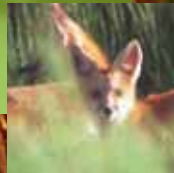




NATURE AND YOU

A GUIDE TO
Living Well
IN ASSINIBOINE LANDING

COMPLIMENTS OF
QUALICO COMMUNITIES



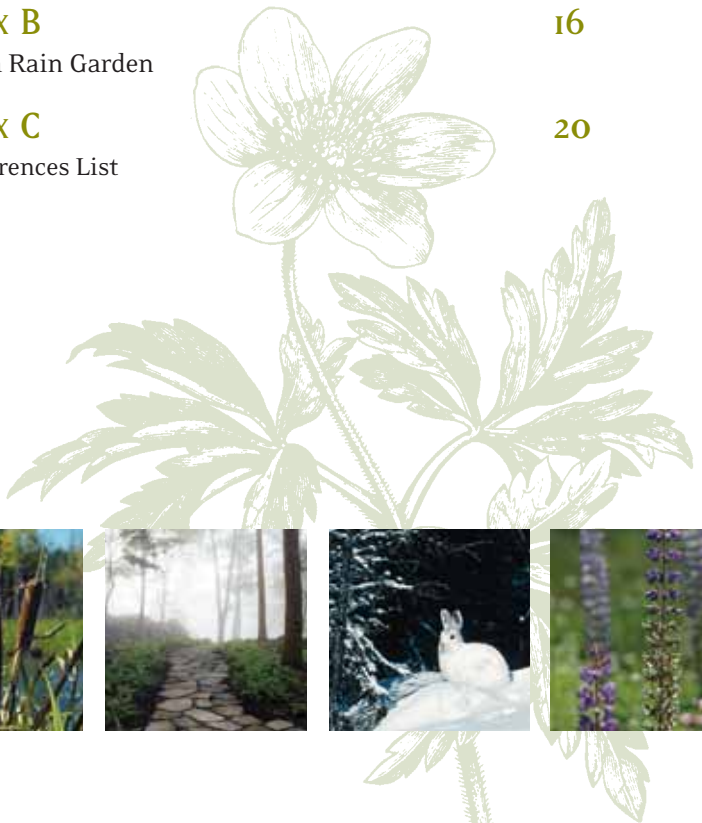


*"Life is not measured by the
number of breaths we take,
but by the moments that take
our breath away."*

- GEORGE CARLIN

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INTRODUCTION



THOSE MOMENTS that take your breath away: the gentle beauty of the river on a summer morn, the lilting song of a Goldfinch in the garden, the magical flutter of a butterfly as it lands on your child's hand...occur in a healthy natural neighbourhood, where people live in harmony with nature.

This is the wonderful possibility of Assiniboine Landing, the unique, natural neighbourhood in which you have chosen to live.

Qualico, in cooperation with the Municipality of Headingley, has gone to considerable lengths to restore the functions of a healthy prairie ecosystem within the borders of Assiniboine Landing.

Rights of way, street and pipe alignments were all designed to minimize the impact on the neighbourhood's forests and greenbelts; much of these wooded areas are now protected in public reserve. Storm water run-off is channeled through functional, naturalized wetlands, which contribute to cleaning the water before it returns to the river. Natural swaths traverse the neighbourhood, providing shelter, habitat and safe passage for many wildlife species. All of this, together with the grassy borders on your property and the woodlands along the river comprise a healthy, natural neighbourhood.

The continuing health and beauty of your neighbourhood is now largely dependent on you, the homeowner, as you too are part of this ecosystem, with the ultimate power to nurture or to destroy.

The greatest threat to the nature that surrounds you is comprised of your everyday activities around your house and in your yard. As well, the choices you make can enhance your experience of sharing this piece of the planet with the wildlife that make it their home.

This guide offers information to help you live in harmony with your natural environment. By living in a more eco-friendly way, you can have a positive, nurturing effect on the environment that will help protect and preserve it. This does not call for huge change in your lifestyle. Rather it is more about choices and small changes that make a big difference. Living this way, with awareness of nature, will provide many more of those magical moments that take your breath away.

