

APPENDIX E – PAST, PRESENT, REASONABLY FORESEEABLE ACTIVITIES

According to the Council on Environmental Quality (CEQ) NEPA regulations, “cumulative impacts” is the impact on the environment which results from incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions (40 CFR1508.7). In determining cumulative effects, the combination of the effects of the following past, present, and future actions were considered. How specific resources are affected depends on the scale of analysis for the resource. These effects are described in the cumulative effects section for each resource.

Past activities are those that occurred in the past 30 years (CWE analysis). Present activities are ongoing at this time. Reasonably foreseeable activities are expected to occur in the future and have a proposed action developed to the point it is reasonably possible to predict the effects.

Of the 1,412,801 acres within the proclaimed boundary of the Sierra National Forest, approximately 96,000 (7%) acres are private, state, tribal lands or other ownership. Designated wilderness comprises 527,938 (40%) acres of the Sierra National Forest and is not included in the Travel Management Plan area (SNF 2006 Business Plan and CWE analysis).

Table E- 1. Sierra National Forest Past and Current Activities

Activity Type and Description	UOM	South Fork	Westfall	Globe	Mammoth	Gaggs	Jose-Chawanakee	Dinkey-Kings	Tamrack-Dinkey	Stump Springs-Big Creek	East of Kaiser Pass	Total Miles or Acres
Roads												
County Roads, NF System Roads, NF Special Use Roads, Private, State Highway, Misc.	Miles per CWE	156	389	356	182	328	195	569	420	338	45	2978
	Miles per density	156	382	354	182	327	193	561	413	322	45	2935
Recreation Facilities												
Campgrounds, trailheads, boat ramps, day Open Areas, managed use (dispersed) areas, recreation special uses (rec res, resorts, camps)	Acres	18	430	131	147	97	11	147	1298	711	252	3242
Past Timber Sales and Vegetation Management												

Activity Type and Description	UOM	South Fork	Westfall	Globe	Mammoth	Gaggs	Jose-Chawanakee	Dinkey-Kings	Tamrack-Dinkey	Stump Springs-Big Creek	East of Kaiser Pass	Total Miles or Acres
uneven age treatment. clear cutting, thinning, hand release, chemical release, and planting in plantations <30 yrs old	Acres ¹	4205	19661	13053	4490	14914	5083	250685	161235	53363	0	526689
¹ This data was derived from the Forest Activity Tracking System (FACTS) database. When calculating acres of treatments using GIS analysis, the number of acres for each treatment type and date is added together for that geographic area (known as a "stand"). For example: a stand of 20 acres may have a thinning activity, a site prep activity, and a planting activity over a period of 5 years. This adds up to 60 acres of treatment. The result of this overlapping counting, is that the total acres of treatment displayed are much larger than might be expected.												
Timber Sales and Veg Mgmt by habitat Type (total)	Acres	174	6270	3083	695	4953	1522	4974	3069	4703	0	29443
Outside Analysis Unit		0	54	256	112	90	123	477	941	824	0	2877
EarlySeral Conif		136	1828	3090	620	325	355	2285	790	4676	0	14104
LateSeralClosed Canopy		10	1891	15	8	223	320	903	173	484	0	4028
LateSeralOpen Canopy		0	18	21	1	0	50	31	269	102	0	492
MidSeral Conif		148	3681	2673	279	4693	816	3897	4354	3452	0	23997
Oak Associated		120	1932	533	396	804	667	1259	155	256	0	6123
Shrubland		5	194	190	440	176	160	80	26	264	0	1537

