PUBLIC NOTICE

In accordance with the Statutes of the State of Illinois and the Ordinances of the City of Highland Park, the next meeting of the Natural Resources Commission of the City of Highland Park is scheduled to be held at the hour of 6:30 p.m. on Wednesday, April 9, 2014 at the City of Highland Park City Hall, 1707 St. Johns Avenue, Highland Park, Illinois, during which it is anticipated there will be a discussion of the following:

CITY OF HIGHLAND PARK
NATURAL RESOURCES COMMISSION
WEDNESDAY, MAY 14, 2014
HIGHLAND PARK CITY HALL
1707 ST. JOHNS AVENUE
HIGHLAND PARK, ILLINOIS
6:30 P.M.

MEETING AGENDA

I. Call to Order

II. Roll Call

III. Approval of Minutes: April 9, 2014

IV. Business from the Public

V. New Business

A. Consideration and Approval of the Creation of a Steep Slope Best Management Practices Brochure, Conducted in Partnership with the Park District of Highland Park and Funded Through the Coastal Zone Management Program Grant

B. Discussion on the Creation of Additional or Modified Recycling Extravaganza Events

VI. Old Business

A. Status Report on the Chicago River Day Clean-up

B. Status Report on Taste of Highland Park Table, August 22-24, 2014

C. Status Report on the 2014 Environmental Movie Series Screenings at the Highland Park Library

D. Status Report on the Sustainability Work Plan for CY2014

VII. Other Business

A. Commissioner Comments

B. Administrative Items

VIII. Adjournment

Posted in City Hall on May 8, 2014

MINUTES OF A REGULAR MEETING OF
THE NATURAL RESOURCES COMMISSION OF THE CITY OF HIGHLAND PARK, ILLINOIS

MEETING DATE: April 9, 2014

MEETING LOCATION: Mayor's Conference Room, Highland Park City Hall, 1707 St. Johns Avenue, Highland Park, Illinois

CALL TO ORDER

At 6:37 p.m., Chairwoman Coyle called the meeting to order and the Staff Liaison called the roll.

ROLL CALL

Members Present: Coyle, Matthews, Hannick, Wagenius, Sultan, Stone, Stumpf, Faccini, and Lewittes

Members Absent: Rheinstrom and Ross

The Staff Liaison declared that there was a quorum of the Commission present.

Staff Present: Staff Liaison Karen Berardi, City Forester Joe O'Neill, Park District Staff Rebecca Grill

MINUTES

A. Regular Meeting of the Natural Resources Commission—March 12, 2014

Commissioner Wagenius moved to approve the minutes of a regular meeting held on March 12, 2013 as presented. Commissioner Hannick seconded the motion.

On a voice vote, Chairwoman Coyle declared that the motion passed unanimously (5-0).

Chairwoman Coyle moved Item A. of the regular agenda in front of Business from the Public.

NEW BUSINESS

A. Consideration and Approval of the Creation of a Steep Slope Best Management Practices Brochure, Conducted in Partnership with the Park District of Highland Park and Funded Through the Coastal Zone Management Program Grant

City Forester Joe O'Neill led a discussion regarding final text and images to be used on the Steep Slope Best Practices Brochure. The brochure is projected to be a 16 page, four sheet booklet that will be mailed to residents living along a ravine as well as posted on the City's website for public viewing.

Chairwoman Coyle suggested that the images are given labels and captions as necessary in order to explain the content to the public. Co-Chair Matthews suggested that the brochure include recommendations for tree cover. Matthews additionally suggested that photos of good and bad examples be included if possible.

Commissioner Hannick suggested that evergreen species be added to the brochure and would follow up with O'Neill to identify specific species to list.

It was also agreed by the commission to add content regarding tree removal permits to educate the public on that process. It was further agreed by the commission that a public hearing may be necessary to educate the public and that the hearing could be sponsored by the commission. Chair Coyle requested that the item be added to the commission's 2015 work plan for first quarter.

City Forester O'Neill explained that following the publication of the brochure, the City would move forward to update the City code.

Commissioners were invited to submit additional comments to City Forester O'Neill via email.

Formal action on the brochure was delayed to the May 14, 2014 meeting of the commission.

BUSINESS FROM THE PUBLIC

Joel Kahn, 26 Lakeview Terrace, spoke to the commission regarding lakefront property regulations. He represents the shoreline owners on Roger Williams, Bruce Goodman and Lawrence Goodman, and the shoreline owners on Lakewood Place, Rick Binder, and Matt Coleman. He provided the commission with several documents of research. He requested that the commission recommend to the City Council that experts are consulted regarding these regulations. The commission advised Mr. Kahn that the commission does not create policy and that the information he presented would be passed on to the City's Public Works Department for consideration in the review process.

NEW BUSINESS

B. Discussion of Commission Involvement in Chicago River Day on May 11, 2014

Vice Chairman Matthews presented on the Chicago River Day Clean-up. The clean-up will take place at the Target store location. Advanced Disposal is providing a dumpster for the clean-up as an in-kind donation. A short article will be included in the next issue of the Highlander.

A typo on the agenda was noted; the event takes place on May 10 from 9:00 a.m. to noon. Student Representative Faccini said she would take pictures at the event. Staff Liaison Berardi advised that individuals in pictures sign a photo release from the City if they are being shared with the public.

C. Discussion on Taste of Highland Park Table, August 22-24, 2014

Staff Liaison Berardi presented on hosting a table at the Taste of Highland Park. The booth in previous years was located at Central Avenue and First Avenue, at a high-traffic area. Staff Liaison Berardi solicited feedback on manning a table at the event.

Commissioner Hannick suggested that the new booklet, pictures from River Day Clean-up, and movie screenings be included as a display. Chairwoman Coyle agreed and said the table was an opportunity to market the commission to the community.

It was suggested that the commission take on a shift during daylight hours. Staff Liaison Berardi will follow-up with the commission at a future meeting regarding the time reservation and content presented.

OLD BUSINESS

A. Status Report on the 2014 Environmental Movie Series Screenings at the Highland Park Library

Chairwoman Coyle recapped *The Lost Bird* screening in March. Council Liaison Stone noted that discussions with the Park District on co-sponsoring the film screening of *The City Dark* had begun. Several date options were discussed as well as the time the movie would be screened in order to incorporate a telescope viewing immediately following the film screening. Other future film screenings were suggested on topics such as climate change, electronic waste, and light pollution. Available dates will be confirmed with the Park District and reported back to the commission. Additional movie screening options will be discussed at the June meeting.

B. Status Report on the Sustainability Master Plan for CY2014

Staff Liaison Berardi thanked the commission for their feedback regarding the sustainability work plan. The feedback received from the commission was incorporated into the final work plan. The work plan will be presented to the City Council on the April 16, 2014 Committee of the Whole agenda. Initiatives identified on the work plan are already underway with City staff and the consultant.

OTHER BUSINESS

Resident Dr. Mark Nolan Hill provided an update on the Great Lakes St. Lawrence City Initiative and microbeads legislation. It was announced that an application for the Wege Small Cities Sustainability Award would be submitted this year.

Chairwoman Coyle discussed the possibility of changing the recycling extravaganza event to a summer event, or in line with Spring Clean-up, and hosting several events instead of one annual. It was also encouraged that residential composting be revisited.

ADJOURNMENT

Chairwoman Coyle adjourned the meeting at 8:37 p.m.

