



Fire and Resource Assessment Program
California Department of Forestry and Fire Protection

Fire History Data Dictionary

firep & rxburn feature classes

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Introduction

Within the California Dept. of Forestry and Fire Protection Fire Plan, fire perimeters are used to update and assess fuel model assignments. Historic fire perimeters provide a mechanism for estimating current fuel conditions within burned areas, providing a starting point for field validation. Fire perimeter data is used during major fires to display where fires have taken place in order to take advantage of reduced fuels and previous control lines. This data is important to a wide variety of industries from insurance to air quality. [Here is a link](#) to a scientific paper articulating the value of maintaining spatial fire perimeter data.

Conventions Used in This Document

- Geodatabase and feature classes are in **boldface** type, as in **fireyy_v_UUU.gdb**.
- Feature class attribute names are in *UPPER CASE ITALIC* type, as in *UNIT_ID*.
- Geodatabases and feature classes have a version suffix indicating the year and revision number of the dataset (together they are the version number). It has the form yy_v, where yy is the two-digit year and v is the revision number, starting with 1 for the initial release. Substitute the year of the fires for yy wherever it appears in the geodatabase or feature class name.

Minimum Mapping Requirements for CAL FIRE

1. Wildland timber fires greater than 10 acres.
2. Wildland brush fires greater than 50 acres.
3. Wildland grass fires greater than 300 acres.
4. Wildland fires destroying three or more residential or commercial structures.

Minimum Mapping Requirements for State Parks

1. All prescribed fires.

Minimum Mapping Requirements for BLM, NPS, & USFS

1. Wildland fires 10 acres or greater.
2. All prescribed fires.

What to collect and submit

Any fire that CAL FIRE responds to that meets the minimum mapping criteria within STATE DPA should be mapped. When a fire is on another agency's DPA, they will map it and turn it in, and you don't need to turn it in (unless otherwise directed). If a wildland fire perimeter is submitted by multiple agencies, DPA will be used to decide which

perimeter to keep, in most cases. Exceptions will include better attribution or a more detailed perimeter, upon agreement of the responsible agency.

Fire Perimeters Attributes

Name	Type	Size ¹	Domain?	Notes
<i>STATE</i>	Text	2	Yes	State in which the fire started
<i>YEAR_</i>	Text	4		Year in which the fire started
<i>AGENCY</i>	Text	3	Yes	Direct protection agency responsible for fire
<i>UNIT_ID</i>	Text	3	Yes	ICS code for unit
<i>FIRE_NAME</i>	Text	50		Name of the fire, UPPER CASE, without "fire" or "incident" following name
<i>INC_NUM</i>	Text	8		Number assigned by the Emergency Command Center of the responsible agency for the fire
<i>ALARM_DATE</i>	Date	8		DD/MM/YYYY format, date of fire discovery
<i>CONT_DATE</i>	Date	8		DD/MM/YYYY format, Containment date for the fire
<i>CAUSE</i>	Short Integer	2	Yes	Reason fire ignited
<i>C_METHOD</i>	Short Integer	2	Yes	Method used to collect perimeter data
<i>OBJECTIVE</i>	Short Integer	1	Yes	Tactic for fire response
<i>GIS_ACRES</i>	Float	4		GIS calculated area, in acres
<i>COMMENTS</i>	Text	100		Miscellaneous comments
<i>COMPLEX_NAME</i>	Text	50		If part of complex, the complex name
<i>COMPLEX_INCNUM</i>	Text	8		If part of complex, the complex incident number
<i>IRWINID</i>	Text	40		IRWIN stands for Integrated Reporting of Wildland Fire Information, a global unique identifier assigned at the onset of an incident.
<i>FIRE_NUM</i>	Text	8		Former numbering system preceding incident numbers

Notes

1. For type Text, this column indicates the maximum number of characters allowed. For types Short Integer and Float, this column indicates the maximum number of numeric digits allowed. For type Double, the first number indicates the maximum number of numeric digits allowed, including the ones after the decimal point, and the second number (after the comma) indicates the number of digits after the decimal point.

Fire Perimeters Domain Values

STATE domain

Display Value	Stored Value
Arizona	AZ
California	CA
Nevada	NV
Oregon	OR

UNIT_ID domain

Display Value	Stored Value
Amador - El Dorado CAL FIRE	AEU
Angeles National Forest	ANF
Bakersfield District - BLM (old)	BBD
Battle Mountain District	BMD
Beale Air Force Base FD	BEA
Bitter Creek National Wildlife Refuge	BRR
Butte CAL FIRE	BTU
CA Desert District - BLM	CDD
Camp Pendleton Marine Corps Base	MCP
Camp Roberts Military Base	CRB
Carson City District - BLM	CCD
Central CA District - BLM	CND
Channel Islands - NPS	CNP
City of Weed Vol. Fire Dept.	WED
Clear Lake National Wildlife Refuge	CLR
Cleveland National Forest	CNF
Colorado River District	CRD
Coos Bay District	CBD
Death Valley NP	DVP
Eldorado National Forest	ENF
Fort Hunter Liggett	FHL
Fremont National Forest	FNF

