Appendix A

Table A1 – Unit photos, fuel loadings, measured and modeled consumption.

ANGEL

(Okanogan-Wenatchee National Forest)

PRE-BURN

POST-BURN

Fuel Load and Consumption

	Pre-Fire Load	Post-Fire Load	Measured Consumption	Measured Consumption	Consume 2.1 Consumption	Consume 4.2 Consumption
Fuelbed Category	*tons acre^{-1}*			*%*	*tons acre^{-1}*	
1 h	0.38	0.07	0.31	82	0.38	0.38
10 h	1.09	0.25	0.84	77	0.95	0.94
100 h	1.47	0.23	1.24	84	1.24	1.15
1000 h S	2.62	0.49	2.13	81	0.72	1.44
1000 h R	4.85	0.08	4.77	98	1.02	3.08
litter	2.47	0.46	2.01	81	1.68	2.47
duff	11.07	4.36	6.71	61	5.51	3.73
herb	0.06	0.01	0.05	83	0.06	0.06
shrub	0.13	0.05	0.08	62	0.09	0.09
Total	**24.14**	**6.00**	**18.14**	**75**	**11.64**	**13.34**

Overstory Characteristics, Tree Damage, and Predicted Mortality

Diameter Class	Tree Density	Tree Basal Area	Measured Crown Volume Scorched	Measured Bole Char Height	FOFEM Predicted Mortality	FOFEM Predicted Mortality
	trees acre^{-1}	*ft^2 ac^{-1}*	*%*	*ft*	*% trees acre^{-1}*	*% basal area*
0-2	315	1.5	68	N/C	95	N/C
> 2	251	106.1	56	N/C	22	N/C
All	566	107.6	59	4.6	75	23

N/C = Not calculated

CHUMSTICK

(Okanogan-Wenatchee National Forest)

NO PRE-BURN PHOTO

POST-BURN

Fuel Load and Consumption

	Pre-Fire Load	Post-Fire Load	Measured Consumption	Measured Consumption	Consume 2.1 Consumption	Consume 4.2 Consumption
Fuelbed Category	*tons acre^{-1}*			*%*	*tons acre^{-1}*	
1 h	0.12	0.01	0.11	92	0.12	0.12
10 h	1.28	0.12	1.16	91	1.13	1.11
100 h	2.71	0.17	2.54	94	2.36	2.13
1000 h S	2.46	0.12	2.34	95	1.01	1.77
1000 h R	0.10	0.00	0.10	100	0.02	0.09
litter	4.24	0.71	3.53	83	3.15	4.24
duff	5.33	1.18	4.15	78	2.46	2.27
herb	0.03	0.01	0.02	67	0.03	0.03
shrub	0.04	0.02	0.02	50	0.03	0.03
Total	**16.31**	**2.34**	**13.97**	**86**	**10.31**	**11.79**

Overstory Characteristics, Tree Damage, and Predicted Mortality

Diameter Class	Tree Density	Tree Basal Area	Measured Crown Volume Scorched	Measured Bole Char Height	FOFEM Predicted Mortality	FOFEM Predicted Mortality
	trees acre^{-1}	*ft^2 ac^{-1}*	*%*	*ft*	*% trees acre^{-1}*	*% basal area*
0-2	75	0.4	92	N/C	97	N/C
> 2	118	94.2	44	N/C	27	N/C
All	193	94.6	54	5.1	65	16

N/C = Not calculated

ORION

(Okanogan-Wenatchee National Forest)

PRE-BURN

POST-BURN

Fuel Load and Consumption

	Pre-Fire Load	Post-Fire Load	Measured Consumption	Measured Consumption	Consume 2.1 Consumption	Consume 4.2 Consumption
Fuelbed Category	*tons acre^{-1}*			*%*	*tons acre^{-1}*-	
1 h	0.01	0.01	0.00	0	0.01	0.01
10 h	0.53	0.31	0.22	42	0.44	0.46
100 h	0.84	0.37	0.47	56	0.68	0.66
1000 h S	0.70	0.18	0.52	74	0.23	0.43
1000 h R	0.82	0.34	0.48	59	0.17	0.65
litter	2.53	0.42	2.11	83	1.72	2.53
duff	9.26	3.77	5.49	59	4.36	2.95
herb	0.14	0.03	0.11	79	0.14	0.13
shrub	0.07	0.00	0.07	100	0.05	0.05
Total	**14.90**	**5.43**	**9.47**	**64**	**7.78**	**7.87**

