

APPENDIX D: CUMULATIVE EFFECTS FRAMEWORK

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INTRODUCTION

This appendix is intended to set the stage for the cumulative effects analyses described in chapter 3 for each resource topic. A cumulative impact refers to an impact on the environment which results from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

Reasonably foreseeable future actions, for purposes of this analysis, were determined to be those that are already authorized, contained in draft or final plans, or budgeted for implementation. They do not include highly speculative actions, such as proposed legislation, regulations that may not be approved, or projects for which resources have not been allocated.

Past actions have contributed to existing conditions and trends in Colorado's roadless areas. They are reflected in the descriptions of affected environment for each resource topic in chapter 3. Therefore, past actions are not itemized in this appendix.

Table D-1 lists the past, present, and reasonably foreseeable actions (including programs and regulations that permit or prohibit actions), which are known to occur or likely to occur in roadless areas in Colorado or adjacent to roadless areas. The listed actions are those the interdisciplinary team identified that may combine with the effects of the road building, tree cutting, and other specific actions allowed or projected in roadless areas under each roadless area management alternative. Additionally, the table summarizes the environmental effects that may have additive effects when considered together with the direct/indirect effects of the alternatives. These potential cumulative actions and their associated potential effects in roadless areas were used to evaluate the cumulative effects described in each section of chapter 3.

Table D-1. Actions that may contribute to cumulative effects

Ongoing or foreseeable action	Key ongoing or foreseeable effects
Ground-disturbing activities	
Increase in oil and gas operations	Increase in roads, decrease in air quality
Increase in coal mining operations	Increase in roads, decrease in air quality
Increase in locatable mineral development	Additional roads
Increased recreation use including hunting and fishing	Increase in invasive plants; increase in human-caused wildfires; soil disturbance and sedimentation; disturbance to wildlife and plant habitat/species
Livestock grazing within or outside of roadless areas	Reduced grass cover; increased soil disturbance; reduced water quality
Prescribed burning within or outside of roadless areas	Reduced live and dead fuels; reduced risk of high-severity wildfire; increased nutrient cycling and new plant generation; smoke production; increase in invasive plants.
Tree cutting outside of roadless areas	Reduced stand density; increased skid roads, landings, disturbed soil, erosion, sediment, invasive plants; habitat/species disturbance; increased resistance to crown fire and insect and disease outbreaks
Trends that may affect roadless areas	
Population growth – new homes and infrastructure on lands around NFS	Increase in human-caused wildfires; habitat/species disturbance and fragmentation; soil and water quality impacts; increase in roads to private property; decrease in scenic quality surrounding NFS lands; increase in invasive species; increase in need for water, reduced long-term water supply
Decrease in open space	Areas without development are important for maintaining resources (outdoor recreation, clean water and air, forest products, etc.)
Increase in invasive species	Limit effectiveness of habitat improvements or efforts for species recovery
Insect and disease activity in Colorado	In 2007 in Colorado: nearly 1 million acres of lodgepole pine forests infested with mountain pine beetle; more than 97,700 acres of spruce forest infested with spruce beetle; 334,000 acres of aspen damaged by sudden aspen decline; and 350,500 acres affected by subalpine fir decline. These acres are within and outside of roadless areas.
Programmatic actions and/or policies¹	
Forest plans	Direction other than for road-building and tree-cutting influences on roadless areas
Forest plan revisions	Four of the eight forest plans are in revision; increased restrictions on road building and tree cutting may be imposed in future updated plans

Ongoing or foreseeable action	Key ongoing or foreseeable effects
Southern Rockies Lynx Amendment	All forests in Colorado other than the Manti-La Sal covered in a draft amendment yet to be issued; direction will conserve and promote recovery of Canada lynx, which could further restrict circumstances allowing roading and tree cutting in roadless areas
Travel Management Rule	Designate roads, areas, and motorized trails as open or closed to motorized vehicles likely leading to fewer roads open for public use
Healthy Forest Restoration Act of 2003 (P.L. 108-148, HFRA)	Provisions expediting hazardous fuel reduction and forest restoration projects at the wildland-urban interface or on land under a community wildfire protection plan
Executive Order 13443- Facilitation of Hunting Heritage and Wildlife Conservation	Directs the agency to facilitate the expansion and enhancement of hunting opportunities where appropriate to address declining trends; actions taken to enhance game species and habitat may interact with roadless management alternatives
Energy Policy Act of 2005, and Western Energy Corridor DEIS	Federal agencies are preparing an EIS with proposed energy corridor designations (oil, gas, hydrogen pipelines, electricity transmission and distribution facilities) in the western United States; currently no proposed corridors are in any alternatives in the draft EIS that pass through roadless areas in Colorado
Idaho Roadless Rule	The proposed Idaho Roadless Rule was published on January 7, 2008 and a final rule is expected by December 2008. The Idaho Roadless Rule places Idaho's 9.3 million acres of IRAs into five themes, ranging from passive to more active management. The Idaho Rule and the Colorado Rule are not connected actions. They will not affect each other; however, they may each incrementally affect the management of roadless areas at the national scale, in relation to the 2001 Roadless Rule.
Legal uncertainty surrounding the 2001 Roadless Rule	The 2001 Roadless Rule has been subject to ten lawsuits and has been alternately enjoined and reinstated. The remaining active lawsuit was heard by Judge Brimmer of the Wyoming District Court on October 19, 2007, and his decision is pending. If the 2001 Roadless Rule is again enjoined by court action, then individual land management plans for national forests and grasslands would again dictate the management of individual inventoried roadless areas covered by their plan.
	If the management of roadless areas is returned to individual land management plans, it is reasonably foreseeable that other state petitions would be submitted requesting protections from road construction and timber harvesting for these areas through rulemaking. The Forest Service does not plan to reinstate a nation-wide rule because of the contentious and litigious nature of such an approach as shown in the case of 2001 Roadless Rule. Based on the previously submitted state petitions, the Forest Service estimates there would be less than a 6 percent decrease in the 49.2 million acres currently protected by the 2001 Roadless Rule over the next 15 years (approximately 3 million acres).

¹ Numerous other laws, regulations, executive orders, policies and initiatives can indirectly influence federal land management including roadless area management. Those selected in this appendix are considered the most relevant in terms of their potential cumulative effects in association with the alternatives that are the subject of this EIS.

