

**Prescribed Burn Plan
For
Edna Taylor Conservation Park**

“Boulder Woods” Unit

City of Madison, Parks Division, Conservation Parks Section

October 31, 2016

1. Site Description

Edna Taylor Conservation Park is a 58-acre natural area located in the southeast corner of the City of Madison, Wisconsin. The property is bordered by the City of Monona to the south and east, and the main access points are located at 802 Femrite Drive, where Madison Parks maintains a paved parking lot, and at 815 Woodlawn Drive, where a gate restricts access via gravel lane into the park.

This burn unit is approximately 10 acres in size and is located in the north central portion of the property. It is bounded by the park's trail system and a manicured lawn behind Glendale Elementary School. See Appendix A for maps of the site and the burn unit.

2. Purpose of Burn

This burn is an ecological management tool that is being used to restore ecosystem processes to this native oak woodland habitat. The objectives are to control an overabundance of native and non-native woody species, and to reduce leaf litter, both of which restrict germination of native trees, forbs and graminoids that are indigenous to this site and that provide habitat for native wildlife.

Ideal conditions will allow a fire that will result in >75% reduction in numbers of live woody stems <1 inch diameter, and >80% reduction in accumulated leaf litter. This would likely be achieved with a burn conducted under conditions in the upper ranges of at least two weather parameters of the burn prescription, such as air temperatures of 65-70 degrees and relative humidity of 20-30%.

Recognizing limitations related to DNR fire danger ratings, we understand that it may not be practical at this time to achieve the “ideal” burn. Therefore, we offer that an acceptable burn will result in top-kill of at least 25% of all woody stems < 1 inch diameter, and consumption of one year of leaf litter accumulation (the uppermost layer). Conducting burns with these results will still provide valuable ecological benefits to the habitat in the short term.

3. Required Notifications

At this time, Madison Parks' protocol for prescribed burn notifications is two-fold.

- Alders will be contacted via e-mail at the beginning of the burn season. Outreach to immediate park neighbors will also occur at this time, via neighborhood association newsletters, e-mail distribution lists and social media accounts; and via City and local websites, such as the Madison Parks website.

- On the day before an anticipated burn, emergency responders and sensitive neighbors, such as schools and businesses, will be contacted via telephone.

The Madison Fire Department (MFD) and Dane County Dispatch will also be notified when crews are on site and the burn is about to start, as well as when the burn is completed and crews leave the site.

See Appendix B for the complete list of notifications, with contact information, required for this burn.

4. Required Resources

This burn will be conducted with our standard controlled burn staffing and equipment, which includes five burn crew members, two UTVs outfitted with 65-gallon slip-on fire skid pump units, and one pick-up truck outfitted with a 250-gallon slip-on fire skid pump unit. See Appendix C for the burn checklist, which includes types and quantities of equipment required for this burn.

Our permanent staff have documented training and experience in wildfire suppression and prescribed burning. In addition to these employees, non-qualified personnel may also be present to observe or participate in the burn in a limited capacity, at the discretion of the burn boss. Minimum required PPE must be worn by all personnel on site.

5. Communications

Madison Parks Conservation section has six analog two-way radios which will be set to the programmed Cemetery/Conservation frequency (channel 5) for tactical communications during the burn. Radio call numbers are:

701276
701277
701278
701279
701280
701281

Note that these six analog radios DO NOT communicate with the city-wide digital radio network.

We also have one digital radio (call number 701281) that is programmed with the Madison Fire Department Administrative frequency (channel 15). This will be used to monitor 911 dispatch fire calls and communicate directly with MFD personnel who may be assigned to respond to the prescribed burn.

Finally, cell phones will be carried by the burn boss and line bosses as a back-up mode of communication. Phone numbers will be exchanged, programmed and verified among the burn crew during the pre-burn briefing.

6. Burn Unit Preparation

The burn unit will be prepared by clearing firebreaks around the perimeter prior to the burn. Standing vegetation will be cut or mowed in order to remove fuel from a zone that measures at least 1.5 times as wide as the height of the expected flame lengths. Loose vegetation and leaf litter will be blown or raked from the firebreak. In most instances firebreaks will incorporate trails, roads, water bodies or other features that already function as natural firebreaks. Where needed, these will be widened or a new firebreak will be created.

