

STATEMENT OF ERNEST QUINTANA, REGIONAL DIRECTOR, MIDWEST REGION, NATIONAL PARK SERVICE, DEPARTMENT OF THE INTERIOR, BEFORE THE SUBCOMMITTEE ON NATIONAL PARKS, HOUSE COMMITTEE ON RESOURCES, CONCERNING PARK LANDSCAPE RESTORATION PROGRAMS AND RETENTION OF FUNDS FROM TIMBER REMOVAL.

December 19, 2005

Mr. Chairman, thank you for the opportunity to appear before you today to present the Department of the Interior's views on restoring historic landscapes in parks and the potential of retaining proceeds from timber sales to help fund the restorations. It is indeed a pleasure to welcome you to Pea Ridge National Military Park.

Within the National Park System, there are 20 units commemorating this country's Civil War. These areas are classified as National Battlefields, National Battlefield Parks, National Military Parks, and National Battlefield sites. Taken together, they comprise 61,000 acres. Two of the Civil War sites are found in the Midwest Region of the National Park Service (NPS), namely Pea Ridge National Military Park and Wilson's Creek National Battlefield. Superintendents John Scott and Ted Hillmer have accompanied me here today and are available for any questions you might have. I am pleased, also, to be joined by Southeast Regional Director Pat Hooks who has contributed to this testimony and is available for questions as well.

According to former NPS historian Ed Bearss, Wilson's Creek and Pea Ridge have within their respective boundaries about 70 percent of the original battle sites and each retains a fairly high degree of historic integrity. In each case, however, the properties have become much more forested than they were at the time of the Civil War and each park is currently attempting to return its landscape to the early 1860's appearance.

Pea Ridge National Military Park

Pea Ridge National Military Park was authorized by Congress on July 20, 1956 and became operational on March 7, 1960. It is located in Benton County, 10 miles east of Rogers, Arkansas, and consists of 4,300 acres. Pea Ridge National Military Park commemorates the decisive Civil War battles fought here on March 7-8, 1862. The Battle of Pea Ridge was one of the largest combat actions west of the Mississippi and was an event in which American Indian combatants played a significant role.

The pristine nature and lack of modern intrusions on this historic battlefield make Pea Ridge National Military Park (park) unique among most of the NPS Civil War Battlefields. Over 95 percent of the actual combat areas are preserved within the park. These factors provide the opportunity to restore the battlefield's cultural and natural landscapes to their 1862 appearance.

To determine the extent of the forests in 1862, the park used the General Land Office Notes (circa 1850), actual accounts of soldiers, and a historic base map developed by Mr. Bearss. The park is also developing a Historic Vegetation Base Map that will describe, as close as is scientifically possible, the species composition and structure of the historic forests. By all accounts, the forested areas of the battlefield held substantially fewer trees than they do today.

We estimate that there were between 20 to 40 large oak and hickory trees per acre in the 1860s. Today there are approximately 200 – 300 trees per acre in most areas, with over 1,000 acres so heavily forested in Eastern Red Cedar that no other tree or plant can grow. Soldier accounts of the battle refer to seeing opposing troops several hundred yards into the forests. That is not possible today. Because of the density of today's forests, visitors are not able to visualize, understand, or appreciate troop movements, tactics associated with the battle, or the historic scene.

The decision by the park to restore and maintain the landscape to the historic 1862 time period originated from the 1964 Master Plan of Pea Ridge National Military Park. Thinning programs began in earnest about three years ago at the park; however, there have been no timber sales. The NPS Organic Act provides the authority to remove and sell the timber and biomass and other plant material to restore the historic landscape. While the authority exists for the sale of timber, the proceeds would go into the general treasury. There is no known authority that allows the NPS to retain the funds from the sale of timber or biomass.

The park perceives the contracting and administrative processes that must be followed to sell timber as a way to reduce biomass to be very cumbersome. While fire is currently the best tool we have, it presents many problems of its own. First, burning must be done within the restraints of our Fire Management Plan, which requires proper fire prescription and the required number of qualified people and resources. Second, burning raises smoke management issues. As northwest Arkansas continues its rapid growth with more housing units being built closer to the park, smoke management issues will

only become more critical.

Forest thinning projects have been limited to the reopening of historic fields, roads, and traces that have reforested, around historic structures, and along park boundaries. To date, 16 acres of forested cultural landscape has been restored, cleared, or thinned, which generated six large brush piles, which were burned and may have contained thousands of tons of biomass. There also have been 268 acres thinned through Wildland Fire Urban Interface projects, generating over 60 additional large brush piles. Also during the summer and fall of 2005, the park reopened a 5-acre section of the historic Fosters Field.

In an attempt to see if park thinning programs could be sustained through funds generated from the sale of biomass if the funds were kept by the NPS, the following estimates and assumptions were derived from discussions with Professor Michael Gold, University of Missouri Center for Agroforestry. Using the 5 acres we restored last year as a model, park thinning programs would cost approximately \$3,600 to thin and burn the biomass per acre. Of the \$3,600, it would cost \$2,600 to thin and \$1,000 to burn the biomass. Using current market values the proceeds from the sale of biomass would be between \$2,900 and \$3,610 per acre. If NPS could sell the biomass, the cost to burn residual biomass piles by park staff would reduce the total cost by \$700 per acre.

If the NPS used a contractor to do the thinning, the Cost Estimating Software System estimates it would cost \$6,750 to thin one acre. This figure does not include disposal of biomass. The price per acre would go down if the contractor were allowed to keep the biomass.

The funds generated from the sale of the biomass would allow the park to sustain its thinning programs. This would reduce the demand for funding through the budget process. Thinning projects that might take 20 to 40 years using the current system could possibly be accomplished in 5 to 7 years.

