVATION BAND 1--AAHU SUMMARY

Community Type	Abert's Squirrel				Song Sparrow				Black-capped Chickadee				Western Meadowlark			
	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total	TY0-1	TY1-12	TY12-50	total
closed canopy conifer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	143.32	1221.94	2996.15	87.23	0.00	0.00	0.00	0.00
open canopy conifer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.25	728.24	2476.11	65.43
rock and talus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian forest	0.00	0.00	0.00	0.00	33.18	306.59	857.55	23.95	13.43	124.07	347.03	9.69	0.00	0.00	0.00	0.00
riparian shrub	0.00	0.00	0.00	0.00	0.85	9.36	32.33	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31	14.39	49.70	1.31
palustrine marsh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	0.00	0.00	0.00	0.00	34.03	315.95	889.88	24.80	156.75	1346.01	3343.18	96.92	68.56	742.63	2525.82	66.74
			check	0.00			check	24.80			check	96.92			check	66.74

POUDRE MAINSTEM SOUTH

Community Type	HSI*AAHU's			
	Abert's Squirrel	Song Sparrow	Chickadee	Meadowlark
closed canopy conifer	0.00	0.00	58.18	0.00
open canopy conifer	0.00	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	42.66
rock and talus	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00
riparian forest	0.00	18.46	3.02	0.00
riparian shrub	0.00	0.70	0.00	0.00
riparian grassland	0.00	0.00	0.00	0.78
palustrine marsh	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00
TOTALS	0.00	19.17	61.20	43.45
AVE HSI MSS--WITH POUDRE	ERR	0.77	0.63	0.65

SPREADSHEET TO CALCULATE NET CHANGE

WITHOUT PROJECT AAHU SUMMARY--ALL AREAS COMBINED

	AAHU's			
Community Type	Abert's Squirrel	Song Sparrow	Chickadee	Meadowlark
closed canopy conifer	570.26	0.00	2805.85	0.00
open canopy conifer	1120.18	0.00	1650.45	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	5250.86
rock and talus	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	328.93
developed	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00
riparian forest	0.00	260.07	98.01	0.00
riparian shrub	0.00	98.76	0.00	0.00
riparian grassland	0.00	0.00	0.00	8.58
palustrine marsh	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00
TOTALS	1690.44	358.83	4554.31	5588.38

GREY MOUNTAIN AAHU SUMMARY (ALL AREAS COMBINED)

Community Type	Abert's Squirrel	Song Sparrow	Chickadee	Meadowlark
closed canopy conifer	545.75	0.00	2702.34	0.00
open canopy conifer	1052.60	0.00	1650.45	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	5078.77
rock and talus	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	328.93
developed	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00
riparian forest	0.00	214.02	78.56	0.00
riparian shrub	0.00	87.09	0.00	0.00
riparian grassland	0.00	0.00	0.00	4.02
palustrine marsh	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00
TOTALS	1598.35	301.11	4431.35	5411.73

POUDRE AAHU SUMMARY (ALL AREAS COMBINED)

Community Type	AAHU's			
	Abert's Squirrel	Song Sparrow	Chickadee	Meadowlark
closed canopy conifer	545.75	0.00	2711.66	0.00
open canopy conifer	1056.51	0.00	1650.45	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	5114.03
rock and talus	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	328.93
developed	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00
riparian forest	0.00	222.73	81.56	0.00
riparian shrub	0.00	90.02	0.00	0.00
riparian grassland	0.00	0.00	0.00	4.73
palustrine marsh	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00
TOTALS	1602.26	312.74	4443.67	5447.69

NET CHANGE IN AAHU'S
GREY MOUNTAIN VS. WITHOUT PROJECT

Community Type	Abert's Squirrel	Song Sparrow	Black-capped Chickadee	Western Meadowlark
closed canopy conifer	-24.51	0.00	-103.51	0.00
open canopy conifer	-67.58	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	-172.09
rock and talus	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00
riparian forest	0.00	-46.05	-19.46	0.00
riparian shrub	0.00	-11.67	0.00	0.00
riparian grassland	0.00	0.00	0.00	-4.56
palustrine marsh	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00
TOTAL	-92.10	-57.72	-122.96	-176.65

NET CHANGE IN AAHU'S
POUDRE VS. WITHOUT PROJECT

Community Type	Abert's Squirrel	Song Sparrow	Black-capped Chickadee	Western Meadowlark
closed canopy conifer	-24.51	0.00	-94.19	0.00
open canopy conifer	-63.67	0.00	0.00	0.00
Pinyon Pine forest	0.00	0.00	0.00	0.00
mountain shrub	0.00	0.00	0.00	0.00
grassland	0.00	0.00	0.00	-136.83
rock and talus	0.00	0.00	0.00	0.00
agriculture	0.00	0.00	0.00	0.00
developed	0.00	0.00	0.00	0.00
disturbed	0.00	0.00	0.00	0.00
riparian forest	0.00	-37.35	-16.45	0.00
riparian shrub	0.00	-8.74	0.00	0.00
riparian grassland	0.00	0.00	0.00	-3.85
palustrine marsh	0.00	0.00	0.00	0.00
palustrine pond	0.00	0.00	0.00	0.00
riverine	0.00	0.00	0.00	0.00
lacustrine	0.00	0.00	0.00	0.00
TOTAL	-88.18	-46.09	-110.64	-140.69

APPENDIX H.2

GREAT BLUE HERON

GREAT BLUE HERON
WITHOUT-PROJECT---TY50

Community Type	Acreage	Great Blue Heron	
		HSI	HU's
open canopy conifer *	228.55	0.316	72.22
riparian forest *	4.39	0.316	1.39
riverine *	52.34	0.316	16.54
lacustrine ^	2.34	0.316	0.74
TOTALS	287.62		90.89

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* Includes habitat within 250 meters of permanent water and not
^ Includes areas not disturbed by man and with shoreline slopes

GREAT BLUE HERON
WITHOUT-PROJECT---TY12

Community Type	Acreage	Great Blue Heron	
		HSI	HU's
open canopy conifer *	228.55	0.316	72.22
riparian forest *	4.39	0.316	1.39
riverine *	52.34	0.316	16.54
lacustrine ^	2.34	0.316	0.74
TOTALS	287.62		90.89

---

* Includes habitat within 250 meters of permanent water and not
^ Includes areas not disturbed by man and with shoreline slopes

TARGET YEAR ACREAGES AND HSIs
CACHE LA POUDRE DAM ORIGINAL IMPACTS

GREAT BLUE HERON
WITH-PROJECT & WITHOUT-PROJECT---TY0 AND TY1

Community Type	Acreage	Great Blue Heron	
		HSI	HU's
open canopy conifer *	228.55	0.316	72.22
riparian forest *	4.39	0.316	1.39
riverine *	52.34	0.316	16.54
lacustrine ^	2.34	0.316	0.74
TOTALS	287.62		90.89

---

* Includes habitat within 250 meters of permanent water and not
^ Includes areas not disturbed by man and with shoreline slopes

GREAT BLUE HERON
GREY MOUNTAIN ALTERNATIVE---TY12

Community Type	Acreage	Great Blue Heron	
		HSI	HU's
open canopy conifer *	204.49	0.262	53.58
riparian forest *	2.86	0.262	0.75
riverine *	9.34	0.262	2.45
lacustrine ^	2.49	0.262	0.65
TOTALS	219.18		57.43

* Includes habitat within 250 meters of permanent water and not
^ Includes areas not disturbed by man and with shoreline slopes

GREAT BLUE HERON
GREY MOUNTAIN ALTERNATIVE---TY50

Community Type	Acreage	Great Blue Heron	
		HSI	HU's
open canopy conifer *	204.49	0.262	53.58
riparian forest *	2.86	0.262	0.75
riverine *	9.34	0.262	2.45
lacustrine ^	2.49	0.262	0.65
TOTALS	219.18		57.43

* Includes habitat within 250 meters of permanent water and not
^ Includes areas not disturbed by man and with shoreline slopes

GREAT BLUE HERON
POUDRE ALTERNATIVE---TY12

Community Type	Acreage	Great Blue Heron	
		HSI	HU's
open canopy conifer *	184.47	0.275	50.73
riparian forest *	2.86	0.275	0.79
riverine *	9.34	0.275	2.57
lacustrine ^	2.49	0.275	0.68
TOTALS	199.16		54.77

* Includes habitat within 250 meters of permanent water and not
^ Includes areas not disturbed by man and with shoreline slopes

GREAT BLUE HERON
POUDRE ALTERNATIVE---TY50

Community Type	Acreage	Great Blue Heron	
		HSI	HU's
open canopy conifer *	184.47	0.275	50.73
riparian forest *	2.86	0.275	0.79
riverine *	9.34	0.275	2.57
lacustrine ^	2.49	0.275	0.68
TOTALS	199.16		54.77

---

* Includes habitat within 250 meters of permanent water and not
^ Includes areas not disturbed by man and with shoreline slopes

WITHOUT-PROJECT
GREAT BLUE HERON AAHU SUMMARY

Community Type	TY0-1	TY1-12	TY12-50	total
open canopy conifer *	72.22	794.44	2744.43	72.22
riparian forest *	1.39	15.26	52.72	1.39
riverine *	16.54	181.93	628.50	16.54
lacustrine ^	0.74	8.13	28.10	0.74
TOTALS	90.89	999.77	3453.74	90.89

GREY MOUNTAIN ALTERNATIVE
GREAT BLUE HERON AAHU SUMMARY

Community Type	TY0-1	TY1-12	TY12-50	total
open canopy conifer *	72.22	689.51	2035.90	55.95
riparian forest *	1.39	11.60	28.47	0.83
riverine *	16.54	100.17	92.99	4.19
lacustrine ^	0.74	7.67	24.79	0.66
TOTALS	90.89	808.95	2182.16	61.64

POUDRE ALTERNATIVE
GREAT BLUE HERON AAHU SUMMARY

Community Type	TY0-1	TY1-12	TY12-50	total
open canopy conifer *	72.22	672.92	1927.71	53.46
riparian forest *	1.39	11.84	29.89	0.86
riverine *	16.54	101.86	97.60	4.32
lacustrine ^	0.74	7.84	26.02	0.69
TOTALS	90.89	794.46	2081.22	59.33

GREAT BLUE HERON
NET CHANGE IN AAHU'S

Community Type	GREY MTN. VS. WITHOUT-PROJECT	POUDRE VS. WITHOUT-PROJECT
open canopy conifer *	-16.27	-18.76
riparian forest *	-0.56	-0.52
riverine *	-12.35	-12.22
lacustrine ^	-0.08	-0.05
TOTALS	-29.25	-31.56

APPENDIX H.3

MULE DEER

SPREADSHEET FOR CALCULATING THE HSI FOR MULE DEER----ELEVATION BAND 1

1. ELEVATION BAND 1 TY0, TY1, AND TY12 (1993, 1994, & 2005) WITH AND WITHOUT PROJECT

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	ROAD FACTOR	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100			0.50	1.000	0.000	0.000	0.00	0.000	0.000	0.000
	100-200			0.80	1.000	0.000	0.000	0.00	0.000	0.000	0.000
	>200			1.00	1.000	0.000	0.000	0.00	0.000	0.000	0.000
OC	0-100	0.429	0.362	0.50	1.000	0.215	0.181	0.00	0.000	0.000	0.000
	100-200	0.429	0.362	0.80	1.000	0.343	0.290	0.11	0.001	0.000	0.000
	>200	0.429	0.362	1.00	1.000	0.429	0.362	31.46	0.345	0.148	0.125
PP	0-100	0.429	0.362	0.50	1.000	0.215	0.181	0.00	0.000	0.000	0.000
	100-200	0.429	0.362	0.80	1.000	0.343	0.290	0.00	0.000	0.000	0.000
	>200	0.429	0.362	1.00	1.000	0.429	0.362	0.00	0.000	0.000	0.000
MS	0-100	0.887	0.333	0.32	1.000	0.284	0.107	44.78	0.491	0.139	0.052
	100-200	0.887	0.333	0.82	1.000	0.727	0.273	131.70	1.445	1.051	0.395
	>200	0.887	0.333	1.00	1.000	0.887	0.333	2188.00	24.010	21.297	7.995
G	0-100	0.305		0.32	0.010	0.001	0.000	465.23	5.105	0.005	0.000
	100-200	0.305		0.82	0.010	0.003	0.000	420.67	4.616	0.012	0.000
	>200	0.305		1.00	0.010	0.003	0.000	4739.53	52.009	0.159	0.000
A	0-100	0.250		0.32	0.710	0.057	0.000	169.77	1.863	0.106	0.000
	100-200	0.250		0.82	0.710	0.146	0.000	172.30	1.891	0.275	0.000
	>200	0.250		1.00	0.710	0.178	0.000	551.12	6.048	1.073	0.000
rF	0-100	0.203	0.339	0.50	1.000	0.102	0.170	6.53	0.072	0.007	0.012
	100-200	0.203	0.339	0.80	1.000	0.162	0.271	12.31	0.135	0.022	0.037
	>200	0.203	0.339	1.00	1.000	0.203	0.339	149.45	1.640	0.333	0.556
rS	0-100	0.937	0.333	0.32	1.000	0.300	0.107	3.66	0.040	0.012	0.004
	100-200	0.937	0.333	0.82	1.000	0.768	0.273	5.83	0.064	0.049	0.017
	>200	0.937	0.333	1.00	1.000	0.937	0.333	17.96	0.197	0.185	0.066
rG*	0-100	0.272		0.32	1.000	0.087	0.000	0.00	0.000	0.000	0.000
	100-200	0.272		0.82	1.000	0.223	0.000	0.00	0.000	0.000	0.000
	>200	0.272		1.00	1.000	0.272	0.000	2.46	0.027	0.007	0.000

9112.87

* VALUE FROM MSE

AVAILABLE HABITAT FOR FOOD 24.88

AVAILABLE HABITAT FOR COVER 9.26

FOOD HSI= 0.415 FOOD HUs= 3778.95

COVER HSI= 0.231 COVER HU= 2109.57

This spreadsheet calculates the HSI and HUs for Mule Deer in the Glade portion of Elevation Band 1 (outside the project areas). No changes are expected if the project is constructed so with and without project conditions are identical.

