

# Appendix E – Cumulative Effects

In their cumulative effects analyses, each specialist establishes which actions overlap in space and time with the changes proposed under the alternatives to the existing transportation system. Cumulative effects are determined by adding the effects of each alternative to the effects of past, present, and future activities. It is important to note the existing condition is the basis of an effects analysis, and the existing condition is the result of impacts from past and present activities. The cumulative effects analysis for each resource adds the impacts of the alternatives (which include impacts from past and present activities) to the impacts from the impacts of reasonably foreseeable future actions or events that have the potential to change the physical, social, economic, or biological nature of a specified area.

Past, present and reasonably foreseeable activities within the analysis area are listed in table 45. This table was developed from the schedule of proposed actions for the ASNFs and professional knowledge of the analysis area. It is not intended to be an exhaustive list of all past, present and reasonably foreseeable activities in the analysis area, but a thorough representation of known actions. For this analysis, the cumulative effects analysis area is 5th code watershed boundaries, the planning area (boundary of the Apache-Sitgreaves National Forests), or some larger area depending on the resource type and extent of impacts to the resource.

**Table 45. Past, present, and reasonably foreseeable projects on the Apache-Sitgreaves National Forests**

Activity	Type	Status	Ranger District
<b>Prescribed Fire</b>			
Campbell Flat RX Burn	Fuels reduction	Foreseeable	Alpine RD
R-C Prescribed Burn	Prescribed burn	Implementation Oct. 2010	Lakeside and Black Mesa RDs
<b>Wildland-Urban Interface (WUI)</b>			
Campbell Blue WUI	Wildlife habitat and riparian restoration	Implementation Oct. 2010	Alpine RD
Beaver Creek WUI Project	Fuels treatment	Foreseeable	Alpine RD
Rim Lakes Forest Health Project	Fuels reduction	Foreseeable	Black Mesa RD
Show Low South Fire Risk and Fuel Reduction	Fuels reduction	Implementation July 2011	Lakeside RD
Big Lake WUI Fuels Reduction Project	Fuels management	Foreseeable	Springerville RD
Greens Peak WUI Hazardous Fuels Reduction	Fuel treatment	Implementation Oct. 2010	Springerville RD
<b>Wildfire</b>			
Wildfire History	Unplanned ignitions	Past	Sunflower Fire (2005) 385 ac., KP Fire (2004) 16,092 ac., KP Fire (2003) 10 ac., KP Fire (2001) 17 ac., Thomas Fire (2003) 10,644 ac., Steeple Fire (2003) 6,009 ac.

<b>Activity</b>	<b>Type</b>	<b>Status</b>	<b>Ranger District</b>
<b>Trail Construction, Reconstruction and Maintenance</b>			
Bear Fire Trail Restoration	Trail realignment	Foreseeable	Alpine RD
Leopold Commemorative Trail/Green Fire Trail	Trail construction	Foreseeable	Alpine RD
OHV Trail Heber-Overgaard North	OHV trail maintenance and reconstruction	Foreseeable	Black Mesa RD
Rim Vista Trail 622 Paving Project	Trail maintenance and reconstruction	Foreseeable	Black Mesa RD
Snowmobile Trail Maintenance and Realignment	Snowmobile trail maintenance and reconstruction	Ongoing	Alpine, Black Mesa, and Springerville RDs
White Mountain Trail System Modifications	Trail maintenance and reconstruction	Foreseeable	Lakeside RD
<b>Water Development</b>			
Water diversions		Ongoing	Forestwide
Black Canyon Dam Improvement Project	Modifications to meet current dam safety requirements and recent reclassification of the dam to “High Hazard”.	Implementation Sept. 2010	Black Mesa RD
<b>Land Exchanges</b>			
Black River Land Exchange – Rancho Alegre (1 of 2 parcels)	Land exchange - 79.76 acres, 0.25 mile along west fork of the Blue River, 3 acres of wetland	Implementation Dec. 2011	Alpine RD
Black River Land Exchange – Blue River Ranch parcel (2 of 2 parcels)	Land exchange	Implementation Dec. 2011	Alpine RD
Camp Tatiyee Land Exchange	Land exchange	Implementation Dec. 2011	Lakeside RD
Show Low South Land Exchange	Land exchange	Implementation Dec. 2011	Lakeside RD
<b>Fisheries Habitat Management</b>			
Fish Barriers	Fish habitat improvement	Foreseeable	Clifton RD
Fish Barrier Maintenance, Repair, and Reconstruction	Improvement to existing fish barriers	Foreseeable	Alpine and Springerville RDs
<b>Road and Trail Management</b>			
Transportation System	Road maintenance	Ongoing	Forestwide
Road maintenance	Road Maintenance	Ongoing	Forestwide
Eagle Creek Road Maintenance	Road maintenance	Past	Clifton RD
Heber-Overgaard Nonmotorized Trail System	Trail construction	Foreseeable	Black Mesa RD