Respectfully Submitted,

Karen Berardi, Secretary

MINUTES APPROVED BY THE NATURAL RESOURCES COMMISSION ON _____

- WITH NO CORRECTIONS _____
- WITH CORRECTIONS _____
  (SEE MINUTES OF [_____] MEETING FOR CORRECTIONS

Memorandum

To: Members of the Natural Resources Commission

From: Karen Berardi, Management Analyst

Date: May 9, 2014

Re: Agenda Items for the May 14th Meeting of the Natural Resources Commission

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NEW BUSINESS:

A. Consideration and Approval of the Creation of a Steep Slope Best Management Practices Brochure, Conducted in Partnership with the Park District of Highland Park and Funded Through the Coastal Zone Management Program Grant

Attached is the final draft of the Steep Slope Best Management Practices Brochure, which incorporates feedback provided by the commission at the last meeting. Also attached are recommended amendments to Article 19 of the Highland Park City Code which coincide with best practices as well as revised handouts. Park District Representative Rebecca Grill and City Forester Joe O'Neill will be present to facilitate the discussion and respond to any questions.

B. Discussion on the Creation of Additional or Modified Recycling Extravaganza Events

The City's Recycling Extravaganza has historically taken place on the first Saturday of the calendar year, however discussion in 2013 and 2014 commission meetings has suggested moving the date to align with the Spring Clean-up in May/June and also to incorporate additional dates. In September 2013, Staff Liaison Barbara Cates along with Public Works personnel conducted a survey of participants at the City's Recycling Center to determine the efficiency of the facility hours and days it is open to the public. The survey results showed that customers wished to keep the Tuesday and Friday hours. However, the Public Works Department understands the request to move the Recycling Extravaganza dates and has agreed to do so in calendar year 2015. Furthermore, staff is willing to host two dates annually, potentially the first in early summer to coincide with Spring Clean-up and the second in late summer or early fall.

OLD BUSINESS:

B. Status Report on Chicago River Day Clean-up on May 10, 2014

Commissioners who attended the Chicago River Day Clean-up event will recap the event.

C. Status Report on Taste of Highland Park Table, August 22-24, 2014

The commission had agreed upon a 3-4 hour timeslot between the hours of 10:00 a.m. and 4:00 p.m. on August 23 or 24. No time or date is confirmed at this time, however the request is pending to use the City table at the event for commission promotion. Items to present at the event were discussed at the April meeting, to include promotion on upcoming and past film screenings, Chicago River Day Clean-up and the steep slope best practices brochure.

A. Status Report on the 2014 Environmental Movie Series Screenings at the Highland Park Library

The Park District has reserved two dates for the film screening of *City Dark*: October 24 and November 14. Following discussion by the commission, a final date will be determined on May 14 in order to finalize reservations.

City Dark highlights light pollution and the disappearing night sky. A trailer for the film can be viewed at the website www.thecitydark.com. The Park District is able to host this film at the Heller Nature Center in the fall followed by star-gazing with telescopes and a guest speaker.

B. Status Report on the Sustainability Work Plan for CY2014

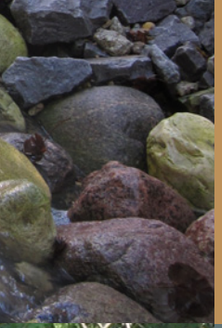
Staff Liaison Karen Berardi will report on progress in the Sustainability Work Plan for CY2014. Sustainability Consultant Grace Rink has progressed in the following initiatives and recommendations: vehicle fee, Green Alliance, commercial recycling rates, landscaper contractor education, eco-purchasing process and the facility assessment. Rink is scheduled to present at the May 27, 2014 Committee of the Whole Meeting on final progress and pending approval from the City Council, will enter into Phase II of implementation following contract approval on the June 9, 2014 City Council Meeting.

ATTACHMENTS:

- Steep Slope Best Management Practices Brochure
  - Final Brochure
  - Recommended Article 19 Amendments
  - Handout - Select Native Ravine Plants for Restoration
  - Handout - Steep Slope Herbaceous Species Removal Guidelines
  - Handout - Steep Slope Tree and Shrub Removal Guidelines

Maintaining Ravine and Bluff Vegetation

A Guide to Responsible Land Management for Property Owners and Landscape Professionals



Introduction

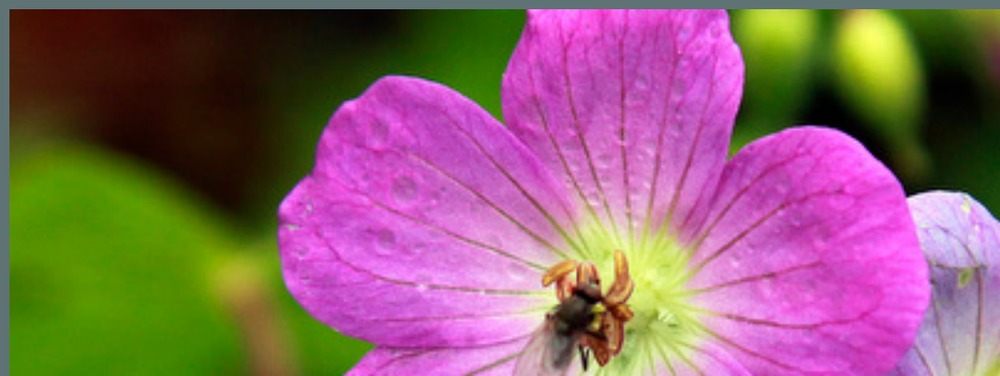
The ravine and bluff ecosystems near the lakeshore of Highland Park are unique and fragile landscapes which require management strategies considerate of their high ecological and aesthetic value. Thoughtful stewardship of these landscapes is the responsibility of each property owner and landscape professional who undertakes their maintenance or modification. Over the years, many north shore ravines and bluffs have received little or poor maintenance which has resulted in an influx of invasive species, a decrease in slope stability, a loss of native plant diversity, and a decline in wildlife habitat. By following the guidelines in this brochure, property owners can avoid common mistakes that degrade slope stability while enhancing property aesthetics and preserving these important natural resources. Please share this information with those who care for your ravine or bluff property.

For Planning and Permit Information Contact:
Joe O'Neill, City Forester
Department of Public Works
1150 Half Day Road
Highland Park, IL 60035
joneill@cityhpil.com
(847) 926-1604

An Overview of the Management Process

Though each landscape is unique, all successful vegetative management projects start with a common process. If you are considering any removal or modification of vegetation on your ravine or bluff slope, follow the steps outlined below to ensure your project is properly planned, permitted, and executed:

1. Survey existing site resources
2. Develop a management plan
3. Determine if permits are required to complete work
4. Remove invasive, dead, dying, diseased, and hazardous plant species first
5. Consider removing low quality and aggressive species
6. Replant beneficial native species
7. Maintain your slope with continued monitoring and invasive species removal



Your Management Toolkit

Hepatica

The best management practices outlined below are the tools you need to get your project done right. These are proven techniques that you will need to successfully manage vegetation on your ravine or bluff slope.

Site Surveying and Planning

are critical first steps in managing your ravine and bluff slopes. Develop a management plan that identifies existing natural resources and outlines your proposed actions for maintenance and modification. The level of detail required will depend on the scope of your project but should include, at a minimum, a complete survey of existing trees, shrubs, herbaceous vegetation (flowering plants and grasses), and significant topographical and hydrological features within and adjacent to your project area. Clearly identify your management goals, and describe the proposed means and methods of accomplishing them. A well developed plan should answer the following questions:

- What plant species do you want to remove or modify?
- What species are important to protect?
- What species will you be planting to enhance diversity or to replace those removed?
- How will you or your contractor access the project area and dispose of any waste generated from the project?
- What is your proposed timeline for implementation?
- Will your actions require follow-up monitoring or maintenance?

If your project is limited to a small area or a few targeted management actions, you may be able to develop a management plan on your own. Larger or more complex projects may require consultation with an ecologist, landscape architect, or land management professional familiar with ravine and bluff ecosystems. Please contact the City Forester for plan requirements and resources available to assist you in developing a plan for your project.

