Appendix G

Fire Regime and Condition Class Models

Open ponderosa pine stand maintained by frequent low-severity fire, is dominated by large trees. Stand is resilient to disturbances such as insects and disease outbreaks. (CC1) *Figure 11*

← Fire Condition Class 1 →

For the most part, fire regimes in this Fire Condition Class (CC1) are within historical ranges. Thus, the risk of losing key ecosystem components from the occurrence of fire remains relatively low. Maintenance management such as prescribed fire, mechanical treatments, or preventing the invasion of non-native weeds, is required to prevent these lands from becoming degraded.

← →

Wyoming big sagebrush type with considerable diversity is generally more resilient to disturbance and provides habitat for a great number of species. (CC1) *Figure 12*

Selective logging in ponderosa pine stands progressively removed the larger trees. Without periodic fire, forest openings filled with thickets of smaller understory trees. (CC2) *Figure 13*

← Fire Condition Class 2 →

Fire regimes on these lands (CC2) have been moderately altered from their historical range by either increased or decreased fire frequency. A moderate risk of losing key ecosystem components has been identified in these lands. To restore their historical fire regimes, these lands may require some level of restoration through prescribed fire, mechanical or chemical treatments, and the subsequent reintroduction of native plants.

← →

Wyoming big sagebrush type where fire has been excluded for an extended period has reduced diversity and provides habitat for fewer species. The site is also vulnerable to future cheatgrass invasion and to wildland fire. (CC2) *Figure 14*

The dense thickets of understory trees eventually become sufficiently large enough to allow fire spread into the ponderosa pine crowns. These thickets are also highly drought-prone. (CC3) *Figure 15*

← Fire Condition Class 3 →

These lands (CC3) have been significantly altered from their historical range. Because fire regimes have been extensively altered, risk of losing key ecosystem components from fire is high. Consequently, these lands verge on the greatest risk of ecological collapse. To restore their historical fire regimes—before prescribed fire can be utilized to manage fuel or obtain other desired benefits—these lands may require multiple mechanical or chemical restoration treatments, or reseeding.

← →

Rangeland sites entirely dominated by cheatgrass—unlike the native vegetation that formerly occupied this site— are highly vulnerable to fast-moving, higher-intensity wildfires. (CC3) *Figure 16*

Fire Regime and Condition Class

Registration Code Test **Project Code** flounce **Project ID** 2003 **Sampling Date** 5/24/2003 **Examiner Name** Pence

Landscape Project Name Flounce Around **Area** 21400 Acres **Lat** **Long**

PVG #	Strata Code	BpLU	Life-form	Species				Local BpLU	Land-form	Slope Class	Insolation Class	Elevation Low	Elevation High	Strata % Comp	Ref Freq	Cur Intvl	Severity Natrl	Severity Curr
1	first	OKCA	CF	PIPO	QUGA	CECU	FECA	CHAP3	VAL	MOD	HIGH	2000	3500 F	35	17	100	25	90
2	SECOND	DFIR	CF	PSME	PIPO	RHDI	XETE	DFIR1	VAL	MOD	LOW	2000	3500 F	65	60	125	50	95
													Total	100				

Comments

COMBINED T HE 2 FIRE REGIMES

Fire Regime and Condition Class - Biophysical Stratification

Reg Code Test **Project Code** flounce **Project ID** 2003 **Sampling Date** 5/24/2003 **Strata Num** 1

Code first **Strata Name** first strata **Date** 2/24/2003 **Strata Comp** 35

BpLU OKCA **Lifeform** CF **Indicator Species** PIPO QUGA CECU FECA **Local BpLU** CHAP3 **Landform** VAL

Ave Slope MOD **Insol Class** HIGH **Low Elev** 2000 **High Elev** 3500 Feet **Lat** **Long**

Natl Fire Freq 17 **Curr Fire Interval** 100 **Nat Fire Severity** 25 **Curr Fire Severity** 90

Ref Veg-Fuel Class Comp Source B **Cur Veg-Fuel Class Comp Source** R **Native Amer Burn** W **B/C Class Break** 40 **D/E Class Break** 40

Characteristic Vegetation-Fuel Classes

VegFuel Class	Upper Layer Majority Lifeform	Size	Closure	Dominant Species				Fire Behav Fuel Mode	Fuel Photo ID	Ref % Comp	Curr % Comp	Similarity	Diff	Risk	Abundance
A	SHRB	LOWS	40	FECA	CECU	RHDI		5		10	0	0	-100.0	HIGH	RARE
B	CONT	POLE	40	PIPO	QUGA	CECU	FECA	6		25	13	13	-31.6	MOD	RARE
C	CONT	MEDM	30	PIPO	QUGA	CECU	FECA	9		7	3	3	-40.0	MOD	RARE
D	CONT	LARG	30	PIPO	QUGA	CECU	FECA	2		45	0	0	-100.0	HIGH	RARE
E	CONT	LARG	60	PIPO	QUGA	PSME	FECA	10		13	84	13	73.2	MOD	HIGH
									Totals	100	100	29			

CurrentVeg-Fuel Departure 71

Veg-Fuel Condition Class 3 (67-100%)

Current Frequency Departure 83

Current Severity Departure 72

Current Frequency-Severity Departure 78

Frequency-Severity Condition Class 3 (67-100%)

Strata Condition Class 3 (67-100%)

Fire Regime and Condition Class - Biophysical Stratification

Reg Code Test **Project Code** flounce **Project ID** 2003 **Sampling Date** 5/24/2003 **Strata Num** 2

Code SECOND **Strata Name** SECOND STRATA **Date** 5/24/2003 **Strata Comp** 65

BpLU DFIR **Lifeform** CF **Indicator Species** PSME PIPO RHDI XETE **Local BpLU** DFIR1 **Landform** VAL

Ave Slope MOD **Insol Class** LOW **Low Elev** 2000 **High Elev** 3500 Feet **Lat** **Long**

Natl Fire Freq 60 **Curr Fire Interval** 125 **Nat Fire Severity** 50 **Curr Fire Severity** 95

Ref Veg-Fuel Class Comp Source B **Cur Veg-Fuel Class Comp Source** R **Native Amer Burn** W **B/C Class Break** 40 **D/E Class Break** 40

Characteristic Vegetation-Fuel Classes

VegFuel Class	Upper Layer Majority Lifeform	Size	Closure	Dominant Species				Fire Behav Fuel Mode	Fuel Photo ID
A	SHRB	LOWH	40	XETE	RHDI	CECU		5	
B	CONT	POLE	40	PIPO	PSME	RHDI	XETE	6	
C	CONT	MEDM	30	PIPO	PSME	RHDI	XETE	9	
D	CONT	LARG	30	PSME	PIPO	RHDI	XETE	8	
E	CONT	LARG	60	PSME	PIPO	RHDI	XETE	10	

	Ref % Comp	Curr % Comp	Similarity	Diff	Risk	Abundance
	10	0	0	-100.0	HIGH	RARE
	20	5	5	-60.0	MOD	RARE
	5	20	5	60.0	MOD	HIGH
	50	5	5	-81.8	HIGH	RARE
	15	70	15	64.7	MOD	HIGH
Totals	100	100	30			

CurrentVeg-Fuel Departure 70

Veg-Fuel Condition Class 3 (67-100%)

Current Frequency Departure 52

Current Severity Departure 47

Current Frequency-Severity Departure 50

Frequency-Severity Condition Class 2 (34-66%)

Strata Condition Class 2 (34-66%)

Fire Regime and Condition Class - Biophysical Stratification

Reg Code Test **Project Code** Flounce **Project ID** 2003 **Sampling Date** 5/2/2003 **Strata Num** 1

Code first **Strata Name** First Strata **Date** 5/2/2003 **Strata Comp** 100

BpLU OKCA **Lifeform** CF **Indicator Species** PIPO QUGA CECU FECA **Local BpLU** CHAP3 **Landform** VAL

Ave Slope MOD **Insol Class** HIGH **Low Elev** 2000 **High Elev** 3500 Feet **Lat** **Long**

Nati Fire Freq 17 **Curr Fire Interval** 100 **Nat Fire Severity** 25 **Curr Fire Severity** 90

Ref Veg-Fuel Class Comp Source B **Cur Veg-Fuel Class Comp Source** R **Native Amer Burn** W **B/C Class Break** 40 **D/E Class Break** 40

