

# Habitat Restoration Tree Planting: Quick Facts

A guide to planning and implementing **restoration-focused** tree planting projects with public funding from the 2 Billion Trees (2BT) program in Atlantic Canada and the Wabanaki Forest.

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## 2 Billion Trees at a glance

Tree planting projects supported by the Natural Resources Canada (NRCan) 2BT program fall into three streams:

1. Mass Planting Stream (average 500,000 trees/year)
2. Small-Scale Planting Stream (average 50,000 trees/year)
3. Urban/Suburban Stream (average 10,000 trees/year)

To successfully implement a project of any size the main considerations are: **Site, Trees, Planters, and Reporting:**



## Site specifics

*What are you looking to restore?*

Sites should be selected based on suitability and need for restoration. Types of lands include:

- *Afforestation* in areas that have previously had tree cover, but have been managed for agriculture, mining or other intensive uses are priority for the 2BT program.
- *Riparian restoration*, such as adding or enhancing watercourse buffer zones.
- *Naturally-disturbed* areas impacted by fire, wind/hurricanes or insects.
- *Clearcuts that have not regenerated adequately* (or lack diverse species) and that are no longer within an intensive forest management cycle.

Once you have the type(s) of sites identified, think about how you are going to secure them. Are there long-term agreements with private landowners, or will your organization purchase the property outright? Remember that the 2BT program is not able to fund land acquisition at this time.

**Site evaluations** should be done to determine total area to be planted, ecosite class, and soil characteristics to inform tree species selection. Consider what density of trees you'll be planting (spacing between trees) and the total number of trees needed to restore the area.

*Will your sites need to be prepared for planting?*

Preparatory work (site preparation) involving machinery is an eligible expense under 2BT, however should be done on an as-needed basis only. There is a wide variety of techniques and each should be evaluated carefully based on the desired outcomes within a particular project site. Possible site preparation techniques include:

- Mechanical site preparation such as dragging or trenching to create plantable areas.
- Vegetation removal, including forms of competition control (e.g. mowing).
- Restorative silviculture in degraded forests to open up spaces for enrichment planting.



**In habitat restoration proposals**, site preparation should be minimized and only used when necessary to promote a diversity of species and/or reduce competition (e.g. invasive species control). All site preparation should be clearly laid out in 2BT proposals, and any changes to the initial plans should be discussed with Natural Resource Canada program officers.

2BT funding will also support soil amendments and intermediate species planting depending on the restoration project which can also be discussed with your NRCan program officer.

## Planning for Planting



*How do I select species?*

The 2BT program is focused on planting *the right tree in the right place* – but what does this mean exactly?

- Selecting tree species that are **ecologically-appropriate** for the planting site.
- Selecting tree species that are **resilient based on climate change projections**.
- Selecting tree species that will provide **environmental & biodiversity co-benefits**.



*How about shrubs?*

The 2BT program recognizes that shrubs are an essential part of habitat restoration, and can support tree survival and health. Shrubs are eligible to be included in project costs as long as they don't exceed 15% of the total project value or the total number of trees planted.



*What do I need to do when preparing my tree order?*

- Growing seedlings can take up to several years. Ensure that the timely delivery of your project agrees with the timelines of your nursery(s) and planting contractor. Order EARLY!
- Ask your tree supplier questions to be clear about what style of nursery pot the seedlings will be in. Make sure your planting contractor is aware as well because it will influence how they're handled.
- Unloading and storing trees can be labour, water and energy intensive. Stay in frequent communication with your nursery representative and contractor to make sure that trees are spending the least amount of time between leaving the nursery and being planted. Delivery timelines must correspond with stock handling considerations (below).
- Develop a comprehensive plan for delivery from nursery, transport to the site(s), and storage until planted. Enclosed trailers are ideal as wind will shock and dry out the seedlings. Whenever possible store trees on-site in the shade. If needed, create a shade shelter using special Sylvicool tarps which allows airflow to seedlings. NEVER store trees directly under a regular tarp without airflow as this will kill the seedlings. Water daily, or more if required (wind and heat will increase the need for watering).
- Hardwoods should not be placed in planting bags but should be planted directly out of the tray/container. Limit the number of trees in planting bags at one time, where possible, to avoid damage from crushing. Ensure trees are handled gently and (ideally) from the root ball rather than the sensitive tops.



