

Prescription Burn Plan
 Native Landscape Contractors, LLC
 815-762-1993



Horner Park

Owners Name: **Chicago Park District**
 Site Address: **2741 W Montrose Ave, Chicago, IL 60618**
 Permit Issuing Authority, Permit Number, Expiration Date, Contact Name & Phone Number:
IEPA, #B1607097, Expires: 07/26/17 Floyd McKinney, #217-782-2113
CDPH, Issued 11/10/16 Exp. Date: End of Season, Otis Omenazu #312-745-7206

Project Size: **55 Acres**
 Burn Unit Area(s): **~5 Acres**
 Site History: **Oak Savanna**

RxFire Goal: **The goal of a prescribed burn at Horner Park is to reduce the dormant grass and leaf litter debris located within the Oak Savanna areas in order to facilitate spring ephemeral germination during the subsequent spring growing season.**

Burn Management

Preparer's Name: **Matthew Borden**

Phone: **815.570.1289**

Contacts for Notification

	Name	Phone Number / Email	Notification
CPD	Bob Foster Lauren Umek	robert.foster@chicagoparkdistrict.com lauren.umek@chicagoparkdistrict.com	24 Hours Prior & At Arrival
CPD (FieldHouse)	Deborah Groh	Deborah.groh@chicagoparkdistrict.com 773-478-3499	24 Hours Prior & At Arrival
USACE	Jason Zylka	Jason.Zylka@usace.army.mil Cell: (312) 415-7341	Email: 24 Hours Prior Cell: At Arrival
Industria	Carlos Vargas	cvargas@industriainc.com	24 Hours Prior
Alderman	Ward 33 – Deb Mell Ward 47 – Ameya Pawar	773-478-8040, Ward33@cityofchicago.org 773-868-4747, info@chicago47.org	24 Hours Prior
Burn Boss	James McAley	(815) 828-0246	Onsite
CDPH	Otis Omenazu	(312) 745-7206	Day of Ignition
Fire	Engine 124	(773) 588-6717	Day of Ignition
Police	17 th District	(312) 742-4410	Day of Ignition
Medical	Kindred Hospital - Chicago - North	911 / (773) 267-2622	In Case of Emergency
Other	Adjacent Landowners	Contact via Signs/Letters	24-48 Hours

Personnel Requirements:

Number of Personnel	5 (min.)
Burn Boss	1
Equipment Operators	2
Backpack Pump Operators	1
Ignitions	1 (+ Burn Boss)

Equipment:

Equipment	Equipment	Equipment
Traffic Cones	Pulaskis	Shovels
Caution Smoke Ahead Signage	Leaf Blower	Wildland Fire Helmets
Trash Pump w/ Pump Kit	Cell Phones	Hard Tine & Fire Rakes
Nomex Clothing	2-Way Radios	Flappers
Leather Gloves	Weather Kit	First Aid Kit
Backpack Pumps	Drip Torches	Lighter/Matches
RTV w/ 100 Gal. Sprayer	Drip Torch Fuel	Leather Safety Toe Boots
Chainsaws	Brushcutters	

Required Weather Conditions / Fire Behavior Parameters:

Parameter	Prescription Values	Preferred Value
Temperature	32 to 75 Degrees F	50 Degrees F
Relative Humidity	30% to 60%	40%
Wind Speed	5-25mph	5 mph Steady
Wind Direction	East, South, Southeast	East, South, Southeast
Included Dates	July 2016 - July 2017	October 2016 – March 2017
Day of Week	Monday – Friday	Any Day

Description of Existing Vegetation within Burn Area:

Ecosystem Type	Oak Savanna
Fuel Model	2, 3
Fuel Type	Tall Grass, Timber – grass understory
Fuel Loading (Tons/acre, See Table 1)	5

Fuel Density	Light/Medium
Fuel Balance 1hr (Grasses, Forbs and Leaves)	95%
Fuel Balance 10hr (Woody Dead Fall and Snags)	5%
Percent Slope/Exposure	0% - 10%

