

OUTDOOR GREENING PRIMER



The outdoor landscape of both your place of worship and for memorial and burial spaces are a wonderful opportunity to expand your *Care for Creation* and mission goals such as reconciliation, neighbourhood outreach and providing a place of peace and spiritual retreat. Your gardens and landscape can help reflect your spiritual values and be a welcoming space for your community. Depending on the interests and support from the congregation, an outdoor space can provide cut flowers for the sanctuary, food through community gardens and orchards, manage water through rain gardens and other techniques, provide habitat for wildlife including pollinators and birds and conserve water through drought-tolerant landscaping. Outdoor spaces can also provide spiritual respite, sanctuary and inspiration through labyrinth gardens, medicine wheel gardens, prayer gardens and other types of gardens. Your landscape can be much more than just an expanse of lawn with some ornamental blooms. No matter what the size, there are opportunities.

Determine Your Congregational Goals And Resources:

Taking on a new project, you will want to consider the costs, resources needed and the interest of your congregation. Ask your congregation what they want and/or what they would like to provide for the community:

- A green space to enjoy quiet and solitude
- The opportunity to grow local food
- Reconciliation and allyship building with First Nations
- A location for reflection and inspiration
- Connection with nature and wildlife
- A welcoming space to gather outdoors

It's best to find something that volunteers and/or a group can rally behind and support so that the interest is there to move the project forward. It helps to have at least two key members, so that they can play "tag team" depending on availability.

Also when considering a garden space determine what resources you currently have:

- How much space is available and where (consider slope, soil type, sun availability)? If there is no space at the place of worship is there another property such as a memorial space?
- Who is willing to do the work even if it's managing a landscaping company?
- How much time (weekly) does the person or group have to volunteer?
- What resources are available such as funding, volunteers with gardening knowledge and/or interest and energy, donation of plants, local garden organizations and resources, etc.? (Use the asset-based community development model to determine the resources you have.)
- Can a garden be incorporated into current programming including youth programs?



Determining Location For New Garden Bed

The best location for your garden can be determined by many things:

- The space available (is there only one available location or are there various options?)
- The location of underground utilities (do not dig in areas where there are underground utilities), overhead utilities and street lights (which will restrict the type of trees that can be planted)
- The desire to be visible to the community (locate at front?) to demonstrate allyship or mission or open door policy or to be seen as a neighbourhood resource
- The need for a quiet tranquil spot away from road and noise (side or at the rear for the building or protected by shrubs or fence)
- Visibility from inside the place of worship so that those inside can enjoy a beautiful view
- The need to avoid locations near pathways where winter chemicals are used (de-icing salt, sand)

If the interest is in creating a garden for wildlife, the consideration regarding location can be two-fold. It's best to avoid very busy areas (with high traffic and activity) as wildlife may avoid these areas. If you have a large enough piece of land, consider having one sheltered, quiet area that can be viewed from the inside of the building so that it can be enjoyed year round without the need to disturb the wildlife and another location that is accessible, where someone can visit and possibly sit and pray or meditate but is still separated from busy, traffic areas.

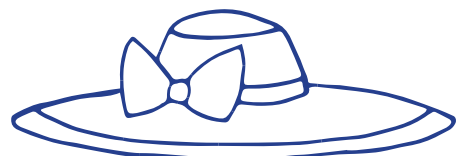
Inspiring Spiritual Symbols For Your Garden

Creating a garden outdoors provides an opportunity to include sculptures, statues, plaques or other symbolic pieces that can resonate with the congregation. Consider what could be added to a garden that could signify specific pieces of inspiring religious or spiritual scripture. It could be a statue of an angel, a dreamcatcher sculpture, a dove image for the symbol of peace or the image of hands in prayer.

Choosing plants that are referenced in scriptures or are culturally significant can be an opportunity for congregants to connect in real life to these plants. Just ensure that if the plant is not native to the area, that it can survive the local plant hardiness zone and that it is not an invasive species in the local area.

Some trees that are referenced in various scriptures include Palm, Fig, Olive, Pomegranate, Almond, Cypress, Oak, Pine and Birch. Other symbolic plants include: Crocus, Lily of the Valley, Bleeding Heart, Roses, Medicine Wheel plants (Cedar, Sage, Tobacco, Sweetgrass) and the Lotus plant.

Another opportunity for signage in your new garden is by providing information about native plants and pollinator habitat. Certain organizations are collecting data on all new pollinator habitat and will provide signs to showcase your project. These signs are for habitats that support butterflies, bees and wildlife. See the Wildlife Garden Fact Sheet for more information.