Within the burn unit, fuel will be removed from around snags and “fuel jackpots” such as downed trees and piles of large woody debris. This will reduce the chances of an escape occurring due to excessive large burning embers being carried aloft. It will also reduce the amount and duration of smoke produced after the main fire dies out, while crews are working on mop-up.

Firebreaks and the interior of the burn unit will be inspected by the burn boss prior to the burn. The burn unit will also be briefly surveyed for herptiles prior to ignition on the day of the burn. If an excessive number of frogs, snakes or turtles are encountered, the burn may be postponed or cancelled to limit impacts to wildlife.

7. Burn Prescription

This burn unit requires proper smoke management to minimize impacts to a residential neighborhood to the north, a school to the NE, and US 51/Stoughton Road to the east. US 51/Stoughton Road is the most critical consideration in this instance.

The burn prescription weather parameters are:

Temperature: 45-75 degrees F

Relative Humidity: 20-40%

Wind Speed: 2-10 mph mid-flame wind speed

Wind Direction(s): NNW, N, NE, E, SE

The indicated wind directions will all prevent smoke from drifting across US 51/Stoughton Road. Northerly or easterly winds are most desired, as this would also prevent or limit smoke drift into the residential area to the north. A southeast wind would be least desirable, but with adequate fire intensity and low wind speeds, heat generated by the fire will produce sufficient lift to carry the majority of the smoke well above ground level, where it will dissipate.

8. Execution

Personnel will assemble on site and participate in a pre-burn briefing that will be led by the burn boss. The briefing will cover the burn plan, anticipated weather conditions, recent observed fire behavior, and special considerations relevant to the site, as well as the standard LCES checklist (Lookouts, Communications, Escape Routes, Safety Zones). Burn boss will assign crews and crew leaders, and explain the anticipated execution of the burn, including ignition, holding, smoke management, mop-up and contingency plans.

Equipment, apparatus and water will be checked and appropriately staged around the burn unit. All gates restricting vehicle access will be opened. Signs indicating a controlled burn will

be posted on nearby roads that have the best potential view of the fire. Signs will request that observers do not report the fire. A final check of PPE will be made, and crew assignments and logistics will be reviewed again.

A test burn will be conducted at the point of ignition to observe fire and smoke behavior. The controlled burn will continue if conditions are acceptable and within prescription. If conditions are not acceptable, the test fire will be extinguished.

Generally, crews will work along at least two sides of the burn unit, and ignition will proceed using the methods appropriate to the unit, based on fuels, weather and topography, as well as burn goals and resources present. Fire and smoke behavior will be monitored by the burn boss, who will direct adjustments to the execution of the burn as necessary for safety and public health.

For the Boulder Woods burn unit, it is anticipated that ignition will begin at the trail junction at the southernmost corner of the unit. One crew will work northwestward to the westernmost corner of the unit, then eastward, igniting a backing, then flanking, fire and securing an area of burned fuel. The second crew will work northeastward, along the eastern edge of the unit, igniting a flanking fire. Both crews will meet at the midpoint of the northern edge of the burn unit. A head fire may also be lit along the north edge of the woodland (the south edge of the wetland) and allowed to move southward.

9. Contingency Protocol

All spot fires and escapes will be immediately called out to the line boss and nearby crew, then communicated to the burn boss. Ignition will cease and personnel will direct the nearest resources to controlling the escape, while reserving sufficient personnel to continue to monitor and hold the fire within the unit. Once the escape is controlled, the burn boss will evaluate the situation and decide whether to continue with the controlled burn. If the burn does not continue, all personnel will suppress and control the fire within the unit until all burning material is extinguished.

In the event an escape cannot be controlled with the resources present on the site, the burn boss will contact the fire department for assistance while crews work to suppress the wildfire. The burn boss will coordinate with the fire department upon their arrival and communicate the necessary information to aid in control efforts.

This unit is bordered by another burn unit to the east, which was burned in spring 2016, and has only a small amount of leaf litter accumulation. While the terrain here slopes up away from this (Boulder Woods) burn unit, a low-intensity fire would be expected here, and a trail runs along the top of the slope, where an escape could be intercepted.

