## WILDLAND FIRE IN COLORADO



# ANNUAL SUMMARY REPORT for Calendar Year 2006



Dowdy Lake Piles, Arapaho Roosevelt National Forest, Winter 2006/7

Prepared by the: Air Pollution Control Division Technical Services Program APCD-TSP-B1 4300 Cherry Creek Drive South Denver, CO 80222-1530 (303) 692-3224 May 31, 2006

#### I. INTRODUCTION

Colorado's wildland fire smoke management program is implemented under the requirements of Colorado Air Quality Commission Regulation 9, <u>Open Burning</u>, <u>Prescribed Fire</u>, and <u>Permitting</u>. Requirements for significant users of prescribed fire permitting, reporting of activity, and collection of fees to cover the cost of the smoke management program are included in the regulation. This report contains activity concerning wildland fire (prescribed fire) activities of a number of agencies and several private landowners. The governmental agencies are:

- Colorado State Forest Service (CSFS)
- U.S. Forest Service (USFS)
- National Park Service (NPS)
- U.S. Bureau of Land Management (BLM)
- U.S. Fish and Wildlife Service (USF&WS)
- Colorado Division of Wildlife (CDOW)
- US Air Force Academy (USAFA)
- US Army Fort Carson (USAFC)
- Cherryvale Fire Protection District (CFPD)

- City of Boulder Wildland Fire Program (BWFP)
- Larimer County Open Space Program (LCOS)
- Jefferson County Open Space (JCOS)
- Boulder County Open Space (BCOS)
- City of Fort Collins Wildland Fire Program (FCWFP)
- West Metro Fire Department (WMFD)
- Colorado State Parks (CSP)

This report contains emissions inventory information for the projects proposed and completed by the permittees. Since 1990, the land management agencies have annually reported all planned ignition projects and wildland fire use fires to the Division. Since January of 2002 landowners using fire to manage grasslands or wildlands are legally subject to the reporting requirements of Regulation 9.

This annual report summarizes the proposed and actual fire activity reported by land managers in 2006. The Division updates the emission inventory and this report annually. For additional information concerning the prescribed burning emission inventory, contact Coleen Campbell at (303) 692-3224. For information regarding Colorado's prescribed fire program, visit our website at:

http://www.cdphe.state.co.us/ap/smoke/

#### II. PRESCRIBED FIRE ACTIVITY

A permit application is submitted to the Division for all proposed projects. Daily and annual activity reports are also submitted for all wildland fire projects. This report summarizes only annual activity; contact the Division for daily information on a specific date or for a specific project.

Land managers are required to obtain a permit from the Division prior to ignition. The permit application includes the proposed dates of the burn, the burn purpose, smoke sensitive areas that have the potential to be impacted by the burn, and the proposed size of the burn. **Table I** is a summary of the proposed planned ignition burns and wildland fire use areas by permittee. **Figure I** indicates the percentage of the total projects proposed by each of the entities in 2006.

Unplanned ignition prescribed fire, also known as wildland fire use, is the management of naturally ignited fires to achieve resource benefits where fire is a major component of the ecosystem. Allowing fire to play its natural role, when protection of private property and social values is possible, can enhance many natural resource values. Most of the federal land managers have completed or are working on fire management plans that include wildland fire use as one of the tools available to meet resource objectives on the lands they manage. More information about wildland fire use is available at:

http://www.fs.fed.us/fire/fireuse/wildland\_fire\_use/use\_index.html

Activity information concerning individual prescribed fire projects is listed in **Appendix A**. The appendix provides information on the total number of acres or piles, if burning was accomplished on a project. To obtain air pollutant emissions information on a specific project, contact the Division.

### **TABLE I** PROPOSED PRESCRIBED BURNING ACTIVITY **BY PERMITTEE 2006**

AGENCY	# OF	PROPOSED	# OF	PROPOSED	# OF	AGENCY'S
	BROADCAST	TOTAL	PILE	TOTAL		PERCENTAGE
	BURNS	ACRES	BURNS	<b>VOLUME OF</b>	FIRE USE	OF ALL
	PROPOSED	(Broadcast)	PROPOSED	<b>FUEL</b>	AREAS	PROPOSED
				IN $FT^3$	PROPOSED	BURNS
				(Piles)		
BLM	25	19,391	26	2,151,350	2	16.3%
BCOS	0	0	5	104,100	0	1.6%
BWFP	6	148	0		0	1.9%
CDOW	7	2,850	2	272,320	0	2.9%
CFPD	0	0	1	125,000	0	0.3%
CSFS	2	1,079	14	1,609,281	0	5.1%
FCWFP	2	162	1	11,412	0	1.0%
JCOS	2	126	2	51,920	0	1.3%
LCOS	1	70	1	20,000	0	0.6%
MULTI	5	5,017	1	315,000	3	1.9%
NPS	4	405	11	3,407,249	1	4.8%
Private	6	1,576	4	1,904,475	0	3.2%
USAFA	0	0	0	0	0	0.0%
USAFC	5	66,500	1	45,000	0	1.6%
USFS	78	100,653	89	18,156,454	1	53.5%
USF&WS	7	5,174	1	50,000	0	2.6%
WMFD	4	620	0	0	0	1.3%
All Permittees	154	203,771	159	28,223,561	7	100%

