

Buckeye Forest Council/Buckeye Environmental Network  
Prescribed Burn Position Statement  
Adopted October 2009; updated January 9, 2019

Executive Summary

The Buckeye Environmental Network (BEN, formerly Buckeye Forest Council) is a membership-based organization that works to support grassroots environmental and environmental justice organizing and to protect Ohio's native forests.

BEN opposes the use of prescribed burns in Ohio's public forests, as well as on any public lands other than in special, carefully evaluated circumstances, such as maintaining prairie fragments, and then only with thorough monitoring and protection of sensitive species before burning.

- Fire is not a common natural occurrence in SE Ohio, particularly on the large scale—covering lowlands as well as ridgetops and hundreds to thousands of acres—of recent prescribed burns conducted by Ohio's Division of Forestry and the U.S. Forest Service.
- Fire is harmful to many species, to the forest as a whole, to Ohioans' health, and to the global environment.
- The stated rationales for the practice are either unnecessary and inappropriate (fuel reduction, biodiversity enhancement) or supported by insufficient scientific evidence and with little to no analysis of off-target species and climate, air and water impacts to justify the large-scale burns being conducted (promotion of oak regeneration).
- Conducting prescribed burns in late March or April, after the herb layer and turtles have emerged and grouse, turkeys, and songbirds are nesting, is a particular concern and must be stopped immediately.
- All prescribed burning projects on public land should be required to undergo full environmental impact analyses with full opportunity for meaningful public input per National Environmental Policy Act guidelines, which obligate the agency to make decisions based on high-quality information, including accurate scientific analyses and full examination of impacts on climate, biodiversity, and sensitive species.

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The Buckeye Environmental Network (BEN, formerly Buckeye Forest Council) opposes the use of prescribed burns in public forests, and on all public lands except to maintain the small, natural prairie openings (e.g., Buffalo Beats Prairie) that occur in widely scattered localities. BEN is extremely concerned about both Ohio Division of Forestry (DOF) and Wayne NF's extensive use of this management practice at scales hundreds of times greater than any natural fire and in forest types, including mesic areas, totally un-adapted to fire. Although proponents of prescribed burns claim that there is scientific support for this practice, it remains controversial among forest ecologists, and the few published studies are insufficient to justify the widespread, frequent, and large-scale burns currently being conducted.

With insufficient and inappropriate justifications, DOF and USFS are burning vast areas of public woodland in a part of the country where fire is unnecessary, is not a common natural occurrence, and is harmful to many species, to the forest as a whole, to Ohioans' health, and to the global environment. DOF and USFS should be preserving forests as carbon sinks instead of releasing greenhouse gases that contribute to global climate change.

DOF's own documents support BEN's position. To quote from DOF's *1999-2009 Shawnee Wilderness Area Management Plan*, "Forest fires in this region of Ohio are not a naturally occurring phenomena [*sic*]. Virtually all wildfires in Ohio are man-caused, in contrast to the western United States where dry lightning is a significant cause of fire...[D]iscussion of the 'natural role of fire,' which is so important to western forest and wilderness fire plans, simply cannot be applied to a wilderness in an Appalachian hardwood forest...Fires may be a significant contributor to non-point source pollution in Ohio's hill country, as the fires remove the soil's protective cover. Large trees are at least scarred by these ground fires, and sometimes, killed."

Unlike western forests, our forests are moist: wood rots rapidly, so little accumulates as fuel. The same 1999 DOF Shawnee Wilderness Plan states, "the forest ecology is much different in eastern Appalachian hardwoods such as Shawnee State Forest versus the western forests. In the west, fuels will indeed accumulate and frequent fire will prevent the serious damage of an occasional, large, crown fire. In Ohio, potential fuels decompose with sufficient speed to prevent dangerous fuel buildup levels...Planned prescribed burns or 'let burn fires' are not necessary for fuel reduction."

Although there may be "fuels" produced from exceptional ice storms, prescribed burning is not an appropriate way to deal with them. A fire hot enough to destroy them also severely damages living trees. A cooler burn just armors the downed wood with charcoal, sealing out moisture and rot, thereby making it more persistent and flammable fuel for subsequent fire. "Ladder fuels" likewise cannot be addressed by fire because burn intensity cannot be controlled in vertical fires and living trees get cooked in the process. According to the same 1999 DOF document quoted above, "Prescribed burns during an off season can cause as much tree mortality as fast-burning fires during peak fire season."

