

Current ERA (Affected Environment)										Future	
Drainage Code	Drainage Name	Threshold of Concern (% drainage)	Area of Drainage (Acres)	Past Harvest and Fire (ERA's)	Road System (ERA's)	Total Current ERA	Percent ERA contributed to Past Harvest and Wildfires	Percent ERA contributed to Road System	Total Current ERA Risk Ratio	Estimated ERA from Future Actions	Total Cumulative Risk Ratio
18010206080101	Upper Humbug Creek	9.5%	8,037	22	205	227	10%	90%	0.30		0.30
18010206080102	Middle Fork Humbug Creek	10.0%	4,978	8	136	145	6%	94%	0.29		0.29
18010206080103	Clear Creek	10.5%	2,781	69	32	101	68%	32%	0.35		0.35
18010206080104	Lower Humbug Creek	10.5%	7,830	9	116	125	7%	93%	0.15	11.45	0.17
18010207050203	Greenhorn Creek	9.0%	7,734	330	144	474	70%	30%	0.68		0.68
18010207050204	Yreka City-Yreka Creek	12.0%	7,054	13	181	194	7%	93%	0.23		0.23
18010207050205	Long Gulch	11.0%	2,834	29	55	84	34%	66%	0.27		0.27
18010207050206	Rocky Gulch-Yreka Creek	11.5%	2,102	3	28	31					

Alternative 2 ERA												
Drainage Code	Drainage Name	Harvest for Alternative 2 (ERA's)	Prescribed Fire for Alternative 2 (ERA's)	Mastication for Alternative 2 (ERA's)	Fuel Breaks for Alternative 2 (ERA's)	PCT for Alternative 2 (ERA's)	New Landing Construction (ERA's)	Temporary Roads Alternative 2 (ERA's)	Legacy Site Treatment	Project Total for Alternative 2 Proposal	Total ERA for Alternative 2 (including current) (ERA's)	Alternative 2 Risk Ratio
18010206080101	Upper Humbug Creek	236	62	2	0	3	4	1.1	-17.0	292	519	0.68
18010206080102	Middle Fork Humbug Creek	62	1		0	1	2	0.1	-10.8	55	200	0.40
18010206080103	Clear Creek	83	4		0	0	1			88	189	0.65
18010206080104	Lower Humbug Creek	58	12	8	0		1	0.1	-8.0	71	196	0.24
18010207050203	Greenhorn Creek	18	2	13	0					34	508	0.73
18010207050204	Yreka City-Yreka Creek			16	0	0				16	210	0.25
18010207050205	Long Gulch	10	1	9	0					20	104	0.34
18010207050206	Rocky Gulch-Yreka Creek			8	0					8	39	

Alternative 3 ERA												
Drainage Code	Drainage Name	Harvest for Alternative 3 (ERA's)	Prescribed Fire for Alternative 3 (ERA's)	Mastication for Alternative 3 (ERA's)	Fuel Breaks for Alternative 3 (ERA's)	PCT for Alternative 3 (ERA's)	New Landing Construction (ERA's)	Temporary Roads Alternative 3 (ERA's)	Legacy Site Treatment	Project Total for Alternative 3 Proposal	Total ERA for Alternative 3 (including current) (ERA's)	Alternative 3 Risk Ratio
18010206080101	Upper Humbug Creek	191	62	2	0	5	4	1.0	-17.0	248	475	0.62
18010206080102	Middle Fork Humbug Creek	42	1		0	1	2	0.1	-10.8	36	181	0.36
18010206080103	Clear Creek	71	4		0	0	1			76	178	0.61
18010206080104	Lower Humbug Creek	41	17	7	0	0	1		-8.0	57	182	0.22
18010207050203	Greenhorn Creek	18	2	13	0					34	508	0.73
18010207050204	Yreka City-Yreka Creek			10	0	0				10	204	0.24
18010207050205	Long Gulch	10	1	6	0					18	102	0.33
18010207050206	Rocky Gulch-Yreka Creek			8	0					8	39	