*Welcome to Assiniboine Landing
and its exceptional quality of life.*



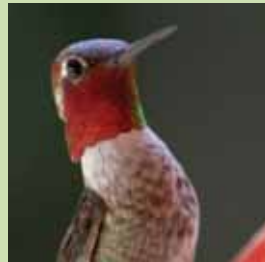
FIRST FUNDAMENTAL

EMBRACE A LAND ETHIC THAT PROMOTES SUSTAINABILITY.

"Nature is mythical and mystical always, and works with the license and extravagance of genius."

- HENRY DAVID THOREAU

ASSINIBOINE LANDING was deliberately designed to integrate natural features with man-made elements - prairie grasslands, woodlands and wetlands wedded to beautifully appropriate homes with smaller manicured yards. This was done as a response to sustainability concerns and as a reflection of people's lifestyles today, in terms of how much time they want to spend maintaining their property.



TO HELP SUSTAIN THE HEALTH OF YOUR NEIGHBOURHOOD:

1. Whenever possible, minimize the use of chemicals and pollutants, indoors and out. Choose products that are easy on the environment. Read labels. Look for products that are non-toxic, organic and bio-degradable. (For example: use sand instead of salt on ice in the winter. If you choose to mow the lawn, use a mulching mower that chops grass clippings very finely, and leave the clippings on the lawn. They are organic and a great source of nutrients, so you may not need to fertilize.)
2. Recycle wherever possible.
3. Look to maximize diversity in landscaping without using plants that are an invasive threat to the native wildflowers, grasses and plants in the wild areas. Diversity in a landscape design - the blending of different elements and plant species - promotes a diversity of wildlife and therefore a healthy and balanced community. Please see page 13 for further information on natural landscaping.
4. Be mindful of the water in your environment. Polluted run-off can harm natural areas and downstream water resources. Storm water run-off in Assiniboine Landing is handled largely by the natural contours, which convey water to the wetlands, Nature's filtration system. As mentioned in point one, your activities will be the primary source of pollutants in your neighbourhood. If you control the source, the natural system will not be overwhelmed and clean water will continue to run into the Assiniboine River.



SECOND FUNDAMENTAL

RECOGNIZE THAT PREVENTION IS THE KEY.

*"Adapt the pace of nature:
her secret is patience."*

- RALPH WALDO EMERSON

WHETHER YOU'RE THINKING in terms of pollution or wildlife encounters of the unwanted kind, the best action is to prevent the pollution, the excess, or the encounter from occurring in the first place.



YARD

Example: If you wish to fertilize your lawn, use a natural, organic, slow release fertilizer, only in the spring or fall when the grass is actively growing and may need the fertilizer. Never fertilize in the heat of summer, when lawns tend not to grow much. Excessive use of fertilizer at this time does not benefit your lawn. Instead, weeds will benefit and excessive nutrients will run off in the next rain into the streams, wetlands and river, and feed the growth of algae. Downstream, it will promote the growth of weeds that thrive on lots of fertilizer.

In the naturalized areas in your yard, include warm season plant species which produce most of their growth in the hot summer months and do not require fertilizer.

WILDLIFE

To live in harmony with wildlife, you need only think of their needs to realize that food and shelter are as essential to birds and wildlife as they are to us. Where wildlife and people co-exist, there are three issues that are most likely to arise. Wildlife may:

1. snack in your garden and on your ornamentals
2. take up residence in your home
3. forage in your garbage.

Therefore, eliminating food and shelter opportunities around your home and yard will go far to eliminating any unwanted wildlife activity. Prevention is the key. (On the other hand, if there is activity you want to occur, then you provide food and/or shelter appropriate to the species you wish to attract – please see page 11 for more information.)



IF YOU WISH TO DISCOURAGE:

CANADA GEESE

Do not feed Canada Geese or offer them any encouragement to stay around, as you could soon have a large population of the birds in your neighbourhood. They prefer shorter grass for reasons of visibility and for the tastiness of the tender green shoots, so plant coarse fescue grasses or juniper, which are not enticing to geese. In general, geese are deterred by taller grasses and vegetation.

DEER AND RABBITS

Do not feed deer or rabbits and as much as possible, plan your landscaping to feature plants that are not appealing to them. Repellants to discourage browsing by deer and rabbits are readily available at most gardening centres and can be applied to foliage. This will help deflect the critters to the other foliage available in the wild areas. You can also protect individual trees or shrubs with decorative fencing. For further details on what deer like and don't like to eat, please see the Deer Preferences List in Appendix C.