Restoration Practices: A Guide to Timing

	January Thru March	April	May	June	July	August	September	October Thru December
Step One	Develop Mangement Plan and Obtain Necessary Approvals / Permits							
		Evaluate Site for Existing Native Vegetation						
Year One	Tree Removal							Tree Removal
	Brush and Shrub Removal	Herbaceous Invasives Control						Brush and Shrub Removal
			Watch for resprouts of woody invasives				Sow Seeds /Provide Temporary Erosion Control	
			Plant Trees and Shrubs				Plant Trees and Shrubs till Frost	
Year Two	Control Woody Invasives	Herbaceous Invasives Control						
			Monitor Site for Emerging Native Vegetation				Make additional plantings/seedings as necessary	
			Plant Plugs					Control Woody Invasives

Permits and Special Conditions

Before undertaking any landscape work on steep slopes, contact the City Forester to review your plans and ensure that you obtain the proper permits. In order to protect these fragile ecosystems, the City of Highland Park has implemented specific permitting and building regulations that affect allowable management practices. These regulations can be found in *Article VII, Section 150.701.1 Special Regulations for the LFOZ Lakefront Density and Character Overlay Zone,* and *Article XIX, Steep Slope Zone* of the City's zoning code, both available through the City's website, www.cityhpil.com. These regulations include general restrictions on work on ravine and bluff slopes which protect existing soil and plant resources.

- Tree and shrub removal and pruning on ravine and bluff slopes requires a permit but may be allowed under certain conditions as defined in City code. Fees may apply for removal of species other than those that are dead, dying, diseased or hazardous or defined as invasive in the City's *Steep Slope Tree and Shrub Removal Guidelines*. In some cases, a replacement plan will be required.
- All work on steep slopes should avoid compacting, rutting, pitting, or disturbing soils and adjacent desirable vegetation. This may require work to occur while ground is frozen, and may restrict use of tracked or rubber tired equipment on slopes.
- All logs, branches, and organic debris generated from vegetative management actions should be removed from the slope and properly disposed of. No landscape debris may be piled or allowed to accumulate on ravine and bluff slopes at any time. Fallen leaves from yards must not be deposited on ravine or bluff slopes.

Tree Removal and Pruning

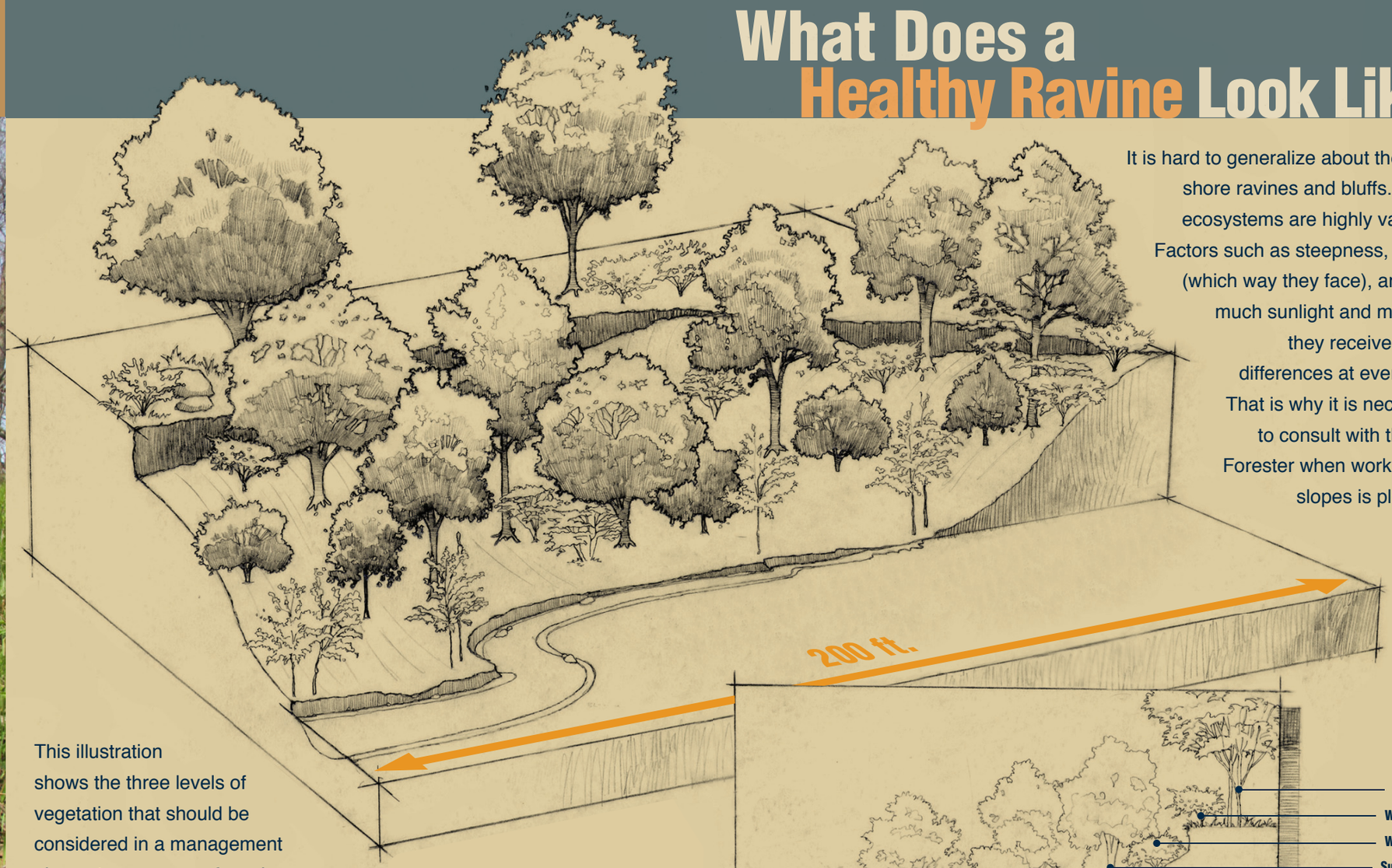
is often an essential step toward increasing light levels on the ground, which can support healthy growth of native grasses and wildflowers that prevent soil erosion. Management plans should consider the following when proposing tree removal:

- Primary targets for removal should include dead, dying, diseased, hazardous, and trees defined as invasive in the *Steep Slope Tree and Shrub Removal Guidelines.*
- Canopy coverage should range between 40-60%, allowing for adequate sunlight levels to support flowering plants and grasses on the ground while maintaining a landscape dominated by mature trees.
- Trees on the protected species list may be considered for limited removal if canopy coverage goals cannot otherwise be met. Removal of key species is generally not allowed.
- Removal goals should promote locally appropriate native trees in a variety of size classes.
- Trees should be cut flush with the soil surface with stumps and root systems left intact.
- Prune trees according to ANSI A300 standards to ensure long-term tree health and aesthetic quality –topping trees is not allowed.

Left: Buckthorn and other invasive plants shade out native species.

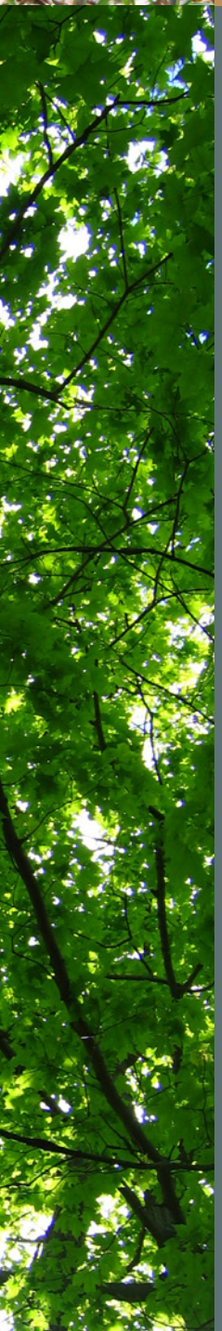
What Does a Healthy Ravine Look Like?