Activity Type and Description	UOM	South Fork	Westfall	Globe	Mammoth	Gaggs	Jose-Chawanakee	Dinkey-Kings	Tamrack-Dinkey	Stump Springs-Big Creek	East of Kaiser Pass	Total Miles or Acres
Wet Meadow		0	20	1	0	3	0	4	5	0	0	33
Private Land												
Residential Dev and Veg Management	Acres	7262	14422	3094	9857	6918	16034	22838	12226	3074	0	95725
Lands Special Uses												
Water systems, communications sites, power lines, etc.	Acres	0	0	0	237	0	788	519	118	150	0	1812
Livestock Grazing												
	Acres	66,470	67,964	93,039	40,026	72,479	29,568	154,085	129,346	77,148	13,122	743,247
Burned Acres by Management Indicator Species (MIS) Habitat Type												
Prescribed Fire total	Acres	105	783	0	2748	1264	841	11161	3509	1863	0	22274
Not in MIS		5	13	0	375	106	358	1754	174	458	0	
EarlySeral		0	21	0	5	19	0	203	389	55	0	
Lacustrine		0	0	0	0	0	20	0	0	0	0	
LateSeralClosed		5	116	0	22	5	20	1114	222	31	0	
LateSeralOpen		0	0	0	140	0	0	11	6	0	0	
MidSeral		3	319	0	0	195	4	3076	2693	337	0	
OakAssoc		92	311	0	1613	826	280	4306	16	530	0	

Activity Type and Description	UOM	South Fork	Westfall	Globe	Mammoth	Gaggs	Jose-Chawanakee	Dinkey-Kings	Tamrack-Dinkey	Stump Springs-Big Creek	East of Kaiser Pass	Total Miles or Acres
Shrubland		0	4	0	594	113	159	696	8	452	0	
WetMdw		0	0	16	0	0	0	3	0	3	0	
Hazard Tree Projects by MIS Habitat Type												
	Acres	0	0	0	0	0	0	2963	2458	668	0	
Plantations by MIS Habitat Type												
Total acres of plantations	Acres	2205	6262	7891	2382	4293	1943	9545	7084	9200	0	50805
Not in MIS		75	265	1249	115	193	40	175	624	604	0	
EarlySeral		286	1220	2338	571	612	299	1296	2070	1910	0	
Lacustrine		0	0	0	0	0	0	0	0	0	0	
LateSeralClosed		82	375	188	16	714	246	397	368	778	0	
LateSeralOpen		0	0	0	0	0	0	0	0	0	0	
MidSeral		667	1446	2001	337	0	305	5348	3575	2908	0	
OakAssoc		730	2300	271	356	1029	741	2160	140	563	0	
Riparian		0	0	0	0	0	0	1	0	9	0	
Shrubland		341	648	1776	987	438	312	164	293	2421	0	
WetMdw		3	8	68	0	15	0	3	13	7		

E.1 Vegetation Treatment (Fuels Reduction, Timber Management, Reforestation)

Fuels Reduction: Approximately 4000 acres are proposed for fuel treatments per year within the project area; these include mechanical and physical fuel treatment (mastication, chainsaw, herbicide application, etc) and prescribed burning. Fuels reduction projects do not require new roads (beyond those already in the NFTS) to accomplish these objectives. Motorized cross-county travel for administrative purposes may be required.

Timber Management: The forest estimates a timber harvest program of approximately 5 to 15 MMBF (million board-feet) annually for the next 10 years. Uncertainty integral with this estimate includes recent litigation involving the status of the 2004 SNFPA ROD 2004 and forest projects may be limited by the 2001 SNFPA ROD 2001 (Framework). The lower estimate is based on the 2001 Framework. Present and future timber harvest projects are designed to meet fuels reduction goals and provide for public safety in the form of hazard reduction along forest roads. The Forest has experienced a 97% reduction in annual timber harvest volume sold from 1980 to 2005.

Currently, an average of 2500 acres (at 3.5 MBF/acre) is harvested annually, which may increase to 5000 acres (at 3 MBF/acres) annually for the next 10 years. Presently, vegetation management projects are being tracked in the FACTS (Forest Activity and Tracking system) database. Harvest prescriptions vary from clear cutting to understory thinning. It should be noted that regeneration harvest (clear cutting) prescriptions have not been utilized on the SNF since 2001 (60 acres).

