MICROFOREST COLLECTIVE

EARTHWORKS – STEP 5

MICROFOREST BLUEPRINT

prepare the ground for a thriving ecosystem

FOLLOW THE BLUEPRINT

After I built the Downer pilot microforest, I realised my journey would have been easier if I had an instruction manual to follow. That's why I've created this Blueprint to help volunteer community leaders build a microforest.

The beauty of the Blueprint is it's not just for making microforests. It can be applied to other regenerative public landscape projects, like a food forest, community garden, a birdscape, pollinator patch or native grassland.

This Blueprint will give you confidence, save time and prevent you from making costly and time consuming errors.

The Blueprint is divided into eight discrete steps. By following each step you'll build a team of like-minded, community-spirited volunteers and together you'll realise your dream of a neighbourhood microforest.

Not only will you build a microforest, you'll make new and meaningful relationships based on shared values and create a more connected community. That's powerful.

8 STEPS

The eight steps build on each other and are best followed in order. The steps are:

Step 1 - Build a leadership team
Step 2 - Raise funds
Step 3 - Community consultation
Step 4 - Design
Step 5 - Approvals
Step 6 - Earthworks
Step 7 - Community planting
Step 8 - Maintenance.

Edwina Robinson
Founder and Landscape Architect
The Climate Factory
Co-Founder and Chair
The Microforest Collective
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LEARN NEW SKILLS

Getting involved in a community-led microforest provides the opportunity to learn new skills.

Here's a list of skills you can develop during a microforest project.

- Community engagement
- Working with government
- Project management
- Event management
- Stakeholder management
- Volunteer coordination
- Grant writing
- Fundraising (including crowdfunding)
- Public speaking
- Team leadership

And it's your chance to learn more about:

- Native plants
- Pollinator plants
- Water harvesting
- Landscape construction techniques.

TREAT THE SOIL WITH RESPECT

The soil is living and full of billions of organisms like earthworms, beneficial bacteria and fungi – so treat it with respect.

ADD ORGANICS

Soil preparation is fundamental to the Miyawaki method. Compacted soil is ripped to allow air and water penetration. Then locally available organic material, like rice straw (in Japan) is added. Rice straw provides additional nutrients, improves soil structure and absorbs water.

Rather than incorporating rice straw, in Australia, we use products like recycled and composted green waste available from a local landscape yard or council.

BALANCE CUT AND FILL

In our approach, cut and fill is balanced so no earth is removed from the site. This reduces costs associated with removal, transport and disposal of ‘waste’ and reduces project emissions.

We don’t add imported topsoil to our projects either. We just improve existing site soil. This also saves money and reduces the embodied energy of the project associated with transport costs.

Simple soil test

Digging a test hole will reveal the type of soil on your site.

At the Moruya Microforest our test holes showed we had a loamy sand, perfect for drainage and good plant growth. The main thing we need to do to improve the soil (apart from ripping) was to add organic matter.

Organic material increases nutrients available in the soil and the soil's water holding capacity.

TURFING THE GRASS

say no to herbicides

GRASS REMOVAL

Typically we create our microforests on an open grass patch. This means we must first remove the grass as it will compete with our fledgling forest.

Grass is physically removed with machinery rather than herbicides. That's because it's unclear whether herbicides like glyphosate or Roundup are harmful to humans.

STOCKPILES

Grass and topsoil are stripped and stockpiled separately.

Once groundworks are complete the separated topsoil is spread over the landscape. And the excess grass is reused in grassed mounds on the downhill side of the microforest.

MORE INFO

Gardening Australia Start with Soil: Gardening 101
https://www.youtube.com/watch?v=unzKJrRXuXQ

WATER HARVESTING

helps future-proof against climate uncertainty

As well as ripping with machinery to 300mm depth to decompact the soil and adding organic material, we take the Miyawaki method one step further and excavate deep trenches underground.

These trenches trap and hold rainwater that falls naturally across the site. And they link to the dry creek beds on the surface.

Holding water underground is critical in places in Australia, that face extended droughts.

To date, we've successfully applied this method to five microforests in the ACT and NSW.

Although the water harvesting adds significantly to the microforest cost - it's an investment to ensure your microforest will thrive in an uncertain climate future.

Contractor on fixed price contract

Earthworks contractor and Landscape Architect

Ideally your Landscape Architect will have a good working relationship with an earthworks contractor who understands the sustainability goals of the project.

The Landscape Architect will superintend the set-out of the landscape design and inspect the site multiple times during the earthworks.

Fixed price contract

Typically we use a fixed price contract for each project rather than asking different firms to quote on the job. This means the earthworks contractor is paid a fair price for their labour, equipment and overheads. Typically this might range from $10,000 to $20,000 depending upon the work scope.

How long will it take?

We allow a two week period for the earthworks and water harvesting construction. It usually only takes 4-5 working days but we leave a margin for rain delays.

1.8m high construction fence

Prior to the start of earthworks, your Landscape Architect or Contractor will organize the installation of a 1.8 metre high temporary construction fence around the work site. Sometimes we leave this fence in place until after the first planting bee to protect plants.

LET THE NEIGHBOURS KNOW

It’s important to inform local residents about the earthworks period and what to expect.

A site sign and letterbox drop should do the trick. Let them know the hours of operation, further information and a contact phone number. See the attached sample letter provided to local authority in Step 5 - Approvals.

Coreflute sign installed with star pickets. Although this sign was installed during the Watson crowdfunding campaign - a sign like this can alert people to the project.

SAMPLE COMMUNITY LETTER

Dear Downer Resident,

COLE STREET SWINGS PARK – UPGRADE STARTING SHORTLY

The Downer Community Park Conservation Group partnered with the social enterprise, The Climate Factory and the ACT Government to upgrade the Cole St Swings Park into a more attractive, cooler and child-friendly microforest.

This is a pilot project with 57% of the project funds contributed by the community.

Participants in a community consultation session identified: habitat, water harvesting and nature play as the most important elements to be incorporated into the landscape design. You can access project details at: www.microforestcollective.com.au

Earthworks will commence on or after Wednesday 19 August 2020 and the site will be surrounded by a construction fence during earthworks. Earthworks should take one to two weeks depending upon the weather.

Working bees are scheduled to plant 1800 native plants over spring and autumn.

Cheers,
(Insert Name)
Convenor
Downer Community Park Conservation Group
(Insert Phone)
(Insert Email)

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Want to learn more?

Find resources, guides and advice at
www.microforestcollective.com.au