Incident Radio Communications:

Motorola XV100, MV21CV, Relm RPV599AT, or RDV 2020 radios on **Channel 1, Low Band, Freq. 151.7 MH 100H**

Site Preparation:

Burn breaks will be cut and cleaned of fuel along the perimeter of the burn unit where natural breaks (sidewalks, trails, water, and green turf grass) do not already exist. Burn breaks will be widened as appropriate depending on the wind direction in order to properly protect sensitive structures. All utilities and designated structures on site will be identified and measures will be taken prior to prescribed burning. Crews will reduce fuel loads and establish fire breaks around the structures and areas adjacent to designated exclusion zones. The burn boss will determine the location and size of any exclusion zones on the day of the burn prior to ignition.

Prescribed burn notification signage will be placed on the westbound side of the Irving Park Road Bridge and Montrose Bridge that span over the North Branch of the Chicago River, at the Northeast corner of the California and Irving Park road intersection, at the Southeast corner of the California and Montrose intersection, and at the North central and South central access points to the trails of Horner Park. See attached map for proposed signage postings.

E&T Species, Archeological, Fire Negative Species or Patchiness, other: Black Crown Night Heron Nests

Special attention will be paid to the Black Crown Night Heron nesting areas. Burn breaks will be established at a minimum width of 5' along the entire perimeter around the restoration protection areas and all firebreaks will be cut and cleaned of fuel via mowing, brush cutting, raking, and leaf blowing. In conjunction with the established burn break, the first 3' of burnable material inside the burn unit will be brushcut or mowed down in an effort to reduce flame length during the controlled burn. During the prescribed burning crews with hand tools and water packs will be stationed along the restoration protection fire breaks to monitor the flame length and heat production of the active fire.

Ignition Method:

The burn boss will determine at which burn unit to initiate burning activities, and the direction in which the burn crew will progress throughout the process of the burn. Minimum smoke emissions will be maintained by controlling the speed of ignition. Areas where continuous fuels do not exist or are patchy, multiple ignitions may need to occur.

Mop-up will consist of extinguishing all smoke and flames within tree trunks, stumps, logs, leaf litter, grasses, and all other fuels associated within the prescribed burn using water in conjunction with a foam penetrating agent, chainsaws, and pulaskis.

Presence of peat or high organic soils: YES NO

Faunal Considerations:

Weather patterns will be observed in an effort to perform prescription burning during conditions where the likelihood of wildlife activity, specifically reptile and amphibian activity, will be very low. We will take preventative measures prior to ignition to reduce any possible impact on local wildlife and any known habitats or nesting areas such as brush cutting, establishment of fire breaks around the identified areas, and site-specific fuel reduction.

Safety Requirements:

- Hazard Management:

The burn crew must be under direct control of an Illinois Certified Burn Director (Burn Boss) as recognized by the Illinois Department of Natural Resources. The Burn Boss will have completed a minimum of S-230 (Single Resource Boss) in addition to having completed the Basic Wildland Firefighter training. At a minimum, three (3) additional support members must also be present to assist in burn activities. All burn crewmembers must have successfully completed Basic Wildland Firefighter Training S-130 and S-190 (Basic Firefighter Training & Wildfire Fire Behavior) and I-100 (Basic Incident Command) as designated by the National Wildfire Coordinating Group (NWCG).

- Hazard Management:

Hazards include landscaping trees, electrical boxes, structures within the burn unit, public safety, smoke management, and other hazards noticed the day of the burn. Burn breaks will be utilized to protect these hazards and fire shall be kept approximately 15' away. Wind direction/speed and humidity will be used to control smoke direction and dispersal. There will be visual monitoring of smoke dispersal on small fires by burn crews, the burn boss may utilize a lookout placed offsite near intersections or near smoke sensitive areas. Burn staff will monitor AQI, NWS fire forecast, and determine Ventilation Index (Table 2) on day of burn to determine if burn is go/no-go based on atmospheric conditions. Spot forecasts will be taken during the burn. Containment and extinguishment will occur if burn must be stopped due to degrading weather conditions or smoke affecting sensitive areas or populations.