		Pre-fire ERA	ERA added by Fire	Total ERA under Affected Environment	ERA Risk Ratio Affected Environment	Alt 2 ERA (indirect effects)	Total Project ERA	Alt 2 ERA Risk Ratio (Indirect Effects)	Future Action ERA	Cumulative ERA	Cumulative ERA Risk Ratio
Drainage Code	Drainage Name										
18010207050206	Rocky Gulch-Yreka Creek	92	32	124	0.51	8	133	0.55	0	133	0.55

Data not available to model cumulative watershed effects: soils mapping incomplete. Results not valid

Estimates for Rocky Gulch with Grade Fire Effects
Assumptions are that 200 acres were burned with high or moderate severity - used Long Gulch as baseline and added fire effects to it.
Coefficient =0.16

Fire Scenario					
		ERA due to a Potential Wildfire (No-Action)	ERA due to a Potential Wildfire ERA (with Alt3)	Risk Ratio No-Action & Wildfire	Added risk ratio no-action & wildfire
Drainage Code	Drainage Name				
18010206080101	Upper Humbug Creek	592	200	1.07	0.78
18010206080102	Middle Fork Humbug Creek	325	19	0.94	0.65
18010206080103	Clear Creek	222	74	1.11	0.76
18010206080104	Lower Humbug Creek	774	47	1.09	0.94
18010207050203	Greenhorn Creek	724	22	1.72	1.04
18010207050204	Yreka City-Yreka Creek	205	10	0.47	0.24
18010207050205	Long Gulch	239	15	1.04	0.77
18010207050206	Rocky Gulch-Yreka Creek	206	8	0.98	0.98

Craggy CWE HUC 14 GEO

Current Landslide Loss (Affected Environment)									Future	
Drainage Code	Drainage Name	Background Landslide Volume (yd3/decade)	Past Harvest and Wildfire (yd3/ decade)	Road System (yd3/ decade)	Total Current Landslide Volume (includes background) (yd3/ decade)	Percent Landslide Volume contributed to Past Harvest and Wildfire	Percent Landslide Volume contributed to Road System	Total Current GEO Risk Ratio	Estimated Landslide Volume from Future Actions (yd3/ decade)	Total Cumulative Risk Ratio
18010206080101	Upper Humbug Creek	12,286	410	33,304	45,999	1%	72%	1.37		1.37
18010206080102	Middle Fork Humbug Creek	4,967	204	10,677	15,847	1%	67%	1.10		1.10
18010206080103	Clear Creek	4,240	1,028	4,164	9,432	11%	44%	0.61		0.61
18010206080104	Lower Humbug Creek	8,051	55	8,397	16,503	0%	51%	0.52	101.55	0.53
18010207050203	Greenhorn Creek	8,729	2,464	6,046	17,239	14%	35%	0.49		0.49
18010207050204	Yreka City-Yreka Creek	4,680	39	2,678	7,397	1%	36%	0.29		0.29
18010207050205	Long Gulch	1,019	81	1,127	2,227	4%	51%	0.59		0.59
18010207050206	Rocky Gulch-Yreka Creek	534	20	533	1,087	2%	49%	0.52		0.52

Alternative 2 Landslide Loss											
Drainage Code	Drainage Name	Harvest for Alternative 2 (yd3/ decade)	Prescribed Fire for Alternative 2 (yd3/ decade)	Mastication for Alternative 2 (yd3/ decade)	Fuel Breaks for Alternative 2 (yd3/ decade)	PCT for Alternative 2 (yd3/ decade)	New Landing Construction (yd3/ decade)	Temporary Roads Alternative 2 (yd3/ decade)	Legacy Site Treatment	Total landslide Volume for Alternative 2 (yd3/ decade)	Alternative 2 Risk Ratio
18010206080101	Upper Humbug Creek	0	0	0	0	0	97.2	56.3	-2280.8	-2127.3	1.29
18010206080102	Middle Fork Humbug Creek	0	0		0	0	50.7	1.3	-2112.3	-2060.3	0.89
18010206080103	Clear Creek	0	0		0	0	59.7		0.0	59.7	0.62
18010206080104	Lower Humbug Creek	0	0	0	0		56.3	2.0	-1097.8	-1039.6	0.47
18010207050203	Greenhorn Creek	0	0	0	0				0.0	0	0.49
18010207050204	Yreka City-Yreka Creek			0	0	0			0	0	0.29
18010207050205	Long Gulch	0	0	0	0				0	0	0.59
18010207050206	Rocky Gulch-Yreka Creek			0	0				0	0	0.52