Fresno-Kings CAL FIRE	FKU
Golden Gate National Recreation Area - NPS	GNP
Hoopa Valley Tribe	HIA
Hopper Mountain National Wildlife Refuge	HPR
Humboldt - Del Norte CAL FIRE	HUU
Humboldt-Toiyabe National Forest	HTF
Inyo National Forest	INF
Joshua Tree NP	JTP
Kern County	KRN
Kern National Wildlife Refuge	KRR
Klamath National Forest	KNF
Lake Tahoe Basin Management Unit	TMU
Lakeview District	LAD
Lassen - Modoc CAL FIRE	LMU
Lassen National Forest	LNF
Lassen Volcanic NP	LNP
Lava Beds National Monument	BNP
Linda Fire Department	LFD
Los Angeles City FD	LDF
Los Angeles County	LAC
Los Padres National Forest	LPF
Lower Klamath National Wildlife Refuge	LKR
Madera - Mariposa CAL FIRE	MMU
Marin County	MRN
Medford District	MED
Mendocino CAL FIRE	MEU
Mendocino National Forest	MNF
Merced National Wildlife Refuge	MCR
Modoc National Forest	MDF
Mojave - NPS	MNP
Monterey - San Benito CAL FIRE	BEU
Naval Weapons Station	TNT
Nevada - Yuba - Placer CAL FIRE	NEU
Northern CA District - BLM	NOD
Orange County	ORC
Pinnacles National Park	PIP
Pixley National Wildlife Refuge	PLR
Plumas National Forest	PNF
Point Reyes National Seashore	RNP
Redwood National and State Parks	RWP
Riverside CAL FIRE	RRU
Rogue River - Siskiyou NF	RRS
Sacramento National Wildlife Refuge	SWR

San Bernardino CAL FIRE	BDU
San Bernardino National Forest	BDF
San Diego CAL FIRE	MVU
San Diego National Wildlife Refuge	TNR
San Joaquin River National Wildlife Refuge	SJR
San Luis National Wildlife Refuge	LUR
San Luis Obispo CAL FIRE	SLU
San Mateo - Santa Cruz CAL FIRE	CZU
San Pablo Bay National Wildlife Refuge	SPR
Santa Barbara County	SBC
Santa Clara CAL FIRE	SCU
Santa Monica Mtns National Recreation Area	SMP
Sequoia - Kings Canyon NP	KNP
Sequoia National Forest	SQF
Shasta - Trinity CAL FIRE	SHU
Shasta-Trinity National Forest	SHF
Sierra National Forest	SNF
Siskiyou CAL FIRE	SKU
Siskiyou National Forest	SIF
Six Rivers National Forest	SRF
Sonny Bono Salton Sea National Wildlife Refuge	SOR
Sonoma - Lake - Napa CAL FIRE	LNU
Sonoma CDF (old)	SNU
Southern California Agency	SCA
Southern Nevada District	SND
Stanislaus National Forest	STF
Tahoe National Forest	TNF
Tehama - Glenn CAL FIRE	TGU
Toiyabe National Forest	TOI
Tulare CAL FIRE	TUU
Tule River Agency	TIA
Tuolumne - Calaveras CAL FIRE	TCU
Vallejo Fire Dept.	VLJ
Vandenberg Air Force Base	AFV
Ventura County	VNC
Whiskeytown National Recreation Area	WNP
Yosemite National Park	YNP

AGENCY domain

Display Value	Stored Value
USDI Bureau of Indian Affairs	BIA
Bureau of Land Management	BLM
California Department of Forestry and Fire Protection	CDF
Contract County	CCO
California State Parks	CSP
Department of Defense	DOD
USDI Fish and Wildlife Service	FWS
Local Responsibility Area	LRA
No Protection	NOP
National Park Service	NPS
Private	PVT
USDA Forest Service	USF
Other	OTH

CAUSE domain

Display Value	Stored Value
1 – Lightning	1
2 – Equipment Use	2
3 – Smoking	3
4 – Campfire	4
5 – Debris	5
6 – Railroad	6
7 – Arson	7
8 – Playing with fire	8
9 – Miscellaneous	9
10 – Vehicle	10
11 – Powerline	11
12 – Firefighter Training	12
13 – Non-Firefighter Training	13
14 – Unknown/Unidentified	14
15 – Structure	15
16 – Aircraft	16
17 – Volcanic	17
18 – Escaped Prescribed Burn	18
19 – Illegal Alien Campfire	19