Characteristic Vegetation-Fuel Classes

VegFuel Class	Upper Layer Majority Lifeform	Size	Closure	Dominant Species				Fire Beha Fuel Mode	Fuel Photo ID	Ref % Comp	Curr % Comp	Similarity	Diff	Risk	Abundance
A	SHRB	LOWS	40	FECA	CECU	RHDI		5		10	0	0	-100.0	HIGH	RARE
B	CONT	POLE	40	PIPO	QUGA	CECU	FECA	6		25	13	13	-31.6	MOD	RARE
C	CONT	MEDM	30	PIPO	QUGA	CECU	FECA	9		7	3	3	-40.0	MOD	RARE
D	CONT	LARG	30	PIPO	QUGA	CECU	FECA	2		45	0	0	-100.0	HIGH	RARE
E	CONT	LARG	60	PIPO	QUGA	PSME	CECU	10		13	84	13	73.2	MOD	HIGH
									Totals	100	100	29			

CurrentVeg-Fuel Departure 71

Veg-Fuel Condition Class 3 (67-100%)

Current Frequency Departure 83

Current Severity Departure 72

Current Frequency-Severity Departure 78

Frequency-Severity Condition Class 3 (67-100%)

Strata Condition Class 3 (67-100%)

Fire Regime and Condition Class - Natural Fire Regime Summary

PVG #	Average Natural Fire Frequency	Strata Composition (%)	Natural Fire Frequency	Average Natural Fire Severity	Strata Composition (%)	Natural Severity
1	17	35	6	25	35	9
2	60	65	39	50	65	33
Sum		100	45		100	41

Project Natural (Historical) Fire Frequency:

Weighted Mean Fire Frequency: 45 **years**

Fire Frequency Class: Infrequent (35-200)

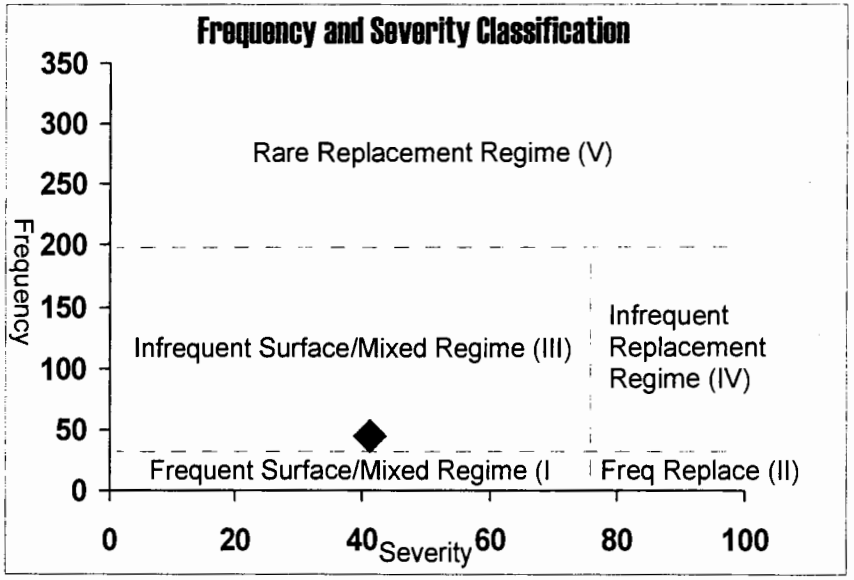
Project Natural (Historical) Fire Severity:

Weighted Mean Upper Layer Severity Frequency: 41.3 %

Fire Severity Class: Mixed (>25% and <=75%)

Project Natural Fire Regime Group:

III - Infrequent Mixed and Surface

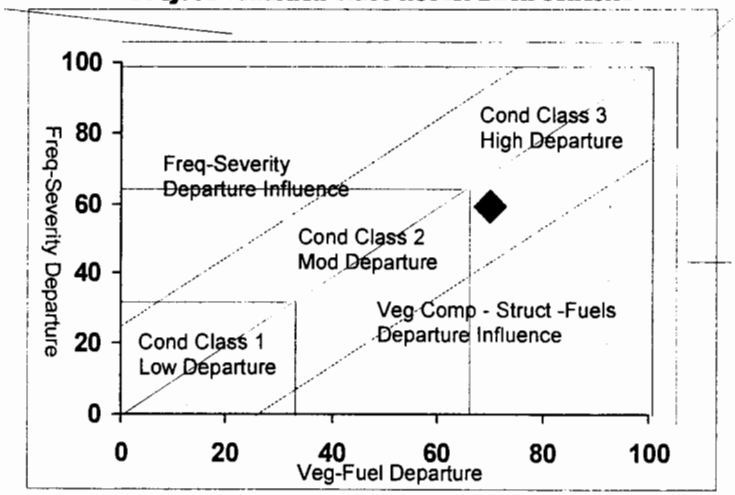


Fire Regime and Condition Class - Summary

PVG #	Veg-Fuel Departure	Strata Composition (%)	Veg-Fuel Departure	Freq-Severity Departure	Strata Composition (%)	Freq-Severity Departure
1	71	35	25	78	35	27
2	70	65	46	50	65	32
Sum		100	70		100	59
Class			3			2

Project Fire Regime Condition Class: 3 (67-100%)

Project Condition Class Restoration Context



Fire Regime and Condition Class

Registration Code Test **Project Code** Flounce **Project ID** 2003 **Sampling Date** 5/2/2003 **Examiner Name** Pence

Landscape Project Name Flounce Around **Area** 7500 Acres **Lat** **Long**

PVG #	Strata Code	BpLU	Life-form	Species				Local BpLU	Land-form	Slope Class	Insolation Class	Elevation Low	Elevation High	Strata % Comp	Ref Freq	Cur Intvl	Severity Natrl	Severity Curr
1	first	OKCA	CF	PIPO	QUGA	CECU	FECA	CHAP3	VAL	MOD	HIGH	2000	3500 F	100	17	100	25	90
													Total	100				

Fire Regime and Condition Class - Natural Fire Regime Summary

PVG #	Average Natural Fire Frequency	Strata Composition (%)	Natural Fire Frequency	Average Natural Fire Severity	Strata Composition (%)	Natural Severity
1	17	100	17	25	100	25
Sum		100	17		100	25

Project Natural (Historical) Fire Frequency:

Weighted Mean Fire Frequency: 17 years

Fire Frequency Class: Frequent (0-35)

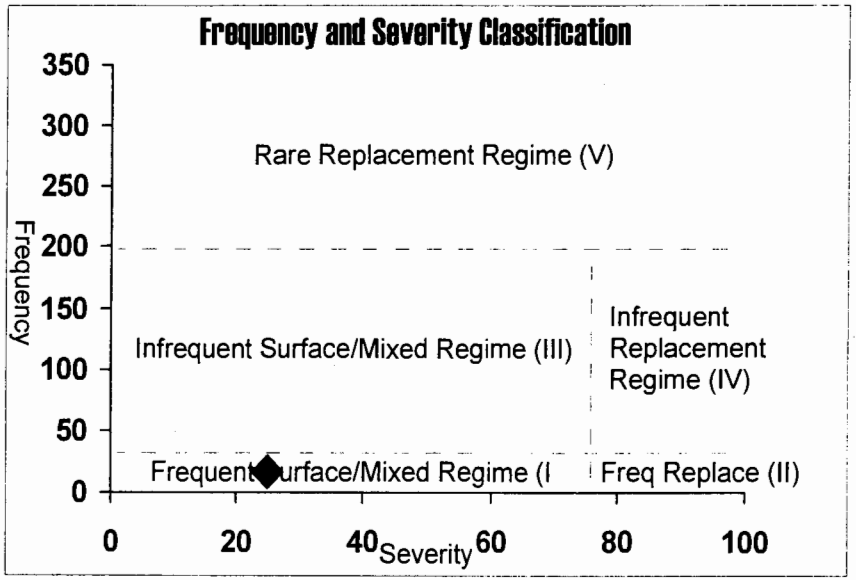
Project Natural (Historical) Fire Severity:

Weighted Mean Upper Layer Severity Frequency: 25%

Fire Severity Class: Surface (<= 25%)

Project Natural Fire Regime Group:

I - Frequent Surface and Mixed

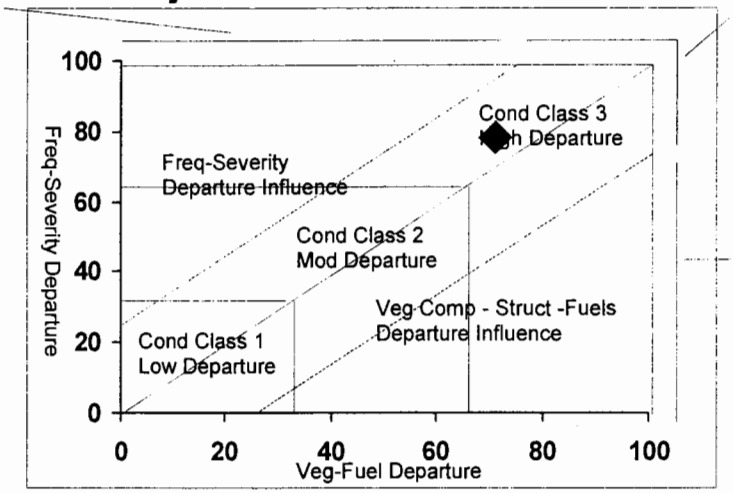


Fire Regime and Condition Class - Summary

PVG #	Veg-Fuel Departure	Strata Composition (%)	Veg-Fuel Departure	Freq-Severity Departure	Strata Composition (%)	Freq-Severity Departure
1	71	100	71	78	100	78
Sum		100	71		100	78
Class			3			3

Project Fire Regime Condition Class: 3 (67-100%)

Project Condition Class Restoration Context



Fire Regime and Condition Class

Registration Code TEST **Project Code** FLOUNCE1 **Project ID** 2003 **Sampling Date** 5/2/2003 **Examiner Name** PENCE

Landscape Project Name FLOUNCE AROUND **Area** 13900 Acres **Lat** **Long**

PVG #	Strata Code	BpLU	Life-form	Species				Local BpLU	Land-form	Slope Class	Insolation Class	Elevation Low	Elevation High	Strata % Comp	Ref Freq	Cur Intvl	Severity Natrl	Severity Curr
1	FIRST	DFIR	CF	PSME	PIPO	RHDI	XETE	DFIR1	VAL	MOD	LOW	2000	3200 F	100	60	125	50	95
													Total	100				

Fire Regime and Condition Class - Biophysical Stratification

Reg Code TEST **Project Code** FLOUNCE1 **Project ID** 2003 **Sampling Date** 5/2/2003 **Strata Num** 1

Code FIRST **Strata Name** FIRST STRATA **Date** 5/2/2003 **Strata Comp** 100

BpLU DFIR **Lifeform** CF **Indicator Species** PSME PIPO RHDI XETE **Local BpLU** DFIR1 **Landform** VAL

Ave Slope MOD **Insol Class** LOW **Low Elev** 2000 **High Elev** 3200 Feet **Lat** **Long**

Natl Fire Freq 60 **Curr Fire Interval** 125 **Nat Fire Severity** 50 **Curr Fire Severity** 95

Ref Veg-Fuel Class Comp Source B **Cur Veg-Fuel Class Comp Source** R **Native Amer Burn** W **B/C Class Break** 40 **D/E Class Break** 40

Characteristic Vegetation-Fuel Classes

VegFuel Class	Upper Layer Majority Lifeform	Size	Closure	Dominant Species				Fire Beha Fuel Mode	Fuel Photo ID		Ref % Comp	Curr % Comp	Similarity	Diff	Risk	Abundance
A	SHRB	LOWH	40	XETE	RHDI	CECU		5			10	0	0	-100.0	HIGH	RARE
B	CONT	POLE	40	PIPO	PSME	RHDI	XETE	6			20	5	5	-60.0	MOD	RARE
C	CONT	MEDM	30	PIPO	PSME	RHDI	XETE	9			5	20	5	60.0	MOD	HIGH
D	CONT	LARG	30	PSME	PIPO	RHDI	XETE	8			50	5	5	-81.8	HIGH	RARE
E	CONT	LARG	60	PSME	PIPO	RHDI	XETE	10			15	70	15	64.7	MOD	HIGH
										Totals	100	100	30			

CurrentVeg-Fuel Departure 70

Veg-Fuel Condition Class 3 (67-100%)

Current Frequency Departure 52

Current Severity Departure 47

Current Frequency-Severity Departure 50

Frequency-Severity Condition Class 2 (34-66%)

Strata Condition Class 2 (34-66%)

Fire Regime and Condition Class - Natural Fire Regime Summary

PVG #	Average Natural Fire Frequency	Strata Composition (%)	Natural Fire Frequency	Average Natural Fire Severity	Strata Composition (%)	Natural Severity
1	60	100	60	50	100	50
Sum		100	60		100	50

Project Natural (Historical) Fire Frequency:

Weighted Mean Fire Frequency: 60 **years**

Fire Frequency Class: Infrequent (35-200)

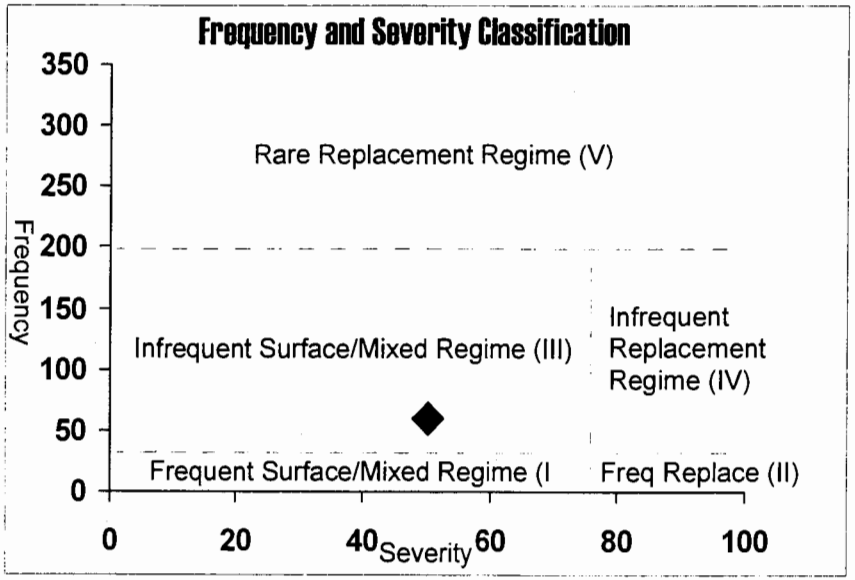
Project Natural (Historical) Fire Severity:

Weighted Mean Upper Layer Severity Frequency: 50 %

Fire Severity Class: Mixed (>25% and <=75%)

Project Natural Fire Regime Group:

III - Infrequent Mixed and Surface

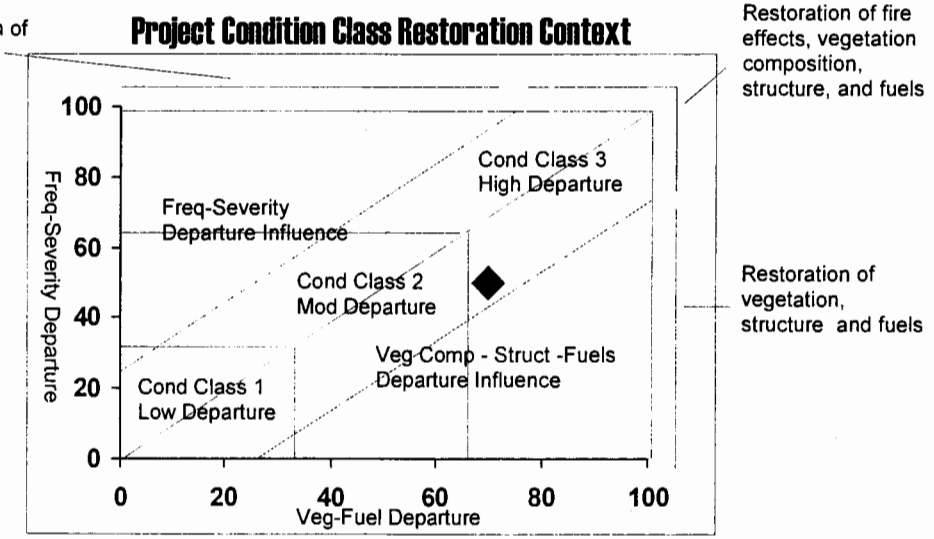


Fire Regime and Condition Class - Summary

PVG #	Veg-Fuel Departure	Strata Composition (%)	Veg-Fuel Departure	Freq-Severity Departure	Strata Composition (%)	Freq-Severity Departure
1	70	100	70	50	100	50
Sum		100	70		100	50
Class			3			2

Project Fire Regime Condition Class: 3 (67-100%)

