GMUG SBEADMR Treatment Implementation Data Sheet Fiscal 2018

Treatment: Cooler Salvage

District: Gunnison

Maximum Treatment Acres: 244.

Cover Type: Spruce/fir/aspen

Integrated Treatment Objectives: Recovery Treatment; Fuels removal and fuel loading reduction; Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Road maintenance; Salvage with retention of high quality hare habitat; Improve wildlife habitat through promoting aspen regeneration

Desired Condition: Uneven-aged stand structure, increased species composition, appropriate tree stocking levels based on objectives.

Estimated Miles of Temporary Road Construction: Four miles of temporary road will be constructed. Existing roadbeds will be used to the maximum extend possible. All temporary roads will be closed within 5 years of sale closure.

Known Design Feature Triggers:

- Temporary road stream crossings
- Maintaining habitat connectivity

Cumulative Watershed Disturbance

The FEIS identified watershed disturbance triggers that when reached would facilitate a change in management. When disturbance reaches 20 percent the Forest will curtail activities so watershed disturbance does not exceed 25 percent. The Cooler salvage project occurs in the Pauline Creek and Los Pinos Creek Watersheds. Acres of these watersheds affected by all tracked management, including Pauline, and natural disturbances are presented below.

			Cooler Salvage				
Watershed	Total Acres of NF Lands	Baseline Disturbance acres ¹	Acres of Temporary Roads ²	Acres of SBEADMR harvest ³	Reasonably foreseeable other actions ⁴	Cumulative disturbance (%)	Exceeds 20% trigger?
Pauline Creek	24,904	1,945	0.6	11	765	10.9	No
Los Pinos Creek	31,698	1,346	16.7	50	61.7	4.6	No

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

The FEIS identified LAU triggers to limit the amount lynx habitat that could be converted to unsuitable and when reached would facilitate a change in management. When 25 percent of habitat is converted to unsuitable from management or natural causes, management actions in lynx habitat will be curtailed so no more than 30 percent is converted to unsuitable. The Cooler salvage occurs in the Stewart Creek and Los Pinos LAUs. Acres of lynx habitat temporally converted to unsuitable by all tracked management actions, including Cooler Salvage, and natural disturbances are presented below.

			Cooler Salva	ge			
LAU	Total Acres of Lynx Habitat	Baseline Disturbance acres and percent unsuitable lynx habitat ¹	Acres of Temporary Roads ²	Acres of SBEADMR harvest ³	Reasonably foreseeable other actions ⁴	Cumulative disturbance (%)	Exceeds 25% trigger?
Stewart Creek	26,858	1,961	0	0	883	10.5	N

²One mile of road construction = 4.8 acres of disturbance.

³Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre) and temporary roads weighted at 100% disturbance. This includes other SBEADMR treatments and other Forest Service actions resulting in ground disturbing activities.

Los Pinos Creek	23,834	1,223	5.0	46	57	5.6	N
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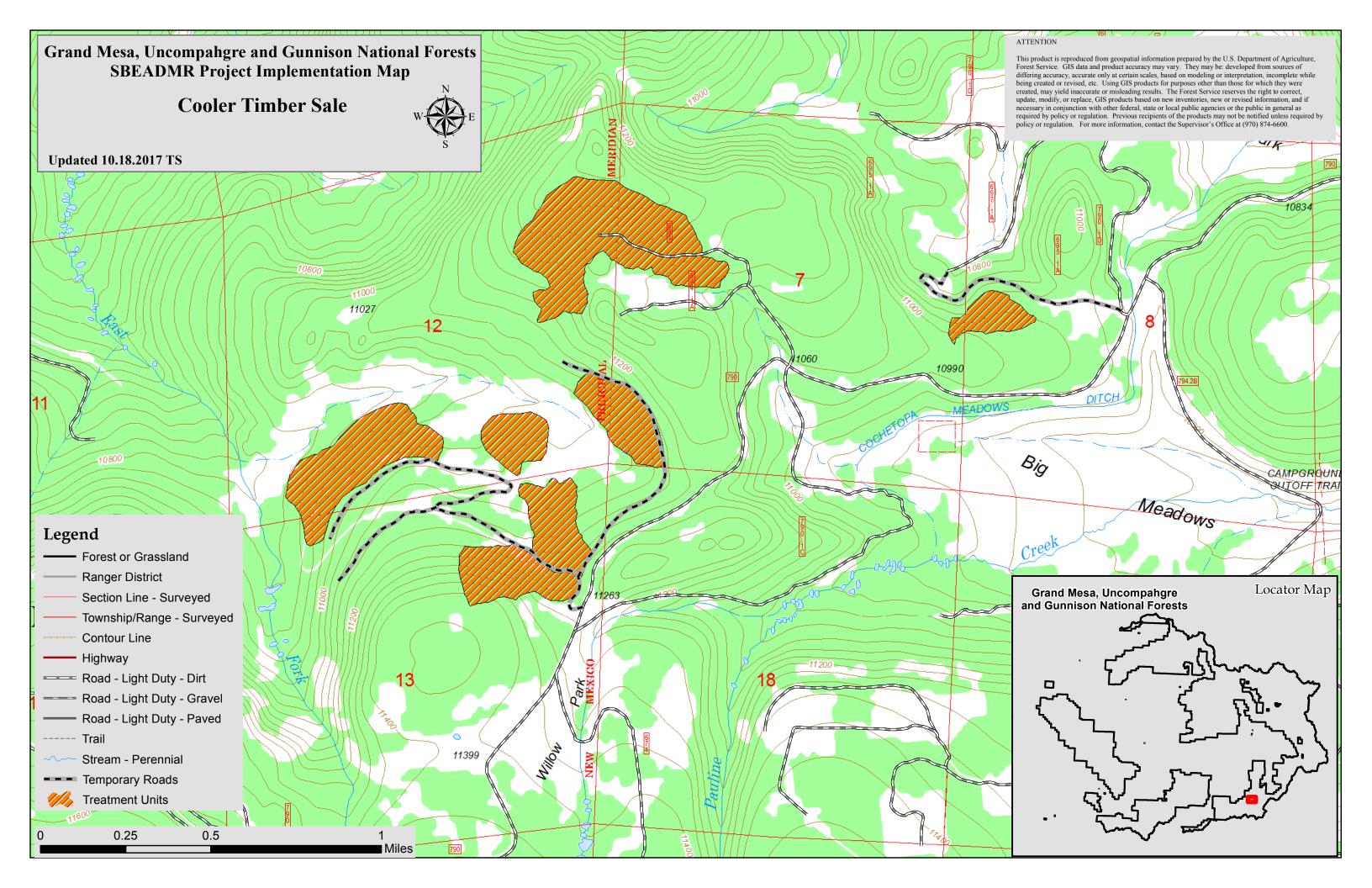
¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

Technical Contact: Drew Stroberg; dstroberg@fs.fed.us; 970-642-4445

²One mile of road construction = 4.8 acres of disturbance.

³In single storied stands with high overstory mortality, lynx habitat is considered unsuitable. In multi-storied stands with live understory, the lynx habitat is considered suitable. Therefore loss due to logging activities is considered incidental and is a result of harvest method.

⁴Reasonable foreseeable vegetation disturbances are calculated as described above. This includes other SBEADMR treatments and other Forest Service actions resulting in incidental loss to lynx habitat.



GMUG SBEADMR Treatment Implement Data Sheet Fiscal 2018

Treatment: Crane

District: Grand Valley

Planned Treatment Acres: 509

Cover Type: Spruce/fir/aspen

Integrated Treatment Objectives: Recovery Treatment; Fuels removal and fuel loading reduction; Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Road maintenance; Salvage with retention of high quality hare habitat; release of mid aged cohort to create age diversity on the landscape.

Desired Condition: Uneven-aged stand structure, increased species composition.

Estimated Miles of Temporary Road Construction: 1.5 - 2 miles of temp roads are possible but we will utilize old logging roads to the largest extent. Road maintenance will be completed on NSFR 100, 109.0, 109.1C, 109.1D

Known Design Feature Triggers:

- Maintaining habitat connectivity
- Will monitor for Goshawk, American marten during sale activities
- Much advanced regeneration, worked closely with wildlife biologist
- Fens, flowages, reservoirs in area
- Range fences in area
- Existing Rec Trails

Cumulative Watershed Disturbance

The FEIS identified watershed disturbance triggers that when reached would facilitate a change in management. When disturbance reaches 20 percent the Forest will curtail activities so watershed disturbance does not exceed 25 percent.

			Crane Salvage				
Watershed	Total Acres of NF Lands	Baseline Disturbance acres ¹	Acres of Temporary Roads ²	Acres of SBEADMR harvest ³	Reasonably foreseeable other actions ⁴	Cumulative disturbance (%)	Exceeds 20% trigger?
Dirty George Creek	9,639	89	0.6	1	0	<1	No

Headwaters							
Kannah	37,527	1,643	7	126	283	1.1	No
Creek							

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

The FEIS identified LAU triggers to limit the amount lynx habitat that could be converted to unsuitable and when reached would facilitate a change in management. When 25 percent of habitat is converted to unsuitable from management or natural causes, management actions in lynx habitat will be curtailed so no more than 30 percent is converted to unsuitable.

			Crane Salva	ge			
LAU	Total Acres of Lynx Habitat	Baseline Disturbance acres and percent unsuitable lynx habitat ¹	Acres of Temporary Roads ²	Acres of SBEADMR harvest ³	Reasonably foreseeable other actions ⁴	Cumulative disturbance (%)	Exceeds 25% trigger?
Island Lake	18,327	826	0	0	466	7	N
Kannah Creek	11,698	1,171	4.3	121	0	11	Z

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

Technical Contact: Cari Johnson; cariajohnson@fs.fed.us; 970-527-4131

²One mile of road construction = 4.8 acres of disturbance.

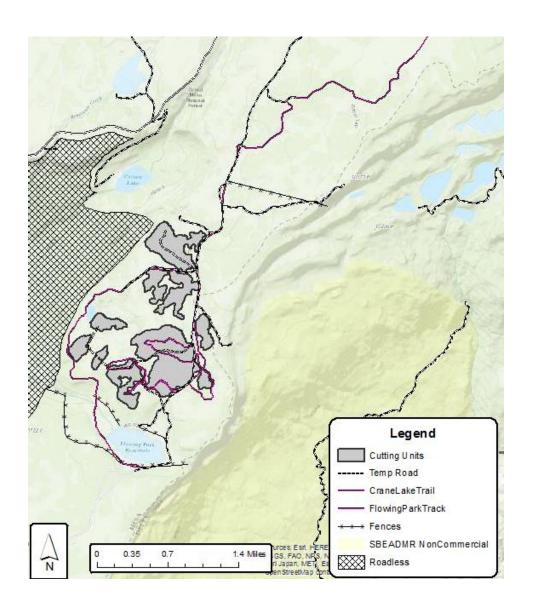
³Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)

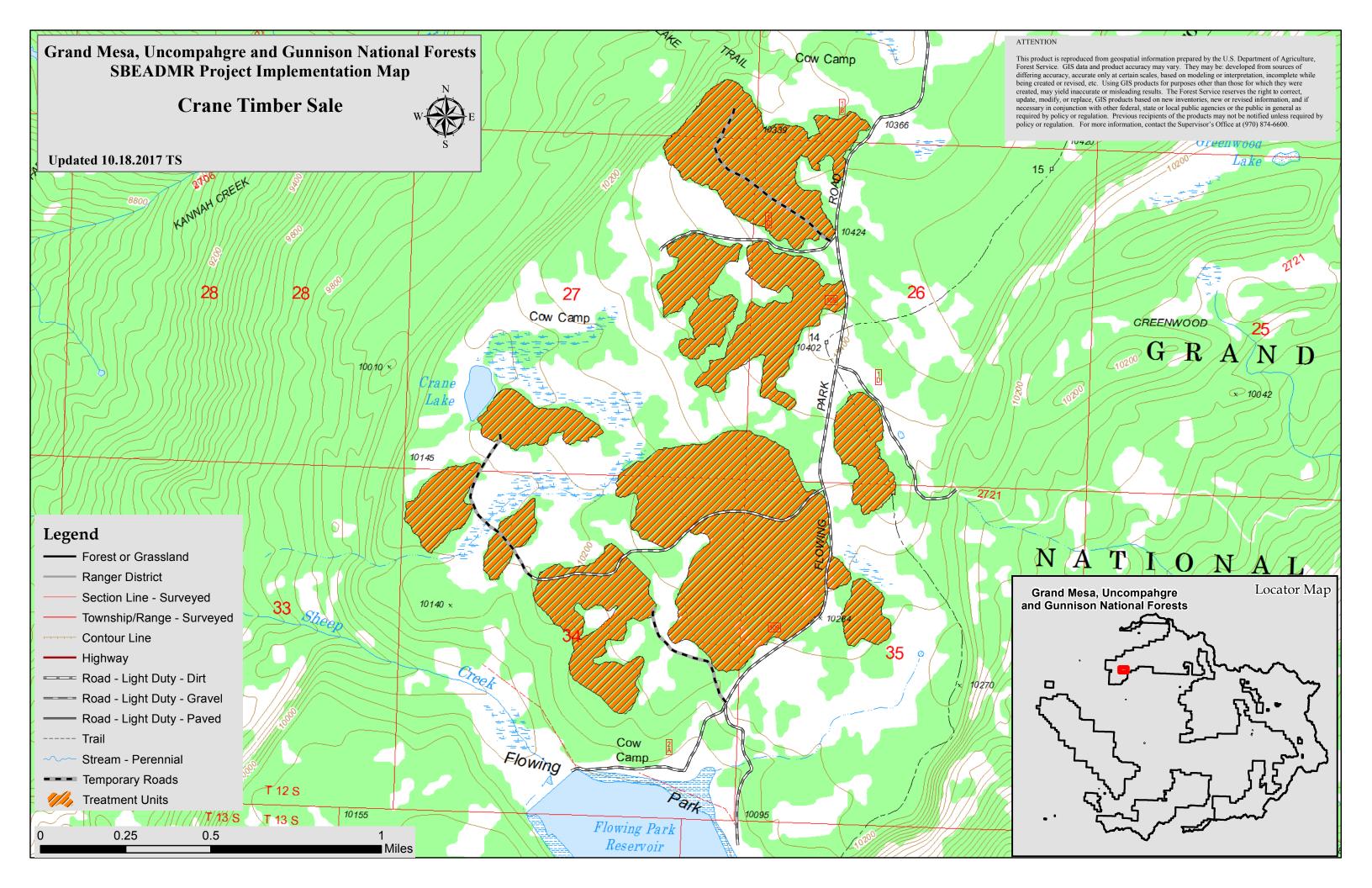
⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre) and temporary roads weighted at 100% disturbance. This includes other SBEADMR treatments and other Forest Service actions resulting in ground disturbing activities.

²One mile of road construction = 4.8 acres of disturbance.

³In single storied stands with high overstory mortality, lynx habitat is considered unsuitable. In multi-storied stands with live understory, the lynx habitat is considered suitable. Therefore loss due to logging activities is considered incidental and is a result of harvest method.

⁴Reasonable foreseeable vegetation disturbances are calculated as described above. This includes other SBEADMR treatments and other Forest Service actions resulting in incidental loss to lynx habitat.





GMUG SBEADMR Treatment Implement Data Sheet Fiscal 2018

Treatment: Divide Salvage

District: Gunnison

Treatment Area: 240

Type of treatment: Salvage. Hazard tree removal along Forest Service road 0787.

Integrated Treatment Objectives: Recovery Treatment. Fuels removal and fuel loading reduction. Provide hare, marten, and lynx denning habitat. Snag retention, and landscape-scale habitat connectivity. Meet post-harvest tree stocking objectives. Road Maintenance.

Desired Condition: Uneven-aged stand structure, increased species composition, appropriate tree stocking levels based on objectives.

Estimated miles of Temporary Road Construction: 1.2.

Known Design Feature Triggers:

- Temporary Road Stream Crossings
- Maintaining Habitat Connectivity
- Goshawk nests in area
- American Marten documented in area
- Proximity to the Continental Divide Trail

Watershed (Hydrologic Unit Code 12):

The FEIS identified watershed disturbance triggers that when reached would facilitate a change in management. When disturbance reaches 20 percent the Forest will curtail activities so watershed disturbance does not exceed 25 percent. The Divide salvage project occurs in the Archuleta watersheds. Acres of these watersheds affected by all tracked management, including Divide, and natural disturbances are presented below.

			Divide Salvage				
Watershed	Total Acres (federal, State and private)	Baseline disturbance acres ¹	Acres of temporary road ²	Acres of harvest ³	Reasonable foreseeable ⁴	Cumulative Disturbance (%)	Exceeds 20% trigger in EIS?
Archuleta	37,552	1,249	5.6	62	223	4	No

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

²One mile of road construction = 4.8 acres of disturbance.

Lynx Analysis Units (LAUs):

The FEIS identified LAU triggers to limit the amount lynx habitat that could be converted to unsuitable and when reached would facilitate a change in management. When 25 percent of habitat is converted to unsuitable from management or natural causes, management actions in lynx habitat will be curtailed so no more than 30 percent is converted to unsuitable. The Divide salvage occurs in the Cochetopa LAU. Acres of lynx habitat temporally converted to unsuitable by all tracked management actions, including Divide Salvage, and natural disturbances are presented below.