BLM= Bureau of Land Management

BCOS= Boulder County Open Space BWFP= City of Boulder Wildland Fire Program

CDOW= Colorado Division of Wildlife

CFPD=Cherryvale Fire Protection District

CSFS= Colorado State Forest Service

FCWFP=City of Fort Collins Wildland Fire Program

JCOS= Jefferson County Open Space

LCOS= Larimer County Open Space

Multi= Multiple Agencies Cooperating on Project

NPS= National Park Service

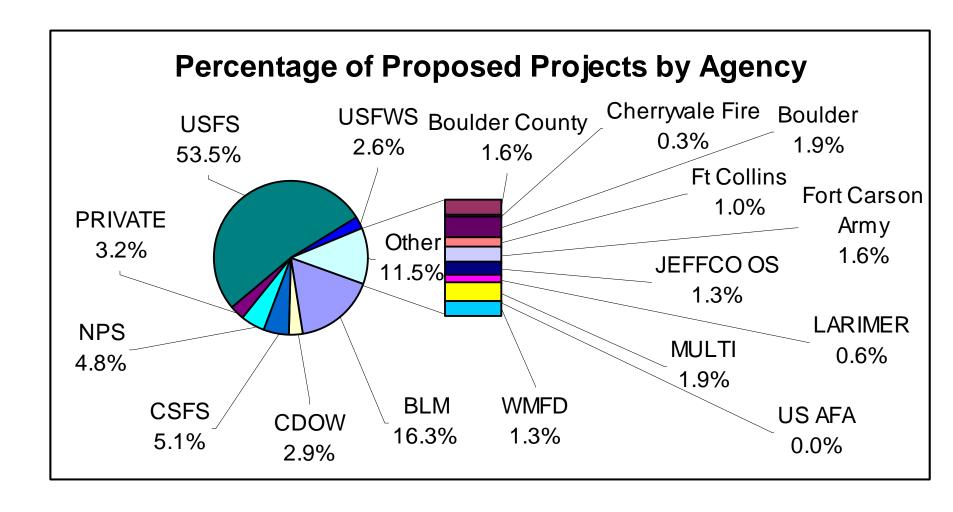
USAFA= US Air Force Academy

USAFC= US Army Fort Carson

USFS= US Forest Service

USF&WS= US Fish & Wildlife Service WMFD= West Metro Fire Department

Figure I
Proposed Projects by Agency for 2006
(Percentage of Requested Permits by Agency)



#### III. EMISSION INVENTORY

The Division's permit application and reporting forms provide the information necessary to generate an emissions inventory for prescribed burning in the State. Smoke from prescribed fire contains a complex mixture of carbon, tars, liquids, various gases and particles. The fuel loading, fuel consumption, fuel moisture, burning method, and fuel type influence the air pollutant emissions.

This emissions inventory is only an estimate of the emissions from fires in Colorado during 2006. To allow for an emissions inventory of wildland prescribed fire to be developed, the land managers reported the most accurate burn specific information that was available. For most of the burns this included an expert estimate of fuel loading and consumption.

The inventory developed consists of the emissions in Colorado from wildland prescribed burning completed only by the entities listed on page 1. The Division does not receive any emissions information from open burning performed by other parties, such as ski areas and the agricultural industry. This inventory does not include the emissions from wildfires.

The magnitude of prescribed burning in states in the northwest and southwest regions of the U.S. far exceeds that of Colorado. Much of the research on emissions from prescribed fire and the impacts of various parameters on the emissions is performed in these areas. The accuracy of applying these factors to develop emissions for Colorado's inventory has not been determined, but they should be adequate to develop an emissions inventory with a moderate level of confidence.

The permittees report the acreage burned, fuel loading, fuel type and fuel type composite for this emissions inventory. If it is necessary to estimate fuel loading for a burn, loadings are estimated by averaging the reported fuel loading of other burns with the same fuel type. For information concerning a specific burn, contact the Division. **Table II** is a summary of typical fuel loadings for various fuels.

TABLE II AVERAGE FUEL LOADING FOR SELECTED FUEL TYPES FOR COLORADO						
FUEL TYPE	TOTAL FUEL LOADING (tons/acre)	REFERENCES				
Grass	2	Prescribed Fire Smoke Management Guide Aids to Determining Fuel Models for Estimating Fire Behavior (Range of 0.74 to 4.0 T/A is indicated in reference- 2 T/A is the most common loading for Colorado projects)				
Sagebrush	5	Average of reported loading from other burns				
Oakbrush	4	Average of reported loading from other burns				
Pine / Conifer	30	AP-42, Wildfires and Prescribed Burning, Rocky Mtn Avg*				
FUEL TYPE	FUEL LOADING (lbs/ft <sup>3</sup> )	REFERENCE				
Piled Douglas-fir	38	Estimating the Volume of Wood in Large Piles of Logging Residue				

<sup>\*</sup> AP-42 value = fuel loading x fuel consumption during wildfire. A value for the fuel loading separately is not given. If less than 100% consumption was used in calculating this value, the fuel loading would be less.

#### **EMISSION FACTORS**

The major pollutants from prescribed burning are particulate matter, carbon monoxide, and volatile organic compounds. For the purpose of this report, an inventory of particulate matter, volatile organic compounds (methane and non-methane hydrocarbons) and oxides of nitrogen was developed. Emission factors, that experts have indicated should be fairly accurate for Colorado, are available for these pollutants for most of the reported fuel types. The emission factors are reported as pounds of the specific pollutant produced for each ton of fuel that is consumed. The majority of the emission factors are calculated from measurements taken during prescribed fires in the Northwest. **Table III** is a summary of the emission factors used to develop the emissions inventory.

	TABLE III EMISSION FACTORS FOR COLORADO										
FUEL TYPE			Е		N FACTO os/ton	RS		REFERENCES			
	Par	ticulate	es *	CO	Volatile	Organics	NO <sub>x</sub> **				
	PM <sub>2.5</sub>	PM <sub>10</sub>	Total PM		Methane	Non Methane					
Grass	18 <b>†</b>	20	20	150	0	0	2.5	AP-42- Rocky Mtn Grasslands & Chaparral Grassland			
Sagebrush	27	30	45	206	12.4	13.8	2.5	USDA Forest Service, Fire and Air Research Station & AP-42, Sagebrush Range Fire			
Oakbrush	16	18	30	124	9	25	2.5	AP-42- Pacific SW Chaparral & Chaparral Shrub			
Aspen	16	18	30	124	9	25	2.5	AP-42- Pacific SW Chaparral & Chaparral Shrub			
Pine/Conifer	60 <del>*</del>	60	70	326	11.2	7	2.5	AP-42- Rocky Mtn Underburning Pine & Short- Needle Conifer			
Piled Slash	8.	8	12	74	3.6	0	2.5	AP-42- Rocky Mtn Logging Slash & Logging Slash Debris			
Pinon / Juniper	9.	24	27	167	12	10.4	2.5	AP-42- Pacific SW Pinon/Juniper & Juniper Range Fire			
Other	23▼	26	34	350	9.4	9.2	2.5	AP-42, Rocky Mtn Region Avg			

