



To: Nantahala National Forest, Nantahala Ranger District

From: Josh Kelly, Public Lands Biologist

Re: Nantahala Ranger District Future Prescribed Burns Scoping

Dear Mike & Greg,

I am writing to provide my thoughts on the proposed future prescribed burns for Nantahala National Forest. As you are both aware I tend to be an advocate for fire as a natural ecological process in our forests. The current proposal looks like a strong one, though caution will be needed to implement it properly.

Of particular interest on these burns are three units: Little Green Mountain, Blackrock Mountain, and Fire Gap. All three of these units are rated as Significant Natural Heritage Areas by the State of North Carolina. Little Green Mountain and Blackrock Mountain are notable for their granitic dome communities and Fire Gap is notable for an extremely rare cataract bog, rare salamander populations, high-quality dry oak-hickory forests, and exemplary cove, red oak, and northern hardwoods forests.

As a general principal, as long as ignitions are kept on the ridges and at least 100' from the edges of the rock-outcrops and the cataract bog, I believe these burns will be beneficial. They will reduce the shrub layer and increase light to the understory, and also liberate nutrients such as calcium and phosphate to further encourage herbaceous plant growth. The dry oak forests at Fire Gap will be especially improved.

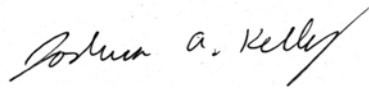
There is some concern from the scientific and conservation community about the population of pink shell azalea (*Rhododendron vaseyi*) in Panthertown Valley. My personal thoughts on the matter are that as long as the fire return interval at these units is longer than 10 years, there will be no downside. Azaleas root-sprout vigorously even after being top-killed by fire, and so long as they are not repeatedly killed and drained of energy – as is the goal in burns to create a woodland condition – the population should be fine. This is a key point: the Highlands Plateau, as you are aware, is among the highest elevation and highest rainfall regions of the Southern Blue Ridge. Both the high precipitation and high elevation (and cool temperatures) reduce the influence of fire, such that the goal of these burns should not be to create woodland conditions, but rather to encourage some oak regeneration and increase the coverage of herbs on the forest floor.

In contrast, there are areas on the steep, south-facing slopes of the Fire Gap unit that are good potential woodland sites and could benefit from a restoration burn cycle of less than 10 years for 2 or more rotations. The mesic forests (cove and northern hardwoods) and salamanders in this unit, however, are not likely to benefit from fire, so the same principle of ridge top ignitions will also be beneficial here.

Ecological restoration is a discipline that seeks to restore damaged and degraded ecosystems by returning lost natural processes like fire and flooding, reintroducing extirpated keystone species like elk and American chestnut, and improving forest structure and species composition after human disturbances. I am convinced that many of the dry, low elevation forests of the Southern Blue Ridge have been degraded by fire exclusion and that returning the process of fire to the mountains *in the right places* will restore species composition and complex structure to forests that have become homogenous. I believe that the more Nantahala National Forest focuses on burning on south and west aspects and at low elevation, that more successful the burn program will be, both socially and ecologically.

Thanks for the opportunity to comment on this proposal and the work you both do to steward and restore the Nantahala National Forest.

Sincerely,



Josh Kelly