

Controlled Burns

Cardno staff regularly perform and participate in prescribed burns as part of vegetation monitoring programs on restoration projects around the country.



Prescribed burns involve consistent coordination with regulatory agencies and other affected parties to assist in preserving landscapes and ecosystems by eliminating and reducing invasive and exotic species. Cardno has assisted several public and private clients in prescribed burn programs as part of large restoration projects. Many of these sites are large areas that, once the prescribed burns are completed, are prepared for native plant seeding.

Prescribed burns are used to make land management more effective and improve both habitat diversity and the overall health of the existing native vegetation. Cardno prepares burn plans and the coordinating activities around their use, as burns are often performed according to strict environmental parameters.

Burn plans include:

- > Site maps
- > Securing permits
- > Safety precautions
- > Environmental parameters
- > Communication charts
- > Contingency plans

Cardno understands the many factors to consider when planning for a prescribed burn, beginning always with safety. To ensure the safest and most effective prescribed fire, staff establish fire breaks to ensure fires are contained within the project boundaries. A mowed path, walking trail, impervious surface, or a wetland are the most common types of fire breaks, but alternatives can be created should project needs require it. Staff also plan for weather, wind speed and direction, time of year, and burn history.

Our restoration team understands how critical timing is to a prescribed burn. Potential timing impacts include the intensity of the burn, the reaction of native and invasive species, wildlife habitat changes, as well as varying safety concerns. Most burns occur during the fall or spring when fuels are most combustible. Typically, late spring burns control woody vegetation and cool season grasses more effectively than an early spring burn, but these are not as beneficial for native wildflowers. Burns conducted during the growing season tend to be less intense and are better for areas where low heat fires are desired.



Cardno's restoration team includes prescribed burn management experts who understand the unique needs of each landscape.

Historically, fires occurred as part of the natural cycle of a variety of landscapes including prairies, wetlands, savannas, and woodlands. Fires helped to maintain the natural succession of these ecosystems. Prescribed burning as a management tool has historically been important for maintaining and enhancing native landscapes. It has been used for centuries, with early records of use by Native Americans prior to European colonization.

Not only does prescribed burning recycle nutrients sequestered in dead plant material, but it aids in controlling undesired woody plants and herbaceous weeds. Additionally, proper use of prescribed burning has shown to improve poor quality forage, increase plant growth of desirable species, and improve wildlife habitat. Prescribed burning also removes leaf litter cover which exposes soils to sunlight, thus increasing the soil temperature earlier in the growing season. This allows native plants

to begin germinating quickly in the spring, which improves their resiliency against invasive species.

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Cardno is a professional infrastructure and environmental services company, with expertise in the development and improvement of physical and social infrastructure for communities around the world. Cardno's team includes leading professionals who plan, design, manage and deliver sustainable projects and community programs. Cardno is an international company listed on the Australian Securities Exchange [ASX:CDD].

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