- Identification of Smoke Sensitive Populations and Areas:

Table 3 will be consulted before the burn to determine downwind distance to any sensitive areas. All dwellings and businesses adjacent to the property or nearest to the proposed open burning area(s) will be notified prior to ignition at the appropriate time via an approved notification method: client notification, mailed letter, email, or door hanger leaflets. Burn Managers must be aware of the direction of each sensitive structure and/or area.

- Contingency Plan:

In the event that the fire produces unacceptable amounts of smoke, unacceptable flame heights or there is an escaped fire, the fire will be suppressed by using all necessary resources by extinguishing the flanks until the fire is completely out. Method of extinguishment depends on fuel type, and may range from wet line, direct attack of flames (< 4ft.), brush cutting vegetation or removing litter to produce an established control line. Ignition may be utilized from the newly established line to consume available fuels and extinguish the fire. The burn boss will determine if it is necessary to contact the dispatch center (911) for support.

- Emergency Procedures:

Safety zones are roads and paths, blackened areas and areas with green vegetation outside of the burn unit. The emergency meeting location is green, unburnt area nearest the burn unit. The specific rendezvous location will be determined at an onsite pre-burn meeting. Emergency calls are to 911.

Post-Burn Evaluation Criteria:

Range of acceptable results: At a minimum of 75% of the intended burn area experiencing scorching or flames.

Additional Comments:

Native Landscape Contractors, LLC will make every effort to stay within the parameters on the prescribed burn, and manage the fire and smoke to an extent that will not interfere with operation of traffic, utilities, business, or activities within the public's interest.

Approval Signatures:

Certified Burn Manager

Signature: James M McAley

Name: James M McAley

Date: 11-10-16

Certified Burn Manager Certificate Number: 15-550

Appendix

- **Table 1: Fuel Loading – Tons Per Acre**
- **Table 2: Ventilation Index**
- **Table 3: Minimum Distances to Smoke Sensitive Areas**
- **Pre Burn Checklist (Go/No Go)**
- **Post Burn Report**
- **List of Occupants to contact who might have significant smoke impacts from the prescribed fire (distance and direction) If applicable**
- **Documentation of all notifications and permits obtained**
- **Aerial map of burn unit and vicinity map**

Table 1 Fuel Loading- Tons per Acre* Fuel Model	Fuel Type	1 hr	10 hr	100 hr	Live	Total
1	Short grass (1 foot)	.74	0	0	0	.74
2	Timber, grass understory	2.0	1.0	.5	.5	4.0
3	Tall grass (2.5 feet)	3.0	0	0	0	3.0
8	Closed timber litter	1.5	1.0	2.5	0	5.0
9	Hardwood litter or long needle pine litter	2.92	.41	.15	0	3.48
10	Timber (litter & understory)	3.0	2.0	5.0	2.0	12.0
11	Light slash	1.5	4.5	5.5	0	11.5
12	Medium slash	4.0	14.0	16.5	0	34.5
13	Heavy slash	7.0	23.0	28.0	0	58.0

Table 2 Ventilation Index VENTILATION INDEX (m ₂ /sec)	VENTILATION INDEX (mph-ft)	VENTILATION INDEX (knot-feet)	DISPERSION CATEGORY
> 23,445	> 172,617	> 150,000	Excellent
15,630 – 23,445	115,078 – 172,617	100,000 – 150,000	Very Good
9,378 – 15,630	69,047 – 115,078	60,000 – 100,000	Good
6,252 – 9,378	46,031 – 69,047	40,000 – 60,000	Fair
< 6,252	< 46,031	< 40,000	Poor