MICE AND VOLES

Young trees and shrubs, whose trunks are toothsome to mice and voles, can be protected with pre-fab collars from garden centres or you can make a collar out of hardware cloth. It should encircle the trunk from the ground to a height of six inches.



GENERAL PREVENTION

It's relatively easy to avoid undesirable close encounters with wildlife if you take these simple steps:

- ensure your garbage can lid fastens tightly so raccoons can't get it open
- do not leave pet food outside as it will attract raccoons and other animals
- keep woodpiles at a distance from the house, as they provide good cover for a variety of species
- remove debris in the yard or garage promptly
- fill in any holes and cracks in your house at ground level or around window frames
- screen and properly seal all vents
- do not plant thick shrubbery right next to the house
- do not allow raked grass piles to accumulate
- if mouse feces are found, clean by first dampening the area with bleach or other disinfectant and then wipe with a damp cloth. Do not sweep up or vacuum. Always wear a dust mask when working in areas where mouse droppings are present.
- to keep the mosquito population down, do not allow standing water to accumulate in buckets, wheelbarrows, eaves troughs or bird baths. Change the water in bird baths every couple of days.
- with a Rain Garden or Rain Pond, mosquitoes are kept in check by dragonflies, swallows and purple martins. There is also a biological control product, Mosquito Dunk, to be used in the deeper Rain Ponds.
- have bee or wasp nests removed by professionals.



THIRD FUNDAMENTAL

ADOPT THE ATTITUDE, "LIVE AND LET LIVE".



*"Whatever befalls the earth befalls
the sons and daughters of the earth.
We did not weave the web of life;
we are merely a strand in it.
Whatever we do to the web, we
do to ourselves..."*

- CHIEF SEATTLE

THE DECLINE of wildlife habitat and ecosystem integrity is well documented in North America.



That's why integrating natural habitat into a housing development is an important and progressive action. However, it does mean that in a natural neighbourhood such as Assiniboine Landing, you are quite literally living with nature because it's their home too.

Living companionably with nature will enrich your life with sound, colour, and interesting activity. Further, nurturing the health of your neighbourhood will help ensure that you and your children remain healthy.

IF YOU WISH TO ENCOURAGE:

BIRDS

To attract birds, you might set up a bird feeder, and keep it filled with seed. Hummingbirds will need nectar (one part sugar to four parts water) in a glass hummingbird feeder. In winter, suet will attract woodpeckers. Remember not to discontinue feeding in the fall and winter - that could be disastrous for the birds that have come to depend upon your feeder.

Nesting boxes can be set up for chickadees, flycatchers, nuthatches, owls, wood ducks and wrens. However, design of the box must suit the bird, as must the surrounding habitat. So you may need to do a little studying to learn what is preferred.

BUTTERFLIES AND MOTHS

Butterflies and moths require food during the caterpillar stage and nectar as adults. Caterpillar food includes willows, birch, oak hackberry and Nanking Cherry, and Milkweed for the caterpillar of the Monarch butterfly. As adults, butterflies prefer flowers from the Aster family.

DEER

There are many different plantings that are attractive to deer, if you want to encourage them to visit a certain area. For further detail on what deer like and don't like to eat, please see the Deer Preferences List in Appendix C.





LIVING WITH NATURE

Please see the list below for further information and ideas on native landscaping and living with nature:

- www.goforgreen.ca/gardening
- www.manitobanature.ca
- www.evergreen.ca
- www.life.ca

THE EVERGREEN WEBSITE RECOMMENDS THESE GUIDES:

Manitoba's Tall Grass Prairie: A Field Guide to an Endangered Space

T. Reaume. Winnipeg: Manitoba Naturalists Society, 1993.

Wildflowers Across the Prairie. F.R. Vance, J.R. Jowsey and J.S.

McLean. Saskatoon: Western Producer Prairie Books, 1984

Restoring Canada's Native Prairies: A Practical Manual.

John P. Morgan, Douglas R. Collicutt and Jacqueline D.

Thompson. Argyle, Manitoba: Prairie Habitats, 1995.