<sup>\*</sup> Each particulate size category includes all particulates in the smaller size classes

- \* AP-42, Pacific NW Underburning Pine (PM<sub>2.5</sub> only)
- AP-42, Pacific NW Piled Logging Slash (PM<sub>2.5</sub> only)
- ▼ AP-42, Pacific NW Region Avg (PM<sub>2.5</sub> only)

<sup>\*\*</sup> AP-42, Average of Emission Factor Range for All Fuel Types (NO<sub>x</sub>)

<sup>†</sup> Calculated using the average ratio of PM<sub>10</sub> emissions to PM<sub>2.5</sub> emissions from the sagebrush, oakbrush, aspen and pine/conifer emission factors

#### **EMISSIONS**

The estimate of the emissions from prescribed fire performed by land managers for 2006 is summarized in **Table IV**. The summary includes the  $PM_{10}$ , VOC,  $NO_x$  and NMHC emissions from pile and broadcast burns and wildland fire use fires by permittee. For information regarding other pollutants, contact the Division. Most of the permittees completed at least some of their proposed prescribed burns during 2006. The size of a broadcast burn is reported as acres burned and percent of fuel consumed. The **Total Acres** column in **Table IV** reflects the acres burned. The size of a pile burn is reported as the volume (in cubic feet) of slash ignited and the percentage of slash consumed. The amount of fuel consumed during pile burning is summarized in the **Volume Consumed** column.

				TABLE IV					
	SUMMARY (	_		T EMISSIONS I			OR 2006		
AGENCY	for Reported Projects with Burning Activity  AGENCY   NUMBER OF   TOTAL   NUMBER   VOLUME   TOTAL   TOTAL   TOTAL   AGENCY'S								
AGENCY	BROADCAST	_	OF PILE	CONSUMED	PM10	VOC	NOX	NMHC	AGENCY'S % OF
	BURNS	ACKES	BURNS	(ft <sup>3</sup> )	(tons)	(tons)	(tons)	(tons)	TOTAL
	DURINS		DUKINS	(11)	(tons)	(tons)	(tons)	(tons)	PM10
BLM	8	2,924	20	821,159	201	75	59	42	13.9%
Boulder County OS	0		4	178,345	14	3	0	9	0.9%
CDOW	4	533	1	3,600	12	7	4	0	0.8%
Cherryvale Fire	0	-	1	116,731	9	2	0	6	0.6%
City of Boulder	0	1	0					-	0.0%
City of Fort Co	1	120	1	1,205	1	1	0	0	0.1%
CSFS	1	66	10	240,414	19	5	0	11	1.3%
Fort Carson Army	4	6,665	0		76	76	0	2	5.2%
Jeffco OS	1	12	2	17,629	2	1	0	1	0.1%
Larimer County	0		1	20,885	2	0	0	1	0.1%
MULTI	1	703	1	78,512	30	9	33	4	2.1%
NPS	3	335	10	924,584	86	33	0	44	5.9%
PRIVATE	3	320	2	273,180	39	13	7	13	2.7%
USFS	26	17,567	62	5,676,533	888	310	218	279	61.3%
USFWS	4	2,575	1	90,415	69	45	16	507	4.7%
West Metro Fire	2	111	0		2	2	0	0	0.1%
Prescribed Fire									
Subtotal	61	31,957	116	8,443,192	1,447	582	337	417	100.00%
BLM Fire Use	0	-						-	
MULTI Fire Use	3	28	-		< 1 ton	< 1 ton	< 1 ton	< 1 ton	
NPS Fire Use	0	-						-	
USFS Fire Use	0								
Wildland Fire Use			_						
Subtotal	3	28			< 1 ton	< 1 ton	< 1 ton	< 1 ton	
All Permittees	64	31,985	116	8,443,192	1,448	583	338	418	

PM10= Particulate Matter under 10 microns

NOX= Nitrogen Oxide(s)

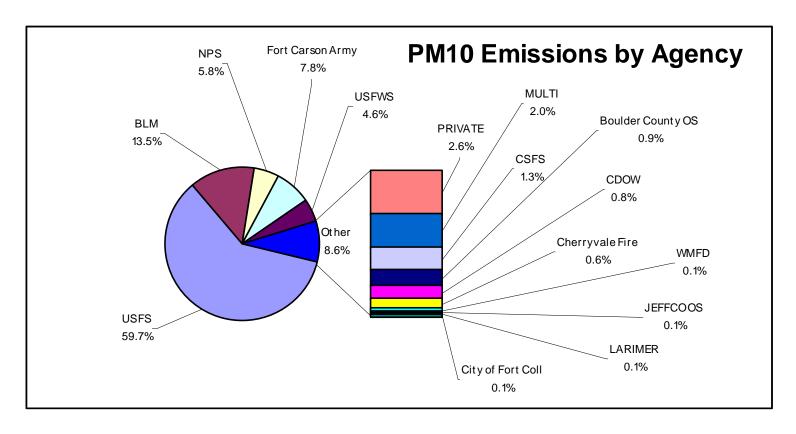
VOC= Volatile Organic Compounds NMHC= Non Methane Hydrocarbons During 2006, the air pollutants emitted during wildland fire use fires was insignificant. The number of wildland fire use ignitions within a planning area varies substantially year-to-year and the acres burned vary much more. There were 3 wildland fire use burns in 2006. Only 28 acres were burned between these fires in 2006. Even though several more agencies had updated their fire management plans and now have areas on which wildland fire use would be a management option, wildland fire use acres were low. The San Juan Public Lands and the Upper Colorado Interagency Fire Management Unit both had lightning starts that were in areas approved for wildland fire use. Both fires went out before they reached an acre in size. The Northwest Colorado Interagency Fire Management Unit had a 27-acre wildland fire use fire in early June.