Overstory Characteristics, Tree Damage, and Predicted Mortality

Diameter Class	Tree Density	Tree Basal Area	Measured Crown Volume Scorched	Measured Bole Char Height	FOFEM Predicted Mortality	FOFEM Predicted Mortality
	trees acre^{-1}	*ft^2 ac^{-1}*	*%*	*ft*	*% trees acre^{-1}*	*% basal area*
0-2	109	0.4	51	N/C	100	N/C
> 2	50	87.7	26	N/C	7	N/C
All	159	88.1	42	2.7	74	7

N/C = Not calculated

PARADISE 90

(Colville National Forest)

PRE-BURN

POST-BURN

Fuel Load and Consumption

	Pre-Fire Load	Post-Fire Load	Measured Consumption	Measured Consumption	Consume 2.1 Consumption	Consume 4.2 Consumption
Fuelbed Category	*tons acre^{-1}*			*%*	*tons acre^{-1}*	
1 h	0.26	0.07	0.19	73	0.26	0.26
10 h	1.49	0.41	1.08	72	1.32	1.29
100 h	1.64	0.71	0.93	57	1.34	1.29
1000 h S	7.97	3.67	4.30	54	1.88	2.36
1000 h R	2.76	0.76	2.00	72	0.52	1.28
litter	1.57	0.64	0.93	59	0.93	1.57
duff	29.71	10.74	18.97	64	15.66	7.21
herb	0.05	0.03	0.02	40	0.05	0.05
shrub	0.38	0.35	0.03	8	0.27	0.25
Total	**45.83**	**17.38**	**28.45**	**62**	**22.22**	**15.56**

Overstory Characteristics, Tree Damage, and Predicted Mortality

Diameter Class	Tree Density	Tree Basal Area	Measured Crown Volume Scorched	Measured Bole Char Height	FOFEM Predicted Mortality	FOFEM Predicted Mortality
	trees acre^{-1}	*ft^2 ac^{-1}*	*%*	*ft*	*% trees acre^{-1}*	*% basal area*
0-2	137	0.5	18	N/C	39	N/C
> 2	125	98.6	8	N/C	10	N/C
All	262	99.1	8	1.6	26	9

N/C = Not calculated

25 MILE

(Okanogan-Wenatchee National Forest)

PRE BURN

POST BURN

Fuel Load and Consumption

	Pre-Fire Load	Post-Fire Load	Measured Consumption	Measured Consumption	Consume 2.1 Consumption	Consume 4.2 Consumption
Fuelbed Category	*tons acre^{-1}*			*%*	*tons acre^{-1}*	
1 h	0.07	0.03	0.04	56	0.07	0.07
10 h	0.77	0.28	0.49	64	0.66	0.67
100 h	1.28	0.55	0.72	57	0.85	1.03
1000 h S	6.07	5.6	0.47	8	0.72	0.71
1000 h R	3.24	2.75	0.49	15	0.29	0.73
litter	3.93	2.33	1.6	41	2.43	2.68
duff	7.11	6.15	0.97	14	1.31	0.00
herb	0.16	0.04	0.12	75	0.16	0.15
shrub	0.12	0.1	0.02	18	0.08	0.08
Total	**22.75**	**17.83**	**4.92**	**22**	**6.57**	**6.12**

Overstory Characteristics, Tree Damage, and Predicted Mortality

Diameter Class	Tree Density	Tree Basal Area	Measured Crown Volume Scorched	Measured Bole Char Height	FOFEM Predicted Mortality	FOFEM Predicted Mortality
	trees acre^{-1}	*ft^2 ac^{-1}*	*%*	*ft*	*% trees acre^{-1}*	*% basal area*
0-2	86	0.1	100	N/C	84	N/C
> 2	81	116.6	22	N/C	10	N/C
All	167	116.7	36	3.4	49	9