The Wildflower Gardener's Guide: Midwest, Great Plains, and

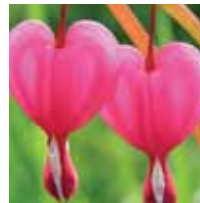
Canadian Prairies Edition. Henry Art. Pownal, Vermont: Storey Communications, 1991.

OTHER RECOMMENDATIONS:

Revegetating with Native Grasses

D.B. Wark, W.R. Poole, R.G. Arnott, L.R. Moats, L. Wetter

Ducks Unlimited Canada 1995.



APPENDIX A

LANDSCAPE PLANNING

To have the garden and yard that you really want, you need to think about it a little. What uses and goals do you have for your property? Do you need an area to:

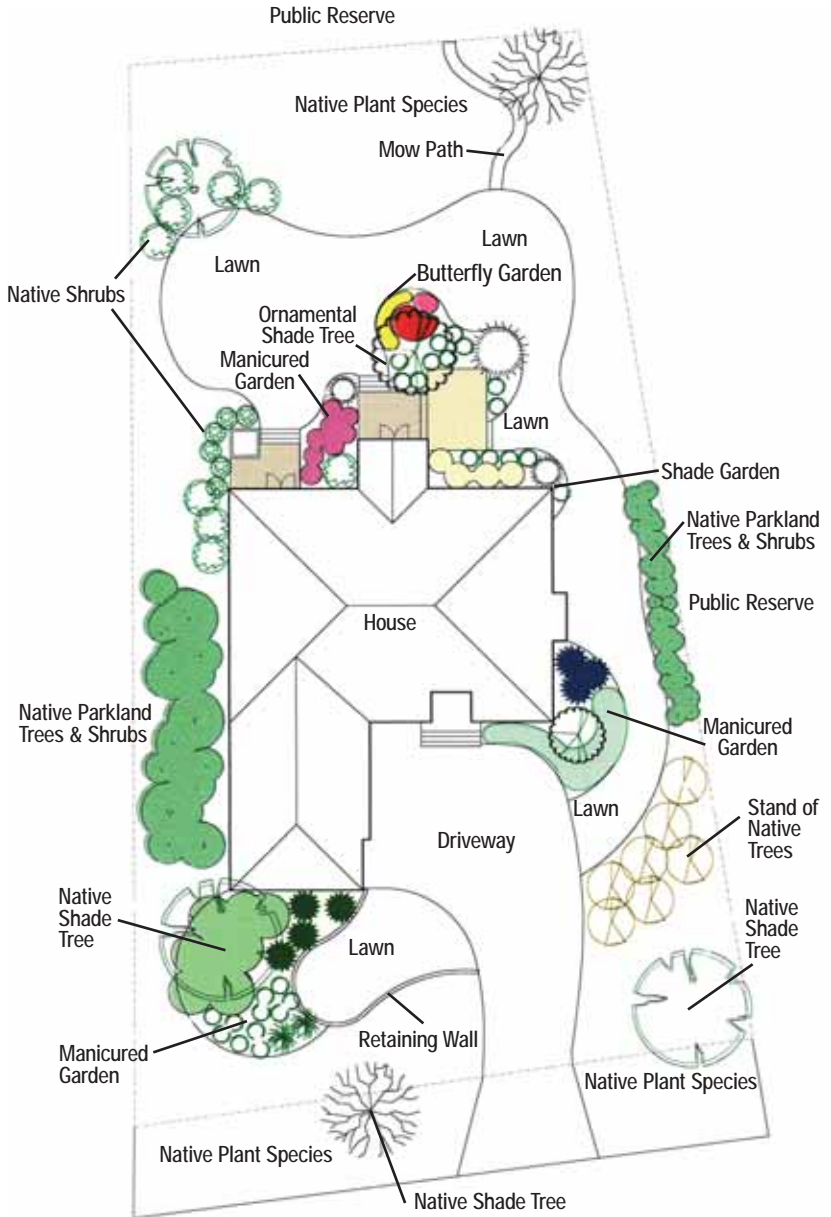
- barbeque and entertain?
- work on the car?
- shoot baskets?
- place a kiddie pool?
- install an inground pool?
- sit and admire a beautiful display of flowers, shrubs and trees?
- have a vegetable garden?

How much money can you invest in your landscaping and how much time each week are you willing to devote to keeping things up? Will you need storage for firewood? Do you want a bird feeding station, compost bin or garden shed? All of these questions and more need to be thought of and answered. Then you can develop your yard to suit the needs of your family.