Land managers and owners that use wildland prescribed fire to manage wildland areas are charged fees to cover the cost of the Division's wildland fire program. These fees are based in part on the amount of PM10 emitted by an agency's completed projects during the year. **Figure II** provides each entity's percentage of the total PM10 emissions during 2006 for prescribed fire projects. Wildland fire use areas are charged a flat fee each year. They may or may not have any emissions from wildland fire use in a given year. Contact the Division for more information about the fee program and how data from the emission inventory is used to determine fees.

**Figure III** is a comparison of the particulate matter emissions from prescribed fire to other types of emission sources. Although a project may cause significant, short-term impacts to an area, the total emissions from prescribed fire are orders of magnitude less than emissions from stationary and mobile sources. Prior to 2002, only a couple of areas had wildland fire use plans in place and most years the emissions from the burns were negligible. **Table V** provides the values used to create **Figure III.** 

Figure II
PM<sub>10</sub> Emissions from Permitted Wildland Fire Projects with Activity during 2006

Excludes Wildland Fire Use Emissions

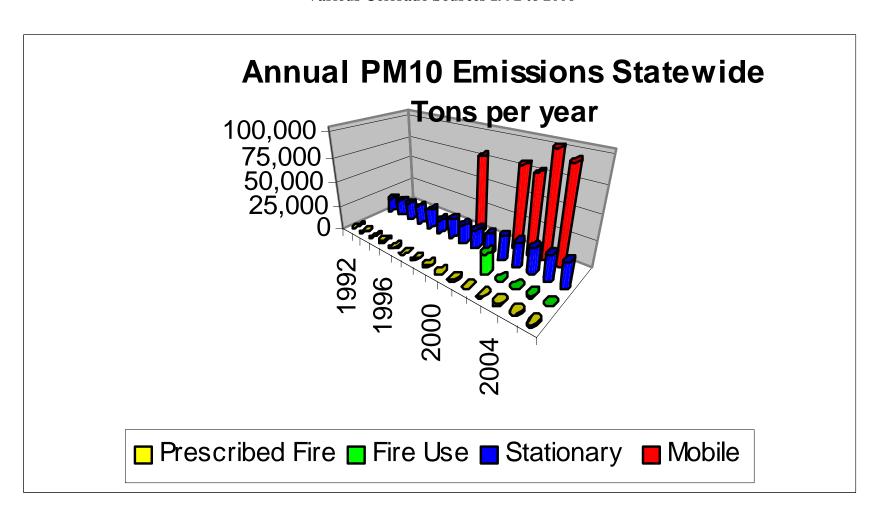


Multi category includes burns with more than one agency participating.

	TABLE V Annual PM <sub>10</sub> Emission Inventory							
	for Various Colorado Sources from 1992 to 2003							
		(Tons per Year)						
Year	Prescribed Fire	Wildland Fire Use	Stationary Sources (includes portable and fugitive dust)	Mobile-Statewide (includes tailpipe and road dust emissions)*				
1992	627		15,364	unknown				
1993	1,646		16,452	unknown				
1994	895		18,185	unknown				
1995	2,267		19,783	unknown				
1996	1,298		21,215	unknown				
1997	709		13,897	unknown				
1998	1,684		20,376	unknown				
1999	1,633		19,376	80,229				
2000	390		19,362	unknown				
2001	1,747		21,004	unknown				
2002	666	19,723	24,518	82,376				
2003	910	782	24,413	78,671				
2004	3,093	247	24,736	98,600				
2005	1,726	2,458	24,745	94,565				
2006	1,447	1	24,646	not available				

<sup>\*</sup> Prior to 2002 mobile emission inventories are available only from special studies and were not calculated for each year. Currently there is an 18-month delay to estimate the mobile source emission inventory.

Figure III
Annual PM<sub>10</sub> Emission Inventory
Various Colorado Sources 1992 to 2006



Appendix A

List of 2006 Projects

A notation of 'No Activity' in the last column means the project was not burned in 2006.

Full Permit Number	Burn Name	Agency	Total Acres Burned as Broadcast	Total Piles (Volume Consumed in ft <sup>3</sup> )	Burning During the Year?
CRD-06-140	CEDAR MT SLASH PILES	BLM		10,800	
CRD-06-170	MAGGIE	BLM			No Activity
CRD-06-237	GREYSTONE SLASH PILES	BLM		34,200	
CRD-06-142	STAGECOACH SLASH PILES	BLM			No Activity
CRD-06-141	MIDDLE MT SLASH PILES	BLM		7,650	
CRD-06-139	7 MILE SLASH PILES	BLM		14,250	
CRD-06-283	CURTIS DIVIDE	BLM	80		
CRD-06-209	NINE MILE	BLM			No Activity
CRD-06-285	MIDDLE MOUNTAIN	BLM			No Activity
GJD-06-225	EL JEBEL PILES	BLM		21,205	
GWD-06-177	DEERPEN	BLM			No Activity
GWD-06-175	BURNT MILL MESA	BLM			No Activity
KRD-06-310	PUMPHOUSE PILES	BLM			No Activity
KRD-06-233	MULE CREEK	BLM			No Activity
LRD-06-306	GORE LAKE FUEL REDUCTION	BLM		18,169	
KRD-06-226	JUNCTION BUTTE	BLM			No Activity
MRD-06-174	ROUBIDEAU	BLM			No Activity
MRD-06-106	CRYSTAL LODGE	BLM		123,483	
MRD-06-173	PAXTON	BLM			No Activity
MRD-06-214	TEN MILE BROADCAST	BLM			No Activity
MRD-06-147	GOVERNMENT SPRINGS PILES	BLM		14,398	
MRD-06-213	COCHETOPA CANYON	BLM			No Activity
MRD-06-212	GOOSE CREEK BROADCAST	BLM			No Activity
MRD-06-211	W. ANTELOPE/STEER'S GULCH	BLM	280		
MRD-06-295	GOOSE CK PILES	BLM		22,939	
MRD-06-197	GOVERNMENT SPRINGS	BLM	115		
MRD-06-198	MAILBOX	BLM			No Activity
MRD-06-243	LONG GULCH	BLM			No Activity
PSF-06-292	Turkey Gulch Piles	BLM			No Activity
RGD-06-025	DAWSON RANCH PILES	BLM		6,750	
RGD-06-094	RICE GULCH PILES	BLM		40,500	
RGD-06-023	POVERTY MOUNTAIN PILES	BLM		44,550	
RGD-06-291	SULLIVAN CREEK PILES	BLM		49,300	
RGD-06-024	SPRUCE BASIN PILES	BLM			No Activity
PSF-06-296	LAKEMOOR WEST PILES	BLM		44,745	
RGD-06-266	ARKANSAS MOUNTAIN	BLM			No Activity
RGD-06-103	ARKANSAS MOUNTAIN FUELBREAK	BLM		109,633	
RGD-06-068	RICE GULCH	BLM			No Activity
MUL-06-129	LAKEMOOR WEST	BLM			No Activity