Figure E- 1. Acres of Timber Harvest, Sierra National Forest

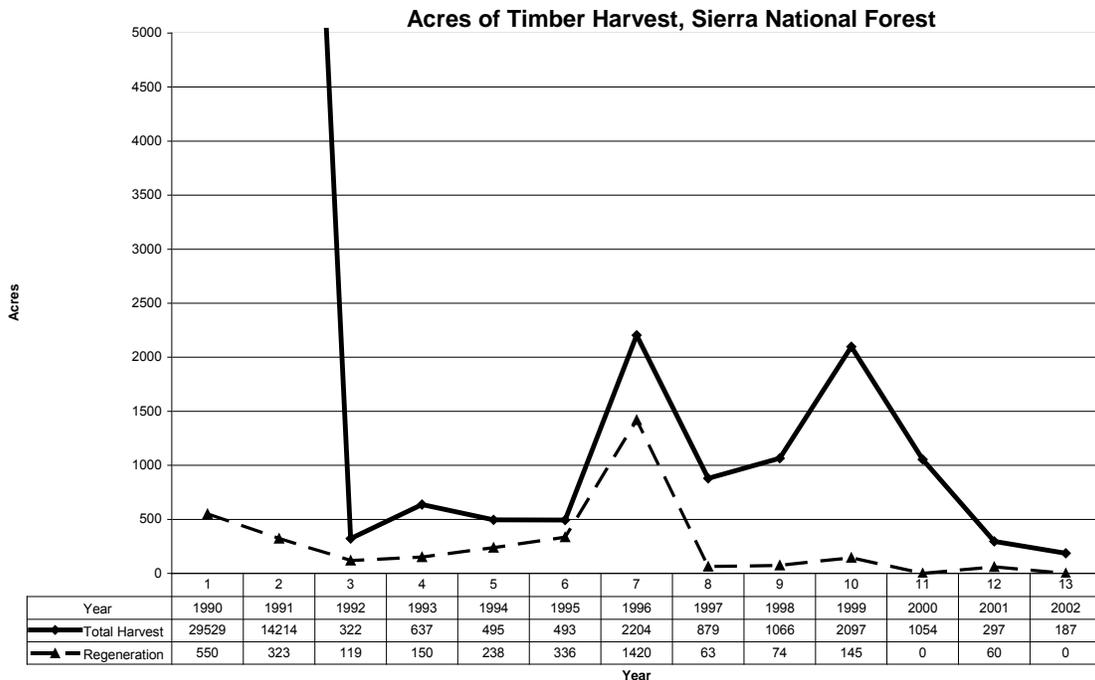
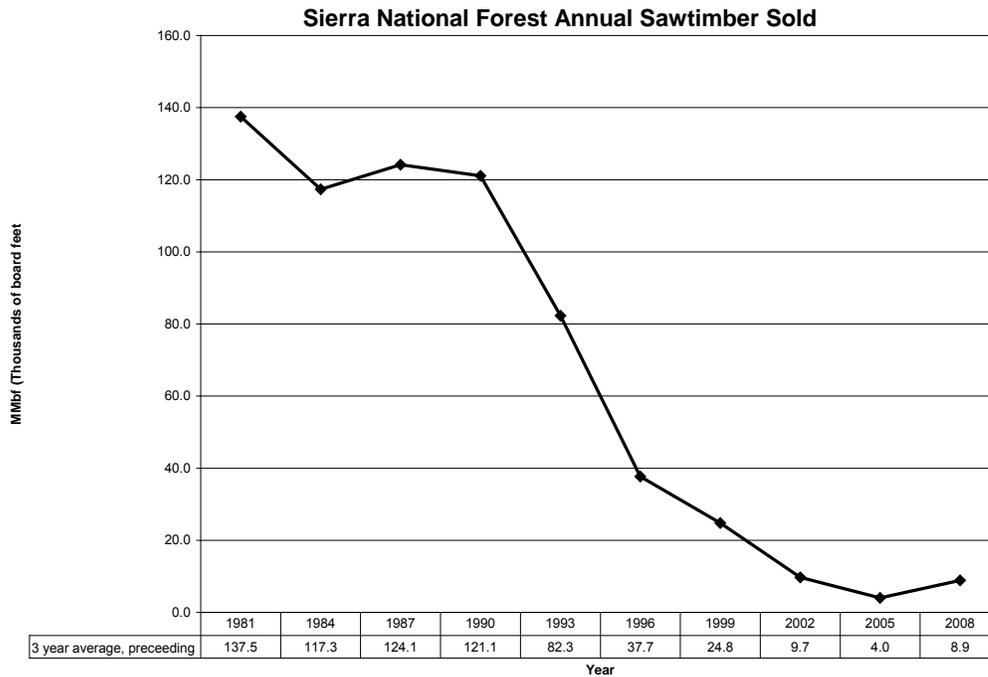