2. ELEVATION BAND 1 TY50 (2043) WITHOUT PROJECT

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	ROAD FACTOR	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100			0.50	1.000	0.000	0.000	0.00	0.000	0.000	0.000
	100-200			0.80	1.000	0.000	0.000	0.00	0.000	0.000	0.000
	>200			1.00	1.000	0.000	0.000	0.00	0.000	0.000	0.000
OC	0-100	0.429	0.362	0.50	1.000	0.215	0.181	0.00	0.000	0.000	0.000
	100-200	0.429	0.362	0.80	1.000	0.343	0.290	0.11	0.001	0.000	0.000
	>200	0.429	0.362	1.00	1.000	0.429	0.362	31.46	0.345	0.148	0.125
PP	0-100	0.429	0.362	0.50	1.000	0.215	0.181	0.00	0.000	0.000	0.000
	100-200	0.429	0.362	0.80	1.000	0.343	0.290	0.00	0.000	0.000	0.000
	>200	0.429	0.362	1.00	1.000	0.429	0.362	0.00	0.000	0.000	0.000
MS	0-100	0.887	0.333	0.32	1.000	0.284	0.107	44.78	0.491	0.139	0.052
	100-200	0.887	0.333	0.82	1.000	0.727	0.273	131.70	1.445	1.051	0.395
	>200	0.887	0.333	1.00	1.000	0.887	0.333	2188.00	24.010	21.297	7.995
S	0-100	0.305		0.32	0.010	0.001	0.000	465.23	5.105	0.005	0.000
	100-200	0.305		0.82	0.010	0.003	0.000	420.67	4.616	0.012	0.000
	>200	0.305		1.00	0.010	0.003	0.000	4739.53	52.009	0.159	0.000
A	0-100	0.250		0.32	0.710	0.057	0.000	169.77	1.863	0.106	0.000
	100-200	0.250		0.82	0.710	0.146.	0.000	172.30	1.891	0.275	0.000
	>200	0.250		1.00	0.710	0.178	0.000	551.12	6.048	1.073	0.000
rF	0-100	0.203	0.339	0.50	1.000	0.102	0.170	6.53	0.072	0.007	0.012
	100-200	0.203	0.339	0.80	1.000	0.162	0.271	12.31	0.135	0.022	0.037
	>200	0.203	0.339	1.00	1.000	0.203	0.339	149.45	1.640	0.333	0.556
rS	0-100	0.937	0.333	0.32	1.000	0.300	0.107	3.66	0.040	0.012	0.004
	100-200	0.937	0.333	0.82	1.000	0.768	0.273	5.83	0.064	0.049	0.017
	>200	0.937	0.333	1.00	1.000	0.937	0.333	17.96	0.197	0.185	0.066
rG*	0-100	0.272		0.32	1.000	0.087	0.000	0.00	0.000	0.000	0.000
	100-200	0.272		0.82	1.000	0.223	0.000	0.00	0.000	0.000	0.000
	>200	0.272		1.00	1.000	0.272	0.000	2.46	0.027	0.007	0.000

9112.87

* VALUE FROM NSE

AVAILABLE HABITAT FOR FOOD = 24.88

AVAILABLE HABITAT FOR COVER 9.26

FOOD HSI= 0.415 FOOD HUs= 3778.95

COVER HSI= 0.231 COVER HU= 2109.57

Spreadsheets 2 and 3 are identical to spreadsheet 1, and were set up in case there were any changes in TY50.

3. ELEVATION BAND 1 TY50 (2043) WITH PROJECT

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	ROAD FACTOR	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100			0.50	1.000	0.000	0.000	0.00	0.000	0.000	0.000
	100-200			0.80	1.000	0.000	0.000	0.00	0.000	0.000	0.000
	>200			1.00	1.000	0.000	0.000	0.00	0.000	0.000	0.000
DC	0-100	0.429	0.362	0.50	1.000	0.215	0.181	0.00	0.000	0.000	0.000
	100-200	0.429	0.362	0.80	1.000	0.343	0.290	0.11	0.001	0.000	0.000
	>200	0.429	0.362	1.00	1.000	0.429	0.362	31.46	0.345	0.148	0.125
PP	0-100	0.429	0.362	0.50	1.000	0.215	0.181	0.00	0.000	0.000	0.000
	100-200	0.429	0.362	0.80	1.000	0.343	0.290	0.00	0.000	0.000	0.000
	>200	0.429	0.362	1.00	1.000	0.429	0.362	0.00	0.000	0.000	0.000
MS	0-100	0.887	0.333	0.32	1.000	0.284	0.107	44.78	0.491	0.139	0.052
	100-200	0.887	0.333	0.82	1.000	0.727	0.273	131.70	1.445	1.051	0.395
	>200	0.887	0.333	1.00	1.000	0.887	0.333	2188.00	24.010	21.297	7.995
G	0-100	0.305		0.32	0.010	0.001	0.000	465.23	5.105	0.005	0.000
	100-200	0.305		0.82	0.010	0.003	0.000	420.67	4.616	0.012	0.000
	>200	0.305		1.00	0.010	0.003	0.000	4739.53	52.009	0.159	0.000
A	0-100	0.250		0.32	0.710	0.057	0.000	169.77	1.863	0.106	0.000
	100-200	0.250		0.82	0.710	0.146	0.000	172.30	1.891	0.275	0.000
	>200	0.250		1.00	0.710	0.178	0.000	551.12	6.048	1.073	0.000
rF	0-100	0.203	0.339	0.50	1.000	0.102	0.170	6.53	0.072	0.007	0.012
	100-200	0.203	0.339	0.80	1.000	0.162	0.271	12.31	0.135	0.022	0.037
	>200	0.203	0.339	1.00	1.000	0.203	0.339	149.45	1.640	0.333	0.556
rS	0-100	0.937	0.333	0.32	1.000	0.300	0.107	3.66	0.040	0.012	0.004
	100-200	0.937	0.333	0.82	1.000	0.768	0.273	5.83	0.064	0.049	0.017
	>200	0.937	0.333	1.00	1.000	0.937	0.333	17.96	0.197	0.185	0.066
rG*	0-100	0.272		0.32	1.000	0.087	0.000	0.00	0.000	0.000	0.000
	100-200	0.272		0.82	1.000	0.223	0.000	0.00	0.000	0.000	0.000
	>200	0.272		1.00	1.000	0.272	0.000	2.46	0.027	0.007	0.000

9112.87

* VALUE FROM HSE

AVAILABLE HABITAT FOR FOOD 24.88

AVAILABLE HABITAT FOR COVER 9.26

FOOD HSI= 0.415 FOOD HUs= 3778.95

COVER HSI= 0.231 COVER HU= 2109.57

4. SPREADSHEET FOR CALCULATING THE HSI FOR MULE DEER----ELEVATION BAND 2

ELEVATION BAND 2 TY0, AND TY1 (1993 & 1994) WITH AND WITHOUT PROJECT

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	INTERSPERSION INDEX	ROAD FACTOR	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.179	0.778	1.000	0.50	0.090	0.389	50.42	0.292	0.026	0.114
	100-200	0.179	0.778	1.000	0.80	0.143	0.622	103.62	0.600	0.086	0.374
	>200	0.179	0.778	1.000	1.00	0.179	0.778	2044.50	11.843	2.120	9.214
OC	0-100	0.440	0.651	1.000	0.50	0.220	0.326	14.20	0.082	0.018	0.027
	100-200	0.440	0.651	1.000	0.80	0.352	0.521	37.48	0.217	0.076	0.113
	>200	0.440	0.651	1.000	1.00	0.440	0.651	3029.11	17.546	7.720	11.423
PP*	0-100	0.440	0.651	1.000	0.50	0.220	0.326	7.33	0.042	0.009	0.014
	100-200	0.440	0.651	1.000	0.80	0.352	0.521	14.26	0.083	0.029	0.043
	>200	0.440	0.651	1.000	1.00	0.440	0.651	156.67	0.908	0.399	0.591
MS	0-100	0.762	0.333	1.000	0.32	0.244	0.107	51.65	0.299	0.073	0.032
	100-200	0.762	0.333	1.000	0.82	0.625	0.273	125.93	0.729	0.456	0.199
	>200	0.762	0.333	1.000	1.00	0.762	0.333	8017.70	46.443	35.390	15.466
G	0-100	0.334		1.000	0.32	0.107	0.000	46.64	0.270	0.029	0.000
	100-200	0.334		1.000	0.82	0.274	0.000	69.76	0.404	0.111	0.000
	>200	0.334		1.000	1.00	0.334	0.000	3330.31	19.291	6.443	0.000
A	0-100			1.000	0.32	0.000	0.000	0.00	0.000	0.000	0.000
	100-200			1.000	0.82	0.000	0.000	0.00	0.000	0.000	0.000
	>200			1.000	1.00	0.000	0.000	0.00	0.000	0.000	0.000
rF	0-100	0.214	0.563	1.000	0.50	0.107	0.282	14.21	0.082	0.009	0.023
	100-200	0.214	0.563	1.000	0.80	0.171	0.450	3.94	0.023	0.004	0.010
	>200	0.214	0.563	1.000	1.00	0.214	0.563	75.08	0.435	0.093	0.245
rS	0-100	0.996	0.333	1.000	0.32	0.319	0.107	2.00	0.012	0.004	0.001
	100-200	0.996	0.333	1.000	0.82	0.817	0.273	2.80	0.016	0.013	0.004
	>200	0.996	0.333	1.000	1.00	0.996	0.333	64.25	0.372	0.371	0.124
rG^	0-100	0.272		1.000	0.32	0.087	0.000	0.57	0.003	0.000	0.000
	100-200	0.272		1.000	0.82	0.223	0.000	1.08	0.006	0.001	0.000
	>200	0.272		1.000	1.00	0.272	0.000	0.00	0.000	0.000	0.000

17263.51

AVAILABLE HABITAT FOR FOOD 53.48

AVAILABLE HABITAT FOR COVER 38.02

FOOD HSI= 0.891 FOOD HUs=15387.77

COVER HSI= 0.950 COVER HU=16407.07

* value from OC type

^value is and average from rG sampled in MSN & MSE

This spreadsheet calculates the HSI and HUs for Mule Deer in Elevation Band 2 for TY0 and TY1 under with and without project conditions.

5. ELEVATION BAND 2 TY12 & TY50 (2005 & 2043) WITHOUT PROJECT

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	INTERSPERSION INDEX	ROAD FACTOR	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.179	0.778	1.000	0.50	0.090	0.389	50.42	0.292	0.026	0.114
	100-200	0.179	0.778	1.000	0.80	0.143	0.622	103.62	0.600	0.086	0.374
	>200	0.179	0.778	1.000	1.00	0.179	0.778	2044.50	11.843	2.120	9.214
OC	0-100	0.440	0.651	1.000	0.50	0.220	0.326	14.20	0.082	0.018	0.027
	100-200	0.440	0.651	1.000	0.80	0.352	0.521	37.48	0.217	0.076	0.113
	>200	0.440	0.651	1.000	1.00	0.440	0.651	3029.11	17.546	7.720	11.423
PP*	0-100	0.440	0.651	1.000	0.50	0.220	0.326	7.33	0.042	0.009	0.014
	100-200	0.440	0.651	1.000	0.80	0.352	0.521	14.26	0.083	0.029	0.043
	>200	0.440	0.651	1.000	1.00	0.440	0.651	156.67	0.908	0.399	0.591
MS	0-100	0.762	0.333	1.000	0.32	0.244	0.107	51.65	0.299	0.073	0.032
	100-200	0.762	0.333	1.000	0.82	0.625	0.273	125.93	0.729	0.456	0.199
	>200	0.762	0.333	1.000	1.00	0.762	0.333	8017.70	46.443	35.390	15.466
G	0-100	0.334		1.000	0.32	0.107	0.000	46.64	0.270	0.029	0.000
	100-200	0.334		1.000	0.82	0.274	0.000	69.76	0.404	0.111	0.000
	>200	0.334		1.000	1.00	0.334	0.000	3330.31	19.291	6.443	0.000
A	0-100			1.000	0.32	0.000	0.000	0.00	0.000	0.000	0.000
	100-200			1.000	0.82	0.000	0.000	0.00	0.000	0.000	0.000
	>200			1.000	1.00	0.000	0.000	0.00	0.000	0.000	0.000
rF	0-100	0.214	0.563	1.000	0.50	0.107	0.282	14.21	0.082	0.009	0.023
	100-200	0.214	0.563	1.000	0.80	0.171	0.450	3.94	0.023	0.004	0.010
	>200	0.214	0.563	1.000	1.00	0.214	0.563	75.08	0.435	0.093	0.245
rS	0-100	0.996	0.333	1.000	0.32	0.319	0.107	2.00	0.012	0.004	0.001
	100-200	0.996	0.333	1.000	0.82	0.817	0.273	2.80	0.016	0.013	0.004
	>200	0.996	0.333	1.000	1.00	0.996	0.333	64.25	0.372	0.371	0.124
rG^	0-100	0.272		1.000	0.32	0.087	0.000	0.57	0.003	0.000	0.000
	100-200	0.272		1.000	0.82	0.223	0.000	1.08	0.006	0.001	0.000
	>200	0.272		1.000	1.00	0.272	0.000	0.00	0.000	0.000	0.000

17263.51

AVAILABLE HABITAT FOR FOOD 53.48

AVAILABLE HABITAT FOR COVER 38.02

FOOD HSI= 0.891 FOOD HUs=15387.77

COVER HSI= 0.950 COVER HU=16407.07

* value from OC type

^value is and average from rG sampled in MSN & MSE

This spreadsheet calculates the HSI and HUs for Mule Deer for TY12 and TY50 without project conditions. It is identical to spreadsheet 4.

