APPLEWOOD ACRES GARDENING & LANDSCAPING APPLEWOOD PROPERTY MANAGEMENT www.applewoodacres.org

Applewood Acres Helps Customers Create Rainwater and Bog Garden's

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In Toronto there is now a mandatory by law requiring homeowners to disconnect their downspouts from the municipal sewer systems for environmental reasons. (http://www.toronto.ca/water/index.htm)

Objective of Municipal Downspout ByLaw

The objective of the bylaw was to reduce financial costs associated with the unnecessary treatment of water in the city's treatment facilities. It is estimated that over 300,000 households in Toronto currently have their downspouts connected to the City's main sewer lines. Run-off from rain storms or clean "roof runoff", is mixed with sanitary sewage and conveyed to the City's wastewater treatment facilities for final treatment and disposal. This creates an additional and unnecessary load on the treatment plants which translates into wasted tax payers dollars.

Applewood Acres Gardening and Landscaping has helped clients in Toronto and the GTA in complying with this new

bylaw through a variety of innovative water conservation and treatment project solutions.

Applewood Acres solutions to the new by law requirement have varied from the very simple (e.g. redirecting the down spout away from the homeowners building and onto the lawn) to the more complicated and innovative (e.g. creating a river rock irrigation channel leading into a newly created and landscaped rain garden or bog-gardens that acts as a permanent soak away pit) See photo's below.

Applewood Acres Gardening & Landscaping has successfully redesigned some garden spaces to eliminate the need for traditional water barrels and instead recreated gardens to include green bog spaces surrounded by wet land plants that when successful have even attracted certain types of amphibians that are beneficial to a homeowners garden space, (e.g. butterflies, dragon flies, worms, toads, frogs, lizards and salamanders).

Applewood Acres innovative solutions have proven to be an effective water conservation method and an excellent solution to capturing rainwater for one's garden.

Advantages of Using Rain Water & Rain Garden/Bogs

Many homeowners have begun to realize the benefits of such projects, both from a financial and ecological or environmental perspective.

Rain water is considered soft and chlorine-free and is healthier than municipally-treated water for most gardens, as some plants are sensitive to chlorine and other additives found in municipally treated water. Moreover, rain run off a homeowners roof is free, and is an invaluable resource to the global environment.

Applewood believes that every household can leverage this free resource and use it to their advantage.

Where some clients have had to contend with wet spots in their yard areas due to poor draining soil or permanent grading issues, Applewood Acre has assisted them by taking advantage of these trouble areas by recreating them into newly landscaped rain gardens or garden bogs where beautiful water tolerant plants and shrubs love to thrive.

BEFORE

AFTER

Rain gardens not only are esthetically pleasing but help things like fertilizer, loose soil grass clipping (and if you still uses pesticides !) to stay in your yard and out of the sewer system and local streams and lakes where they can add unacceptably high levels of nutrients to the water, increase the stream turbidity or deplete oxygen as the stuff rots.

Many home owners have become increasingly aware of the impact their roof run-off has had on the environment. For instance the many impermeable surfaces (roads, sidewalks, driveways, patios, buildings...) in cities prevent rainwater from being absorbed into the land to recharge groundwater. Instead, rainwater and snowmelt run off these surfaces into sewers, picking up dirt, oils, pesticides and other pollutants along the way. Then, the water entering storm sewers flows out in a concentrated and often polluted rush at single points along nearby waterways. This rush of water can cause erosion, wash away fish-spawning beds and cause other damage to the waterways' ecology.

Applewood has been successful in harvesting rainwater by helping clients to create a native plant wetland right in their garden spaces and at the end of their downspouts and has virtually eliminated the need for watering, fertilizing and more importantly pesticides.

BEFORE

AFTER

Rain Garden/Bogs created by Applewood Acres will become both an attraction for pollinating insects like butterflies and bees, as well as a thing of beauty. Some of the most beautiful and unusual of our native plants thrive in the wet, acidic conditions that characterize a bog. Once completed, your bog garden will look like any other but you will only need to water it during the most severe droughts.

BEFORE

AFTER

Applewood Acres bog gardens are a low maintenance alternative to rain barrels and an effective water conservation technique.

How Does Applewood Acres Design Rain Gardens And What Is The Cost

Rain gardens are designed with a depression to hold water after rain storms and a shallow swale to route storm water from roofs and driveways to the garden.

Applewood Acres selects plants that are tolerant of large water volumes, and that aid in infiltration and pollutant capture.(See below for list of a list of native plants that will thrive in a wet garden as well as web links to other sites with plant info.)

BEFORE

AFTER

Applewood Acres in all cases conducts an on site evaluation and consultation with every homeowner to understand their specific needs and budget . Applewood takes pride in working with our clients in a partnership to attain the best results and to meet their budget expectations.

All of Applewood Acres' on site evaluations and consultations are offered free of charge.

PLANTS THAT DO WELL IN RAINGARDENS

Jack in the pulpit (Arisaema triphyllum)> Range: woodlands from Nova Scotia to Minnesota south to Florida. Truly unusual green/brown flowers featuring a spathe (pulpit) surrounding an upright spadix (Jack). Red berries. Up to 25″ (65cm)

Swamp Milkweed (Asclepias incarnata) All milkweeds are host plants for Monarch caterpillars and nectar plants for a variety of other butterflies. Showy pink flowers in summer. 2-4′

Turtlehead (Chelone glabra) charming white flowers shaped like turtleheads. Blooms late summer into fall. 3′ Food for Baltimore Checkerspot butterfly larvae. Attracts hummingbirds. Pollinated by bumblebee's.

Eastern North America. Spotted Joe Pye weed (Eupatorium maculatum) pink-purple flower clusters. Blooms late summer. 3-8′ Provides food for a variety of butterflies (Eastern Tiger Swallowtail, Great spangled fritillary, silver-spotted skipper) and other wildlife.

Blue Flag Iris (Iris versicolour) a lovely native iris with flowers ranging from pale to very dark blue. Blooms late spring. 3-4′

Cardinal Flower (Lobelia cardinalis) brilliant red flowers that attract hummingbirds. Blooms late summer. wet soil from New Brunswick to Minnesota, south to the Gulf of Mexico. 2-4′

Shrubs
Buttonbush (Cephalanthus occidentalis) Round white "pincushion" flowerballs in early summer. The natural range of this shrub is from Florida to Mexico and north to Nova Scotia and Ontario. Butterflies, bees, and hummingbirds are attracted to common buttonbush for its nectar.

Seeds eaten by waterfowl, leaves/twigs by deer. Up to 20′ (6m)

Swamp rose (Rosa palustris) Pink 5-petalled flowers in early summer. range extends from Nova Scotia west to Minnesota, south to the Gulf of Mexico and east to Florida and the eastern coast of North America. Insect pollinated. Rose hips eaten by birds and other wildlife. 2-7′ (1-2.5 m)

Red Osier Dogwood (Cornus stolonifera) Easily recognized by its brilliant red twigs. Flowers June-August followed by smooth white berries. Provides browse for a variety of wildlife. Berries eaten by a wide range of birds. Found through much of North America, except in the southeastern US. 3-20 ft (1-6 m).

To Learn More About Raingarden plants visit:

Native Plant Crossroads, Canadian Museum of Nature
www.nature.ca/plnt/index_e.cfm

PROJECT AREA