Lynx Analysis Unit (LAU): Cochetopa

			Divide	Treatment			
			Acres				
Lynx Analysis	Total	Baseline	Acres	Acres of	Reasonable	Cumulative	Exceeds
Unit	Acres	disturbance	of	harvest	foreseeable ⁴	Disturbance	25%
	of lynx	acres ¹	road ²	converting		(%)	trigger
	habitat			to			in EIS?
				unsuitable ³			
Cochetopa	25,087	2,555 (10)	5.5	60	83	11	No

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

Technical Contact: Drew Stroberg; dstroberg@fs.fed.us; 970-642-4445

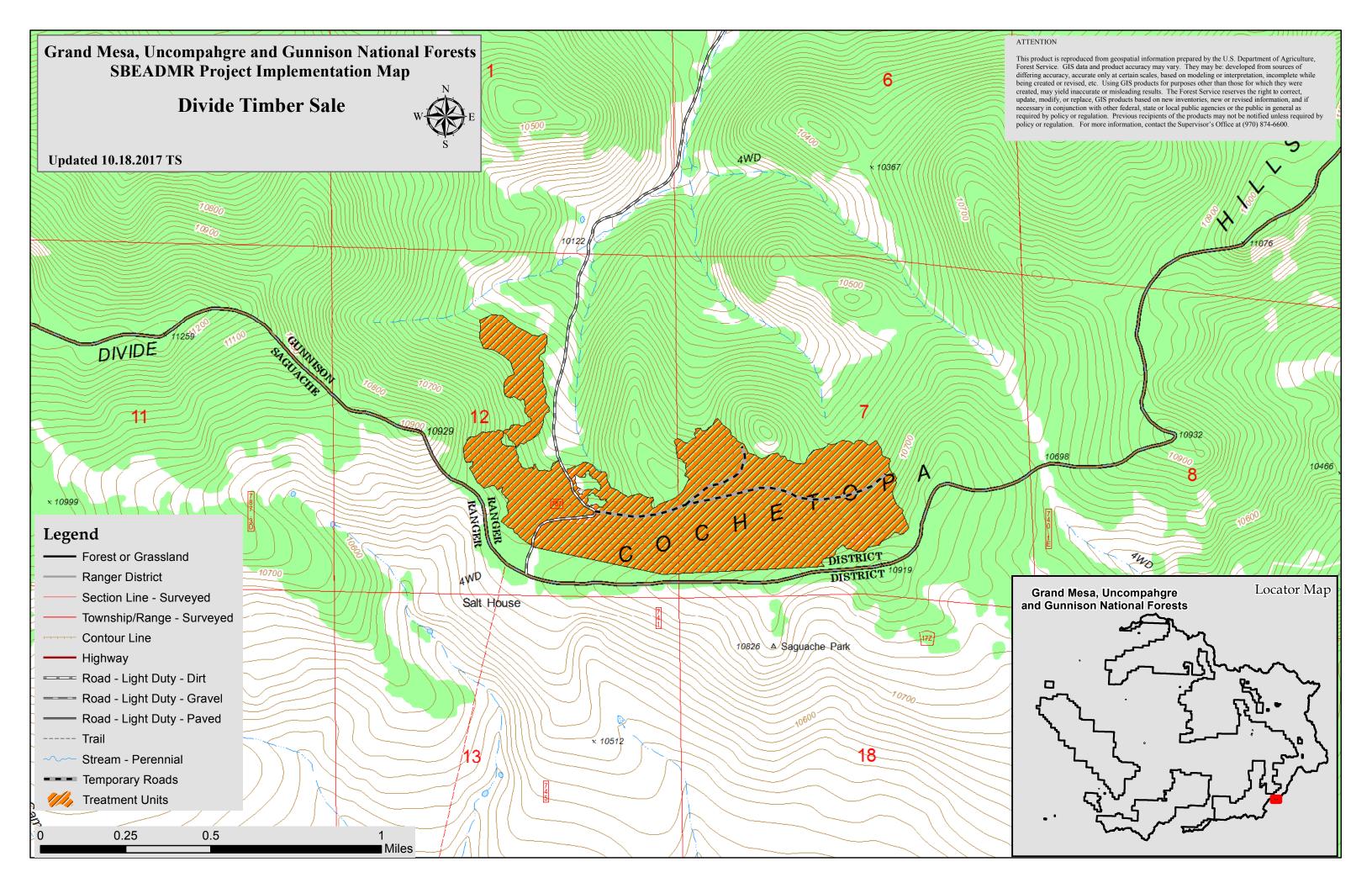
³Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre) and temporary roads weighted at 100% disturbance. This includes other SBEADMR treatments and other Forest Service actions resulting in ground disturbing activities.

²One mile of road construction = 4.8 acres of disturbance.

³In single storied stands with high overstory mortality, lynx habitat is considered unsuitable. In multi-storied stands with live understory, the lynx habitat is considered suitable. Therefore loss due to logging activities is considered incidental and is a result of harvest method.

⁴Reasonable foreseeable vegetation disturbances are calculated as described above. This includes other SBEADMR treatments and other Forest Service actions resulting in incidental loss to lynx habitat.



GMUG SBEADMR Treatment Implement Data Sheet Fiscal 2018

Treatment: High Mesa Timber Sale

District: Ouray

Proposed Treatment Acres: 650 Planned

Treatment Acres: 500 Cover Type: Spruce/fir

Integrated Treatment Objectives: Resiliency and Recovery Treatment; Generate and maintain multiple stories, remove dead and dying and protect advanced regeneration. Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Decrease surface fuels and crown fire potential.

Desired Condition: Uneven-aged stand structure, increased species composition, appropriate tree stocking levels based on objectives.

Estimated Miles of Temporary Road Construction: 1.0 mile. The road will be decommissioned by the purchaser at sale closure.

Known Design Feature Triggers:

- Maintaining habitat connectivity
- Lynx Habitat avoidance of high quality habitat.
- Streams and seeps protection

Cumulative Watershed Disturbance

The FEIS identified watershed disturbance triggers that when reached would facilitate a change in management. When disturbance reaches 20 percent the Forest will curtail activities so watershed disturbance does not exceed 25 percent. The High Mesa resiliency/salvage project occurs in Little Cimarron, Upper Cimarron and Silver Jack Reservoir Watersheds. Acres of these watersheds affected by all tracked management, including High Mesa, and natural disturbances are presented below.

				High Mesa			
Watershed	Total Acres of NF Lands	Baseline Disturbance acres ¹	Acres of Temporary Roads ²	Acres of SBEADMR harvest ³	Reasonably foreseeable other actions ⁴	Cumulative disturbance (%)	Exceeds 20% trigger?
Little Cimarron Creek	17,580	588	14.6	152	0	4.3	No
Upper	8,515	56	0	5	0	<1	No

Cimarron Creek							
Silver Jack Reservoir	37,640	171	0	1	0	<1	No

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

The FEIS identified LAU triggers to limit the amount lynx habitat that could be converted to unsuitable and when reached would facilitate a change in management. When 25 percent of habitat is converted to unsuitable from management or natural causes, management actions in lynx habitat will be curtailed so no more than 30 percent is converted to unsuitable. The High Mesa occurs in the Alpine and Turret Ridge LAUs. Acres of lynx habitat temporally converted to unsuitable by all tracked management actions, including High Mesa, and natural disturbances are presented below.

LAU	Total Acres of Lynx Habitat	Baseline Disturbance acres and percent unsuitable lynx habitat ¹	Acres of Temporary Roads ²	Acres of SBEADMR harvest ³	Reasonably foreseeable other actions ⁴	Cumulative disturbance (%)	Exceeds 25% trigger?
Alpine	32,051	1,342	14	141	200	5.3	N
Turret Ridge	26,320	175	0	6	0	<1	N

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

²One mile of road construction = 4.8 acres of disturbance.

³Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)

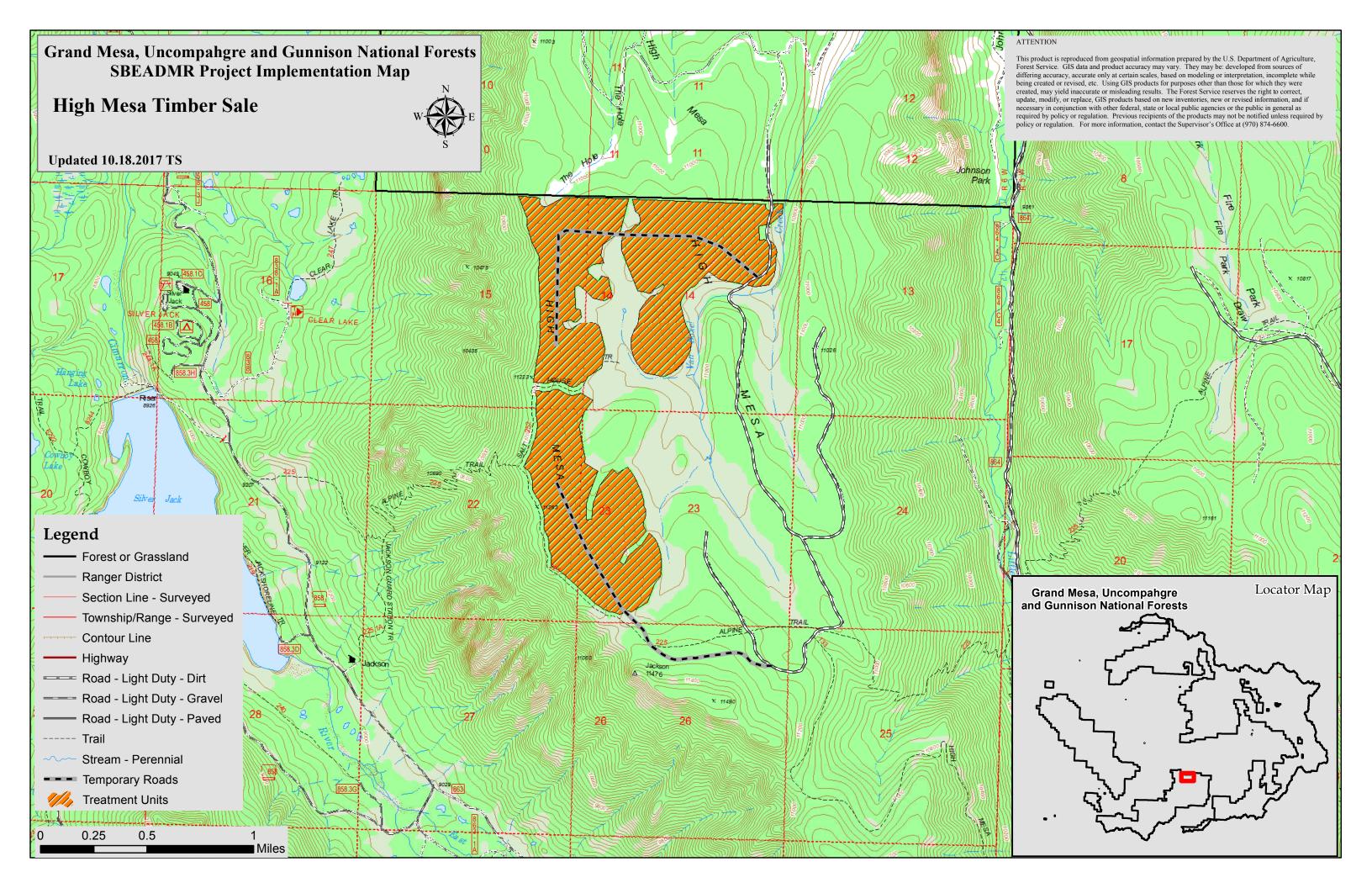
⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre) and temporary roads weighted at 100% disturbance. This includes other SBEADMR treatments and other Forest Service actions resulting in ground disturbing activities.

²One mile of road construction = 4.8 acres of disturbance.

³In single storied stands with high overstory mortality, lynx habitat is considered unsuitable. In multi-storied stands with live understory, the lynx habitat is considered suitable. Therefore loss due to logging activities is considered incidental and is a result of harvest method.

⁴Reasonable foreseeable vegetation disturbances are calculated as described above. This includes other SBEADMR treatments and other Forest Service actions resulting in incidental loss to lynx habitat.

Technical Contact: Nicole Hutt; nhutt@fs.fed.us; 970-240-5419



GMUG SBEADMR Treatment Implementation Data Sheet Fiscal 2018

Treatment: Last Tree Salvage

District: Gunnison

Maximum Treatment Acres: 466.

Cover Type: Spruce/Aspen

Integrated Treatment Objectives: Recovery Treatment; Fuels removal and fuel loading reduction; Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Road maintenance; Salvage with retention of high quality hare habitat.

Desired Condition: Uneven-aged stand structure, increased species composition, appropriate tree stocking levels based on objectives.

Estimated Miles of Temporary Road Construction: Temporary road construction is estimated at less than five miles. All temporary roads will be closed within 5 years of sale closure. Existing road prisms will be used to the maximum extent possible.

Known Design Feature Triggers:

- Temporary road stream crossings
- Maintaining habitat connectivity
- Goshawk nests in area
- Snowmobile trail runs through the area

Cumulative Watershed Disturbance

The FEIS identified watershed disturbance triggers that when reached would facilitate a change in management. When disturbance reaches 20 percent the Forest will curtail activities so watershed disturbance does not exceed 25 percent. The Last Tree Salvage project occurs in the Mill Creek-Brush Creek Watersheds. Acres of these watersheds affected by all tracked management, including Last Tree Salvage, and natural disturbances are presented below.

La			Last Tree Salvage				
Watershed	Total Acres of NF Lands	Baseline Disturbance acres ¹	Acres of Temporary Road ²	Acres of SBEADMR harvest ³	Reasonably foreseeable other actions ⁴	Cumulative disturbance (%)	Exceeds 20% trigger?
Mill Creek- Brush	17,834	237	15.4	60	117	2.4	No

Creek							
Cebolla Creek	18,025	493	3.0	57	61	3.4	No

- ¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).
- ²One mile of road construction = 4.8 acres of disturbance.
- 3Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)
- 4Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre) and temporary roads weighted at 100% disturbance. This includes other SBEADMR treatments and other Forest Service actions resulting in ground disturbing activities.

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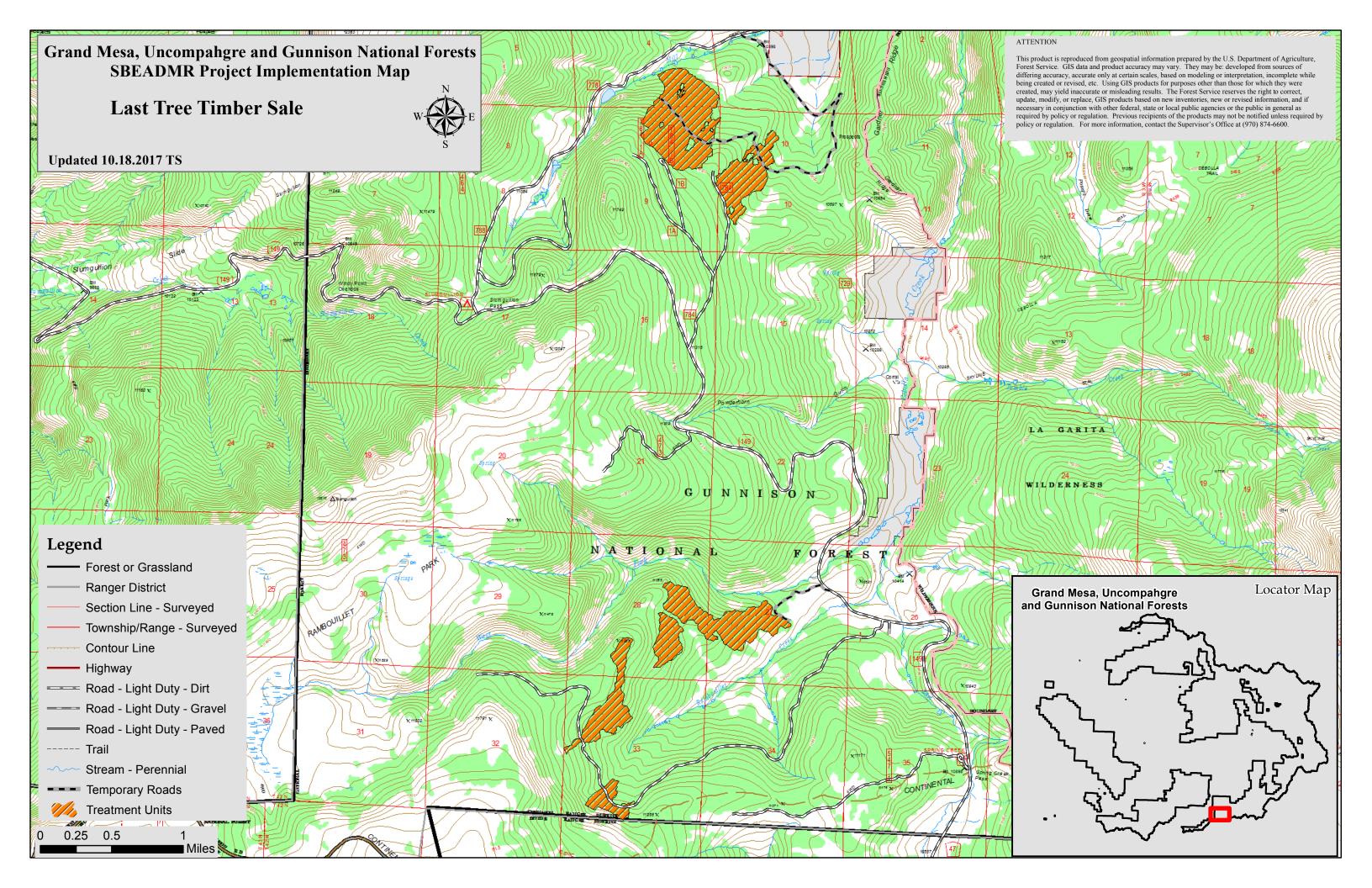
Lynx Analysis Units (LAUs):

• The FEIS identified LAU triggers to limit the amount lynx habitat that could be converted to unsuitable and when reached would facilitate a change in management. When 25 percent of habitat is converted to unsuitable from management or natural causes, management actions in lynx habitat will be curtailed so no more than 30 percent is converted to unsuitable. The Last Tree salvage occurs in the Cebolla LAU. Acres of lynx habitat temporally converted to unsuitable by all tracked management actions, including Last Tree Salvage, and natural disturbances are presented below.