N/C = Not calculated

Sherman Creek

(Sherman Creek Wildlife Area)

PRE BURN

POST BURN

Fuel Load and Consumption

	Pre-Fire Load	Post-Fire Load	Measured Consumption	Measured Consumption	Consume 2.1 Consumption	Consume 4.2 Consumption
Fuelbed Category	*tons acre^{-1}*			*%*	*tons acre^{-1}*	
1 h	0.03	0.02	0.01	29	0.03	0.03
10 h	0.89	0.79	0.11	12	0.78	0.78
100 h	1.79	1.49	0.30	17	0.99	1.45
1000 h S	4.58	4.58	0.00	0	0.09	0.08
1000 h R	1.75	1.32	0.43	25	0.02	0.07
litter	2.04	0.48	1.55	76	0.68	0.71
duff	13.90	13.43	0.48	3	1.29	0.00
herb	0.27	0.12	0.14	54	0.27	0.25
shrub	0.08	0.03	0.05	62	0.06	0.05
Total	**25.33**	**22.26**	**3.07**	**12**	**4.21**	**3.42**

Overstory Characteristics, Tree Damage, and Predicted Mortality

Diameter Class	Tree Density	Tree Basal Area	Measured Crown Volume Scorched	Measured Bole Char Height	FOFEM Predicted Mortality	FOFEM Predicted Mortality
	trees acre^{-1}	*ft^2 ac^{-1}*	*%*	*ft*	*% trees acre^{-1}*	*% basal area*
0-2	1	0	40	N/C	N/A	N/C
> 2	31	47.3	1	N/C	0	N/C
All	32	47.3	1	1.1	0	6

N/C = Not calculated

Hanlon

(Colville National Forest)

PRE-BURN

Fuel Load and Consumption

	Pre-Fire Load	Post-Fire Load	Measured Consumption	Measured Consumption
Fuelbed Category	*tons acre^{-1}*			*%*
1 h	0.42	-	-	-
10 h	1.27	-	-	-
100 h	1.14	-	-	-
1000 h S	1.02	-	-	-
1000 h R	2.56	-	-	-
litter	1.81	-	-	-
duff	14.27	-	-	-
herb	0.01	-	-	-
shrub	0.31	-	-	-
Total	**22.81**	-	-	-

Overstory Characteristics, Tree Damage, and Predicted Mortality

Diameter Class	Tree Density	Tree Basal Area	Measured Crown Volume Scorched	Measured Bole Char Height	FOFEM Predicted Mortality	FOFEM Predicted Mortality
	trees acre^{-1}	*ft^2 ac^{-1}*	*%*	*ft*	*% trees acre^{-1}*	*% basal area*
0-2	21	0.1	-	-	-	-
> 2	187	91.4	-	-	-	-
All	208	91.5	-	-	-	-

8 MILE

(Okanogan-Wenatchee National Forest)

PRE BURN

Fuel Load and Consumption

	Pre-Fire Load	Post-Fire Load	Measured Consumption	Measured Consumption
Fuelbed Category	*tons acre^{-1}*			*%*
1 h	0.19	-	-	-
10 h	1.18	-	-	-
100 h	1.79	-	-	-
1000 h S	4.80	-	-	-
1000 h R	3.87	-	-	-
litter	2.65	-	-	-
duff	15.13	-	-	-
herb	0.07	-	-	-
shrub	0.51	-	-	-
Total	**30.19**	-	-	-

Overstory Characteristics, Tree Damage, and Predicted Mortality

Diameter Class	Tree Density	Tree Basal Area	Measured Crown Volume Scorched	Measured Bole Char Height	FOFEM Predicted Mortality	FOFEM Predicted Mortality
	trees acre^{-1}	*ft^2 ac^{-1}*	*%*	*ft*	*% trees acre^{-1}*	*% basal area*
0-2	1	0	-	-	-	-
> 2	37	71.6	-	-	-	-
All	38	71.6	-	-	-	-

