



Tree planting and woodland creation



Urban Woodland Management series

This guide is one of a series produced by the Woodland Trust, the UK's leading woodland conservation charity, as a resource for managers creating or managing urban woods. These *Urban Woodland Management Guides* are based on the Trust's many years' experience of managing such sites across the UK and have been written by experienced urban woodland site managers.

From a management perspective, 'urban' woods are probably best defined as those that suffer a high level of public use and misuse. These pressures are often no different to those in any other wood with public access. However the key difference between urban sites and those in a more rural situation is both the sheer scale of pressure and public's expectations of site management.

Woods can be used not only for informal recreation but also as children's playgrounds and through routes to shops, work or school. Due to their proximity to housing, minor encroachments, garden dumping, vandalism and complaints about weeds can become commonplace. This can result in high workloads and loss of motivation for site managers and high management costs merely to maintain the *status quo*. These guides outline strategies that the Woodland Trust has implemented to deal with such problems with both proactive and reactive approaches.

The Trust welcomes feedback on these guides, including different tactics you or your organisation may have tried, so that the contents remain as relevant and up to date as possible. Please e-mail the Trust at:

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Copies of this guide and others in the series can be downloaded from the Trust's website: **www.woodland-trust.org.uk**

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Introduction

Trees and forests are crucial to life on our planet. They generate oxygen, store carbon, play host to a spectacular variety of wildlife and provide us with raw materials and shelter. Trees growing in urban areas can enhance the appearance of a neighbourhood, increase property values, attract birds and other wildlife, cleanse the air of pollutants and provide children with an exciting environment in which to play. Studies have also shown that they can enhance our mood, reduce stress and even influence our recovery from surgery.

Any individual, community group, business or statutory provider could carry out tree planting or an urban woodland creation project with some careful planning. This guide provides an outline of the issues that need to be considered when drawing up a plan of action to plant trees and create woods in towns and cities. The silvicultural principles for tree planting in urban or rural areas differ little, but the creation and maintenance of urban woodland needs some special considerations. More thought has to be given to the effects both on and of people. Each could be a book in itself and the 'Further reading' gives more reference material.

Objectives

It is important to be clear about your objectives from the beginning as this will help you to choose the type of feature, location, tree species and the level of involvement of other people.

Do you wish to plant trees to increase the range of plants and animals – the biodiversity – of the area, provide shelter, enhance the view, provide an area for public recreation, help clean the air or absorb water and reduce run-off?

Remember it may not be possible to cover every objective on one site.

- Hedges can screen or protect boundaries while providing corridors for wildlife and softening harsh environments.
- Single trees and clumps can form features in the centre of grassy open areas. Eventually they will develop into splendid parkland trees with an open



◁ Trees planted in open areas can develop to their full potential with magnificent spreading canopies.

canopy. Even a single conifer can become a community Christmas tree decorated each year in situ.

- Avenues of trees in open green areas or along road edges will form neighbourhood features of the future.
- Orchards can provide a resource for the community – apples and pears can be eaten straight from the tree, while crab apples, elderberries, rowan berries and blackthorn sloes can be used to make a variety of drinks and jams.
- Mazes can provide great entertainment for all ages – they should be created from species that retain their leaves in the winter such as yew, beech or hornbeam.
- Living willow features, such as tunnels and huts, can create a fun place for children to play. New growth can be woven into the structure each year and this helps to maintain its shape and strength.
- Woodland is a wonderful place for walking and a rich habitat for birds and other animals. Small trees only a metre high when planted will reach head height and provide a woodland experience in five years.



◁ Woods are a wonderful place for walking and young trees can quickly provide a woodland experience.

Selection of the site

Integral to the decision as to what type of feature to create will be the locations you have on which to plant trees. From experience, the Woodland Trust has found that a new wood will have more of a chance of success if it is created at the edge rather than the middle of an urban area. Here it is not the centre of attention and the young trees will have a chance to establish. However in the UK, urban areas continue to spread and housing may quickly surround a small wood created on an urban edge increasing the pressure on the woodland. It is wise to consider this in your design.

Planning permission is not required to plant trees or create a wood as it is classed as an agricultural activity and there is no change of use. But it is worth seeking the support and possibly help of your local authority.

Other issues which need to be considered include:

Site ownership

The owner could be the local council, a housing association, an individual or a business. If you do not know who owns the land, ask a knowledgeable local or seek advice from your council or land registry office. You will need the landowner's permission before starting on any tree-planting project. You may also want some assurance that the land will be retained as open space and not be developed in the future. It is also worth discussing maintenance at this stage. Many organisations purchase or set up a long-term lease perhaps with a peppercorn rent; these type of agreement can take several months to agree and you will be given legal responsibilities.

Suitability of site for trees

It is important to survey the site and to base your design and tree selection on the findings. Dig a selection of holes across the plot to find out what is beneath the surface. Record where there are areas of rock, rubble, deep soil, clay, sand, open water, compaction, pollution, existing vegetation and wild flowers. Specialist soil analysis may be required on some sites, particularly if they were formerly used for landfill or waste disposal. Look at what tree species, if any, already seem to be doing well on the site or in the immediate vicinity. If you do not feel confident to assess the site, it is essential to seek advice, such as from a local tree nursery, at this critical stage to suggest suitable species.

Existing wildlife value

A wildlife-rich grassland, wetland or heathland site may not be appropriate for tree planting, although some trees may improve the existing habitat. If in doubt, seek specialist advice such as from the local Wildlife Trust.