<b>Activity</b>	<b>Type</b>	<b>Status</b>	<b>Ranger District</b>
FR 129 Paving	Road paving project	Foreseeable	Lakeside RD
<b>Minerals, Energy Development, Oil and Gas Leasing Activities</b>			
Pueblo Park Mineral Materials Pit	Materials pit and special use permit	Implementation Oct. 2010	Alpine RD
Minerals Extraction	Special use permit	Ongoing	Forestwide
<b>Other Jurisdictions</b>			
Private property development in and adjacent to forests	Recent new home construction with associated road const.	Ongoing and foreseeable	Forestwide
<b>Livestock Grazing Management</b>			
Grazing Allotments	Livestock grazing management	Ongoing	Forestwide
Heber-Reno and Morgan Mountain Sheep Driveway	Grazing management	Ongoing	Black Mesa, Lakeside, and Springerville RDs
Heber Wild Horse Territory Plan	Grazing management	Foreseeable	Black Mesa RD
Copperas Allotment Management Analysis	Livestock grazing management	Foreseeable	Clifton RD
Wildbunch Allotment Management Plan	Livestock grazing management	Foreseeable	Clifton RD
Cerro Trigo Allotment	Livestock grazing management	Implementation Oct. 2010	Springerville RD
Greens Peak Allotment	Livestock grazing management	Implementation Oct. 2010	Springerville RD
Hall Allotment	Livestock grazing management	Implementation Oct. 2010	Springerville RD
Revised EA Molina Springs Allotment	Livestock grazing management	Implementation Oct. 2010	Springerville RD
<b>Recreation Management</b>			
Developed Recreation Use	Recreation management	Ongoing	Forestwide
General Recreation Use	Recreation management	Ongoing	Forestwide
<b>Land Management Planning</b>			
Apache-Sitgreaves NFs Forest Plan Revision	Land Management Planning	Foreseeable	Forestwide
<b>Wild and Scenic Rivers</b>			
Blue River and KP Creek Wild and Scenic Rivers Suitability Study	Wild and scenic river suitability study	Implementation Oct. 2010	Alpine and Clifton RDs
<b>Special Uses Management/Road Easements</b>			
ADOT Maintenance Yard	Special use permit	Foreseeable	Alpine RD
Blue River Gravel Pits	Special use permit	Sept. 2010	Alpine RD

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<b>Activity</b>	<b>Type</b>	<b>Status</b>	<b>Ranger District</b>
Cottonwood Gulch Foundation Backpacking Expeditions	Special use authorization	Ongoing	Alpine RD
NRCS Weather Station	Assorted SnowTel and Snow Courses - 65 acres	Foreseeable	Alpine RD
Nutriosio Fire Department Communications Site	Special use permit	Foreseeable	Alpine RD
Salt River Project Weather Stations	Special use permit	Implementation Nov. 2010	Alpine RD
Heber Youth Group Camp Access	Road easement and special use permit	Sept. 2010	Black Mesa RD
Ditch Bill Easement - Little Mormon Lake and associated improvements	Irrigation and stock watering easement - with operating and maintenance conditions	Fall 2010	Lakeside RD
Ditch Bill Easement - Lakeside Ditch	Irrigation and stock watering easement - operating/maintenance	Foreseeable	Lakeside RD
Langkilde Road Easement	Road easement	Implementation Jan. 2011	Lakeside RD
<b>Wildlife Habitat Management</b>			
National Wildlife Turkey Federation Riparian Restoration Project	Riparian habitat restoration	Sept. 2010	Alpine RD
Mexican Wolf Blue Range Recovery Area Holding Pen	Construction of permanent pen for temporary holding of wolves up to 30 days	Foreseeable	Springerville RD
<b>Other Vegetation Treatments</b>			
Chitty Fire Salvage	Fuels treatment	Sept. 2010	Alpine and Clifton RDs
Hwy 191 Hazard Tree Removal	Hazard tree removal	Foreseeable	Alpine RD
Bruno Thinning and Slash Treatment	Fuels treatment	Past	Black Mesa RD
Integrated Forestwide Noxious, Terrestrial, and Aquatic Weed Management Plan	Invasive species management	Ongoing	Forestwide
Rodeo-Chediski Fire Reforestation	Reforestation	Ongoing	Black Mesa and Lakeside RDs
Timber Harvest	Tree removal	Past	Forestwide
<b>Riparian Improvement</b>			
Riparian Restoration Projects	Restoration treatment	Foreseeable	Forestwide