Project Condition Class Restoration Context



Alternative 2 and 3

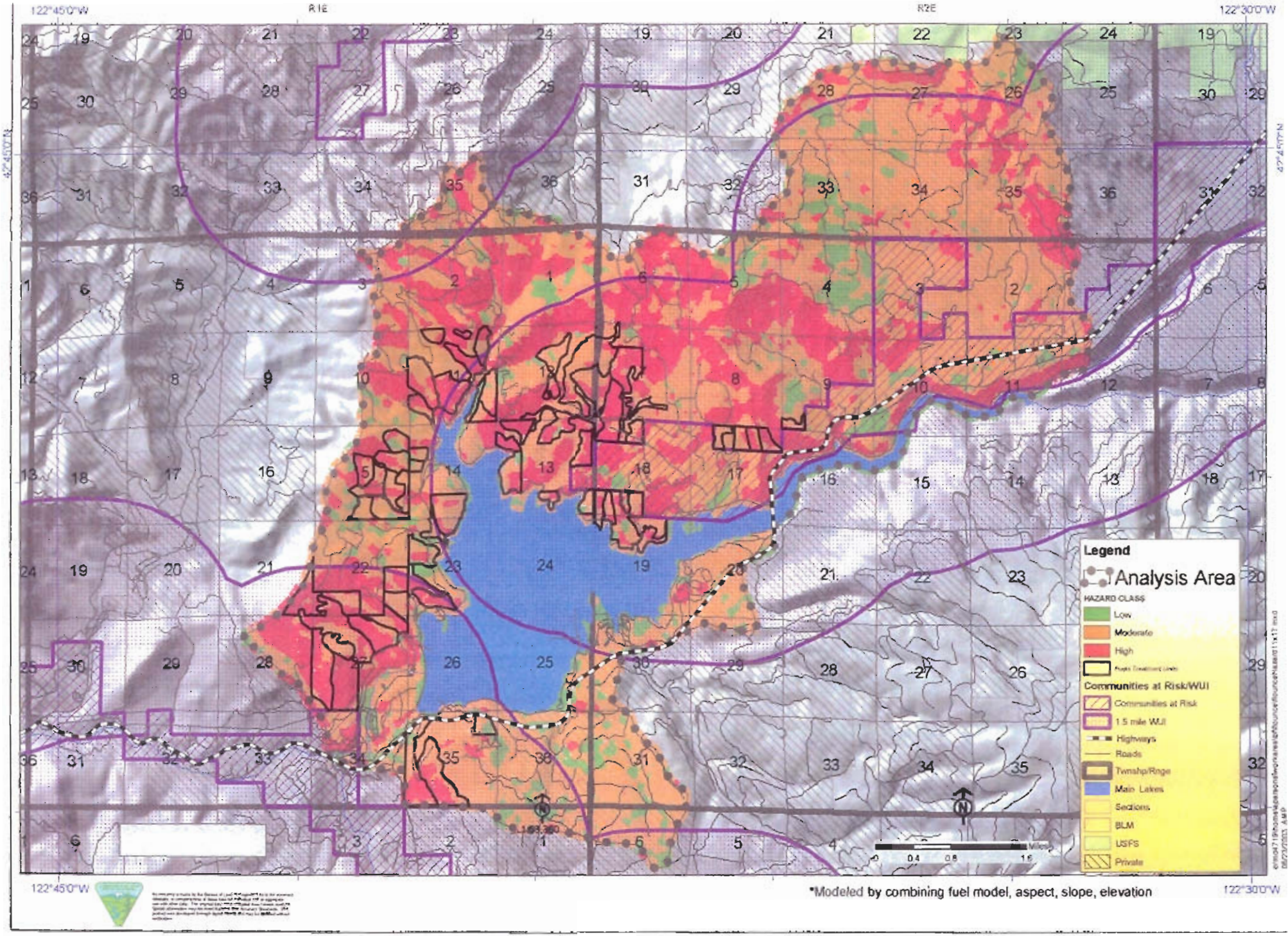
Unit	Treatment	Acres	Legal	Fire Regime	Fire Hazard
35-1	Hand pile	61	33 1E 35	1	Mod
35-2	Hand pile	45	33-1E 35	1	High
35-3	Hand pile	95	33 1E 35	1	High
35-4	Hand pile	20	33 1E 35	1	Mod
27-1	Hand pile	30	33 1E 27	1	High
27-2	Hand pile	65	33 1E 27	1	High
27-4	Hand pile	60	33 1E 27	1	High
22-2	Slashbuster	32	33 1E 22	1	Mod
23-1	Slashbuster	16	33 1E 23	1	High
23-2	Hand Pile	13	33 1E 23	1	Mod
23-4	Hand Pile	40	33 1E 23	1	High
23-5	Slashbuster	45	33 1E 23	1	High
13-2	Hand pile	25	33 1E 13	1	High
13-3	Hand pile	55	33 1E 13	1	High
13-4	Hand pile	20	33 1E 13	1	Mod
13-6	Underburn	23	33 1E 13	1	Mod
18-1	Hand pile	30	33 2E 18	1	High
18-3	Underburn	25	33 2E 18	1	Mod
18-4	Underburn	55	33 2E 18	1	Mod
18-5	Underburn	24	33 2E 18	1	Mod
18-6	Hand pile	37	33 2E 18	1	Mod
18-7	Hand pile	21	33 2E 18	1	Low
19-1	Hand pile	25	33 2E 19	1	High
17-1	Hand pile	24	33 2E17	1	Mod
17-2	Hand pile	40	33 2E 17	1	Mod
9-1	Hand pile	20	33 2E 9	1	Mod
27-3	Hand pile	85	33 1E 27	1	High
27-5	Hand pile	110	33 1E 27	1	High
22-1	Hand pile	41	33 1E 22	1	High
14-1	Hand pile	22	33 1E 14	1	Mod
14-2	Hand pile	15	33 1E 14	1	Mod
14-3	Hand pile	65	33 1E 14	1	Mod
15-1	Hand pile	40	33 1E 15	1	Mod

15-2	Hand pile	30	33 1E 15	1	High
15-7	Hand pile	35	33 1E 15	1	Mod
15-8	Hand pile	35	33 1E 15	1	Mod
11-3	Hand pile	35	33-1E 11	1	High
11-4	Hand pile	40	33-1E 11	1	High
11-5	Hand pile	70	33-1E 11	1	High
11-6	Hand pile	85	33-1E 11	1	High
11-7	Hand pile	25	33-1E 11	1	High
18-2	Underburn	75	33 2E 18	1	Mod
7-1	Hand pile	21	33 2E 7	1	Mod
7-2	Hand pile	70	33 2E 7	1	High
7-3	Hand pile	21	33 2E 7	1	High
8-1	Hand pile	25	33 2E 8	1	High
8-2	Hand pile	21	33 2E 8	1	High
22-3	Hand pile	25	33 1E 22	1	High
22-4	Hand pile	65	33 1E 22	1	High
15-3	Hand pile	45	33 1E 15	1	Mod
15-4	Hand pile	40	33 1E 15	1	Mod
15-5	Slashbuster	27	33 1E 15	1	Mod
15-6	Slashbuster	30	33 1E 15	1	Mod
11-1	Hand pile	25	33-1E 11	1	Mod
11-2	Hand pile	15	33-1E 11	1	High
11-8	Hand pile	12	33-1E 11	1	Low
11-9	Hand pile	35	33-1E 11	1	Mod
11-10	Hand pile	20	33-1E 11	1	High
12-1	Hand pile	40	33 1E 12	1	Mod
12-2	Slashbuster	126	33 1E 12	1	Mod
12-3	Slashbuster	8	33 1E 12	1	High
12-4	Underburn	40	33 1E 12	1	Mod
12-5	Hand pile	50	33 1E 12	1	Mod
12-6	Hand pile	20	33 1E 12	1	Mod
13-1	Hand pile	35	33 1E 13	1	High
13-5	Underburn	55	33 1E 13	1	Mod
		2625			