We ask that you also keep in mind the needs of the ecosystem of which you are a part. Working with nature may mean you decide to create a hummingbird garden with scarlet and lavender flowers or a butterfly garden planted with milkweed and purple coneflower. Or you may wish to spend a minimum amount of time on a lawnmower, and plant only narrow pathways of lawn that wind through banks of native prairie grasses and wildflowers. You may take the opportunity to create a Rain Garden in a low area of your yard.

You will likely find that a yard ‘au naturale’ is less costly than a typical manicured urban yard. In creating a more natural yard, you will be contributing to the total habitat for wildlife in Assiniboine Landing, as well as helping to restore a better balance in this region. We believe that a natural landscape is also more appealing because it is alive with an abundance and diversity of life.

SAMPLE LANDSCAPE FOR A RESIDENTIAL YARD



APPENDIX B

CREATING A RAIN GARDEN/RAIN POND

WHAT IS A RAIN GARDEN?

A Rain Garden is a low spot or shallow depression in your yard, usually about two to six inches deep, that contains runoff water and can be planted with perennial, native wetland and prairie wildflowers and grasses. These gardens typically only hold water for a short period of time.

A Rain Pond is usually constructed to a depth of up to two feet and is designed and constructed to hold water throughout the season, (a liner may be required). The depth of the pond can be varied, to accommodate a variety of native plant species.

Native plants are beautiful and hardy, require little care and provide food and shelter for birds, butterflies and beneficial insects such as dragonflies, which eat mosquitoes!

HOW TO INSTALL A RAIN GARDEN OR POND

Pick a naturally low spot in your yard, at least 10 feet away from your house that gets either full sun or sun for at least half the day. You will be directing water from your downspout or sump pump into this spot, so keep that in mind as well.

If you don't have a low spot, you can dig a shallow depression, as large in circumference as you wish, and of varying depth to support different species. Direct your downspout or sump pump runoff to the spot either by digging a shallow swale or by piping the runoff through a buried four inch plastic drain pipe, (available at any home centre).

During heavy rains, your Rain Garden/Pond will fill up and may overflow, so make sure any overflow drains away from your house, and away from your neighbour's yard. You can test this by filling your Rain Garden/Pond with the hose and watching the overflow. If necessary, dig a shallow swale to direct water away from buildings and from your neighbour's property.

Slope the sides of the Rain Garden/Pond gradually from the edge to the deepest point. You can dig it deeper, down to 18 - 24 inches deep or so, if you wish, although this will result in standing water. (It will



also allow you more variety in plantings.) Check to see if the depression holds water by filling it with the hose; a heavy clay soil may hold water without a liner. However, during repeated freeze/thaw cycles, the clay soil will form cracks, which become potential pathways for seepage. If you wish to ensure the depression will hold water, lay down a plastic liner in the deepest area and plant around the edge of the liner. You can also place rocks or shrubs around the edge if you wish. During most summers, evaporation will exceed precipitation. In an average summer, Winnipeg receives about 15 inches of precipitation but this will be depleted by evaporation and by the plants. So over the summer, a Rain Garden or Pond will tend to dry out. It's important that the drainage area contributing water to your Pond be significantly larger than the surface area of the Pond to ensure water throughout the year.

After planting, water the plants every other day for the first two weeks or so, until they are well established.