Alternative 3 Landslide Loss											
Drainage Code	Drainage Name	Harvest for Alternative 3 (yd3/ decade)	Prescribed Fire for Alternative 3 (yd3/ decade)	Mastication for Alternative 3 (yd3/ decade)	Fuel Breaks for Alternative 3 (yd3/ decade)	PCT for Alternative 3 (yd3/ decade)	New Landing Construction (yd3/ decade)	Temporary Roads Alternative 3 (yd3/ decade)	Legacy Site Treatment	Total landslide Volume for Alternative 3 (yd3/ decade)	Alternative 3 Risk Ratio
18010206080101	Upper Humbug Creek	0	0	0	0	0	80	38.5	-2280.8	-2162.26	1.28
18010206080102	Middle Fork Humbug Creek	0	0		0	0	50.68	1.3	-2112.3	-2060.33	0.89
18010206080103	Clear Creek	0	0		0	0	59.7		0.0	59.7	0.62
18010206080104	Lower Humbug Creek	0	0	0	0		56.26		-1097.8	-1041.55	0.47
18010207050203	Greenhorn Creek	0	0	0	0				0.0	0	0.49
18010207050204	Yreka City-Yreka Creek			0	0	0			0	0	0.29
18010207050205	Long Gulch	0	0	0	0				0	0	0.59
18010207050206	Rocky Gulch-Yreka Creek			0	0				0	0	0.52

Craggy CWE HUC 14 GEO

No high or medium intensity harvest levels planned in project, thus low landslide risk

This project will serve to reduce landslide volumes by reducing landslide risk from the existing road disturbance

Data not available to model cumulative watershed effects: soils mapping incomplete. Results not valid

Estimates for Rocky Gulch with Grade Fire Effects

Assumptions are that 200 acres were burned with high or moderate severity
- used Long Gulch as baseline and added fire effects to it. [GEO = yd3/
decade]

Coefficient = 1.6

		Total GEO pre- fire	GEO added by Fire	Total GEO under Affected Environment	Risk Ratio Affected Environment	Alt 2 ERA (indirect effects)	Total Project GEO	Alt 2 GEO Risk Ratio (Indirect Effects)	Future Action GEO	Cumulative GEO	Cumulative Risk Ratio
Drainage Code	Drainage Name										
18010207050206	Rocky Gulch-Yreka Creek	2,227	320	2,547	0.75	0	2,547	0.75	0	2,547	0.75

Fire Scenario					
		Fire / No Action Landslide Volume	Landslide Volume- Fire 0- 5 yrs. after treatment	Risk Ratio No- Action & Fire	Risk Ratio Alt 3 w/ Fire
Drainage Code	Drainage Name				
18010206080101	Upper Humbug Creek	70,222	29,197	4.2298	1.97
18010206080102	Middle Fork Humbug Creek	13,787	11,401	2.4833	1.54
18010206080103	Clear Creek	10,596	8,341	1.8616	1.1
18010206080104	Lower Humbug Creek	20,853	18,089	1.8198	1.09
18010207050203	Greenhorn Creek	11,062	9,543	1.1211	0.53
18010207050204	Yreka City-Yreka Creek	4,486	4,256	0.7696	0.25
18010207050205	Long Gulch	3,198	2,630	2.162	1.38
18010207050206	Rocky Gulch-Yreka Creek	2,588	2,179	2.938	2.06

