

FIRE OCCURRENCE, BEHAVIOR, AND MANAGEMENT AT CAMP WILLIAMS NATIONAL GUARD BASE, UTAH

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ABSTRACT

Fire occurrence and behavior were determined by collecting and analyzing fuel, weather, and fire history data. Fuel plots were used to measure average fuel loading by vegetation type and integrated with weather to make worst case fire behavior predictions. A fire history was developed using oakbrush (*Quercus gambelli*) sprouts to determine age and the Global Positioning System (GPS) for mapping the burned areas. Average fuel accumulation was highest in the oakbrush fuel type with 16.8 tonnes per hectare, juniper (*Juniperus osteosperma*) was 6.72 tonnes per hectare, and the lowest was sagebrush (*Artemisia tridentata*) with 4.93 tonnes per hectare. Fire behavior predictions were similar for all fuel types. The fire history showed that the largest areas burned were in the oakbrush fuel type due to fuel loading and horizontal continuity of fuels.

Camp Williams experiences frequent fires as a result of military training. These fires are of increasing concern due to the development of residential areas along the base boundaries. Scheduled and unscheduled prescribed fires and vegetative fuel breaks are being used to help contain training-related ignitions. Vegetation fuel breaks isolate fuels into manageable blocks and provide locations for indirect attack. Prescribed fires are being used to reinforce fuel breaks and for hazard reduction.

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