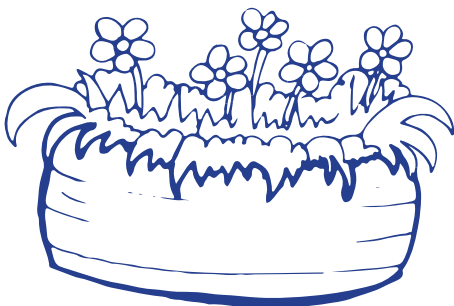


Prepare A Great Proposal:

Preparing a great proposal may be essential for your garden project to go forward. Whether it is to a congregation council or faith community board or it is a proposal for funding, the proposal provides the goals for the project and also the steps forward including a well-thought out budget.

You want to be able to share your vision for this project, including the social, environmental and community benefits and demonstrate the value for this endeavor. If you are applying for grant funding understand the goals and desired outcomes for the grant program and ensure that you explain how your project benefits those same goals.

Include the size and cost for implementation and cost out all the donated volunteer hours that will go into the project. Emphasize the resources you have in-house and how you can benefit from donated time and other needed items. Add an estimate of utility costs to waylay any concerns for increases to water or other utility bills. (If you are decreasing the lawn significantly, you could consider determining cost savings due to less mowing, maintenance and watering.) Also include a plan for maintenance (with weekly hours for volunteers during gardening season) to show that there has been consideration for the maintenance of the garden beyond Year One.



Emphasize who will benefit from this new garden including tenants, visitors and the congregation. Is there a school nearby, a retirement residence or a community health program that might benefit from an outdoor space? If the garden is an outreach tool, determine if you can create a couple of annual garden events to increase visitors to the space. Finally in terms of budget consider any one-off costs including plaques, sculptures or even educational signage and add this to the budget.

CONSIDERATIONS AS YOU PLAN

Here are some things to consider as you prepare to plant your garden. Be sure you know the local by-laws and consider what type of maintenance you want for this new landscaping.

1. CALL BEFORE YOU DIG! — This is very important and it is a free service that utility companies provide. Even if you think you know where utility lines are, it's best to get them located and flagged so that all people involved in the project know where utilities are located. Also consider overhead utilities when you are determining a location for new trees.

2. PRIVATE TREE BY-LAW — Be aware of the by-laws for trees in case you want to eliminate a tree or do any hardscaping in close proximity to a tree. In certain cities, trees of a certain size cannot be taken down without permission from local authorities and some municipalities may have by-laws to protect trees during construction.

3. MUNICIPAL BY-LAW — There are some by-laws that restrict the look of the front yard garden such as "heavy undergrowth, "trimmed and not overgrown" but this is a subjective view. Pollinator and meadow gardens have been successfully defended using the argument that they are expressing



their environmental beliefs under the Charter of Rights and Freedoms. To help garner support for these types of changes, meet with the community first, explain the benefits and discuss any concerns.

4. PESTICIDE BAN – Gardening without pesticides for your lawn and garden is now a law in seven provinces. There are many new non-toxic aids that can be purchased. Better yet, learn from the Canadian Organic Growers who have online resources. Or if you are in Ottawa, sign up for one of their in-person classes they offer each year on organic gardening.

5. NATIVE PLANT SOURCES – Always consider native plants first for gardens as they are adapted to local conditions and will require less maintenance (including watering) once established. They also provide much needed habitat for local wildlife including butterflies and birds.

If purchasing plants ensure that you are purchasing from a source that does NOT have neonicotinoids on plants. Look for a local organization like Peterborough's Ecology Park or Ottawa's Fletcher Wildlife Gardens that has an annual plant sale or purchase from a community plant sale or an organic plant nursery. The Canadian Wildlife Federation has a list of Native Plants Suppliers: <http://cwf-fcf.org/en/resources/gardening/native-plant-suppliers-new/>

6. LOW-MAINTENANCE – Even with great volunteers and staff, a low-maintenance garden is always a good idea. Whether using native plants, mulch, drought-tolerant plants, drip-irrigation systems, etc. the time and energy saved will be a blessing. Identify all the opportunities to lessen maintenance options as you are planning your garden.

PLANTING DAY:

Get organized before the day of the event and ensure that there are enough tools, safety equipment (as needed) and refreshments including water. Have a rain day in case the weather ends up being really poor but do consider going ahead if the day is just overcast with some possible light rain.