6. ELEVATION BAND 2 TY12 & TY50 (2005 & 2043) WITH GREY MOUNTAIN PROJECT

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	INTERSPERSION INDEX	ROAD FACTOR	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.179	0.778	1.000	0.50	0.090	0.389	0.00	0.000	0.000	0.000
	100-200	0.179	0.778	1.000	0.80	0.143	0.622	0.00	0.000	0.000	0.000
	>200	0.179	0.778	1.000	1.00	0.179	0.778	2198.54	12.735	2.280	9.908
OC	0-100	0.440	0.651	1.000	0.50	0.220	0.326	0.00	0.000	0.000	0.000
	100-200	0.440	0.651	1.000	0.80	0.352	0.521	0.00	0.000	0.000	0.000
	>200	0.440	0.651	1.000	1.00	0.440	0.651	3080.79	17.846	7.852	11.618
PP*	0-100	0.440	0.651	1.000	0.50	0.220	0.326	7.33	0.042	0.009	0.014
	100-200	0.440	0.651	1.000	0.80	0.352	0.521	14.26	0.083	0.029	0.043
	>200	0.440	0.651	1.000	1.00	0.440	0.651	156.67	0.908	0.399	0.591
MS	0-100	0.762	0.333	1.000	0.32	0.244	0.107	21.45	0.124	0.030	0.013
	100-200	0.762	0.333	1.000	0.82	0.625	0.273	17.16	0.099	0.062	0.027
	>200	0.762	0.333	1.000	1.00	0.762	0.333	8156.67	47.248	36.003	15.734
G	0-100	0.334		1.000	0.32	0.107	0.000	45.76	0.265	0.028	0.000
	100-200	0.334		1.000	0.82	0.274	0.000	52.91	0.306	0.084	0.000
	>200	0.334		1.000	1.00	0.334	0.000	3348.04	19.394	6.478	0.000
A	0-100			1.000	0.32	0.000	0.000	0.00	0.000	0.000	0.000
	100-200			1.000	0.82	0.000	0.000	0.00	0.000	0.000	0.000
	>200			1.000	1.00	0.000	0.000	0.00	0.000	0.000	0.000
rF	0-100	0.214	0.563	1.000	0.50	0.107	0.282	2.86	0.017	0.002	0.005
	100-200	0.214	0.563	1.000	0.80	0.171	0.450	3.56	0.021	0.004	0.009
	>200	0.214	0.563	1.000	1.00	0.214	0.563	86.81	0.503	0.108	0.283
rS	0-100	0.996	0.333	1.000	0.32	0.319	0.107	1.43	0.008	0.003	0.001
	100-200	0.996	0.333	1.000	0.82	0.817	0.273	0.00	0.000	0.000	0.000
	>200	0.996	0.333	1.000	1.00	0.996	0.333	67.62	0.392	0.390	0.130
rG^	0-100	0.272		1.000	0.32	0.087	0.000	0.00	0.000	0.000	0.000
	100-200	0.272		1.000	0.82	0.223	0.000	0.00	0.000	0.000	0.000
	>200	0.272		1.000	1.00	0.272	0.000	1.49	0.009	0.002	0.000

17263.35

AVAILABLE HABITAT FOR FOOD 53.76

AVAILABLE HABITAT FOR COVER 38.38

FOOD HSI= 0.896 FOOD HUs=15468.86

COVER HSI= 0.959 COVER HU=16562.40

* value from OC type

^value is and average from rG sampled in MSN & MSE

This spreadsheet calculates the HSI and HUs for Mule Deer for TY12 and TY50 with project conditions. Since the road will be relocated if the project is constructed, HSI values are greater than without project conditions.

7. ELEVATION BAND 2 TY12 & TY50 (2005 & 2043) WITH POUDRE PROJECT

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	INTERSPERSION INDEX	ROAD FACTOR	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.179	0.778	1.000	0.50	0.090	0.389	0.00	0.000	0.000	0.000
	100-200	0.179	0.778	1.000	0.80	0.143	0.622	0.00	0.000	0.000	0.000
	>200	0.179	0.778	1.000	1.00	0.179	0.778	2198.54	12.735	2.280	9.908
OC	0-100	0.440	0.651	1.000	0.50	0.220	0.326	0.00	0.000	0.000	0.000
	100-200	0.440	0.651	1.000	0.80	0.352	0.521	0.00	0.000	0.000	0.000
	>200	0.440	0.651	1.000	1.00	0.440	0.651	3080.79	17.846	7.852	11.618
PP*	0-100	0.440	0.651	1.000	0.50	0.220	0.326	7.33	0.042	0.009	0.014
	100-200	0.440	0.651	1.000	0.80	0.352	0.521	14.26	0.083	0.029	0.043
	>200	0.440	0.651	1.000	1.00	0.440	0.651	156.67	0.908	0.399	0.591
MS	0-100	0.762	0.333	1.000	0.32	0.244	0.107	30.00	0.174	0.042	0.019
	100-200	0.762	0.333	1.000	0.82	0.625	0.273	21.82	0.126	0.079	0.035
	>200	0.762	0.333	1.000	1.00	0.762	0.333	8143.46	47.172	35.945	15.708
G	0-100	0.334		1.000	0.32	0.107	0.000	46.64	0.270	0.029	0.000
	100-200	0.334		1.000	0.82	0.274	0.000	53.50	0.310	0.085	0.000
	>200	0.334		1.000	1.00	0.334	0.000	3346.57	19.385	6.473	0.000
A	0-100			1.000	0.32	0.000	0.000	0.00	0.000	0.000	0.000
	100-200			1.000	0.82	0.000	0.000	0.00	0.000	0.000	0.000
	>200			1.000	1.00	0.000	0.000	0.00	0.000	0.000	0.000
rF	0-100	0.214	0.563	1.000	0.50	0.107	0.282	2.86	0.017	0.002	0.005
	100-200	0.214	0.563	1.000	0.80	0.171	0.450	4.70	0.027	0.005	0.012
	>200	0.214	0.563	1.000	1.00	0.214	0.563	85.67	0.496	0.106	0.279
rS	0-100	0.996	0.333	1.000	0.32	0.319	0.107	1.43	0.008	0.003	0.001
	100-200	0.996	0.333	1.000	0.82	0.817	0.273	0.00	0.000	0.000	0.000
	>200	0.996	0.333	1.000	1.00	0.996	0.333	67.62	0.392	0.390	0.130
rG^	0-100	0.272		1.000	0.32	0.087	0.000	0.57	0.003	0.000	0.000
	100-200	0.272		1.000	0.82	0.223	0.000	0.97	0.006	0.001	0.000
	>200	0.272		1.000	1.00	0.272	0.000	0.00	0.000	0.000	0.000

17263.40

AVAILABLE HABITAT FOR FOOD 53.73

AVAILABLE HABITAT FOR COVER 38.36

FOOD HSI= 0.896 FOOD HUs=15459.71

COVER HSI= 0.959 COVER HU=16556.54

* value from OC type

^value is and average from rG sampled in MSN & MSE

This spreadsheet is identical to spreadsheet 6 since the Poudre the Grey Mountain alternatives influence Elevation Band 2 in the same way.

8. SPREADSHEET FOR CALCULATING THE HSI FOR MULE DEER----ELEVATION BAND 3

ELEVATION BAND 3 TY0, TY1 AND TY12 (1993, 1994 & 2005) WITH AND WITHOUT PROJECT

COVER TYPE	HSI FOOD	HSI COVER	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0.141	1.000	1.000	0.141	1.000	2345.52	36.621	5.163	36.621
OC	0.212	0.692	1.000	0.212	0.692	2497.76	38.997	8.267	26.986
PP			1.000	0.000	0.000	0.00	0.000	0.000	0.000
MS	0.853	0.333	1.000	0.853	0.333	1232.58	19.244	16.415	6.408
G	0.280		1.000	0.280	0.000	324.66	5.069	1.419	0.000
A			1.000	0.000	0.000	0.00	0.000	0.000	0.000
rF*	0.214	0.563	1.000	0.214	0.563	4.18	0.065	0.014	0.037
rS*	0.996	0.333	1.000	0.996	0.333	0.23	0.004	0.004	0.001
rG			1.000	0.000	0.000	0.00	0.000	0.000	0.000

6404.93

AVAILABLE HABITAT FOR FOOD 31.28

AVAILABLE HABITAT FOR COVER 70.05

FOOD HSI= 0.521 FOOD HUs= 3339.44

COVER HSI= 1.000 COVER HU= 6404.93

* value is from elevation band 2

This spreadsheet calculates HSI values and HUs for Elevation Band 3 under conditions with and without the project. Since neither the Grey Mountain or Poudre alternatives influence Elevation Band 3, this spreadsheet is identical to spreadsheets 9 and 10. (Set up to deal with changes.)

9. ELEVATION BAND 3 TY50 (2043) WITHOUT PROJECT

COVER TYPE	HSI FOOD	HSI COVER	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0.141	1.000	1.000	0.141	1.000	2345.52	36.621	5.163	36.621
DC	0.212	0.692	1.000	0.212	0.692	2497.76	38.997	8.267	26.986
PP			1.000	0.000	0.000	0.00	0.000	0.000	0.000
MS	0.853	0.333	1.000	0.853	0.333	1232.58	19.244	16.415	6.408
B	0.280		1.000	0.280	0.000	324.66	5.069	1.419	0.000
A			1.000	0.000	0.000	0.00	0.000	0.000	0.000
rF*	0.214	0.563	1.000	0.214	0.563	4.18	0.065	0.014	0.037
rS*	0.996	0.333	1.000	0.996	0.333	0.23	0.004	0.004	0.001
rB			1.000	0.000	0.000	0.00	0.000	0.000	0.000

6404.93

AVAILABLE HABITAT FOR FOOD 31.28

AVAILABLE HABITAT FOR COVER 70.05

FOOD HSI= 0.521 FOOD HUs= 3339.44

COVER HSI= 1.000 COVER HU= 6404.93

* value is from elevation band 2

This spreadsheet is identical to spreadsheet 8.

10. ELEVATION BAND 3 TY50 (2043) WITH PROJECT

COVER TYPE	HSI FOOD	HSI COVER	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0.141	1.000	1.000	0.141	1.000	2345.52	36.621	5.163	36.621
DC	0.212	0.692	1.000	0.212	0.692	2497.76	38.997	8.267	26.986
PP			1.000	0.000	0.000	0.00	0.000	0.000	0.000
MS	0.853	0.333	1.000	0.853	0.333	1232.58	19.244	16.415	6.408
G	0.280		1.000	0.280	0.000	324.66	5.069	1.419	0.000
A			1.000	0.000	0.000	0.00	0.000	0.000	0.000
rF*	0.214	0.563	1.000	0.214	0.563	4.18	0.065	0.014	0.037
rS*	0.996	0.333	1.000	0.996	0.333	0.23	0.004	0.004	0.001
rG			1.000	0.000	0.000	0.00	0.000	0.000	0.000

6404.93

AVAILABLE HABITAT FOR FOOD 31.28

AVAILABLE HABITAT FOR COVER 70.05

FOOD HSI= 0.521 FOOD HUs= 3339.44

COVER HSI= 1.000 COVER HU= 6404.93

* value is from elevation band 2

This spreadsheet is identical to spreadsheet 8.

11. SPREADSHEET FOR CALCULATING THE HSI FOR MULE DEER----ELEVATION BAND 4

ELEVATION BAND 4 TY0, TY1 AND TY12 (1993, 1994 & 2005) WITH AND WITHOUT PROJECT

COVER TYPE	HSI FOOD	HSI COVER	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0.172	0.813	1.000	0.172	0.813	637.06	47.302	8.136	38.457
OC	0.300	0.796	1.000	0.300	0.796	678.26	50.362	15.108	40.088
PP			1.000	0.000	0.000	0.00	0.000	0.000	0.000
MS^	0.853	0.333	1.000	0.853	0.333	25.73	1.910	1.630	0.636
G^	0.280		1.000	0.280	0.000	5.73	0.425	0.119	0.000
A			1.000	0.000	0.000	0.00	0.000	0.000	0.000
rF*	0.214	0.563	1.000	0.214	0.563	0.00	0.000	0.000	0.000
rS*	0.996	0.333	1.000	0.996	0.333	0.00	0.000	0.000	0.000
rG			1.000	0.000	0.000	0.00	0.000	0.000	0.000

1346.78

AVAILABLE HABITAT FOR FOOD 24.99

AVAILABLE HABITAT FOR COVER 79.18

FOOD HSI= 0.417 FOOD HUs= 561.01

COVER HSI= 1.000 COVER HU= 1346.78

* value is from elevation band 2
^ value is from elevation band 3

This spreadsheet was set up to calculate HSI values and HUs for the Mule Deer in Elevation Zone 4. Since with and without project conditions do not change and are identical for both project alternatives, this spreadsheet is the same as 12 and 13. (Set up to deal with any changes.)

12. ELEVATION BAND 4 TY50 (2043) WITHOUT PROJECT

COVER TYPE	HSI FOOD	HSI COVER	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0.172	0.813	1.000	0.172	0.813	637.06	47.302	8.136	38.457
DC	0.300	0.796	1.000	0.300	0.796	678.26	50.362	15.108	40.088
PP			1.000	0.000	0.000	0.00	0.000	0.000	0.000
MS^	0.853	0.333	1.000	0.853	0.333	25.73	1.910	1.630	0.636
G^	0.280		1.000	0.280	0.000	5.73	0.425	0.119	0.000
A			1.000	0.000	0.000	0.00	0.000	0.000	0.000
rF#	0.214	0.563	1.000	0.214	0.563	0.00	0.000	0.000	0.000
rS#	0.996	0.333	1.000	0.996	0.333	0.00	0.000	0.000	0.000
rG			1.000	0.000	0.000	0.00	0.000	0.000	0.000

1346.78

AVAILABLE HABITAT FOR FOOD 24.99

AVAILABLE HABITAT FOR COVER 79.18

FOOD HSI= 0.417 FOOD HUs= 561.01

COVER HSI= 1.000 COVER HU= 1346.78

value is from elevation band 2
^ value is from elevation band 3

This spreadsheet is identical to spreadsheet 11.

13. ELEVATION BAND 4 TY50 (2043) WITH PROJECT

COVER TYPE	HSI FOOD	HSI COVER	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0.172	0.813	1.000	0.172	0.813	637.06	47.302	8.136	38.457
OC	0.300	0.796	1.000	0.300	0.796	678.26	50.362	15.108	40.088
PP			1.000	0.000	0.000	0.00	0.000	0.000	0.000
MS^	0.853	0.333	1.000	0.853	0.333	25.73	1.910	1.630	0.636
G^	0.280		1.000	0.280	0.000	5.73	0.425	0.119	0.000
A			1.000	0.000	0.000	0.00	0.000	0.000	0.000
rF*	0.214	0.563	1.000	0.214	0.563	0.00	0.000	0.000	0.000
rS*	0.996	0.333	1.000	0.996	0.333	0.00	0.000	0.000	0.000
rB			1.000	0.000	0.000	0.00	0.000	0.000	0.000

1346.78

AVAILABLE HABITAT FOR FOOD 24.99

AVAILABLE HABITAT FOR COVER 79.18

FOOD HSI= 0.417 FOOD HUs= 561.01

COVER HSI= 1.000 COVER HU= 1346.78

* value is from elevation band 2
^ value is from elevation band 3

This spreadsheet is identical to spreadsheet 11.

