



## Prescribed Fire 2006

*“The wheels of fire came on, faster and faster. They were the big tumbleweeds that had ripened round and dry and pulled up their small roots so that the wind would blow them far and scatter their seeds. Now they were burning, but still they rolled before the roaring wind and the roaring big fire that followed them.”*

*~ Laura Ingalls Wilder, On the Banks of Plum Creek, 1937*

So Laura Ingalls Wilder captured the fear of prairie fire for the early pioneers. Over the centuries fire on the American grasslands has been both natural and man caused.



### Planning For The Future

Just as the historic fort was reconstructed to the appearance of the 1840s, we are now attempting to restore the historic landscape. This will allow future visitors to experience a small portion of the great expanse of short grass prairie that travelers traversed on the way to Bent's Fort.

### Fire Used For Centuries



Lightning ignited fire spreads quickly through the dead stalks of the grasses as the wind sweeps it along. Native Americans utilized fire in the hunting of animals. Pioneers and ranchers burned the prairie to control the invasion of trees and to encourage the plants they found desirable. Today, the burning of fence lines, irrigation ditches and weedy areas by rural residents is a common practice.



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## Monitoring the Historic Landscape

Here at Bent's Old Fort, we have planned a prescribed burn for the 300 acres salt grass, sacaton grass, cattail marsh and cottonwood riparian area that lies northeast of the fort. This section of the park's property includes a large wetland which lies in a bend of the Arkansas River, so the plants that inhabit this moist area are taller species than you find in the surrounding short grass prairie. The "slough", as it was called by pioneers in the area, is a part of the historic landscape of the site. Today native vegetation is being threatened by plants from foreign lands that are invading the marshland. These exotics include the annual species Kochia and Russian thistle, Canada thistle and Tamarisk. The dead plant material that has accumulated over the last decade has formed a thick mat. If ignited under the wrong conditions, this dead material would produce an uncontrollable wildfire.



After looking at the vegetation in the marshland and studying the management tools available, fire was chosen as the best tool to meet the specified needs of the project. Fire removes dead plant material called litter. Litter shades the soil keeping it from warming up and providing a suitable nursery for the native grasses. Fire releases the nutrients that are locked up in the litter.



## Fire As A Tool

Fire can be used to kill the early spring- growing exotic annuals like Kochia, thus removing them from competing for the sun. The native grasses have a great advantage in their adaptation of growing from their base. When burnt the older tips and dead stalks are removed. New growth starts from the base supported by a root system that makes up more than half the plant!

Fire will be used as a controlled management tool following a "prescription" that outlines what the wind speed, moisture in the grasses and recent weather must be before ignition. The "prescription" plans exactly where and how the fire will be contained or stopped. After a months' worth of preparation, such as daily weather recordings, the Fire Boss will decide when the conditions are a "go".