Fire harms our native forest species, which are not adapted to fire because they have not evolved with frequent fire. Fire encourages many invasive plant species, a growing threat to our native forests. Other documented negative effects include (but are not limited to) increased air

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pollution and greenhouse gas emission and consequent threats to human health and well being, reduced carbon storage, increased soil pH, increased soil temperature and decreased soil moisture, loss of nutrients, increased sediment loads in streams, increased water temperature and pH, and reduced populations of non-target species.

Burning is of special concern in areas that fail to meet clean air standards for particulate matter, which include most SE Ohio counties. Permission is no longer needed from OEPA, which is therefore derelict in not assessing impacts of these DOF and USFS forest fires on regional air quality. Ohio has a State Implementation Plan (SIP) for Particulate Matter (PM), which found that much of rural southeast Ohio exceeds “acceptable” pollution levels, while lamenting inadequate monitoring. The added pollution burden from DOF and USFS forest fires is poorly monitored and represents an unacceptable as well as unnecessary addition to regional air pollution.

Unlike historic fires of earlier centuries, which would have been small (most 3-5 acres) and confined to ridgetops, DOF and USFS conduct high-intensity burns from ridgetops to cove bottoms over many hundreds or even a thousand acres at a time. In contrast, the average wildfire in Ohio is still only 3-5 acres<sup>1</sup> and usually restricted to dry ridges and south or west-facing slopes. Fire is likely to have less negative impact on ridge-top and dry slope habitats, where oaks are often dominant in the canopy. In coves, bottomlands, and on north- and east-facing slopes, the moister conditions support a more diverse forest inhabited by species that rarely encounter natural fire and are not adapted to survive it.

Timing is also critical. Some DOF and USFS burns are conducted in late March or even April, when most of the forest herb layer, reptiles, and amphibians have emerged, many flowering species are in bloom, and many birds are already nesting. Forest herbs use much of the stored food in their roots and rhizomes to send up shoots in March and April. They depend on photosynthesis during the growing season to replenish their stored food. The most important part of the growing season for these species is the early spring, before the trees leaf out and reduce the sunlight reaching the herb layer. Moreover, many forest herbs (so-called “spring ephemerals” such as dutchman’s-breeches, toothwort, and mayapple) have a short growing season, the above-ground shoots dying back in May or June. If forest herbs lose their above-ground parts to fire at the peak of their growing season, they have much less stored food to re-emerge the following spring, which will weaken them, making them more vulnerable to natural stresses such as insects and disease.

March and April burns are also destructive to some birds, particularly those that nest on the ground or the shrub layer. For example, turkeys and grouse already have nests and eggs in April in southern Ohio. It can reasonably be assumed that many turkey and grouse nests are destroyed by prescribed burns. Moreover, the loss of leaf litter and deadening of the shrub layer that results from burning reduces the abundance of some neotropical migrants such as ovenbirds that

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<sup>1</sup> Andy Ware, then of DOF, quoted in report on the Shawnee Forest fire by Cheryl Carpenter and Guy Denny, Aug. 2009; similar figures available on ODNR website and stated by Greg Smith, DOF spokesperson, cited by Cincinnati.com (4-12-17)

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nest on or near the ground, even though they begin nesting later in the spring. Reptiles, including box turtles and the endangered timber rattlesnake, are also active in April and cannot move fast enough to escape the flames. Although some snakes may escape into safe sites such as rock crevices, it is likely that many other snakes and turtles are injured or killed by the flames. One can only guess at the impact that prescribed burns have on insects, other invertebrates, fungi, and soil organisms, which play important and poorly understood roles in the ecosystem.