CANTEEN

(Okanogan-Wenatchee National Forest)

PRE BURN

Fuel Load and Consumption

	Pre-Fire Load	Post-Fire Load	Measured Consumption	Measured Consumption
Fuelbed Category	*tons acre^{-1}*			*%*
1 h	0.54	-	-	-
10 h	2.63	-	-	-
100 h	4.17	-	-	-
1000 h S	4.56	-	-	-
1000 h R	8.68	-	-	-
litter	1.14	-	-	-
duff	25.28	-	-	-
herb	0.22	-	-	-
shrub	0.08	-	-	-
Total	**47.30**	**-**	**-**	**-**

Overstory Characteristics, Tree Damage, and Predicted Mortality

Diameter Class	Tree Density	Tree Basal Area	Measured Crown Volume Scorched	Measured Bole Char Height	FOFEM Predicted Mortality	FOFEM Predicted Mortality
	trees acre^{-1}	*ft^2 ac^{-1}*	*%*	*ft*	*% trees acre^{-1}*	*% basal area*
0-2	91	0.4	-	-	-	-
> 2	48	30.2	-	-	-	-
All	139	30.6	-	-	-	-

GOAT
(Okanogan-Wenatchee National Forest)

PRE BURN

Fuel Load and Consumption

	Pre-Fire Load	Post-Fire Load	Measured Consumption	Measured Consumption
Fuelbed Category	*tons acre^{-1}*			*%*
1 h	0.18	-	-	-
10 h	1.11	-	-	-
100 h	1.60	-	-	-
1000 h S	3.42	-	-	-
1000 h R	2.46	-	-	-
litter	2.65	-	-	-
duff	17.88	-	-	-
herb	0.10	-	-	-
shrub	0.00	-	-	-
Total	**29.40**	-	-	-

Overstory Characteristics, Tree Damage, and Predicted Mortality

Diameter Class	Tree Density	Tree Basal Area	Measured Crown Volume Scorched	Measured Bole Char Height	FOFEM Predicted Mortality	FOFEM Predicted Mortality
	trees acre^{-1}	*ft^2 ac^{-1}*	*%*	*ft*	*% trees acre^{-1}*	*% basal area*
0-2	475	2.5	-	-	-	-
> 2	91	85.7	-	-	-	-
All	566	88.2	-	-	-	-

NATAPOC

(Okanogan-Wenatchee National Forest)

PRE BURN

Fuel Load and Consumption

	Pre-Fire Load	Post-Fire Load	Measured Consumption	Measured Consumption
Fuelbed Category	*tons acre^{-1}*			*%*
1 h	1.46	-	-	-
10 h	4.34	-	-	-
100 h	6.06	-	-	-
1000 h S	13.10	-	-	-
1000 h R	10.28	-	-	-
litter	2.15	-	-	-
duff	14.27 [a]	-	-	-
herb	0.17	-	-	-
shrub	0.44	-	-	-
Total	**52.27**	**-**	**-**	**-**

[a] Duff load assumed to be similar to Hanlon for modeling

Overstory Characteristics, Tree Damage, and Predicted Mortality

Diameter Class	Tree Density	Tree Basal Area	Measured Crown Volume Scorched	Measured Bole Char Height	FOFEM Predicted Mortality	FOFEM Predicted Mortality
	trees acre^{-1}	*ft^2 ac^{-1}*	*%*	*ft*	*% trees acre^{-1}*	*% basal area*
0-2	127	0.4	-	-	-	-
> 2	37	63.7	-	-	-	-
All	164	64.1	-	-	-	-

OAK CREEK

(Oak Creek Wildlife Area)

PRE BURN

Fuel Load and Consumption

	Pre-Fire Load	Post-Fire Load	Measured Consumption	Measured Consumption
Fuelbed Category	*tons acre^{-1}*			*%*
1 h	0.42	-	-	-
10 h	1.03	-	-	-
100 h	1.50	-	-	-
1000 h S	10.03	-	-	-
1000 h R	7.89	-	-	-
litter	1.21	-	-	-
duff	19.55	-	-	-
herb	0.11	-	-	-
shrub	0.02	-	-	-
Total	**41.76**	**-**	**-**	**-**