It is hard to generalize about the north shore ravines and bluffs. These ecosystems are highly variable. Factors such as steepness, aspect (which way they face), and how much sunlight and moisture they receive create differences at every turn. That is why it is necessary to consult with the City Forester when work on the slopes is planned.



This illustration shows the three levels of vegetation that should be considered in a management plan: a tree canopy of varying age and type, a shrub understory that includes native small trees and a groundcover of wildflowers, sedges and grasses that is protected and encouraged. Non-native plants such as buckthorn and garlic mustard have been removed and continue to be monitored for regrowth.


Bellwort



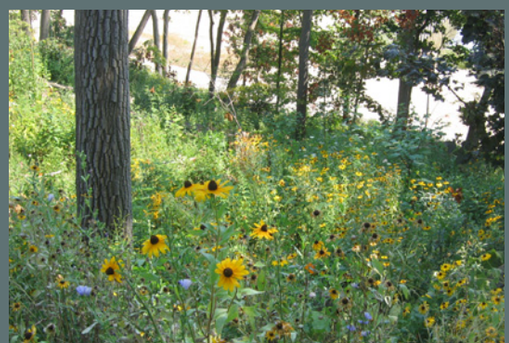
How Can Removing Trees Help a Forest?

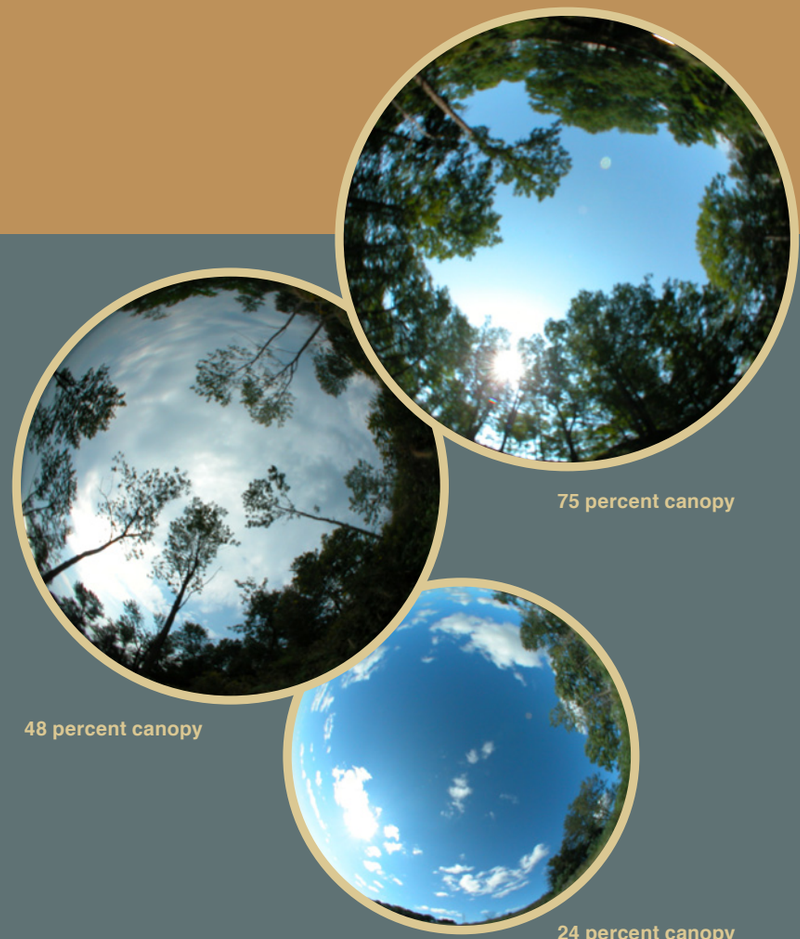
When we think of the north shore ravines, we often think of shady, cool places. Our ravines are characterized by ecologists as a forest community with a canopy (highest level of vegetation) dominated by Red Oak and Sugar Maple trees.

However, a healthy ravine also contains a middle layer of small trees and shrubs and also a ground floor covered with wildflowers, grasses and grass-like plants called sedges. Each is part of a complex support system protecting soil, water, creatures and each other. Sedges are especially vital because their roots knit together to hold soil in place.

Like all things living, these components need the sun's energy to survive. Ecologists are only beginning to learn how much sunlight is needed for a healthy forest, but we can see the effects of too much shade in our ravines: disappearing wildlife and wildflowers, bare soil that is prone to erosion, and the inability of mature oaks to reproduce.

In nature, plants depend on disturbance to promote new growth. Observe how young seedlings sprout up after a large tree falls and you will understand how gaps in the canopy foster a diverse forest ecosystem. Making a disturbance by removal of invasive and non-native trees is a good first step to restoring the kind of lighting our ravines need to keep them growing.





An indirect way to measure the sun's availability in a forest is to look up. If, in summer, the sky is blocked by leafy cover, it is likely that full sun (as measured out in the open) is cut by some percentage.

The magnitude of change from full sun to shade under tree canopy can be great. In the Midwest, a sunny mid-summer day can yield 10,000 foot candles (fc) of light in the open. Under a fully shaded canopy available light can drop to 100 fc or less. It has been estimated that 10 percent of available light is required for sedges to reproduce in woodland settings.

For guidance on tree canopy coverage, contact the City Forester at (847) 926-1604.

Fisheye lens photography courtesy of Openlands.

Mayapple

Brush and Shrub Removal

Healthy ravine and bluff woodlands should contain a substantial native understory of shrubs and young trees, while allowing for adequate sunlight levels to support flowering plants and grasses on the ground. A range of 10-15% understory coverage is considered desirable. Management plans should consider the following when proposing shrub removal:

- Removal of invasive shrubs, as defined in the *Steep Slope Tree and Shrub Removal Guidelines*, is generally encouraged on all sites.
- Removal of designated protected shrubs is generally discouraged, though may be recommended in cases where a high density of aggressive native species produces over-shading. Removal of shrubs designated as key is generally not allowed.
- Removal of shrubs by cutting to ground level (not digging roots) is required to avoid soil disturbance.
- A follow up plan to discourage regrowth is recommended. If herbicides are used, follow manufacturer's recommendations for application rates and techniques to avoid damage to non-target species. Use selective herbicides and targeted methods, such as wicking stems or painting cut stumps. Avoid broadcast spray methods

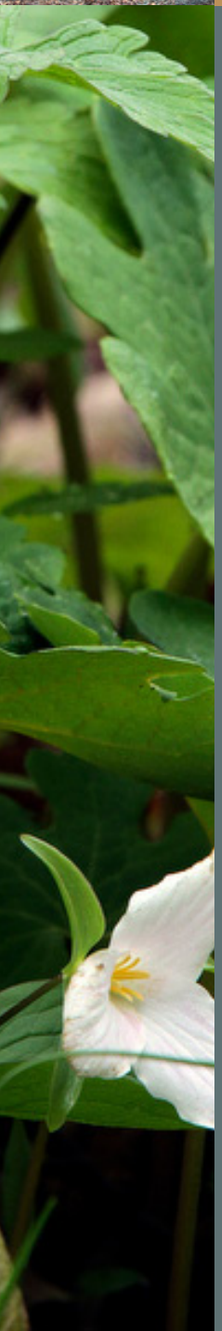
Herbaceous Plant Removal

Healthy ravine and bluff slopes require deep-rooted herbaceous vegetation to prevent soil erosion and ensure slope stability. Management plans should promote a vigorous, diverse mix of native grasses, sedges, and wildflowers. Consider the following when proposing herbaceous plant removal:

- Removing invasive plants, as defined in the *Steep Slope Herbaceous Species Removal Guidelines*, is generally encouraged on all sites to reduce competition with natve species. Removal methods should minimize impact on soil stability and adjacent desirable vegetation.
- Avoid disturbing soil when pulling herbaceous weeds – pull only shallow-rooted annual and biennial species, do not pull weeds over a large area during a single event, do not dig or grub roots.
- If herbicides are used, follow manufacturer's recommendations for application rates and techniques to avoid damage to non-target species. Use selective herbicides and targeted methods, such as wicking. Avoid broadcast spraying.
- Continue monitoring herbaceous weeds and remove them as necessary. In most cases, invasive plants require several seasons of continued management to be eradicated from a site.