The most vulnerable area under the desired wind conditions is the prairie habitat that is found to the south of this burn unit. Ample grasses here would carry a head fire rapidly toward the cattail stand located to the south.

The north and west sides of this burn unit are surrounded by low wet woods, gravel tails and wetlands with standing water, all of which would serve as secondary firebreaks and help slow the spread of an escaped fire.

10. Mop-up

Once ignition is complete, the fire will be allowed to burn down. Fuel and water will be re-filled, then crews will begin mop-up, working in teams to extinguish any burning material. Crews will begin by working around the perimeter of the unit, establishing a “cold” zone extending 100 feet into the unit to secure the area and prevent re-burns and escapes. Next, crews will move through the interior of the unit, extinguishing all burning material.

A final inspection of the unit will be made by the burn boss or their delegate to verify that all burning material has been extinguished and no smoke is being produced. If so, crews may leave the site.

11. Internal Approval

This plan has been reviewed and approved by Madison Parks personnel.

Paul Quinlan
Conservation Resource Supervisor

Date _____

Lisa Laschinger
Operations Manager

Date _____

Charles Romines
Assistant Superintendent of Operations

Date _____

Appendices

Appendix A. Maps

Appendix B. Notifications

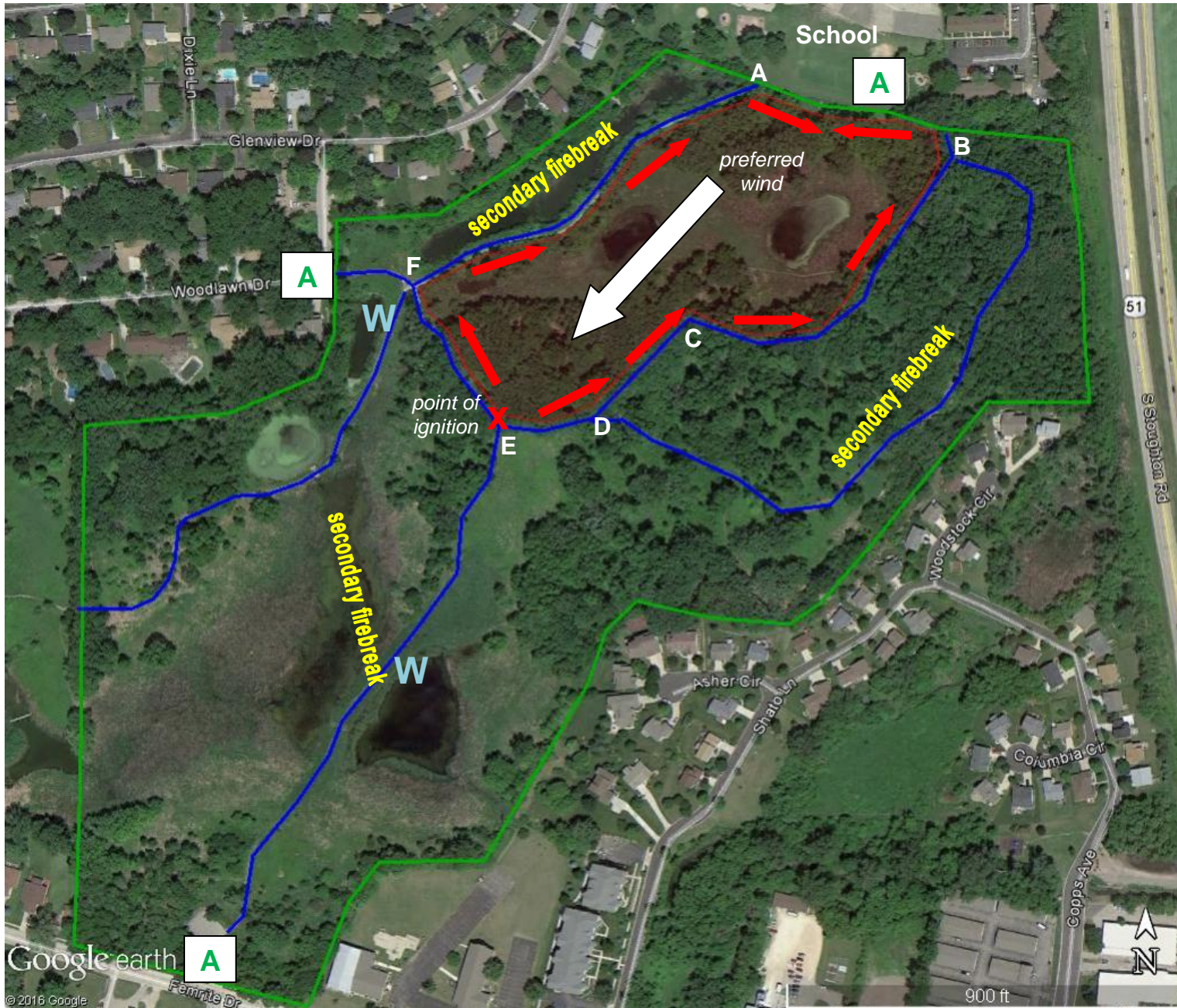
Appendix C. Prescribed Burn Checklist

Appendix A Maps

Edna Taylor - Fall 2016 Burn Units



Edna Taylor - Boulder Woods Unit - Tactical Map



Closest Medical Care:

Dean Clinic Urgent Care
1821 S Stoughton Rd,
Madison, WI

(608) 250-1525

Closest burn center:

University Hospital
Burn Center
600 Highland Ave.

(608) 263-6796

(800) 472-0111

Legend

- Park Boundary
- Burn unit
- Trails
- Burn progression
- W Water source
- A Site Access

Appendix B

Notifications

Organization	Name	Title	Phone	email	start of burn season	prior day
MFD	Ed Ruckriegel	Fire Marshal	266-4457	ERuckriegel@cityofmadison.com		x
