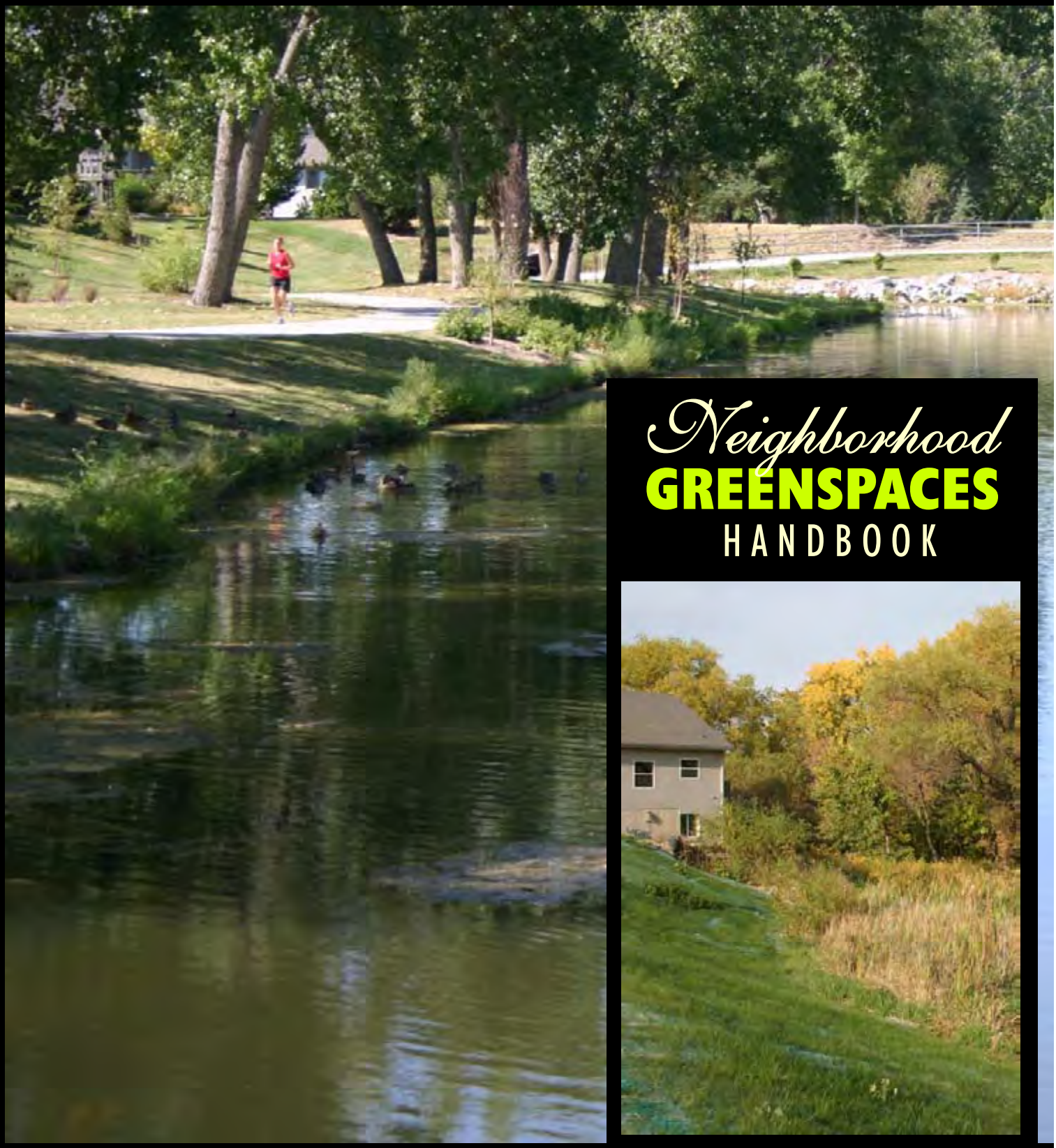


Neighborhood GREENSPACES HANDBOOK

for Homeowners Associations *in* Lincoln, Nebraska

City of Lincoln Public Works & Utilities Department
City of Lincoln Parks and Recreation Department
Lower Platte South Natural Resources District
Nebraska Environmental Trust

TABLE OF CONTENTS

Introduction	1
About Neighborhood Greenspaces	2
Stormwater Facilities	4
Getting Started	6
The Planning Process	6
Assessing the Area	6
What To Look For During The Assessment	7
General Maintenance Information	9
Setting Goals & Objectives	11
Choosing and Implementing Actions	11
Monitoring	11
Appendix A: Agency Resource List	12
Appendix B: World Wide Web Resources	14
Appendix C: Plant List	15

INTRODUCTION

When you purchased your new home, or the lot on which you planned to build it, one thing that influenced your decision may have been the open land, or neighborhood greenspace nearby. Many people put high value on being close to areas where wildlife may be seen, trees and flowers can be enjoyed, and children and adults have the space and freedom provided by the outdoors. Nationwide, the sale price of properties with adjoining open space averages 15 – 30% higher than properties that are bordered only by other residences.

However, with this amenity comes responsibility. This handbook is designed to aid homeowners associations in the care and maintenance of their neighborhood greenspaces. We also encourage the incorporation of trees, wildflowers, native grasses, and wetlands in these areas. Many subdivisions include areas reserved as open space to enhance the quality of life of residents, or for the purpose of conveying stormwater. These areas, often called outlots, need to be maintained regularly if they are to remain functional and attractive.

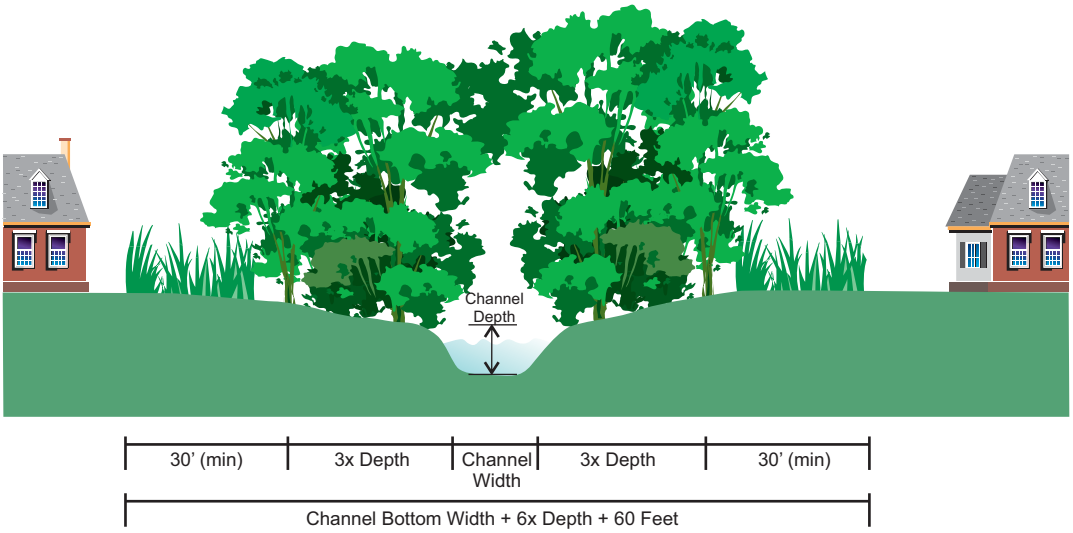
This manual is being offered to your homeowner's association in the hope that it will serve as a tool and resource for the formation of a maintenance plan for your neighborhood greenspace. The format chosen for this manual is a step-by-step guided planning process intended to be followed as a group, as well as a review of different greenspace designs common to Lincoln and resources you may use for further information. This manual does not have "recipes" for maintenance, nor does it have the answers to all of the questions you probably have. What it does contain is a framework within which you, and all the members of your homeowners association, can build a plan for the organized and well thought out care of your neighborhood greenspace.