14. SPREADSHEET FOR CALCULATING THE HSI FOR MULE DEER----MAINSTEM EAST

MAINSTEM EAST TY0, AND TY1 (1993, 1994) WITH AND WITHOUT PROJECT AND TY12 (2005) WITHOUT PROJECT

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	ROAD FACTOR	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.172	0.777	0.50	1.000	0.086	0.389	0.11	0.006	0.001	0.002
	100-200	0.172	0.777	0.80	1.000	0.138	0.622	2.46	0.142	0.020	0.088
	>200	0.172	0.777	1.00	1.000	0.172	0.777	99.89	5.756	0.990	4.472
OC	0-100	0.213	0.672	0.50	1.000	0.107	0.336	0.22	0.013	0.001	0.004
	100-200	0.213	0.672	0.80	1.000	0.170	0.538	0.00	0.000	0.000	0.000
	>200	0.213	0.672	1.00	1.000	0.213	0.672	212.23	12.229	2.605	8.218
PP^	0-100	0.213	0.672	0.50	1.000	0.107	0.336	0.00	0.000	0.000	0.000
	100-200	0.213	0.672	0.80	1.000	0.170	0.538	0.00	0.000	0.000	0.000
	>200	0.213	0.672	1.00	1.000	0.213	0.672	0.00	0.000	0.000	0.000
MS	0-100	0.741	0.333	0.32	1.000	0.237	0.107	92.62	5.337	1.265	0.569
	100-200	0.741	0.333	0.82	1.000	0.608	0.273	85.34	4.917	2.988	1.343
	>200	0.741	0.333	1.00	1.000	0.741	0.333	538.23	31.013	22.980	10.327
G	0-100	0.300		0.32	1.000	0.096	0.000	26.90	1.550	0.149	0.000
	100-200	0.300		0.82	1.000	0.246	0.000	12.12	0.698	0.172	0.000
	>200	0.300		1.00	1.000	0.300	0.000	533.15	30.720	9.216	0.000
A*	0-100	0.250		0.32	1.000	0.080	0.000	18.16	1.046	0.084	0.000
	100-200	0.250		0.82	1.000	0.205	0.000	15.18	0.875	0.179	0.000
	>200	0.250		1.00	1.000	0.250	0.000	40.92	2.358	0.589	0.000
rF	0-100	0.383	0.556	0.50	1.000	0.192	0.278	18.49	1.065	0.204	0.296
	100-200	0.383	0.556	0.80	1.000	0.306	0.445	0.62	0.036	0.011	0.016
	>200	0.383	0.556	1.00	1.000	0.383	0.556	17.28	0.996	0.381	0.554
rS	0-100	0.968	0.333	0.32	1.000	0.310	0.107	7.94	0.457	0.142	0.049
	100-200	0.968	0.333	0.82	1.000	0.794	0.273	0.00	0.000	0.000	0.000
	>200	0.968	0.333	1.00	1.000	0.968	0.333	6.21	0.358	0.346	0.119
rG	0-100	0.272		0.32	1.000	0.087	0.000	0.00	0.000	0.000	0.000
	100-200	0.272		0.82	1.000	0.223	0.000	0.97	0.056	0.012	0.000
	>200	0.272		1.00	1.000	0.272	0.000	6.48	0.373	0.102	0.000

1735.52

* VALUE FROM ELEVATION BAND 1

^ VALUE FROM OPEN CANOPY HABITAT

AVAILABLE HABITAT FOR FOOD 42.44

AVAILABLE HABITAT FOR COVER 26.06

FOOD HSI= 0.707 FOOD HUs= 1227.51

COVER HSI= 0.651 COVER HU= 1130.55

This spreadsheet was set up to calculate HSI values and HUs for the Mule Deer on the East side of the project areas in Elevation Band 1 with and without the project for TY0, 1 and 12.

15. MAINSTEM EAST TY50 (2043) WITHOUT PROJECT

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	ROAD FACTOR	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.172	0.777	0.50	1.000	0.086	0.389	0.11	0.006	0.001	0.002
	100-200	0.172	0.777	0.80	1.000	0.138	0.622	2.46	0.142	0.020	0.088
	>200	0.172	0.777	1.00	1.000	0.172	0.777	99.89	5.756	0.990	4.472
OC	0-100	0.213	0.672	0.50	1.000	0.107	0.336	0.22	0.013	0.001	0.004
	100-200	0.213	0.672	0.80	1.000	0.170	0.538	0.00	0.000	0.000	0.000
	>200	0.213	0.672	1.00	1.000	0.213	0.672	212.23	12.229	2.605	8.218
PP^	0-100	0.213	0.672	0.50	1.000	0.107	0.336	0.00	0.000	0.000	0.000
	100-200	0.213	0.672	0.80	1.000	0.170	0.538	0.00	0.000	0.000	0.000
	>200	0.213	0.672	1.00	1.000	0.213	0.672	0.00	0.000	0.000	0.000
MS	0-100	0.741	0.333	0.32	1.000	0.237	0.107	92.62	5.337	1.265	0.569
	100-200	0.741	0.333	0.82	1.000	0.608	0.273	85.34	4.917	2.988	1.343
	>200	0.741	0.333	1.00	1.000	0.741	0.333	538.23	31.013	22.980	10.327
G	0-100	0.300		0.32	1.000	0.096	0.000	26.90	1.550	0.149	0.000
	100-200	0.300		0.82	1.000	0.246	0.000	12.12	0.698	0.172	0.000
	>200	0.300		1.00	1.000	0.300	0.000	533.15	30.720	9.216	0.000
A*	0-100	0.250		0.32	1.000	0.080	0.000	18.16	1.046	0.084	0.000
	100-200	0.250		0.82	1.000	0.205	0.000	15.18	0.875	0.179	0.000
	>200	0.250		1.00	1.000	0.250	0.000	40.92	2.358	0.589	0.000
rF	0-100	0.383	0.556	0.50	1.000	0.192	0.278	18.49	1.065	0.204	0.296
	100-200	0.383	0.556	0.80	1.000	0.306	0.445	0.62	0.036	0.011	0.016
	>200	0.383	0.556	1.00	1.000	0.383	0.556	17.28	0.996	0.381	0.554
rS	0-100	0.968	0.333	0.32	1.000	0.310	0.107	7.94	0.457	0.142	0.049
	100-200	0.968	0.333	0.82	1.000	0.794	0.273	0.00	0.000	0.000	0.000
	>200	0.968	0.333	1.00	1.000	0.968	0.333	6.21	0.358	0.346	0.119
rG	0-100	0.272		0.32	1.000	0.087	0.000	0.00	0.000	0.000	0.000
	100-200	0.272		0.82	1.000	0.223	0.000	0.97	0.056	0.012	0.000
	>200	0.272		1.00	1.000	0.272	0.000	6.48	0.373	0.102	0.000

1735.52

* VALUE FROM ELEVATION BAND 1
^ VALUE FROM OPEN CANOPY HABITAT

AVAILABLE HABITAT FOR FOOD 42.44

AVAILABLE HABITAT FOR COVER 26.06

FOOD HSI= 0.707 FOOD HUs= 1227.51

COVER HSI= 0.651 COVER HU= 1130.55

Since no changes are expected in TY50 without the project, this spreadsheet is identical to spreadsheet 14.

16. MAINSTEM EAST TY12 (2005) WITH GREY MOUNTAIN

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	ROAD FACTOR	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.172	0.777	0.50	1.000	0.086	0.389	0.00	0.000	0.000	0.000
	100-200	0.172	0.777	0.80	1.000	0.138	0.622	0.00	0.000	0.000	0.000
	>200	0.172	0.777	1.00	1.000	0.172	0.777	0.00	0.000	0.000	0.000
OC	0-100	0.213	0.672	0.50	1.000	0.107	0.336	0.00	0.000	0.000	0.000
	100-200	0.213	0.672	0.80	1.000	0.170	0.538	0.00	0.000	0.000	0.000
	>200	0.213	0.672	1.00	1.000	0.213	0.672	2.55	0.247	0.053	0.166
PP^	0-100	0.213	0.672	0.50	1.000	0.107	0.336	0.00	0.000	0.000	0.000
	100-200	0.213	0.672	0.80	1.000	0.170	0.538	0.00	0.000	0.000	0.000
	>200	0.213	0.672	1.00	1.000	0.213	0.672	0.00	0.000	0.000	0.000
MS	0-100	0.741	0.333	0.32	1.000	0.237	0.107	44.33	4.297	1.019	0.458
	100-200	0.741	0.333	0.82	1.000	0.608	0.273	48.62	4.713	2.864	1.287
	>200	0.741	0.333	1.00	1.000	0.741	0.333	367.27	35.604	26.383	11.856
G	0-100	0.300		0.32	1.000	0.096	0.000	15.73	1.525	0.146	0.000
	100-200	0.300		0.82	1.000	0.246	0.000	11.44	1.109	0.273	0.000
	>200	0.300		1.00	1.000	0.300	0.000	440.26	42.680	12.804	0.000
A*	0-100	0.250		0.32	1.000	0.080	0.000	18.16	1.760	0.141	0.000
	100-200	0.250		0.82	1.000	0.205	0.000	15.18	1.472	0.302	0.000
	>200	0.250		1.00	1.000	0.250	0.000	40.92	3.967	0.992	0.000
rF	0-100	0.383	0.556	0.50	1.000	0.192	0.278	12.14	1.177	0.225	0.327
	100-200	0.383	0.556	0.80	1.000	0.306	0.445	0.00	0.000	0.000	0.000
	>200	0.383	0.556	1.00	1.000	0.383	0.556	9.06	0.878	0.336	0.488
rS	0-100	0.968	0.333	0.32	1.000	0.310	0.107	4.46	0.432	0.134	0.046
	100-200	0.968	0.333	0.82	1.000	0.794	0.273	0.00	0.000	0.000	0.000
	>200	0.968	0.333	1.00	1.000	0.968	0.333	0.07	0.007	0.007	0.002
rG	0-100	0.272		0.32	1.000	0.087	0.000	0.00	0.000	0.000	0.000
	100-200	0.272		0.82	1.000	0.223	0.000	0.00	0.000	0.000	0.000
	>200	0.272		1.00	1.000	0.272	0.000	1.34	0.130	0.035	0.000

1031.53

* VALUE FROM ELEVATION BAND 1
^ VALUE FROM OPEN CANOPY HABITAT

AVAILABLE HABITAT FOR FOOD 45.71

AVAILABLE HABITAT FOR COVER 14.63

FOOD HSI= 0.762 FOOD HUs= 785.92

COVER HSI= 0.366 COVER HU= 377.31

This spreadsheet calculates HSIs and HUs for the Mule Deer on what remains of the East side of the project area after construction of Grey Mountain (TY12).

To determine the acreage impacted by Grey Mountain Reservoir for the Mule Deer, subtract the acreages on this spreadsheet from those on spreadsheet 14 or 15. The HSI for the area impacted by Grey Mountain on the East side of the project area are:

Forage:
(1031) (.76) + (704) (HSI) = (1735) (.71)
HSI = 0.63

Cover:
(1031) (.37) + (704) (HSI) = (1735) (.65)
(HSI) = 1.00

17. MAINSTEM EAST TY50 (2043) WITH GREY MOUNTAIN

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	ROAD FACTOR	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.172	0.777	0.50	1.000	0.086	0.389	0.00	0.000	0.000	0.000
	100-200	0.172	0.777	0.80	1.000	0.138	0.622	0.00	0.000	0.000	0.000
	>200	0.172	0.777	1.00	1.000	0.172	0.777	0.00	0.000	0.000	0.000
OC	0-100	0.213	0.672	0.50	1.000	0.107	0.336	0.00	0.000	0.000	0.000
	100-200	0.213	0.672	0.80	1.000	0.170	0.538	0.00	0.000	0.000	0.000
	>200	0.213	0.672	1.00	1.000	0.213	0.672	2.55	0.247	0.053	0.166
PP^	0-100	0.213	0.672	0.50	1.000	0.107	0.336	0.00	0.000	0.000	0.000
	100-200	0.213	0.672	0.80	1.000	0.170	0.538	0.00	0.000	0.000	0.000
	>200	0.213	0.672	1.00	1.000	0.213	0.672	0.00	0.000	0.000	0.000
MS	0-100	0.741	0.333	0.32	1.000	0.237	0.107	44.33	4.297	1.019	0.458
	100-200	0.741	0.333	0.82	1.000	0.608	0.273	48.62	4.713	2.864	1.287
	>200	0.741	0.333	1.00	1.000	0.741	0.333	367.27	35.604	26.383	11.856
G	0-100	0.300		0.32	1.000	0.096	0.000	15.73	1.525	0.146	0.000
	100-200	0.300		0.82	1.000	0.246	0.000	11.44	1.109	0.273	0.000
	>200	0.300		1.00	1.000	0.300	0.000	440.26	42.680	12.804	0.000
A*	0-100	0.250		0.32	1.000	0.080	0.000	18.16	1.760	0.141	0.000
	100-200	0.250		0.82	1.000	0.205	0.000	15.18	1.472	0.302	0.000
	>200	0.250		1.00	1.000	0.250	0.000	40.92	3.967	0.992	0.000
rF	0-100	0.383	0.556	0.50	1.000	0.192	0.278	12.14	1.177	0.225	0.327
	100-200	0.383	0.556	0.80	1.000	0.306	0.445	0.00	0.000	0.000	0.000
	>200	0.383	0.556	1.00	1.000	0.383	0.556	9.06	0.878	0.336	0.488
rS	0-100	0.968	0.333	0.32	1.000	0.310	0.107	4.46	0.432	0.134	0.046
	100-200	0.968	0.333	0.82	1.000	0.794	0.273	0.00	0.000	0.000	0.000
	>200	0.968	0.333	1.00	1.000	0.968	0.333	0.07	0.007	0.007	0.002
rG	0-100	0.272		0.32	1.000	0.087	0.000	0.00	0.000	0.000	0.000
	100-200	0.272		0.82	1.000	0.223	0.000	0.00	0.000	0.000	0.000
	>200	0.272		1.00	1.000	0.272	0.000	1.34	0.130	0.035	0.000

1031.53

* VALUE FROM ELEVATION BAND 1
^ VALUE FROM OPEN CANOPY HABITAT

AVAILABLE HABITAT FOR FOOD 45.71

AVAILABLE HABITAT FOR COVER 14.63

FOOD HSI= 0.762 FOOD HUs= 785.92

COVER HSI= 0.366 COVER HU= 377.31

Set up to handle changes in TY50.
Currently identical to spreadsheet 16.