COLLECTION METHOD (C_METHOD) domain

Display Value	Stored Value
1 – GPS Ground	1
2 – GPS Air	2
3 – Infrared	3
4 – Other Imagery	4
5 – Photo Interpretation	5
6 – Hand Drawn	6
7- Mixed Collection Methods	7
8 – Unknown	8

OBJECTIVE domain

Display Value	Stored Value
Suppression (Wildfire)	1
Resource Benefit (WFU)	2

Prescribed Burn Attributes

Name	Type	Size ¹	Domain? ²	Notes
STATE	Text	2	Yes	
AGENCY	Text	3	Yes	
UNIT_ID	Text	3	Yes	
TREATMENT_ID	Text	16		
TREATMENT_NAME	Text	34		
YEAR	Text	4		'yyyy' format
START_DATE	Date			DD/MM/YYYY format
END_DATE	Date			DD/MM/YYYY format
TREATMENT_TYPE	Short Integer	2	Yes	
TREATED_AC	Double	11,2		
RX_CONSUM	Short Integer	1	Yes	
PRE_CON_CLASS	Short Integer	1	Yes	
POST_CON_CLASS	Short Integer	1	Yes	

Notes

1. For type *Text*, this column indicates the maximum number of characters allowed. For types *Long Integer*, *Short Integer*, and *Float*, this column indicates the maximum number of numeric digits allowed. For type *Double*, the first number indicates the maximum number of numeric digits allowed, including the ones after the decimal point, and the second number (after the comma) indicates the number of digits after the decimal point.

- For attributes having domains assigned, click the word Yes to see a table of allowable domain values.

Prescribed Burns Domain Values

Unit_ID_rxburn domain

Display Value	Stored Value
Amador - El Dorado CAL FIRE	AEU
Andrew Molera SP	491
Angeles National Forest	ANF
Bakersfield District - BLM (old)	BBD
Battle Mountain District	BMD
Beale Air Force Base FD	BEA
Bidwell-Sacramento River SP	163
Bitter Creek National Wildlife Refuge	BRR
Bull Creek SW	957
Butte CAL FIRE	BTU
CA Desert District - BLM	CDD
Calaveras Big Trees SP	306
Camp Pendleton Marine Corps Base	MCP
Camp Roberts Military Base	CRB
Carl "A" Anderson Redwoods NP	956
Carson City District - BLM	CCD
Castle Crags SP	124
Central CA District - BLM	CND
Channel Islands - NPS	CNP
City of Weed Vol. Fire Dept.	WED
Clear Lake National Wildlife Refuge	CLR
Cleveland National Forest	CNF
Colorado River District	CRD
Coos Bay District	CBD
Death Valley NP	DVP
Eldorado National Forest	ENF
Estero Bluffs SP	749
Fort Hunter Liggett	FHL
Fremont National Forest	FNF
Fresno-Kings CAL FIRE	FKU
Golden Gate National Recreation Area - NPS	GNP
Henry W. Coe SP	432
Hoopa Valley Tribe	HIA
Hopper Mountain National Wildlife Refuge	HPR
Humboldt - Del Norte CAL FIRE	HUU

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Humboldt Redwoods SP	119
Humboldt-Toiyabe National Forest	HTF
Indian Grinding Rock SHP	373
Inyo National Forest	INF
Jack London SHP	241
Joshua Tree NP	JTP
Kern County	KRN
Kern National Wildlife Refuge	KRR
Klamath National Forest	KNF
Lake Oroville SRA	151
Lake Tahoe Basin Management Unit	TMU
Lakeview District	LAD
Lassen - Modoc CAL FIRE	LMU
Lassen National Forest	LNF
Lassen Volcanic NP	LNP
Lava Beds National Monument	BNP
Linda Fire Department	LFD
Los Angeles City FD	LDF
Los Angeles County	LAC
Los Padres National Forest	LPF
Lower Klamath National Wildlife Refuge	LKR
Madera - Mariposa CAL FIRE	MMU
Marin County	MRN
McArthur-Burney Falls Memorial SP	125
Medford District	MED
Mendocino CAL FIRE	MEU
Mendocino National Forest	MNF
Modoc National Forest	MDF
Mojave - NPS	MNP
Montaña de Oro SP	441
Monterey - San Benito CAL FIRE	BEU
Mount Diablo SP	203
Naval Weapons Station	TNT
Nevada - Yuba - Placer CAL FIRE	NEU
Northern CA District - BLM	NOD
Orange County	ORC
Pinnacles National Park	PIP
Pixley National Wildlife Refuge	PLR
Plumas National Forest	PNF
Point Reyes National Seashore	RNP
Redwood National and State Parks	RWP
Riverside CAL FIRE	RRU
Rogue River - Siskiyou NF	RRS