Full Permit Number	Burn Name	Agency	Total Acres Burned as Broadcast	Total Piles (Volume Consumed in ft <sup>3</sup> )	Burning During the Year?
SGD-06-136	HAT SPRINGS UNITS 1,2,5	BLM	825		
SJD-06-249	VIGIL & ABEYTA MESAS UNITS A-R	BLM	484		
SJD-06-122	FLORIDA MESA PILES	BLM		102,318	
SJD-06-149	DOLORES RIM	BLM	500		
SJD-06-124	SCHOOL PILES	BLM		58,482	
SJD-06-125	SUMMIT	BLM		8,348	
SJD-06-319	EDGEMONT	BLM			No Activity
WRD-06-126	RED ROCK	BLM	550		
WRD-06-123	WRFO RUSSIAN OLIVE PILES	BLM		14,800	
WRD-06-271	RED WASH RESTORATION	BLM			No Activity
WRD-06-015	WHITE RIVER CULTURAL SITES	BLM		74,640	-
WRD-06-127	BOIES PRESCRIBE BURN	BLM	90		
MRD-06-158	Uncompangre Field Office & Gunnison	BLM use			No Activity
RGD-06-163	ROYAL GORGE FIELD OFFICE WFU	BLM use			No Activity
BOX-06-026	BLUE JAY SLASH	Boulder		23,038	,
BOX-06-019	WALKER RANCH SLASH	Boulder		,	No Activity
BOX-06-018	REYNOLDS CONTRACT SLASH	Boulder		113,712	, ,
BOX-06-017	BETASSO SLASH	Boulder		21,600	
BOX-06-016	HEIL CONTRACT SLASH	Boulder		19,995	
DEW-06-234	WOODHOUSE SWA	CDOW			No Activity
DEW-06-235	TARRYALL SWA	CDOW	2		
FMS-06-034	GREAT PLAINS WILDFIRE COLLEGE		_		No Activity
GOS-06-161	BEAR CREEK BOWL II	CDOW	190		110 / totavity
MUL-06-232	RADIUM	CDOW	300		
MOW-06-185	LOWER ROUBIDEAU TAMARISK	CDOW	300		No Activity
MOW-06-187	HAMILTON TAMARISK PILES	CDOW		3,600	110 / totavity
MOW-06-184	ESCALANTE FOOD PLOTS/FIELD	CDOW	41	3,000	
MUL-06-231	BOSQUE OAK	CDOW			No Activity
CVX-06-053	FLAGSTAFF	Cherryvale		116,731	140 / tolivity
BCX-06-191	WATERTANK SE	City of		1.10,7.0.1	No Activity
BCX-06-196	PARCEL 1, 2	City of			No Activity
BCX-06-195	MCINTOSH	City of			No Activity
BCX-06-194	PARCEL 4, 9	City of			No Activity
BCX-06-193	WATERTANK NE	City of			No Activity
BCX-06-192	PARCEL 7	City of			No Activity
FCX-06-264	BOBCAT RIDGE PILES	City of Fort		1,205	
FCX-06-230	MCKEE FARMS	City of Fort	120	1,200	
FCX-06-289	ARAPAHO BEND	City of Fort	120		No Activity
ALS-06-117	FORBES PARK PILES	CSFS		4,560	. 10 / totavity
BOS-06-031	JACOBSEN PILE BURN	CSFS			(no dailies)
BRS-06-188	GOOSE CREEK PILES	CSFS		5,572	No Activity
BRS-06-069	HORSE CREEK PILES	CSFS			No Activity
BRS-06-070	NIGHTHAWK PILES	CSFS			No Activity
DRS-06-098	ADAMS RANCH SALE #1	CSFS			No Activity
DIVO-00-090	ADAMO NAMON SALE #1	001 0			INO ACTIVITY