About Neighborhood Greenspaces

Many greenspaces in the City of Lincoln have been established to conserve and protect drainageways or to otherwise convey or store stormwater runoff from rainfall events. Along most natural drainageways, the City has a requirement called a Minimum Flood Corridor to preserve vegetative buffers. Vegetative buffers are areas of natural vegetation bordering waterways that are left undeveloped to convey stormwater and filter pollutants. They have added benefits of increased stormwater quality and groundwater recharge, increased natural habitat, as well as decreased runoff to areas downstream.

The Minimum Flood Corridor standard generally requires an undisturbed corridor at least as wide as the channel bottom width, plus 60 feet, plus six times the channel depth (see diagram below). For example: an area of 200 acres is drained by a drainageway that is 3 feet wide and 1 foot deep. The corridor that must be preserved is: 3' + 60' + (6 x 1') = 69' total width, or 34' 6", from the centerline of the drainageway on each side.

Minimum Flood Corridor



There are City-approved plans and ordinances that guide the use and standards for many neighborhood greenspaces, especially those that accommodate stormwater drainage. For example vegetation within Minimum Flood Corridors is required to be preserved. There are certain exceptions to this rule that relate to the maintenance and functionality of the area, including the removal of vegetation that is considered a noxious weed.

Stormwater storage facilities also have important requirements. These areas may have been designed to store stormwater for a short period of time or to maintain a permanent pool. They have been designed to handle the stormwater that can be expected during larger storm events. It is important to understand that all stormwater storage facilities and waterways are a part of a larger system in the City of Lincoln.

Maintenance agreements for stormwater facilities and other neighborhood greenspace areas should be incorporated in covenants and restrictions in deeds that would have been signed by you at the time you purchased your property. The responsibility for this maintenance lies with the developer during the construction of the subdivision. As construction is completed, however, the developer usually conveys ownership of the land to a group of residents called a homeowners association. From that point on, the responsibility for maintenance lies with the homeowners association. Similarly, any improvements required to address problems (e.g. bank erosion, sedimentation, tree removal, etc.) or to decrease the cost of long-term maintenance are the responsibility of the homeowners association. State and local agencies may be able to provide advice on the maintenance or improvement of neighborhood greenspaces, but the ultimate responsibility rests with the property owners.

STORMWATER FACILITIES

The purpose of many greenspaces relates to the transport, storage, and infiltration of stormwater. As pavement, buildings, sidewalks and other impermeable surfaces are constructed, the ability of the land to absorb water is decreased. This means that when there is a rain event, more water may be carried away from the area by storm drains than natural waterways. In many cases, stormwater storage cells are constructed to retain water for a time so that it can infiltrate the soil, evaporate, or be released into waterways at a slower rate.

DETENTION CELLS

Dry cells, or detention cells, are designed to hold water for no longer than 72 hours following a rain event. The water infiltrates into the soil or is slowly released into a waterway. During dry periods, the cell is a grassy depression. The advantage of using detention cells is the reduction of water flows that may otherwise cause downstream flooding and property damage during a storm event.

EXTENDED DRY DETENTION CELLS

RETENTION CELLS

Retention cells, or ponds, are designed to maintain a constant pool of water, although they may dry up during periods of extended drought. Retention cells require a fairly large area and some constant flow to maintain the pool of water and may not be appropriate for every site.

RETENTION CELLS (Ponds)

SEDIMENT FOREBAYS

A **sediment forebay** is a small depression located near the inlet of a storm basin or other stormwater management facility. They are **designed as initial storage areas to trap and settle out sediment and heavy pollutants** before they reach the main basin. Sediment forebays act as a pre-treatment feature on a stormwater pond and can greatly reduce the overall pond maintenance requirements.

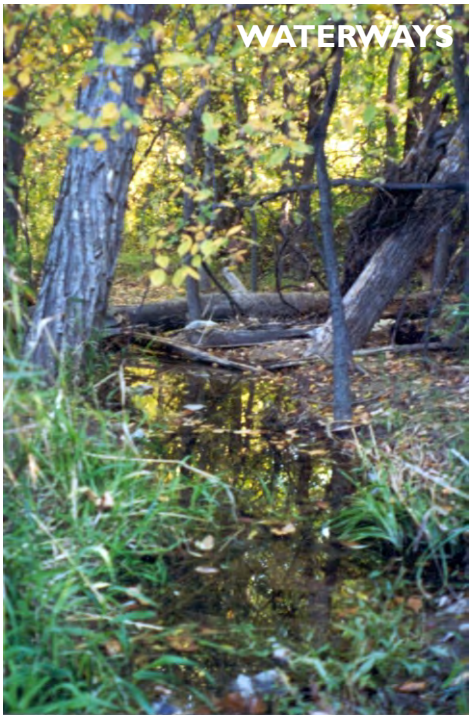
WETLANDS

Wetlands are transitional areas where land and water meet. They contain plants that thrive in soil saturated with water. Wetlands are protected under state and federal regulations because they provide many important functions such as flood control, wildlife habitat, and pollution treatment. Wetlands help water quality by trapping sediments and filtering pollutants. A wetland can act as a natural sponge and store stormwater that might otherwise cause downstream flooding.

WATERWAYS

A waterway is a path that water follows during a rain event. The waterway may have a flow during most of the year, or only during rainy periods. A healthy waterway will convey water through your property in a way that the water leaving the greenspace is as clear as, or clearer than, the water entering the greenspace. In general, the slower a stream flows, the more stable it will be.

Grassed or vegetated bioswales may be used in areas where there is not a regular flow of water except for during storm events. A bioswale is a drainageway with a very gradual slope, a broad flat bottom, and gently sloped sides. Bioswales planted in turf forming grasses are generally mowed regularly, while other types of vegetation such as native prairie plants are mowed once or twice per year.



PRAIRIES

Prairies can be a useful landscape scheme for bioswales and other areas of land surrounding your waterways, retention, or detention structures. Prairie plants have very hardy root structures and are highly effective erosion control plants. Because prairies are native to Nebraska, they are very well adapted to the extremes of heat and cold. They are also able to handle periods of extreme drought and short periods of flooding. Prairies require little maintenance once established and, if properly planned, include colorful displays year-round. Prairies serve as ideal habitats for the native wildlife of Nebraska as well.

GETTING STARTED

The maintenance of a neighborhood greenspace may seem daunting. But you are not in this alone. You have a group of people-the homeowners in your association who have just as much stake as you in the process. It will help to act as a team, pool your skills and expertise, and work together to formulate a solid plan of action.

The best way to start a neighborhood greenspace team is to get together four to six committed association members as an organizing group. This group will want to decide on a general outline of the process you will use to set up a greenspace management plan. Decide on dates for meetings, techniques for getting information out to association members, and ways to make the meetings interesting so that members will want to stay involved.