Figure E- 2. Annual Sawtimber Sold, Sierra National Forest

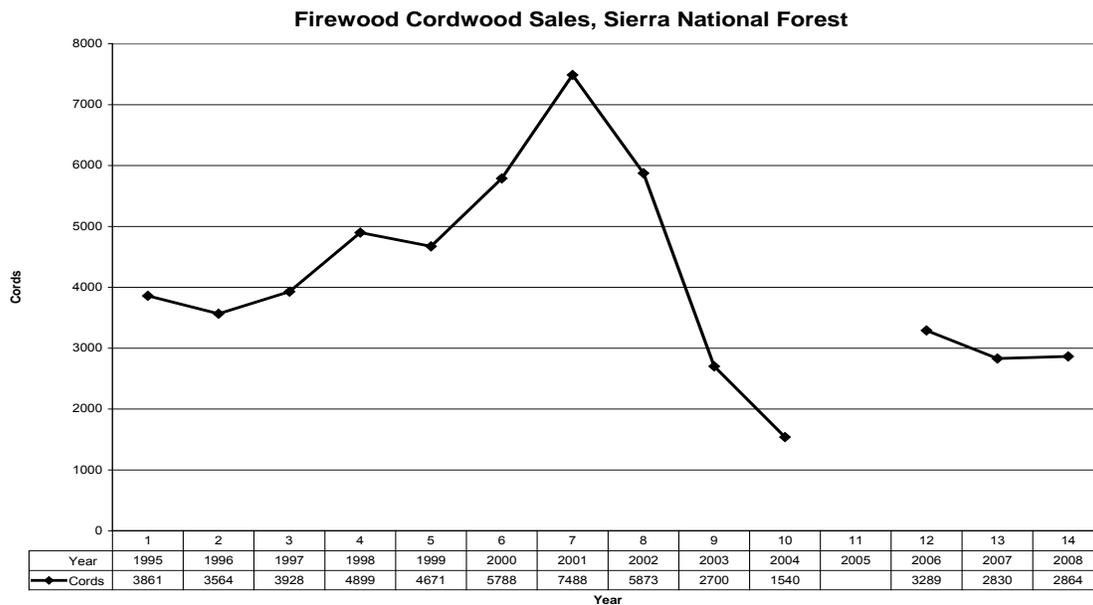


Source: USDA Forest Service Cut and Sold Reports, Region 5, 1980-2008

In the past, road construction and maintenance was supported by timber harvest. Much of the existing forest transportation system was developed by the public need for timber resources after World War II. This trend continued until 1980s. Since the 1980s and into the future, each timber harvest project is expected to utilize existing transportation system roads where possible and construct temporary roads only where needed. These projects can include the reconstruction of current system road, and the decommissioning of road(s) when the timber harvest project is completed. Maintenance of the road system has been dramatically reduced due to the decreasing level of timber harvest and harvest values.

Personal use firewood gathering activities are authorized by firewood gathering permits. Firewood gathering permits authorize the permit holder to gather a specified amount of dead and downed wood, for his or her personal use, from any portion of the Sierra National Forest woodcutting. Due to changing conditions such as road closures, weather, timber sale activity, and changing supplies of wood it is necessary for the permit holder to secure current maps and instructions by visiting the office administering the area where you plan to cut. It is the responsibility of the permit holder to know where and when wood cutting is allowed.

Figure E- 3. Firewood Cordwood Sales, Sierra National Forest



* This number represents the number of cords sold; number of cords gathered may be less.

Reforestation: reforestation projects are prescribed following some timber harvest projects and wildfire. Past activities associate with planting trees included the use of herbicides and mechanical and physical site preparation to reduce vegetation competition for soil nutrients and sunlight. Existing forest system roads are used for reforestation projects.

E.1.1 Fire Suppression

Wildfire and associated suppression and rehabilitation measures sometimes require the creation of temporary roads and fuel breaks that in the past have been used by the public and resulted in unauthorized routes on the forest. During fire suppression activities, motorized cross-county travel for administrative purposes may be required. Following fire suppression actions, all temporary access routes are rehabilitated and closed to motorized travel at the conclusion of fire rehabilitation efforts.