Craggy CWE HUC 14 USLE

Current Soil Erosion (Affected Environment)									Future	
Drainage Code	Drainage Name	Background Soil Erosion Delivery (yd3/ year)	Past Harvest and Wildfire (yd3/ year)	Road System (yd3/ year)	Total Current Soil Erosion Delivery (includes background)	Percent ERA contributed to Past Harvest and Wildfire	Percent ERA contributed to Road System	Total Current USLE Risk Ratio	Estimated Soil Erosion from Future Actions (yd3/ year)	Total Cumulative Risk Ratio
18010206080101	Upper Humbug Creek	147	1.0	208	355	0.3%	58.5%	0.36		0.36
18010206080102	Middle Fork Humbug Creek	74	0.0	110	185	0.0%	59.7%	0.37		0.37
18010206080103	Clear Creek	36	0.1	35	71	0.2%	49.0%	0.24		0.24
18010206080104	Lower Humbug Creek	64	0.0	80	144	0.0%	55.6%	0.31	1.3	0.32
18010207050203	Greenhorn Creek	76	0.0	135	211	0.0%	64.0%	0.44		0.44
18010207050204	Yreka City-Yreka Creek	24	0.0	64	88	0.0%	72.7%	0.66		0.66
18010207050205	Long Gulch	16	0.0	42	58	0.0%	71.9%	0.64		0.64
18010207050206	Rocky Gulch-Yreka Creek	9	0.0	9	18	0.0%	51.4%	0.26		0.26

Alternative 2 Soil Erosion											
Drainage Code	Drainage Name	Harvest for Alternative 2 (yd3/ year)	Prescribed Fire for Alternative 2 (yd3/ year)	Mastication for Alternative 2 (yd3/ year)	Fuel Break for Alternative 2 (yd3/ year)	PCT for Alternative 2 (yd3/ year)	New Landing Construction (yd3/ year)	Temporary Roads Alternative 2 (yd3/ year)	Legacy Site Treatment	Total Soil Loss for Alternative 2 (yd3/ year)	Alternative 2 Risk Ratio
18010206080101	Upper Humbug Creek	51.5	0.0	0.0	0.0	0.0	2.8	2.0	-23.6	32.7	0.41
18010206080102	Middle Fork Humbug Creek	13.2	0.0		0.0	0.0	2.3	0.1	-9.0	6.6	0.39
18010206080103	Clear Creek	14.5	0.0		0.0	0.0	0.2			14.7	0.34
18010206080104	Lower Humbug Creek	5.3	0.0	0.0	0.0		0.1	0.0	-10.0	-4.5	0.30
18010207050203	Greenhorn Creek	5.9	0.0	0.0	0.0	0.0				5.9	0.46
18010207050204	Yreka City-Yreka Creek			0.0	0.0					0.0	0.66
18010207050205	Long Gulch	1.0	0.0	0.0	0.0					1.0	0.66
18010207050206	Rocky Gulch-Yreka Creek			0.0	0.0					0.0	0.26

Alternative 3 Soil Erosion											
Drainage Code	Drainage Name	Harvest for Alternative 3 (yd3/ year)	Prescribed Fire for Alternative 3 (yd3/ year)	Mastication for Alternative 3 (yd3/ year)	Fuel Break for Alternative 3 (yd3/ year)	PCT for Alternative 3 (yd3/ year)	New Landing Construction (yd3/ year)	Temporary Roads Alternative 3 (yd3/ year)	Legacy Site Treatment	Total Soil Loss for Alternative 3 (yd3/ year)	Alternative 3 Risk Ratio
18010206080101	Upper Humbug Creek	40.8	0.0	0.0	0.0	0.0	2.2	1.6	-23.6	21.1	0.39
18010206080102	Middle Fork Humbug Creek	10.3	0.0		0.0	0.0	2.3	0.1	-9.0	3.6	0.38
18010206080103	Clear Creek	11.5	0.0		0.0	0.0	0.2			11.7	0.32
18010206080104	Lower Humbug Creek	3.4	0.0	0.0	0.0	0.0	0.1		-10.0	-6.4	0.29
18010207050203	Greenhorn Creek	5.9	0.0	0.0	0.0					5.9	0.46
18010207050204	Yreka City-Yreka Creek			0.0	0.0	0.0				0	0.66
18010207050205	Long Gulch	1.0	0.0	0.0	0.0					1	0.66
18010207050206	Rocky Gulch-Yreka Creek			0.0	0.0					0	0.26