Develop a brief informational packet for meeting attendees. This might include an introduction to the concept of the neighborhood greenspace, a description of the maintenance responsibilities, the meeting agenda, and contact names and numbers for the organizing team.

As you go through the steps in the following sections, remember that every group has its own needs and expectations. The planning process described here is meant to be general and adaptable. You will need to use your own judgment in the details of how to proceed.

THE PLANNING PROCESS

There are some basic steps that all groups should follow in order to create a plan that will be workable and have the results that your neighborhood desires. As the organizing group, your job will be to help the association members assess the assets and challenges of the greenspace, identify the goals of the association, set priorities, and identify the resources available to the association. Your resources will include your members, who may have knowledge or skills relating to plants, grading and other dirt work, or other items. After these steps have been taken, you can go forward as a group to put into action a plan that will achieve your goals without depleting your resources.

ASSESSING THE AREA

The first step in the planning process is to assess the area for which your group is responsible, which will help you identify the positive and negative factors already present.

A map of your area showing lot lines, locations of storm drain structures, and elevation lines can be obtained from the Lincoln/Lancaster County Planning Dept. A rough sketch of tree masses, native plants, areas of stream bank erosion, areas of cloudy or muddy water, wetland plants, debris and trash can all be drawn on the maps. After your assessment activity, assemble all the data onto a single large map for display at your second meeting. Do not attempt to assign value to these features yet. That will be part of Step 2.

Note: If desired, you may want to take water and soil samples for testing. Testing kits can be obtained in most lawn and garden stores. Report any problems to the appropriate agencies listed in Appendix A of this handbook.

While visually assessing the greenspace, make notes of surrounding land uses like trails, ball fields or open playfields. Later discuss the possible impacts of these areas directly adjacent to your greenspace and prioritize which benefits to maximize.

WHAT TO LOOK FOR DURING THE ASSESSMENT

STREAMBANKS

The following can indicate an erosion problem:

- Undercutting
- Lack of vegetation
- Bare tree roots

The following can indicate a pollution problem*:

- Dead vegetation
- Pipes that emit an odor or a liquid that is something other than clear water
- Oil slick or oily plants
- Trash and debris caught in vegetation
- Excessive sediment

WATERWAYS

- Streams should carry water that is clear or tea-colored.
- Cloudy or muddy water could indicate erosion upstream*.
- Milky or foul smelling water or foaming along edges could indicate septic leaks or illegal sewer connections.
- Heavy algae could indicate overabundance of nutrients from pet wastes or lawn fertilizers.
- An oily sheen could indicate illegal dumping.

PONDS OR RETENTION CELLS

- Banks free of vegetation may lead to erosion and encourage resident geese.
- Muddy water indicates silt on the bottom being churned up by surface wind, or silt being washed into the pond from upstream.
- A rotten egg smell can indicate a build-up of dead vegetation.
- Oil sheens on the surface indicate illegal dumping.
- Outlet structures that are partially below the surface but show no discharge on the downstream side may indicate some blockage internally.

DETENTION CELLS

- Detention cells are designed to be completely drained 72 hours after the end of a storm event – standing water after this time may indicate a drainage problem.
- Minimal vegetation along the bottom of the detention cell indicates the cell needs to be re-planted with more appropriate vegetation.
- Overgrown vegetation in the detention cell indicates mowing is required.
- Large trees or other woody vegetation in the cell or on the side slopes indicates that vegetation removal may be required to maintain detention cell function.
- Noticeable litter indicates that trash pickup and removal is necessary.
- Noticeable sediment buildup in the detention cell may indicate sediment removal is needed to maintain the cell function.
- Erosion on side slopes indicates bank repair is needed.
- Cracks, leaks, or breakage in inlet or outlet structures indicates repair is required.

SEDIMENT FOREBAYS

- Noticeable sediment buildup in the forebay indicates sediment removal is needed to maintain the forebay function and prevent sediment from moving downstream.
- Noticeable litter indicates that trash pickup and removal is necessary.
- Erosion on side slopes indicates bank repair is needed.
- Cracks, leaks, or breakage in inlet or outlet structures indicates repair is required.

WETLANDS

- Noticeable sediment buildup in the forebay indicates sediment removal is needed.
- Noticeable litter indicates that trash pickup and removal is necessary.
- Presence of invasive vegetation, such as weeds, indicates vegetation removal and control is required.
- A large area without vegetation indicates that additional wetland plants need to be introduced to the site to re-vegetate the areas.
- Dead vegetation, foul odors, or foaming in the water could indicate pollutants are entering the wetland.
- An oily sheen on wetland water may indicate illegal dumping.
- Heavy algae in wetland water may indicate nutrients from pet waste or lawn fertilizers are entering the wetland.

** For problems of sediment washing down from upstream construction contact the Public Works and Utilities Department, Watershed Management Division. For problems of pollution, contact the Health Department, Environmental Health Division. See Appendix A, Agency Resource List for more information.*

GENERAL MAINTENANCE INFORMATION

Generally, stormwater storage facilities are very effective for stormwater management and, when routinely maintained, pose relatively few management problems. Some maintenance concerns typical of stormwater storage facilities are:

- weed growth
- grass and vegetation maintenance
- sediment control
- bank deterioration
- standing water or soggy surfaces
- mosquito control
- blockage of outlet structures
- litter accumulation
- maintenance of fences and perimeter plantings

Most maintenance concerns can be reduced or eliminated by doing simple tasks and monitoring your greenspace area. By performing short-term routine maintenance, you will save time and money in the long run. The following are general maintenance practices for most storage facilities and waterways:

- Trash and debris should be picked up regularly, especially after a rain event and in the spring when vegetation is short making it easier to find trash. Picking up before mowing in the fall is also advised. The inlet and outlet areas of ponds should be carefully monitored as they are common sites for trash and debris to collect.
- If low spots develop in storage facilities, fill them in so as not to provide habitat for mosquitoes.
- In general, trees and shrubs should not be planted or allowed to grow in retention or detention cells except as shown on the approved site plan for the subdivision. If they are not part of the design of these structures, trees have the potential to lead to flow blockage and loss of flood storage. Generally, vegetation over 18 inches should be removed unless it is part of the planned landscape.
- If erosion is occurring on streambank or slope of a stormwater facility, erosion control measures may be needed to stabilize the area.
- Proper disposal of pet and yard wastes, using minimal fertilizers, and use of non-chemical pest control practices will help maintain the proper balance of your greenspace.
- Maintain vegetation along waterways to increase the infiltration of rainwater, stabilize the soil, and to slow the flow of water during heavy rainfall to minimize downstream flooding.
- If turf in a swale becomes damaged it must be re-planted with grass and stabilized with some sort of erosion control until the grass is fully mature. During periods of extended drought, grass may need to be irrigated to keep it healthy and vigorous, or it may not be healthy enough to withstand erosion when the rain returns. If conditions change and there is a frequent or constant flow of water through the swale, some sort of additional stabilization may be needed.

It is important to note that simple maintenance practices can, and should, be performed by the members of your association. You may, however, wish to consult a professional or one of the resources listed in Appendix A for advice on more complex maintenance practices and problems.