Overstory Characteristics, Tree Damage, and Predicted Mortality

Diameter Class	Tree Density	Tree Basal Area	Measured Crown Volume Scorched	Measured Bole Char Height	FOFEM Predicted Mortality	FOFEM Predicted Mortality
	trees acre^{-1}	*ft^2 ac^{-1}*	*%*	*ft*	*% trees acre^{-1}*	*% basal area*
0-2	298	1.4	-	-	-	-
> 2	192	87.9	-	-	-	-
All	490	89.3	-	-	-	-

UR-1

(Okanogan-Wenatchee National Forest)

PRE BURN

Fuel Load and Consumption

	Pre-Fire Load	Post-Fire Load	Measured Consumption	Measured Consumption
Fuelbed Category	*tons acre^{-1}*			*%*
1 h	0.15	-	-	-
10 h	0.76	-	-	-
100 h	1.87	-	-	-
1000 h S	2.04	-	-	-
1000 h R	6.70	-	-	-
litter	2.21	-	-	-
duff	26.45	-	-	-
herb	0.02	-	-	-
shrub	0.07	-	-	-
Total	**40.27**	**-**	**-**	**-**

Overstory Characteristics, Tree Damage, and Predicted Mortality

Diameter Class	Tree Density	Tree Basal Area	Measured Crown Volume Scorched	Measured Bole Char Height	FOFEM Predicted Mortality	FOFEM Predicted Mortality
	trees acre^{-1}	*ft^2 ac^{-1}*	*%*	*ft*	*% trees acre^{-1}*	*% basal area*
0-2	1264	7.3	-	-	-	-
> 2	95	85.4	-	-	-	-
All	1359	92.7	-	-	-	-

Vulcan
(Colville National Forest)

PRE BURN

Fuel Load and Consumption

	Pre-Fire Load	Post-Fire Load	Measured Consumption	Measured Consumption
Fuelbed Category	*tons acre^{-1}*			*%*
1 h	0.34	-	-	-
10 h	1.61	-	-	-
100 h	2.93	-	-	-
1000 h S	3.85	-	-	-
1000 h R	6.10	-	-	-
litter	1.71	-	-	-
duff	29.71[a]	-	-	-
herb	0.05	-	-	-
shrub	0.36	-	-	-
Total	**46.66**	**-**	**-**	**-**

[a] Duff load assumed to be similar to Paradise 90 for modeling

Overstory Characteristics, Tree Damage, and Predicted Mortality

Diameter Class	Tree Density	Tree Basal Area	Measured Crown Volume Scorched	Measured Bole Char Height	FOFEM Predicted Mortality	FOFEM Predicted Mortality
	trees acre^{-1}	*ft^2 ac^{-1}*	*%*	*ft*	*% trees acre^{-1}*	*% basal area*
0-2	16	0	-	-	-	-
> 2	135	97.9	-	-	-	-
All	151	97.9	-	-	-	-

Appendix B

Table B1 – Results of Consume version 2.1 and 4.2 model outputs for all Forest Resiliency Burning Pilot project units under Fall 2016 and Spring 2017 fuel moisture scenarios.

ANGEL		*Fall 2016 Moisture Conditions*		*Spring 2017 Moisture Conditions*	
Category	**Pre-Fire Load (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**
1 h	0.38	0.38	0.38	0.38	0.38
10 h	1.09	0.95	0.94	0.95	0.94
100 h	1.47	1.19	1.03	0.80	1.15
1000 h S	2.62	0.66	1.28	0.11	0.12
1000 h R	4.85	0.92	2.83	0.14	0.54
litter	2.47	1.62	2.47	1.13	1.10
duff	11.07	5.15	2.79	1.59	0.00
herb	0.06	0.06	0.06	0.06	0.06
shrub	0.13	0.09	0.09	0.09	0.09
Total	**24.14**	**11.02**	**11.87**	**5.25**	**4.38**