18. MAINSTEM EAST TY12 (2005) WITH POUDRE

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	ROAD FACTOR	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.172	0.777	0.50	1.000	0.086	0.389	0.00	0.000	0.000	0.000
	100-200	0.172	0.777	0.80	1.000	0.138	0.622	0.00	0.000	0.000	0.000
	>200	0.172	0.777	1.00	1.000	0.172	0.777	0.00	0.000	0.000	0.000
OC	0-100	0.213	0.672	0.50	1.000	0.107	0.336	0.22	0.019	0.002	0.006
	100-200	0.213	0.672	0.80	1.000	0.170	0.538	0.00	0.000	0.000	0.000
	>200	0.213	0.672	1.00	1.000	0.213	0.672	5.04	0.434	0.092	0.292
PP^	0-100	0.213	0.672	0.50	1.000	0.107	0.336	0.00	0.000	0.000	0.000
	100-200	0.213	0.672	0.80	1.000	0.170	0.538	0.00	0.000	0.000	0.000
	>200	0.213	0.672	1.00	1.000	0.213	0.672	0.00	0.000	0.000	0.000
MS	0-100	0.741	0.333	0.32	1.000	0.237	0.107	90.91	7.825	1.855	0.834
	100-200	0.741	0.333	0.82	1.000	0.608	0.273	85.12	7.327	4.452	2.001
	>200	0.741	0.333	1.00	1.000	0.741	0.333	384.89	33.130	24.549	11.032
B	0-100	0.300		0.32	1.000	0.096	0.000	15.73	1.354	0.130	0.000
	100-200	0.300		0.82	1.000	0.246	0.000	11.44	0.985	0.242	0.000
	>200	0.300		1.00	1.000	0.300	0.000	457.19	39.353	11.806	0.000
A*	0-100	0.250		0.32	1.000	0.080	0.000	18.16	1.563	0.125	0.000
	100-200	0.250		0.82	1.000	0.205	0.000	15.18	1.307	0.268	0.000
	>200	0.250		1.00	1.000	0.250	0.000	40.92	3.522	0.881	0.000
rF	0-100	0.383	0.556	0.50	1.000	0.192	0.278	18.04	1.553	0.297	0.432
	100-200	0.383	0.556	0.80	1.000	0.306	0.445	0.22	0.019	0.006	0.008
	>200	0.383	0.556	1.00	1.000	0.383	0.556	9.22	0.794	0.304	0.441
rS	0-100	0.968	0.333	0.32	1.000	0.310	0.107	7.72	0.665	0.206	0.071
	100-200	0.968	0.333	0.82	1.000	0.794	0.273	0.00	0.000	0.000	0.000
	>200	0.968	0.333	1.00	1.000	0.968	0.333	0.43	0.037	0.036	0.012
rG	0-100	0.272		0.32	1.000	0.087	0.000	0.00	0.000	0.000	0.000
	100-200	0.272		0.82	1.000	0.223	0.000	0.00	0.000	0.000	0.000
	>200	0.272		1.00	1.000	0.272	0.000	1.34	0.115	0.031	0.000

1161.77

* VALUE FROM ELEVATION BAND 1
^ VALUE FROM OPEN CANOPY HABITAT

AVAILABLE HABITAT FOR FOOD 45.28

AVAILABLE HABITAT FOR COVER 15.13

FOOD HSI= 0.755 FOOD HUs= 876.80

COVER HSI= 0.378 COVER HU= 439.41

This spreadsheet is the same as 16 except it is for Poudre.

Forage HSI:
1162 (.76) + 514 (HSI) = 1735 (.71)
HSI = 0.61

Cover HSI:
1162 (.38) + 573 (HSI) = 1735 (.65)
HSI = 1.00

19. MAINSTEM EAST TY50 (2043) WITH POUDRE

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	ROAD FACTOR	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.172	0.777	0.50	1.000	0.086	0.389	0.00	0.000	0.000	0.000
	100-200	0.172	0.777	0.80	1.000	0.138	0.622	0.00	0.000	0.000	0.000
	>200	0.172	0.777	1.00	1.000	0.172	0.777	0.00	0.000	0.000	0.000
OC	0-100	0.213	0.672	0.50	1.000	0.107	0.336	0.22	0.019	0.002	0.006
	100-200	0.213	0.672	0.80	1.000	0.170	0.538	0.00	0.000	0.000	0.000
	>200	0.213	0.672	1.00	1.000	0.213	0.672	5.04	0.434	0.092	0.292
PP^	0-100	0.213	0.672	0.50	1.000	0.107	0.336	0.00	0.000	0.000	0.000
	100-200	0.213	0.672	0.80	1.000	0.170	0.538	0.00	0.000	0.000	0.000
	>200	0.213	0.672	1.00	1.000	0.213	0.672	0.00	0.000	0.000	0.000
MS	0-100	0.741	0.333	0.32	1.000	0.237	0.107	90.91	7.825	1.855	0.834
	100-200	0.741	0.333	0.82	1.000	0.608	0.273	85.12	7.327	4.452	2.001
	>200	0.741	0.333	1.00	1.000	0.741	0.333	384.89	33.130	24.549	11.032
G	0-100	0.300		0.32	1.000	0.096	0.000	15.73	1.354	0.130	0.000
	100-200	0.300		0.82	1.000	0.246	0.000	11.44	0.985	0.242	0.000
	>200	0.300		1.00	1.000	0.300	0.000	457.19	39.353	11.806	0.000
A*	0-100	0.250		0.32	1.000	0.080	0.000	18.16	1.563	0.125	0.000
	100-200	0.250		0.82	1.000	0.205	0.000	15.18	1.307	0.268	0.000
	>200	0.250		1.00	1.000	0.250	0.000	40.92	3.522	0.881	0.000
rF	0-100	0.383	0.556	0.50	1.000	0.192	0.278	18.04	1.553	0.297	0.432
	100-200	0.383	0.556	0.80	1.000	0.306	0.445	0.22	0.019	0.006	0.008
	>200	0.383	0.556	1.00	1.000	0.383	0.556	9.22	0.794	0.304	0.441
rS	0-100	0.968	0.333	0.32	1.000	0.310	0.107	7.72	0.665	0.206	0.071
	100-200	0.968	0.333	0.82	1.000	0.794	0.273	0.00	0.000	0.000	0.000
	>200	0.968	0.333	1.00	1.000	0.968	0.333	0.43	0.037	0.036	0.012
rG	0-100	0.272		0.32	1.000	0.087	0.000	0.00	0.000	0.000	0.000
	100-200	0.272		0.82	1.000	0.223	0.000	0.00	0.000	0.000	0.000
	>200	0.272		1.00	1.000	0.272	0.000	1.34	0.115	0.031	0.000

1161.77

* VALUE FROM ELEVATION BAND 1
^ VALUE FROM OPEN CANOPY HABITAT

AVAILABLE HABITAT FOR FOOD 45.28

AVAILABLE HABITAT FOR COVER 15.13

FOOD HSI= 0.755 FOOD HUs= 876.80

COVER HSI= 0.378 COVER HU= 439.41

Set up to handle changes in TY50. Currently the same as 16.

SPREADSHEET FOR CALCULATING THE HSI FOR MULE DEER----MAINSTEM NORTH

20. MAINSTEM NORTH TY0, AND TY1 (1993, 1994) WITH AND WITHOUT PROJECT AND TY12 (2005) WITHOUT PROJECT

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	ROAD FACTOR	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.178	1.000	0.50	1.000	0.089	0.500	0.00	0.000	0.000	0.000
	100-200	0.178	1.000	0.80	1.000	0.142	0.800	0.40	0.055	0.008	0.044
	>200	0.178	1.000	1.00	1.000	0.178	1.000	5.16	0.710	0.126	0.710
OC	0-100	0.414	0.578	0.50	1.000	0.207	0.289	8.53	1.174	0.243	0.339
	100-200	0.414	0.578	0.80	1.000	0.331	0.462	6.41	0.882	0.292	0.408
	>200	0.414	0.578	1.00	1.000	0.414	0.578	51.49	7.089	2.935	4.097
PP^	0-100	0.414	0.578	0.50	1.000	0.207	0.289	0.00	0.000	0.000	0.000
	100-200	0.414	0.578	0.80	1.000	0.331	0.462	0.00	0.000	0.000	0.000
	>200	0.414	0.578	1.00	1.000	0.414	0.578	0.00	0.000	0.000	0.000
MS	0-100	0.824	0.333	0.32	1.000	0.264	0.107	76.66	10.554	2.783	1.125
	100-200	0.824	0.333	0.82	1.000	0.676	0.273	84.86	11.683	7.894	3.190
	>200	0.824	0.333	1.00	1.000	0.824	0.333	268.89	37.018	30.503	12.327
G	0-100	0.313		0.32	1.000	0.100	0.000	4.46	0.614	0.061	0.000
	100-200	0.313		0.82	1.000	0.257	0.000	2.46	0.339	0.087	0.000
	>200	0.313		1.00	1.000	0.313	0.000	171.45	23.603	7.388	0.000
A*	0-100	0.250		0.32	1.000	0.080	0.000	0.00	0.000	0.000	0.000
	100-200	0.250		0.82	1.000	0.205	0.000	0.00	0.000	0.000	0.000
	>200	0.250		1.00	1.000	0.250	0.000	0.00	0.000	0.000	0.000
rF	0-100	0.344	0.347	0.50	1.000	0.172	0.174	27.90	3.841	0.661	0.666
	100-200	0.344	0.347	0.80	1.000	0.275	0.278	0.45	0.062	0.017	0.017
	>200	0.344	0.347	1.00	1.000	0.344	0.347	8.83	1.216	0.418	0.422
rS	0-100	0.969	0.333	0.32	1.000	0.310	0.107	0.00	0.000	0.000	0.000
	100-200	0.969	0.333	0.82	1.000	0.795	0.273	0.00	0.000	0.000	0.000
	>200	0.969	0.333	1.00	1.000	0.969	0.333	6.88	0.947	0.918	0.315
rG	0-100	0.250		0.32	1.000	0.080	0.000	0.00	0.000	0.000	0.000
	100-200	0.250		0.82	1.000	0.205	0.000	0.00	0.000	0.000	0.000
	>200	0.250		1.00	1.000	0.250	0.000	1.55	0.213	0.053	0.000

726.38

* VALUE FROM ELEVATION BAND 1
^ VALUE FROM OPEN CANOPY HABITAT

AVAILABLE HABITAT FOR FOOD 54.39

AVAILABLE HABITAT FOR COVER 23.66

FOOD HSI= 0.906 FOOD HUs= 658.42

COVER HSI= 0.592 COVER HU= 429.68

This spreadsheet calculates HSIs and HUs for the Mule Deer on the North side of the project area in Elevation Band 1 with and without the project for TY0, 1 and 12.

21. MAINSTEM NORTH TY50 (2043) WITHOUT PROJECT

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	ROAD FACTOR	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.178	1.000	0.50	1.000	0.089	0.500	0.00	0.000	0.000	0.000
	100-200	0.178	1.000	0.80	1.000	0.142	0.800	0.40	0.055	0.008	0.044
	>200	0.178	1.000	1.00	1.000	0.178	1.000	5.16	0.710	0.126	0.710
DC	0-100	0.414	0.578	0.50	1.000	0.207	0.289	8.53	1.174	0.243	0.339
	100-200	0.414	0.578	0.80	1.000	0.331	0.462	6.41	0.882	0.292	0.408
	>200	0.414	0.578	1.00	1.000	0.414	0.578	51.49	7.089	2.935	4.097
PP^	0-100	0.414	0.578	0.50	1.000	0.207	0.289	0.00	0.000	0.000	0.000
	100-200	0.414	0.578	0.80	1.000	0.331	0.462	0.00	0.000	0.000	0.000
	>200	0.414	0.578	1.00	1.000	0.414	0.578	0.00	0.000	0.000	0.000
MS	0-100	0.824	0.333	0.32	1.000	0.264	0.107	76.66	10.554	2.783	1.125
	100-200	0.824	0.333	0.82	1.000	0.676	0.273	84.86	11.683	7.894	3.190
	>200	0.824	0.333	1.00	1.000	0.824	0.333	268.89	37.018	30.503	12.327
G	0-100	0.313		0.32	1.000	0.100	0.000	4.46	0.614	0.061	0.000
	100-200	0.313		0.82	1.000	0.257	0.000	2.46	0.339	0.087	0.000
	>200	0.313		1.00	1.000	0.313	0.000	171.45	23.603	7.388	0.000
A*	0-100	0.250		0.32	1.000	0.080	0.000	0.00	0.000	0.000	0.000
	100-200	0.250		0.82	1.000	0.205	0.000	0.00	0.000	0.000	0.000
	>200	0.250		1.00	1.000	0.250	0.000	0.00	0.000	0.000	0.000
rF	0-100	0.344	0.347	0.50	1.000	0.172	0.174	27.90	3.841	0.661	0.666
	100-200	0.344	0.347	0.80	1.000	0.275	0.278	0.45	0.062	0.017	0.017
	>200	0.344	0.347	1.00	1.000	0.344	0.347	8.83	1.216	0.418	0.422
rS	0-100	0.969	0.333	0.32	1.000	0.310	0.107	0.00	0.000	0.000	0.000
	100-200	0.969	0.333	0.82	1.000	0.795	0.273	0.00	0.000	0.000	0.000
	>200	0.969	0.333	1.00	1.000	0.969	0.333	6.88	0.947	0.918	0.315
rG	0-100	0.250		0.32	1.000	0.080	0.000	0.00	0.000	0.000	0.000
	100-200	0.250		0.82	1.000	0.205	0.000	0.00	0.000	0.000	0.000
	>200	0.250		1.00	1.000	0.250	0.000	1.55	0.213	0.053	0.000

726.38

* VALUE FROM ELEVATION BAND 1
^ VALUE FROM OPEN CANOPY HABITAT

AVAILABLE HABITAT FOR FOOD 54.39

AVAILABLE HABITAT FOR COVER 23.66

FOOD HSI= 0.906 FOOD HUs= 658.42

COVER HSI= 0.592 COVER HU= 429.68

Since no changes are expected in TY50 without the project, this spreadsheet is identical to spreadsheet 20.