Alternative 3 and 4

Unit	Treatment	Acres	Legal	Fire Regime	Fire Hazard
35-1	Hand pile	61	33 1E 35	1	Mod
35-2	Hand pile	45	33-1E 35	1	High
35-3	Hand pile	95	33 1E 35	1	High
35-4	Hand pile	20	33 1E 35	1	Mod
27-1	Hand pile	30	33 1E 27	1	High
27-2	Hand pile	65	33 1E 27	1	High
27-4	Hand pile	60	33 1E 27	1	High
22-2	Hand pile	32	33 1E 22	1	Mod
23-1	Hand pile	16	33 1E 23	1	High
23-2	Hand Pile	13	33 1E 23	1	Mod
23-4	Hand Pile	40	33 1E 23	1	High
23-5	Underburn	45	33 1E 23	1	High
13-2	Hand pile	25	33 1E 13	1	High
13-3	Hand pile	55	33 1E 13	1	High
13-4	Hand pile	20	33 1E 13	1	Mod
13-6	Underburn	23	33 1E 13	1	Mod
18-1	Hand pile	30	33 2E 18	1	High
18-3	Underburn	25	33 2E 18	1	Mod
18-4	Underburn	55	33 2E 18	1	Mod
18-5	Underburn	24	33 2E 18	1	Mod
18-6	Hand pile	37	33 2E 18	1	Mod
18-7	Hand pile	21	33 2E 18	1	Low
19-1	Hand pile	25	33 2E 19	1	High
17-1	Hand pile	24	33 2E17	1	Mod
17-2	Hand pile	40	33 2E 17	1	Mod
9-1	Hand pile	20	33 2E 9	1	Mod
27-3	Hand pile	85	33 1E 27	1	High
27-5	Hand pile	110	33 1E 27	1	High
22-1	Hand pile	41	33 1E 22	1	High
14-1	Hand pile	22	33 1E 14	1	Mod
14-2	Hand pile	15	33 1E 14	1	Mod
14-3	Hand pile	65	33 1E 14	1	Mod
15-1	Hand pile	40	33 1E 15	1	Mod

15-2	Hand pile	30	33 1E 15	1	High
15-7	Hand pile	35	33 1E 15	1	Mod
15-8	Hand pile	35	33 1E 15	1	Mod
11-3	Hand pile	35	33-1E 11	1	High
11-4	Hand pile	40	33-1E 11	1	High
11-5	Hand pile	70	33-1E 11	1	High
11-6	Hand pile	85	33-1E 11	1	High
11-7	Hand pile	25	33-1E 11	1	High
18-2	Underburn	75	33 2E 18	1	Mod
7-1	Hand pile	21	33 2E 7	1	Mod
7-2	Hand pile	70	33 2E 7	1	High
7-3	Hand pile	21	33 2E 7	1	High
8-1	Hand pile	25	33 2E 8	1	High
8-2	Hand pile	21	33 2E 8	1	High
22-3	Hand pile	25	33 1E 22	1	High
22-4	Hand pile	65	33 1E 22	1	High
15-3	Hand pile	45	33 1E 15	1	Mod
15-4	Hand pile	40	33 1E 15	1	Mod
15-5	Hand pile	27	33 1E 15	1	Mod
15-6	Hand pile	30	33 1E 15	1	Mod
11-1	Hand pile	25	33-1E 11	1	Mod
11-2	Hand pile	15	33-1E 11	1	High
11-8	Hand pile	12	33-1E 11	1	Low
11-9	Hand pile	35	33-1E 11	1	Mod
11-10	Hand pile	20	33-1E 11	1	High
12-1	Hand pile	40	33 1E 12	1	Mod
12-2	Underburn	126	33 1E 12	1	Mod
12-3	Hand pile	8	33 1E 12	1	High
12-4	Underburn	40	33 1E 12	1	Mod
12-5	Hand pile	50	33 1E 12	1	Mod
12-6	Hand pile	20	33 1E 12	1	Mod
13-1	Hand pile	35	33 1E 13	1	High
13-5	Underburn	55	33 1E 13	1	Mod
		2625			



*Modeled by combining fuel model, aspect, slope, elevation

Analyst: D. Pence
Project name: Flounce
Date: 4/8/2003

Comments: type any comments here

fuel model numbers ===> 6 Dormant brush, hardwood slash

		A	B	C	D	E	F	units
surface fuel model		6	6	6	6	6	6	number
dead moisture	optional	0	0	0	0	0	0	percent
	1-hr	4	4	4	4	4	4	percent
	10-hr	6	6	6	6	6	6	percent
	100-hr	8	8	8	8	8	8	percent
live moisture	live	30	30	30	30	30	30	percent
	optional1	0	0	0	0	0	0	percent
	optional2	0	0	0	0	0	0	percent
canopy fuels	bulk density	20	20	20	20	20	20	kg/m3
	foliar moisture content	0	0	0	0	0	0	percent
	canopy base height	20	20	20	20	20	20	feet
	canopy fuel load	0	0	0	0	0	0	kg/m2
site	slope	10	20	30	40	50	60	percent
	open windspeed	0	0	0	0	0	0	mi/hr
	wind direction, from uphill	0	0	0	0	0	0	degrees
	wind reduction factor	0.3	0.3	0.3	0.3	0.3	0.3	ratio
multipliers	surface ROS	1.0	1.0	1.0	1.0	1.0	1.0	
	crown fire ROS	1.0	1.0	1.0	1.0	1.0	1.0	
	surface load &depth	1.0	1.0	1.0	1.0	1.0	1.0	
	surface fire intensity	1.0	1.0	1.0	1.0	1.0	1.0	

*** CONSTANTS ***

temp	95	Farenheit
St	0.0555	mineral fraction
Se	0.01	effective mnrl fraction
Pp	32	lbs/ft3
elapsed time	1	hour
map scale	24000	1/??,???
Hcrown	18000	kJ/kg

Analyst:	D. Pence	**Comments:** type any comments here						
Project name:	Flounce							
Date:	04/08/03							
OUTPUTS		fuel scenario						
		A	B	C	D	E	F	units
type of fire		conditional	conditional	surface	surface	surface	surface	
crown fraction burned		0.00	0.00	0.00	0.00	0.00	0.00	fraction
rate of spread		2.7	4.5	7.4	11.6	17.0	23.5	chains/hr
heat per unit area		523	523	523	523	523	523	btu/ft2
fireline intensity		25	43	71	111	163	226	btu/ft/sec
flame length		2.0	2.5	3.2	3.9	4.7	5.4	feet
reaction intensity, surface		2128	2128	2128	2128	2128	2128	btu/ft2/sec
effective mid-flame wind		0.2	0.6	1.2	1.8	2.5	3.2	mi/hr
direction of max spread		0	0	0	0	0	0	degrees
scorch height		12.1	17.0	23.8	31.6	39.9	48.3	feet
length-to-breadth ratio		1.1	1.2	1.3	1.4	1.6	1.8	ratio
perimeter growth rate		14.5	19.1	26.6	36.7	49.1	63.7	chains/hr
fire area		2	3	5	10	18	28	acres
spread distance	after 1 hour	2.7	4.5	7.4	11.6	17.0	23.5	chains
map spread distance		0.1	0.1	0.2	0.4	0.6	0.8	inches
Potential crown fire ROS		6.3	9.2	14.0	20.7	29.3	39.9	chains/hr
		CROWN FIRE HAZARD INDICES						
Torching index		1.7	0.1	0.0	0.0	0.0	0.0	mi/hr
Crowning index		2.1	0.8	0.0	0.0	0.0	0.0	mi/hr
Surfacing index		2.1	0.8	0.0	0.0	0.0	0.0	mi/hr
INITIATION		CRITICAL CROWN FIRE PARAMETERS						
fireline intensity		43	43	43	43	43	43	btu/ft/sec
flame length		2.5	2.5	2.5	2.5	2.5	2.5	feet
Critical surface ROS		4.5	4.5	4.5	4.5	4.5	4.5	chains/hr
Canopy base height		14.1	19.9	28.0	37.7	48.6	60.4	feet
ACTIVE SPREAD								
Canopy bulk density		1.41	0.97	0.64	0.43	0.31	0.22	kg/m3
R'active		0	0	0	0	0	0	chains/hr
CESSATION								
Canopy base height		25.2	32.3	42.7	55.5	70.0	85.9	feet
O'cessation		0.0	0.0	0.0	0.0	0.0	0.0	mi/hr