Left: Invasive plants such as garlic mustard compete with native wildflowers for space and light.

Hydromulching



Planting and Seeding

Seeding native trees, shrubs, and herbaceous species is allowed on ravine and bluff slopes to enhance species diversity and coverage. In the case of tree or shrub removal work, planting may be required as part of your management plan:

- Choose deep-rooted, native perennials that are adapted to North Shore ravine and bluff ecosystems. Refer to the City of Highland Park guide: "Select Native Plants for Restoration" for plants appropriate to light and soil moisture conditions on your site.
- Tree and shrub plantings should provide a range of species, mature heights, and aesthetic values such as fall color. When choosing individual trees and shrubs, remember that smaller specimens will often do better in the long run and cause fewer disturbances to the soil during planting.
- Minimize soil disturbance during planting operations – remove excess soil from the slope, mulch exposed topsoil after planting.
- Consider temporary erosion control needs when installing native seed and use degradable straw blankets or mulches which will not smother existing native vegetation. Professional hydromulching, in which a temporary protective layer of wood fibers is applied with a spray of water, can be an effective option for steep slopes.
- Water new plantings by hand, and only as necessary to ensure survival. Overwatering may increase soil erosion. Sprinkler heads should not be directed at the ravine or bluff slopes.

Additional Resources

This brochure should be considered a preliminary guide to planning vegetative management and maintenance activities within the ravine and bluff ecosystems of Highland Park. Before beginning any project that involves land management, please familiarize yourself with the most recently updated zoning ordinance. Contact the City Forester for permitting requirements and additional information, including supplemental handouts detailing common invasive species recommended for removal and native species recommended for planting.

For additional information on restoration and protection of the ravine and lakefront environment:

Alliance for the Great Lakes: www.greatlakes.org
- Ravine Restoration Toolkit

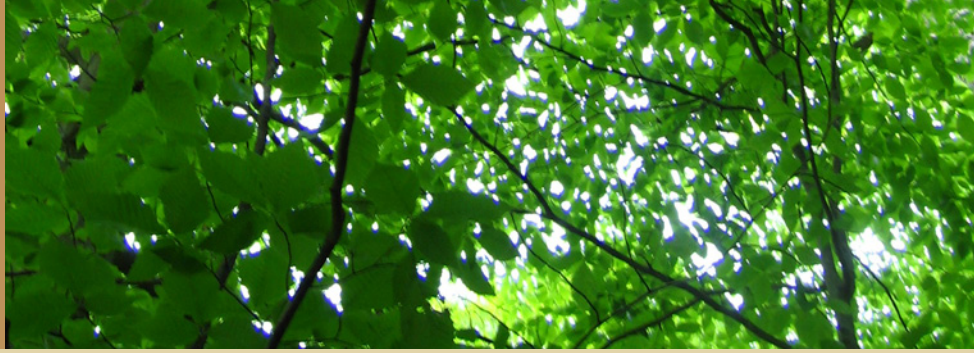
City of Highland Park: www.cityhpil.com
- Living in a Lakefront & Ravine Community
- Select Recommendations for Protecting your Ravine-Bluff Property
- Select Native Plants for Restoration

Park District of Highland Park: www.pdhp.org/hpravines

For information on native plants:
www.illinoiswildflowers.info

For information on trees and tree planting:
www.arborday.org

For information on invasive species:
www.mipn.org
www.niipp.net



For Information on Planning and Permitting Your Ravine or Bluff Project:

Joe O'Neill, Forester
City of Highland Park
joneill@cityhpil.com
(847) 926-1604

This Project is funded in part under the Coastal Zone Management Act, by NOAA's Office of Ocean and Coastal Resource Management in conjunction with the Illinois Coastal Management Program, Illinois Department of Natural Resources.

Sec. 150.1909 Removal or Damage of Trees in the Steep Slope Zone

(A) General. It shall be unlawful to Remove or perform any act that results in the death, likely death, loss in value, loss in aesthetic value or substantial destruction of any Tree, Shrub, herbaceous plants, ~~Undesirable~~ Invasive Species, or Tree Stump in the Steep Slope Zone, including, without limitation, any actions that may cause a Tree to become diseased or hazardous to persons or property, as determined by the City Forester or his or her designee, without first obtaining a Tree Removal Permit issued by the City Forester. (Ord. 38-01, J.27, p. 146-167, passed 6/25/01; Ord. 26-08, J. 34, p. 050-068, passed 4/14/08)

(B) Application for a Tree Removal Permit. Any person wanting to Remove any Tree, Shrub, herbaceous plant, Undesirable Species, or Tree Stump from the Steep Slope Zone shall prepare and submit an application for a Tree Removal Permit with the City Forester. All applications for a Tree Removal Permit shall comply with the following; (Ord. 26-08, J. 34, p. 050-068, passed 4/14/08)

(1) Trees. An application for the removal of any Tree shall include the applicable Tree Removal Permit fee, as set forth in Chapter 94 of this Code, and a vegetation plan prepared in accordance with Section 150.1907 of this Article. The City Forester shall issue a Tree Removal Permit upon a determination that: (Ord. 26-08, J. 34, p. 050-068, passed 4/14/08)

(a) Sufficient proof has been provided by a certified arborist or a landscape professional trained and experienced in steep slope vegetation management that the existing canopy in the Steep Slope Zone is too dense to permit the growth of understory vegetation on the slope; (Ord. 26-08, J. 34, p. 050-068, passed 4/14/08)

(b) The proposed removal of the Tree and vegetation plan are consistent with good forestry practices, including means and methods intended to improve the stability of steep slope terrain and remove invasive species, provided removal does not ~~exceed 30%~~ result in less than a 40% ~~of the existing~~ tree crown cover on the slope; and (Ord. 38-01, J.27, p. 146-167, passed 6/25/01; Ord. 26-08, J. 34, p. 050-068, passed 4/14/08)

(c) The proposed removal is, in the sole determination of the City Forester, consistent with the purpose and standards of this Article and the Citys "Homeowners Guide to Responsible Land Management". (Ord. 26-08, J. 34, p. 050-068, passed 4/14/08)

(2) ~~Undesirable~~ Invasive Species and Tree Stumps. An application for the removal of an ~~Undesirable~~ Invasive Species or Tree Stump shall include a description of procedures that will be used to prevent soil erosion in the area from which the Undesirable Species or Tree Stump is to be removed. Such procedures shall include replacement of soil and replanting of plant species that will secure the soil and prevent soil erosion. No Tree Removal Permit fee is required for the Removal of an Undesirable Species or Tree Stump. The City Forester shall issue the Tree Removal Permit if he determines that the procedures to be used will adequately prevent soil erosion in the area where the Undesirable Species or Tree Stump is to be removed. (Ord. 38-01, J.27, p. 146-167, passed 6/25/01; Ord. 26-08, J. 34, p. 050-068, passed 4/14/08)

(C) Replacement of ~~Protected~~ Trees Removed with a Permit.