Craggy CWE HUC 14 USLE

		Total USLE pre-fire	USLE added by Fire	Total USLE under Affected Environment	Risk Ratio Affected Environment	Alt 2 USLE (indirect effects)	Total Project USLE	Alt 2 USLE Risk Ratio (Indirect Effects)	Future Action USLE	Cumulative USLE	Cumulative Risk Ratio
Drainage Code	Drainage Name										
18010207050206	Rocky Gulch-Yreka Creek	58	2.5	60	1.36	0	60	1.36	0	60	1.36

Data not available to model cumulative watershed effects: soils mapping incomplete. Results not Valid

Estimates for Rock Gulch with Grade Fire Effects
Assumptions are that 200 acres were burned with high or moderate severity - used Long Gulch as baseline and added fire effects to it. [USLE = yd3/year]
Coefficient = 0.17, 0.7 conversion factor and a delivery factor of .10

Fire Scenario					
		Soil Loss - No Action - Fire	Soil Loss - Fire 0-5 yrs. after Alt 3 Treatment	Risk Ratio - No Action with Fire	Risk Ratio Alt 3 with Fire
Drainage Code	Drainage Name				
18010206080101	Upper Humbug Creek	1,415	842	2.77	1.22
18010206080102	Middle Fork Humbug Creek	723	559	2.80	1.64
18010206080103	Clear Creek	363	297	2.77	1.90
18010206080104	Lower Humbug Creek	828	723	3.55	2.55
18010207050203	Greenhorn Creek	824	687	3.16	2.03
18010207050204	Yreka City-Yreka Creek	211	200	2.86	1.83
18010207050205	Long Gulch	180	152	3.40	2.10
18010207050206	Rocky Gulch-Yreka Creek	101	90	3.12	2.29

Craggy CWE HUC 10 Results

ERA										
Watershed Code	Watershed Name	TOC	HUC 10 Area	Current ERA Total	Current Risk Ratio	Future	Total ERA Alt. 2	Total ERA Alt. 3	Risk Ratio w/ Alt2	Risk Ratio w/ Alt3
1801020608	Humbug Creek-Klamath River	11%	68,023	2,181	0.30	11	507	418	0.37	0.36
1801020705	Yreka Creek-Shasta River		32,737				78	70		

GEO									
Watershed Code	Watershed Name	Sum of Background	Sum of Total Current CWE	Current Risk Ratio	Future	Total Landslide Volume Alt. 2 (yd3/ decade)	Total Landslide Volume Alt. 3 (yd3/ decade)	Risk Ratio w/ Alt2	Risk Ratio w/ Alt3
1801020608	Humbug Creek-Klamath River	78,110	219,863	0.91	102	-5167	-5204	0.87	0.87
1801020705	Yreka Creek-Shasta River	23,659	42,567			0	0		

USLE									
Watershed Code	Watershed Name	Sum of Background	Sum of Total Current CWE	Current Risk Ratio	Future	Total Soil Erosion Alt. 2 (yd3/ yr.)	Total Soil Erosion Alt. 3 (yd3/ yr.)	Risk Ratio w/ Alt2	Risk Ratio w/ Alt3
1801020608	Humbug Creek-Klamath River	700	2,029	0.47	1	50	30	0.49	0.49
1801020705	Yreka Creek-Shasta River	169	526			7	7		

Data not available to model cumulative watershed effects: soils mapping incomplete for some constituent watersheds

Other watersheds

ERA				
Watershed Code	Watershed Name	TOC	HUC 12/14 Area	Current ERA Total
180102060801	Humbug Creek	10%	23,626	652
180102060802	Ash Creek-Klamath River	12%	23,430	723
180102060803	Empire Creek-Klamath River	10%	20,967	806
18010207050201	Upper Yreka Creek	10%	8,141	380
18010207050202	Juniper Creek	12%	4,873	70
180102070502	Yreka Creek	11%	32,738	1,474