Keep in mind all of your community's assets including the talents of your members and help identify those who want to help out and what they can offer in terms of planning, event organizing, gathering equipment and garden materials and helping to spread the word. Share with people the delight of spending part of the day outdoors and divide tasks so that there is something for everyone including easier jobs like organizing and serving refreshments, counting and laying out plants and the heavy lifting tasks such as digging, moving dirt, compost, mulch, etc.

The planting day is a great opportunity to have a celebratory community day. This will give a boost to all the hard working volunteers and allow for an official blessing of the grounds where the garden will be. Take the time to officially "break ground" and offer a thanksgiving for the bounty of the earth.

Where beauty is cultivated through community, appreciation grows. The garden becomes a place of celebrating creation and joy and delight can grow along with the plants. End the day with a prayer to bless the new garden and thank creation for the abundance of what is to come.

HOW TO PLANT:

How to plant depends a bit on what you are planting. Seedlings, larger perennials, shrubs and trees all need care when being planted and some of the information for planting has changed (see below). Gardening is a bit of



trial and error. There will be lessons learned as you garden depending on your own location, climate and conditions. Keep in mind that plants are resilient and adaptable. If you are doing a small bed, preparations will be different than for an urban meadow. Details on preparing a new small garden bed can be found below. If you are converting a larger space for an urban meadow please refer to the Urban Meadow Fact Sheet.

Some municipalities donate trees to be planted along streets to increase their street tree program so check with local government to see if you can receive a suitable tree this way.

Keep all plant pots and recycle. Many garden stores will take them back now or consider donating to organizations that have annual plant sales so that they can reuse the pots.

And do remember that all new plants will need extra water for the first two years, even drought-resistant plants.

Preparing a New Garden Bed:

Once you have sited the location for the new garden bed, consider using the lasagna gardening technique to prepare the bed. Remember to avoid putting in garden beds under Maples and Beeches as they have shallow roots.

Lasagna gardening is a simple way to prepare a new garden bed especially over a weedy area or a part of a lawn. It is best done in the autumn so it has time to break down over a few seasons before you start planting and there will be abundant dried leaves and materials available to add to the bed. First mow or cut the plants that are in this location as short as possible. Next lay down newspaper (at least 10 sheets thick) or corrugated cardboard and wet thoroughly for them to stay in place. The first layer can be thicker woody materials such

as twigs and branches from hedges and trees chopped up. This will ensure good drainage for your garden bed. Add a layer of dried leaves after this. Layers of carbon (leaves, twigs, straw) can be up to 20 cms and layers of nitrogen (grass clippings, compost, manure) can be up to 15 cms. Keep adding layers until you reach approximately 60 cms. This can be covered for two weeks with plastic to provide an extra kickstart to the decomposition process. Have this sit for the winter and early spring so as to decompose and break down. By planting time, the level of your lasagna garden should have dropped significantly. Top up with a layer of soil and some organic fertilizer just before planting.

Planting Seedlings and Larger Perennials:

Seedlings can be planted after they have established enough “true leaves” to survive outdoors. The general rule of thumb is that plants need around four true leaves (not counting the first two cotyledons). Then the plants need to be hardened (exposed to the climate outdoors) before they are planted. Once the new plants have been hardened for a week or so then they are ready to be planted outdoors.

Both larger perennials and seedlings need to be hardened before they are planted.

To harden these new plants, bring them outdoors to a shaded area for 3-4 hours for the first day and then bring them indoors. Each day increase the amount of time they spend outdoors. Once they have spent a full day in a shaded area, repeat the process in a sunny areas – first day for 3-4 hours and then bringing them inside over night. Increase their exposure to the sun over a few days. This hardening of the plant will increase the rate of survival rate once the plants are transplanted.

When transplanting new plants, it is best to do in early morning or on an overcast day. If you



are putting in larger new perennials cut off the container and inspect the roots. Gently loosen and/or cut off any potbound roots that were encircling the bottom of the pot.

Transplant the new plants into loose soil mixed with compost, digging a hole for each plant which is just a bit bigger than the roots and use the same soil to backfill. Press down on the soil around the plant gently to provide some stability but do not compact the soil too much. Water after planting, ensuring to deliver the water to the roots. Remember these new plants will need extra watering as they establish themselves in the new ground.

Add mulch to help keep roots warm and water from evaporating. Straw is a great mulch for seedlings and veggie plants. Choose a more substantial mulch for perennials. Adding a thinner layer in the spring (3 cms) or a thicker layer (5 to 6 cms) if it is autumn.