22. MAINSTEM NORTH TY12 (2005) WITH GREY MOUNTAIN

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	ROAD FACTOR	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.178	1.000	0.50	1.000	0.089	0.500	0.00	0.000	0.000	0.000
	100-200	0.178	1.000	0.80	1.000	0.142	0.800	0.00	0.000	0.000	0.000
	>200	0.178	1.000	1.00	1.000	0.178	1.000	0.07	16.279	2.898	16.279
OC	0-100	0.414	0.578	0.50	1.000	0.207	0.289	0.00	0.000	0.000	0.000
	100-200	0.414	0.578	0.80	1.000	0.331	0.462	0.00	0.000	0.000	0.000
	>200	0.414	0.578	1.00	1.000	0.414	0.578	0.00	0.000	0.000	0.000
PP^	0-100	0.414	0.578	0.50	1.000	0.207	0.289	0.00	0.000	0.000	0.000
	100-200	0.414	0.578	0.80	1.000	0.331	0.462	0.00	0.000	0.000	0.000
	>200	0.414	0.578	1.00	1.000	0.414	0.578	0.00	0.000	0.000	0.000
MS	0-100	0.824	0.333	0.32	1.000	0.264	0.107	0.36	83.721	22.076	8.921
	100-200	0.824	0.333	0.82	1.000	0.676	0.273	0.00	0.000	0.000	0.000
	>200	0.824	0.333	1.00	1.000	0.824	0.333	0.00	0.000	0.000	0.000
G	0-100	0.313		0.32	1.000	0.100	0.000	0.00	0.000	0.000	0.000
	100-200	0.313		0.82	1.000	0.257	0.000	0.00	0.000	0.000	0.000
	>200	0.313		1.00	1.000	0.313	0.000	0.00	0.000	0.000	0.000
A*	0-100	0.250		0.32	1.000	0.080	0.000	0.00	0.000	0.000	0.000
	100-200	0.250		0.82	1.000	0.205	0.000	0.00	0.000	0.000	0.000
	>200	0.250		1.00	1.000	0.250	0.000	0.00	0.000	0.000	0.000
rF	0-100	0.344	0.347	0.50	1.000	0.172	0.174	0.00	0.000	0.000	0.000
	100-200	0.344	0.347	0.80	1.000	0.275	0.278	0.00	0.000	0.000	0.000
	>200	0.344	0.347	1.00	1.000	0.344	0.347	0.00	0.000	0.000	0.000
rS	0-100	0.969	0.333	0.32	1.000	0.310	0.107	0.00	0.000	0.000	0.000
	100-200	0.969	0.333	0.82	1.000	0.795	0.273	0.00	0.000	0.000	0.000
	>200	0.969	0.333	1.00	1.000	0.969	0.333	0.00	0.000	0.000	0.000
rG	0-100	0.250		0.32	1.000	0.080	0.000	0.00	0.000	0.000	0.000
	100-200	0.250		0.82	1.000	0.205	0.000	0.00	0.000	0.000	0.000
	>200	0.250		1.00	1.000	0.250	0.000	0.00	0.000	0.000	0.000
								0.43			

* VALUE FROM ELEVATION BAND 1
^ VALUE FROM OPEN CANOPY HABITAT

AVAILABLE HABITAT FOR FOOD 24.97

AVAILABLE HABITAT FOR COVER 25.20

FOOD HSI= 0.416 FOOD HUs= 0.18

COVER HSI= 0.630 COVER HU= 0.27

This spreadsheet calculates HSIs and HUs for the Mule Deer on what remains of the North side of the project area after construction of Grey Mountain (TY12).

To determine the area impacted by Grey Mountain for the Mule Deer subtract the acreages on the spreadsheet from those on spreadsheet 20 or 21. The HSI for the area impacted by Grey Mountain on the North side of the project area was calculated:

Forage:
0.43 (0.42) + 726 (HSI) = 727 (.91)
HSI = .91

Cover:
0.43 (0.63) + 726 (HSI) = 727 (.59)
HSI = 0.58

23. MAINSTEM NORTH TY50 (2043) WITH GREY MOUNTAIN

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	ROAD FACTOR	INTERSPERSION INDEI	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.178	1.000	0.50	1.000	0.089	0.500	0.00	0.000	0.000	0.000
	100-200	0.178	1.000	0.80	1.000	0.142	0.800	0.00	0.000	0.000	0.000
	>200	0.178	1.000	1.00	1.000	0.178	1.000	0.07	16.279	2.898	16.279
DC	0-100	0.414	0.578	0.50	1.000	0.207	0.289	0.00	0.000	0.000	0.000
	100-200	0.414	0.578	0.80	1.000	0.331	0.462	0.00	0.000	0.000	0.000
	>200	0.414	0.578	1.00	1.000	0.414	0.578	0.00	0.000	0.000	0.000
PP^	0-100	0.414	0.578	0.50	1.000	0.207	0.289	0.00	0.000	0.000	0.000
	100-200	0.414	0.578	0.80	1.000	0.331	0.462	0.00	0.000	0.000	0.000
	>200	0.414	0.578	1.00	1.000	0.414	0.578	0.00	0.000	0.000	0.000
MS	0-100	0.824	0.333	0.32	1.000	0.264	0.107	0.36	83.721	22.076	8.921
	100-200	0.824	0.333	0.82	1.000	0.676	0.273	0.00	0.000	0.000	0.000
	>200	0.824	0.333	1.00	1.000	0.824	0.333	0.00	0.000	0.000	0.000
B	0-100	0.313		0.32	1.000	0.100	0.000	0.00	0.000	0.000	0.000
	100-200	0.313		0.82	1.000	0.257	0.000	0.00	0.000	0.000	0.000
	>200	0.313		1.00	1.000	0.313	0.000	0.00	0.000	0.000	0.000
A*	0-100	0.250		0.32	1.000	0.080	0.000	0.00	0.000	0.000	0.000
	100-200	0.250		0.82	1.000	0.205	0.000	0.00	0.000	0.000	0.000
	>200	0.250		1.00	1.000	0.250	0.000	0.00	0.000	0.000	0.000
rF	0-100	0.344	0.347	0.50	1.000	0.172	0.174	0.00	0.000	0.000	0.000
	100-200	0.344	0.347	0.80	1.000	0.275	0.278	0.00	0.000	0.000	0.000
	>200	0.344	0.347	1.00	1.000	0.344	0.347	0.00	0.000	0.000	0.000
rS	0-100	0.969	0.333	0.32	1.000	0.310	0.107	0.00	0.000	0.000	0.000
	100-200	0.969	0.333	0.82	1.000	0.795	0.273	0.00	0.000	0.000	0.000
	>200	0.969	0.333	1.00	1.000	0.969	0.333	0.00	0.000	0.000	0.000
rG	0-100	0.250		0.32	1.000	0.080	0.000	0.00	0.000	0.000	0.000
-	100-200	0.250		0.82	1.000	0.205	0.000	0.00	0.000	0.000	0.000
	>200	0.250		1.00	1.000	0.250	0.000	0.00	0.000	0.000	0.000

0.43

* VALUE FROM ELEVATION BAND 1
^ VALUE FROM OPEN CANOPY HABITAT

AVAILABLE HABITAT FOR FOOD 24.97

AVAILABLE HABITAT FOR COVER 25.20

FOOD HSI= 0.416 FOOD HUs= 0.18

COVER HSI= 0.630 COVER HU= 0.27

Identical to 22 except for TY50.

24. MAINSTEM NORTH TY12 (2005) WITH POUDRE

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	ROAD FACTOR	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.178	1.000	0.50	1.000	0.089	0.500	0.00	0.000	0.000	0.000
	100-200	0.178	1.000	0.80	1.000	0.142	0.800	0.00	0.000	0.000	0.000
	>200	0.178	1.000	1.00	1.000	0.178	1.000	0.07	16.279	2.898	16.279
OC	0-100	0.414	0.578	0.50	1.000	0.207	0.289	0.00	0.000	0.000	0.000
	100-200	0.414	0.578	0.80	1.000	0.331	0.462	0.00	0.000	0.000	0.000
	>200	0.414	0.578	1.00	1.000	0.414	0.578	0.00	0.000	0.000	0.000
PP^	0-100	0.414	0.578	0.50	1.000	0.207	0.289	0.00	0.000	0.000	0.000
	100-200	0.414	0.578	0.80	1.000	0.331	0.462	0.00	0.000	0.000	0.000
	>200	0.414	0.578	1.00	1.000	0.414	0.578	0.00	0.000	0.000	0.000
MS	0-100	0.824	0.333	0.32	1.000	0.264	0.107	0.36	83.721	22.076	8.921
	100-200	0.824	0.333	0.82	1.000	0.676	0.273	0.00	0.000	0.000	0.000
	>200	0.824	0.333	1.00	1.000	0.824	0.333	0.00	0.000	0.000	0.000
G	0-100	0.313		0.32	1.000	0.100	0.000	0.00	0.000	0.000	0.000
	100-200	0.313		0.82	1.000	0.257	0.000	0.00	0.000	0.000	0.000
	>200	0.313		1.00	1.000	0.313	0.000	0.00	0.000	0.000	0.000
A*	0-100	0.250		0.32	1.000	0.080	0.000	0.00	0.000	0.000	0.000
	100-200	0.250		0.82	1.000	0.205	0.000	0.00	0.000	0.000	0.000
	>200	0.250		1.00	1.000	0.250	0.000	0.00	0.000	0.000	0.000
rF	0-100	0.344	0.347	0.50	1.000	0.172	0.174	0.00	0.000	0.000	0.000
	100-200	0.344	0.347	0.80	1.000	0.275	0.278	0.00	0.000	0.000	0.000
	>200	0.344	0.347	1.00	1.000	0.344	0.347	0.00	0.000	0.000	0.000
rS	0-100	0.969	0.333	0.32	1.000	0.310	0.107	0.00	0.000	0.000	0.000
	100-200	0.969	0.333	0.82	1.000	0.795	0.273	0.00	0.000	0.000	0.000
	>200	0.969	0.333	1.00	1.000	0.969	0.333	0.00	0.000	0.000	0.000
rG	0-100	0.250		0.32	1.000	0.080	0.000	0.00	0.000	0.000	0.000
	100-200	0.250		0.82	1.000	0.205	0.000	0.00	0.000	0.000	0.000
	>200	0.250		1.00	1.000	0.250	0.000	0.00	0.000	0.000	0.000

0.43

* VALUE FROM ELEVATION BAND 1
^ VALUE FROM OPEN CANOPY HABITAT

AVAILABLE HABITAT FOR FOOD 24.97

AVAILABLE HABITAT FOR COVER 25.20

FOOD HSI= 0.416 FOOD HUs= 0.18

COVER HSI= 0.630 COVER HU= 0.27

Identical to 22 except for Poudre. HSI calculations are the same since the impacted acreage is the same on the North sides as for Grey Mountain.

25. MAINSTEM NORTH TY50 (2043) WITH POUDRE

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	ROAD FACTOR	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.178	1.000	0.50	1.000	0.089	0.500	0.00	0.000	0.000	0.000
	100-200	0.178	1.000	0.80	1.000	0.142	0.800	0.00	0.000	0.000	0.000
	>200	0.178	1.000	1.00	1.000	0.178	1.000	0.07	16.279	2.898	16.279
OC	0-100	0.414	0.578	0.50	1.000	0.207	0.289	0.00	0.000	0.000	0.000
	100-200	0.414	0.578	0.80	1.000	0.331	0.462	0.00	0.000	0.000	0.000
	>200	0.414	0.578	1.00	1.000	0.414	0.578	0.00	0.000	0.000	0.000
PP^	0-100	0.414	0.578	0.50	1.000	0.207	0.289	0.00	0.000	0.000	0.000
	100-200	0.414	0.578	0.80	1.000	0.331	0.462	0.00	0.000	0.000	0.000
	>200	0.414	0.578	1.00	1.000	0.414	0.578	0.00	0.000	0.000	0.000
MS	0-100	0.824	0.333	0.32	1.000	0.264	0.107	0.36	83.721	22.076	8.921
	100-200	0.824	0.333	0.82	1.000	0.676	0.273	0.00	0.000	0.000	0.000
	>200	0.824	0.333	1.00	1.000	0.824	0.333	0.00	0.000	0.000	0.000
G	0-100	0.313		0.32	1.000	0.100	0.000	0.00	0.000	0.000	0.000
	100-200	0.313		0.82	1.000	0.257	0.000	0.00	0.000	0.000	0.000
	>200	0.313		1.00	1.000	0.313	0.000	0.00	0.000	0.000	0.000
A*	0-100	0.250		0.32	1.000	0.080	0.000	0.00	0.000	0.000	0.000
	100-200	0.250		0.82	1.000	0.205	0.000	0.00	0.000	0.000	0.000
	>200	0.250		1.00	1.000	0.250	0.000	0.00	0.000	0.000	0.000
rF	0-100	0.344	0.347	0.50	1.000	0.172	0.174	0.00	0.000	0.000	0.000
	100-200	0.344	0.347	0.80	1.000	0.275	0.278	0.00	0.000	0.000	0.000
	>200	0.344	0.347	1.00	1.000	0.344	0.347	0.00	0.000	0.000	0.000
rS	0-100	0.969	0.333	0.32	1.000	0.310	0.107	0.00	0.000	0.000	0.000
	100-200	0.969	0.333	0.82	1.000	0.795	0.273	0.00	0.000	0.000	0.000
	>200	0.969	0.333	1.00	1.000	0.969	0.333	0.00	0.000	0.000	0.000
rG	0-100	0.250		0.32	1.000	0.080	0.000	0.00	0.000	0.000	0.000
	100-200	0.250		0.82	1.000	0.205	0.000	0.00	0.000	0.000	0.000
	>200	0.250		1.00	1.000	0.250	0.000	0.00	0.000	0.000	0.000

0.43

* VALUE FROM ELEVATION BAND 1
^ VALUE FROM OPEN CANOPY HABITAT

AVAILABLE HABITAT FOR FOOD 24.97

AVAILABLE HABITAT FOR COVER 25.20

FOOD HSI= 0.416 FOOD HUs= 0.18

COVER HSI= 0.630 COVER HU= 0.27

Identical to 24.

26. SPREADSHEET FOR CALCULATING THE HSI FOR MULE DEER----MAINSTEM SOUTH

MAINSTEM SOUTH TY0, AND TY1 (1993, 1994) WITH AND WITHOUT PROJECT AND TY12 (2005) WITHOUT PROJECT

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	ROAD FACTOR	ASPECT FACTOR	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.196	1.000	0.50	0.8	1.000	0.078	0.400	58.95	6.284	0.493	2.513
	100-200	0.196	1.000	0.80	0.8	1.000	0.125	0.640	46.49	4.955	0.622	3.171
	>200	0.196	1.000	1.00	0.8	1.000	0.157	0.800	109.44	11.665	1.829	9.332
OC	0-100	0.371	0.451	0.50	0.8	1.000	0.148	0.180	26.40	2.814	0.418	0.508
	100-200	0.371	0.451	0.80	0.8	1.000	0.237	0.289	28.98	3.089	0.733	0.892
	>200	0.371	0.451	1.00	0.8	1.000	0.297	0.361	141.45	15.077	4.475	5.440
PP^	0-100	0.371	0.451	0.50	0.8	1.000	0.148	0.180	0.00	0.000	0.000	0.000
	100-200	0.371	0.451	0.80	0.8	1.000	0.237	0.289	0.00	0.000	0.000	0.000
	>200	0.371	0.451	1.00	0.8	1.000	0.297	0.361	0.00	0.000	0.000	0.000
MS	0-100	0.968	0.334	0.32	0.8	1.000	0.248	0.086	72.42	7.719	1.913	0.660
	100-200	0.968	0.334	0.82	0.8	1.000	0.635	0.219	119.06	12.691	8.059	2.781
	>200	0.968	0.334	1.00	0.8	1.000	0.774	0.267	185.59	19.782	15.319	5.286
G	0-100	0.323		0.32	0.8	1.000	0.083	0.000	27.94	2.978	0.246	0.000
	100-200	0.323		0.82	0.8	1.000	0.212	0.000	9.27	0.988	0.209	0.000
	>200	0.323		1.00	0.8	1.000	0.258	0.000	65.93	7.028	1.816	0.000
A*	0-100	0.250		0.32	0.8	1.000	0.064	0.000	0.00	0.000	0.000	0.000
	100-200	0.250		0.82	0.8	1.000	0.164	0.000	0.00	0.000	0.000	0.000
	>200	0.250		1.00	0.8	1.000	0.200	0.000	0.00	0.000	0.000	0.000
rF	0-100	0.274	0.623	0.50	0.8	1.000	0.110	0.249	25.70	2.739	0.300	0.683
	100-200	0.274	0.623	0.80	0.8	1.000	0.175	0.399	3.20	0.341	0.060	0.136
	>200	0.274	0.623	1.00	0.8	1.000	0.219	0.498	14.13	1.506	0.330	0.751
rS	0-100	0.968	0.333	0.32	0.8	1.000	0.248	0.085	0.45	0.048	0.012	0.004
	100-200	0.968	0.333	0.82	0.8	1.000	0.635	0.218	0.00	0.000	0.000	0.000
	>200	0.968	0.333	1.00	0.8	1.000	0.774	0.266	0.58	0.062	0.048	0.016
rG	0-100	0.272		0.32	0.8	1.000	0.070	0.000	2.05	0.219	0.015	0.000
	100-200	0.272		0.82	0.8	1.000	0.178	0.000	0.00	0.000	0.000	0.000
	>200	0.272		1.00	0.8	1.000	0.218	0.000	0.13	0.014	0.003	0.000

938.16

* VALUE FROM ELEVATION BAND 1
^ VALUE FROM OPEN CANOPY HABITAT

AVAILABLE HABITAT FOR FOOD 36.90

AVAILABLE HABITAT FOR COVER 32.17

FOOD HSI= 0.615 FOOD HUs= 576.97

COVER HSI= 0.536 COVER HU= 503.05

This spreadsheet calculates HSIs and HUs for the Mule Deer on the South side of the project area with and without project for TY0, 1, and 12.

