



Wildland Fire Decision Support System (WFDSS) Fire Management Unit (FMU) Geospatial Data Standard

Updated July 26, 2011

Definitions:

FMP Fire Management Units (FMUs)

NWCG Definition: *A land management area definable by objectives, management constraints, topographic features, access, values to be protected, political boundaries, fuel types, major fire regime groups, etc. that set it apart from the characteristics of an adjacent FMU. The FMU may have dominant management objectives and pre-selected strategies assigned to accomplish these objectives.*

Fire Management Plan (FMP)

Guidance for Implementation of Federal Wildland Fire Management Policy (Feb 2009) Definition: *A plan that identifies and integrates all wildland fire management and related activities within the context of approved land/resource management plans. It defines a program to manage wildland fires (wildfire and prescribed fire). The plan is supplemented by operational plans, including but not limited to preparedness plans, preplanned dispatch plans, prescribed fire burn plans and prevention plans. Fire Management Plan's assure that wildland fire management goals and components are coordinated.*

Land/Resource Management Plan (L/RMP)

Guidance for Implementation of Federal Wildland Fire Management Policy (Feb 2009) Definition: *A document prepared with public participation and approved by an agency administrator that provides general guidance and direction for land and resource management activities for an administrative area. The L/RMP identifies the need for fire's role in a particular area and for a specific benefit. The objectives in the L/RMP provide the basis for the development of fire management objectives and the fire management program in the designated area.*

GIS Data Layer Specifications:

Data Source	Best available source with a target of NMA 1:24,000 (1:63,360 for Alaska)
Data Format	Shapefile
Feature Type	Polygon
Geographic Coordinate System	GCS_North_American_1983
Datum	North American Datum 1983
Prime Meridian	Greenwich
Units	Decimal Degrees
Positional Accuracy	The Spatial data standard for the following spatial features will be based on the Federal Geographic Data Committee (FGDC), National Standard for Spatial Data Accuracy (NSSDA); Reference document FGDC-STD-007.3-1998 for both horizontal and vertical accuracy.
Metadata	FGDC compliant, Layer Level

Business Data Specifications:

This section identifies the business data that is needed in the attribute table for the GIS data layer.

Data Element Name	Data Abbreviation /Attribute Name	Description	Req.	Length	Data Type	Example	Data Standard Reference	Discussion Points
Land /Resource MP or Fire MP Unit Code or Name	FMU_Code	A user designated alpha/numeric code (or name) assigned to the L/RMP or FMP Units (FMU).	Yes	32	String (Text)	GEN	User Designated <i>See page 4 and 5 - two examples of FMU Codes.</i>	FMU Codes must be alpha-numeric and cannot contain commas. The following special characters are permissible: Space # & () - . / _
Unit Identifier	UNIT_ID	A particular organizational unit	Yes	7	String (Text)	NMGNF	NWCG: Unit Identifier	Unit ID attribute values should not be hyphenated
Land /Resource MP or Fire MP Unit Description	FMU_DESC	L/RMP or FMP Unit (FMU) Description or Name	No	128	String (Text)	General Forest	User Selected	The relationship between FMU_DESC and FMU_Code must be one-to-one (<i>i.e. an FMU code can have one and only one FMU_DESC</i>)
Land Owner Category	AGENCY	Abbreviated name of agency	Yes	7	String (Text)	USFWS	NWCG: Land Owner Kind & Category	

Rules:

- FMUs may be non-contiguous (two or more spatially defined locations that are not adjacent).
 - In cases where non-contiguous polygons share an FMU code the polygons should be singlepart and not multipart. To learn more about multipart versus singlepart polygons [click here](#).
- FMU_Code must be a unique value for every FMU associated to a single unit.
- Standard GIS topology is enforced. Shapefiles should be free from slivers, gaps, and overlaps. FMU boundaries may be matched to a base unit layer (i.e. Forest/Park Boundary).
- FMUs cannot be overlapping – one area on the ground has one and only one FMU.
- The FMU_CODE entered by the WFDSS Data Manager must match the FMU Code in the FMU shapefile attribute table. The Data Manager and GIS Specialist must use the exact same FMU Code in WFDSS and the WFDSS FMU shapefile attribute table. See page 3 & 4 for examples.
 - *Note: If the spatial data are loaded before the manager enters the FMU codes in the WFDSS data management tab, the FMU codes from the spatial data will be populated in WFDSS. To ensure that the data match; only these codes should be used by the manager.*