Full Permit Number	Burn Name	Agency	Total Acres Burned as Broadcast	Total Piles (Volume Consumed in ft <sup>3</sup> )	Burning During the Year?
DRS-06-097	OLD FORT LEWIS FUELBREAK CUT	CSFS		17,910	
FCS-06-088	CRYSTAL MOUNTAIN SL PILES	CSFS		9,216	
FCS-06-089	MANHATTAN SL PILES	CSFS		10,746	
FCS-06-091	GEORGES GULCH PILES	CSFS		22,800	
GOS-06-096	STAUNTON STATE PARK PILES	CSFS		83,654	
GOS-06-160	STAUNTON STATE PARK	CSFS	66		
SAS-06-061	LITTLE COCHETOPA	CSFS		3,420	
SAS-06-060	DRY CREEK STATE LAND & MAHER	CSFS		76,936	
SAS-06-059	SQUAW CREEK SOUTH	CSFS			No Activity
SSS-06-162	CS FOREST PILES	CSFS		7,600	
FCQ-06-218	FORT CARSON - PCMS AREA	Fort Carson	3,939		
FCQ-06-219	FORT CARSON - NORTH AREA	Fort Carson	1,255		
FCQ-06-220	FORT CARSON - PILES	Fort Carson			No Activity
FCQ-06-221	FORT CARSON - SOUTH AREA	Fort Carson	561		
FCQ-06-222	FORT CARSON - MIDDLE AREA	Fort Carson	910		
JEX-06-164	WHITE RANCH BROADCAST	JEFFCO OS	12		
JEX-06-013	WHITE RANCH SLASH PILE	JEFFCO OS		9,824	
JEX-06-014	ELK MEADOW SLASH PILE	JEFFCO OS		7,806	
JEX-06-159	MT FALCON BROADCAST	JEFFCO OS			No Activity
LRX-06-054	HUGHEY OPEN SPACE	LARIMER			No Activity
LRX-06-077	HORSETOOTH	LARIMER		20,885	
MUL-06-128	BOX CREEK	MULTI			No Activity
MUL-06-273	SLAUGH WALL	MULTI			No Activity
MUL-06-246	ROARING FORK BROADCAST	MULTI	703		
MUL-06-063	SULLIVAN CREEK	MULTI			No Activity
MUL-06-064	DEER HAVEN	MULTI			No Activity
MUL-06-041	3-4 Elk #2	MULTI		78,512	
MUL-06-186	NW COLORADO FIRE	MULTI use	27		
MUL-06-272	Upper Colo River Interagency Fire Mgt	MULTI use	<1		
MUL-06-118	SAN JUAN PUBLIC LANDS	MULTI use	<1		
BFP-06-248	CATTAILS/DOGTOWN	NPS	300		
CNP-06-203	COLORADO NATIONAL MONUMENT	NPS		88,110	
FFP-06-007	FLORISSANT PILES	NPS		48,611	
MVP-06-304	FARVIEW	NPS	10		
MVP-06-224	HOGAN'S PILE	NPS		34,650	
MVP-06-305	MOREFIELD RX	NPS	25		
RMP-06-048	MORAINE PARK TEMPORARY	NPS		159,768	
RMP-06-012	MORAINE PARK 2F	NPS			No Activity
RMP-06-049	GLACIER BASIN TEMP STORAGE	NPS		47,520	·
RMP-06-008	EAGLE CLIFF PILES	NPS		4,275	
RMP-06-110	PONTIAC PIT	NPS		96,000	
RMP-06-009	DEER MOUNTAIN PILES	NPS		219,931	
RMP-06-010	EMERALD PILES	NPS		28,742	
RMP-06-011	GRAND LAKE BOUNDARY PILES	NPS		196,977	

Full Permit Number	Burn Name	Agency	Total Acres Burned as Broadcast	Total Piles (Volume Consumed in ft <sup>3</sup> )	Burning During the Year?
RMP-06-047	LILY LAKE TEMPORARY STORAGE	NPS			No Activity
RMP-06-078	ROCKY MOUNTAIN NATIONAL	NPS use			No Activity
PVT-06-314	BARN-1 UNIT 2	PRIVATE			No Activity
PVT-06-318	GLMRD	PRIVATE		270,900	
PVT-06-267	BOOTH CREEK UNIT 6	PRIVATE	16		
PVT-06-317	GINN SLASH	PRIVATE		2,280	
PVT-06-228	WWV RADIO TOWER	PRIVATE	35		
PVT-06-121	YMCA EMERALD MNT PROJECT	PRIVATE			No Activity
PVT-06-150	BANDED PEAK RANCH 2006	PRIVATE	269		
PVT-06-165	PHANTOM CANYON PRESERVE:	PRIVATE			No Activity
PVT-06-315	COAL CREEK #1 KENNEDY	PRIVATE			No Activity
PVT-06-092	GRAND RIVER PILES	PRIVATE			No Activity
ARF-06-223	SHEEP CREEK 2 - 2006	USFS			No Activity
ARF-06-311	SUGARLOAF 110 SOUTH	USFS			No Activity
ARF-06-051	CRYSTAL LAKES PILES	USFS		1,255,395	
ARF-06-268	GREENRIDGE CAMPGROUND	USFS			No Activity
ARF-06-052	STRINGTOWN PILES	USFS			No Activity
ARF-06-307	SUGARLOAF 156 SOUTH	USFS			No Activity
ARF-06-032	SHEEP CREEK 1	USFS	78		
ARF-06-033	DOWDY 2006	USFS			No Activity
ARF-06-055	SOUTH ELKHORN PILES	USFS		65,508	
ARF-06-062	SUGARLOAF UNIT 103	USFS		41,563	
ARF-06-082	SUGARLOAF F6, 7S	USFS			No Activity
ARF-06-262	HORSESHOE	USFS		18,900	
ARF-06-261	ST LOUIS CREEK	USFS			No Activity
ARF-06-090	COLUMBINE UNITS 1,2,3	USFS		576,896	
ARF-06-133	PAWNEE 2006	USFS	4,251		
ARF-06-260	AFTERBURNER	USFS			No Activity
ARF-06-086	PORTER RANCH UNITS 1 & 7	USFS		10,179	-
ARF-06-085	LAKESHORE	USFS			No Activity
ARF-06-313	SUGARLOAF UNIT 13	USFS		185	-
ARF-06-083	SUGARLOAF UNITS 83, 66, 92	USFS		17,670	
ARF-06-303	WINIGER STEWARDSHIP 4	USFS		11,583	
ARF-06-081	SUGARLOAF UNIT 57	USFS		229,884	
ARF-06-080	SANTE FE SECTION 7	USFS		1,536	
ARF-06-259	WILLOW CREEK RESERVOIR	USFS		3,600	
ARF-06-257	ANRA Unit F 10	USFS		7,020	
ARF-06-245	KYSER CREEK	USFS	35	•	
ARF-06-258	CRIMSON	USFS		135,000	
ARF-06-312	SUGARLOAF 107	USFS		1,152	
ARF-06-084	SUGARLOAF UNT 21	USFS		7,583	
GMF-06-215	ALPINE	USFS		, - 3 0	No Activity
GMF-06-208	EXCALANTE	USFS			No Activity
GMF-06-200	MESA LAKES	USFS			No Activity