The selling of biomass would leave only a few small to medium-sized brush piles to be burned, putting substantially less smoke into the air. Once desired forest densities were realized, forest maintenance would be accomplished through prescribed fire. These fires, however, would generate much less smoke and be more compatible and tolerated by the local communities.

Wilson 's Creek National Battlefield

Wilson 's Creek National Battlefield lies 10 miles to the southwest of Springfield, Missouri, and consists of approximately 1,750 acres. It commemorates the important events surrounding the battle of August 10, 1861, when Confederate forces under the command of General Ben McCulloch repelled a surprise attack by Federal forces led by General Nathaniel Lyon, eventually forcing the Union army to retreat to Springfield. Union General Lyon was mortally wounded during the battle and eventually died in the location of some of the heaviest fighting, subsequently referred to as Bloody Hill. Legislation to include Wilson's Creek National Battlefield as a unit of the National Park System was signed by President Dwight D. Eisenhower on April 22, 1960.

Restoration of the landscape to the 1861 era was first identified as an important goal in the 1960s. The average visitor taking the self-guided tour of the battlefield cannot understand why men would fight in such a wooded area. One of the questions asked is "Why are the cannons behind so many trees?" Removing the vegetation would allow a clear view of the lines of fire for artillery and a view of Bloody Hill from the Ray House.

In 1861, what became known as Bloody Hill commanded a strategic view of the area. The summit was described as almost bald, with scattering brush and an occasional tree, and bare and imbedded with rock and gravel. The enemy could be seen as they marched up the hill. Today, the viewshed is completely different. Trees block what would have been the artillery batteries' line of sight, as well as the positions of the troops. Historically John Ray sat on his front porch and watched the fighting on Bloody Hill a mile away where now the trees encompass the fields where crops were once planted; there is no way to see Bloody Hill from the Ray House.

From 1990 to 1992, Wilson's Creek received Natural Resource Preservation Project funding in the amount of \$265,000. These funds were used to hire seasonal employees to remove Eastern Red Cedar and Juniper trees in accordance with a landscape restoration plan. This effort was necessarily ended when project funds were depleted, and in the absence of further funding has not been restarted.

Southeast Region Parks

National Park System units with a military theme are also found in other regions of the NPS. In the Southeast Region, there are 11 Civil War parks where removal of timber has occurred or could occur.

Projects involving timber removal have been undertaken or recently completed at Chickamauga and Chattanooga National Military Park, Vicksburg National Military Park, Kings Mountain National Military Park, and Moores Creek National Battlefield. These projects were done to restore the historic scene, for hazardous fuel removal, or for removal of trees damaged by insect infestations. The projects involved areas of approximately five to fifteen acres and were one-time projects that will not need to be done again, or if needed at the same site, will not need to be repeated for several years. Other parks in the region have identified similar projects that would involve timber removal, which could be completed in the future.

Parks in the southeast received many benefits from the timber removal including restoration of the historic scene, removal of hazardous fuels from visitor use areas and areas along or near park boundaries, soil stabilization, and in the case of earthworks, preservation of cultural resources through the replanting of grasses, and removal of exotic plant species. Several different methods of funding have been used for timber removal projects including the sale of logs through GSA where the revenue realized was returned to the general fund, funding through fire program funds for hazardous fuel removal, bids from private contractors based on the value of the timber removed, donations, and Shiloh National Military Park was able to exchange cut timber for finished lumber that was used in park projects.

In addition to the military parks within the Southeast Region, there are also several other types of parks that completed timber removal projects. Great Smoky Mountains National Park and the Blue Ridge Parkway are examples of two prominent parks in the region that carry out periodic timber removal for landscape restoration, opening of scenic vistas, and other similar activities. Often these projects are completed by park staff or through a contract with funds for this type of removal coming from park budgets or through other NPS funding sources. When a project is completed through a contract, the disposition of the timber cut is often specified in a contract and has a bearing on the bids received from potential contractors.

If funding could be retained from the removal of timber, those funds could be used such things as landscape restoration costs, purchase of seeds or vegetation to be replanted, cost of supplies, materials, personnel involved in site restoration, and production of exhibits and publications to explain the restoration to park visitors, and the continuing maintenance of the restored landscape.

Prior to removing timber from park lands it is crucial that the impacts to park resources are assessed. At Vicksburg National Military Park for example, prior to the restoration of approximately 4.5 wooded acres, the park completed an environmental compliance document that looked at potential impacts that could occur to species found within the park that used the trees for many years. This consultation involved working with several agencies and groups such as the Audubon Society. The National Resources Conservation Service was also consulted about the potential erosion that could occur from the removal of the trees. They concluded that on Vicksburg's highly erodable soils maintained grass fields prevent more soil erosion than forest cover would and recommended restoring the area to grass once the timber was removed.

In our landscape restoration projects, NPS staff strives to adequately assess the potential impacts that could occur to park resources from the removal of that timber, even though the park could have beneficial results.

It appears that the authority to retain the proceeds in parks from timber sales could be beneficial not only at Pea Ridge, but also at other Civil War sites in the system. We recognize that this is a unique situation, and NPS is not asking for the retention of timber proceeds for activities other than the restoration of the historic land conditions at these Civil War sites. Any authority Congress chooses to provide NPS would have to be applied judiciously using park general management plans, business plans, as well as cultural landscape reports to assure that revenue will offset costs and that the end result is an accurate restoration that will lead to a better understanding of a park's historical significance.

Mr. Chairman, this concludes my prepared testimony. I would be pleased to answer any questions you may have.