(1) Except where the City Forester finds the existing Tree canopy to be too dense in the Steep Slope Zone, each Protected Tree authorized to be Removed, pursuant to this Article, shall be replaced with replacement Trees, the species of which shall be included in the vegetation plan previously approved by the City Forester, having a combined six (6) inch caliper and no individual replacement Tree being less than one and one-half inches (1-1/2") caliper. All such replacement Trees shall be planted on the same Lot from which the Protected Tree has been Removed in accordance with the vegetation plan. Such replacement shall be made within six (6) months of the date of issuance of the Tree Removal Permit. Required tree replacement may be waived if their removal is in conjunction with a City approved Vegetation Restoration plan. An extension of time may be granted by the City Council upon request, provided, however that no such extension shall exceed twelve (12) months from the date of issuance of the Tree Removal Permit. (Ord. 38-01, J.27, p. 146-167, passed 6/25/01; Ord. 26-08, J. 34, p. 050-068, passed 4/14/08)

(2) If the City Forester determines that the required replacement of Protected Trees would result in unreasonable crowding of Trees upon the Lot, affecting the growth and survivability of existing understory vegetation, the permittee shall pay the City a fee in lieu of making such replacement, as set forth in Section 94.403(C)(6) of the City Code. Required tree replacement fees may be waived if their removal is in conjunction with a City approved Vegetation Restoration plan. (Ord. 38-01, J.27, p. 146-167, passed 6/25/01; Ord. 26-08, J. 34, p. 050-068, passed 4/14/08; Ord. 28-10, J. 36, p. 105-109, passed 3/2/10)

(D) Removal of any Tree, Shrubs, herbacios material, ~~Undesirable~~ Invasive Species, or Tree Stump Without a Tree Removal Permit. (Ord. 26-08, J. 34, p. 050-068, passed 4/14/08)

(1) Any person found to have Removed any Tree, Shrubs herbaceous material ~~Undesirable~~Invasive Species, or Tree Stump without a Tree Removal Permit issued by the City Forester shall be required to: (Ord. 26-08, J. 34, p. 050-068, passed 4/14/08)

(a) prepare and implement a vegetation plan, in accordance with Section 150.1907 of this Article; and

(b) pay a fee at the rate set forth in the Annual Fee Resolution for the review and approval of such Vegetation Plan. (Ord. 35-03, J. 29, p. 134, passed 05/27/03**)**

(2) Where a person has Removed a ~~Protected~~ Tree without a Tree Removal Permit, in addition to complying with Section 150.1909(D) (1) of this Article, such person shall be required to replace each Protected Tree so Removed with replacement Trees having a combined six (6) inch caliper and no individual replacement Tree being less than one and one-half inches (1-1/2") caliper. In addition, the following requirements shall apply: (Ord. 26-08, J. 34, p. 050-068, passed 4/14/08)

(a) Replacement Trees shall be planted in the Steep Slope Zone of

the same Lot from which Protected Trees have been Removed.

(b) If the City Forester determines that the required replacement of Protected Trees would result in unreasonable crowding of Trees upon the Steep Slope Zone of the Lot, affecting the growth and survivability of existing understory vegetation, such replacement Trees shall be planted elsewhere on the Lot from which the Protected Tree has been Removed or shrubs and herbaceous plants can be included as replacement at the Foresters discretion.

(c) No fee in lieu of replacement shall be allowed for Trees Removed from the Steep Slope Zone without a Tree Removal Permit. (Ord. 38-01, J.27, p. 146-167, passed 6/25/01)

(E) Tree and Tree Stump Removal, Replacement and Restoration.

(1) Any damage done to the Steep Slope Zone during Tree or Tree Stump Removal and replacement must be restored in accordance with the vegetation plan and the provisions of this Article.

(2) No machinery that cannot otherwise be carried by a person shall be used in the Steep Slope Zone for the removal or planting of any Trees, or in associated restoration activities. (Ord. 38-01, J.27, p. 146-167, passed 6/25/01)

Definitions

Vegetation Restoration
The process of selective removal, trimming and palnting of trees shrubs and herbaceous material to improve slope stability and plant diversity as set forth in the Citys homeowners guide to responsible land management.

TREE: A self-supporting, woody plant, together with its root system, having a well defined stem or trunk or a multi-stemmed trunk system with a more or less well defined crown. (Deleted by Ord. 11-2000, passed 2/28/00; Ord. 38-01, J. 27, p. 146-167, passed 6/25/01)

Invasive Species
Undesirable Shrubs herbaceous material or trees greater than 8" in diameter as identified in the Citys Homeowners guide to responsible land management

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Protected Trees
Higher quality trees greater that 5" in diameter that may be reomoved as part of a restoration plan as outlined in the Citys homeowners guide to responsible land management.

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Key Trees.
Highest quality trees of all sizes as identified in the Citys homeowners guide to responsible land management.

SHRUB: A woody Deciduous or Evergreen plant, smaller than a Tree, consisting of several small stems from the ground or small branches near the ground as identified in the Citys homeowner guide to responsible land management. (Added by Ord. 71-07, J. 33, p. 461-508, passed 9/24/07)

Objectives Met
#Invasive under 8″ can be removed
#Protected trees under 5″ can be removed
#Restoration after illegal removal can include trees shrubs and herbaceous material

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City of Highland Park
Select Native Ravine Plants for Restoration

Plants that are historic to north shore ravine and bluff conditions such as those listed below will, by their nature, be adapted to conditions of local shade, moisture and temperature. Where possible, purchase plants that were grown locally, from seeds or stock harvested close to the Illinois Lake Michigan shoreline. Please note that this list is not intended to be exclusive or comprehensive, and it is recommended that you first seek advice from a licensed landscape architect or arborist to determine which plants are most suitable for your property. When planting, please ensure that landscaping debris is hauled off site and not deposited into the ravines. Vegetation and lawns should be manually watered when the soil is dry in order to prevent unnecessary over-watering from automatic sprinklers

For further information regarding planting in the ravines, please contact the City Forester at 847-432-0807.

Tall Shade Trees				
Common Name	**Latin Name**	**Location**	**Light**	**Water**
*American Basswood	*Tilia americana*	S, B	S, PS, SH	M
American Beech	*Fagus grandifolia*	S	PS, SH	M
Hickories	*Carya sp.*	U, C	S, PS	D, M
Oaks	*Quercus sp.*	U, C, S	PS, SH	D, M
Sugar Maple	*Acer saccharum*	U, C, S	S, PS, SH	M
Walnuts	*Juglans sp.*	U	S	D, M
White Pine	*Pinus strobus*	U, C	S, PS	D

Intermediate Trees				
Common Name	**Latin Name**	**Location**	**Light**	**Water**
*Birches	*Betula sp.*	U	S	D, M
Blue Beech	*Carpinus caroliniana*	S, B	PS, SH	M, W
Hawthorns	*Crataegus sp.*	U, C	S, PS	D
*Hop Hornbeam, Ironwood	*Ostrya virginiana*	U, C	S, PS	D
Pagoda Dogwood	*Cornus alternifolia*	C	PS	M
*Redbud	*Cercis canadensis*	U, C, S	S, PS	D, M
Serviceberry	*Amelanchier sp.*	U, C, S	S, PS	D, M
*Witch Hazel	*Hamamelis virginiana*	U, C, S, R	S, PS	M, W