set windspeed range		
windspeed	mi/hr	
low	0	
high	20	

flame length | feet

	Scenario A	Scenario B	Scenario C	Scenario D	Scenario E	Scenario F
0.0	1.996	2.529	3.202	3.931	4.682	5.441
1.0	2.277	4.358	5.585	7.107	8.851	10.774
2.0	3.892	4.990	6.150	7.611	9.305	11.186
3.0	5.021	5.729	6.822	8.219	9.858	11.692
4.0	5.869	6.529	7.560	8.895	10.478	12.264
5.0	6.747	7.365	8.342	9.620	11.149	12.886
6.0	7.644	8.227	9.155	10.381	11.858	13.547
7.0	8.552	9.105	9.990	11.168	12.597	14.240
8.0	9.468	9.994	10.842	11.976	13.360	14.960
9.0	10.389	10.892	11.706	12.801	14.143	15.701
10.0	11.313	11.796	12.580	13.638	14.941	16.460
11.0	12.239	12.704	13.461	14.486	15.752	17.234
12.0	13.167	13.615	14.347	15.341	16.574	18.022
13.0	14.095	14.529	15.238	16.204	17.406	18.820
14.0	15.023	15.444	16.132	17.073	18.245	19.628
15.0	15.951	16.360	17.029	17.945	19.090	20.444
16.0	16.879	17.276	17.929	18.822	19.941	21.267
17.0	17.806	18.193	18.829	19.702	20.797	22.096
18.0	18.733	19.111	19.731	20.585	21.656	22.931
19.0	19.659	20.028	20.634	21.469	22.519	23.771
20.0	20.584	20.945	21.538	22.356	23.386	24.614

set windspeed range		
windspeed	mi/hr	
low	0	
high	20	

final rate of spread: chains/hr

	Scenario A	Scenario B	Scenario C	Scenario D	Scenario E	Scenario F
0.0	2.661	4.450	7.433	11.608	16.977	23.538
1.0	3.543	10.614	15.403	22.108	30.728	41.264
2.0	9.222	13.009	17.798	24.502	33.122	43.658
3.0	13.129	16.002	20.791	27.495	36.116	46.651
4.0	16.591	19.465	24.254	30.958	39.578	50.114
5.0	20.451	23.325	28.114	34.818	43.438	53.974
6.0	24.661	27.534	32.323	39.027	47.648	58.183
7.0	29.184	32.058	36.847	43.551	52.171	62.707
8.0	33.996	36.870	41.659	48.363	56.983	67.519
9.0	39.075	41.948	46.737	53.442	62.062	72.597
10.0	44.403	47.276	52.065	58.770	67.390	77.925
11.0	49.966	52.839	57.628	64.333	72.953	83.488
12.0	55.751	58.624	63.413	70.118	78.738	89.274
13.0	61.748	64.621	69.410	76.115	84.735	95.271
14.0	67.947	70.821	75.610	82.314	90.934	101.470
15.0	74.340	77.214	82.003	88.707	97.327	107.863
16.0	80.920	83.793	88.582	95.287	103.907	114.442
17.0	87.679	90.552	95.341	102.046	110.666	121.202
18.0	94.612	97.485	102.274	108.979	117.599	128.134
19.0	101.713	104.586	109.375	116.079	124.699	135.235
20.0	108.976	111.850	116.638	123.343	131.963	142.499

Analyst: D. Pence
Project name: Flounce
Date: 4/8/2003

Comments: type any comments here

fuel model numbers ===> 2 Timber (grass and understory)

		A	B	C	D	E	F	units
surface fuel model		2	2	2	2	2	2	number
dead moisture	optional	0	0	0	0	0	0	percent
	1-hr	4	4	4	4	4	4	percent
	10-hr	6	6	6	6	6	6	percent
	100-hr	8	8	8	8	8	8	percent
live moisture	live	30	30	30	30	30	30	percent
	optional1	0	0	0	0	0	0	percent
	optional2	0	0	0	0	0	0	percent
canopy fuels	bulk density	20	20	20	20	20	20	kg/m3
	foliar moisture content	0	0	0	0	0	0	percent
	canopy base height	20	20	20	20	20	20	feet
	canopy fuel load	0	0	0	0	0	0	kg/m2
site	slope	10	20	30	40	50	60	percent
	open windspeed	0	0	0	0	0	0	mi/hr
	wind direction, from uphill	0	0	0	0	0	0	degrees
	wind reduction factor	0.3	0.3	0.3	0.3	0.3	0.3	ratio
multipliers	surface ROS	1.0	1.0	1.0	1.0	1.0	1.0	
	crown fire ROS	1.0	1.0	1.0	1.0	1.0	1.0	
	surface load &depth	1.0	1.0	1.0	1.0	1.0	1.0	
	surface fire intensity	1.0	1.0	1.0	1.0	1.0	1.0	

*** CONSTANTS ***

temp	95	Farenheit
St	0.0555	mineral fraction
Se	0.01	effective mnrl fraction
Pp	32	lbs/ft3
elapsed time	1	hour
map scale	24000	1/?? ???
Hcrown	18000	kJ/kg

Analyst:	D. Pence	**Comments:** type any comments here						
Project name:	Flounce							
Date:	04/08/03							
OUTPUTS		fuel scenario						
		A	B	C	D	E	F	units
type of fire		conditional	surface	surface	surface	surface	surface	
crown fraction burned		0.00	0.00	0.00	0.00	0.00	0.00	fraction
rate of spread		4.1	6.6	10.7	16.4	23.8	32.8	chains/hr
heat per unit area		530	530	530	530	530	530	btu/ft2
fireline intensity		40	64	104	159	231	319	btu/ft/sec
flame length		2.5	3.0	3.8	4.6	5.5	6.4	feet
reaction intensity, surface		3841	3841	3841	3841	3841	3841	btu/ft2/sec
effective mid-flame wind		0.5	1.1	1.8	2.4	3.1	3.8	mi/hr
direction of max spread		0	0	0	0	0	0	degrees
scorch height		16.4	22.1	30.1	39.4	49.5	60.3	feet
length-to-breadth ratio		1.1	1.3	1.4	1.6	1.8	2.0	ratio
perimeter growth rate		22.0	27.7	37.5	50.9	67.8	88.0	chains/hr
fire area		4	6	11	19	32	52	acres
spread distance	after 1 hour	4.1	6.6	10.7	16.4	23.8	32.8	chains
map spread distance		0.1	0.2	0.4	0.5	0.8	1.1	inches
Potential crown fire ROS		6.3	9.2	14.0	20.7	29.3	39.9	chains/hr
		CROWN FIRE HAZARD INDICES						
Torching Index		1.0	0.0	0.0	0.0	0.0	0.0	mi/hr
Crowning Index		2.1	0.8	0.0	0.0	0.0	0.0	mi/hr
Surfacing Index		2.1	0.8	0.0	0.0	0.0	0.0	mi/hr
INITIATION		CRITICAL CROWN FIRE PARAMETERS						
fireline intensity		43	43	43	43	43	43	btu/ft/sec
flame length		2.5	2.5	2.5	2.5	2.5	2.5	feet
Critical surface ROS		4.4	4.4	4.4	4.4	4.4	4.4	chains/hr
Canopy base height		19.1	26.1	36.0	48.0	61.4	76.1	feet
ACTIVE SPREAD								
Canopy bulk density		1.41	0.97	0.64	0.43	0.31	0.22	kg/m3
R'active		0	0	0	0	0	0	chains/hr
CESSATION								
Canopy base height		25.4	32.6	43.1	56.0	70.6	86.6	feet
O'cessation		0.0	0.0	0.0	0.0	0.0	0.0	mi/hr

set windspeed range		
windspeed	mi/hr	
low	0	
high	20	

flame length | feet

	Scenario A	Scenario B	Scenario C	Scenario D	Scenario E	Scenario F
0.0	2.457	3.047	3.806	4.639	5.502	6.378
1.0	2.533	4.398	5.637	7.172	8.932	10.872
2.0	4.127	5.036	6.207	7.681	9.391	11.289
3.0	5.067	5.782	6.884	8.295	9.948	11.799
4.0	5.923	6.588	7.629	8.977	10.574	12.376
5.0	6.809	7.433	8.418	9.709	11.251	13.004
6.0	7.714	8.302	9.239	10.476	11.967	13.671
7.0	8.631	9.188	10.082	11.271	12.713	14.371
8.0	9.555	10.086	10.942	12.086	13.483	15.097
9.0	10.485	10.992	11.814	12.918	14.272	15.845
10.0	11.417	11.905	12.695	13.763	15.078	16.611
11.0	12.352	12.821	13.584	14.619	15.897	17.393
12.0	13.288	13.741	14.479	15.482	16.727	18.187
13.0	14.224	14.662	15.378	16.353	17.565	18.993
14.0	15.161	15.586	16.281	17.229	18.412	19.808
15.0	16.098	16.510	17.186	18.110	19.265	20.632
16.0	17.034	17.435	18.093	18.995	20.124	21.462
17.0	17.970	18.360	19.002	19.883	20.987	22.299
18.0	18.905	19.286	19.913	20.774	21.855	23.142
19.0	19.840	20.212	20.824	21.666	22.726	23.989
20.0	20.773	21.137	21.736	22.561	23.600	24.840