27. MAINSTEM SOUTH TY50 (2043) WITHOUT PROJECT

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	ROAD FACTOR	ASPECT FACTOR	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.196	1.000	0.50	0.8	1.000	0.078	0.400	58.95	6.284	0.493	2.513
	100-200	0.196	1.000	0.80	0.8	1.000	0.125	0.640	46.49	4.955	0.622	3.171
	>200	0.196	1.000	1.00	0.8	1.000	0.157	0.800	109.44	11.665	1.829	9.332
OC	0-100	0.371	0.451	0.50	0.8	1.000	0.148	0.180	26.40	2.814	0.418	0.508
	100-200	0.371	0.451	0.80	0.8	1.000	0.237	0.289	28.98	3.089	0.733	0.892
	>200	0.371	0.451	1.00	0.8	1.000	0.297	0.361	141.45	15.077	4.475	5.440
PP^	0-100	0.371	0.451	0.50	0.8	1.000	0.148	0.180	0.00	0.000	0.000	0.000
	100-200	0.371	0.451	0.80	0.8	1.000	0.237	0.289	0.00	0.000	0.000	0.000
	>200	0.371	0.451	1.00	0.8	1.000	0.297	0.361	0.00	0.000	0.000	0.000
MS	0-100	0.968	0.334	0.32	0.8	1.000	0.248	0.086	72.42	7.719	1.913	0.660
	100-200	0.968	0.334	0.82	0.8	1.000	0.635	0.219	119.06	12.691	8.059	2.781
	>200	0.968	0.334	1.00	0.8	1.000	0.774	0.267	185.59	19.782	15.319	5.286
G	0-100	0.323		0.32	0.8	1.000	0.083	0.000	27.94	2.978	0.246	0.000
	100-200	0.323		0.82	0.8	1.000	0.212	0.000	9.27	0.988	0.209	0.000
	>200	0.323		1.00	0.8	1.000	0.258	0.000	65.93	7.028	1.816	0.000
A*	0-100	0.250		0.32	0.8	1.000	0.064	0.000	0.00	0.000	0.000	0.000
	100-200	0.250		0.82	0.8	1.000	0.164	0.000	0.00	0.000	0.000	0.000
	>200	0.250		1.00	0.8	1.000	0.200	0.000	0.00	0.000	0.000	0.000
rF	0-100	0.274	0.623	0.50	0.8	1.000	0.110	0.249	25.70	2.739	0.300	0.683
	100-200	0.274	0.623	0.80	0.8	1.000	0.175	0.399	3.20	0.341	0.060	0.136
	>200	0.274	0.623	1.00	0.8	1.000	0.219	0.498	14.13	1.506	0.330	0.751
rS	0-100	0.968	0.333	0.32	0.8	1.000	0.248	0.085	0.45	0.048	0.012	0.004
	100-200	0.968	0.333	0.82	0.8	1.000	0.635	0.218	0.00	0.000	0.000	0.000
	>200	0.968	0.333	1.00	0.8	1.000	0.774	0.266	0.58	0.062	0.048	0.016
rG	0-100	0.272		0.32	0.8	1.000	0.070	0.000	2.05	0.219	0.015	0.000
	100-200	0.272		0.82	0.8	1.000	0.178	0.000	0.00	0.000	0.000	0.000
	>200	0.272		1.00	0.8	1.000	0.218	0.000	0.13	0.014	0.003	0.000

938.16

* VALUE FROM ELEVATION BAND 1
^ VALUE FROM OPEN CANOPY HABITAT

AVAILABLE HABITAT FOR FOOD 36.90

AVAILABLE HABITAT FOR COVER 32.17

FOOD HSI= 0.615 FOOD HUs= 576.97

COVER HSI= 0.536 COVER HU= 503.05

Since no changes are expected in TY50 without project, this spreadsheet is identical to spreadsheet 26.

28. MAINSTEM SOUTH TY12 (2005) WITH GREY MOUNTAIN

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	ROAD FACTOR	ASPECT FACTOR	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.196	1.000	0.50	0.8	1.000	0.078	0.400	0.00	0.000	0.000	0.000
	100-200	0.196	1.000	0.80	0.8	1.000	0.125	0.640	18.59	3.908	0.490	2.501
	>200	0.196	1.000	1.00	0.8	1.000	0.157	0.800	83.56	17.566	2.754	14.053
DC	0-100	0.371	0.451	0.50	0.8	1.000	0.148	0.180	0.00	0.000	0.000	0.000
	100-200	0.371	0.451	0.80	0.8	1.000	0.237	0.289	10.01	2.104	0.500	0.607
	>200	0.371	0.451	1.00	0.8	1.000	0.297	0.361	83.38	17.529	5.202	6.324
PP^	0-100	0.371	0.451	0.50	0.8	1.000	0.148	0.180	0.00	0.000	0.000	0.000
	100-200	0.371	0.451	0.80	0.8	1.000	0.237	0.289	0.00	0.000	0.000	0.000
	>200	0.371	0.451	1.00	0.8	1.000	0.297	0.361	0.00	0.000	0.000	0.000
MS	0-100	0.968	0.334	0.32	0.8	1.000	0.248	0.086	1.43	0.301	0.074	0.026
	100-200	0.968	0.334	0.82	0.8	1.000	0.635	0.219	52.20	10.974	6.968	2.404
	>200	0.968	0.334	1.00	0.8	1.000	0.774	0.267	147.05	30.914	23.940	8.260
G	0-100	0.323		0.32	0.8	1.000	0.083	0.000	6.58	1.383	0.114	0.000
	100-200	0.323		0.82	0.8	1.000	0.212	0.000	0.00	0.000	0.000	0.000
	>200	0.323		1.00	0.8	1.000	0.258	0.000	49.47	10.400	2.687	0.000
A*	0-100	0.250		0.32	0.8	1.000	0.064	0.000	0.00	0.000	0.000	0.000
	100-200	0.250		0.82	0.8	1.000	0.164	0.000	0.00	0.000	0.000	0.000
	>200	0.250		1.00	0.8	1.000	0.200	0.000	0.00	0.000	0.000	0.000
rF	0-100	0.274	0.623	0.50	0.8	1.000	0.110	0.249	10.01	2.104	0.231	0.524
	100-200	0.274	0.623	0.80	0.8	1.000	0.175	0.399	2.86	0.601	0.105	0.240
	>200	0.274	0.623	1.00	0.8	1.000	0.219	0.498	9.11	1.915	0.420	0.955
rS	0-100	0.968	0.333	0.32	0.8	1.000	0.248	0.085	0.00	0.000	0.000	0.000
	100-200	0.968	0.333	0.82	0.8	1.000	0.635	0.218	0.00	0.000	0.000	0.000
	>200	0.968	0.333	1.00	0.8	1.000	0.774	0.266	0.58	0.122	0.094	0.032
rG	0-100	0.272		0.32	0.8	1.000	0.070	0.000	0.85	0.179	0.012	0.000
	100-200	0.272		0.82	0.8	1.000	0.178	0.000	0.00	0.000	0.000	0.000
	>200	0.272		1.00	0.8	1.000	0.218	0.000	0.00	0.000	0.000	0.000

475.68

* VALUE FROM ELEVATION BAND 1

^ VALUE FROM OPEN CANOPY HABITAT

AVAILABLE HABITAT FOR FOOD 43.59

AVAILABLE HABITAT FOR COVER 35.93

FOOD HSI= 0.727 FOOD HUs= 345.61

COVER HSI= 0.599 COVER HU= 284.83

This spreadsheet calculates HSIs and HUs for the Mule Deer on what remains of the South side of the project area after construction of Grey Mountain (TY12).

To determine the area impacted by the Grey Mountain Reservoir, subtract the acreage on this spreadsheet from those on spreadsheet 26. The HSIs for the area impacted by Grey Mountain on the North side of the project area were calculated:

Forage:
476(0.56)+462(HSI) = 938(.47)
HSI = 0.38

Cover:
476(0.59)+462(HSI) = 938(.53)
HSI = 0.47

29. MAINSTEM SOUTH TY50 (2043) WITH GREY MOUNTAIN

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	ROAD FACTOR	ASPECT FACTOR	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.196	1.000	0.50	0.8	1.000	0.078	0.400	0.00	0.000	0.000	0.000
	100-200	0.196	1.000	0.80	0.8	1.000	0.125	0.640	18.59	3.908	0.490	2.501
	>200	0.196	1.000	1.00	0.8	1.000	0.157	0.800	83.56	17.566	2.754	14.053
DC	0-100	0.371	0.451	0.50	0.8	1.000	0.148	0.180	0.00	0.000	0.000	0.000
	100-200	0.371	0.451	0.80	0.8	1.000	0.237	0.289	10.01	2.104	0.500	0.607
	>200	0.371	0.451	1.00	0.8	1.000	0.297	0.361	83.38	17.529	5.202	6.324
PP^	0-100	0.371	0.451	0.50	0.8	1.000	0.148	0.180	0.00	0.000	0.000	0.000
	100-200	0.371	0.451	0.80	0.8	1.000	0.237	0.289	0.00	0.000	0.000	0.000
	>200	0.371	0.451	1.00	0.8	1.000	0.297	0.361	0.00	0.000	0.000	0.000
MS	0-100	0.968	0.334	0.32	0.8	1.000	0.248	0.086	1.43	0.301	0.074	0.026
	100-200	0.968	0.334	0.82	0.8	1.000	0.635	0.219	52.20	10.974	6.968	2.404
	>200	0.968	0.334	1.00	0.8	1.000	0.774	0.267	147.05	30.914	23.940	8.260
G	0-100	0.323		0.32	0.8	1.000	0.083	0.000	6.58	1.383	0.114	0.000
	100-200	0.323		0.82	0.8	1.000	0.212	0.000	0.00	0.000	0.000	0.000
	>200	0.323		1.00	0.8	1.000	0.258	0.000	49.47	10.400	2.687	0.000
A*	0-100	0.250		0.32	0.8	1.000	0.064	0.000	0.00	0.000	0.000	0.000
	100-200	0.250		0.82	0.8	1.000	0.164	0.000	0.00	0.000	0.000	0.000
	>200	0.250		1.00	0.8	1.000	0.200	0.000	0.00	0.000	0.000	0.000
rF	0-100	0.274	0.623	0.50	0.8	1.000	0.110	0.249	10.01	2.104	0.231	0.524
	100-200	0.274	0.623	0.80	0.8	1.000	0.175	0.399	2.86	0.601	0.105	0.240
	>200	0.274	0.623	1.00	0.8	1.000	0.219	0.498	9.11	1.915	0.420	0.955
rS	0-100	0.968	0.333	0.32	0.8	1.000	0.248	0.085	0.00	0.000	0.000	0.000
	100-200	0.968	0.333	0.82	0.8	1.000	0.635	0.218	0.00	0.000	0.000	0.000
	>200	0.968	0.333	1.00	0.8	1.000	0.774	0.266	0.58	0.122	0.094	0.032
rG	0-100	0.272		0.32	0.8	1.000	0.070	0.000	0.85	0.179	0.012	0.000
	100-200	0.272		0.82	0.8	1.000	0.178	0.000	0.00	0.000	0.000	0.000
	>200	0.272		1.00	0.8	1.000	0.218	0.000	0.00	0.000	0.000	0.000

475.68

* VALUE FROM ELEVATION BAND 1
^ VALUE FROM OPEN CANOPY HABITAT

AVAILABLE HABITAT FOR FOOD 43.59

AVAILABLE HABITAT FOR COVER 35.93

FOOD HSI= 0.727 FOOD HUs= 345.61

COVER HSI= 0.599 COVER HU= 284.83

Identical to spreadsheet 28 but for TY50.