Shrubs				
Common Name	**Latin Name**	**Location**	**Light**	**Water**
Black Haw	*Viburnum prunifolium*	U, C	S, PS	D, M
Chokeberry	*Prunus virginiana*	U, C, S	S, PS, SH	D, M
Hazelnut	*Corylus americana*	U, C, S	PS	D, M
Nannyberry Vibernum	*Viburnum lentago*	U, S, B	S, PS, SH	M, W
Red-Osier Dogwood	*Cornus stolonifera*	B	S	W
Sandbar Willow	*Salix interior*	B	S	W
Staghorn Sumac	*Rhus typhina*	U, C	S	D
Wild Plum	*Prunus americana*	U, C	S, PS	D, M

Grass & Sedges				
Common Name	**Latin Name**	**Location**	**Light**	**Water**
+Big Bluestem	*Andropogon gerardii*	U	S	D
Bottlebrush Grass	*Hystrix patula*	U, C, S	S, PS	D, M
Canada Wild Rye	*Elymus canadensis*	U, C	S, PS	D, M
Fowl Manna Grass	*Glyceria striata*	U, B	S, PS, SH	W
+Little Bluestem	*Schizachyrium scoparium*	U	S	D
Nodding Fescue	Festuca obtusa	U,C,S	PS	D,M
Poverty Oat Grass	Danthonia spicata	U,C,S	PS	D,M
Sedges	*Carex sp.*	U, C, S	S, PS	D, M
Silky Wild Rye	*Elymus villosus*	U,C,S	PS,SH	D,M
+Switch Grass	*Panicum virgatum*	U	S	D
Woodland Brome	*Bromus pubescens*	U,C,S	PS,SH	D,M

Wild Flowers				
Common Name	**Latin Name**	**Location**	**Light**	**Water**
Bellwort	*Uvularia grandiflora*	S	PS, SH	D, M
Big-Leaved Aster	*Aster macrophyllus*	U, C, S	PS, SH	M
Black-Eyed Susan	*Rudbeckia hirta*	U, C, S	S, PS	D, M
Bloodroot	*Sanguinaria canadensis*	U, C, S	PS, SH	M
*Blue Phlox	*Phlox divaricata*	U, C, S	S, PS	D, M
*Broad-Leaved Goldenrod	*Solidago flexicaulis*	U, S	PS, SH	D, M
Brown-Eyed Susan	*Rudbeckia triloba*	C, S, B	PS, SH	M, W
*Columbine	*Aquilegia canadensis*	C, S	S, PS	D, M
Elm-Leaved Goldenrod	*Solidago ulmifolia*	U, C, S	PS, SH	D, M
*Feathery False Solomon's Seal	*Smilacina racemosa*	U, C, S	PS, SH	D, M
Golden Alexander	*Zizia aurea*	U, S	PS, SH	D, M
+Lead Plant	*Amorpha canescens*	U	S	D
*Marsh Marigold	*Caltha palustris*	B	S, PS	W
May Apple	*Podophyllum peltatum*	U, C, S	PS, SH	D, M
Sharp-lobed Hepatica	*Hepatica acutiloba*	C	PS	D, M
Shooting Star	*Dodecatheon meadia*	U, C, S	S, PS	D, M
*Solomon's Seal	*Polygonatum biflorum*	U, C, S	PS, SH	D, M
Trillium	*Trillium sp.*	U, C, S	S, PS, SH	D, M
Wild Bergamot	*Monarda fistulosa*	U, S	PS,SH	M
Woodland Sunflower	*Helianthus divaricatus*	U, C, S	S, PS	M

Groundcovers				
Common Name	**Latin Name**	**Location**	**Light**	**Water**
*Early Meadow Rue	*Thalictrum dioicum*	U, C, S	PS, SH	D, M
Horsetail	*Equisetum arvense*	B	PS	W
*Native Ferns	*Various*	U, C, S	PS, SH	D, M, W
Trout Lily	*Erythronium albidum*	U, C, S	PS, SH	D, M
*Violets	*Viola sp.*	U, C, S, B	PS, SH	D, M, W
*Virginia Creeper	*Parthenocissus quinquefolia*	U, S, B	PS, SH	D, M
*Wild Ginger	*Asarum canadensis*	S	PS, SH	M

*Species is deer-resistant. However, it should be noted that deer will eat anything if hungry enough.
+Species has deep-roots and is ideal for promoting slope stability and minimizing erosion.

Key					
Location		**Light**		**Water**	
U	Upland	S	Sun	D	Dry
C	Ravine Crest	PS	Partial Shade	M	Moist
S	Ravine Slope	SH	Shade	W	Wet
B	Ravine Bottom				

Last updated May 2014

City of Highland Park
Steep Slope Herbaceous Species Removal Guidelines

Removal of invasive herbaceous plants is generally encouraged on all sites to reduce competition with native species, though removal methods should include those least impactful to soil stability and adjacent desirable vegetation. Avoid soil disturbance when pulling herbaceous weeds – pull only shallow-rooted annual and biennial species, do not pull weeds over a large area during a single event, do not dig/grub roots. If herbicides are used, follow manufacturer's recommendations for application rates and techniques to avoid damage to non-target species. Use selective herbicides and targeted methods such as wick application. Avoid broadcast spray methods.. Perform follow-up removal and monitoring of herbaceous weeds as necessary. In most cases, invasive plants require several seasons of continued management to be eradicated from a site.

Please contact the City Forester at 847-432-0807 for additional information.

The following tables list herbaceous species which are common to ravine and bluff slopes. Please note that this list is not intended to be exclusive or comprehensive, but should be used as a guideline for developing an invasive species removal plan. Each species has been classified into one of three categories:

- **Invasive** – Species classified as "Invasive" may be completely removed. Removal is encouraged to decrease competition and promote native plant species.
- **Protected** – Species classified as "Protected" may be considered for removal under certain conditions. These species include some native plants which may be aggressive.
- **Key** – Species classified as "Key" should be preserved on all sites. While the City Forester may recommend removal of these species on a case by case basis, these species are generally not permitted for removal.

Grasses and Sedges				
Common Name	Latin Name	Invasive	Protected	Key
Bluestem Species	*Andropogon spp.*			✓
Bottlebrush Grass	*Hystrix patula*			✓
Brome Species	*Bromus spp.*		✓	
Cattail Species	*Typha* spp.		✓	
Common Reed	*Phragmites australis*	✓		
Fescue Species	*Festuca spp.*		✓	
Fowl Manna Grass	*Glyceria striata*			✓
Lyme Grass	*Leymus arenarious*	✓		
Poverty Oatgrass	*Danthonia spicata*			✓
Reed Canary Grass	*Phalaris arundinacea*	✓		
Sedge Species	*Carex spp.*			✓
Switchgrass	*Panicum virgatum*			✓
Turf Grasses	*Poa spp.*		✓	
Wild Rye Species	*Elymus spp.*			✓