set windspeed range		
windspeed	mi/hr	
low	0	
high	20	

final rate of spread | chains/hr

	Scenario A	Scenario B	Scenario C	Scenario D	Scenario E	Scenario F
0.0	4.124	6.581	10.677	16.412	23.785	32.797
1.0	4.405	10.614	15.403	22.108	30.728	41.264
2.0	9.779	13.009	17.798	24.502	33.122	43.658
3.0	13.129	16.002	20.791	27.495	36.116	46.651
4.0	16.591	19.465	24.254	30.958	39.578	50.114
5.0	20.451	23.325	28.114	34.818	43.438	53.974
6.0	24.661	27.534	32.323	39.027	47.648	58.183
7.0	29.184	32.058	36.847	43.551	52.171	62.707
8.0	33.996	36.870	41.659	48.363	56.983	67.519
9.0	39.075	41.948	46.737	53.442	62.062	72.597
10.0	44.403	47.276	52.065	58.770	67.390	77.925
11.0	49.966	52.839	57.628	64.333	72.953	83.488
12.0	55.751	58.624	63.413	70.118	78.738	89.274
13.0	61.748	64.621	69.410	76.115	84.735	95.271
14.0	67.947	70.821	75.610	82.314	90.934	101.470
15.0	74.340	77.214	82.003	88.707	97.327	107.863
16.0	80.920	83.793	88.582	95.287	103.907	114.442
17.0	87.679	90.552	95.341	102.046	110.666	121.202
18.0	94.612	97.485	102.274	108.979	117.599	128.134
19.0	101.713	104.586	109.375	116.079	124.699	135.235
20.0	108.976	111.850	116.638	123.343	131.963	142.499

Analyst: D. Pence
Project name: Flounce
Date: 4/8/2003

Comments: type any comments here

fuel model numbers ===> 8 Closed timber litter

		A	B	C	D	E	F	units
surface fuel model		8	8	8	8	8	8	number
dead moisture	optional	0	0	0	0	0	0	percent
	1-hr	4	4	4	4	4	4	percent
	10-hr	6	6	6	6	6	6	percent
	100-hr	8	8	8	8	8	8	percent
live moisture	live	30	30	30	30	30	30	percent
	optional1	0	0	0	0	0	0	percent
	optional2	0	0	0	0	0	0	percent
canopy fuels	bulk density	20	20	20	20	20	20	kg/m3
	foliar moisture content	0	0	0	0	0	0	percent
	canopy base height	20	20	20	20	20	20	feet
	canopy fuel load	0	0	0	0	0	0	kg/m2
site	slope	10	20	30	40	50	60	percent
	open windspeed	0	0	0	0	0	0	mi/hr
	wind direction, from uphill	0	0	0	0	0	0	degrees
	wind reduction factor	0.3	0.3	0.3	0.3	0.3	0.3	ratio
multipliers	surface ROS	1.0	1.0	1.0	1.0	1.0	1.0	
	crown fire ROS	1.0	1.0	1.0	1.0	1.0	1.0	
	surface load &depth	1.0	1.0	1.0	1.0	1.0	1.0	
	surface fire intensity	1.0	1.0	1.0	1.0	1.0	1.0	

*** CONSTANTS ***

temp	95	Farenheit
St	0.0555	mineral fraction
Se	0.01	effective mnrl fraction
Pp	32	lbs/ft3
elapsed time	1	hour
map scale	24000	1/??,???
Hcrown	18000	kJ/kg

Analyst:	D. Pence	**Comments:** type any comments here						
Project name:	Flounce							
Date:	04/08/03							
OUTPUTS		fuel scenario						
		A	B	C	D	E	F	units
type of fire		conditional	conditional	conditional	conditional	conditional	conditional	
crown fraction burned		0.00	0.00	0.00	0.00	0.00	0.00	fraction
rate of spread		0.3	0.4	0.6	0.9	1.3	1.7	chains/hr
heat per unit area		210	210	210	210	210	210	btu/ft2
fireline intensity		1	2	2	4	5	7	btu/ft/sec
flame length		0.5	0.6	0.7	0.8	0.9	1.1	feet
reaction intensity, surface		1032	1032	1032	1032	1032	1032	btu/ft2/sec
effective mid-flame wind		0.3	0.9	1.5	2.2	3.0	3.9	mi/hr
direction of max spread		0	0	0	0	0	0	degrees
scorch height		1.6	1.7	1.7	1.6	1.6	1.6	feet
length-to-breadth ratio		1.1	1.2	1.4	1.6	1.8	2.0	ratio
perimeter growth rate		1.8	2.1	2.5	3.2	4.0	4.9	chains/hr
fire area		0	0	0	0	0	0	acres
spread distance	after 1 hour	0.3	0.4	0.6	0.9	1.3	1.7	chains
map spread distance		0.0	0.0	0.0	0.0	0.0	0.1	inches
Potential crown fire ROS		6.3	9.2	14.0	20.7	29.3	39.9	chains/hr
		CROWN FIRE HAZARD INDICES						
Torching Index		49.7	49.3	48.7	47.8	46.6	45.2	mi/hr
Crowning Index		2.1	0.8	0.0	0.0	0.0	0.0	mi/hr
Surfacing Index		2.4	1.3	0.0	0.0	0.0	0.0	mi/hr
INITIATION		CRITICAL CROWN FIRE PARAMETERS						
fireline intensity		43	43	43	43	43	43	btu/ft/sec
flame length		2.5	2.5	2.5	2.5	2.5	2.5	feet
Critical surface ROS		11.2	11.2	11.2	11.2	11.2	11.2	chains/hr
Canopy base height		1.9	2.3	3.0	3.8	4.8	5.8	feet
ACTIVE SPREAD								
Canopy bulk density		1.41	0.97	0.64	0.43	0.31	0.22	kg/m3
R'active		0	0	0	0	0	0	chains/hr
CESSATION								
Canopy base height		13.7	17.6	23.3	30.2	38.1	46.7	feet
O'cessation		2.4	1.3	0.0	0.0	0.0	0.0	mi/hr

set windspeed range		
windspeed	mi/hr	
low	0	
high	20	

	flame length	feet				
	Scenario A	Scenario B	Scenario C	Scenario D	Scenario E	Scenario F
0.0	0.498	0.577	0.685	0.810	0.943	1.080
1.0	0.521	0.596	0.701	0.823	0.954	1.090
2.0	0.559	0.629	0.729	0.846	0.973	1.106
3.0	0.604	0.668	0.762	0.874	0.997	1.127
4.0	0.652	0.711	0.799	0.906	1.025	1.151
5.0	0.702	0.757	0.839	0.941	1.055	1.177
6.0	0.752	0.803	0.881	0.977	1.087	1.206
7.0	0.803	0.850	0.923	1.015	1.121	1.236
8.0	0.853	0.898	0.966	1.054	1.155	1.267
9.0	0.903	0.945	1.010	1.093	1.191	1.299
10.0	0.953	0.992	1.054	1.133	1.227	1.331
11.0	1.002	1.039	1.097	1.174	1.264	1.365
12.0	1.050	1.085	1.141	1.214	1.301	1.399
13.0	1.098	1.131	1.184	1.254	1.338	1.433
14.0	1.144	1.176	1.227	1.295	1.376	1.468
15.0	1.191	1.221	1.270	1.335	1.414	1.503
16.0	1.237	1.266	1.313	1.375	1.451	1.538
17.0	1.282	1.310	1.355	1.415	1.489	1.573
18.0	1.326	1.353	1.397	1.455	1.527	1.609
19.0	1.370	1.396	1.438	1.495	1.564	1.644
20.0	1.414	1.439	1.480	1.534	1.602	1.679

set windspeed range		
windspeed	mi/hr	
low	0	
high	20	

final rate of spread | chains/hr

	Scenario A	Scenario B	Scenario C	Scenario D	Scenario E	Scenario F
0.0	0.324	0.446	0.649	0.933	1.299	1.745
1.0	0.357	0.479	0.682	0.966	1.332	1.778
2.0	0.416	0.538	0.741	1.025	1.391	1.837
3.0	0.492	0.614	0.817	1.101	1.467	1.913
4.0	0.582	0.704	0.907	1.191	1.556	2.003
5.0	0.683	0.805	1.008	1.292	1.657	2.104
6.0	0.795	0.916	1.119	1.404	1.769	2.216
7.0	0.915	1.037	1.240	1.524	1.890	2.336
8.0	1.045	1.167	1.370	1.654	2.019	2.466
9.0	1.183	1.305	1.508	1.792	2.157	2.604
10.0	1.328	1.450	1.653	1.937	2.302	2.749
11.0	1.481	1.602	1.805	2.090	2.455	2.902
12.0	1.640	1.762	1.965	2.249	2.614	3.061
13.0	1.806	1.928	2.131	2.415	2.780	3.227
14.0	1.978	2.100	2.303	2.587	2.953	3.399
15.0	2.157	2.279	2.482	2.766	3.131	3.578
16.0	2.341	2.463	2.666	2.950	3.315	3.762
17.0	2.531	2.653	2.856	3.140	3.505	3.952
18.0	2.726	2.848	3.051	3.335	3.701	4.147
19.0	2.927	3.049	3.252	3.536	3.901	4.348
20.0	3.133	3.255	3.458	3.742	4.107	4.554