PROBLEM	EFFECTS	SOLUTIONS
Excessive Grass & Vegetation Growth	Increased weed growth Increased bank erosion Decreased infiltration of water Decreased soil stabilization Increased flooding of banks	Mow prairies yearly, varying mowing schedule each year Mow other areas frequently Plant vegetation appropriate for each type of storage facility (see appendix C) Remove weedy or woody vegetation on stream banks
Shoreline or streambank erosion	Increased sediment into storage facilities Increased risk of flooding nearby structures	Install boulders or rip-rap on pond shoreline Seek professional guidance for streambank erosion Plant vegetation appropriate for shoreline stabilization (see appendix C) Remove debris and trash frequently, especially after a rain event
Mosquito Population	Increased annoyance to residents Increased risk of spreading Mosquito-borne diseases	Eliminate low spots with standing water on your property Maintain a healthy balance of plants, fish and other mosquito predators in ponds Consult the Health Department for advice
Litter Accumulation	Blockage of inlet or outlet structures Streambank erosion	Remove debris and trash frequently, especially after a rain event Cut back over grown brush
Geese Population	Increased waste Upset nutrient balance in ponds Increased algae growth	Do not feed geese Allow grasses to grow naturally Minimize mowing on the banks Plant “rough” grasses like buffalo grass
Mowing & Yard Waste Disposal	Build-up of organic material in storage facilities	Dispose of yard waste at city landfill or spread over a vegetated area Reduce the use of pesticides and phosphorous fertilizers
Pollutant Infiltration	Upset chemical and biological balance of wetland	Dispose of pet waste properly Reduce the use of pesticides and phosphorous fertilizers
Development of Gullies or Low Areas	Standing Water or soggy surfaces Increased mosquito populations Streambank erosion Decreased quality of turf or plant material	Fill low spots or areas of standing with dirt or vegetation Replant with grass and stabilize with erosion control device until grass is fully mature
Sedimentation	Reduces capacity of stormwater facility Pollutes stormwater and passes pollutants through waterways Allows build up of organic materials Effects erosion downstream	Remove sediments that accumulate in forebays, drainage structures or stormwater facilities Remove debris and trash frequently, especially after a rain event Dispose of pet waste properly Consult a professional to install sediment trapping devices

SETTING GOALS & OBJECTIVES

After you have prioritized the benefits and challenges you can begin to write goals. Goals are statements that reflect the desired future conditions. It is best to keep goals simple and few when you are starting out. As time goes on your goals should be reviewed and adjusted according to changing conditions and desires.

EXAMPLE GOALS

"The neighborhood greenspace conveys stormwater in a way that preserves the greenspace and has minimal impact on downstream properties."

"The neighborhood greenspace is a safe and secure area for neighborhood children and residents to play in and pass through."

"Maintenance costs are kept to a minimum and neighborhood volunteers assume many of the maintenance responsibilities."

After setting goals, begin to assign objectives that describe what your goals intend in measurable and achievable terms. If your goal is to keep the area aesthetically pleasing, objectives could include removing trash twice per year, installing trash cans at each of the three entrances to the greenspace, and removing tree limbs and other debris within one week of a storm event. Notice that in each objective, there is mention of a quantity of some sort. This is part of the measurable nature of objectives.

CHOOSING AND IMPLEMENTING ACTIONS

Actions vary according to the talents and resources available to you. Take each of your objectives and discuss the steps required to achieve it, including who should be responsible, potential cost involved, and a timeline to finish the objective.

MONITORING

There will be some areas in your greenspace that will require regular monitoring. Drainageways should be monitored regularly for signs of erosion. Any ponds or catch basins should also be monitored for siltation or trash. Vegetation should be assessed to identify weeds, and to determine whether it is displaying healthy growth or possibly becoming overgrown. It is almost universally true that the sooner a problem is identified the more successful and the less expensive corrective actions will be. In most cases, monitoring will require a minimal time commitment if responsibilities are delegated broadly. Keeping good monitoring records will help you identify areas requiring further actions.

APPENDIX A: LOCAL AGENCY CONTACT LIST

Lincoln Lancaster County Health Department
3140 N Street
Lincoln, NE 68510
Animal Control - (402) 441-7900 (dogs or house cats only)
Emergency response - hazardous spills - (402) 441-8000
Disease Control - mosquitoes - (402) 441-8053
Illegal Dumping - (402) 441-8022
Keep Lincoln and Lancaster County Beautiful - (402) 441-8035

Public Works & Utilities – Maintenance
949 West Bond Street, Suite 200
Lincoln, NE 68521
Stormwater emergency - related to City storm drain system - (402) 441-7701

Public Works and Utilities - Watershed Management
949 West Bond Street, Suite 200
Lincoln, NE 68521
General Stormwater questions - (402) 405-2372

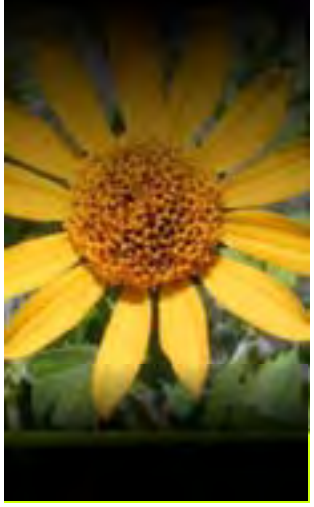
Lower Platte South Natural Resources District
3125 Portia Street
Lincoln, NE 68501-3581
(402) 476-2729

Lincoln Lancaster County Planning Department
555 S. 10th Street
Suite 213
Lincoln, NE 68508
(402) 441-7491

Lincoln Parks and Recreation
2740 A Street
Lincoln, NE 68502
(402) 441-7847

Noxious Weed Control Authority
444 Cherrycreek Road, Building B
Lincoln, NE 68528
(402) 441-7817

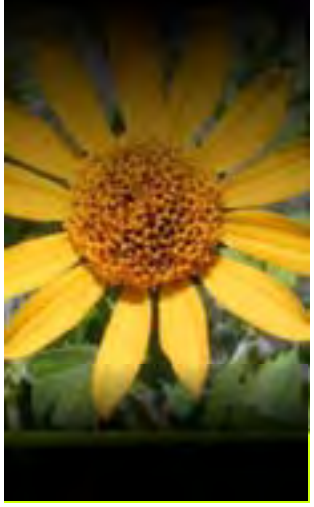
Dept. of Horticulture
University of Nebraska - Lincoln
202 Keim Hall
Lincoln, NE 68583-0915
(402) 472-2811



Lancaster County Extension Office
444 Cherrycreek Road
Lincoln, NE 68528-1507
(402) 441-7180

REQUEST REMOVAL OF NATIVE WILD ANIMALS
(not dogs or house cats)

Wildlife Rescue Team, Inc.
PO Box 80127
Lincoln, NE 68501
(402) 473-1951



APPENDIX B: WORLD WIDE WEB RESOURCES

watershed.lincoln.ne.gov
City of Lincoln Public Works and Utilities, Watershed Management Division. Contains information on various watershed planning activities, floodplain issues, stormwater issues, and other information.

www.lpsnrd.org
Lower Platte South Natural Resources District. Information on wetlands, prairies, riparian areas, as well as contacts and links to other informative sites.

www.extension.unl.edu/
University of Nebraska Cooperative Extension. Information on yard and garden issues, natural resources, grasslands, and other topics, as well as links to many resources.