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•							
			Last Tree Salvage				
LAU	Total Acres of Lynx Habitat	Baseline Disturbance acres and percent unsuitable lynx habitat	Acres of Temporary Roads	Acres of SBEADMR harvest	Reasonably foreseeable other actions	Cumulative disturbance (%)	Exceeds 25% trigger?
Cebolla	42,869	748	12	116	442	3.1	N

- ¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).
- ²One mile of road construction = 4.8 acres of disturbance.
- ³In single storied stands with high overstory mortality, lynx habitat is considered unsuitable. In multi-storied stands with live understory, the lynx habitat is considered suitable. Therefore loss due to logging activities is considered incidental and is a result of harvest method.
- 4Reasonable foreseeable vegetation disturbances are calculated as described above. This includes other SBEADMR treatments and other Forest Service actions resulting in incidental loss to lynx habitat.



GMUG SBEADMR Treatment Implementation Data Sheet Fiscal 2018

Treatment: Millswitch Salvage

District: Gunnison

Maximum Treatment Acres: 521.

Cover Type: Spruce/Fir/Lodgepole

Integrated Treatment Objectives: Recovery Treatment; Fuels removal and fuel loading reduction; Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Road maintenance; Salvage with retention of high quality hare habitat; Hazard tree removal along NFSR 785.

Desired Condition: Uneven-aged stand structure, increased species composition, appropriate tree stocking levels based on objectives.

Estimated Miles of Temporary Road Construction: Temporary road construction is estimated at less than five miles. All temporary roads will be closed within 5 years of sale closure. Existing road prisms will be used to the maximum extent possible.

Known Design Feature Triggers:

- Temporary road stream crossings
- Maintaining habitat connectivity
- Protection of high quality hare habitat
- Goshawk nests in area
- Continental Divide National Scenic Trail runs through the sale area

Cumulative Watershed Disturbance

The FEIS identified watershed disturbance triggers that when reached would facilitate a change in management. When disturbance reaches 20 percent the Forest will curtail activities so watershed disturbance does not exceed 25 percent. The Millswitch Salvage project occurs in the Starvation Creek-Poncha Creek, Marshall Creek and Long Branch Creek Watersheds. Acres of these watersheds affected by all tracked management, including Millswitch Salvage, and natural disturbances are presented below.

			Millswitch				
Watershed	Total	Baseline	Acres of	Acres of	Reasonably	Cumulative	Exceeds
	Acres	Disturbance	Temporary	SBEADMR	foreseeable	disturbance	20%

	of NF	acres ¹	Roads ²	harvest ³	other	(%)	trigger?
	Lands				actions ⁴		
Marshall Creek	33,603	2,278	33.5	270	436	8.9	No
Long Branch Creek	15,277	241	0	365	0	4.0	No

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

The FEIS identified LAU triggers to limit the amount lynx habitat that could be converted to unsuitable and when reached would facilitate a change in management. When 25 percent of habitat is converted to unsuitable from management or natural causes, management actions in lynx habitat will be curtailed so no more than 30 percent is converted to unsuitable. The High Mesa occurs in the Alpine and Turret Ridge LAUs. Acres of lynx habitat temporally converted to unsuitable by all tracked management actions, including High Mesa, and natural disturbances are presented below.

			Millswitch				
LAU	Total Acres of Lynx Habitat	Baseline Disturbance acres and percent unsuitable lynx habitat ¹	Acres of Temporary Roads ²	Acres of SBEADMR harvest ³	Reasonably foreseeable other actions ⁴	Cumulative disturbance (%)	Exceeds 25% trigger?
Chester	32,067	2,703	14	232	420	10.5	No

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

Technical Contact: Drew Stroberg; dstroberg@fs.fed.us; 970-642-4445

²One mile of road construction = 4.8 acres of disturbance.

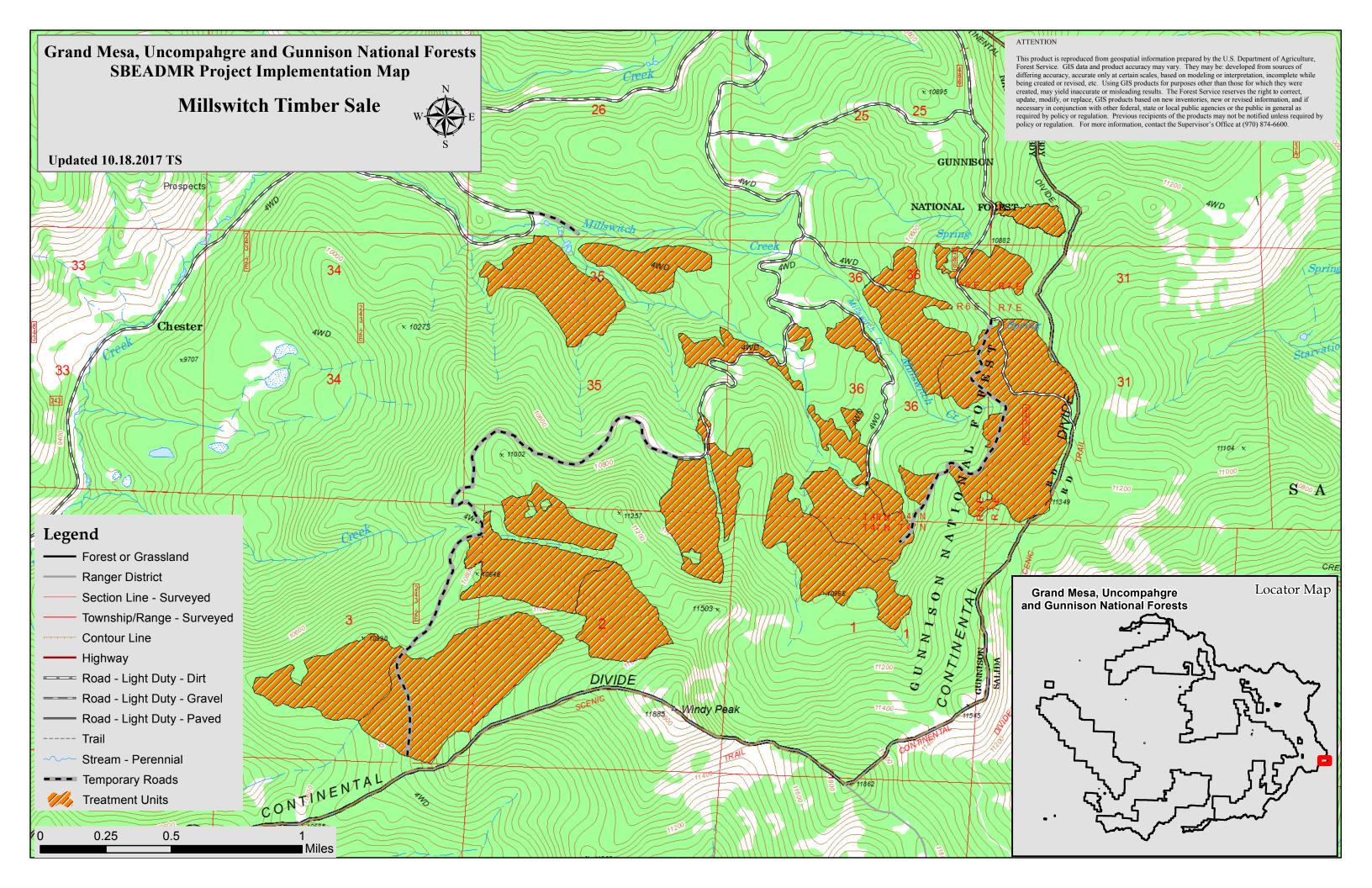
³Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre) and temporary roads weighted at 100% disturbance. This includes other SBEADMR treatments and other Forest Service actions resulting in ground disturbing activities.

²One mile of road construction = 4.8 acres of disturbance.

³In single storied stands with high overstory mortality, lynx habitat is considered unsuitable. In multi-storied stands with live understory, the lynx habitat is considered suitable. Therefore loss due to logging activities is considered incidental and is a result of harvest method.

⁴Reasonable foreseeable vegetation disturbances are calculated as described above. This includes other SBEADMR treatments and other Forest Service actions resulting in incidental loss to lynx habitat.



GMUG SBEADMR Treatment Implementation Data Sheet Fiscal 2018

Treatment: Quill Salvage

District: Gunnison

Maximum Treatment Acres: 562.

Cover Type: Spruce/Fir/Aspen/Lodgepole

Integrated Treatment Objectives: Recovery Treatment; Fuels removal and fuel loading reduction; Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Road maintenance; Salvage with retention of high quality hare habitat; Hazard tree removal along Forest Service road 821.1B. Improve wildlife habitat by promoting aspen regeneration.

Desired Condition: Uneven-aged stand structure, increased species composition, appropriate tree stocking levels based on objectives.

Estimated Miles of Temporary Road Construction: 10. All temporary roads will be obliterated within 5 years of sale closure. Existing road prisms will be used to the maximum extent possible.

Known Design Feature Triggers:

- Temporary road stream crossings
- Maintaining habitat connectivity
- Protection high quality are habitat
- Goshawk nests in area

Cumulative Watershed Disturbance

The FEIS identified watershed disturbance triggers that when reached would facilitate a change in management. When disturbance reaches 20 percent the Forest will curtail activities so watershed disturbance does not exceed 25 percent. The Quill Salvage project occurs in the Los Pinos Creek Watershed. Acres of these watersheds affected by all tracked management, including Quill Salvage, and natural disturbances are presented below.

			Quill Salvage				
Watershed	Total Acres of NF Lands	Baseline Disturbance acres ¹	Acres of Temporary Road ²	Acres of SBEADMR harvest ³	Reasonably foreseeable other actions ⁴	Cumulative disturbance (%)	Exceeds 20% trigger?
Los Pinos	31,698	1,346	16.7	43	67	4.6	No

Creek							
Rock Creek	5,946	42	23.9	24	0	1.5	No

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

The FEIS identified LAU triggers to limit the amount lynx habitat that could be converted to unsuitable and when reached would facilitate a change in management. When 25 percent of habitat is converted to unsuitable from management or natural causes, management actions in lynx habitat will be curtailed so no more than 30 percent is converted to unsuitable. The Quill Salvage occurs in the Los Pinos LAU. Acres of lynx habitat temporally converted to unsuitable by all tracked management actions, including Quill Salvage, and natural disturbances are presented below.

				Quill Salvage			
LAU	Total Acres of Lynx Habitat	Baseline Disturbance acres and percent unsuitable lynx habitat	Acres of Temporary Roads	Acres of SBEADMR harvest	Reasonably foreseeable other actions	Cumulative disturbance (%)	Exceeds 25% trigger?
Los Pinos	23,834	1,223	19	104	138	6.2	N

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

Technical Contact: Drew Stroberg; dstroberg@fs.fed.us; 970-642-4445

²One mile of road construction = 4.8 acres of disturbance.

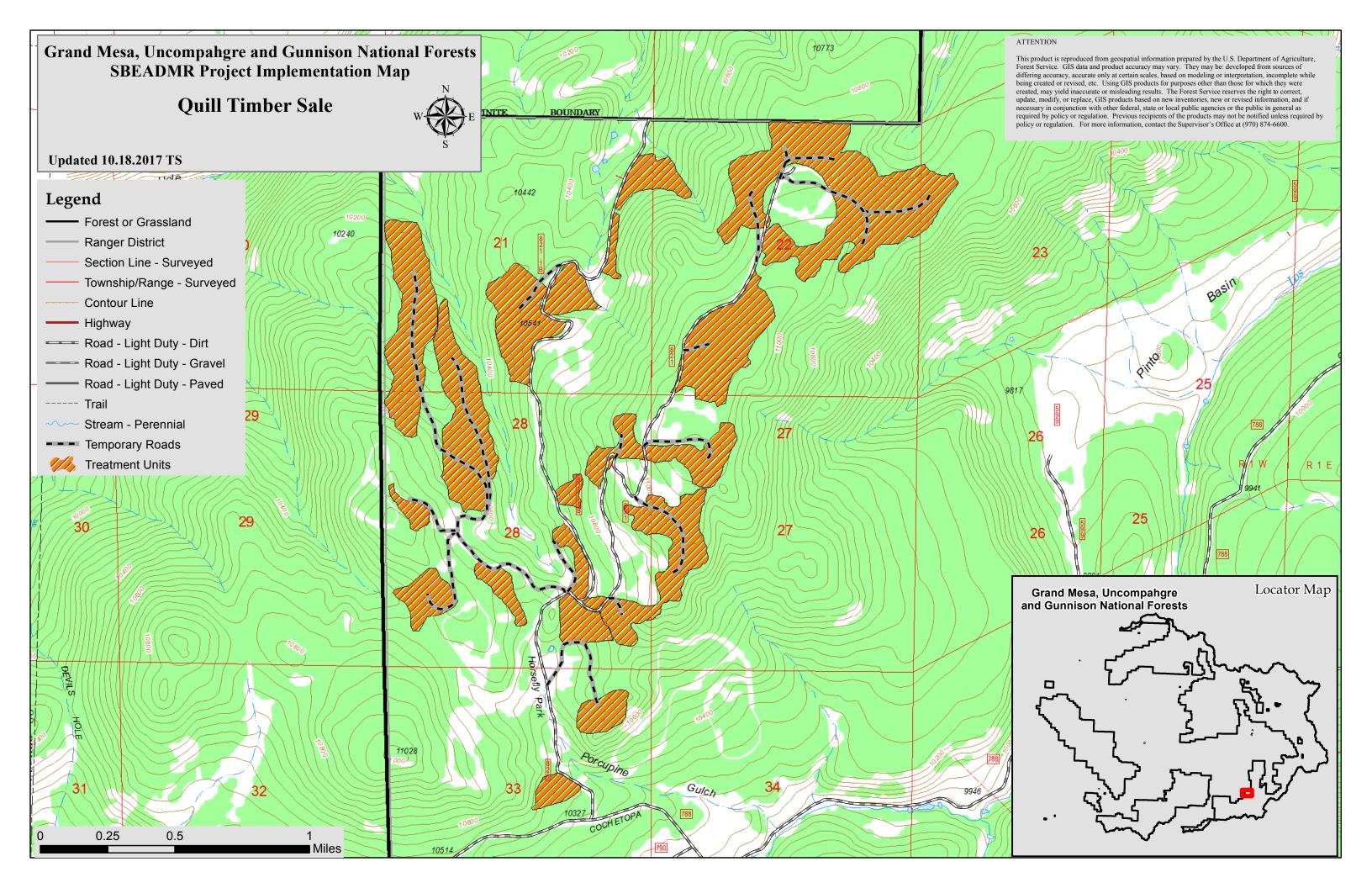
³Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre) and temporary roads weighted at 100% disturbance. This includes other SBEADMR treatments and other Forest Service actions resulting in ground disturbing activities.

²One mile of road construction = 4.8 acres of disturbance.

³In single storied stands with high overstory mortality, lynx habitat is considered unsuitable. In multi-storied stands with live understory, the lynx habitat is considered suitable. Therefore loss due to logging activities is considered incidental and is a result of harvest method.

⁴Reasonable foreseeable vegetation disturbances are calculated as described above. This includes other SBEADMR treatments and other Forest Service actions resulting in incidental loss to lynx habitat.



GMUG SBEADMR Treatment Implementation Data Sheet Fiscal 2018

Treatment: Sargents Mesa Salvage

District: Gunnison

Maximum Treatment Acres: 1,464. Actual acres of treatment will be determined once field work has been completed and prescriptions finalized.

Cover Type: Spruce/Fir/Lodgepole

Integrated Treatment Objectives: Recovery Treatment; Fuels removal and fuel loading reduction; Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Road maintenance; Salvage with retention of high quality hare habitat; Hazard tree removal along Forest Roads 578 and 578.2A.

Desired Condition: Uneven-aged stand structure, increased species composition, appropriate tree stocking levels based on objectives.

Estimated Miles of Temporary Road Construction: Ten miles of temporary roads will be constructed. All temporary roads will be closed within 5 years of sale closure. Existing road prisms will be used to the maximum extent possible.

Known Design Feature Triggers:

- Temporary road stream crossings
- Maintaining habitat connectivity
- Protection of high quality hare habitat
- Continental Divide National Scenic Trail runs through the sale area

Cumulative Watershed Disturbance

The FEIS identified watershed disturbance triggers that when reached would facilitate a change in management. When disturbance reaches 20 percent the Forest will curtail activities so watershed disturbance does not exceed 25 percent. The Millswitch Salvage project occurs in the Starvation Creek-Poncha Creek, Marshall Creek and Long Branch Creek Watersheds. Acres of these watersheds affected by all tracked management, including Millswitch Salvage, and natural disturbances are presented below.

