

Title: Texas Army National Guard (TXARNG) Natural Resources Program Use of LANDFIRE products to Determine Project Priorities.

Citation: This work is unpublished

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Application Description

Location:

Camp Bowie, Brownwood TX
LAT 31°40'56"N LONG 98°57'33"W

Main Headquarters where the Natural Resources Program is Located, Camp Mabry, Austin TX
LAT 30°24'29"N LONG 97°33'46"W

Objectives

Support the military mission, assist in complying with relevant laws and regulations, support and enhance sustainability of TXARNG lands and wildlife.

LANDFIRE products used

The applications of LANDFIRE products (LF 2012) were to combine Forest Canopy Cover (FCC), Vegetation Departure (VDEP), Mean Fire Return Interval (MFRI), and Existing Vegetation Cover (EVC) in a GIS analysis to assist in land management planning.

Project description

Natural Resource personnel identified areas on the training center where brush management (by mechanical or herbicide application) could improve land quality by increasing the effectiveness of prescribed fire or substitute where prescribe fire is ineffective. These products were combined with information, such as training land use and endangered species habitat to identify priority areas where land managers could target management.

Each input was given a set of scores based on the different descriptions or categories that described the input. A weighted overlay in GIS then ranked the inputs based on land manager goals to create a map of values (Figures 1 and 2). Statistics were analyzed in GIS of those values for the land management areas previously identified and the mean value was used to assign

priorities for brush management. The model can be easily updated with new inputs or goals (such as invasive species) as they become available or as land management needs change.

Value of the work to the natural resource management/conservation community

The Natural Resources Program shares GIS products with the Integrated Training Area Management (ITAM) program to promote better land management and can increase the amount of land management due to two sources of funding to implement common program projects.

LANDFIRE data and maps were used to information gaps that were not readily available for fire management and brush management. The use of LANDFIRE products helped to decrease the amount of time needed to develop plans which otherwise would have taken more time and provided less accuracy due to not having time or funding to acquire all the necessary data for management planning and to determine project priorities.

Results from this analysis with LANDFIRE fire products and vegetation cover products were used to assist in prioritizing brush management projects. This will help in the best use of funds for land sustainability maintenance.

The work provides information about how to use LANDFIRE products to enhance available information for planning land management for land cover assessments, invasive species management, prescribed fire management and species of concern management to other military land managers for use in their natural resources planning activities.

Figure 1. A weighted overlay in GIS then ranked the inputs based on land manager goals.

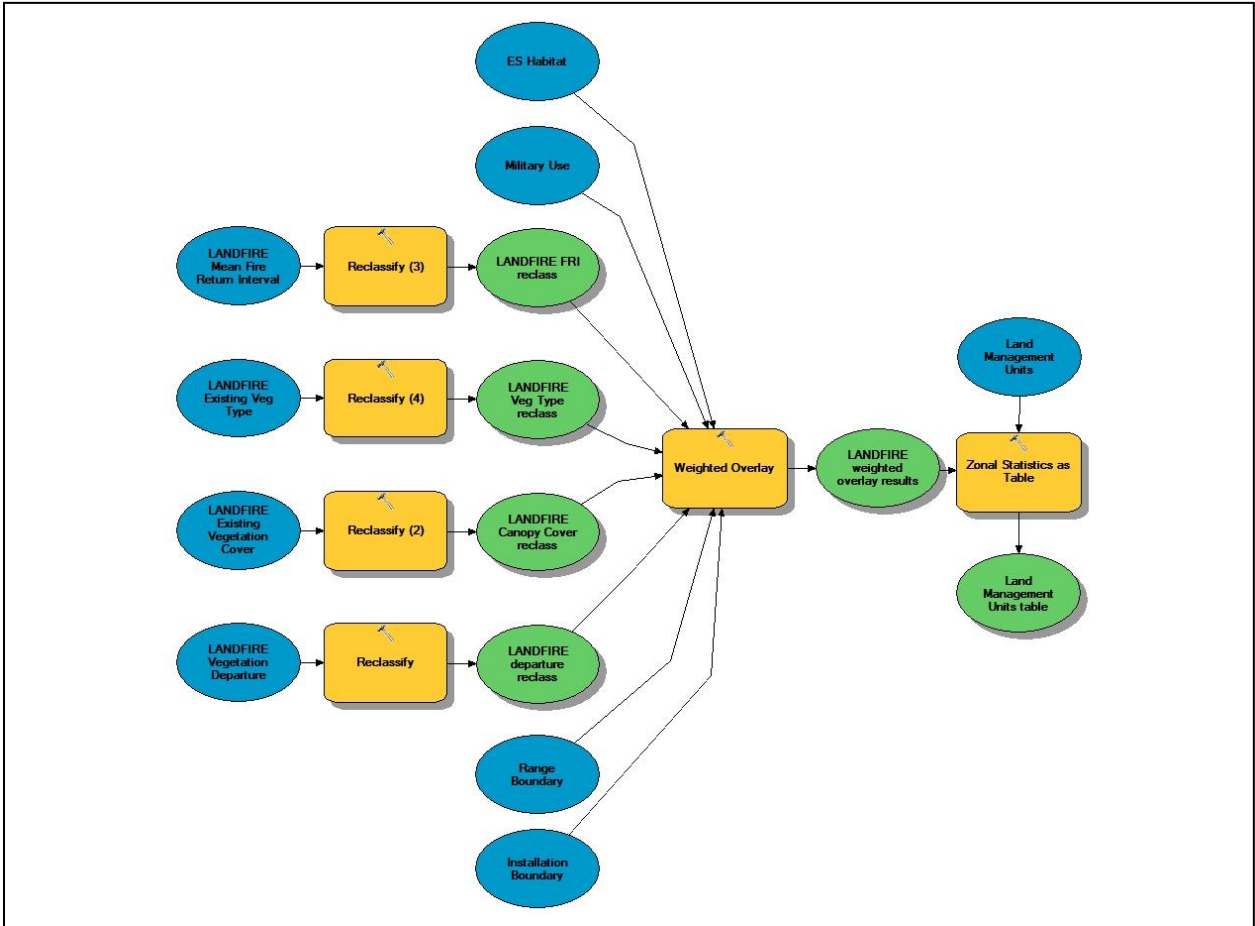


Figure 2: Map identifying priority areas for treatment.