30. MAINSTEM SOUTH TY12 (2005) WITH POUDRE

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	ROAD FACTOR	ASPECT FACTOR	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.196	1.000	0.50	0.8	1.000	0.078	0.400	2.80	0.395	0.031	0.158
	100-200	0.196	1.000	0.80	0.8	1.000	0.125	0.640	20.71	2.919	0.366	1.868
	>200	0.196	1.000	1.00	0.8	1.000	0.157	0.800	94.70	13.346	2.093	10.677
OC	0-100	0.371	0.451	0.50	0.8	1.000	0.148	0.180	7.73	1.089	0.162	0.197
	100-200	0.371	0.451	0.80	0.8	1.000	0.237	0.289	28.34	3.994	0.948	1.153
	>200	0.371	0.451	1.00	0.8	1.000	0.297	0.361	117.64	16.580	4.921	5.982
PP^	0-100	0.371	0.451	0.50	0.8	1.000	0.148	0.180	0.00	0.000	0.000	0.000
	100-200	0.371	0.451	0.80	0.8	1.000	0.237	0.289	0.00	0.000	0.000	0.000
	>200	0.371	0.451	1.00	0.8	1.000	0.297	0.361	0.00	0.000	0.000	0.000
MS	0-100	0.968	0.334	0.32	0.8	1.000	0.248	0.086	34.49	4.861	1.205	0.416
	100-200	0.968	0.334	0.82	0.8	1.000	0.635	0.219	103.08	14.528	9.225	3.183
	>200	0.968	0.334	1.00	0.8	1.000	0.774	0.267	187.64	23.626	18.296	6.313
G	0-100	0.323		0.32	0.8	1.000	0.083	0.000	25.14	3.543	0.293	0.000
	100-200	0.323		0.82	0.8	1.000	0.212	0.000	8.93	1.259	0.267	0.000
	>200	0.323		1.00	0.8	1.000	0.258	0.000	65.87	9.283	2.399	0.000
A*	0-100	0.250		0.32	0.8	1.000	0.064	0.000	0.00	0.000	0.000	0.000
	100-200	0.250		0.82	0.8	1.000	0.164	0.000	0.00	0.000	0.000	0.000
	>200	0.250		1.00	0.8	1.000	0.200	0.000	0.00	0.000	0.000	0.000
rF	0-100	0.274	0.623	0.50	0.8	1.000	0.110	0.249	16.88	2.379	0.261	0.593
	100-200	0.274	0.623	0.80	0.8	1.000	0.175	0.399	3.03	0.427	0.075	0.170
	>200	0.274	0.623	1.00	0.8	1.000	0.219	0.498	9.36	1.319	0.289	0.657
rS	0-100	0.968	0.333	0.32	0.8	1.000	0.248	0.085	0.45	0.063	0.016	0.005
	100-200	0.968	0.333	0.82	0.8	1.000	0.635	0.218	0.00	0.000	0.000	0.000
	>200	0.968	0.333	1.00	0.8	1.000	0.774	0.266	0.58	0.082	0.063	0.022
rG	0-100	0.272		0.32	0.8	1.000	0.070	0.000	2.05	0.289	0.020	0.000
	100-200	0.272		0.82	0.8	1.000	0.178	0.000	0.00	0.000	0.000	0.000
	>200	0.272		1.00	0.8	1.000	0.218	0.000	0.13	0.018	0.004	0.000

709.55

* VALUE FROM ELEVATION BAND 1
^ VALUE FROM OPEN CANOPY HABITAT

AVAILABLE HABITAT FOR FOOD 40.93

AVAILABLE HABITAT FOR COVER 31.39

FOOD HSI= 0.682 FOOD HUs= 484.06

COVER HSI= 0.523 COVER HU= 371.26

Identical to spreadsheet 28 except for Poudre.

Forage HSI:
709(0.52) + 229(HSI) = 938
HSI = 0.47

Cover HSI:
709(0.53) + 229(HSI) = 938(0.53)
HSI = 0.53

31. MAINSTEM SOUTH TY50 (2043) WITH POUDRE

COVER TYPE	ROAD CATEGORY	HSI FOOD	HSI COVER	ROAD FACTOR	ASPECT FACTOR	INTERSPERSION INDEX	ADJUSTED FOOD HSI	ADJUSTED COVER HSI	COVER-TYPE AREA	RELATIVE AREA	WEIGHTED FOOD HSI	WEIGHTED COVER HSI
CC	0-100	0.196	1.000	0.50	0.8	1.000	0.078	0.400	2.80	0.395	0.031	0.158
	100-200	0.196	1.000	0.80	0.8	1.000	0.125	0.640	20.71	2.919	0.366	1.868
	>200	0.196	1.000	1.00	0.8	1.000	0.157	0.800	94.70	13.346	2.093	10.677
OC	0-100	0.371	0.451	0.50	0.8	1.000	0.148	0.180	7.73	1.089	0.162	0.197
	100-200	0.371	0.451	0.80	0.8	1.000	0.237	0.289	28.34	3.994	0.948	1.153
	>200	0.371	0.451	1.00	0.8	1.000	0.297	0.361	117.64	16.580	4.921	5.982
PP^	0-100	0.371	0.451	0.50	0.8	1.000	0.148	0.180	0.00	0.000	0.000	0.000
	100-200	0.371	0.451	0.80	0.8	1.000	0.237	0.289	0.00	0.000	0.000	0.000
	>200	0.371	0.451	1.00	0.8	1.000	0.297	0.361	0.00	0.000	0.000	0.000
MS	0-100	0.968	0.334	0.32	0.8	1.000	0.248	0.086	34.49	4.861	1.205	0.416
	100-200	0.968	0.334	0.82	0.8	1.000	0.635	0.219	103.08	14.528	9.225	3.183
	>200	0.968	0.334	1.00	0.8	1.000	0.774	0.267	187.64	23.626	18.296	6.313
G	0-100	0.323		0.32	0.8	1.000	0.083	0.000	25.14	3.543	0.293	0.000
	100-200	0.323		0.82	0.8	1.000	0.212	0.000	8.93	1.259	0.267	0.000
	>200	0.323		1.00	0.8	1.000	0.258	0.000	65.87	9.283	2.399	0.000
A*	0-100	0.250		0.32	0.8	1.000	0.064	0.000	0.00	0.000	0.000	0.000
	100-200	0.250		0.82	0.8	1.000	0.164	0.000	0.00	0.000	0.000	0.000
	>200	0.250		1.00	0.8	1.000	0.200	0.000	0.00	0.000	0.000	0.000
rF	0-100	0.274	0.623	0.50	0.8	1.000	0.110	0.249	16.88	2.379	0.261	0.593
	100-200	0.274	0.623	0.80	0.8	1.000	0.175	0.399	3.03	0.427	0.075	0.170
	>200	0.274	0.623	1.00	0.8	1.000	0.219	0.498	9.36	1.319	0.289	0.657
rS	0-100	0.968	0.333	0.32	0.8	1.000	0.248	0.085	0.45	0.063	0.016	0.005
	100-200	0.968	0.333	0.82	0.8	1.000	0.635	0.218	0.00	0.000	0.000	0.000
	>200	0.968	0.333	1.00	0.8	1.000	0.774	0.266	0.58	0.082	0.063	0.022
rG	0-100	0.272		0.32	0.8	1.000	0.070	0.000	2.05	0.289	0.020	0.000
	100-200	0.272		0.82	0.8	1.000	0.178	0.000	0.00	0.000	0.000	0.000
	>200	0.272		1.00	0.8	1.000	0.218	0.000	0.13	0.018	0.004	0.000

709.55

* VALUE FROM ELEVATION BAND 1
^ VALUE FROM OPEN CANOPY HABITAT

AVAILABLE HABITAT FOR FOOD 40.93

AVAILABLE HABITAT FOR COVER 31.39

FOOD HSI= 0.682 FOOD HUs= 484.06

COVER HSI= 0.523 COVER HU= 371.26

Identical to spreadsheet 30.

32.

SPREADSHEET TO COMPARE TARGET YEAR AAHU'S

MULE DEER
ELEVATION BAND 1 WITHOUT PROJECT AAHU'S

	TY0-1	TY1-12	TY12-50	total
FOOD	3778.95	41568.50	143600.27	3778.95
COVER	2109.57	23205.31	80163.81	2109.57

ELEVATION BAND 1 WITH PROJECT AAHU'S

	TY0-1	TY1-12	TY12-50	total
FOOD	3778.95	41568.50	143600.27	3778.95
COVER	2109.57	23205.31	80163.81	2109.57

NET CHANGE IN AAHU'S

FOOD	0
COVER	0

33. SPREADSHEET TO COMPARE TARGET YEAR AAHU'S

MULE DEER
ELEVATION BAND 3 WITHOUT PROJECT AAHU'S

	TY0-1	TY1-12	TY12-50	total
FOOD	3339.44	36733.81	126898.63	3339.44
COVER	6404.93	70454.23	243387.34	6404.93

ELEVATION BAND 3 WITH PROJECT AAHU'S

	TY0-1	TY1-12	TY12-50	total
FOOD	3339.44	36733.81	126898.63	3339.44
COVER	6404.93	70454.23	243387.34	6404.93

NET CHANGE BETWEEN WITH AND WITHOUT PROJECT

	AAHUs
FOOD	0.00
COVER	0.00

34. SPREADSHEET TO COMPARE TARGET YEAR AAHU'S

MULE DEER
ELEVATION BAND 2 WITHOUT PROJECT AAHU'S

	TY0-1	TY1-12	TY12-50	total
FOOD	15387.77	169265.45	584735.18	15387.77
COVER	16407.07	180477.73	623468.52	16407.07

ELEVATION BAND 2 WITH PROJECT AAHU'S (GREY MTN.)

	TY0-1	TY1-12	TY12-50	total
FOOD	15387.77	169711.48	587816.87	15458.32
COVER	16407.07	181332.04	629371.01	16542.20

ELEVATION BAND 2 WITH PROJECT AAHU'S (POUDRE)

	TY0-1	TY1-12	TY12-50	total
FOOD	15387.77	169661.13	587468.98	15450.36
COVER	16407.07	181299.81	629148.36	16537.10

NET CHANGE IN AAHU's
WITHOUT PROJECT VS. WITH GREY MTN.

	AAHUs
FOOD	70.55
COVER	135.14

NET CHANGE IN AAHU's
WITHOUT PROJECT VS. WITH POUDRE

	AAHUs
FOOD	62.59
COVER	130.04

35. SPREADSHEET TO COMPARE TARGET YEAR AAHU'S

MULE DEER
MAINSTEM EAST WITHOUT PROJECT AAHU'S

	TY0-1	TY1-12	TY12-50	total
FOOD	1227.51	13502.58	46645.29	1227.51
COVER	1130.55	12436.04	42960.87	1130.55

MULE DEER
MAINSTEM EAST WITHOUT PROJECT AAHU'S

	TY0-1	TY1-12	TY12-50	total
FOOD	1227.51	13502.58	46645.29	1227.51
COVER	1130.55	12436.04	42960.87	1130.55

MAINSTEM EAST WITH PROJECT (GREY MOUNTAIN) AAHU'S

	TY0-1	TY1-12	TY12-50	total
FOOD	1227.51	11144.31	29864.82	844.73
COVER	1130.55	7924.59	14337.91	467.86

MAINSTEM EAST WITH PROJECT (POUDRE) AAHU'S

	TY0-1	TY1-12	TY12-50	total
FOOD	1227.51	11623.57	33318.34	923.39
COVER	1130.55	8347.42	16697.63	523.51

NET CHANGE IN AAHU'S
GREY MOUNTAIN VS. WITHOUT-PROJECT

FOOD	-382.774
COVER	-662.688

NET CHANGE IN AAHU'S
POUDRE VS. WITHOUT-PROJECT

FOOD	-304.119
COVER	-607.037

SPREADSHEET TO COMPARE TARGET YEAR AAHU'S

MULE DEER
ELEVATION BAND 4 WITHOUT PROJECT AAHU'S

	TY0-1	TY1-12	TY12-50	total
FOOD	561.01	6171.08	21318.28	561.01
COVER	1346.78	14814.58	51177.64	1346.78

ELEVATION BAND 4 WITH PROJECT AAHU'S

	TY0-1	TY1-12	TY12-50	total
FOOD	561.01	6171.08	21318.28	561.01
COVER	1346.78	14814.58	51177.64	1346.78

NET CHANGE BETWEEN WITH AND WITHOUT PROJECT

	AAHUs
FOOD	0.00
COVER	0.00

37. SPREADSHEET TO COMPARE TARGET YEAR AAHU'S

MULE DEER
MAINSTEM NORTH WITHOUT PROJECT AAHU'S

	TY0-1	TY1-12	TY12-50	total
FOOD	658.42	7242.67	25020.12	658.42
COVER	429.68	4726.48	16327.85	429.68

MULE DEER
MAINSTEM NORTH WITHOUT PROJECT AAHU'S

	TY0-1	TY1-12	TY12-50	total
FOOD	658.42	7242.67	25020.12	658.42
COVER	429.68	4726.48	16327.85	429.68

MAINSTEM NORTH WITH PROJECT (GREY MOUNTAIN) AAHU'S

	TY0-1	TY1-12	TY12-50	total
FOOD	658.42	2969.87	6.80	72.70
COVER	429.68	2415.94	10.29	57.12

MAINSTEM NORTH WITH PROJECT (POUDRE) AAHU'S

	TY0-1	TY1-12	TY12-50	total
FOOD	658.42	2969.87	6.80	72.70
COVER	429.68	2415.94	10.29	57.12

NET CHANGE IN AAHU'S
GREY MOUNTAIN VS. WITHOUT-PROJECT

FOOD	-585.722
COVER	-372.56

NET CHANGE IN AAHU'S
POUDRE VS. WITHOUT-PROJECT

FOOD	-585.722
COVER	-372.56

38. SPREADSHEET TO COMPARE TARGET YEAR AAHU'S

MULE DEER
MAINSTEM SOUTH WITHOUT PROJECT AAHU'S

	TY0-1	TY1-12	TY12-50	total
FOOD	576.97	6346.70	21924.96	576.97
COVER	503.05	5533.59	19116.03	503.05

MULE DEER
MAINSTEM SOUTH WITHOUT PROJECT AAHU'S

	TY0-1	TY1-12	TY12-50	total
FOOD	576.97	6346.70	21924.96	576.97
COVER	503.05	5533.59	19116.03	503.05

MAINSTEM SOUTH WITH PROJECT (GREY MOUNTAIN) AAHU'S

	TY0-1	TY1-12	TY12-50	total
FOOD	576.97	5168.80	13133.21	377.58
COVER	503.05	4386.43	10823.63	314.26

MAINSTEM SOUTH WITH PROJECT (POUDRE) AAHU'S

	TY0-1	TY1-12	TY12-50	total
FOOD	576.97	5863.87	18394.44	496.71
COVER	503.05	4803.26	14107.73	388.28

NET CHANGE IN AAHU'S
GREY MOUNTAIN VS. WITHOUT-PROJECT

FOOD	-199.393
COVER	-188.791

NET CHANGE IN AAHU'S
POUDRE VS. WITHOUT-PROJECT

FOOD	-80.2669
COVER	-114.772

Total AAHUs for each project are obtained by adding AAHUs for each elevation band and aspect.

APPENDIX H.4

BEAVER

HEP ANALYSIS OF BEAVER DATA

WITHOUT PROJECT AAHU's CALCULATIONS

TY0-TY1	TY1-TY12	TY12-TY50	total
126.56	1392.16	4809.26	126.56

WITH GREY MOUNTAIN ALTERNATIVE

TY0-TY1	TY1-TY12	TY12-TY50	total
126.56	786.81	964.44	37.56

WITH POUDRE ALTERNATIVE

TY0-TY1	TY1-TY12	TY12-TY50	total
126.56	873.75	1491.88	49.84

NET CHANGE IN AAHU'S

GREY MOUNTAIN VS. WITHOUT PROJECT	POUDRE VS. WITHOUT PROJECT
-89.00	-76.72