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Sommario/riassunto	The use of prescribed fire is expected to increase as efforts to restore fire-dependent ecosystems gain momentum nationally. The documentation of historical fire regimes is essential for setting restoration objectives that include prescribed burning. To aid the Monongahela National Forest in this endeavor, a rule-based approach was employed in GIS to map fire-adapted vegetation and fire regimes. Spatial analyses and maps were generated using ArcMap 9.1 using the proclamation boundary of the Monongahela National Forest as our study area. Based on current knowledge of fire-vegetation-site relationships, we reviewed available data sets for relevancy in estimating fire regimes. Four themes were selected: landtype association, potential natural vegetation (primary and secondary), and current forest type. All themes were converted to 20 m ² grids. Selected features of each theme were scaled from 1 through 5 according to their relationship to fire, with 1 representing conditions most conducive to

fire and 5 the least. Each theme was weighted to reflect its inferred effect on system fire adaptation. The resulting fire adaptation scores were then categorized into standard fire regime groups. Fire regime group V (200+ yrs fire frequency) was the most common, assigned to more than 510,000 ha, primarily in the Allegheny Mountains Section. Fire regime group I (low & mixed severity, 0-35 yrs) and III (low & mixed severity, 35 -200 yrs) were assigned to nearly 198,000 ha, primarily in the Ridge and Valley Section and one subsection within the Allegheny Mountains Section. The resultant maps are intended to identify fire-adapted systems for land management purposes. These systems likely will require active silviculture using fire and/or fire surrogates for their maintenance or restoration. The transparent rule-based procedure can be easily modified and, as such, possesses the flexibility for application to other ecosystems with similar spatial databases