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GMF-06-207	ROAT CAP	USFS			No Activity
GMF-06-201	BATTLEMENTS	USFS	1,000		
GMF-06-202	ONE MILE	USFS	239		
GMF-06-206	SAND MOUNTAIN	USFS			No Activity
GMF-06-199	FLAT TOP	USFS			No Activity
GMF-06-250	OURAY SPRINGS PILES	USFS			No Activity
GMF-06-297	ILLINOIS CREEK TIMBER SALE	USFS		717,570	
GMF-06-298	MINE TIMBER SALE	USFS		3,966	
GMF-06-299	BUFFALO FORK TIMBER SALE	USFS		26,002	
GMF-06-252	HORSE PASTURE PIT/PILES	USFS		1,425	
GMF-06-251	HANKS VALLEY	USFS	72		
GMF-06-216	WEST ELK	USFS			No Activity
GMF-06-065	WHITEPINE HAND PILES	USFS		54,670	
GMF-06-172	TOMICHI	USFS	672		
GMF-06-288	DIVIDE CAMP GROUND PILES	USFS		2,250	
GMF-06-238	BASIN TIMBER SALE	USFS	7		
GMF-06-236	DOMINGUEZ	USFS	465		
GMF-06-217	MYERS	USFS			No Activity
GMF-06-171	DAVEWOOD	USFS	340		
PSF-06-302	VOC PILES	USFS			No Activity
PSF-06-284	10th MOUNTAIN HUTS - LAKE	USFS		270	
PSF-06-290	BLACK MT. PILES	USFS		42,750	
PSF-06-293	LONG JOHN WEST	USFS		118,463	
PSF-06-294	LONG JOHN EAST	USFS			No Activity
PSF-06-058	VILLEGREEN	USFS			No Activity
PSF-06-263	550 ROAD UNDERBURN	USFS			No Activity
PSF-06-316	PAN ARK	USFS		13,685	
PSF-06-308	BENNETT MOUNTAIN PILES	USFS		562,337	
PSF-06-001	SLEDGEHAMMER 2 AREA, SLEDGE	USFS			No Activity
PSF-06-004	FISH CREEK PILES 2006	USFS		14,025	
PSF-06-002	SLEDGEHAMMER 3A - ALL UNITS	USFS		377,460	
PSF-06-003	SLEDGEHAMMER 3B - ALL UNITS	USFS			No Activity
PSF-06-005	11-MILE RANCH PILES 2006	USFS			No Activity
PSF-06-229	BUFFALO CREEK	USFS			No Activity
PSF-06-104	FDR SHADED FUEL BREAK	USFS		64,275	
PSF-06-071	SLEDGEHAMMER EAST - BLUE	USFS			No Activity
PSF-06-072	SLEDGEHAMMER WEST - BLUE	USFS			No Activity
PSF-06-073	SLEDGEHAMMER - FISH CREEK	USFS			No Activity
PSF-06-074	TROUT WEST	USFS			No Activity
PSF-06-075	RIDGEWOOD PILES	USFS		37,800	
PSF-06-204	TRUMBULL BROADCAST	USFS			No Activity
PSF-06-076	TROUT CREEK PILES	USFS		105,750	
PSF-06-093	INDIAN CREEK	USFS			No Activity
PSF-06-095	DOUGLAS-FIR TUSSOCK MOTH	USFS			No Activity

Full Permit Number	Burn Name	Agency	Total Acres Burned as Broadcast	Total Piles (Volume Consumed in ft <sup>3</sup> )	Burning During the Year?
PSF-06-067	RED CREEK PILES	USFS		19,125	
PSF-06-102	SLEDGEHAMMER	USFS			No Activity
PSF-06-099	MONUMENT PILES	USFS		4,725	
PSF-06-105	TRUMBULL PILES	USFS			No Activity
PSF-06-107	JENNY GULCH PILES	USFS			No Activity
PSF-06-108	KELSEY	USFS			No Activity
PSF-06-020	JENNY GULCH	USFS			No Activity
PSF-06-056	WOODLAND PARK PILES	USFS			No Activity
PSF-06-167	BASSAM RIDGE BROADCAST	USFS	400		
PSF-06-166	EDDY CREEK BROADCAST	USFS	600		
PSF-06-116	BEAR MOUNTAIN PILES	USFS		273,637	
PSF-06-132	SPRINGER'S PILES	USFS		39,150	
PSF-06-100	NODDLES	USFS	5		
PSF-06-039	BROWNS CREEK	USFS			No Activity
PSF-06-028	CAT CANYON	USFS			No Activity
PSF-06-101	SLEDGEHAMMER - ROAD GULCH	USFS			No Activity
PSF-06-027	BLACK MOUNTAIN FIRE	USFS	150		
PSF-06-066	LITTLE FROZE CREEK TS PILES	USFS		17,280	
PSF-06-030	PINTATA	USFS			No Activity
PSF-06-035	ADVENTURE UNLIMITED	USFS		165,503	
PSF-06-036	SQUAW CREEK	USFS		67,422	
PSF-06-037	RED DEER	USFS		22,800	
PSF-06-029	KIRKWELL SOUTH	USFS			No Activity
PSF-06-038	RANCH OF THE ROCKIES	USFS			No Activity
PSF-06-040	DRY LAKES, MAYSVILLE	USFS		717	
PSF-06-045	WINDMILL	USFS			No Activity
PSF-06-021	HORN CREEK PILES	USFS		8,640	-
PSF-06-043	DEWEESE	USFS			No Activity
PSF-06-057	MOUNT CARMEL	USFS			No Activity
PSF-06-044	BUFFALO WALLOW	USFS			No Activity
PSF-06-022	LAKE ISABEL PILES	USFS		850	-
PSF-06-046	PLEASANT RIDGE	USFS			No Activity
RGF-06-006	ALPINE PILES 2006	USFS		32,205	,
RGF-06-135	PARK CREEK UNITS 1 & 2	USFS	352		
WRF-06-280	LITTLE KERBER WEST	USFS			No Activity
RGF-06-050	FIRE BOX PARK PILES	USFS		2,250	-
RGF-06-109	NOVEMBER BROADCAST RX	USFS	1,148	<u> </u>	
CRD-06-287	CONEJOS CANYON WUI PILES	USFS	·	34,256	
RGF-06-134	HOUSELOG UNITS 11-13	USFS	450	<u> </u>	
RGF-06-079	MILL CREEK PILES	USFS		38,000	
RGF-06-111	BLANCA WETLANDS RX	USFS		<u> </u>	No Activity
RGF-06-112	RITO HONDO BROADCAST RX	USFS			No Activity
RTF-06-242	DUNCKLEY	USFS	160		,
RTF-06-241	BIG TWISTY	USFS			No Activity