Table 3 Minimum Distances to Smoke Sensitive Areas General Fuel Category	Daily Fire Size (acres)*	Dispersion Category	Minimum Distance to Downwind Smoke Sensitive Areas (miles)
Single large pile or Scattered small piled fuels	NA	POOR	0.25
	NA	FAIR or BETTER	No limitation
Grass or Leaf litter	< 50	POOR	0.25
	< 50	FAIR or BETTER	No limitation
	50 - 150	POOR	No burning
	50 - 150	FAIR or BETTER	No limitation
	150 - 500	POOR	No burning
	150 - 500	FAIR	0.25
	150 - 500	GOOD or BETTER	No limitation
	500+	POOR	No burning
	500+	FAIR	0.75
	500+	GOOD	0.50
Timber, slash, or piled fuels	500+	EXCELLENT	0.25
		POOR	No burning (See above exception for pile(s))
	< 50	FAIR	0.50
	< 50	GOOD or BETTER	No limitation
	50 - 150	POOR	No burning
	50 - 150	FAIR	0.50
	50 - 150	GOOD or BETTER	No limitation
	150 - 500	POOR	No burning
	150 - 500	FAIR	0.75
	150 - 500	GOOD	0.50
	150 - 500	EXCELLENT	0.25
	500+	POOR	No burning
500+	FAIR	1.0	
500+	GOOD	0.75	
500+	EXCELLENT	0.50	



NWCG PRESCRIBED FIRE GO/NO-GO CHECKLIST

Yes	No	Questions
		Are ALL fire prescription elements met?
		Are ALL smoke management specifications met?
		Has ALL required current and projected fire weather forecast been obtained and are they it favorable?
		Are ALL planned operations personnel and equipment on-site, available, and operational?
		Has the availability of ALL contingency resources been checked, and are they available?
		Have ALL personnel been briefed on the project objectives, their assignment, safety hazards, escape routes, and safety zones?
		Have all the pre-burn considerations identified in the prescribed fire plan been completed or addressed?
		Have ALL the required notifications been made?
		Are ALL permits and clearances obtained?
		In your opinion, can the burn be carried out according to the prescribed fire plan and will it meet the planned objective?

If all the questions were answered "YES" proceed with a test fire. Document the current conditions, location, and results.



Native Landscape Contractors
136 Railroad St
PO Box 67
Leland, IL 60531

T 815.762.1993
F 815.676.6078

www.nativelc.com

POST-BURN REPORT (To be completed onsite)

Project Name: _____

Mop-up completed as described in burn plan. Notifications of completed burn.

Date of Burn: _____

Burn Leader: _____ Phone #: _____

Certified Burn Manager Certificate: _____ Crew Size: _____

Ignition Start Time: _____ Time at Extinguish: _____

Burn Unit: _____ Area Burned (acres): _____

Weather conditions:	Ignition	Extinguish
Temperature	_____	_____
Relative Humidity	_____	_____
Wind Speed	_____	_____
Wind Direction	_____	_____

Provide an estimates area (acres) of the following community types or area types contained within the burn unit. (Total of all acreage should be equal to the Area Burned above)

Eurasian Meadow	_____	Savanna	_____
Fen	_____	Sedge Meadow	_____
Forest	_____	Woodland	_____
Marsh	_____	Misc Woody Growth	_____
Prairie	_____		

Predominant Community Type within the Burn Unit (by acreage):



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POST-BURN REPORT (To be completed onsite)

Describe, in your opinion, if the prescribed burn achieved the goals as described in the burn plan and as discussed during the pre-burn meeting.

Describe any deviations from the burn plan or the pre-burn meeting.

List any additional comments and observations, including any emergency actions taken.

Provide an evaluation of the Apprentice/Certified Burn Leader on this Burn.