			Sergeants Mesa				
Watershed	Total Acres of NF Lands	Baseline Disturbance acres ¹	Acres of Temporary Roads ²	Acres of SBEADMR harvest ³	Reasonably foreseeable other actions ⁴	Cumulative disturbance (%)	Exceeds 20% trigger?

Marshall Creek	33,603	2,278	71	365	270	8.9	No
Long Branch Creek	15,277	241	0	1	365	4.0	No

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

The FEIS identified LAU triggers to limit the amount lynx habitat that could be converted to unsuitable and when reached would facilitate a change in management. When 25 percent of habitat is converted to unsuitable from management or natural causes, management actions in lynx habitat will be curtailed so no more than 30 percent is converted to unsuitable. The High Mesa occurs in the Alpine and Turret Ridge LAUs. Acres of lynx habitat temporally converted to unsuitable by all tracked management actions, including High Mesa, and natural disturbances are presented below.

			Millsv	witch			
LAU	Total Acres of Lynx Habitat	Baseline Disturbance acres and percent unsuitable lynx habitat ¹	Acres of Temporary Roads ²	Acres of SBEADMR harvest ³	Reasonably foreseeable other actions ⁴	Cumulative disturbance (%)	Exceeds 25% trigger?
Chester	32,067	2,703	68	352	246	10.5	N

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

²One mile of road construction = 4.8 acres of disturbance.

³Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)

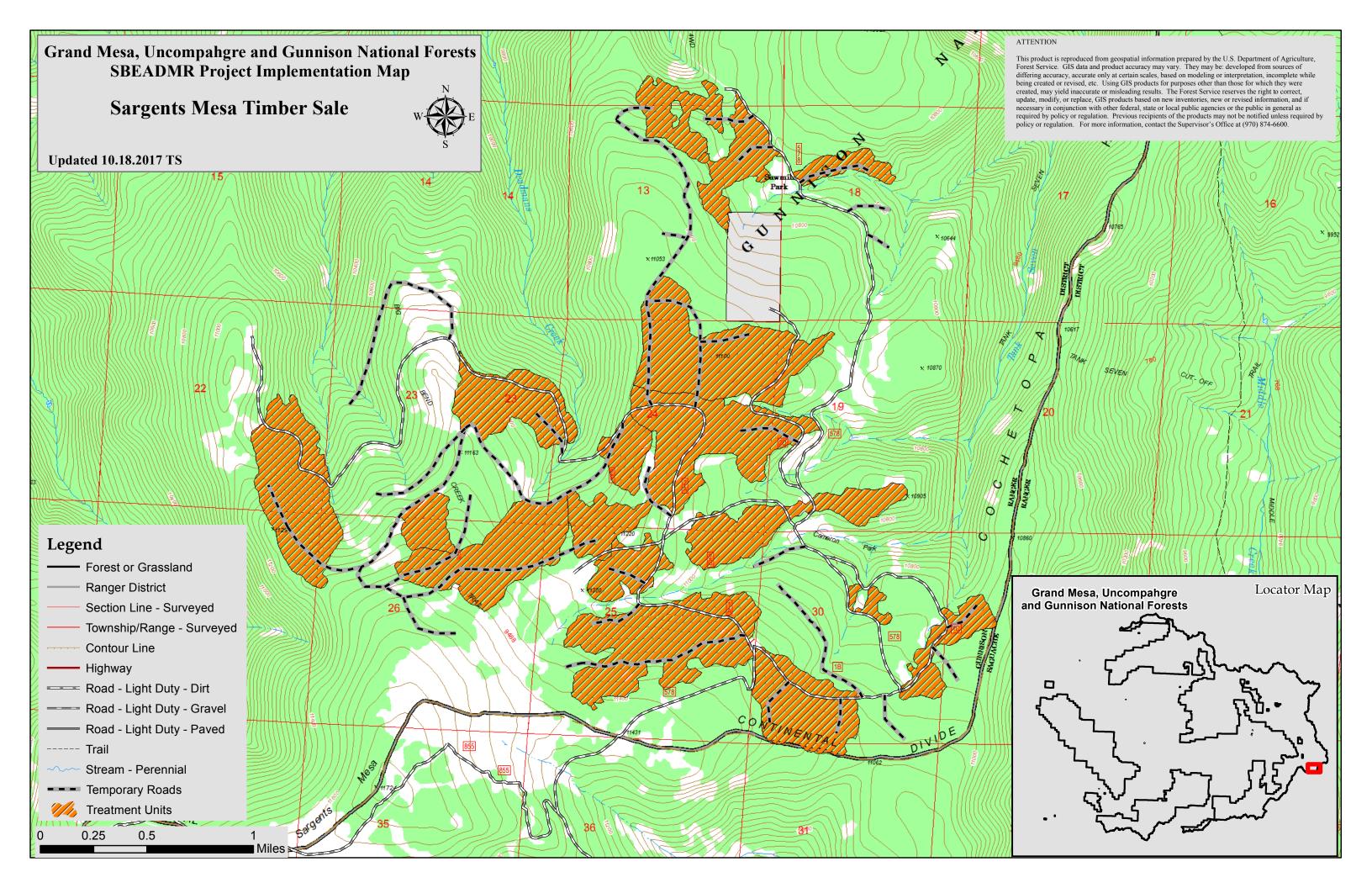
⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre) and temporary roads weighted at 100% disturbance. This includes other SBEADMR treatments and other Forest Service actions resulting in ground disturbing activities.

²One mile of road construction = 4.8 acres of disturbance.

³In single storied stands with high overstory mortality, lynx habitat is considered unsuitable. In multi-storied stands with live understory, the lynx habitat is considered suitable. Therefore loss due to logging activities is considered incidental and is a result of harvest method.

⁴Reasonable foreseeable vegetation disturbances are calculated as described above. This includes other SBEADMR treatments and other Forest Service actions resulting in incidental loss to lynx habitat.

Technical Contact: Drew Stroberg; dstroberg@fs.fed.us; 970-642-4445



GMUG SBEADMR Treatment Implement Data Sheet Fiscal 2019

Treatment: Big Willow Salvage

District: Gunnison

Proposed Treatment Acres: 2200

Planned Treatment Acres: 2179

Cover Type: Spruce/fir/aspen

Integrated Treatment Objectives: Recovery Treatment; Fuels removal and fuel loading reduction; Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Road maintenance; Salvage with retention of high quality hare habitat; Hazard tree removal along Forest Service road 867.

Sale was prepared and will be administered by the Colorado State Forest Service under the Good Neighbor Authority.

Desired Condition: Uneven-aged stand structure, increased species composition, appropriate tree stocking levels based on objectives.

Estimated Miles of Temporary Road Construction: 10

Known Design Feature Triggers:

- BLM and private property boundary
- Snowmobile club
- Lynx and Pine Marten
- High risk weed area
- Survey monument protection
- Road work/reconstruction
- Timing restriction for elk calving
- Goshawk nest

Cumulative Watershed Disturbance

			Big Willow Treatment Acres							
Watershed	Acres of	Baseline	Acres of	Acres of	Reasonable	Cumulative	Exceeds			
	National	disturbance	temporary	harvest ³	foreseeable ⁴	Disturbance	20%			
	Forest	acres ¹	road ²			(%)	trigger in			
	Lands						EIS?			
Pine Creek	373	3	0	16	0	5	No			

Willow Creek	1940	201	25	230	0	23	Yes –
							However, total
							acres in the
							watershed is
							14,784 which
							is 3% of the
							watershed.
Little Blue Creek	2479	350	4.6	62	495	37	Yes - However,
							total acres in
							the watershed
							is 22,327,
							therefore
							disturbance is
							4% of the
							watershed.
Headwaters Blue	26873	138	9.6	116	83	1	No
Trout Creek Lake-	5640	323	7.2	121	0	7	No

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

Lynx Analysis Units (LAUs): Alpine, Lake City

			Big Willow Treatment Acres						
Lynx Analysis	Total	Baseline	Acres	Acres of	Reasonable	Cumulative	Exceeds		
Unit	Acres	disturbance	of	harvest	foreseeable ⁴	Disturbance	25%		
	of lynx	acres and	road ²	converting		(%)	trigger		
	habitat	percent		to			in EIS?		
		unsuitable ¹		unsuitable ³					
Alpine	25,087	2,555	38	715	374	15	No		
Lake City	25,251	713	7	119	0	3	No		

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

²One mile of road construction = 4.8 acres of disturbance.

³Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

²One mile of road construction = 4.8 acres of disturbance or conversion of 4.8 acres of lynx habitat to unsuitable.

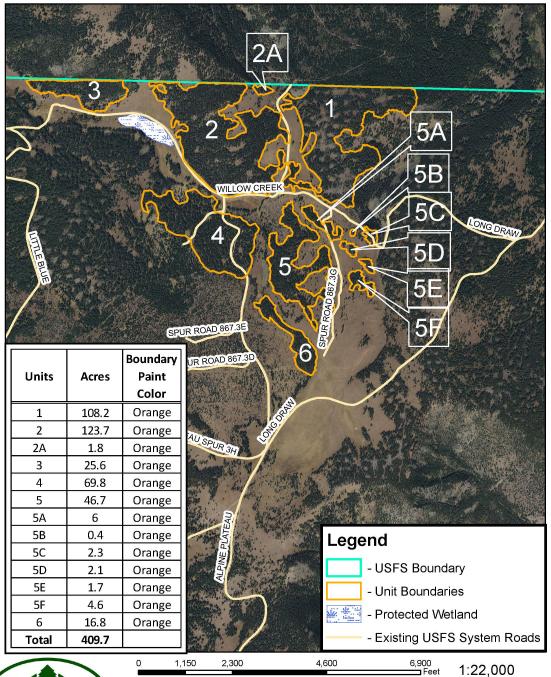
³In single storied stands with high overstory mortality, lynx habitat is considered unsuitable. In multi-storied stands with live understory, the lynx habitat is considered suitable. Therefore, loss due to logging activities is considered incidental and is a result of harvest method.

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

Big Willow Salvage

Exhibit B.1
CUTTING UNIT #1

GNA Timber Sale





N

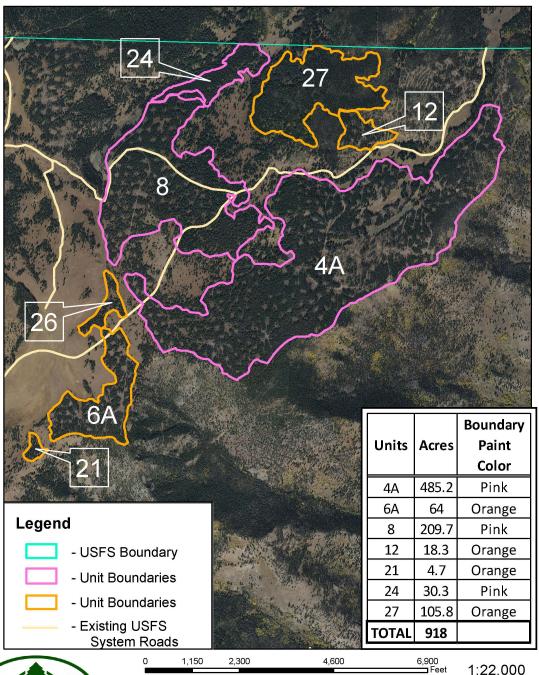
Prepared By: Kelsey Lesniak Colorado State Forest Service Montrose Field Office Last Updated: 9/10/18

Properties Situated Within: T45N & 46N,R4W, Sec 14-16,19-23,28-30,32&33

Big Willow Salvage

Exhibit B.2 **CUTTING UNIT #2**

GNA Timber Sale







Prepared By: Kelsey Lesniak Colorado State Forest Service Montrose Field Office Last Updated: 9/10/18

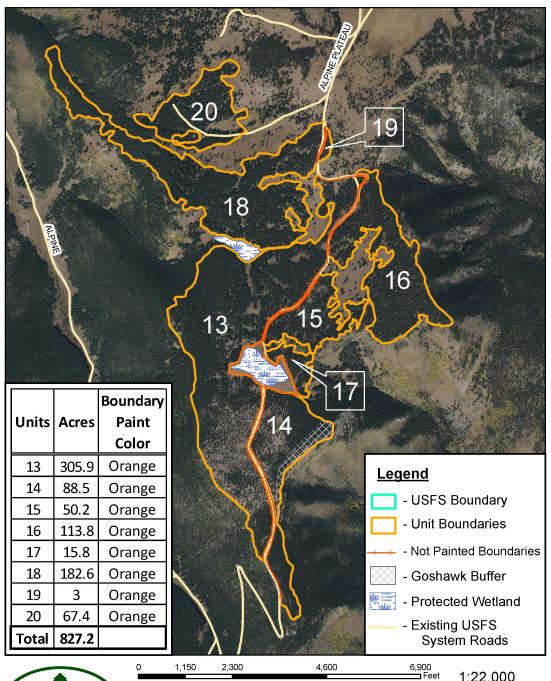
Properties Situated Within: T45N & 46N,R4W, Sec 14-16,19-23,28-30,32&33

1:22,000

Big Willow Salvage

Exhibit B.3 **CUTTING UNIT #3**

GNA Timber Sale





Prepared By: Kelsey Lesniak Colorado State Forest Service Montrose Field Office Last Updated: 9/10/18

Properties Situated Within: T45N & 46N,R4W, Sec 14-16,19-23,28-30,32&33

1:22,000

GMUG SBEADMR Treatment Implement Data Sheet Fiscal 2019

Treatment: Buffalo Fork Salvage

District: Gunnison

Proposed Treatment Acres: 175

Planned Treatment Acres: 100

Cover Type: Spruce/fir/Lodgepole

Integrated Treatment Objectives: Recovery Treatment; Fuels removal and fuel loading reduction; Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Road maintenance; Salvage with retention of high quality hare habitat

Sale is part of stewardship agreement with the National Wild Turkey Federation- revenue from timber will go towards fuel reduction around Rainbow and Tin Cup communities, meadow and riparian habitat restoration work in big game and Gunnison sage-grouse habitat on Flat Top Mountain and Black Sage Pass, and deer, elk, and wild turkey habitat enhancement work and fuel reduction in the Soap Creek watershed.

Desired Condition: Uneven-aged stand structure, increased species composition, appropriate tree stocking levels based on objectives.

Estimated Miles of Temporary Road Construction: 1. 1 mile will be closed by the purchaser.

Known Design Feature Triggers:

- High risk weed potential
- Lynx and Pine Marten
- Survey monument protection

Cumulative Watershed Disturbance

			Buffalo Fork Salvage Treatment Acres				
Watershed	Acres of	Baseline	Acres of	Acres of	Reasonable	Cumulative	Exceeds
	National	disturbance	temporary	harvest ³	foreseeable ⁴	Disturbance	20%
	Forest	acres ¹	road ²			(%)	trigger
	Lands						in EIS?
Upper Quartz Creek	23,477	541	3.6	14	0	2	No
Hot Springs Creek	17,061	1,121	0	6	0	7	No
Headwaters Tomichi Creek	12,339	259	0.7	5	0	2	No

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

Lynx Analysis Units (LAUs): Pitkin, Upper Tomichi

			Buffalo Fork Salvage Treatment Acres						
Lynx Analysis Unit	Total Acres of lynx habitat	Baseline disturbance acres and percent unsuitable ¹	Acres of road ²	Acres of harvest converting to unsuitable ³	Reasonable foreseeable 4	Cumulative Disturbanc e (%)	Exceeds 25% trigger in EIS?		
Pitkin	38,849	2,869	3.6	20	0	7	No		
Upper	30,032	900	0.7	20	0	3	No		

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

³In single storied stands with high overstory mortality, lynx habitat is considered unsuitable and therefore logging will not make the stand "more unsuitable" but are included in the cumulative disturbance calculations. In multi-storied stands with live understory, the lynx habitat is considered suitable but will be diminished through harvest. Incidental loss is calculated at 15% for green harvest and 25% for salvage.

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

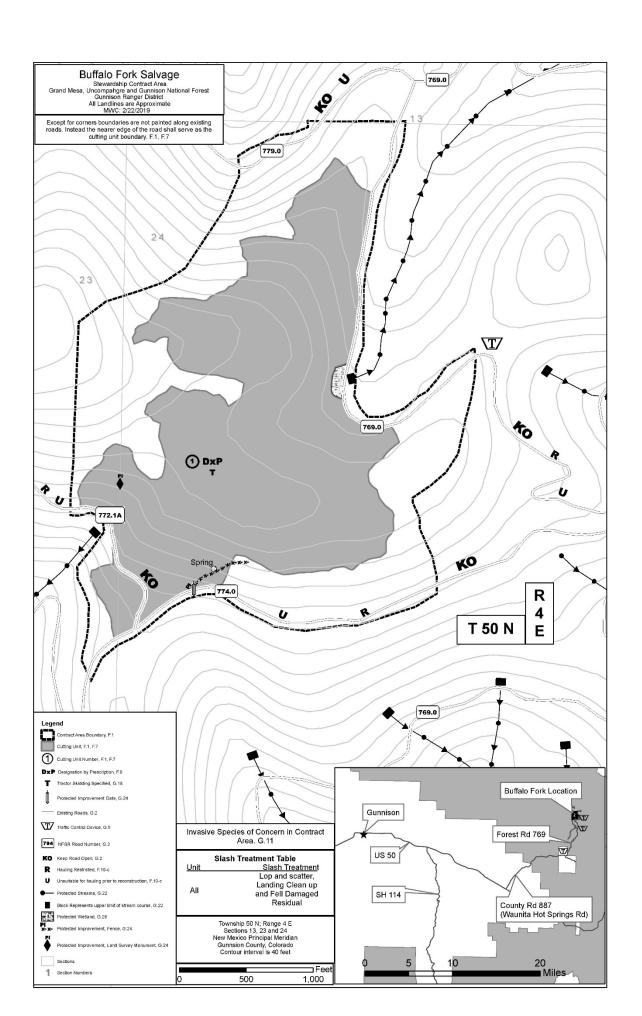
Technical Contact: Johanna Nosal; jnosal@fs.fed.us; 970-642-4445

²One mile of road construction = 4.8 acres of disturbance.

³Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

²One mile of road construction = 4.8 acres of disturbance or conversion of 4.8 acres of lynx habitat to unsuitable.



Treatment: Jackson Timber Sale (originally part of High Mesa FY 2018→ All cumulative data below regarding lynx habitat and watershed analysis is for both High Mesa and Jackson treatment areas).

District: Ouray

Treatment Acres: 321

Cover Type: Spruce/fir

Integrated Treatment Objectives: Resiliency and Recovery Treatment; Generate and maintain multiple stories, remove dead and dying and protect advanced regeneration. Shift species composition toward drought-resistant, shade-intolerant species; Meet post-harvest tree stocking objectives; Decrease surface fuels and crown fire potential; hazard tree work along Alpine trail.

Desired Condition: Uneven-aged stand structure, increased species composition, appropriate tree stocking levels based on objectives.

Estimated Miles of Temporary Road Construction: 1.5 miles

Known Design Feature Triggers:

- Maintaining habitat connectivity
- Lynx Habitat

			High Mesa a	ınd Jackson			
Watershed	Total Acres of NF Lands	Baseline Disturbance acres ¹	Acres of Temporary Roads ²	Acres of SBEADMR harvest ³	Reasonably foreseeable other actions ⁴	Cumulative disturbance (%)	Exceeds 20% trigger?
Little Cimarron Creek	17,580	588	14.6	152	0	4.3	No
Upper Cimarron Creek	8,515	56	0	5	0	<1	No
Silver Jack Reservoir	37,640	171	0	1	0	<1	No

Lynx Analysis Unit (LAU): High Mesa

	-		High Mesa a	ınd Jackson			
LAU	Total Acres of Lynx Habitat	Baseline Disturbance acres and percent unsuitable lynx habitat ¹	Acres of Temporary Roads ²	Acres of SBEADMR harvest ³	Reasonably foreseeable other actions ⁴	Cumulative disturbance (%)	Exceeds 25% trigger?
Alpine	32,051	1,342	14	141	200	5.3	N
Turret Ridge	26,320	175	0	6	0	<1	N

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

³In single storied stands with high overstory mortality, lynx habitat is considered unsuitable. In multi-storied stands with live understory, the lynx habitat is considered suitable. Therefore, loss due to logging activities is considered incidental and is a result of harvest method.

Technical Contact: Todd Gardiner; tgardiner@fs.fed.us; 970-240-5401

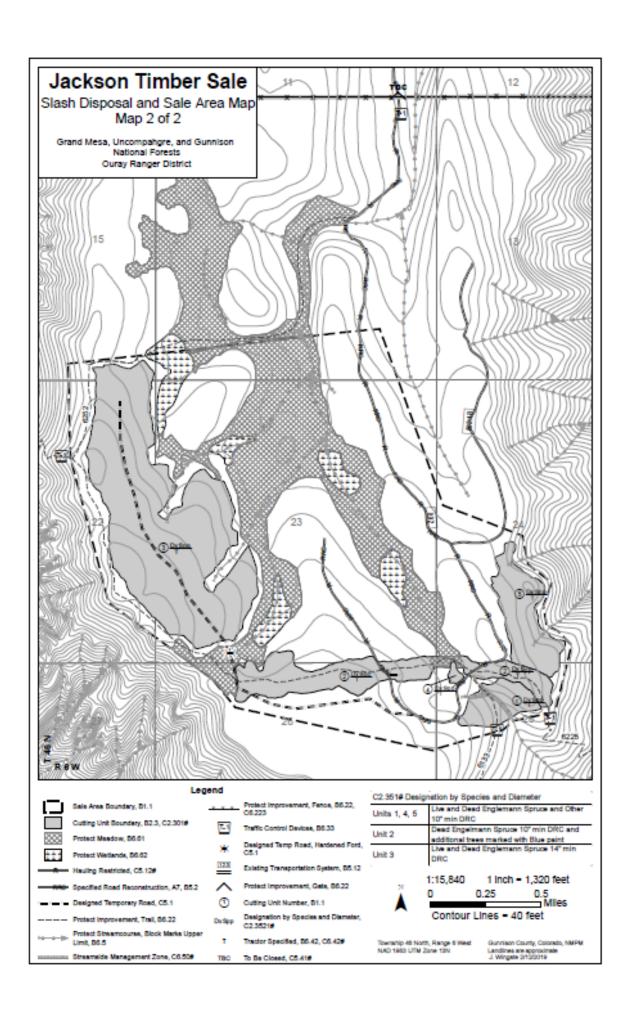
²One mile of road construction = 4.8 acres of disturbance.

³Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

²One mile of road construction = 4.8 acres of disturbance or conversion of 4.8 acres of lynx habitat to unsuitable.

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).



Treatment: Lupine

District: Gunnison

Proposed Treatment Acres: SBEADMR (north of Highway 114): 151

Cochetopa Hills EA (South of Highway 114): 156

Cover Type: Spruce/fir/Lodgepole/Bristlecone Pine/Douglas-fir

Integrated Treatment Objectives: Recovery Treatment; Fuels removal and fuel loading reduction; Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Road maintenance; Salvage with retention of high quality hare habitat; Hazard tree removal along NFSR 785.

Desired Condition: Uneven-aged stand structure, increased species composition, appropriate tree stocking levels based on objectives.

Estimated Miles of Temporary Road Construction: 2. All temporary roads will be closed within 5 years of sale closure.

Known Design Feature Triggers:

- Maintaining habitat connectivity
- Goshawk nests in area
- Different Design Features for Cochetopa Hills EA
- Colorado Roadless Area
- Pine Marten and Lynx; Goshawk nests
- Boreal and Flammulated owls in area
- Continental Divide National Scenic Trail runs through the sale area

			Lupine Treatment Acres					
Watershed	Acres of	Baseline	Acres of	Acres of	Reasonable	Cumulative	Exceeds	
	National	disturbance	temporary	harvest ³	foreseeable ⁴	Disturbance	20%	
	Forest	acres ¹	road ²			(%)	trigger	
	Lands						in EIS?	
Headwaters Razor Creek	37,552	1,249	1	9	0	4	No	
West Pass Creek	27,363	1,795	10	136	0	7	No	

Lynx Analysis Units (LAUs): Cochetopa, Needle-Razor

			Lupine Treatment Acres							
Lynx Analysis Unit	Total Acres of lynx habitat	Baseline disturbance acres and percent unsuitable ¹	Acres of road ²	Acres of harvest converting to unsuitable ³	Reasonable foreseeable ⁴	Cumulative Disturbance (%)	Exceeds 25% trigger in EIS?			
Cochetopa	25,087	2,555	10	135	0	11	No			
Needle-Razor	17,822	1,665	1	10	0	9	No			

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

³In single storied stands with high overstory mortality, lynx habitat is considered unsuitable. In multi-storied stands with live understory, the lynx habitat is considered suitable. Therefore, loss due to logging activities is considered incidental and is a result of harvest method.

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

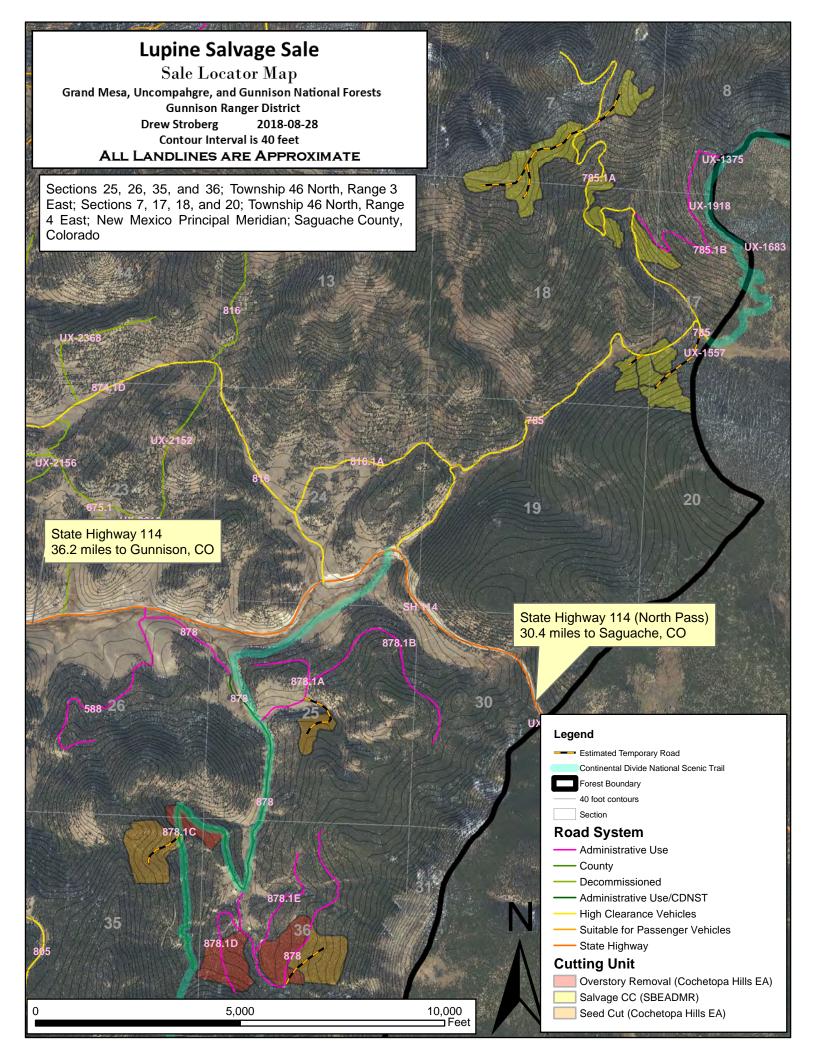
Technical Contact: Drew Stroberg; dstroberg@fs.fed.us; 970-642-4445

²One mile of road construction = 4.8 acres of disturbance.

³Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

²One mile of road construction = 4.8 acres of disturbance or conversion of 4.8 acres of lynx habitat to unsuitable.



Treatment: Muddy Aspen

District: Paonia

Proposed Treatment Acres: 660

Planned Treatment Acres: 660

Cover Type: Aspen

Integrated Treatment Objectives: Regeneration of young aspen stands. Improvement of cover and foraging habitat for elk and moose and cover for deer. Fuels removal and fuel loading reduction. Provide personal use fuelwood for public.

Desired Condition: Aspen regeneration

Estimated Miles of Temporary Road Construction: 0

Known Design Feature Triggers:

- Maintaining habitat connectivity
- Presence nearby of nesting purple martins and raptors (mostly red-tailed hawks)
- Ditches in area
- Range fence lines in area
- Snowmobile trails in area
- Powerline in area

SAD aspen units which the wildlife biologist planned for hydro-axing or other mechanical treatment in order to regenerate areas of young aspen for cover and forage for big game, and to provide for future mature aspen across the landscape. Recently found potential use as bio-energy.

			Muddy Tre	atment A	cres		
Watershed	Acres of	Baseline	Acres of	Acres of	Reasonable	Cumulative	Exceeds
	National	disturbance	temporary	harvest ³	foreseeable ⁴	Disturbance	20%
	Forest	acres ¹	road ²			(%)	trigger
	Lands						in EIS?
West Muddy Creek	18,808	200	0	116	0	2	No
Terror Creek	13,976	671	0	50	0	5	No

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

²One mile of road construction = 4.8 acres of disturbance.

³Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)

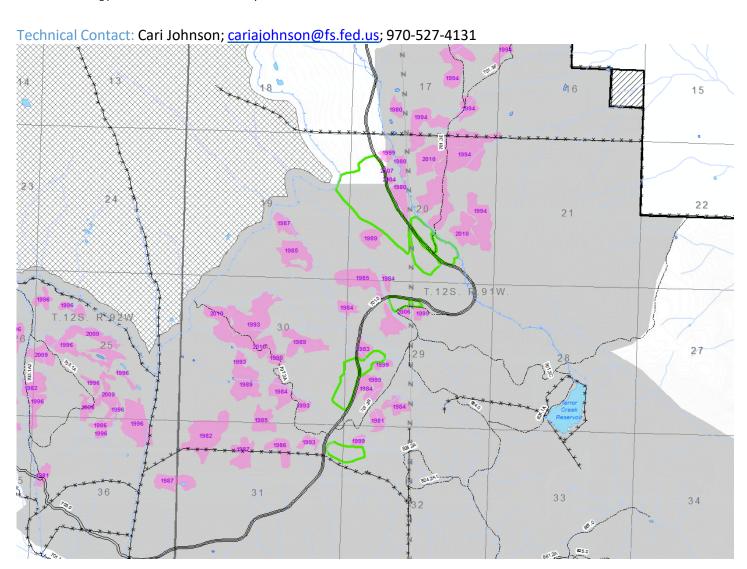
 $^{^4}$ Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

Lynx Analysis Unit (LAU): Crater Lake & Chalk Mountain

			Muddy Treatment Acres							
Lynx Analysis Unit	Total Acres of lynx habitat	Baseline disturbance acres and percent unsuitable ¹	Acres of road ²	Acres of harvest converting to unsuitable ³	Reasonable foreseeable ⁴	Cumulative Disturbance (%)	Exceeds 25% trigger in EIS?			
Crater Lake	NA	NA	0	0			No			
Chalk Mountain	NA	NA	0	0			No			

None of the treatment units are suitable lynx habitat. All are mature single story open aspen stands with no dense horizontal cover and little to no evidence of hare occupancy.

⁵Nothing planned in this area for the next 5 years

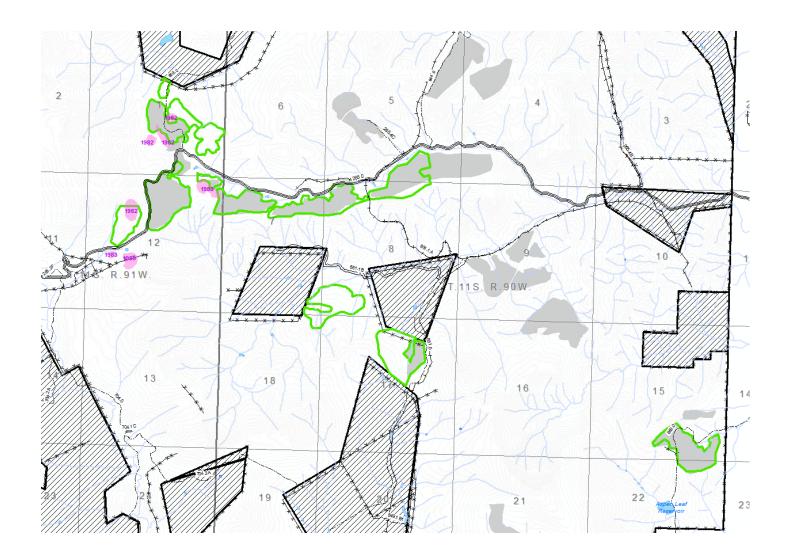


¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

²One mile of road construction = 4.8 acres of disturbance or conversion of 4.8 acres of lynx habitat to unsuitable.

³In single storied stands with high overstory mortality, lynx habitat is considered unsuitable. In multi-storied stands with live understory, the lynx habitat is considered suitable. Therefore, loss due to logging activities is considered incidental and is a result of harvest method.

 $^{^4}$ Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).



Treatment: Ridgestock Salvage

District: Gunnison

Proposed Treatment Acres: 1,400

Planned Treatment Acres: 1,379

Cover Type: Spruce/fir/aspen

Integrated Treatment Objectives: Recovery Treatment; Fuels removal and fuel loading reduction; Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Road maintenance; Salvage with retention of high quality hare habitat.

Desired Condition: Uneven-aged stand structure, increased species composition, appropriate tree stocking levels based on objectives.

Estimated Miles of Temporary Road Construction: 6

Known Design Feature Triggers:

- Lynx and Pine Martin
- High risk weed area
- Snowmobile club
- Goshawk nests in area
- Road work/reconstruction
- BLM and private property boundary
- Timing restriction for elk calving
- Potential Goshawk timing restriction

			Ridgestock Treatment Acres					
Watershed	Acres of	Baseline	Acres of	Acres of	Reasonable	Cumulative	Exceeds	
	National	disturbance	temporary	harvest ³	foreseeable ⁴	Disturbance	20%	
	Forest	acres ¹	road ²			(%)	trigger in	
	Lands						EIS?	
Headwaters Blue Creek	26,873	138	5	78	126	1	No	

Little Blue Creek	2,479	350	23	472	67	37	Yes –
							however,
							the entire
							watershed is
							22,327 acres
							so
							cumulative
							disturbance
							is 4 %.