CHUMSTICK		*Fall 2016 Moisture Conditions*		*Spring 2017 Moisture Conditions*	
Category	**Pre-Fire Load (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**
1 h	0.12	0.12	0.12	0.12	0.12
10 h	1.28	1.13	1.11	1.13	1.11
100 h	2.71	2.27	2.13	1.88	2.13
1000 h S	2.46	0.85	1.57	0.14	0.14
1000 h R	0.10	0.02	0.09	0.00	0.01
litter	4.24	2.99	4.24	2.34	1.89
duff	5.33	1.84	1.34	0.00	0.00
herb	0.03	0.03	0.03	0.03	0.03
shrub	0.04	0.03	0.03	0.03	0.03
Total	**16.31**	**9.28**	**10.66**	**5.67**	**5.46**

ORION		*Fall 2016 Moisture Conditions*		*Spring 2017 Moisture Conditions*	
Category	**Pre-Fire Load (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**
1 h	0.01	0.01	0.01	0.01	0.01
10 h	0.53	0.44	0.46	0.44	0.46
100 h	0.84	0.65	0.66	0.25	0.66
1000 h S	0.70	0.21	0.38	0.03	0.03
1000 h R	0.82	0.16	0.61	0.02	0.08
litter	2.53	1.67	2.53	1.17	1.13
duff	9.26	4.12	2.34	0.83	0.00
herb	0.14	0.14	0.13	0.14	0.13
shrub	0.07	0.05	0.05	0.05	0.05
Total	**14.90**	**7.45**	**7.17**	**2.94**	**2.55**

PARADISE 90		*Fall 2016 Moisture Conditions*		*Spring 2017 Moisture Conditions*	
Category	**Pre-Fire Load (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**
1 h	0.26	0.26	0.26	0.26	0.26
10 h	1.49	1.32	1.29	1.32	1.29
100 h	1.64	1.34	1.29	0.95	1.29
1000 h S	7.97	1.89	3.80	0.30	0.34
1000 h R	2.76	0.53	1.73	0.08	0.31
litter	1.57	0.93	1.57	0.52	0.70
duff	29.71	15.57	7.49	9.35	0.00
herb	0.05	0.05	0.05	0.05	0.05
shrub	0.38	0.27	0.25	0.27	0.25
Total	**45.83**	**22.16**	**17.73**	**13.10**	**4.49**

HANLON		*Fall 2016 Moisture Conditions*		*Spring 2017 Moisture Conditions*	
Category	**Pre-Fire Load (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**
1 h	0.42	0.42	0.42	0.42	0.42
10 h	1.27	1.12	1.10	1.12	1.10
100 h	1.14	0.91	0.89	0.51	0.89
1000 h S	1.02	0.39	0.73	0.06	0.06
1000 h R	2.56	0.49	1.57	0.08	0.28
litter	1.81	1.11	1.81	0.68	0.81
duff	14.27	6.94	3.60	2.90	0.00
herb	0.01	0.01	0.01	0.01	0.01
shrub	0.31	0.22	0.21	0.22	0.21
Total	**22.81**	**11.61**	**10.33**	**6.00**	**3.78**

25 MILE		*Fall 2016 Moisture Conditions*		*Spring 2017 Moisture Conditions*	
Category	**Pre-Fire Load (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**
1 h	0.07	0.07	0.07	0.07	0.07
10 h	0.77	0.66	0.67	0.66	0.67
100 h	1.28	1.05	1.03	0.66	1.03
1000 h S	6.07	1.45	2.79	0.23	0.26
1000 h R	3.24	0.59	1.82	0.09	0.35
litter	3.93	2.76	3.93	2.14	1.54
duff	7.11	2.87	0.43	0.00	0.00
herb	0.16	0.16	0.15	0.16	0.15
shrub	0.12	0.08	0.08	0.08	0.08
Total	**22.75**	**9.69**	**10.97**	**4.09**	**4.08**