Sacramento National Wildlife Refuge	SWR
San Bernardino CAL FIRE	BDU
San Bernardino National Forest	BDF
San Diego CAL FIRE	MVU
San Diego National Wildlife Refuge	TNR
San Joaquin River National Wildlife Refuge	SJR
San Luis National Wildlife Refuge	LUR
San Luis Obispo CAL FIRE	SLU
San Mateo - Santa Cruz CAL FIRE	CZU
Santa Barbara County	SBC
Santa Clara CAL FIRE	SCU
Santa Monica Mtns National Recreation Area	SMP
Sequoia - Kings Canyon NP	KNP
Sequoia National Forest	SQF
Shasta - Trinity CAL FIRE	SHU
Shasta-Trinity National Forest	SHF
Sierra National Forest	SNF
Sinkyone Wilderness SP	133
Siskiyou CAL FIRE	SKU
Siskiyou National Forest	SIF
Six Rivers National Forest	SRF
Sonny Bono Salton Sea National Wildlife Refuge	SOR
Sonoma - Lake - Napa CAL FIRE	LNU
Sonoma CDF (old)	SNU
Southern California Agency	SCA
Southern Nevada District	SND
Stanislaus National Forest	STF
Tahoe National Forest	TNF
Tehama - Glenn CAL FIRE	TGU
Toiyabe National Forest	TOI
Trione-Annadel SP	246
Tulare CAL FIRE	TUU
Tule River Agency	TIA
Tuolumne - Calaveras CAL FIRE	TCU
Vallejo Fire Dept.	VLJ
Vandenberg Air Force Base	AFV
Ventura County	VNC
Whiskeytown National Recreation Area	WNP
Wilder Ranch SP	456
Yosemite National Park	YNP

TREATMENT_TYPE domain

Display Value	Stored Value
Broadcast Burn	1
Fire Use	2
Hand Pile Burn	3
Jackpot Burn	4
Machine Pile Burn	5

RX_CONSUM domain

Display Value	Stored Value	Definition
1 – Low Consumption	1	Less than 50% of treatment area burned, very light reduction in fine fuel elements.
2 – Moderate Consumption	2	Greater than 50% of treatment area burned, and/or moderate (25 – 50%) reduction in fine fuels.
3 – High Consumption	3	Full (>90%) coverage of fire to treatment area, with associated significant (50 – 75%) reduction in fine fuels.
4 – Very High Consumption	4	Full (>90%) coverage of fire to treatment area, with very high consumption (>75%) of fine fuel elements.

The fuel consumption index (*RX_CONSUM*) is a relative measure of two components, extent and degree of consumption, which can be used to assess changes in fuel conditions following a fire. The index is used to modify fuel model data to reflect post treatment conditions and to estimate how long treatment will last.

Two main components drive the assessment of fuel changes from prescribed burn treatments:

- Extent of coverage, i.e., how much of the treatment area burned.
- Degree of consumption, i.e., how much fuel was consumed.

The extent of coverage refers to the percentage of the area treated that actually has been subjected to fire. Under relatively moderate prescriptions, significant areas may remain unburned. The consumption characteristic refers to the physical changes in the fuel bed that result from fuel consumption. Particular attention should be paid to the consumption of small-diameter fuel particles (less than one inch in diameter) and changes in fuel bed depth.

PRE_CON_CLASS and POST_CON_CLASS domain

Display Value	Stored Value
Within or near historical range	1
Moderately altered from historical range	2
Significantly altered from historical range	3

A *natural fire regime* is a general classification of the role fire would play across a landscape in the absence of modern human mechanical intervention.

Condition class refers to the general deviation of ecosystems from their pre-settlement natural fire regime and can be viewed as a measure of sensitivity to fire damage to key elements and processes typical of those ecosystems, or fire-related risk to ecosystem health. Fundamental to this is the idea that current expected fires are compared to historic fire regimes with respect to fire frequency, size and patchiness, and effects on key ecosystem elements and processes. These classes are then assigned based on current vegetation type and structure, an understanding of its pre-settlement fire regime, and current conditions regarding expected fire frequency and potential fire behavior. Condition classes were thus defined as the relative risk of losing key components that define an ecosystem (Hardy, et al, 2001).

The conceptual basis is that for fire-adapted ecosystems, much of the ecological structure and processes are driven by fire, and disruption of fire regimes leads to changes in plant composition and structure, uncharacteristic fire behavior and other disturbance agents (pests), altered hydrologic processes, and increased smoke production.

Condition Class 1 is associated with low level disruption of fire regime, and consequently low risk of loss or damage.

Condition Class 2 indicates some degree of departure from natural regimes, with associated changes in ecosystem composition and structure that make future fires a likelihood with some loss and change in elements and processes.

Condition Class 3 indicates high diversion from natural regime conditions and represents the highest risk of loss.