GEO								
HUC 12/14	HUC 12/14 Name	Background	Harvest and Fire Current	Harvest Future	Road Current	Road Treatments	Total CWE	Total Current
180102060801	Humbug Creek	27,710					92,882	65,172
180102060802	Ash Creek-Klamath River	19,298					43,726	24,428
180102060803	Empire Creek-Klamath River	31,102					83,255	52,153
18010207050201	Upper Yreka Creek	5,760	1,876	0.0	1,766	0.0	9,402	3,642

Craggy CWE HUC 10 Results

18010207050202	Juniper Creek	3,042	123	0.0	982	0.0	4,147	1,105
180102070502	Yreka Creek	23,659					42,567	18,908

USLE

HUC 12/14	HUC 12/14 Name	Background	Harvest and Fire Current	Harvest Future	Road Current	Road Treatments	Total CWE	Total Current
180102060801	Humbug Creek	290					794	504
180102060802	Ash Creek-Klamath River	172					386	215
180102060803	Empire Creek-Klamath River	238					849	611
18010207050201	Upper Yreka Creek	37	0.0	0.0	43	0.0	80	43
18010207050202	Juniper Creek	12	0.0	0.0	17	0.0	29	17
180102070502	Yreka Creek	169						526

Craggy CWE Watershed Crosswalk

HUC10 code	HUC10 name	HUC12 code	HUC12 name	HUC14 code	HUC14 name	Drainage Area (acres)
1801020608	Humbug Creek-Klamath River	180102060801	Humbug Creek	18010206080101	Upper Humbug Creek	8,037
				18010206080102	Middle Fork Humbug Creek	4,978
				18010206080103	Clear Creek	2,781
				18010206080104	Lower Humbug Creek	7,830
		180102060802	Ash Creek-Klamath River	18010206080201	Ash Creek	3,641
				18010206080202	Badger Creek-Klamath River	5,617
				18010206080203	Lime Gulch	2,485
				18010206080204	Dutch Creek	6,386
				18010206080205	Cayuse Gulch-Klamath River	5,301
		180102060803	Empire Creek-Klamath River	18010206080301	Empire Creek	5,774
				18010206080302	Lumgrey Creek	5,496
				18010206080303	Vesa Creek	3,141
				18010206080304	Miller Gulch-Klamath River	6,557
1801020705	Yreka Creek-Shasta River	180102070502	Yreka Creek	18010207050201	Upper Yreka Creek	8,141
				18010207050202	Juniper Creek	4,873
				18010207050203	Greenhorn Creek	7,734
				18010207050204	Yreka City-Yreka Creek	7,054
				18010207050205	Long Gulch	2,834
				18010207050206	Rocky Gulch-Yreka Creek	2,102
						Sum = 32,737

7th Field watersheds (HUC 14 codes) overlapping project area

Craggy CWE- ERA Threshold of Concern (TOC)

Watershed ERA TOC (Threshold of Concern) Information				Klamath National Forest - CWE2004 Project					
HUC14 (7th -field) code	Watershed name	Acres	Beneficial uses [B]	Channel stability [C]	Soil erodibility [E]	Hydrologic response [H]	Slope stability [S]	Watershed sensitivity	TOC
18010206080101	Upper Humbug Creek	8,037	3	3	3	4	2	24	9.5%
18010206080102	Middle Fork Humbug Creek	4,978	3	3	2	4	2	23	10.0%
18010206080103	Clear Creek	2,781	3	3	2	3	2	22	10.5%
18010206080104	Lower Humbug Creek	7,830	3	3	2	3	2	22	10.5%
18010206080201	Ash Creek	3,641	3	3	2	4	2	23	10.0%
18010206080202	Badger Creek-Klamath River	5,617	2	3	2	2	1	18	12.5%
18010206080203	Lime Gulch	2,485	2	3	2	3	1	19	12.0%
18010206080204	Dutch Creek	6,386	3	3	2	3	1	21	11.0%
18010206080205	Cayuse Gulch-Klamath River	5,301	2	3	2	2	2	19	12.0%
18010206080301	Empire Creek	5,774	3	3	2	4	2	23	10.0%
18010206080302	Lumgrey Creek	5,496	4	3	2	4	3	26	8.5%
18010206080303	Vesa Creek	3,141	2	3	2	3	2	20	11.5%
18010206080304	Miller Gulch-Klamath River	6,557	2	3	2	2	3	20	11.5%

Craggy CWE Metadata

This data is a compilation of the outputs of the ERA, GEO and USLE CWE models that were run by A. Bell and Andrew Mueller on 29 Apr 2016, and updated on June 16th, 2017 by Andrew Mueller to model the hydrologic stabilization and stormproofing of roads for the revised legacy site treatment plan proposed in Alternative 2 and 3 and to change logging system for skyline/endline to TR, in order to model potential ground-based disturbance from substitution of tethered harvester systems.