www.mass.gov/eea/agencies/dfg/der/technical-assistance/stream-teams.html
Massachusetts Riverways Adopt-a-Stream Program; Massachusetts Department of Fish and Game. This is the Leader's Guide to the Shoreline Survey process used in the Adopt-a-Stream program. It contains sample documents, survey forms, and information on what can be expected to be seen in a healthy stream.

www.epa.gov/owow/wetlands/restore/
River Corridor and Wetland Restoration information from the Environmental Protection Agency. A good deal of information on restoration principles, projects that have been undertaken, and links to other sites.

water.usgs.gov/nwsum/WSP2425/
US Geological Survey National Water Summary on Wetland Resources. This website has technical information, wetland management and resources, and restoration and creation of wetlands.

www.habitat.noaa.gov/pdf/pub_wetlands_restore_guide.pdf
National Oceanic and Atmospheric Administration, Environmental Protection Agency, Army Corps of Engineers, Fish and Wildlife Service, and Natural Resources Conservation Service. This guidebook contains information for the public on project planning, implementation and monitoring wetlands as well as resources available.

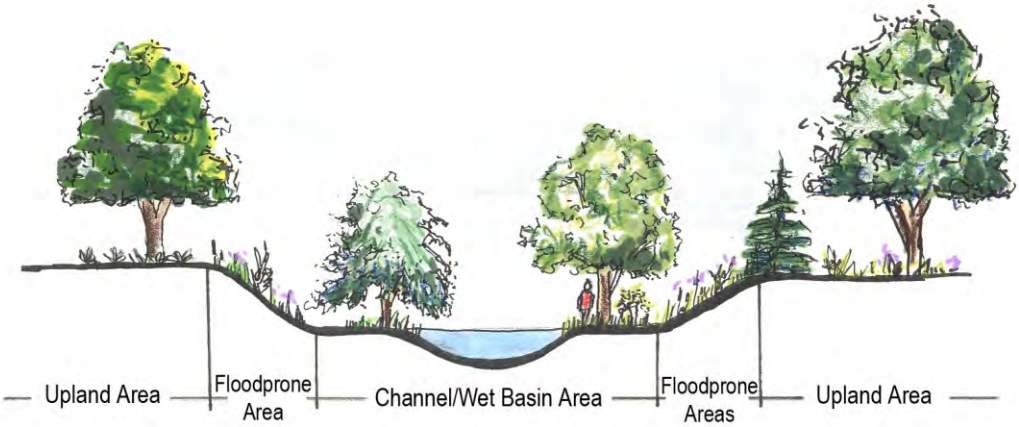
www.npwrc.usgs.gov
US Geological Survey Northern Prairie Wildlife Research Center. This site has a good deal of information on the restoration and creation of natural channels.

www.nap.edu/books/0309082951/html/
Riparian Areas: Functions and Strategies for Management. This National Academies Press book-on-line is a comprehensive guide to the establishment and maintenance of stream and river habitats.

www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/
US Department of Agriculture Natural Resources Conservation Service. This is an overview of information available on managing waterways including management strategies and resources

APPENDIX C: PLANT LIST

The following plant list comprises general information that is provided as a starting point for your association. Feel free to consult the resources listed in Appendices A and B, or other knowledgeable sources for additional information or plant mixes appropriate to particular areas of your greenspace. The plants identified below are listed with reference to their appropriateness in three generalized areas, ranging from most wet to most dry. These areas are: 1) Channel/Wet Basin Areas, 2) Floodprone Areas, 3) and Upland Areas.



1) Channel/Wet Basin Area. These are areas where soil is seasonally saturated with water. This could be along a stream, at the bottom of a wet basin, or within a wetland area.

2) Floodprone Area. These are bottomlands (low-lying areas) or (sloping areas draining from uplands) along waterways or wet basins which are not generally saturated with water but experience occasional flooding.

3) Upland Area. These are higher areas away from waterways and wetlands that are not subject to flooding or inundation of water.

This is a generalized list, and other species or specific mixes not listed here may be appropriate for your greenspace area. It is important to select plants based on the conditions specific to your site, including location, moisture, and sun or shade. It is also critical to avoid the use of aggressive and invasive species. Other important considerations are soil stabilization, wildlife habitat, aesthetics, maintenance, and the requirements of the site plan approved with your subdivision.

ORNAMENTAL GRASSES

COMMON NAME: Maidengrass Species
BOTANICAL NAME: Miscanthus sinesis species
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun
HEIGHT: 4-7 feet
FLOWER COLOR: copper - silver
BLOOMING SEASON: August-February
FRUIT COLOR: n/a

COMMON NAME: Little Bluestem
BOTANICAL NAME: Schizachyrium scoparium
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: no
Upland Area: yes
EXPOSURE: part sun
HEIGHT: 2-4 feet
FLOWER COLOR: tan
BLOOMING SEASON: July-August
FRUIT COLOR: n/a

COMMON NAME: Switchgrass Species
BOTANICAL NAME: Panicum virgatum species
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 3-6 feet
FLOWER COLOR: pink
BLOOMING SEASON: July-February
FRUIT COLOR: n/a

COMMON NAME: Feather Reed Grass
BOTANICAL NAME: Feather Reed Grass
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun
HEIGHT: 3-5 feet
FLOWER COLOR: pinkish green
BLOOMING SEASON: July - February
FRUIT COLOR: n/a

FLOWERS & FORBS

COMMON NAME: Swamp Milkweed
BOTANICAL NAME: Asclepias incarnata
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: no
EXPOSURE: full sun
HEIGHT: 4-5 feet
FLOWER COLOR: pinkish-rose
BLOOMING SEASON: July-August
FRUIT COLOR: n/a

COMMON NAME: Showy Milkweed
BOTANICAL NAME: Asclepias speciosa
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun
HEIGHT: 18"-36"
FLOWER COLOR: rose
BLOOMING SEASON: June-July
FRUIT COLOR: n/a

COMMON NAME: Butterfly Milkweed
BOTANICAL NAME: Asclepias tuberosa
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: no
Upland Area: yes
EXPOSURE: full sun
HEIGHT: 12"-30"
FLOWER COLOR: orange
BLOOMING SEASON: June-July
FRUIT COLOR: n/a

COMMON NAME: Aster species
BOTANICAL NAME: Aster species
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun
HEIGHT: 18"-36"
FLOWER COLOR: blue, purple, white, pink
BLOOMING SEASON: September-October
FRUIT COLOR: n/a

COMMON NAME: Canada Milkvetch
BOTANICAL NAME: Astragalus canadensis
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun
HEIGHT: 1-4 feet
FLOWER COLOR: cream
BLOOMING SEASON: July-August
FRUIT COLOR: n/a

COMMON NAME: Wild Blue Indigo
BOTANICAL NAME: Baptisia australis
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: up to 30"
FLOWER COLOR: blue - purple
BLOOMING SEASON: May-June
FRUIT COLOR: n/a

COMMON NAME: Purple Poppymallow
BOTANICAL NAME: Callirhoe involucrata
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun
HEIGHT: 12"-18"
FLOWER COLOR: intense rose
BLOOMING SEASON: May-August
FRUIT COLOR: n/a