Naming convention for FMP Unit (FMU) shapefile for national submission:

- FMU shapefiles should be named using the naming convention below.
- Before sending, zip all the files associated with the shapefile (.shp,.shx,.dbf,.prj,.xml,.sbx,.sbn).
 - The files should be zipped (*.zip) with naming convention described below.
- The result should show the shapefile and the .zip file having the same name.

File naming convention:

Unit ID (or agency/region/geographic area) _FMP_FMU_creator_date

Example:

NMGNF_FMP_FMU_creatorname_20090402
or FS_R3_FMP_FMU_creatorname_20090402
or RMCC_FMP_FMU_creatorname_20090402
or AKR_FMP_FMU_creatorname_20090402

FAQs:

1. Can the FMU_DESC be the FMU common name?

Yes, the FMU_DESC can be the FMU common name, a geographic descriptor, or related to the dominant fire management objectives for that area, whatever is the easiest to reference the fire management objectives from the fire management plan to the particular polygon so long as it is 128 characters or less.

2. Is there a problem having additional attribute fields within the layer?

If additional attribute fields are included they will be discarded by WFDSS. Please truncate attribute tables to only include UNIT_ID, FMU_CODE, FMU_DESC, and Agency.

Example 1: FMU Code using text for the FMU Code.

FMU codes entered in WFDSS by the data manager role. This FMU Code must match the FMU_Code field in the FMU shapefile attribute table.

WFDSS Data Management Tab

Add FMU Code for CAMNF - Mendocino National Forest

FMU Code: DIA Description: Developed Area Interface ☐ Activate Now

Filter

☐ Never Activated ☒ Active ☐ Inactive

FMU Codes for CAMNF - Mendocino National Forest

FMU	Status	Description
GEN	Active	General Forest
WLD	Active	Wilderness

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FMU Shapefile Attribute Table

Attributes of FMU

FID	Shape *	FMU_Code	UNIT_ID	FMU_DESC	Agency
0	Polygon	DIA	CAMNF	Developed Area Interface	USFS
1	Polygon	GEN	CAMNF	General Forest	USFS
2	Polygon	WLD	CAMNF	Wilderness	USFS

Record: 1 Show: All Selected Records (0 out of 3)

Example 2: FMU Code using numbers for the FMU Code.

FMU codes entered in WFDSS by the data manager role. This FMU Code must match the FMU_Code field in the FMU shapefile attribute table.

WFDSS Data Management Tab

Add FMU Code For MNSUF - Superior National Forest

FMU Code: Description:

FMU Codes For MNSUF - Superior National Forest

FMU	Status	Description
1	Active	Wilderness Non-Blowdown
2	Active	Wilderness Blowdown
3	Active	Non-Wilderness

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FMU Shapefile Attribute Table

Attributes of FMU

FID	Shape *	FMU_Code	UNIT_ID	FMU_DESC
0	Polygon	3	MNSUF	Non-Wilderness
1	Polygon	1	MNSUF	Wilderness Non-Blowdown
2	Polygon	2	MNSUF	Wilderness Blowdown
3	Polygon	3	MNSUF	Non-Wilderness

Record: 1 Show: All Selected Records (0 out of 4)

Data Posting/Updates:

The Interagency WFDSS GIS Team will be supporting the collection and processing of spatial data for the WFDSS project. Please contact one of the following for the ftp username and password to post FMU spatial data.

WFDSS Data Team Contacts			
Rob Seli WFDSS Business Lead 406.396.2081 rseli@fs.fed.us	Ben Butler WFDSS GIS Specialist (NPS/BIA) 208.387.5222 Ben_Butler@nps.gov	Sean Triplett USFS GIS 208.387.5284 setriplett@fs.fed.us	Hilary Rigby Alaska GIS (BLM) 907.356.5587 hrigby@blm.gov
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