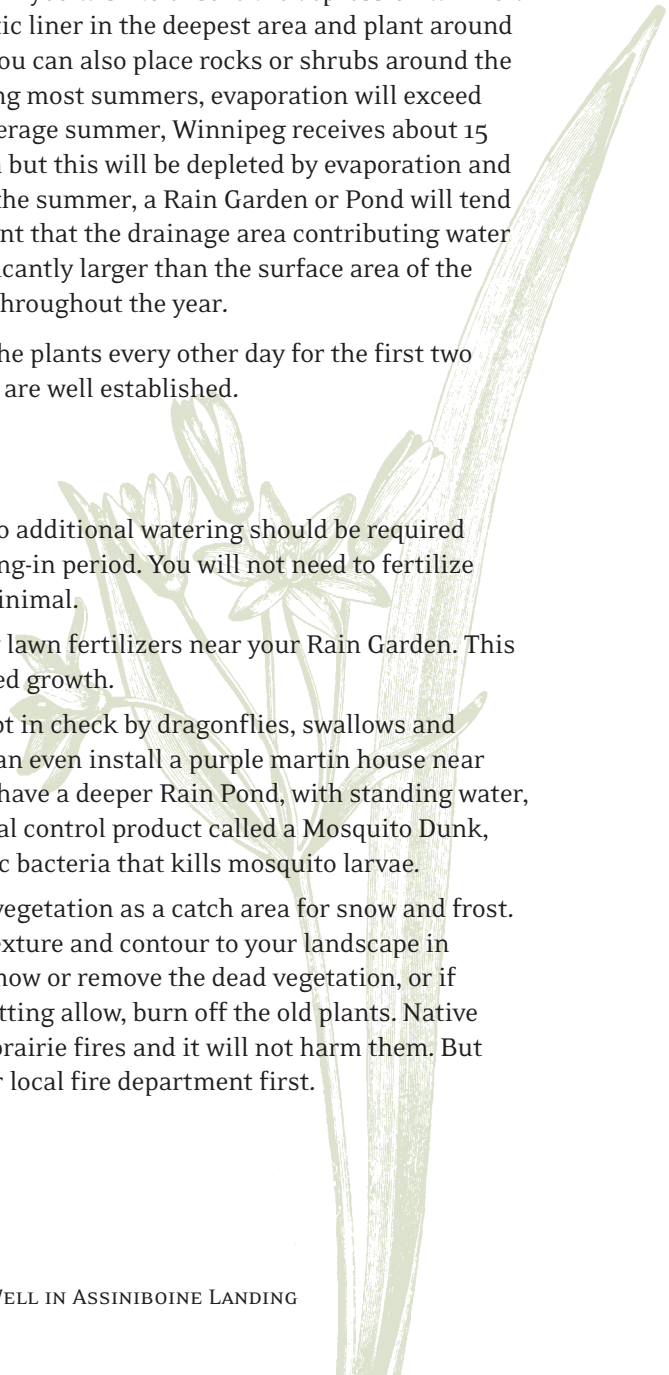
MAINTENANCE

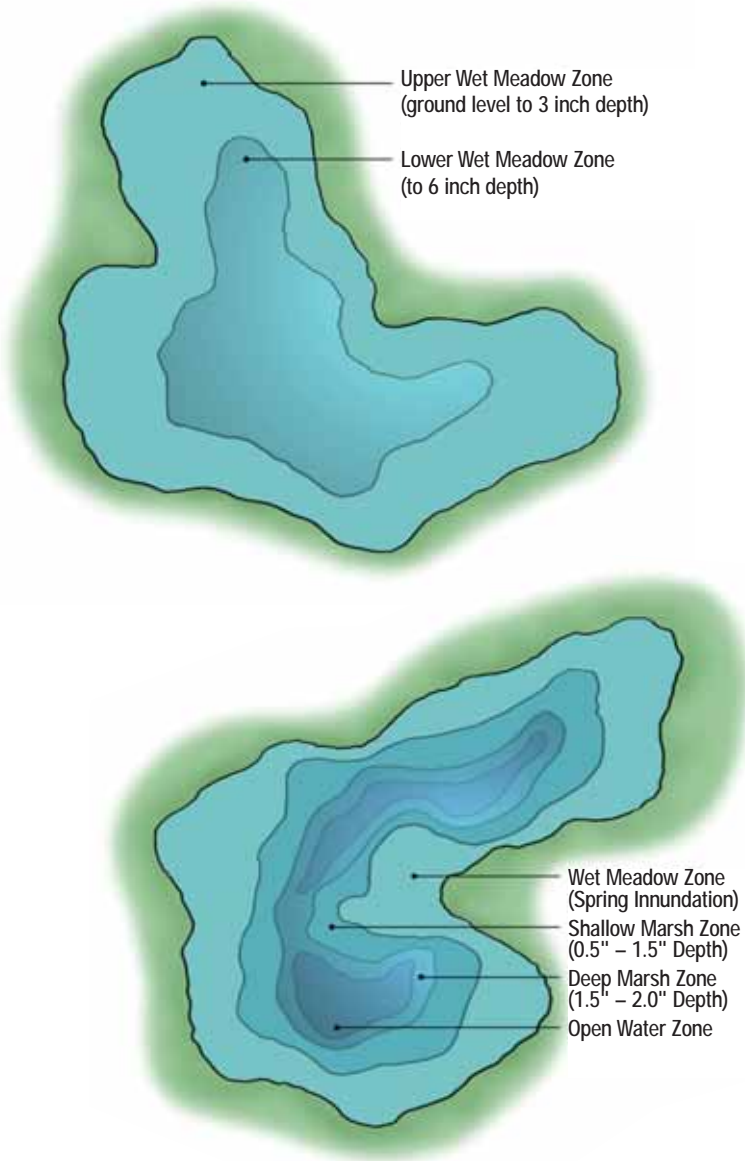
With a Rain Garden, no additional watering should be required after the initial watering-in period. You will not need to fertilize and weeding will be minimal.