8 MILE		*Fall 2016 Moisture Conditions*		*Spring 2017 Moisture Conditions*	
Category	**Pre-Fire Load (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**
1 h	0.19	0.19	0.19	0.19	0.19
10 h	1.18	1.03	1.02	1.03	1.02
100 h	1.79	1.47	1.40	1.08	1.40
1000 h S	4.80	1.18	2.32	0.20	0.21
1000 h R	3.87	0.74	2.52	0.21	0.48
litter	2.65	1.76	2.65	1.26	1.18
duff	15.13	7.43	3.82	3.25	0.00
herb	0.07	0.07	0.06	0.07	0.06
shrub	0.51	0.36	0.34	0.36	0.34
Total	**30.19**	**14.23**	**14.32**	**7.65**	**4.88**

CANTEEN		*Fall 2016 Moisture Conditions*		*Spring 2017 Moisture Conditions*	
Category	**Pre-Fire Load (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**
1 h	0.54	0.54	0.54	0.54	0.54
10 h	2.63	2.36	2.27	2.36	2.27
100 h	4.17	3.54	3.27	3.15	3.27
1000 h S	4.56	1.36	2.53	0.22	0.23
1000 h R	8.68	1.65	5.40	0.26	1.31
litter	1.14	0.60	1.14	0.29	0.51
duff	25.28	13.22	6.38	7.49	0.00
herb	0.22	0.22	0.20	0.22	0.20
shrub	0.08	0.06	0.05	0.06	0.05
Total	**47.30**	**23.55**	**21.78**	**14.59**	**8.38**

GOAT		*Fall 2016 Moisture Conditions*		*Spring 2017 Moisture Conditions*	
Category	**Pre-Fire Load (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**
1 h	0.18	0.18	0.18	0.18	0.18
10 h	1.11	0.97	0.96	0.97	0.96
100 h	1.60	1.31	1.26	0.91	1.26
1000 h S	3.42	0.95	1.84	0.15	0.16
1000 h R	2.46	0.47	1.50	0.07	0.27
litter	2.65	1.76	2.65	1.26	1.18
duff	17.88	9.01	4.51	4.41	0.00
herb	0.10	0.10	0.09	0.10	0.09
shrub	0.00	0.00	0.00	0.00	0.00
Total	**29.40**	**14.75**	**12.99**	**8.05**	**4.10**

NATAPOC		*Fall 2016 Moisture Conditions*		*Spring 2017 Moisture Conditions*	
Category	**Pre-Fire Load (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**
1 h	1.46	1.46	1.46	1.46	1.46
10 h	4.34	3.93	3.75	3.93	3.75
100 h	6.06	5.18	4.75	4.79	4.75
1000 h S	13.10	4.52	8.40	0.73	0.72
1000 h R	10.28	1.96	7.25	0.30	2.05
litter	2.15	1.38	2.15	0.93	0.96
duff	14.27 [a]	6.94	3.60	2.90	0.00
herb	0.17	0.17	0.16	0.17	0.16
shrub	0.44	0.31	0.29	0.31	0.29
Total	**52.27**	**25.85**	**31.81**	**15.52**	**14.14**

[a] Duff load assumed to be similar to Hanlon for modeling consumption.

OAK CREEK		*Fall 2016 Moisture Conditions*		*Spring 2017 Moisture Conditions*	
Category	**Pre-Fire Load (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**
1 h	0.42	0.42	0.42	0.42	0.42
10 h	1.03	0.90	0.89	0.90	0.89
100 h	1.50	1.22	1.18	0.83	1.18
1000 h S	10.03	2.31	4.40	0.36	0.42
1000 h R	7.89	1.50	5.07	0.23	0.97
litter	1.21	0.65	1.21	0.30	0.54
duff	19.55	9.98	4.93	5.12	0.00
herb	0.11	0.11	0.10	0.11	0.10
shrub	0.02	0.01	0.01	0.01	0.01
Total	**41.76**	**17.10**	**18.21**	**8.28**	**4.53**