Wild Flowers				
Common Name	Latin Name	Invasive	Protected	Key
Aster Species	*Aster spp.*			✓
Bellwort	*Uvularia grandiflora*			✓
Bishop's Goutweed	*Aegopodium podagraria*	✓		
Black-eyed Susans	*Rudbeckia spp.*			✓
Bloodroot	*Sanguinaria canadensis*			✓
Blue Phlox	*Phlox divaricata*			✓
Broad-Leaved Goldenrod	*Solidago flexicaulis*			✓
Canada Goldenrod	*Solidago canadensis*		✓	
Canada Thistle	*Cirsium arvense*	✓		
Columbine	*Aquilegia canadensis*			✓
Common Burdock	*Arctium minus*	✓		
Common Mugwort	*Artemisia vulgaris*	✓		
Crown Vetch	*Securigera varia*	✓		
Daylily Species	*Hemerocallis spp.*	✓		
Elm-Leaved Goldenrod	*Solidago ulmifolia*			✓
Feathery False Solomon's Seal	*Smilacina racemosa*			✓
Garden Bird's-Foot-Trefoil	*Lotus corniculatus*	✓		
Garlic mustard	*Alliaria petiolata*	✓		
Golden Alexander	*Zizia aurea*			✓
Japanese Black-Bindweed	*Fallopia japonica*	✓		
Japanese Hop	*Humulus japonicus*	✓		
Lead Plant	*Amorpha canescens*			✓
Marsh Marigold	*Caltha palustris*			✓
May Apple	*Podophyllum peltatum*			✓
Moneywort	*Lysimachia nummularia*	✓		
Purple Loosestrife	*Lythrum salicaria*	✓		
Seaside Goldenrod	*Solidago sempervirens*	✓		
Sharp-lobed Hepatica	*Hepatica acutiloba*			✓
Shooting Star	*Dodecatheon meadia*			✓
Skunk Cabbage	*Symplocarpus foetidus*			✓
Solomon's Seal	*Polygonatum spp.*			✓
Sunflowers	*Helianthus spp.*		✓	
Sweet Clover	*Melilotus* spp.	✓		
Tall Goldenrod	*Solidago altissima*		✓	
Teasel Species	*Dipsacus* spp.	✓		
Trillium Species	*Trillium spp.*			✓
Vinca	*Vinca minor*	✓		
Wild Bergamot	*Monarda fistulosa*			✓
Wild Geranium	*Geranium maculatum*			✓
Wild Parsnip	*Pastinaca sativa*	✓		
Wintercreeper	*Euonymus_fortunei*	✓		

City of Highland Park
Steep Slope Tree and Shrub Removal Guidelines

Pruning and removing trees and shrubs is often an essential first step toward properly managing vegetation on ravine and bluff slopes. Removal of trees and shrubs from Highland Park ravine or bluff slopes requires a permit. Prior to removal work, please familiarize yourself with the most recently updated zoning ordinance, and contact the City Forester at 847-432-0807 for permitting requirements and additional information.

Pruning and thinning to achieve canopy coverage between 40-60%, allows for adequate sunlight levels to support herbaceous vegetation at the ground plane while maintaining a landscape dominated by mature trees. Increased light levels at the ground plane support robust growth of native grasses and wildflowers that prevent soil erosion, stabilize slopes, and provide wildlife habitat.

The following tables list tree and shrub species which are commonly found on ravine and bluff slopes. Please note that this list is not intended to be exclusive or comprehensive, but should be used as a guideline for developing a tree removal plan. Each species has been classified into one of three categories:

- **Invasive** – Species classified as "Invasive" may be completely removed. Although a permit is required, removal is encouraged to decrease competition and promote native plant species.
- **Protected** – Species classified as "Protected" may be considered for removal under certain conditions. These include some species such as Maples and Sumac which may be aggressive and trees prone to diseases such as Emerald Ash Borer or Dutch Elm Disease. The City Forester may recommend selective thinning of specific specimens and/or size classes. Replacement with appropriate plant material may be required and permitting fees may apply.
- **Key** – Species classified as "Key" should be preserved on all sites. While the City Forester may recommend removal of these species on a case by case basis, removal is generally not permitted.

Tall Shade Trees				
Common Name	Latin Name	Invasive	Protected	Key
American Beech	*Fagus grandifolia*			✓
American Elm	*Ulmus americana*		✓	
Amur Maple	*Acer ginnala*	✓		
Basswood	*Tilia americana*		✓	
Black Cherry	*Prunus serotina*		✓	
Black Locust	*Robinia psuedoacacia*		✓	
Black Walnut	*Juglans nigra*			✓
Black Willow	*Salix nigra*		✓	
Box Elder	*Acer negundo*		✓	
Eastern Cottonwood	*Populus deltoides*		✓	
Eastern Redcedar	*Juniperus virginiana*		✓	
Green Ash	*Fraxinus pennsylvanica*		✓	
Hackberry	*Celtis occidentalis*			✓
Hickory Species	*Carya spp.*			✓
Norway Maple	*Acer platanoides*		✓	
Oak Species	*Quercus spp.*			✓
Quaking Aspen	*Populus tremuloides*		✓	
Siberian Elm	*Ulmus pumila*	✓		
Sugar Maple	*Acer saccharum*		✓	
Tree-of-Heaven	*Ailanthus altissima*	✓		
White Ash	*Fraxinus americana*		✓	
White Mulberry	*Morus alba*	✓		

Intermediate Trees				
Common Name	Latin Name	Invasive	Protected	Key
Blue Beech	*Carpinus caroliniana*			✓
Buckthorn species	*Rhamnus spp.*	✓		
Hawthorn species	*Crataegus spp.*		✓	
Hop Hornbeam	*Ostrya virginiana*			✓
Pagoda Dogwood	*Cornus alternifolia*			✓
Paper Birch	*Betula papyrifera*			✓
Redbud	*Cercis canadensis*			✓
Serviceberry	*Amelanchier arborea*			✓
Smooth Sumac	*Rhus glabra Smooth sumac*		✓	
Staghorn Sumac	*Rhus typhina Staghorn*		✓	
Witch Hazel	*Hamamelis virginiana*			✓

Shrubs and Vines				
Common Name	Latin Name	Invasive	Protected	Key
American Hazelnut	*Corylus americana*			✓
Asian Bittersweet	*Celastrus orbiculatus*	✓		
Blackhaw Viburnum	*Viburnum prunifolium*			✓
Boston Ivy	*Parthenocissus tricuspidata*	✓		
Buffalo Berry	*Shepherdia canadensis*			✓
Burning Bush	*Euonymus alatus*	✓		
Chokecherry	*Prunus virginiana*		✓	
Common Juniper	*Juniperus communis*			✓
Downy Arrowwood	*Viburnum rafinesquianum*			✓
Dwarf Honeysuckle	*Diervilla lonicera*			✓
Elderberry	*Sambucus canadensis*			✓
English Ivy	*Hedera helix*	✓		
European Highbush Cranberry	*Viburnum opulus*	✓		
Gray Dogwood	*Cornus racemosa*		✓	
Honeysuckle Species	*Lonicera x bella*	✓		
Japanese Barberry	*Berberis thunbergii*	✓		
Maple-leaved Viburnum	*Viburnum acerifolium*			✓
Multiflora Rose	*Rosa multiflora*	✓		
Pachysandra	*Pachysandra terminalis*	✓		
Peach-leaved Willow	*Salix amygdaloides*		✓	
Privet Species	*Ligustrum* spp.	✓		
Raspberry Species	*Rubus spp.*		✓	
Red Honeysuckle	*Lonicera dioica*			✓
Red-twig Dogwood	*Cornus stolonifera*			✓
Riverbank Grape	*Vitis riparia*	✓		
Round-leaved Dogwood	*Cornus rugosa*			✓
Sandbar Willow	*Salix interior*		✓	
Summer Grape	*Vitis aestivalis*			✓
Yellow Honeysuckle	*Lonicera prolifera*			✓

Evergreens				
Common Name	Latin Name	Invasive	Protected	Key
Black Pine	*Pinus nigra*		✓	
Blue Spruce	*Picea pungens glauca*		✓	
Canadian Hemlock	*Tsuga Canadensis*		✓	
Colorado Spruce	*Picea pungens*		✓	
Common Juniper	*Juniperus communis*			✓
Douglas Fir	*Pseudotsuga menziesii*		✓	
Eastern Red Cedar	*Juniperus virginiana*		✓	
False Cypress	*Chamaecyparis sp.*		✓	
Northern White Cedar	*Thuja occidentalis*		✓	
Norway Spruce	*Picea abies*		✓	
Serbian Spruce	*Picea omorika*		✓	
White Pine	*Pinus strobus*			✓