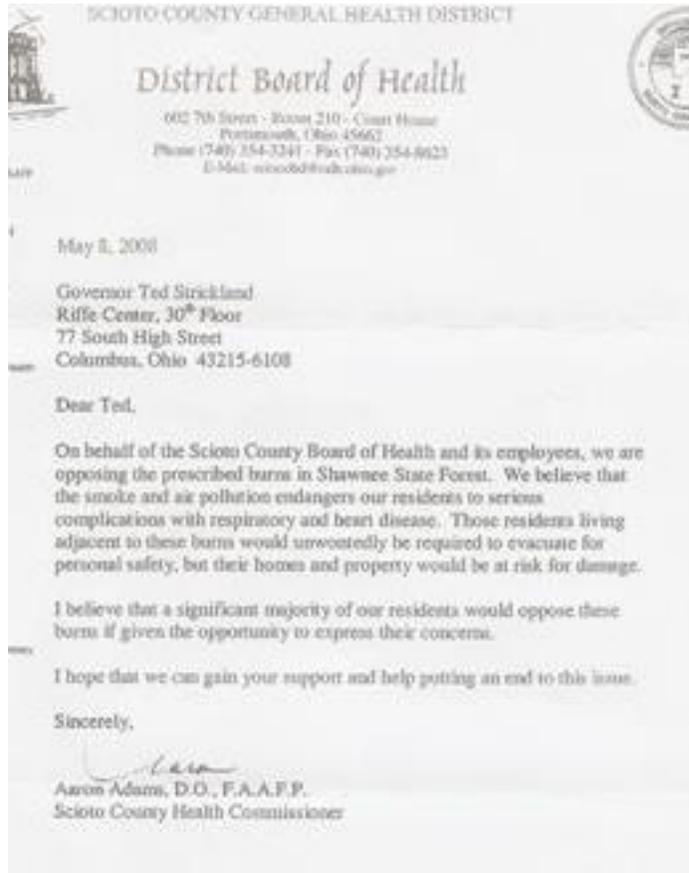
There is no scientific support for the kind (not confined to ridges), scale or timing of the burning being conducted by USFS and DOF. Studies cited as supposedly supporting burn programs have at least three serious deficiencies: they do not examine the long term impact on the flora and fauna, the effect on rare species is not measured or monitored, and most consider only “dormant season” burns, not those done in late March or April. DOF and USFS are, in effect, conducting a huge, uncontrolled experiment by introducing on a vast scale a destructive force that does not occur naturally, without having investigated the potential ecological impact in small, controlled experiments. And they are doing so in forests that we—Ohio’s citizens—own, and at taxpayers’ expense.

The use of prescribed fire in eastern public forests has increased in the past three decades. Agency projections indicate further increase of the practice in the next decade. This increase appears to be driven by the availability of public funds appropriated by Congress, primarily in response to widespread fires in high-risk areas of the west that resulted in major loss of property and life. Some of these funds are being used on public lands in eastern forests, even though these lands do not pose the same level of risk to rural communities. Furthermore, the best way to protect homes is to protect the structures themselves and the immediate area around them. Burning Ohio forests does not protect homes. Instead, DOF and USFS fires actually produce vast amounts of dead wood and char the exterior of both standing and felled wood with an armor that becomes impervious to rot, creating rather than eliminating wildfire risk. And multiple instances of agency-set prescribed fires getting out of bounds or firebrands starting wildfires have occurred in Ohio, including the infamous 2870-acre Shawnee State Forest fire that resulted after a DOF prescribed burn on an 86° day with low humidity and high winds (gusts to 35 mph were predicted). Attached is a letter from the Scioto County Board of Health to then-governor Ted Strickland opposing prescribed burning of Shawnee State Forest on the basis of county residents’ health. Local residents have no say in DOF or any meaningful say in USFS burns. Only immediately adjacent residents are notified of USFS burns beyond the legal notice of permits issued in one newspaper in the county.

Other stated justifications for prescribed burning in Ohio include enhancing biodiversity and promoting oak regeneration. Fire is a legitimate tool to enhance biodiversity in prairies and other ecosystems in which fire is a common natural occurrence, but this is not the case in Ohio forests. The causes of oak decline in the eastern U.S. are controversial, and fire suppression has been suggested as one contributing factor, but experimental studies conducted in Ohio have yielded no convincing evidence that prescribed burns of the sort carried out by DOF and USFS promote oak regeneration. Furthermore, the research that does suggest possible effectiveness largely neglects to look at non-target species impacts, ecosystem impacts, and costs to climate, including site and surrounding area temperature and moisture impacts, and to soil, air and water quality. The best

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way to protect the oaks in our public forests is to leave them standing rather than burning or cutting them.



*Above is Scioto County District Board of Health's opposition to prescribed burns. Mr. Adams' concerns reflect ours in relation to DOF and the Wayne burning our forests, especially given that notice to nearby residents is minimal and inadequate, and Ohio EPA no longer even requires permits (just notification) before burns are conducted.*