List all Emergency Responders (Police, Fire, Paramedic, etc.) requested/reporting to the site

Signature of Certified Burn Manager: _____

Date: _____

Signature of Apprentice Burn Manager: _____

Date: _____

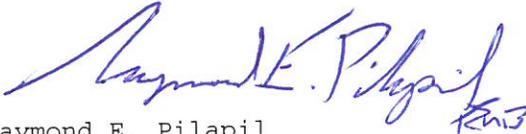
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For Cook County - 312-744-4365
For Lake, McHenry, Kane, DuPage and Will Counties - 708-865-6320
For Monroe, St. Clair, and Madison Counties - 314-645-5505
between May - September

Or

Check <http://www.epa.state.il.us/air/aqi/index.html> for the AQI website.

If you have any questions on this permit, please call Floyd McKinney at the above number.

A handwritten signature in blue ink that reads "Raymond E. Pilapil". To the right of the signature, there is a small handwritten mark that appears to be "RM13".

Raymond E. Pilapil
Manager, Permit Section
Division of Air Pollution Control

REP:FEM:clc

cc: Region 1



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Dear Property Owner / Community Resident,

Native Landscape Contractors, LLC (NLC) has been retained to conduct ecological restoration work for the U.S. Army Corps of Engineers that includes prescribed burning at the Horner Park restoration area. Prescribed burning will become a regular part of maintaining the natural areas at Horner Park for the duration of the project maintenance and monitoring period, through 2018. You are receiving this letter because your address is located within ¼ mile of the outermost edge of these natural areas.

Northern Illinois' native plant communities are fire dependent, and require the reintroduction of fire in order to thrive. The effectiveness of prescribed fire as an ecological management tool is unmatched. Healthy native plant communities remove atmospheric carbon and other pollutants from the air and have tremendous storage capacity in their root systems, and fire has been shown to increase this effect. Prescribed burning promotes this health by suppressing invasive plant species that are not adapted to fire and lengthening the growing season by exposing the underlying soil to sunlight and darkening it, which maximizes heat absorption and allows the soil to warm much faster and earlier in the spring.

Every effort will be made to minimize impacts to neighboring property owners. Burning will occur during weather conditions that minimize the amount of resulting smoke, and encourage smoke to quickly rise and disperse. NLC staff have safely conducted hundreds of prescribed burns, throughout the Great Lakes region, for an extensive range of both public-sector and private-sector clients. Prescribed burning at Horner Park has been approved and permitted by the Illinois Environmental Protection Agency Air Pollution Control Division. The Cook County Department of Public Health and the Chicago Fire Department will be notified and prior approval will be received at least 24 hours prior to an actual burn. Every step will be supervised by an experienced, Certified Prescribed Burn Manager qualified by the Illinois Department of Natural Resources.

Due to the highly variable nature of fall and spring weather, specific dates for this work cannot be set far in advance of executing the work. Prescribed burns will be scheduled within a "burn season" that begins around November 1st and lasts through April 30th. Prescribed burning will generally occur between the hours of 9:30 a.m. and 5:30 p.m. Door to door notification will not occur for individual burns. However, signage will be posted at Horner Park to notify the public of each upcoming prescribed burn. Information and scheduling for each upcoming prescribed burn will also be provided by the U.S. Army Corps of Engineers.