Lynx Analysis Units (LAUs): Alpine

			Ridgestock Treatment Acres							
Lynx Analysis	Total	Baseline	Acres	Acres of	Reasonable	Cumulative	Exceeds			
Unit	Acres	disturbance	of	harvest	foreseeable ⁴	Disturbance	25%			
	of lynx	acres and	road ²	converting		(%)	trigger			
	habitat	percent		to			in EIS?			
		unsuitable ¹		unsuitable ³						
Alpine	32,051	2,555	29	1,111	458	13	No			

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

³In single storied stands with high overstory mortality, lynx habitat is considered unsuitable and therefore logging will not make the stand "more unsuitable" but are included in the cumulative disturbance calculations. In multi-storied stands with live understory, the lynx habitat is considered suitable but will be diminished through harvest. Incidental loss is calculated at 15% for green harvest and 25% for salvage.

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

Technical Contact: Johanna Nosal; <u>inosal@fs.fed.us</u>; 970-642-4445

²One mile of road construction = 4.8 acres of disturbance.

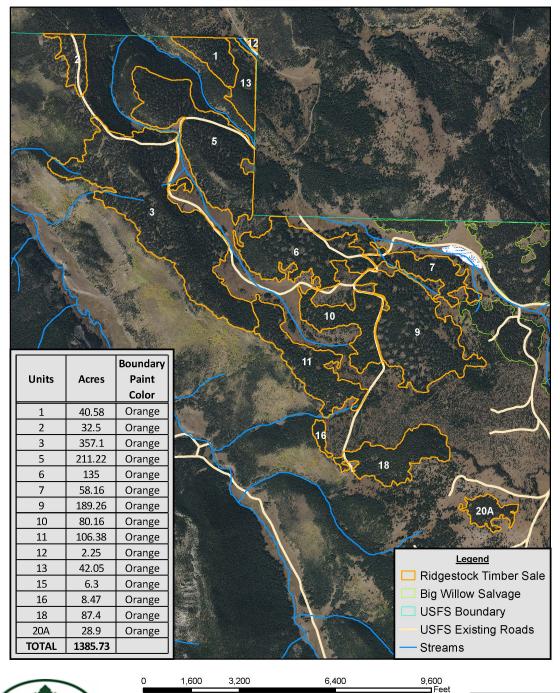
³Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

²One mile of road construction = 4.8 acres of disturbance or conversion of 4.8 acres of lynx habitat to unsuitable.

Ridgestock Salvage

GNA Timber Sale







Prepared By: Kelsey Lesniak Colorado State Forest Service Montrose District Last Updated: 10/18/18

1:30,000

Properties Situated Within:

Treatment: Rocky Point

District: Gunnison

Proposed Treatment Acres: 800

Planned Treatment Acres: 700

Cover Type: Spruce/fir

Integrated Treatment Objectives: Resiliency Treatment- group selection of 25% of the stand in ~1/2 acre groups; Fuels removal and fuel loading reduction; Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Road maintenance

This sale will also include units covered under the Taylor Park Environmental Assessment (acres on this data sheet only reflect SBEADMR units)

Desired Condition: Uneven-aged stand structure, increased species composition, appropriate tree stocking levels based on objectives.

Estimated Miles of Temporary Road Construction: 4

Known Design Feature Triggers

- Areas of high weed potential
- Lynx and Pine Marten
- Dispersed camping area/outfitter guides

			Rocky Poir	t Treatme	ent Acres		
Watershed	Acres of	Baseline	Acres of	Acres of	Reasonable	Cumulative	Exceeds
	National	disturbance	temporary	harvest ³	foreseeable ⁴	Disturbance	20%
	Forest	acres ¹	road²			(%)	trigger
	Lands						in EIS?
Rocky Brook- Spring Creek	20,850	651	20	180	883	8	No
Trail Creek- Upper Taylor River	18,169	570	0	10	244	5	No
Taylor Park Reservoir	39,225	242	0	2	192	1	No

Lynx Analysis Units (LAUs): Rocky Brook, Upper Taylor

			Rocky Point Treatment Acres								
Lynx Analysis	Total	Baseline	Acres	Acres of	Reasonable	Cumulative	Exceeds				
Unit	Acres	disturbance	of	harvest	foreseeable ⁴	Disturbance	25%				
	of lynx	acres and	road ²	converting		(%)	trigger				
	habitat	percent		to			in EIS?				
		unsuitable ¹		unsuitable ³							
Rocky Brook	41,833	4,235	20	27	1100	13	No				
Upper Taylor	30,654	817	0	10	270	4	No				

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

³In single storied stands with high overstory mortality, lynx habitat is considered unsuitable and therefore logging will not make the stand "more unsuitable" but are included in the cumulative disturbance calculations. In multi-storied stands with live understory, the lynx habitat is considered suitable but will be diminished through harvest. Incidental loss is calculated at 15% for green harvest and 25% for salvage.

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

Technical Contact: Johanna Nosal; jnosal@fs.fed.us; 970-642-4445

²One mile of road construction = 4.8 acres of disturbance.

³Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

²One mile of road construction = 4.8 acres of disturbance or conversion of 4.8 acres of lynx habitat to unsuitable.

Treatment: Telluride Ski Area-Telski Timber Sale

District: Norwood

Proposed Acres: 40-60*

*Estimates only, values can change prior to final numbers that will result after sale preparation.

Cover Type: Spruce/fir

Integrated Treatment Objectives: Resiliency Treatment; Generate and maintain multiple stories, remove dead and dying and protect advanced regeneration; %. Improve skiing opportunities of stand by creating frequent openings and connected ski lines.

Desired Condition: Promote un-even aged stand structure and long term stand resiliency. Reduce basal area by no more than 25%.

Estimated Miles of Temporary Road Construction: None

Known Design Feature Triggers:

- Coordination with Ski Area Permit Administrator
- Visual Resources considerations and guidelines

Cumulative Watershed Disturbance

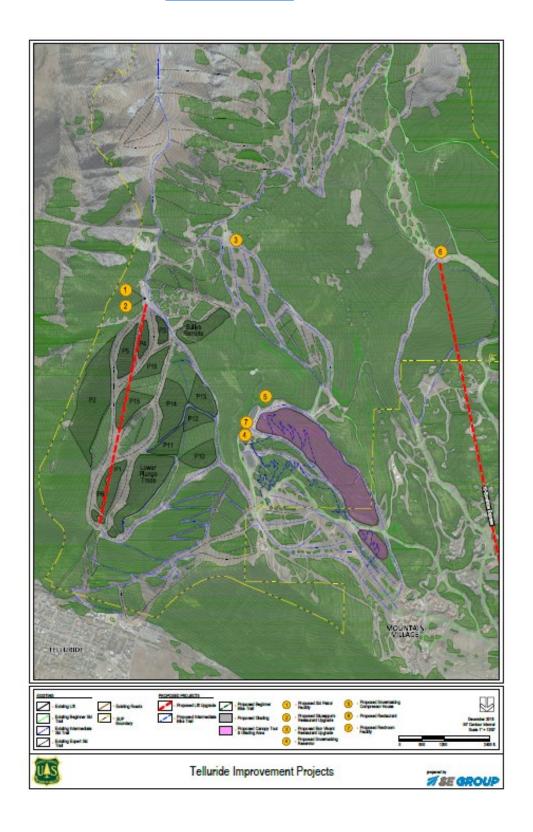
The FEIS identified watershed disturbance triggers that when reached would facilitate a change in management. When disturbance reaches 20 percent the Forest will curtail activities so watershed disturbance does not exceed 25 percent. The Wolf GNA timber sale will occur in Saltado Creek watershed. Current disturbance in this watershed is 13 percent. Once final planning of units and the temporary road system is complete watershed statistics will be updated. Maximum acres to be treated is 90 acres which will not result in exceedance of the 20 percent threshold in any of the affected watersheds.

Lynx Analysis Unit (LAU):

The FEIS identified Lynx Analysis Unit disturbance triggers that when reached would facilitate a change in management. When disturbance reaches 25 percent the Forest will curtail activities in lynx habitat to avoid exceeding 30 percent disturbance as required by the Southern Rockies Lynx Amendment. Studies have shown when 30 percent of lynx habitat is converted to young trees the quality of lynx habitat in the LAU is diminished. The Telski timber sale will occur in the Matterhorn LAU. Current disturbance in the LAU is less than 5 percent. Once final planning of units and the temporary road

system is complete LAU statistics will be updated. Maximum acres to be treated is 40-60 acres will not result in exceedance of the 25 percent threshold in either affected LAU.

Technical Contact: Todd Gardiner; tgardiner@fs.fed.us; 970-240-5401



Treatment: Big Park Timber Sale

District: Ouray

Proposed Treatment Acres: 1,022*

Cover Type: Spruce/fir

Integrated Treatment Objectives: Resiliency Treatment; Generate and maintain multiple stories, remove dead and dying and protect advanced regeneration. Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Decrease surface fuels and crown fire potential; wilderness trailhead improvements; hazard tree work.

Desired Condition: Uneven-aged stand structure, increased species composition, appropriate tree stocking levels based on objectives.

Estimated Miles of Temporary Road Construction: 1.0 mile*. The road will be decommissioned by the purchaser at sale closure.

Known Design Feature Triggers:

- Maintaining habitat connectivity
- Lynx Habitat
- Others unknown at this time (project still in planning phase)

Cumulative Watershed Disturbance

The FEIS identified watershed disturbance triggers that when reached would facilitate a change in management. When disturbance reaches 20 percent the Forest will curtail activities so watershed disturbance does not exceed 25 percent. The Big Park timber sale will occur in the Little Cimarron Creek watershed. Current disturbance in this watershed are 5 percent. Once final planning of units and the temporary road system is complete watershed statistics will be updated. Maximum acres to be treated is 1,022 acres which will not result in exceedance of the 20 percent threshold in any of the affected watersheds. The Jackson timber sale is also planned in Little Cimarron Creek watershed and will be tracked to ensure the 25% maximum impact is not exceeded.

^{*}Estimates only, values can change prior to final numbers that will result after sale preparation.

				aron			
Watershed	Total Acres of NF Lands	Baseline Disturbance acres ¹	Acres of Temporary Roads ²	Acres of SBEADMR harvest ³	Reasonably foreseeable other actions ⁴	Cumulative disturbance (%)	Exceeds 20% trigger?
Little Cimarron Creek	17,580	588	4.8	250	167	6	No

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

Lynx Analysis Unit (LAU):

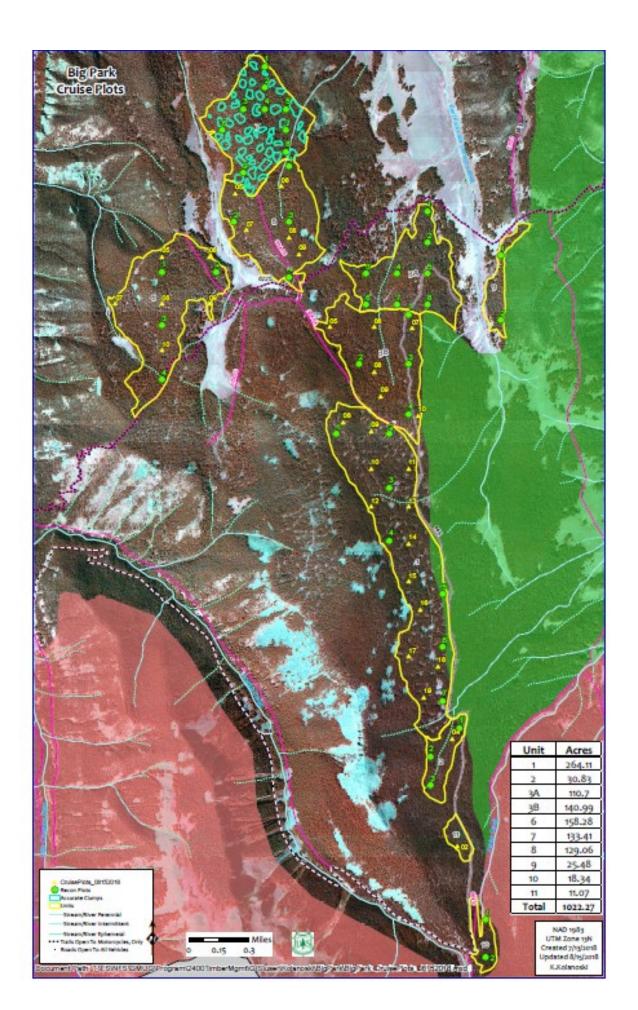
The FEIS identified Lynx Analysis Unit disturbance triggers that when reached would facilitate a change in management. When disturbance reaches 25 percent the Forest will curtail activities in lynx habitat to avoid exceeding 30 percent disturbance as required by the Southern Rockies Lynx Amendment. Studies have shown when 30 percent of lynx habitat is converted to young trees the quality of lynx habitat in the LAU is diminished. The Big Park timber sale will occur in the Alpine LAUs. Current disturbance in the LAU is less than 1 percent. However, Big Willow, Jackson and Ridgestock are also being planned in the LAU. As details for these treatments become available a cumulative update of impact will be completed but is not expected to exceed the 25% threshold.

Technical Contact: Todd Gardiner; tgardiner@fs.fed.us; 970-240-5401

²One mile of road construction = 4.8 acres of disturbance.

³Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre). These acres are in addition to the High Mesa Timber Sale (they are both in the same watershed)



Treatment: Hubbard

District: Paonia

Planned Treatment Acres: ~ 1100

Cover Type: Spruce/fir/aspen

Integrated Treatment Objectives: Resiliency Treatment; address spruce budworm and IPS beetle; Fuels removal and fuel loading reduction; Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Road maintenance; Salvage with retention of high quality hare habitat; open group areas for regeneration to increase species composition, uneven aged stand. In mix conifer and aspen stands, conifers will be removed to maintain a stand dominated by aspen.

Desired Condition: Increase uneven-aged stand structure and enhance aspen

Estimated Miles of Temporary Road Construction: ~6 miles. The roads will be decommissioned upon completion of the project.

Known Design Feature Triggers:

- Maintaining habitat connectivity
- Will monitor for Goshawk, American marten (known Goshawk in area)
- Fens, flowages, ditches in area (cutthroat trout in area, water temps, ground water)
- Wildlife enhancement area
- Range fence line in area
- Snowmobile trails in area
- Powerline in area
- Private inholdings in area, road and access concerns

On the map below there are some pink units overlaying proposed SBEADMR units, these were harvested in the past 25 years. We have walked through these acres and decided that due to the spruce budworm affecting the advanced regeneration there may be a need for management in the areas where budworm has been present for multiple years to save these trees from death or decline. Each stand is being assessed individually.

			Hubbard Treatment Acres							
Watershed	Acres of	Baseline	Acres of	Acres of	Reasonable	Cumulative	Exceeds			
	National	disturbance	temporary	harvest ³	foreseeable ⁴	Disturbance	20%			
	Forest	acres ¹	road ²			(%)	trigger			
	Lands						in EIS?			
Headwaters	12,717	239	18	169	0	3	No			
Hubbard Creek										

Outlet Hubbard	21,568	138	11	106	0	1	No
Creek							

Lynx Analysis Unit (LAU): Crater Lake

			Hubbard Treatment Acres										
Lynx Analysis	Total	Baseline	Acres	Acres of	Reasonable	Cumulative	Exceeds						
Unit	Acres	disturbance	of	harvest	foreseeable ⁴	Disturbance	25%						
	of lynx	acres and	road ²	converting		(%)	trigger						
	habitat	percent		to			in EIS?						
		unsuitable ¹		unsuitable ³									
Crater Lake	36,357	779	29	0	0	2	No						

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

³In single storied stands with high overstory mortality, lynx habitat is considered unsuitable. In multi-storied stands with live understory, the lynx habitat is considered suitable. Therefore, loss due to logging activities is considered incidental and is a result of harvest method. Resiliency harvest are uneven-aged management and are permissible under exception 4 of the VEG S6 standard to encourage regeneration and gap dynamics toward a multi-storied stand.

Technical Contact: Cari Johnson; cariajohnson@fs.fed.us; 970-527-4131

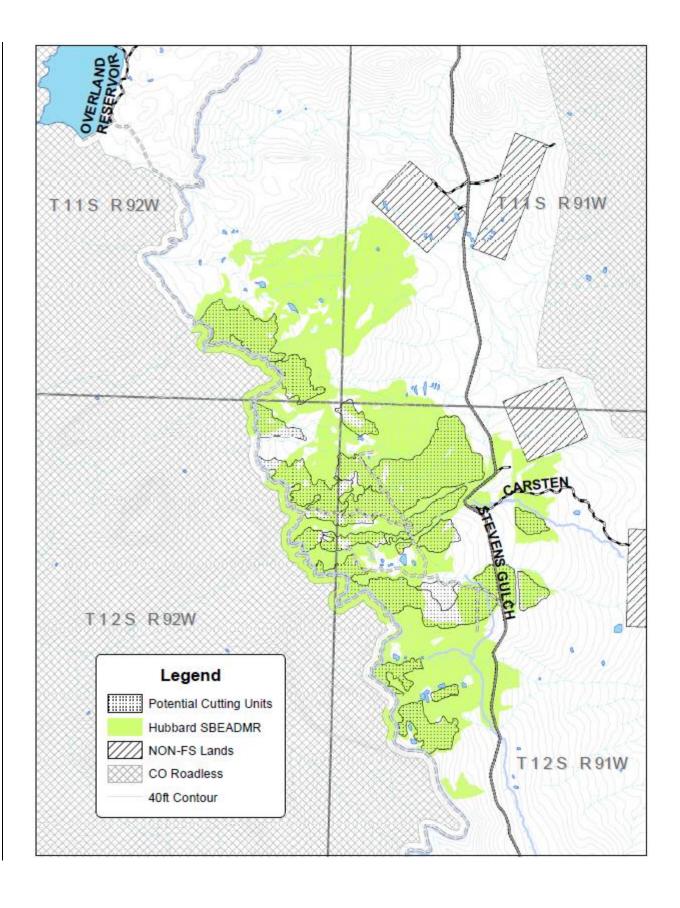
²One mile of road construction = 4.8 acres of disturbance.

³Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

²One mile of road construction = 4.8 acres of disturbance or conversion of 4.8 acres of lynx habitat to unsuitable.

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre). Nothing planned in this area for the next 5 years



Treatment: Kannah Creek

District: Grand Valley

Proposed Treatment Acres: 2196

Planned Treatment Acres: ~800

Cover Type: Spruce/fir/aspen

Integrated Treatment Objectives: Resiliency Treatment; Salvage with retention of high quality hare habitat; open group areas for regeneration to increase specie composition, create uneven aged stands. Fuels removal and fuel loading reduction; Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Road maintenance.

Desired Condition: Increase uneven-aged stand structure, increased species composition.

Estimated Miles of Temporary Road Construction: ~4.5 miles. The roads will be decommissioned.

Known Design Feature Triggers:

- Maintaining habitat connectivity
- Will monitor for Goshawk, American marten
- Fens, flowages, reservoirs
- Snowmobile, Hiking, Cross Country Skiing trails in area

Kannah area was originally split into 3 large sections but after some light field reconnaissance we have dropped some areas of stands due to recent harvest, no current need for management or already part of a different sale area. Due to the acres being dropped this large area is now 1 entry instead of 3. The grey areas on the map were analyzed in SBEADMR, the areas with green outline have a high probability of harvest activities while the light purple overlay represents previous harvest areas

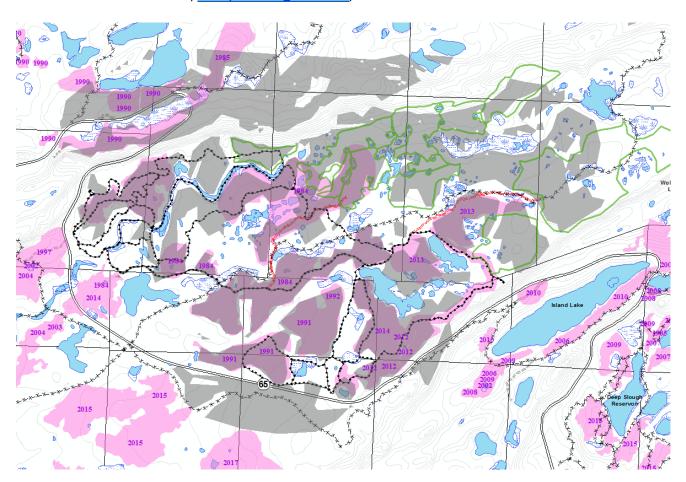
Cumulative Watershed Disturbance

The FEIS identified watershed disturbance triggers that when reached would facilitate a change in management. When disturbance reaches 20 percent the Forest will curtail activities so watershed disturbance does not exceed 25 percent. The Overland timber sale will occur in Headwaters Kannah Creek, Ward Lake, Bull Creek and Coon Creek watersheds. Current disturbance in these watershed are 5 percent or less with the exception of Mesa Creek which is at 15%. Once final planning of units and the temporary road system is complete watershed statistics will be updated. Maximum acres to be treated is 800 acres which will not result in exceedance of the 20 percent threshold in any of the affected watersheds. The Rim Treatment is also planned in Mesa lakes watershed and will be tracked to ensure the 25% maximum impact is not exceeded.

Lynx Analysis Unit (LAU): Mesa Lakes, Island Lake & Kannah Creek

The FEIS identified Lynx Analysis Unit disturbance triggers that when reached would facilitate a change in management. When disturbance reaches 25 percent the Forest will curtail activities in lynx habitat to avoid exceeding 30 percent disturbance as required by the Southern Rockies Lynx Amendment. Studies have shown when 30 percent of lynx habitat is converted to young trees the quality of lynx habitat in the LAU is diminished. The Kannah Creek timber sale will occur in Mesa Lakes, Kannah Creek and Island Lake LAUs. Current disturbance in both LAU is less than 5 percent. Once final planning of units and the temporary road system is complete LAU statistics will be updated. Maximum acres to be treated is 800 acres which will not result in exceedance of the 25 percent threshold in either affected LAU. The Rim timber sale is also being planned in the Kannah Creek and Island Lake LAU and will be tracked to ensure the 25% trigger is not exceeded.

Technical Contact: Cari Johnson; cariajohnson@fs.fed.us; 970-527-4131



Treatment: Lone Cone Aspen Timber Sale

District: Norwood

Proposed Treatment Acres: 140*

Cover Type: Aspen

Integrated Treatment Objectives: Aspen coppice harvest with less than 50% Sudden Aspen Decline (SAD). Stimulate robust sprouting of aspen and create a younger stand more resilient to SAD. The goal is to mimic natural disturbance patterns resulting from a stand replacing event. Integration with fuels and wildlife.

Desired Condition: Remove all live aspen trees from the stand to trigger sprouting (coppice) to re-establish pure stand of aspen growing in open conditions.

Estimated Miles of Temporary Road Construction: ~3.0 mile*. The road will be decommissioned by the purchaser at sale closure.

Known Design Feature Triggers:

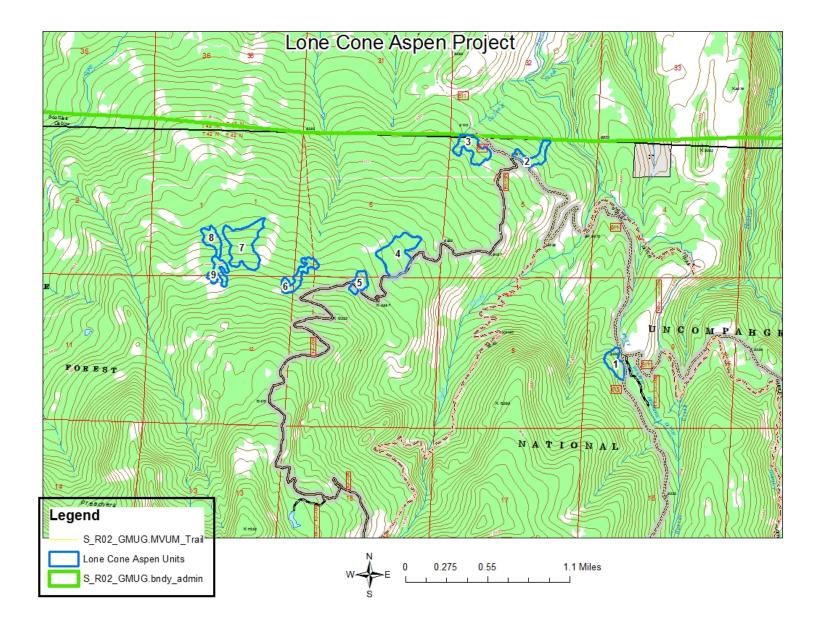
Unknown at this time (project still in planning phase)

Cumulative Watershed Disturbance

The FEIS identified watershed disturbance triggers that when reached would facilitate a change in management. When disturbance reaches 20 percent the Forest will curtail activities so watershed disturbance does not exceed 25 percent. The Lone Cone Aspen timber sale will occur in Turner Creek-Beaver Creek watershed. Current disturbance in this watershed is 7 percent. Once final planning of units and the temporary road system is complete watershed statistics will be updated. Maximum acres to be treated is 140 acres which will not result in exceedance of the 20 percent threshold in any of the affected watersheds.

Technical Contact: Todd Gardiner; tgardiner@fs.fed.us; 970-240-5401

^{*}Estimates only, values can change prior to final numbers that will result after sale preparation.



Treatment: Overland- Good Neighbor Authority

District: Paonia

Proposed Treatment Acres: 2083

Planned Treatment Acres: ~680

Cover Type: Spruce/fir/aspen

Integrated Treatment Objectives: Resiliency Treatment; Fuels removal and fuel loading reduction; Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Road maintenance; Salvage with retention of high quality hare habitat; open group areas for regeneration to increase specie composition, uneven aged stand.

Desired Condition: Increase uneven-aged stand structure, increased species composition.

Estimated Miles of Temporary Road Construction: ~3.5 miles. The roads will be decommissioned.

Known Design Feature Triggers:

- Maintaining habitat connectivity
- Will monitor for Goshawk, American marten (known Goshawk, Peregrine Falcon in area)
- Fens, flowages, ditches in area (cutthroat trout in area)
- Range fence line in area
- Snowmobile trails in area
- Powerline in area

On the map below there are some pink units overlaying grey proposed SBEADMR units, these were harvested in the past 20 years. We have walked through these acres and decided that there is no management needed. The yellow outlines are the approximate, probable units that will be laid out.

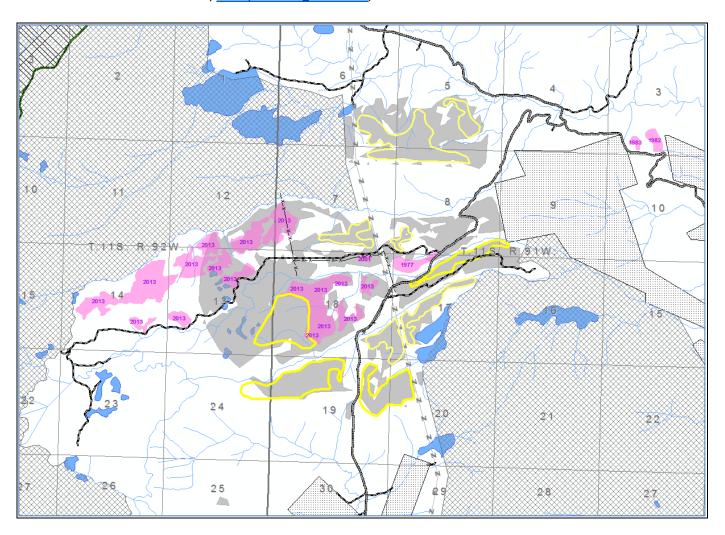
Cumulative Watershed Disturbance

The FEIS identified watershed disturbance triggers that when reached would facilitate a change in management. When disturbance reaches 20 percent the Forest will curtail activities so watershed disturbance does not exceed 25 percent. The Overland timber sale will occur in Headwaters West Muddy, Cow Creek and Headwaters Hubbard Creek and Ward Lake watersheds. Current disturbance in these watershed are 5 percent or less. Once final planning of units and the temporary road system is complete watershed statistics will be updated. Maximum acres to be treated is 800 acres which will not result in exceedance of the 20 percent threshold in any of the affected watersheds. The Hubbard Treatment is also planned in Headwaters of Hubbard Creek with maximum acres treated of 900. These additional acres will not cumulative result in an exceedance of the 20% threshold.

Lynx Analysis Unit (LAU): Crater Lake & Chalk Mountain

The FEIS identified Lynx Analysis Unit disturbance triggers that when reached would facilitate a change in management. When disturbance reaches 25 percent the Forest will curtail activities in lynx habitat to avoid exceeding 30 percent disturbance as required by the Southern Rockies Lynx Amendment. Studies have shown when 30 percent of lynx habitat is converted to young trees the quality of lynx habitat in the LAU is diminished. The Overland timber sale will occur in Crater Lake and Chalk Mountain LAUs. Current disturbance in both LAU is less than 5 percent. Once final planning of units and the temporary road system is complete LAU statistics will be updated. Maximum acres to be treated is 680 acres which will not result in exceedance of the 25 percent threshold in either affected LAU.

Technical Contact: Cari Johnson; cariajohnson@fs.fed.us; 970-527-4131



Treatment: Rainbow

District: Gunnison

Proposed Treatment Acres: 1,200

Planned Treatment Acres: 1,200

Cover Type: Spruce/fir/aspen

Integrated Treatment Objectives: Resiliency Treatment- group selection of 25% of the stand in ~1/2 acre groups; Fuels removal and fuel loading reduction; Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Road maintenance

Desired Condition: Uneven-aged stand structure, increased species composition, appropriate tree stocking levels based on objectives.

Estimated Miles of Temporary Road Construction: 5

Known Design Feature Triggers

- Areas of high weed potential
- Lynx and Pine Marten
- Potential for dusky grouse habitat integration
- Wilderness area
- Colorado Roadless Area
- Dispersed camping area/outfitter guides
- Haul route through elk winter range and Gunnison Sage Grouse habitat

			Rainbow T	reatment	Acres	cres					
Watershed	Acres of	Baseline	Acres of	Acres of	Reasonable	Cumulative	Exceeds				
	National	disturbance	temporary	harvest ³	foreseeable ⁴	Disturbance	20%				
	Forest	acres ¹	road ²			(%)	trigger				
	Lands						in EIS?				
East Elk Creek	10,197	796	2	23	0	8	No				
Willow Creek-Blue Mesa	7,702	338	22	217	0	7	No				
Reservoir											

Lynx Analysis Units (LAUs): Red Creek

		Rainbow Treatment Acres										
Lynx Analysis	Total	Baseline	Acres Acres of Reasonable Cumulative Excee									
Unit	Acres	disturbance	of	harvest	foreseeable ⁴	Disturbance	25%					
	of lynx	acres and	road ²	converting		(%)	trigger					
	habitat	percent		to			in EIS?					
		unsuitable ¹		unsuitable ³								
Red Creek	44,930	3,113	24	45	66	7	No					

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

³In single storied stands with high overstory mortality, lynx habitat is considered unsuitable. In multi-storied stands with live understory, the lynx habitat is considered suitable. Therefore, loss due to logging activities is considered incidental and is a result of harvest method.

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

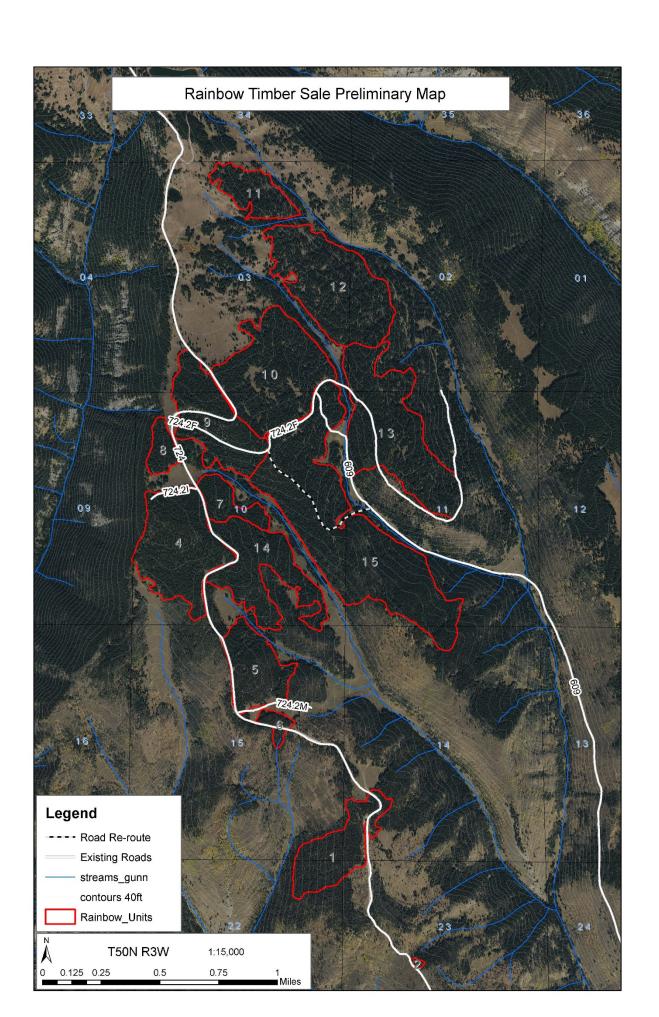
Technical Contact: Johanna Nosal; jnosal@fs.fed.us; 970-642-4445

²One mile of road construction = 4.8 acres of disturbance.

³Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

²One mile of road construction = 4.8 acres of disturbance or conversion of 4.8 acres of lynx habitat to unsuitable.



Treatment: Rim

District: Grand Valley

Proposed Treatment Acres: 2900

Planned Treatment Acres: 1950

Cover Type: Spruce/fir/aspen

Integrated Treatment Objectives: Resiliency Treatment; Salvage with retention of high quality hare habitat; open group areas for regeneration to increase specie composition, create uneven aged stands. Fuels removal and fuel loading reduction; Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Road maintenance.

Desired Condition: Increase uneven-aged stand structure, increased species composition.

Estimated Miles of Temporary Road Construction: The roads will be decommissioned. This area was previously harvested; we plan to re-use existing road system.

Known Design Feature Triggers:

- Maintaining habitat connectivity
- Will monitor for Goshawk, American marten
- Fens, flowages, reservoirs
- Snowmobile, Hiking, ATV, Bike trails in area

Rim area had stand exam done in 2018. In conjunction with that data and previous harvest data we have narrowed down the probable units. The grey areas on the map were analyzed in SBEADMR, the areas with green outline have a high probability of harvest activities, the purple are moderate and no border have been dropped while the light purple overlay represents previous harvest areas. Planning multiple small sales.