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RTF-06-210	ELK MTN	USFS			No Activity
RTF-06-178	WHITE SLIDE	USFS			No Activity
RTF-06-179	DRY LAKE 1	USFS		17,860	
RTF-06-180	DRY LAKE BROADCAST	USFS			No Activity
RTF-06-182	BIG CREEK PILES	USFS			No Activity
RTF-06-183	BIG CREEK RIDGE	USFS	1,050		
RTF-06-176	GOULD	USFS			No Activity
RTF-06-181	CAMP CREEK BROADCAST	USFS	400		
SJF-06-255	BENSON CREEK	USFS			No Activity
SJF-06-205	HERMOSA	USFS			No Activity
SJF-06-190	ANDERSON TRAIL	USFS			No Activity
SJF-06-189	FISH CREEK	USFS			No Activity
SJF-06-254	LOWER VALLE SECO	USFS			No Activity
SJF-06-253	KENNEY FLATS	USFS			No Activity
SJF-06-146	LITTLE BEAR	USFS			No Activity
SJF-06-247	DEVIL CREEK	USFS	521		-
SJF-06-256	MULE MOUNTAIN	USFS			No Activity
SJF-06-168	BOGGY COMPLEX AND HORSE	USFS	1,405		
SJF-06-169	TRAIL CANYON COMPLEX	USFS	995		
SJF-06-148	DOE CANYON COMPLEX	USFS			No Activity
SJF-06-042	PAGOSA PILES - CHIMNEY ROCK	USFS		12,194	
SJF-06-301	PAGOSA PILES-UTE CG- UNIT #4	USFS		7,437	
SJF-06-113	LANGE CANYON	USFS	527		
SJF-06-114	SAWMILL CANYON	USFS			No Activity
SJF-06-265	MCPHEE PASTURE	USFS			No Activity
SJF-06-300	PAGOSA PILES-CHIMNEY ROCK-	USFS		12,781	,
SJF-06-274	PAGOSA PILES - TURKEY SPRINGS	USFS		4,378	
SJF-06-275	PAGOSA PILES - O'NEAL	USFS		30,983	
SJF-06-276	PAGOSA PILES - FOUR MILE	USFS		1,280	
SJF-06-130	MITCHELL LAKES	USFS		-,	No Activity
SJF-06-131	MCPHEE PILES	USFS		86,187	,
SJF-06-277	SHAMROCK	USFS			No Activity
SJF-06-309	EIGHTMILE #1 PAGOSA PILES	USFS			No Activity
WRF-06-281	FULFORD PILES	USFS		5,148	-
WRF-06-279	COTTONWOOD MESA	USFS		18,240	
SJF-06-138	SOUTH CENTRAL BURN BLOCK	USFS			No Activity
WRF-06-154	SUMMIT WUI PILES	USFS		50,873	•
WRF-06-282	NORTH DERBY	USFS		43,780	
WRF-06-278	TENTH MOUNTAIN HUTS	USFS		4,234	
WRF-06-153	FRENCH CREEK – GRASS	USFS		.,201	No Activity
WRF-06-152	FRENCH CREEK – BRUSH	USFS	1,745		
WRF-06-151	WEST VAIL / DONOVAN BENCH	USFS	1,7 10	112,590	
WRF-06-145	MAMM CREEK RX	USFS	500	112,000	
WRF-06-144	BLANCO SUMMER HOMES	USFS			No Activity

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WRF-06-143	NORTHWEST BURN BLOCK	USFS			No Activity
WRF-06-137	CACHE CREEK BROADCAST	USFS			No Activity
WRF-06-286	EAST VAIL	USFS		15,660	
MUL-06-270	SAN LUIS PUBLIC LANDS CENTER	USFS use			No Activity
ALR-06-155	UNIT M	USFWS	914		
ALR-06-156	UNIT P, SUB UNIT N	USFWS	436		
ARR-06-269	HAMPTON	USFWS			No Activity
BPR-06-115	HOY PILES	USFWS		90,415	
BPR-06-119	BEAVER CREEK	USFWS			No Activity
BPR-06-120	HOY GRASSLAND	USFWS			No Activity
MVR-06-157	UNIT 23	USFWS	60		
RMR-06-087	ARSENAL BROADCAST BURNS '06	USFWS	865		
WEX-06-227	GREEN MTN. 06	WMFD			No Activity
WEX-06-239	KEN CARYL 06	WMFD	21		
WEX-06-240	BEAR CREEK LAKE PARK 06	WMFD			No Activity
WEX-06-244	FOOTHILLS PARK & REC 2006	WMFD	90		