E.2 Range Management

Grazing allotments are authorized in most of the project area. Presently there are 28 active allotments, 17 vacant allotments. There are approximately 17,000 animal unit months (AUMs) of grazing permitted in the project area. Actual use differs annually depending on economics, weather conditions, market conditions, etc.

Individual range management projects include installing cattle guards, and fencing, etc. Administration of cattle allotment permits (implementation of actions to protect sensitive habitat and species, etc) have aided in the restoration of riparian area and other sensitive habitat and species. Range management generally does not include the creation of new roads, however permit holders are authorized by their permit to travel cross-county using motorized vehicles to manage (move, gather, salt, emergency vet care) their cattle within the allotment.

E.3 Recreation

Within the project area there are about 100 developed campgrounds and day use sites, other developed sites (boat launches, trailheads, etc), 5 Open Areas, 54 parking, staging areas, about 60 miles of motorized trails, and about 500 miles of non-wilderness hiking or equestrian trails. There are other trails such as cross-country skiing, and /or snowmobiling that may overlap the NFTS (USDA-FS 2009a). Recreation activities include (but are not limited to) hiking, camping, picnicking, fishing, fitness exercise, motorized recreation, swimming, boating, snow activities, horse use, scenery viewing, tourism, etc.

Recreation projects mostly consist of rehabilitation of current facilities to update them to current universal accessibility standards. Some recreation projects include reconstruction or reroute of an existing motorized or non-motorized trail. The only possible new trails in the reasonably foreseeable future are associated with FERC projects or the San Joaquin River Trail project.

Travel management and the restriction of cross-country travel will impact motorized and non-motorized recreation users by limiting motorized activities to designated roads/trails and areas.

E.4 Transportation Management

A system of federal, state, and county highways provides access to the SNF. National Forest System Roads (NFSR) are created and managed for the utilization and protection of National Forest Lands. There are approximately 2,400 miles of roads in the SNF Transportation System (NFTS). In addition, there are approximately 110 miles of private roads, 250 miles of State and county roads, 180 miles of National Forest Special Use Roads and various other roads for a total of approximately 3,000 roaded miles.

Roads are created to meet specific land management needs, follow the NEPA planning process and are constructed under USDA Forest Service specifications, Federal Acquisition Regulations and Federal Timber Sale contracting. Over the last ten years there have been approximately 10 miles of new roads constructed and approximately 10 miles of road decommissioned.

E.5 Special Uses, Land Ownership, and Right of Way Management

The SNF has a caseload of about 1200 special-use authorizations (permits). These include, but are not limited to: Federal Energy Regulatory Commission (FERC) hydropower licenses, apiaries, water systems, private driveways, municipal utilities, recreational residences, communications sites, recreation resorts, camps, and residences, a ski resort, outfitters and guides and miscellaneous other permits. Most of these permits are geographically stationary and include permanent facilities and infrastructure. They are located across the project area, with some permits clustered in groups adjacent to the hydropower reservoirs. The longest term authorizations are for 50 years (FERC licenses) and the shortest term is one year or less. Most permits where a road access is included are issued for 10-20 years terms. All authorizations are issued with specific terms and conditions. When road maintenance or construction is approved for a new or existing permit, County and Forest Service environmental and engineering standards are applied. Roads associated with a special use permit are the public if the permit is to provide public services. If the permit is for private uses, the road is not the public. The special use permit holder is authorized to use the road even if it has not been included on the Motorized Vehicle Use map (MVUM).

E.5.1 Private Lands

Because private landowners do not typically publish their long-term management plans, actions on private lands are difficult to analyze. Some new roads could be built on private lands, but are unlikely to be the public. Cross-country travel will likely continue across private land for general access, business and/or recreation needs. Timber production will continue on private lands and associated road construction (mostly temp roads) will likely occur.

E.5.2 Other Federal Lands Adjacent to the Sierra National Forest

National Park Lands

Yosemite National Park (YNP) shares its south western border with the SNF. There is approximately 1 mile of road which passes through a portion of the Park. YNP allows public use of this road at this time. There are no shared roads with Kings Canyon National Park on the southern border of the SNF.

Bureau of Land Management Lands

The Bureau of Land Management (BLM) maintains approximately 1 mile of road in the Ahwahnee area connecting to the Sierra NFTS of roads. The BLM allows public use on this road. There is approximately 4 miles of BLM road in the Feliciano Mt area which is not typically maintained and usually inaccessible.