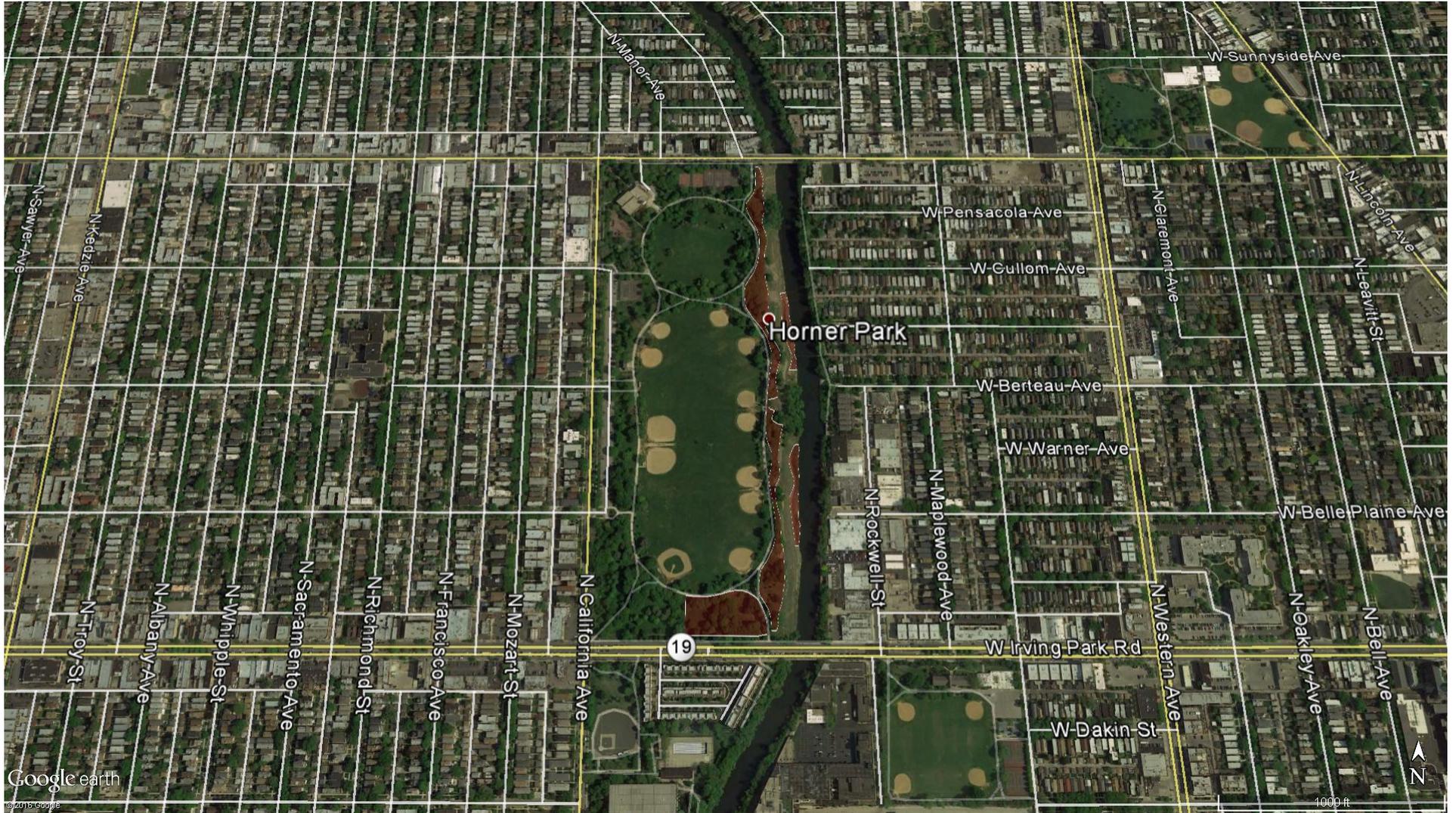
If you would like more information about the use of prescribed burning at Horner Park, or if you wish to be contacted on the day of a prescribed burn, please call the U.S. Army Corps of Engineers Public Affairs Office at **(312) 846-5330** or email your inquiry to hornerparkinfo@usace.army.mil.