For perennials, it is best to take off any flowers so that the plant can use all extra energy establishing healthy roots in its new location, rather than putting the energy into the blooms.

If it is autumn and you are transplanting perennials do not add any fertilizer as you do not want to stimulate growth just before the plant goes into dormancy. Add organic fertilizers in the spring once the plant has survived its first winter.

Planting Shrubs and Trees:

The best time to plant trees and shrubs is early spring and fall. This will help them establish well before the extreme temperatures of the summer or winter.

Dig a hole as deep as rootball. It is important to have the roots on a solid base when planting it in its new location. Keep the soil close by as you will be using the same soil to refill the hole with the new tree.

The hole should just be wide enough to fit in rootball. Do not add any amendments around the shrub/tree or below the rootball. The desire is to have the roots grow outward to seek needed nutrients from the current soil rather than to receive it from amendments added near the base of the plant.

Identify the root flare and plant with the flare just above the ground but allow for a bit of settling. For a tree check to see if the trunk is straight. Stakes are not needed – if a tree can bend with the wind, it will allow itself to anchor better as it grows.

Before planting, it is extra critical to ensure that the roots are healthy and are not circling around the bottom of the pot or in the root ball. Cut the plant out of the container or burlap and hold by the rootball rather than the trunk (as this might damage the plant). Trim any circling roots and carefully pull apart roots a bit to encourage outward growth. Add some water to the bottom of the hole before setting the plant in place.

Reuse the earth that was been displaced to dig the hole. Fill the hole up half way with this earth, water roots and then fill up the rest to the base of the flare.

Do not compact the soil too much. Use your hands to press down on the soil to secure the tree rather than using your full weight and stepping around it. Remember tree roots thrive in aerated soil.

Water one last time, thoroughly soaking the soil base of the new plant once the hole is filled up and then add mulch (see below for information on mulch). Many plants lose a high percentage of their roots when transplanted and cannot take in enough water on their own. For the first two weeks after planting, water daily. Then water two to three times a week for the next month to six weeks focusing on the



rootball area. After two months, the tree can be watered weekly (a heavy watering) all the way out to canopy edge – as the roots should be growing outwards by then.

Trunks of trees and shrubs should be protected from mice with plastic shields for the first few years. In the winter mice seek out nutrients and chew at the bark of young trees below the snow cover.

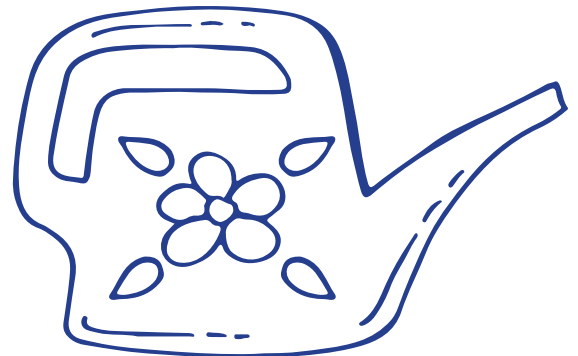
MULCH (Water Savings + Healthy Plants + Weed Barrier)

Most mulches do help with water retention. Depending on the number of garden beds and your garden resources (volunteers vs landscaping company), consider creating mulches from organic materials readily available on your property including fallen leaves and grass clippings. A natural mulch like this can create a great organic cover and provide nutrients (acting as both a mulch and fertilizer) – especially if it has been composted over a season before added to gardens.

If purchasing an organic mulch, consider mulches such as natural (golden red) cedar mulch as opposed to dyed, recycled wood chips, as the recycled wood can have arsenic and a dark dye can elevate the temperatures of the soil. The cost may be higher but cedar mulches break down slower and have natural insecticides that can be helpful in reducing bug pests. Pine bark and needles are another option that breaks down slowly (and great as they are a by-product of the lumber industry) but be warned as this mulch will make the soil more acidic. Also, avoid cocoa bean mulch as it can be poisonous to pets. Your local garden supply source may have other recommendations for the best natural local mulches. If you are getting a large supply order a truck load rather than buying a large amount of bags, where you have to discard all the plastic.

