

Enviroteach

An environmental education resource for teachers



From the editor

Schools frequently ask Environment Southland to assist them with planting projects. The idea of planting vegetation to restore a patch of native bush or to attract birds and butterflies to the school grounds is very appealing. I can think of at least three dozen schools that have done some planting during the last five years.

Why do so many schools take on planting projects? The most obvious reason is that planting is a fun, hands-on activity and there's a great sense of satisfaction to be had once the job is done. Planting projects provide opportunities for students to practise their leadership, teamwork and project management skills during the planning and preparation stages. Another benefit is that a huge range of curriculum-related skills can be developed throughout the project.

Over the years, our staff have helped schools in all sorts of ways, including choosing suitable sites, helping students to design planting plans, teaching in class, accessing funding, and organising planting events. We've seen many successful planting projects and a few that have been less successful. We've also learned many lessons along the way, and that's why we've decided to share some of our top tips for school planting projects in this issue of Enviroteach.

If you're interested in getting involved in an environmental project, please feel free to contact the education team at Environment Southland. We have two fulltime staff who are available to schools throughout Southland. We can assist with lessons and field trips on a range of environmental topics, and we have some useful publications that can help you with environmental learning and action at your school. These services are available free of charge. Contact us on 0800 76 88 45 or email education@es.govt.nz.

All the best for term two!

Pat Hoffmann
Environmental education officer



Top tips for school planting projects



Planning

All planting projects start with a vision. Identify your goals and objectives. Students can help with this! A shared vision provides focus and direction for everyone involved in the project, e.g.:

1

- Enhance an existing area of native bush
- Create a patch of native vegetation on a farm paddock
- Attract native birds or pollinators to your school grounds
- Create a shelterbelt
- Beautify your school garden
- Create an outdoor learning space

It's important to choose a suitable site:

2

- *Do a site visit and consider ease of access, safety for children, traffic, etc*
- *Make sure you get permission from the landowner*

3

Decide whether this will be a one-off event or an ongoing project. If it's an ongoing project we recommend that you develop a longer term plan (e.g. a 3-year plan) and think about things like ongoing maintenance of the site.

4

Identify experts who can help and advise you.

5

Develop a budget and work out how your project will be funded. You could apply for a grant. Contact Environment Southland for information about the Environmental Enhancement Fund and the Honda Tree Fund.

6

Write a project plan with timeframes:

- *Identify tasks and steps*
- *Decide who will do what*
- *Think about the best timing for planting and decide on a date for your planting event*
- *Choose a back-up day in case of unsuitable weather*

7

Create a planting plan –students may be able to contribute to this:

- *Make a list of plant species that are suitable for your purpose*
- *Work out the size of the planting site and the total number of plants it can accommodate*
- *Decide what you want to plant, where you will place them, and how far apart*
- *Work out how many plants of each species you need to order*

Preparation

1

Prepare the site. It may need to be fenced off from stock. Existing vegetation could require mowing and/or spraying.

If you do decide to spray the site with herbicide, you may need to wait a few weeks before planting. Check the label for instructions regarding the withholding period.

If the ground is very hard or rocky, it may need to be mulched and /or ripped. You may need to provide temporary shelter, e.g. shadecloth.

Choose a supplier and place a plant order. The price will depend on the size of the plants.

If you need to store plants for a while before planting, make sure you have a plan for watering and protecting them.



▲ Site sprayed with herbicide prior to planting.

2

Plant protectors are useful for many reasons, including helping to protect plants from wind, herbicide spray drift, and animal pests such as rabbits. There are several designs to choose from. Plant protectors can be purchased from nurseries and from landscaping suppliers.



▲ Two types of plant protectors.

3

Feeding the plants with fertiliser will give them a good head start. We like to use fertiliser tablets because they are so easy to use. We also recommend using weed mats, as they suppress weed growth around the plant and help to conserve moisture in the soil.



▲ Fertiliser tablet.



▲ Weed mat.

4

Source other equipment such as spades and make sure you have plenty to go around. We usually ask helpers to work in groups of 2-4 people and then give each group a bucket containing the correct number of plants, plant protectors, weed mats, stakes and fertiliser tablets.



