



Creating ArcGIS Shapefiles for Fire Workload Areas (FWAs) (IR_005_TP)

Fire Program Analysis (FPA) uses two separate boundary files as discrete ArcGIS shapefiles. The two separate shapefiles are:

- **The National Fire Planning Unit (FPU) shapefile.** The National FPU shapefile is the primary GIS boundary file in FPA and contains the edge matched polygons of all the individual FPUs.
- **The Fire Workload Area (FWAs) shapefile.** Some or all of the FWA polygons may be identical to the FMU polygons. The FWA polygons for each FPU are stored as a single FWA shapefile. The Fire Management Unit (FMU) is an aggregation of individual FWAs.

FPA requires that each of these boundary files be available as a shapefile before running analyses, even when there is no subdivision from the larger unit boundary. When there is one FWA per FMU, the FWA boundary coincides with the FMU boundary. FWA boundary changes are due April 15th of each planning year.

“Unassigned” Lands in the FPU

If there are lands within the FPU unassigned to the five participating federal Fire agencies (i.e., USDA-Forest Service, Bureau of Indian Affairs, Bureau of Land Management, National Park Service, or US Fish and Wildlife Service) or *participating* State agencies, those lands must be included in a separate FWA and corresponding FMU. The FMU_Name and FWA_Name attributes (described below) may identify unassigned lands. These unassigned lands polygons can be discontinuous. These FWAs are labeled “*Unassigned.*”

Bottom Line: All land within the FPU boundary must be accounted for in the FWA shapefile.

FWA Shapefile Attributes

Submit FWA shapefiles using the following Shapefile attribute definition:

Attribute Name	Data Type	Length	Example
FPU_CODE	Text	15	CA_CA_012
FMU_ID	Text	50	FMU_001
FMU_NAME	Text	30	FMU_Name
FWA_ID	Text	50	FMU_001_FWA_001
FWA_NAME	Text	20	FWA_Name

- All five attributes are mandatory.
- The FMU_NAME may be the local use name or the name used in the unit’s Fire Management Plan.

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- The FWA_NAME may be the local use name. Label FWAs that are unassigned, as “Unassigned.”
- There may not be spaces in the FMU or FWA names entered into the FMU_NAME and FWA_NAME fields in ArcGIS. Spell all references to the FMU_NAME and FWA_NAME attributes consistently using the same combination of upper and lower case letters, and/or numbers used in the Shapefile.

Creating ArcGIS FWA Shapefiles

1. Use standard ArcMap editing techniques to subdivide the FPU polygon shapefile to create FWA polygons.
2. Create attributes for the FWA; including the five attributes in the table, as shown above.
3. The map projection and datum are to match the FPA standard of Geographic Coordinates System (GCS), NAD 83, and Decimal Degrees Format.
4. Ensure that each shapefile is topologically correct by running it through the FWA QA/QC Validation Tool. This will check for any overlapping polygons or self-intersecting arcs and vertices.
 - a. If you are using ArcGIS version 9.2, you will need to create a zipped file containing each of the shapefile’s individual files. This will enable you to utilize the FWA QA/QC Validation Tool to validate your FWA polygons with the v9.2 edition.
 - i. Use WinZip or the Windows XP/Windows Vista file compression utility to create a zipped file for each of the FWA shapefiles.
 - ii. Name the zipped file with the same name as the FWA shapefile, using the naming convention above. *Example: CA_CA_012_FWA.zip.*

ArcGIS version 9.3 users are not required to create a zipped file of the shapefile’s individual files.
 - b. You may submit the FWA polygon shapefile sets multiple times per FPU for validation comparison.

You will have the opportunity to select which FWA shapefile set you wish to use