			Rim Treatr	nent Acres	s (Maximum ii	npact)	
Watershed	Acres of National Forest Lands	Baseline disturbanc e acres ¹	Acres of temporary road ²	Acres of harvest ³	Reasonable foreseeable ⁴	Cumulative Disturbanc e (%)	Exceeds 20% trigger in EIS?
Headwaters Kannah Creek	37,527	1,643		625	316	7	No
Mesa Creek	7,814	270		156	2	5	No
Dirty George	9,939	89		40	0	1	No
Whitewater	3,627	133		48	0	5	No

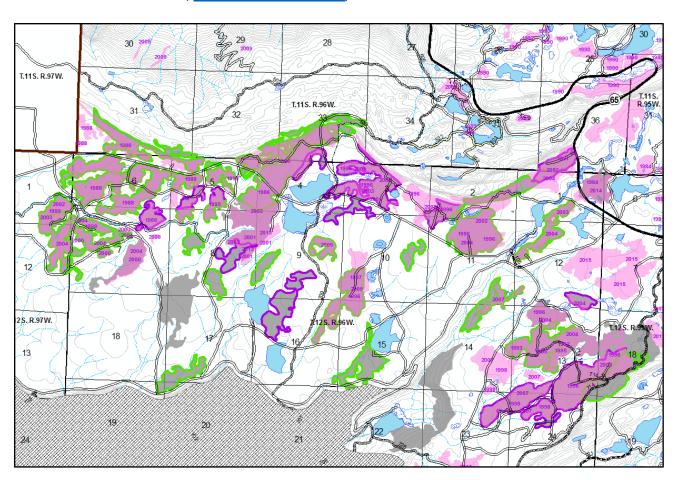
¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

Lynx Analysis Unit (LAU): Mesa Lakes, Kannah Creek & Island Lake

			Rim Treatment Acres								
Lynx Analysis	Total	Baseline	Acres	Acres of	Reasonable	Cumulative	Exceeds				
Unit	Acres	disturbance	of	harvest	foreseeable ⁴	Disturbance	25%				
	of lynx	acres and	road ²	converting		(%)	trigger				
	habitat	percent		to			in EIS?				
		unsuitable ¹		unsuitable ³							
Mesa Lakes	17,113	981									
Kannah Creek	11,698	1,719									
Island Lake	18,327	2,212									

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

Technical Contact: Cari Johnson; cariajohnson@fs.fed.us; 970-527-4131



²One mile of road construction = 4.8 acres of disturbance.

 $^{^{3}}$ Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)

 $^{^4}$ Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

²One mile of road construction = 4.8 acres of disturbance or conversion of 4.8 acres of lynx habitat to unsuitable.

³In single storied stands with high overstory mortality, lynx habitat is considered unsuitable. In multi-storied stands with live understory, the lynx habitat is considered suitable. Therefore, loss due to logging activities is considered incidental and is a result of harvest method.

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

Treatment: Antelope

District: Gunnison

Proposed Treatment Acres: up to 1,300

Planned Treatment Acres: 700

Cover Type: Spruce/fir/aspen

Integrated Treatment Objectives: Resiliency Treatment- group selection of 25% of the stand in ~1/2 acre groups; Pockets of mortality—north-¼ to 2 acre clearcuts; Fuels removal and fuel loading reduction; Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Road maintenance

Desired Condition: Uneven-aged stand structure, increased species composition, appropriate tree stocking levels based on objectives.

Estimated Miles of Temporary Road Construction: 7

Known Design Feature Triggers:

- Haul route through elk winter range
- · Motorized trail on north end
- · Areas of high weed potential
- Lynx and Pine Marten

			Antelope Treatment Acres							
Watershed	Acres of	Baseline	Acres of	Acres of	Reasonable	Cumulative	Exceeds			
	National	disturbance	temporary	harvest ³	foreseeable ⁴	Disturbance	20%			
	Forest	acres ¹	road ²			(%)	trigger			
	Lands						in EIS?			
Antelope Creek	4,529	408	24	278	0	16	No			
Mill Creek	8,056	121	8.2	37	0	2	No			

Lynx Analysis Units (LAUs): Castle Pass, Red Creek

			Antelope Treatment Acres										
Lynx Analysis Unit	Total Acres of lynx habitat	Baseline disturbance acres and percent	Acres of road ²	Acres of harvest converting to	Reasonable foreseeable ⁴	Cumulative Disturbance (%)	Exceeds 25% trigger in EIS?						
Castle Pass	30,599	unsuitable ¹ 463	8.2	unsuitable ³	0	2	No						
Red Creek	44930	3,113	24	42	45	7	No						

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

³In single storied stands with high overstory mortality, lynx habitat is considered unsuitable and therefore logging will not make the stand "more unsuitable" but are included in the cumulative disturbance calculations. In multi-storied stands with live understory, the lynx habitat is considered suitable but will be diminished through harvest. Incidental loss is calculated at 15% for green harvest and 25% for salvage.

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

Technical Contact: Johanna Nosal; jnosal@fs.fed.us; 970-642-4445

²One mile of road construction = 4.8 acres of disturbance.

³Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

²One mile of road construction = 4.8 acres of disturbance or conversion of 4.8 acres of lynx habitat to unsuitable.

Treatment: Bald (Ferrier Ridge) GNA

District: Paonia

Proposed Treatment Acres: 1000

Planned Treatment Acres: ~800

Cover Type: Spruce/fir/aspen

Integrated Treatment Objectives: Resiliency Treatment; Fuels removal and fuel loading reduction; Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Road maintenance; Salvage with retention of high quality hare habitat; open group areas for regeneration to increase specie composition, uneven aged stand.

Desired Condition: Increase uneven-aged stand structure, increased species composition. Continue with original prescription.

Estimated Miles of Temporary Road Construction: Unknown miles. Many pre-existing roads in area, new temp roads will be decommissioned.

Known Design Feature Triggers:

- Maintaining habitat connectivity
- Will monitor for Goshawk, American marten
- Flowages
- Range fence line in area
- Snowmobile & hiking trails in area

Rim area had stand exam done in 2018. In conjunction with that data and previous harvest data we will narrow down the probable units this summer. The grey areas on the map were analyzed in SBEADMR, and the purple represent previous harvest areas. This sale is a Good Neighbor Authority project with CO State FS.

Cumulative Watershed Disturbance

The FEIS identified watershed disturbance triggers that when reached would facilitate a change in management. When disturbance reaches 20 percent the Forest will curtail activities so watershed disturbance does not exceed 25 percent. The Overland timber sale will occur in Crystal and Curecanti watersheds. Current disturbance in these watershed are less than 5%. Once final planning of units and the temporary road system is complete watershed statistics will be updated. Maximum acres to be treated is 800 acres which will not result in exceedance of the 20 percent threshold in any of the affected watersheds.

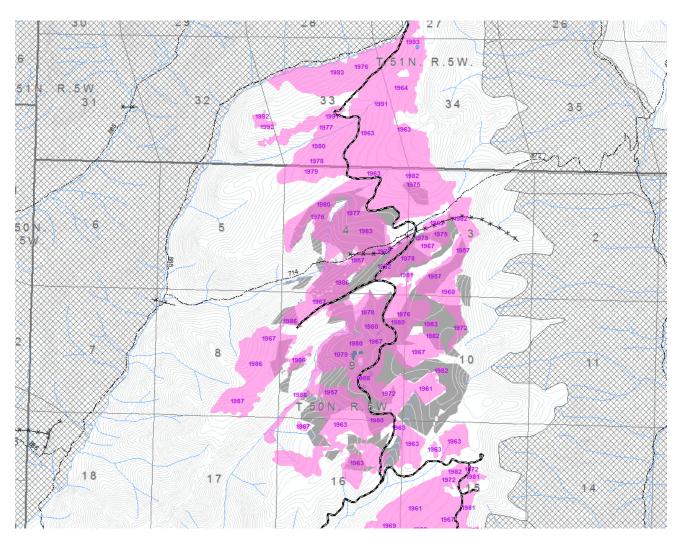
The FEIS identified Lynx Analysis Unit disturbance triggers that when reached would facilitate a change in

management. When disturbance reaches 25 percent the Forest will curtail activities in lynx habitat to avoid exceeding 30 percent disturbance as required by the Southern Rockies Lynx Amendment. Studies have shown when 30 percent of lynx habitat is converted to young trees the quality of lynx habitat in the LAU is diminished. The Overland timber sale will occur in Crater Lake and Chalk Mountain LAUs. Current disturbance in both LAU is less than 5 percent. Once final planning of units and the temporary road system is complete LAU statistics will be updated. Maximum acres to be treated is 680 acres which will not result in exceedance of the 25 percent threshold in either affected LAU.

Lynx Analysis Unit (LAU): Bald Mountain, Black Mesa

The FEIS identified Lynx Analysis Unit disturbance triggers that when reached would facilitate a change in management. When disturbance reaches 25 percent the Forest will curtail activities in lynx habitat to avoid exceeding 30 percent disturbance as required by the Southern Rockies Lynx Amendment. Studies have shown when 30 percent of lynx habitat is converted to young trees the quality of lynx habitat in the LAU is diminished. The Overland timber sale will occur in Bald Mountain and Black Mesa LAUs. Current disturbance in both LAU is less than 5 percent. Once final planning of units and the temporary road system is complete LAU statistics will be updated. Maximum acres to be treated is 800 acres which will not result in exceedance of the 25 percent threshold in either affected LAU.

Technical Contact: Cari Johnson; cariajohnson@fs.fed.us; 970-527-4131



Treatment: Craver Creek Timber Sale

District: Norwood

Proposed Treatment Acres: 200*

Cover Type: Aspen

Integrated Treatment Objectives: Aspen coppice with less than 50% Sudden Aspen Decline (SAD). Recovery and Resiliency. Stimulate robust sprouting of aspen and create a younger stand more resilient to SAD. The goal is to mimic natural disturbance patterns resulting from a stand replacing event.

Desired Condition: Remove all live aspen trees from the stand to trigger sprouting (coppice) to re-establish pure stand of aspen growing in open conditions.

Estimated Miles of Temporary Road Construction: ~1.0 mile*.

Known Design Feature Triggers:

Unknown at this time (project still in planning phase)

Cumulative Watershed Disturbance

The FEIS identified watershed disturbance triggers that when reached would facilitate a change in management. When disturbance reaches 20 percent the Forest will curtail activities so watershed disturbance does not exceed 25 percent. The Craver Creek timber sale will occur in Headwaters of Beaver Creek watershed. Current disturbance in this watershed is 7 percent. Once final planning of units and the temporary road system is complete watershed statistics will be updated. Maximum acres to be treated is 200 acres which will not result in exceedance of the 20 percent threshold in any of the affected watersheds.

Technical Contact: Todd Gardiner; tgardiner@fs.fed.us; 970-240-5401

^{*}Estimates only, values can change prior to final numbers that will result after sale preparation.

Treatment: Neversweat/Big Meadow (Cottonwood Lakes)

District: Grand Valley

Proposed Treatment Acres: 4250

Planned Treatment Acres: unknown

Cover Type: Spruce/fir/aspen

Integrated Treatment Objectives: Resiliency Treatment; Salvage with retention of high quality hare habitat; open group areas for regeneration to increase specie composition, create uneven aged stands. Fuels removal and fuel loading reduction; Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Road maintenance.

Desired Condition: Increase uneven-aged stand structure, increased species composition.

Estimated Miles of Temporary Road Construction: An unknown miles of road will be needed, the roads will be decommissioned. This area was previously harvested; we plan to re-use existing road system.

Known Design Feature Triggers:

- Maintaining habitat connectivity
- Will monitor for Goshawk, American marten
- Fens, flowages, reservoirs

Neversweat area had a stand exam done summer 2018. In conjunction with that data and previous harvest data we will narrow down the probable units. The grey areas on the map were analyzed in SBEADMR and the purple overlaying the grey are harvests within the past 25 years. These previous harvest areas will only be analyzed if there is insect or disease concerns.

			Neversweat Treatment Acres							
Watershed	Acres of	Baseline	Acres of	Acres of	Reasonable	Cumulative	Exceeds			
	National	disturbance	temporary	harvest ³	foreseeable ⁴	Disturbance	20%			
	Forest	acres ¹	road²			(%)	trigger			
	Lands						in EIS?			
Cottonwood Creek	11,024	225	TBD	368	0	5	No			
Bull Creek	8,914	34	TBD	272	0	3	No			

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

 $^{^{2}}$ One mile of road construction = 4.8 acres of disturbance.

³Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

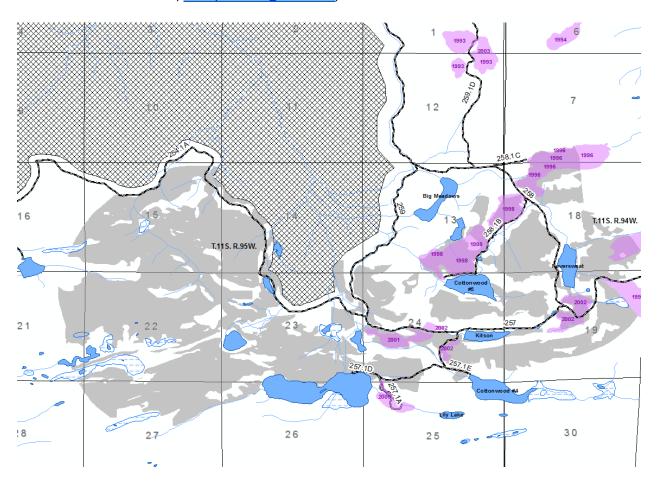
Lynx Analysis Unit (LAU): Cottonwood Lakes, Mesa Lakes

			Never	Neversweat Treatment Acres							
Lynx Analysis	Total	Baseline	Acres	Acres of	Reasonable	Cumulative	Exceeds				
Unit	Acres	disturbance	of	harvest	foreseeable ⁴	Disturbance	25%				
	of lynx	acres and	road ²	converting		(%)	trigger				
	habitat	percent		to			in EIS?				
		unsuitable ¹		unsuitable ³							
Cottonwood	24,994	1,376	TBD	192	607	9	No				
Lakes											
Mesa Lakes	17,113	981	TBD	202	220	8	No				

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

³In single storied stands with high overstory mortality, lynx habitat is considered unsuitable and therefore logging will not make the stand "more unsuitable" but are included in the cumulative disturbance calculations. In multi-storied stands with live understory, the lynx habitat is considered suitable but will be diminished through harvest. Incidental loss is calculated at 15% for green harvest and 25% for salvage.

Technical Contact: Cari Johnson; cariajohnson@fs.fed.us; 970-527-4131



²One mile of road construction = 4.8 acres of disturbance or conversion of 4.8 acres of lynx habitat to unsuitable.

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

Treatment: Ripley (SBEADMR Portion, Bear Creek PTA)

District: Gunnison

Proposed Treatment Acres: 1,836

Planned Treatment Acres: 1,548 gross, 387 net in groups

Cover Type: Spruce/fir

Integrated Treatment Objectives: Resiliency Treatment- group selection of 25% of the stand in ~1/2 acre groups; Fuels loading reduction; Provide hare, marten, and lynx denning habitat; Snag retention, and landscape-scale habitat connectivity; Meet post-harvest tree stocking objectives; Road maintenance

This sale will also include units covered under the proposed Taylor Park Environmental Assessment (acres on this data sheet only reflect SBEADMR units)

Desired Condition: Uneven-aged stand structure, increased species composition, appropriate tree stocking levels based on objectives.

Estimated Miles of Temporary Road Construction: 3.4

Known Design Feature Triggers

- Areas of high weed potential
- Lynx, Boreal Toad, and Pine Marten
- Dispersed camping areas.
- High-use recreation trails.

			Ripley Trea	atment Ac	res		
Watershed	Acres of	Baseline	Acres of	Acres of	Reasonable	Cumulative	Exceeds
	National	disturbance	temporary	harvest ³	foreseeable ⁴	Disturbance	20%
	Forest	acres¹	road ²			(%)	trigger
	Lands						in EIS?
Upper Spring Creek	13,468	651	20	180	883	8	No
Deadman Gulch	7,492	570	0	10	244	5	No
Cement Creek	21,562	242	0	2	192	1	No

Lynx Analysis Units (LAUs): Rocky Brook, Upper Taylor

			Ripley Treatment Acres				
Lynx Analysis	Total	Baseline	Acres	Acres of	Reasonable	Cumulative	Exceeds
Unit	Acres	disturbance	of	harvest	foreseeable ⁴	Disturbance	25%
	of lynx	acres and	road ²	converting		(%)	trigger
	habitat	percent		to			in EIS?
		unsuitable¹		unsuitable ³			
Rocky Brook	41,833	4,235	20	27	1100	13	No
Upper Taylor	30,654	817	0	10	270	4	No

¹Existing infrastructure and roads weighted at 100% disturbance (1 acres = 1 acre) plus past vegetation disturbance weighted at 25% disturbance (4 acres = 1 acre of disturbance).

³In single storied stands with high overstory mortality, lynx habitat is considered unsuitable and therefore logging will not make the stand "more unsuitable" but are included in the cumulative disturbance calculations. In multi-storied stands with live understory, the lynx habitat is considered suitable but will be diminished through harvest. Incidental loss is calculated at 15% for green harvest and 25% for salvage.

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

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²One mile of road construction = 4.8 acres of disturbance.

³Vegetation management disturbance weighted at 25% disturbance (4 acres = 1 acres)

⁴Reasonable foreseeable vegetation disturbances weighted at 25% disturbance (4 acres = 1 acre).

²One mile of road construction = 4.8 acres of disturbance or conversion of 4.8 acres of lynx habitat to unsuitable.