Corps of Engineers

The Corps of Engineers maintains 1 mile of road in the Trimmer area. The Corps of Engineers allows public use of this road.

Table E- 2. Reasonably Foreseeable Activities

Activity	NEPA Project Name	Analysis Units or Outside Project Area	Expected NEPA Document
Fuels management	Fish Camp Project	WestFall, Globe	EA
Fuels management	Fish Camp Fuels/Release Mastication Project	West Fall, Globe	CE
Fuels management	Barnes Mountain Progeny Site High Sierra Thinning	Dinkey-Kings	CE
Fuels management	Big Creek Thinning Goat Mountain /Annex Fuelbreak and Hazard Reduction Project	Jose-Chawanakee	CE
Fuels management	High Sierra Fuelbreak Project	Stump Springs-Big Creek, Jose-Chawanakee, Dinkey-Kings	EA
Fuels management	Jose Central	Jose-Chawanakee	EA

Activity	NEPA Project Name	Analysis Units or Outside Project Area	Expected NEPA Document
Fuels management	Kings River Experimental Watershed Project	Kings River	EIS
Fuels management	Dinkey North and South	Kings River	EA
Fuels management	High Sierra Hazard Tree Abatement	Stump Springs-Big Creek, East of Kaiser Pass, Tamarack-Dinkey, Jose-Chawanakee, Dinkey-Kings	EA
Fuels management	Lions Point Mastication	Mammoth	CE
Fuels management	Kinsman II Prescribed Fire Addendum	Mammoth	CE
Fuels management	Rock Fire Rehabilitation Project	Mammoth	CE
Fuels management	Sugar Pine Adaptive Management Project	WestFall	EIS
Fuels management	The Men Mechanical Thinning and Release	Tamarack-Dinkey	CE
Grazing management	2008 Bass Lake Ranger District - Range NEPA	WestFall, Globe, Mammoth, Gaggs	EA
Minerals and Geology	San Joaquin/Big Dreamer Mine Reclamation Project	Mammoth	EA
Minerals and Geology	Abandoned Mine Reclamation: Sweetwater Mine	South Fork	EA
Non- Recreation Special Uses	Communications Sites Designation	WestFall, Gaggs, Stump Springs-Big Creek, Jose-Chawanakee	EA
Non- Recreation Special Uses	Pacific Gas and Electric Company Electric Line Facilities Permit Reissue (aka Holdover)	All Analysis Units	CE
Recreation management	Golden Trout Lake Trail Construction Project	Outside Project Area (John Muir Wilderness)	CE
Recreation management	Lake Edison Corrals	East of Kaiser Pass	CE
Recreation management	Merriam Lake Trail Reconstruction Project	Outside Project Area (John Muir Wilderness)	CE
Recreation management	Millers Landing Replacement Cabins	WestFall	CE
Recreation management	French Canyon Trail Repair Project	Outside Project Area (John Muir Wilderness)	CE

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Activity	NEPA Project Name	Analysis Units or Outside Project Area	Expected NEPA Document
Recreation management	Recreation Facilities Decommissioning	All Analysis Units	EA
Recreation management	San Joaquin River Trail	Mammoth, Jose-Chawanakee	CE
Recreation management	Silver Pass PCT Repair Project	Outside Project Area (John Muir Wilderness)	CE
Recreation management	Special Use Permit(s) Issuance for Concessionaire Operated Facilities	All Analysis Units	CE
Recreation management	Special Use Permits and Renewals for 2007 Cycle	All Analysis Units	CE
Recreation management	Yosemite Sugar Pine Railroad Permit Reissue	WestFall	CE
Recreation management	Huntington Lake and Camp Sierra Recreation Residence Roads Project	Stump Springs-Big Creek	EA
Recreation management	Issuance of 10 Year Special Use Permit for Outfitter/Guiding for Southern Yosemite Mountain Guides	Outside Project Area (John Muir and Ansel Adams Wildernesses)	EA
Road management	Bretz Mtn Road Extension to Dinkey Creek Road -10S01 Reconstruction	Dinkey-Kings	EA
Road management	Bypass Landslide Stabilization Project – FR 7S05 Stump Springs EFFO Slide Repair	Stump Springs-Big Creek	CE