SHERMAN CREEK		*Fall 2016 Moisture Conditions*		*Spring 2017 Moisture Conditions*	
Category	**Pre-Fire Load (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**
1 h	0.03	0.03	0.03	0.03	0.03
10 h	0.89	0.78	0.78	0.78	0.78
100 h	1.79	1.52	1.45	1.13	1.45
1000 h S	4.58	1.42	2.63	0.23	0.23
1000 h R	1.75	0.34	1.37	0.05	0.22
litter	2.04	1.30	2.04	0.85	1.21
duff	13.90	6.74	5.40	2.75	0.00
herb	0.27	0.27	0.25	0.27	0.25
shrub	0.08	0.06	0.05	0.06	0.05
Total	**25.33**	**12.46**	**14.00**	**6.15**	**4.22**

UR-1		*Fall 2016 Moisture Conditions*		*Spring 2017 Moisture Conditions*	
Category	**Pre-Fire Load (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**
1 h	0.15	0.15	0.15	0.15	0.15
10 h	0.76	0.65	0.66	0.65	0.66
100 h	1.87	1.54	1.47	1.15	1.47
1000 h S	2.04	0.70	1.31	0.12	0.11
1000 h R	6.70	1.28	3.52	0.20	0.83
litter	2.21	1.44	2.21	0.97	0.99
duff	26.45	13.91	6.67	7.99	0.00
herb	0.02	0.02	0.02	0.02	0.02
shrub	0.07	0.05	0.05	0.05	0.05
Total	**40.27**	**19.74**	**16.06**	**11.30**	**4.28**

VULCAN		*Fall 2016 Moisture Conditions*		*Spring 2017 Moisture Conditions*	
Category	**Pre-Fire Load (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**	**Consume 2.1 Consumption (tons acre^{-1})**	**Consume 4.2 Consumption (tons acre^{-1})**
1 h	0.34	0.34	0.34	0.34	0.34
10 h	1.61	1.43	1.39	1.43	1.39
100 h	2.93	2.46	2.30	2.07	2.30
1000 h S	3.85	1.32	2.45	0.22	0.21
1000 h R	6.10	1.16	4.34	0.18	1.01
litter	1.71	1.04	1.71	0.62	0.76
duff	29.71[a]	15.74	7.49	9.35	0.00
herb	0.05	0.05	0.05	0.05	0.05
shrub	0.36	0.25	0.24	0.25	0.24
Total	**46.66**	**23.79**	**20.31**	**14.51**	**6.30**

[a] Duff load assumed to be similar to Paradise 90 for modeling consumption.

Appendix C

Table C1 – Sampling and processing procedures for dry-weight biomass and fuel moisture

Fuel Type	Samples per site	Maximum time before ignition (hrs)	Oven Temperature (°F)	Duration (hours)	Sampled in standing fuel plots
Grass	10	1	158	48	Yes
Forbs	--	--	158	48	Yes
Shrubs	10	6	158	48	Yes
1-h	10	1	158	48	No
10-h	10	6	158	48	No
100-h	10	24	212	48	No
1000-h	20	24	212	48	No
Litter	10	1	158	48	No
Duff	10	24	212	48	No

Table C2 – Sampling plot radii (meters) for trees and shrubs by unit.

Unit	Seedlings, Saplings & Shrub counts	Shrubs (Ht > 4.5')	Trees (<3" DBH)	Trees (Ht > 4.5')	Trees (>24" DBH)	Overstory plots	Notes
25 Mile	2	3	3	10	15	10	
8 Mile Bottom	2	2	20	20	20	10	
Angel	2	2	3	10	15	10	
Canteen	2	2	12	12	12	20	
Chumstick	2	2	10	10	10	10	
Goat	2	2	4	15	15	10	
Hanlon	2	2	6	6	10	10	
Natapoc	2	3	3	15	15	10	
OakCreek	2	2	4	4	7	20	
Orion 2	2	2	15	15	15	10	
Paradise 90	2	2	7	7	10	10	
Sherman Creek	2	2	20	20	20	10	
UR-1	2	2	4*	10	10	10	<1" DBH = 3m
Vulcan	2	4	4	9	9	10	