Additional information about the project is available at

<http://www.lrc.usace.army.mil/Missions/Civil-Works-Projects/Horner-Park/>

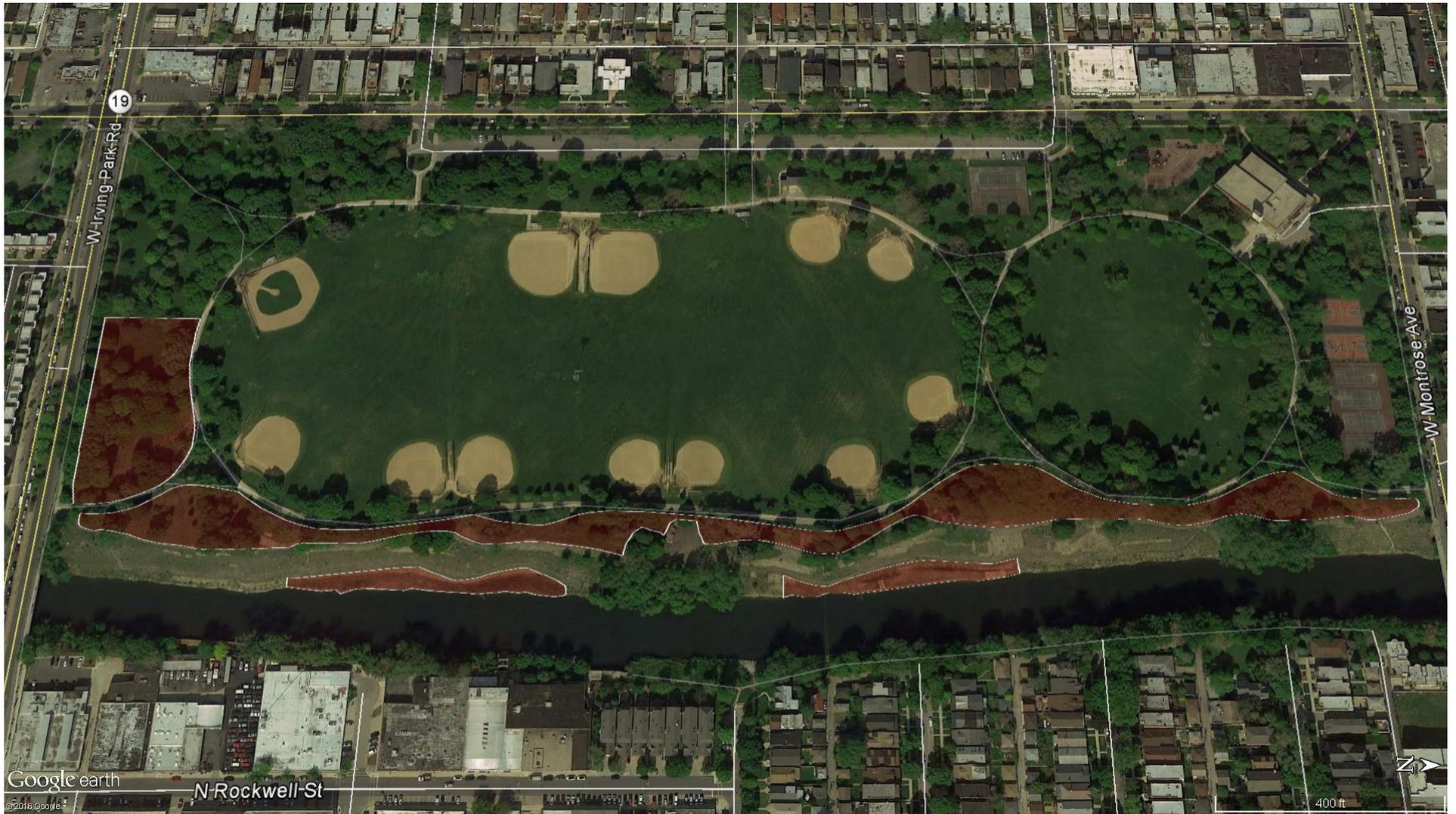
<https://www.facebook.com/usacechicago/>

Horner Park – Aerial View



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Horner Park – Park Aerial View



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Horner Park – Savanna Scaled View



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Horner Park – Northern Section Aerial View