▲ We like to use tree-planting spades for digging and metal rammers to help push the stakes firmly into the ground. Buckets make the distribution of equipment to helpers easy and efficient.

Event planning



1 For an easy and smooth planting event, we recommend that you develop a schedule for the planting day, including a start and end time. Planting usually takes about 5 minutes per plant. If the ground is very stony, the digging may slow you down a bit. A good length of time for a planting event is 1½ - 2 hours, but this will depend on how many plants and helpers you have.

2 Think about transport. You may need to hire a bus. Also think about where vehicles will park.

3 Do a site visit to identify hazards. Prepare a health and safety plan for the event.

4 Invite people to help. You will need lots of adult helpers! Tell everyone you've invited what to bring, what to wear, how to get there, where to park etc. Ask for RSVPs so you know how many people to expect, and ask permission to take photos.

5 Provide the landowner with details about the event and access required by vehicles. The landowner may need to move stock or switch off electric fences for a few hours.

6 Consider how you want to publicise your event. For example, you may want to take photos for the school newsletter or invite journalists from local newspapers to attend.

◀ A parent and students from Heddon Bush School plant trees as part of their long term project to restore native bush at Horner's Donut.

The planting day...

On the day of the planting you will need some people in charge of:

- Showing helpers where to park
- Welcoming and guiding people to the meeting point
- Doing an introductory talk and health and safety briefing
- Doing a planting demonstration
- Telling helpers what to plant, where and how far apart
- Handing out plants and equipment

1



2

Start planting!



3

At the end of the event, thank everyone who helped and celebrate with a barbecue or a picnic!



From top:

- ▶ Environmental education officer Mark Oster demonstrates a good planting technique to students from New River Primary School.
- ▶ Environmental education officer Pat Hoffmann shows students from Southland Girls' High School how far apart to space the trees.
- ▶ Making an "H-cut" in preparation for planting.
- ▶ Students from Woodlands Primary School planting in spots that had been sprayed with herbicide four weeks before.



Follow-up maintenance



After the planting day you may need to do some follow-up maintenance at the site, for example:

1

- Spray and/or weed the site
- Children can participate by hand-pulling weeds and stomping long grass with their gumboots
- Straighten or remove plant protectors
- Check that stock can't access the site to eat or trample your plants
- Control animals pests

2

You may need to water the plants if they were planted in a dry site or during a drought. Mulching can help to prevent water loss.

3

After 3-6 months you should check plant survival:

- Remove and replace dead plants (called blanking)
- Try to work out the reason the plants died
- Keep good records of which plants died and why

4

Take note of any feedback from the planting project and record lessons you've learnt in preparation for the next stage of the project.

Special environmental days

Many schools plant trees to commemorate Arbor Day on 5 June. Here are some of the less well-known environmental days taking place in Term 2 this year. You can celebrate any of these special days by planting species that relate to the theme!

- ▶ **8 May** – *World Migratory Bird Day*
- ▶ **14 May** – *World Fair Trade Day*
- ▶ **21 May** – *World Fish Migration Day*
- ▶ **22 May** – *International Day for Biological Diversity*
- ▶ **5 June** – *World Environment Day*
- ▶ **15 June** – *Global Wind Day*
- ▶ **17 June** – *World Day to Combat Desertification and Drought*

More information

Environment Southland staff can provide information, advice and assistance with many aspects of school planting projects, e.g. planting plans, pest control and funding for environmental projects. Our education team can help with educational aspects of your project, including giving talks in class, assisting with field trips, and helping with planning. Visit our website for more information – www.es.govt.nz.

▲ A Woodlands Primary School student inspects the planting site to assess how many plants of each species survived.

Resources

Here is a selection of publications and websites providing helpful, practical information for planting projects.