Analyst: D. Pence
Project name: Flounce
Date: 4/8/2003

Comments: type any comments here

fuel model numbers ===> 9 Hardwood (long-needle pine) litter

		A	B	C	D	E	F	units
surface fuel model		9	9	9	9	9	9	number
dead moisture	optional	0	0	0	0	0	0	percent
	1-hr	4	4	4	4	4	4	percent
	10-hr	6	6	6	6	6	6	percent
	100-hr	8	8	8	8	8	8	percent
live moisture	live	30	30	30	30	30	30	percent
	optional1	0	0	0	0	0	0	percent
	optional2	0	0	0	0	0	0	percent
canopy fuels	bulk density	20	20	20	20	20	20	kg/m3
	foliar moisture content	0	0	0	0	0	0	percent
	canopy base height	20	20	20	20	20	20	feet
	canopy fuel load	0	0	0	0	0	0	kg/m2
site	slope	10	20	30	40	50	60	percent
	open windspeed	0	0	0	0	0	0	mi/hr
	wind direction, from uphill	0	0	0	0	0	0	degrees
	wind reduction factor	0.3	0.3	0.3	0.3	0.3	0.3	ratio
multipliers	surface ROS	1.0	1.0	1.0	1.0	1.0	1.0	
	crown fire ROS	1.0	1.0	1.0	1.0	1.0	1.0	
	surface load &depth	1.0	1.0	1.0	1.0	1.0	1.0	
	surface fire intensity	1.0	1.0	1.0	1.0	1.0	1.0	

*** CONSTANTS ***

temp	95	Farenheit
St	0.0555	mineral fraction
Se	0.01	effective mnrl fraction
Pp	32	lbs/ft3
elapsed time	1	hour
map scale	24000	1/??,???
Hcrown	18000	kJ/kg

Analyst:	D. Pence	**Comments:** type any comments here						
Project name:	Flounce							
Date:	04/08/03							
OUTPUTS		fuel scenario						
		A	B	C	D	E	F	units
type of fire		conditional	conditional	conditional	conditional	conditional	surface	
crown fraction burned		0.00	0.00	0.00	0.00	0.00	0.00	fraction
rate of spread		1.2	1.7	2.5	3.6	5.0	6.8	chains/hr
heat per unit area		416	416	416	416	416	416	btu/ft2
fireline intensity		9	13	19	27	38	52	btu/ft/sec
flame length		1.2	1.4	1.7	2.1	2.4	2.8	feet
reaction intensity, surface		2690	2690	2690	2690	2690	2690	btu/ft2/sec
effective mid-flame wind		0.5	1.0	1.7	2.3	3.0	3.7	mi/hr
direction of max spread		0	0	0	0	0	0	degrees
scorch height		6.0	7.3	8.9	10.5	12.2	13.8	feet
length-to-breadth ratio		1.1	1.3	1.4	1.6	1.8	1.9	ratio
perimeter growth rate		6.5	7.5	9.4	12.0	15.2	19.1	chains/hr
fire area		0	0	1	1	2	2	acres
spread distance	after 1 hour	1.2	1.7	2.5	3.6	5.0	6.8	chains
map spread distance		0.0	0.1	0.1	0.1	0.2	0.2	inches
Potential crown fire ROS		6.3	9.2	14.0	20.7	29.3	39.9	chains/hr
		CROWN FIRE HAZARD INDICES						
Torching Index		10.7	10.0	8.8	6.8	3.3	0.0	mi/hr
Crowning Index		2.1	0.8	0.0	0.0	0.0	0.0	mi/hr
Surfacing Index		2.1	0.8	0.0	0.0	0.0	0.0	mi/hr
INITIATION		CRITICAL CROWN FIRE PARAMETERS						
fireline intensity		43	43	43	43	43	43	btu/ft/sec
flame length		2.5	2.5	2.5	2.5	2.5	2.5	feet
Critical surface ROS		5.6	5.6	5.6	5.6	5.6	5.6	chains/hr
Canopy base height		7.0	8.8	11.5	14.8	18.6	22.7	feet
ACTIVE SPREAD								
Canopy bulk density		1.41	0.97	0.64	0.43	0.31	0.22	kg/m3
R'active		0	0	0	0	0	0	chains/hr
CESSATION								
Canopy base height		21.6	27.8	36.7	47.6	60.1	73.7	feet
O'cessation		0.0	0.0	0.0	0.0	0.0	0.0	mi/hr

set windspeed range		
windspeed	mi/hr	
low	0	
high	20	

flame length | feet

	Scenario A	Scenario B	Scenario C	Scenario D	Scenario E	Scenario F
0.0	1.233	1.445	1.735	2.063	2.412	2.771
1.0	1.269	1.475	1.759	2.083	2.429	9.252
2.0	1.347	1.541	1.813	2.128	2.466	9.606
3.0	1.452	1.632	1.889	2.191	2.519	10.041
4.0	1.574	1.739	1.980	2.268	8.998	10.531
5.0	1.706	1.858	2.083	2.357	9.574	11.065
6.0	1.846	1.986	2.196	2.455	10.183	11.634
7.0	1.990	2.119	2.315	9.591	10.818	12.229
8.0	2.137	2.256	2.439	10.285	11.473	12.847
9.0	2.285	2.395	10.053	10.993	12.145	13.483
10.0	2.434	2.537	10.803	11.712	12.830	14.135
11.0	10.511	10.910	11.559	12.439	13.527	14.800
12.0	11.307	11.692	12.321	13.174	14.233	15.476
13.0	12.104	12.477	13.086	13.915	14.947	16.162
14.0	12.901	13.262	13.854	14.661	15.667	16.855
15.0	13.698	14.049	14.624	15.411	16.393	17.556
16.0	14.495	14.836	15.396	16.164	17.124	18.263
17.0	15.291	15.624	16.170	16.919	17.859	18.975
18.0	16.087	16.411	16.944	17.677	18.597	19.692
19.0	16.882	17.199	17.720	18.437	19.339	20.413
20.0	17.677	17.986	18.496	19.198	20.082	21.138

set windspeed range	
windspeed	mi/hr
low	0
high	20

final rate of spread: chains/hr

	Scenario A	Scenario B	Scenario C	Scenario D	Scenario E	Scenario F
0.0	1.173	1.657	2.464	3.594	5.046	6.821
1.0	1.248	1.733	2.539	3.669	5.121	41.264
2.0	1.422	1.906	2.713	3.842	5.295	43.658
3.0	1.673	2.157	2.964	4.094	5.546	46.651
4.0	1.994	2.478	3.285	4.414	39.578	50.114
5.0	2.378	2.862	3.669	4.798	43.438	53.974
6.0	2.822	3.306	4.113	5.242	47.648	58.183
7.0	3.323	3.807	4.614	43.551	52.171	62.707
8.0	3.878	4.362	5.169	48.363	56.983	67.519
9.0	4.486	4.970	46.737	53.442	62.062	72.597
10.0	5.145	5.629	52.065	58.770	67.390	77.925
11.0	49.966	52.839	57.628	64.333	72.953	83.488
12.0	55.751	58.624	63.413	70.118	78.738	89.274
13.0	61.748	64.621	69.410	76.115	84.735	95.271
14.0	67.947	70.821	75.610	82.314	90.934	101.470
15.0	74.340	77.214	82.003	88.707	97.327	107.863
16.0	80.920	83.793	88.582	95.287	103.907	114.442
17.0	87.679	90.552	95.341	102.046	110.666	121.202
18.0	94.612	97.485	102.274	108.979	117.599	128.134
19.0	101.713	104.586	109.375	116.079	124.699	135.235
20.0	108.976	111.850	116.638	123.343	131.963	142.499