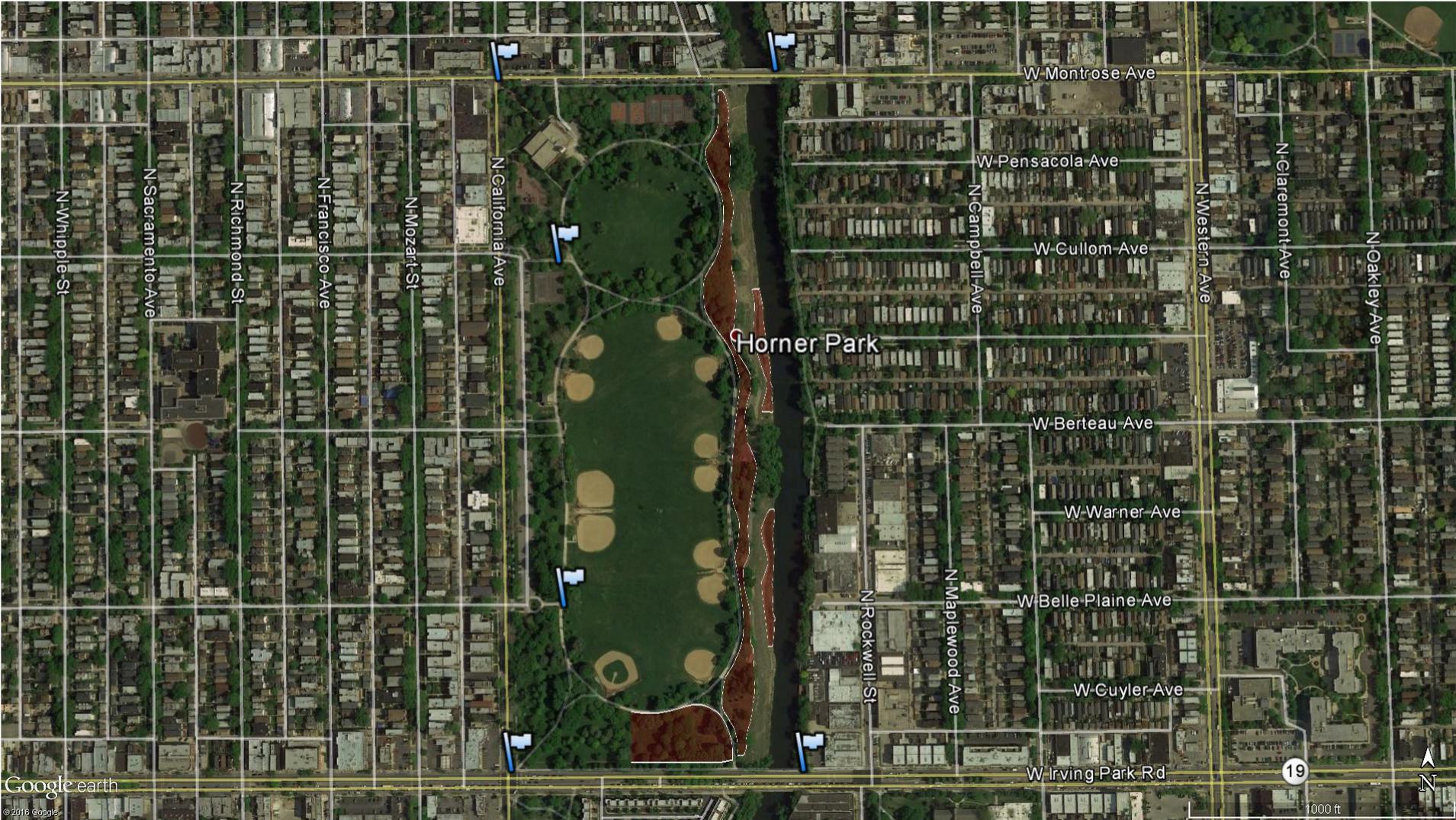
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Horner Park – Southern Section Aerial View



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Horner Park – Proposed RxFire Notification Signage



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