RAIN GARDEN INFORMATION

PINE RIVER WATERSHED INITIATIVE NETWORK

Lake Huron - Georgian Bay Watershed

A Canadian Framework for Community Action

DO YOU NEED A RAIN GARDEN?

What can a rain garden do for you?

- absorb excess water on your property
- filter pollutants out of your stormwater
- recharge the local groundwater supply
- provide habitat for wildlife
- beautify your yard

Is a rain garden right for your property?

You will need...

- ❑ a low lying area that naturally collects water
- ❑ ability to install a new garden/modify an existing one
- ❑ a space that is ≥3 m from your foundation
- ❑ a space that is relatively level (1 – 5% slope)
- ❑ a source of water (i.e. downspout or rain barrel)

CALCULATING GARDEN SIZE

To design your rain garden, you need to know **how much water will be draining into it**. To do this, you need to know the footprint area of the section of roof that is collecting rain for your garden during a storm. You can do this in a number of ways:

- Online, using the Bruce County mapping program (**brucecounty.on.ca/maps**). Once you've located your home, click "**Tools**" and select the "**Analysis and Measurement**" tab; from there, you can use the "**Area**" tool to draw a polygon over the section of your roof that exits at the downspout chosen for your garden.
- Using a measuring tape, measure out **the total area of your home** (*length* x *width*), and **divide by the number of downspouts** you have. This method is not completely accurate, as it assumes all downspouts drain equal areas, but gives a reasonable estimate.

Once you have the area draining to your selected downspout, **divide this number by ten** to calculate the ideal size for your rain garden. Making your garden larger is fine, but if you need it to be smaller, make sure you dig it a little deeper!

DON'T FORGET!!!

- ❑ Locate and mark all **underground utilities** before you dig!
- ❑ Keep your rain garden at least **4 m from your septic bed** (or 15 m away if uphill from it)!
- ❑ Avoid planting your rain garden on a **steep slope** to avoid **erosion issues**!
- ❑ Amend your soil if you have **poor drainage** on your property!

HOW DEEP?

Your rain garden should be dug to a depth of **~ 85 cm**, or a little deeper if you've had to make it smaller than your calculated ideal size. **Avoid packing down the earth** under your garden by standing outside of the area as much as possible, and keeping heavy machinery outside to hole.

SOIL REQUIRMENTS

If you have **sandy** or **loamy** soil, keep your excavated soil and fill your garden with the following mixture:

60% existing soil + 40% compost

If you have **heavy clay** soil, you will need to replace all excavated soil with the following mixture:

60% sand + 40% compost

Fill your garden with this mix to a depth that leaves it **sunken from ground level by ~ 25 cm** to allow water collection and filtration. Lightly tamp the soil as you work.

CONTINUED

CREATING A FLOWPATH

Water inlet:

To direct stormwater to your garden, you can: extend your downspout/rain barrel overflow pipe (above or below ground), allow it to flow naturally across the landscape (if a path is already well defined), or create an infiltration trench. Make sure that the inlet point in your garden is protected by stones to slow the flow as it enters your garden and prevent soil erosion.

Water overflow outlet:

Ordinarily, your rain garden will allow all collected water to soak into the ground, but to handle larger storms your rain garden needs an overflow outlet to allow excess water to leave the garden. This area should be on the downhill side of your garden, and should direct water to another garden or open area of lawn (or towards the street). Like the inlet, this overflow point should also be protected with stones to protect the soil there.

PLANTING YOUR GARDEN

Rain gardens need to be able to thrive in both wet and dry conditions, as they experience alternate flooding and drought due to varying rainfall. You are also encouraged to plant your garden with native species (see "**NATIVE PLANT SPECIES**" [right] for a short list), as these will offer better habitat for local wildlife, and will be better suited to the local conditions.

Before you start planting, play with the layout of your garden by positioning the plants in their pots, making sure you're happy with the look. Keep in mind the size your mature plants will reach to avoid overcrowding! Do not plant your plants too deep in the soil (they should be planted at a depth equal to their containers). Press soil firmly around newly planted plants, and water well. Water regularly until plants are well established.

Once finished planting, cover your rain garden with 5 to 10 cm of mulch. Mulch will help keep weeds at bay, will improve the look of your garden, and will also absorb and filter rainwater! Make sure not to make your mulch layer too deep. You can also incorporate stones into your rain garden (at the inlet and outlet, but elsewhere as well). These can add character to your garden plan and will further protect your soil from erosion!

NATIVE PLANT SPECIES

Grasses:

- big bluestem (*Adropogon gerardii*)
- Canada wild rye (*Elymus canadensis*)
- tufted hairgrass (*Deschampsia cespitosa*)
- little bluestem (*Schizachyrium scoparium*)

Flowering plants:

- wild columbine (*Aquilegia canadensis*)
- butterfly weed (*Asclepias tuberose*)
- white turtlehead (*Chelone glabra*)
- showy tick-trefoil (*Desmodium canadense*)
- spotted Joe-pye weed (*Eupatorium maculatum*)
- oxeye sunflower (*Heliopsis helianthoides*)
- wild bergamot (*Monarda fistulosa*)
- black-eyed Susan (*Rudbeckia hirta*)
- New England aster (*Symphyotrichum novae-angliae*)
- swamp milkweed (*Asclepias incarnata*)

Shrubs:

- red-osier dogwood (*Cornus sericea*)
- eastern ninebark (*Physocarpus opulifolius*)
- nannyberry (*Viburnum lentago*)
- common elderberry (*Sambucus canadensis*)

full sun ***partial sun*** ***shade***

FOR MORE INFO...

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