Alt2_Treatments.shp and Alt3_Treatments were used as the input into the model along with silvicultural prescriptions in the project record as of 23 Jan 2016.

Landings were assumed to be 0.5 acres in size. Existing landings were included in the current condition and new landings were included in the analysis separately.

Temporary Roads were assumed to be 16 feet wide, natural surface and outsloped. The model assumed that all temporary roads will be hydrologically stabilized per project design feature.

If the GIS information had overlapping polygons, the action with the highest potential effect was modeled. So if the landings intersected a harvest unit the landing took precedence in the model.

For harvest and non-commercial thinning units in the underburning blocks - the site preparation was assumed to be underburn; all others PCT & Handpile.

For mastication, vegetation impacts were considered to be low instead of insignificant, because of the planned application of mastication in predominately brush-dominated stands.

The model is not sensitive to and does not include effects of grazing, mining, recreation or special use permitting in the watershed.

Forestwide CWE modelling 2012 (updated Nov. 18, 2014 by Angie Bell) was used to provide past/current/background conditions for watersheds other than the analysis watersheds; 2017 model results were used for the analysis HUC 14 (7th field) watersheds in Craggy.

Treatment	CWE Impacts	Logging System	Site Prep-Fuels
Underburn	N	<null>	UB
Fuel Break	N	<null>	HP
Mastication	L	<null>	MC
Skyline/Endline/tethered systems	L	TR	UB or HP depending if within planned underburn area
Ground-Based	L	TR	UB or HP depending if within planned underburn area

Vegetation Impacts	Description
H	High impacts; >60% BA removed, as in green tree retention
M	Moderate impacts,, generally 30 to 60% BA removed, as in group selection
L	Low impacts; generally <30% BA removed as in commercial thinning
N	None or insignificant impacts

Logging System	
TR	Tractor/Tethered
CA	Cable
HE	Helicopter
RO	Roadside
FB	Feller-buncher
TM	Tractor-modified
<null>	Not Logged

Site Prep - Fuels	
TP	Tractor pile; entire unit
TB	Tractor bunch; portion of unit
HP	Hand pile
MC	Masticate
BB	Broadcast burn; unit burn (w/GTR)
JP	Jack-pot burn
UB	Underburn
<null>	No site prep

Craggy CWE Vegetation Management

Forest Service Project or Timber Sale Name	Year decision signed or completed	Acres
Misc. Harvest	1956-2010	5,678
McBaldy	2010	146
TOTAL		5,824

Timber Harvest Plan (THP) Name or Number	THP year or comp date	Acres
2-96-150	1998	22
Rice Long Gulch THP	1998	140
2-96-385	2000	148
2-95-255	2001	38
2-96-273	2001	56
Mill Creek THP	2001	642
Coreen THP	2002	269
2-96-336	2003	94
Badger Mtn THP	2003	22
Clear Creek THP	2003	318
Section 25 THP	2003	294
Hi Ridge THP	2005	81
Soap THP	2006	361
Fred Burton THP	2007	259
Mill THP	2007	44
2-07-081	2010	12
TOTAL		2,799

Craggy CWE Wildfires

Fire Name	Fire Year	Acres
China	2007	865
Grade Fire	2016	200

Craggy CWE Roads

Road Ownership	Maintenance Level	Miles
County	NA	40
FS Decommissioned	NA	1
FS Unauthorized Routes	NA	39
FS Motorized Trails	NA	15
FS - System	1	9
	2	58
	3	5
	4	1
	5	0
Temp Roads from recent projects	NA	0
Private	NA	85
State	NA	11
TOTAL		258