Do not spread or spray lawn fertilizers near your Rain Garden. This will only stimulate weed growth.

Mosquitoes will be kept in check by dragonflies, swallows and purple martins, (you can even install a purple martin house near by, if you wish). If you have a deeper Rain Pond, with standing water, you can buy a biological control product called a Mosquito Dunk, which contains organic bacteria that kills mosquito larvae.

In fall, leave the dead vegetation as a catch area for snow and frost. This will add colour, texture and contour to your landscape in winter. Come spring, mow or remove the dead vegetation, or if regulations and the setting allow, burn off the old plants. Native plants are adapted to prairie fires and it will not harm them. But please check with your local fire department first.





RAIN GARDEN/POND RECOMMENDED PLANTS

SPECIES	UPPER WET MEADOW	LOWER WET MEADOW	SHALLOW MARSH	DEEP MARSH
Alisma	✓		✓	
Arrow Head		✓	✓	
Bebb's Sedge	✓	✓		
Blue Flag	✓	✓		
Blue Joint	✓	✓		
Broad-leaved Cattail			✓	✓
Burreed			✓	
Cordgrass	✓	✓		
Flowering Rush			✓	✓
Gentian	✓			
Giant Blue Hyssop	✓			
Hard Stem Bulrush				✓
Joe-Pye Weed	✓	✓		
Marsh Hedge Nettle	✓	✓		
Meadow Blazing Star	✓			
Narrow Leaved Cattail			✓	
New England Aster	✓			
Prairie Bulrush		✓	✓	
River Bulrush		✓	✓	
Soft Stem Bulrush			✓	
Sweet Flag			✓	
Tufted Hairgrass	✓	✓		
Water Plantain		✓	✓	

APPENDIX C

DEER PREFERENCES LIST

LIKED

WOODY PLANTS

- Apple
- Birch
- Bur Oak
- Chokecherry
- Cotoneaster
- Dogwood
- Green Ash
- Hydrangea
- Larch (Tamarack)
- Maple
- Service Berry
- Viburnum (Cranberry)
- White Cedar
- Willows

PERENNIALS

- Crocus
- Day Lily
- Hawkweed
- Hyacinth
- Iris
- Meadow Rue
- Rose
- Strawberry
- Tulip

ANNUALS & BIENNIALS

- Hollyhock
- Impatiens
- Pansy
- Sunflower
- Violet

DISLIKED

PERENNIALS

- Lupine
- Allium (onion)
- Penstemon
- Anemone
- Poppy
- Bittersweet
- Primrose
- Bleeding Heart
- Rosemary
- Buttercup
- Sage
- Clematis
- Snow on Mtn
- Columbine
- Speedwell
- Cinquefoil
- Tansy
- Coneflower
- Thistle
- Ferns
- Toadflax
- Forget-Me-Not
- Yarrow
- Feverfew
- Goldenrod
- Joe-Pye Weed
- Lavender
- Lily of the Valley

WOODY PLANTS

- Buffaloberry
- Currant (Gooseberry)
- Hawthorn
- Honeysuckle
- Juniper
- Lilac
- Potentilla
- Raspberry
- Russian Olive
- Spruce
- Western Red Cedar

ANNUALS & BIENNIALS

- Begonia
- Snapdragon
- Dahlia
- Verbena
- Dusty Miller
- Zinnia
- Mint
- Morning Glory



*Living Well
With Nature*