- ▶ **Getting riparian planting right in Southland: your step-by-step guide for successful riparian planting** – Dairy NZ. (www.dairynz.co.nz/media/660475/dairynz-riparian-management-southland.pdf). This publication outlines a good technique for planting.
- ▶ **Protecting and restoring our natural heritage - a practical guide: a guide to the planning and management of restoration projects** – Department of Conservation, 2001. (www.doc.govt.nz/about-us/science-publications/conservation-publications/protecting-and-restoring-our-natural-heritage-a-practical-guide).
- ▶ **New Zealand Trust for Conservation Volunteers** (www.conservationvolunteers.org.nz) provides a web-based platform for environment groups, volunteers, and for all those interested in sustaining the environment. Their aim is to increase environmental awareness, encourage sharing of information and knowledge, and encourage community and overseas participation.
- ▶ **NZ Landcare Trust** (www.landcare.org.nz) works with farmers, landowners and community groups to improve the sustainability of our landscapes and waterways.
- ▶ **Community Urban Restoration and Education Guide (2015)** – NZ Landcare Trust. (www.landcare.org.nz/files/file/1560/CURE%20Guide.pdf). The guide is available in both printed and digital versions.
- ▶ **NZ Nature Services** (<http://natureservices.landcareresearch.co.nz/app/>) is a new online resource that provides valuable information when making decisions about which plant to use in which location.
- ▶ **NZ Plant Conservation Network** (www.nzpcn.org.nz) provides information about native plants and their conservation in New Zealand.
- ▶ **QEII National Trust Southland** (www.openspace.org.nz) helps private landowners protect special natural and cultural features on their land with open space covenants.
- ▶ **Native Forest Restoration: A Practical Guide for Landowners** (1993), by Tim Porteous, QEII National Trust Southland. This book is intended to both stimulate interest in restoration work and provide practical "how to" advice for individuals and organisations managing, restoring or recreating native bush in both urban and rural situations (www.openspace.org.nz/Site/Publications_resources/Handbooks_and_Guides.aspx).
- ▶ **Southland Ecological Restoration Network** (www.sern.org.nz) promotes Southland ecological restoration projects, and provides a network for community groups, volunteers and organisations.
- ▶ **Southland Community Nursery** (www.southlandcommunitynursery.org.nz) offers excellent information and advice for restoration projects, including looking after your patch, planning your project, growing and planting native species and more.
- ▶ **Trees for Survival** (www.tfsnz.org.nz) is an environmental education programme which involves young people growing and planting native trees. More than 120 schools and 5,000 students are involved in Trees for Survival and they plant over 70,000 trees each year. In their first 20 years they have planted more than a million trees!



▲ Students from Tokanui planting the banks of their local stream.

What's coming up?

FREE

teachers' workshop with renowned environmental education advocate and entomologist **Ruud (The Bugman) Kleinpaste**

- ▶ Sunday 15 May 2016, 9.30–11.30am
- ▶ Southland Community Nursery & Education Centre, 185 Grant Road, Otatara (parking at 183 Grant Road – follow the nursery signs).

Ruud will inspire and challenge participants as he leads us into the nursery's bush trails to do true inquiry learning in all curricular aspects. Come prepared for the outdoors – bring wet weather clothes and collecting jars, plus a notebook and pen or your own digital device.



Ruud Kleinpaste

▶ **Bookings are essential and numbers are limited. Please email Chris Rance at the Southland Community Nursery – rances@southlandcommunitynursery.org.nz (please put Ruud Workshop in subject line and copy email to mark.oster@es.govt.nz).**

www.southlandcommunitynursery.org.nz

ESTUARY WALKWAY PLANTING PROJECT

Would you like to participate in this exciting project?

Environment Southland has been planting native plants along the New River Estuary walkway between Invercargill and Bluff and we're inviting interested school groups to help.

We've already held four planting days this year and our next planting events will be held in terms three and four (see dates below). Sessions will run from 9.30am to 12.30pm and will include exciting opportunities for learning and fun in the outdoors.

Environment Southland will supply plants and spades, and our staff will give instructions and supervise the planting. We can take a maximum of 40 people per day.

PLEASE CHOOSE ONE OF THE FOLLOWING DATES

DATE	CANCELLATION DATE
Wednesday 24 August	Wednesday 31 August
Wednesday 14 Sept	Wednesday 21 Sept
Wednesday 19 October	Wednesday 26 October
Wednesday 23 November	Wednesday 30 November

▶ **Book your place by contacting our environmental education team – email education@es.govt.nz or phone 0800 76 88 45. Let us know your preferred date and how many students and adults you will be bringing.**