Parks	Eric Knepp	Parks Superintendent	444-0903	EKnepp@cityofmadison.com		x
Parks	Charlie Romines	Superintendent of Operations	239-3598	CRomines@cityofmadison.com		x
Parks	Lisa Laschinger	Operations Manager	266-9214	LLaschinger@cityofmadison.com		x
Parks	Park Admin front desk		266-4711	parks@cityofmadison.com		x
Dane County Dispatch (911)		Communications Supervisor	267-3913	http://dane911.com/staff#ComSupervisor		x
Aldo Leopold Nature Center	Mike Strigel	Executive Director	221-0404		x	x
City Alder	Denise DeMarb	District 16 Alder	358-3195	district16@cityofmadison.com	x	if requested
Glendale Elementary School	Benjamin Ketterer	Principal	204-2400		x	x
Glendale Neighborhood Association	Carole McGuire		222-3279	carolemcguire@charter.net	x	
Monona Fire Department	Scott Sullivan	Fire Chief	222-2528	ssullivan@ci.monona.wi.us		x

Appendix C
Prescribed Burn Checklist

Prescribed burn checklist

Park: _____ Burn Unit: _____ Date: _____

Protocol

- ___ Burn plan has been approved by Park administration
- ___ Firebreaks have been prepared
- ___ All notifications listed in burn plan have been completed
- ___ Weather forecast has been obtained on the morning of the burn
- ___ All equipment has been checked for operation
- ___ All personnel have complete PPE (boots, gloves, Nomex, eye protection)
- ___ Pre-burn briefing has occurred, explaining burn unit, logistics, prescription, weather, contingency plans, mop-up and LCES Time: _____
- ___ Test burn has been conducted Time: _____ Result: _____
- ___ Final inspection has been made before leaving site Time: _____

Equipment

	<i>Item</i>	<i>Quantity</i>
	Drip torches	4
	Backpack fire pumps "Pump cans"	4
	Fire rakes	2
	Leaf rakes	2
	Leaf blowers	2
	Chainsaws	2
	Chainsaw accessories	varies
	Trash pump w/ drafting & output hoses	1
	100' section 1.5" diameter hose	1
	Ranger UTV with 65 gal fire skid unit	2
	Pickup truck with 250 gal fire skid unit	1
	Radios with spare batteries	5
	Kestrel weather meter	1
	First Aid kits Locations: _____	3
	Chaps	2
	Chainsaw helmet	2
	Road signs	2
	Extra fuel:	
	Straight gas	
	Mixed gas	
	Drip torch fuel	
	Extra water: 300 gal tank	
	Other (list)	