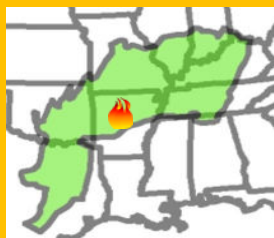


Lake Maumelle, Arkansas

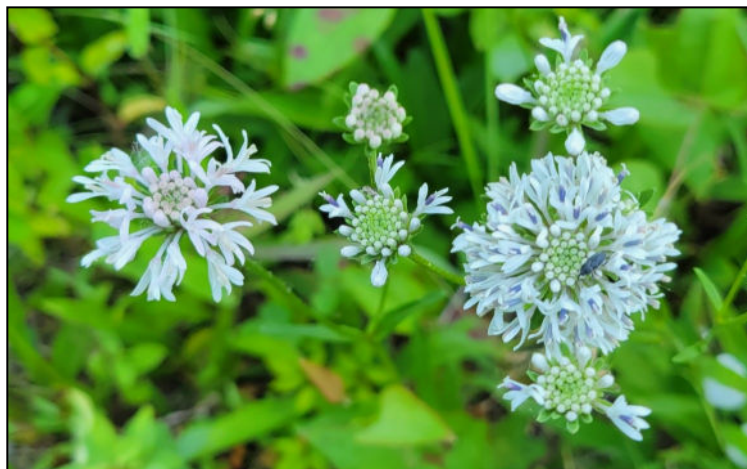
FIRE SCIENCE HOT SPOTS



In this feature, we bring into focus
fire science on-the-ground

Since its completion in 1958, Lake Maumelle has been the primary source of drinking water for the ever-growing population of Little Rock, Arkansas. Situated in the Ouachita Mountains, the lake's watershed is comprised of forests dominated by shortleaf pine (*Pinus echinata*) accompanied by various hardwood species, such as oaks (*Quercus* spp.) and hickories (*Carya* spp.). Conserving the vital ecosystem services provided by Lake Maumelle and its watershed is the responsibility of Central Arkansas Water (CAW), the largest drinking water utility in Arkansas. [CAW employs](#)

[prescribed fire](#) and ecological timber thinning to manage CAW land acquisitions and conservation easements on lands surrounding the lake. In 2021, CAW became the first water utility in the world to have lands certified by the Sustainable Forestry Initiative. Formal accreditation bolsters a supportive community's confidence in CAW's management practices. CAW's use of prescribed fire in the Lake Maumelle watershed reflects a proactive approach to ecosystem management, wildfire prevention, and water quality protection. By integrating prescribed fire into their management strategies, CAW aims to maintain the ecological integrity and resilience of this freshwater resource for the benefit of both wildlife and humans for generations to come.



Top-left: Prescribed burns not only reduce the amount of organic carbon entering the lake, which is problematic in the drinking water purification process, but also establish a lakefront aesthetically pleasing to much of the public. **Bottom-left:** Dormant season burns consume duff and maintain desired tree densities. As ground vegetation becomes established, CAW plans to expand their burn prescriptions to include growing season burns. **Bottom-left inset:** Collaboration with other agencies (e.g., the Arkansas Game & Fish Commission, Arkansas Natural Heritage Commission, USFS, and TNC) increases CAW's prescribed fire capacity, expertise, and

equipment resources. **Top-right:** Recurring fire every 3-5 years allows for abundant surface vegetation that lessens nutrient and sediment runoff. **Top-right inset:** Post-burn monitoring ensures that burn objectives are being met and often results in the identification of locally rare species, such as Barbara's Buttons (*Marshallia caespitosa*), **bottom-right.** Click on each photo for a full-size downloadable image, or view all [HERE](#). Photo credits: Top-left, top-right inset, and bottom-right by Benjamin Thesing (CAW), all others by Bryan Rupar (CAW).

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