COMMON NAME: Partridge Pea
BOTANICAL NAME: Chaemaecrista fasciculata
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun
HEIGHT: 1-3 feet
FLOWER COLOR: yellow
BLOOMING SEASON: July-August
FRUIT COLOR: n/a

COMMON NAME: White Prairie Clover
BOTANICAL NAME: Dalea candida
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun
HEIGHT: 1-3 feet
FLOWER COLOR: white
BLOOMING SEASON: June-July
FRUIT COLOR: n/a

COMMON NAME: Purple Prairie Clover
BOTANICAL NAME: Dalea purpurea
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun
HEIGHT: 1-3 feet
FLOWER COLOR: red-violet
BLOOMING SEASON: June-July
FRUIT COLOR: n/a

COMMON NAME: Black Sampson
BOTANICAL NAME: Echinacea augustifolia
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun
HEIGHT: 10"-20"
FLOWER COLOR: pink
BLOOMING SEASON: June-July
FRUIT COLOR: n/a

COMMON NAME: Pale Purple Coneflower
BOTANICAL NAME: Echinacea pallida
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: up to 3 feet
FLOWER COLOR: pink - purple
BLOOMING SEASON: July-August
FRUIT COLOR: n/a

COMMON NAME: Purple Coneflower
BOTANICAL NAME: Echinacea species
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: up to 3 feet
FLOWER COLOR: pink, yellow, orange, white
BLOOMING SEASON: July-August
FRUIT COLOR: n/a

COMMON NAME: Daisy Fleabane
BOTANICAL NAME: Erigeron stigosus
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun
HEIGHT: 1-3 feet
FLOWER COLOR: white
BLOOMING SEASON: May-August
FRUIT COLOR: n/a

COMMON NAME: Common Boneset
BOTANICAL NAME: Eupatorium perfollatum
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: no
EXPOSURE: full sun
HEIGHT: 2-5 feet
FLOWER COLOR: creamy-white
BLOOMING SEASON: July-August
FRUIT COLOR: n/a

COMMON NAME: Purple Joe Pyeweed
BOTANICAL NAME: Eupatorium purpureum
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: no
EXPOSURE: full sun - part shade
HEIGHT: 3 feet
FLOWER COLOR: n/a
BLOOMING SEASON: August-September
FRUIT COLOR: n/a

COMMON NAME: Joe Pye Weed
BOTANICAL NAME: Eupatorium species
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 48"-60"
FLOWER COLOR: white - pink
BLOOMING SEASON: August-September
FRUIT COLOR: n/a

COMMON NAME: Blanket Flower
BOTANICAL NAME: Gaillardia aristata
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun
HEIGHT: 18"-24"
FLOWER COLOR: yellow - orange
BLOOMING SEASON: May-June
FRUIT COLOR: n/a

COMMON NAME: Prairie Smoke
BOTANICAL NAME: Geum triflorum
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun
HEIGHT: up to 3 feet
FLOWER COLOR: pink
BLOOMING SEASON: April
FRUIT COLOR: n/a

COMMON NAME: Maximilian Sunflower
BOTANICAL NAME: Helianthus maximilani
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun
HEIGHT: 3 - 6 feet
FLOWER COLOR: yellow
BLOOMING SEASON: August-September
FRUIT COLOR: n/a

COMMON NAME: Sneezeweed
BOTANICAL NAME: Helenium autumnale
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: no
EXPOSURE: full sun - part shade
HEIGHT: 3 - 5 feet
FLOWER COLOR: yellow
BLOOMING SEASON: August-November
FRUIT COLOR: n/a

COMMON NAME: False Sunflower
BOTANICAL NAME: Heliopsis helianthoides
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun
HEIGHT: 3-6 feet
FLOWER COLOR: yellow
BLOOMING SEASON: June-September
FRUIT COLOR: n/a

COMMON NAME: Daylily
BOTANICAL NAME: Hemerocallis
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 12" - 24"
FLOWER COLOR: pink, orange, yellow, red, white, purple
BLOOMING SEASON: June - September
FRUIT COLOR: n/a

COMMON NAME: Hosta
BOTANICAL NAME: Hosta species
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 10" - 30"
FLOWER COLOR: white - purple
BLOOMING SEASON: June-September
FRUIT COLOR: n/a

COMMON NAME: Jewelweed
BOTANICAL NAME: Impatiens capensis
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: no
EXPOSURE: part shade - full shade
HEIGHT: 2 - 3 feet
FLOWER COLOR: yellow - orange
BLOOMING SEASON: June-July
FRUIT COLOR: n/a

COMMON NAME: Flag Iris
BOTANICAL NAME: Iris virginica
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: up to 3 feet
FLOWER COLOR: blue - purple, yellow
BLOOMING SEASON: May-June
FRUIT COLOR: n/a

COMMON NAME: Rough Gayfeather
BOTANICAL NAME: Liatris aspera
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: no
Upland Area: yes
EXPOSURE: full sun
HEIGHT: up to 3 feet
FLOWER COLOR: red - violet
BLOOMING SEASON: August-September
FRUIT COLOR: n/a

COMMON NAME: Dotted Gayfeather
BOTANICAL NAME: Liatris punctata
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: no
Upland Area: yes
EXPOSURE: full sun
HEIGHT: 12" - 24"
FLOWER COLOR: pink
BLOOMING SEASON: August-September
FRUIT COLOR: n/a

COMMON NAME: Thickspike Gayfeather
BOTANICAL NAME: Liatris pycnostachya
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: no
EXPOSURE: full sun
HEIGHT: 2 - 5 feet
FLOWER COLOR: pink
BLOOMING SEASON: July-August
FRUIT COLOR: n/a

COMMON NAME: Gayfeather
BOTANICAL NAME: Liatris spicata
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun
HEIGHT: 24" - 48"
FLOWER COLOR: red, purple, white
BLOOMING SEASON: June-September
FRUIT COLOR: n/a

COMMON NAME: Wild Blue Flax
BOTANICAL NAME: Linum lewisii
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 30"
FLOWER COLOR: blue
BLOOMING SEASON: May-June
FRUIT COLOR: n/a

COMMON NAME: Lobella species
BOTANICAL NAME: Lobella species
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 24" - 48"
FLOWER COLOR: blue - red
BLOOMING SEASON: May-June
FRUIT COLOR: n/a

COMMON NAME: Leadplant
BOTANICAL NAME: Amorpha canescens
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 1-3 feet
FLOWER COLOR: blue
BLOOMING SEASON: June-August
FRUIT COLOR: n/a

COMMON NAME: False Indigo
BOTANICAL NAME: Amorpha fruticosa
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: unknown
FLOWER COLOR: blue
BLOOMING SEASON: May
FRUIT COLOR: n/a

COMMON NAME: Mexican Hat
BOTANICAL NAME: Ratibida Columifera
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun
HEIGHT: 24”-30”
FLOWER COLOR: yellow
BLOOMING SEASON: May-September
FRUIT COLOR: n/a

SHRUBS

COMMON NAME: Serviceberry
BOTANICAL NAME: Amelanchier
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 6-10 feet
FLOWER COLOR: white
BLOOMING SEASON: April-May
FRUIT COLOR: red, dark purple

COMMON NAME: Black Chokeberry
BOTANICAL NAME: Aronia melanocarpa
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 6 - 8 feet
FLOWER COLOR: white
BLOOMING SEASON: April-May
FRUIT COLOR: black