## Paperwork for Planting

### Landowner Agreements:

There is no “one size fits all” landowner agreement. Develop a template which can be tailored to the goals of the project, and later modified to reflect the needs of the individual landowner(s).

Things to consider when developing landowner agreements:

- **Access:** who is responsible for any damage to the road/infrastructure? Is access through someone else’s property? Do they need to be asked as well?
- **Liability:** who is responsible for any incidents onsite. If using a planting contractor, ask for proof of liability insurance. If working with volunteers or staff ensure you have your own policies in place.
- **Tree Care:** Is the landowner expected to care for trees in any way (before or after planting), and for what duration?
- **Monitoring:** How is monitoring and future work going to be communicated? Will further contracts need to be made?

SAFETY!

Did you know? In Nova Scotia the **Forest Safety Society** offers courses and advice for operations:

<https://fss.ns.ca/>

### Contractor Agreements:

Look to other organizations that have run similar projects, or ask local forestry professionals and groups (“Wood Marketing Boards” in NB, “Woodlot Owner Groups” in NS) when seeking out planting contractors and developing agreements.

**Direct experience with restoration-focused tree planting** in particular, or additional training, will be necessary. Remember that conventional tree planting operations are optimized for high volumes and speed of planting, and this can sometimes conflict with your restoration operations. A contractor inexperienced with restoration-focused tree planting may still be a great option, so long as they understand that “business as usual” is inadequate and they demonstrate enthusiasm and competence by asking the right questions about your specific needs.



- **Determining a fair price.** To determine a fair price, the contractor will need you to help them determine the specific tree varieties and sizes, stock handling considerations, transportation and storage logistics, site details, and other key aspects of your project. A per-tree price, though standard in industrial forestry, should only be expected for large projects and only once the contractor has been fully briefed on all project details. Keep in mind that every project is different. There is no “going rate” for this type of work.
- **Legal agreements.** Local forestry professionals and groups often have contract templates available to use if you or your contractor don’t already have those available. Ask for proof of liability insurance and worker’s compensation if appropriate. Make sure to have a contract in place in advance of your planting season and continue to communicate frequently through its delivery as logistics and timing can shift quickly. Establish who the key contact people will be to ensure open and clear communication. Remember that a planting contractor shouldn’t be expected to incorporate training or hosting staff or volunteers unless that’s specifically agreed on beforehand and outlined in the contract (because it creates additional work for them to manage).



## Follow-up and long-term monitoring

Planted trees should be monitored for survival rates and health at least for the duration of the 2BT program (up to March 31, 2031). Costs associated with monitoring during this time are eligible for reimbursement. Although costs associated with monitoring beyond the 2BT program end date are not eligible for funding, participants are encouraged to develop effective longer term monitoring strategies to ensure the trees they plant grow into healthy forests over time.

### *What about tending and fill-planting?*

In-fill or enrichment planting (adding new trees around existing ones to increase diversity or tree density) are valuable activities that can add considerable ecological integrity to degraded sites. All in-fill activities must have the primary objective to support enduring climate resilience, restoration, or biodiversity. In-fill planting should not be used to carry out business as usual forest management or be part of legal obligations to regenerate forests.





## More information?

### *A selection of tree seedling sources:*

[Springfield Trees](#) (Jamie Floyd)

[Liberty Tree Nursery](#) (Jesse Saindon)

[Scott and Stewart Forestry](#)

[Charlie the Tree Guy](#)

[Arbor Nursery](#)

T&D Nursery (Debbie Reeves: New Ross, NS 902-689-2737)

[Kingsclear Tree Nursery \(Government\)](#)

[J. Frank Gaudet Tree Nursery \(Government\)](#)

[Strathlorne Nursery \(Government\)](#)

### *Some recommended tree protection options:*

[Tree Sentry](#)

[Plantra Grow Tubes](#)

*(limited quantities currently available from the Southern New Brunswick Forest Products Marketing Board for \$10 each plus tax)*

[Monach Zipset Grow Tubes](#)

[Blue-X Tube \(Agri-flex\)](#) *(available in Canada)*

### *Understanding planting as a method of restoration:*

[Community Forests International restoration planting infographic](#)

[Community Forests International's Our Changing Forest Video Series](#)

[Nature Conservancy Canada's New England-Acadian Forest Restoration: A Landowner's Guide to Theory.](#)

[Tree Canada Planting Guide](#)