Other Mulch Tips:

- A mixture of shredded leaf and grass clippings and compost and /or manure can act as a simple mulch made on your property and provides the same water retention benefits.
- For new plants, add around 5 cms of mulch and wet mulch right after spreading as this will help establish healthy micro-organisms. Only top up if needed (not yearly).
- Do not create mulch volcanoes or add mulch near the trunks of trees. Trees breathe through many surfaces so keep the first 10 cms bare.
- Mulch around trees as far as the drip line if possible (this is best for Maple or Beech as these have shallow roots and shouldn't be competing for water).
- Don't pile mulch close to any permanent structures or buildings as this provides an area for insects to accumulate and possibly damage structures.
- Fungus/mold on mulch is not a bad thing and doesn't hurt plants. However, if the mulch creates a thick stiff layer break it up so that it functions well and allows water to percolate down to plant roots.





GENERAL MAINTENANCE:

Weeding:

Weeding is generally needed more in the spring and early summer than later in the growing season. If you stay ahead of undesirable “weed” plants at this time – there will be less later. Avoid deep turning of the soil, as this stirs up more unwanted seeds. A long-handled weed tool that pulls out plants at the surface is a good investment so that volunteers and garden staff can avoid uncomfortable positions and have less gardening aches especially if there are many ornamental gardens. Weeding is also easier in soft soil after it rains as plants are easier to pull up.

Mulch provides a barrier so that these undesirable plants cannot get established and if it’s difficult to get to everything, ensure that at least unwanted plants are eliminated before they go to seed. Keep in mind that some of these naturalized plants can withstand drought better, especially if they have established some good roots so in drought situations, weeding is key to ensure water gets to the plants you want to keep. Also, as much as possible, keep any permeable pavement dry so as not to encourage growth between pavers or stones.

Watering:

- Watering is best during cooler times of the day so that there is less evaporation and water loss. But avoid watering in the late evening as plants can develop fungus if wet during colder nights.

- For lawns, water once a week deeply, rather than every day. Lawns need about 2.5 cms of water a week and allow grass to go dormant during heat waves.

- Locate garden beds that need more water, closer to building and water source so that they are easier to water. Annuals, container gardens and ornamental plants typically need more water. Group plants (if possible) by their water needs so as not to overwater those that

don’t require as much.

- Newly planted perennials, trees and shrubs will need extra watering (some up to two years) to establish well. Once established allow them to continue to develop deep roots by watering just once a week with slow, deep soaks.

- Water at the root level to optimize water conservation and ensure plant roots are well soaked. Drip irrigators, hand watering cans and hoses that can be directed towards the roots are better than overhead sprinklers or spraying water from above, with the water hitting the plants and leaves.

- Keep in mind that some plants may wilt during the day as a way to protect themselves from the heat. This is not necessarily a sign that they need to be watered. Check the moisture level of the soil first.

- Water trees during droughts rather than lawns. Trees will not show signs of stress. Damage to trees from droughts will only be seen in the following year. Trees need extra care to help ensure their long-term survival.

Wildlife Helpful Weeds:

Consider letting a garden area in the back or edge along a fence, to grow a bit more wild. Many “weeds” are beneficial to native insects and in turn help out our feathered friends. A shady area is better so they do not need to be thinned or controlled too much. Do eliminate Ragweed (which can be found with Goldenrod) however as this is the wind-pollinated flower that aggravates many allergy-sufferers and gives Goldenrod a bad rap as they both bloom at the same time. Learn how to identify it in early growth during the spring along with other invasive plants. Some wildlife helpful “weeds” include:

- Dandelions (naturalized) is one of the first plants to flower in the spring and support native bees.

- Fleabane (native) is an aster-like flower that blooms in late spring that supports many small insects.

- Common Milkweed (native) provides both habitat and nutrients for the endangered Monarch.
- Canada Thistle (naturalized) is a favourite of the Goldfinch and could be left in less visible areas.
- Evening Primrose (native) provides sustenance to many insects and birds and has a long bloom.
- Queen Anne's Lace (naturalized) is a favourite of some pollinators including butterflies.
- Golden rod (native) is an important late season native plant that many pollinators seek out.
- Asters (native) are another late season bloom that provide sustenance to many insects.



Fall Maintenance:

Consider replenishing nitrogen annually to keep soil healthy by adding manure or compost in the fall.

Consider easing up on fall maintenance as many insects spend the cold months protected under layers of leaf litter or in grassy thatch. They can survive the winter as long as they find moist areas to hibernate. There are also many eggs that have been laid in stalks, on leaves, etc. so if twigs, ornamental grasses and other plants can remain on the property in a brush pile, it will ensure the survival of the next generation. Your property will be healthier and attract more birds if native insects and pollinators can enjoy full life cycles and return for another season.

ABOVE ALL ELSE, HAPPY GARDENING!