COMMON NAME: Fringed Sage
BOTANICAL NAME: Artemisia frigida
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun
HEIGHT: 2 feet
FLOWER COLOR: yellow
BLOOMING SEASON: n/a
FRUIT COLOR: n/a

COMMON NAME: Siberian Peashrub
BOTANICAL NAME: Caragana arborescens
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 8 - 10 feet
FLOWER COLOR: yellow
BLOOMING SEASON: June
FRUIT COLOR: n/a

COMMON NAME: Buttonbush
BOTANICAL NAME: Cephianthus
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 8-10 feet
FLOWER COLOR: white
BLOOMING SEASON: June
FRUIT COLOR: brown

COMMON NAME: Gray Dogwood
BOTANICAL NAME: Cornus racemosa
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 6 - 8 feet
FLOWER COLOR: white
BLOOMING SEASON: May-June
FRUIT COLOR: white

COMMON NAME: Redosier Dogwood
BOTANICAL NAME: Cornus sericea
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 8 - 10 feet
FLOWER COLOR: white
BLOOMING SEASON: May-June
FRUIT COLOR: white

COMMON NAME: Yellow Twig Dogwood
BOTANICAL NAME: Cornus Sericea 'Flaviramea'
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 6 - 8 feet
FLOWER COLOR: white
BLOOMING SEASON: Spring
FRUIT COLOR: white

COMMON NAME: Hazelnut
BOTANICAL NAME: Corylus americana
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 6 - 8 feet
FLOWER COLOR: yellow, brown
BLOOMING SEASON: May-June
FRUIT COLOR: brown nuts

COMMON NAME: Cotoneaster
BOTANICAL NAME: Cotoneaster species
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 2-10 feet
FLOWER COLOR: pink
BLOOMING SEASON: May-June
FRUIT COLOR: red, black

COMMON NAME: Burning Bush
BOTANICAL NAME: Euonymus alatus
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 8 - 14 feet
FLOWER COLOR: green, yellow
BLOOMING SEASON: May
FRUIT COLOR: n/a

COMMON NAME: Forsythia
BOTANICAL NAME: Forsythia species
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 2-8 feet
FLOWER COLOR: yellow
BLOOMING SEASON: April
FRUIT COLOR: n/a

COMMON NAME: Spreading Juniper
BOTANICAL NAME: Juniperus species
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun
HEIGHT: 4 - 7 feet
FLOWER COLOR: n/a
BLOOMING SEASON: n/a
FRUIT COLOR: varies

COMMON NAME: Honeysuckle
BOTANICAL NAME: Lonicera species
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 5 - 10 feet
FLOWER COLOR: yellow, white, purple
BLOOMING SEASON: May-June
FRUIT COLOR: n/a

COMMON NAME: Wild Plum
BOTANICAL NAME: Prunus americana
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: variable
FLOWER COLOR: white
BLOOMING SEASON: April - May
FRUIT COLOR: purple

COMMON NAME: Golden Currant
BOTANICAL NAME: Ribes aureum
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 4 - 6 feet
FLOWER COLOR: yellow
BLOOMING SEASON: May - June
FRUIT COLOR: black

COMMON NAME: Buffalo Currant
BOTANICAL NAME: Ribes oboratum
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 3 - 6 feet
FLOWER COLOR: green, pink
BLOOMING SEASON: April - May
FRUIT COLOR: black

COMMON NAME: Fragrant Sumac
BOTANICAL NAME: Rhus aromatica
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 4 - 8 feet
FLOWER COLOR: yellow
BLOOMING SEASON: April - May
FRUIT COLOR: n/a

COMMON NAME: Smooth Sumac
BOTANICAL NAME: Rhus glabra
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 10 - 15 feet
FLOWER COLOR: yellow
BLOOMING SEASON: April - May
FRUIT COLOR: n/a

COMMON NAME: Skunkbush Sumac
BOTANICAL NAME: Rhus trilobata
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 4 - 8 feet
FLOWER COLOR: n/a
BLOOMING SEASON: n/a
FRUIT COLOR: n/a

COMMON NAME: Staghorn Sumac
BOTANICAL NAME: Rhus typhina
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: yes
EXPOSURE: full sun - part shade
HEIGHT: 10 - 25 feet
FLOWER COLOR: yellow
BLOOMING SEASON: n/a
FRUIT COLOR: n/a

COMMON NAME: Elderberry
BOTANICAL NAME: Sambucus canadensis
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: no
EXPOSURE: Full Sun - Part Shade
HEIGHT: 4 - 8 feet
FLOWER COLOR: pale pink
BLOOMING SEASON: May
FRUIT COLOR: purple, black

COMMON NAME: Silver Buffaloberry
BOTANICAL NAME: Shepherdia argentea
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun - Part Shade
HEIGHT: 10 - 12 feet
FLOWER COLOR: yellow
BLOOMING SEASON: May
FRUIT COLOR: red, yellow

COMMON NAME: Common Snowberry
BOTANICAL NAME: Symphoricarpos albus
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun - Full Shade
HEIGHT: 3 - 4 feet
FLOWER COLOR: white
BLOOMING SEASON: May-June
FRUIT COLOR: white

COMMON NAME: Western Snowberry
BOTANICAL NAME: Symphoricarpos occidentalis
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun - Full Shade
HEIGHT: 3 - 4 feet
FLOWER COLOR: white
BLOOMING SEASON: May-June
FRUIT COLOR: white

COMMON NAME: Coralberry
BOTANICAL NAME: Symphoricarpos orbiculatus
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: no
EXPOSURE: Full Sun - Full Shade
HEIGHT: 4-5 feet
FLOWER COLOR: pale pink
BLOOMING SEASON: May-June
FRUIT COLOR: pink, red

COMMON NAME: Lilac
BOTANICAL NAME: Syrina species
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun - Part Shade
HEIGHT: 6 - 10 feet
FLOWER COLOR: white, purple
BLOOMING SEASON: April-May
FRUIT COLOR: n/a

COMMON NAME: Viburnum
BOTANICAL NAME: Viburnum species
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun - Full Shade
HEIGHT: variable
FLOWER COLOR: white
BLOOMING SEASON: April-May
FRUIT COLOR: red, black

COMMON NAME: Sumac 'Gro-low'
BOTANICAL NAME: Rhus aromatica
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun - Part Shade
HEIGHT: 18 - 24 inches
FLOWER COLOR: yellow
BLOOMING SEASON: April-May
FRUIT COLOR: red

TREES
Pine

COMMON NAME: Colorado Spruce (blue or green)
BOTANICAL NAME: Picea pungens
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: no
Upland Area: yes
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Evergreen
HEIGHT: 40-60 feet
FLOWER COLOR: n/a
BLOOMING SEASON: n/a
FRUIT COLOR: brown

COMMON NAME: Concolor Fir
BOTANICAL NAME: Abies concolor
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: no
Upland Area: yes
EXPOSURE: Full Sun - Part Shade
TREE TYPE (Evergreen or Deciduous): Evergreen
HEIGHT: 30 - 50 feet
FLOWER COLOR: n/a
BLOOMING SEASON: n/a
FRUIT COLOR: brown

COMMON NAME: Eastern White Pine
BOTANICAL NAME: Pinus strobus
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Evergreen
HEIGHT: 40 - 60 feet
FLOWER COLOR: n/a
BLOOMING SEASON: n/a
FRUIT COLOR: yellow-brown cones

COMMON NAME: Limber Pine
BOTANICAL NAME: Pinus flexilis
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Evergreen
HEIGHT: 40 - 50 feet
FLOWER COLOR: n/a
BLOOMING SEASON: n/a
FRUIT COLOR: yellow-brown cones

COMMON NAME: Upright Juniper
(named varieties - eg., Taylor, Prairie Pillar, Spartan)
BOTANICAL NAME: Juniperus virginiana
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Evergreen
HEIGHT: 10 - 20 feet
FLOWER COLOR: n/a
BLOOMING SEASON: n/a
FRUIT COLOR: blue, green

TREES
Understory

COMMON NAME: Amur Maple
BOTANICAL NAME: Acer ginnala
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full sun - part shade
TREE TYPE (Evergreen or Deciduous): Deciduous
HEIGHT: 10 - 15 feet
FLOWER COLOR: n/a
BLOOMING SEASON: n/a
FRUIT COLOR: n/a

COMMON NAME: Crabapple
BOTANICAL NAME: Malus species
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Deciduous
HEIGHT: 10 - 15 feet
FLOWER COLOR: pink, red
BLOOMING SEASON: spring
FRUIT COLOR: red

COMMON NAME: Serviceberry (Tree Form)
BOTANICAL NAME: Amelanchier
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun - Part Shade
TREE TYPE (Evergreen or Deciduous): Deciduous
HEIGHT: 20 - 25 feet
FLOWER COLOR: white
BLOOMING SEASON: early spring
FRUIT COLOR: magenta to purple

COMMON NAME: Tatarian Maple
BOTANICAL NAME: Acer tataricum
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun - Part Shade
TREE TYPE (Evergreen or Deciduous: Deciduous
HEIGHT: 15-20 feet
FLOWER COLOR: off-white
BLOOMING SEASON: May-June
FRUIT COLOR: red to brown

TREES
Overstory

COMMON NAME: American Elm
(named varieties - e.g., Valley Forge, New Harmony, Jefferson)
BOTANICAL NAME: Ulmus americana
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: no
Upland Area: yes
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Deciduous
HEIGHT: 50 feet
FLOWER COLOR: n/a
BLOOMING SEASON: n/a
FRUIT COLOR: n/a

COMMON NAME: American Linden
BOTANICAL NAME: Tilia american
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: no
Upland Area: yes
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Deciduous
HEIGHT: 50 - 70 feet
FLOWER COLOR: cream
BLOOMING SEASON: n/a
FRUIT COLOR: nut-like fruit

COMMON NAME: Autumn Blaze Maple
BOTANICAL NAME: Acer x ruburm 'Autumn Blaze'
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Deciduous
HEIGHT: 40 - 50 feet
FLOWER COLOR: N/A
BLOOMING SEASON: N/A
FRUIT COLOR: N/A

COMMON NAME: Baldcypress
BOTANICAL NAME: Taxodium distichum
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Deciduous
HEIGHT: 40 - 50 feet
FLOWER COLOR: brown
BLOOMING SEASON: n/a
FRUIT COLOR: n/a

COMMON NAME: Black **Locust**
BOTANICAL NAME: Robinia pseudoacacia
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Deciduous
HEIGHT: 40 - 60 feet
FLOWER COLOR: white, pink
BLOOMING SEASON: spring
FRUIT COLOR: brown fruit pods

COMMON NAME: Black Oak
BOTANICAL NAME: Quercus velutina
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Deciduous
HEIGHT: 40 - 60 feet
FLOWER COLOR: green
BLOOMING SEASON: n/a
FRUIT COLOR: acorns

COMMON NAME: Bloodgood Sycamore
BOTANICAL NAME: Platanus occidentalis 'Bloodgood'
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Deciduous
HEIGHT: 50 - 70 feet
FLOWER COLOR: red
BLOOMING SEASON: n/a
FRUIT COLOR: globose fruit

COMMON NAME: Bur Oak
BOTANICAL NAME: Quercus macrocarpa
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Deciduous
HEIGHT: 40 - 60 feet
FLOWER COLOR: green
BLOOMING SEASON: n/a
FRUIT COLOR: acorns

COMMON NAME: Catalpa
BOTANICAL NAME: Catalpa species
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: no
Upland Area: yes
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Deciduous
HEIGHT: 40 - 50 feet
FLOWER COLOR: pink, white
BLOOMING SEASON: mid-late summer
FRUIT COLOR: brown

COMMON NAME: Chinkapin Oak
BOTANICAL NAME: Quercus muhlenbergii
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Deciduous
HEIGHT: 40 - 60 feet
FLOWER COLOR: green
BLOOMING SEASON: n/a
FRUIT COLOR: acorns

COMMON NAME: Common Hackberry
BOTANICAL NAME: Celtis occidentalis
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Deciduous
HEIGHT: 50 - 75 feet
FLOWER COLOR: green
BLOOMING SEASON: mid-late spring
FRUIT COLOR: green

COMMON NAME: Cottonless Cottonwood
BOTANICAL NAME: Populus deltoides (named varieties)
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Deciduous
HEIGHT: 70 - 90 feet
FLOWER COLOR: n/a
BLOOMING SEASON: n/a
FRUIT COLOR: n/a

COMMON NAME: Kentucky Coffee Tree
BOTANICAL NAME: Gymnocladus dioicus
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Deciduous
HEIGHT: 40 - 50 feet
FLOWER COLOR: N/A
BLOOMING SEASON: N/A
FRUIT COLOR: seed pods

COMMON NAME: Northern Red Oak
BOTANICAL NAME: Quercus rubra
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Deciduous
HEIGHT: 40 - 60 feet
FLOWER COLOR: green
BLOOMING SEASON: n/a
FRUIT COLOR: acorns

COMMON NAME: Swamp White Oak
BOTANICAL NAME: Quercus bicolor
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Deciduous
HEIGHT: 40 - 60 feet
FLOWER COLOR: green
BLOOMING SEASON: n/a
FRUIT COLOR: acorns

COMMON NAME: Thornless Honeylocust
BOTANICAL NAME: Gleditsia triacanthos var. inevmis
LOCATION
Channel/Wet Basin Area: ?
Floodprone Area: ?
Upland Area: ?
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Deciduous
HEIGHT: 40 - 60 feet
FLOWER COLOR: yellow
BLOOMING SEASON: May-June
FRUIT COLOR: brown

COMMON NAME: White Oak
BOTANICAL NAME: Quercus alba
LOCATION
Channel/Wet Basin Area: no
Floodprone Area: yes
Upland Area: yes
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Deciduous
HEIGHT: 40 - 60 feet
FLOWER COLOR: green
BLOOMING SEASON: spring
FRUIT COLOR: acorns

COMMON NAME: Willow
BOTANICAL NAME: Salix species
LOCATION
Channel/Wet Basin Area: yes
Floodprone Area: yes
Upland Area: no
EXPOSURE: Full Sun
TREE TYPE (Evergreen or Deciduous): Deciduous
HEIGHT: 20 - 60 feet
FLOWER COLOR: n/a
BLOOMING SEASON: n/a
FRUIT COLOR: n/a