Pipes and cables, roads, fixtures and archaeological features

Services need to be considered as they may well be a constraint to tree planting and could be hazardous. Service providers often require access to their pipes and cables, and may have clear standards for tree planting within the service route. It is also important not to disturb any archaeological features. Write letters to service providers – electricity, gas, telephone, street lighting, digital television, – and the local government department responsible for archaeology (see Appendix One for a sample letter). Explain the scheme (with a map attached) and ask whether they have any services in the vicinity that need to be avoided or incorporated into the design. You may need to chase them up for a response. If in doubt, request a site meeting.

Proximity to houses and buildings

Your choice of trees should consider their proximity to houses as some species can reach a significant height with roots spreading a long way. Match tree species

with the location to ensure that they will not obscure a favourite view, shade houses or that their roots will not damage foundations, drains or roads.

Mature trees

Do not choose a site where the new trees will be in the shade or competing with roots of existing mature trees – the newly planted trees will struggle to grow.

The wider picture

View any site as one piece in a larger jigsaw of the whole landscape. Paths should ideally form part of a wider network and existing trees and other habitats link to form ‘green corridors’.

Public consultation



◁Work in partnership with the local community and involve people at the planning stage of any large tree-planting project.

The level of public consultation will depend on the size of the project and the overall objectives. With larger projects it is advisable to advertise your plans and involve local people from the start. This will provide an opportunity to agree shared objectives and sorted out potential conflicts – the local ‘grapevine’ is a highly effective medium for picking up any concerns.

Working in partnership with the community can develop a sense of responsibility for and ownership of the new wood, often providing a platform for continued involvement. People may commit their time, expertise, equipment or finances in the short or long term. A local champion (supporter) or committed group is the ultimate aim.

Choose a method that will suit the community. A different approach may be needed for the initial consultation and the later design phase of the project. A selection of ways to involve people could include:

- An informal walk around the site with local people at the beginning of the project.

- A public meeting or meeting of enthusiasts can bring together a host of ideas, dispel concerns and build support. Such meetings require a good chairperson and need clear objectives from the start.
- Questionnaires or site plans placed in a local library or shop allow people to put forward their own ideas and keep up-to-date without attending meetings.
- A three-dimensional model will help people visualise the woodland.
- A ‘community planning’ exercise can help people to understand the costs, opportunities and constraints involved in site design.
- Fliers posted through doors of adjacent houses will inform neighbours of plans and seek their views.
- Newspaper articles can draw in specialists or interested parties from further afield, while keeping locals informed of progress.
- Keep local councillors and community representatives informed of progress as they will be asked about the tree-planting scheme at meetings.



◁A three-dimensional model helps people visualise the mature woodland.

Site design

The three underpinning factors to consider throughout the design process are environmental impacts, creation costs and maintenance costs.

Planning permission is not required for woodland creation, but the Forestry Commission and Forest Service may require an Environmental Impact Assessment for larger schemes.

Aside from this grant requirement, any responsible body or group should carry out an environmental assessment for each operation considered, screening for potential adverse impacts on the existing environmental features of the site and its surroundings, such as badgers, birds’ nesting sites, ground flora and watercourses. Consider the operation itself and the time of year it will be carried

out. To lessen an impact, it may be possible to relocate a path route, alter the timing of an operation or reduce the use of a chemical.

Think about how the planting will look both in the short-term and way into the future. Also consider the layout within the wood itself and how it blends into the surrounding landscape, drawing the design on to an aerial photograph will help with this. Assess, at this stage, how much maintenance each feature will require, and design with safety in mind such as locating paths away from roads, steep drops and water.

Some of the specific issues you could consider at the design stage are as follows:

- In a woodland setting, single species are best planted in blocks of a minimum of 25 trees, feathered at the edges to blend into the next block; intimate mixtures can be difficult to manage. Try to avoid unnatural, geometric patterns.
- Straight lines of trees are easier to maintain in the short-term but can look regimented, planting in wavy lines can reduce this formal appearance. However the trees will thin themselves over time and develop a more natural pattern, perhaps aided by thinning or restructuring during the maintenance period.
- Scalloped woodland edges blend more naturally into the landscape and the edges themselves are important wildlife habitats.
- Remember how wide a tree or hedge will grow. Where you plant that tiny twig will be the centre of a 15-metre diameter mature parkland tree or a 1-metre-wide hedge. Bear this in mind when planting beside roads, boundaries or paths.
- Open space can be important for wildlife, landscape and recreation. However remember it will have to be maintained.
- Blackthorn, holly, gorse and hawthorn provide effective natural barriers, such as at path intersections or on the outside of bends to guide and deflect walkers. Gorse however can be prone to arson.
- Shrubs and smaller trees planted along paths and boundaries will give a wood a more diverse and colourful appearance, as well as providing a graded edge that more closely mimics natural woodland.
- Large, standard, specimen trees can be planted sparingly to accentuate viewpoints and create early structure and impact in a newly planted wood. But remember the smaller trees will eventually become the same size.
- Design good access for maintenance vehicles. For large sites consider laying out a network of rides for timber extraction.

- Remember that signage will attract vandalism-is it required at all? However most funding bodies will require a credit somewhere on site and the public may need to be reassured that the woodland has open access.
- Woodland ground flora can be a spectacular sight in springtime. Ancient semi-natural woodland supports a rich community of wild flowers, mosses, lichens and fungi. It is not possible to re-create this natural diversity, and on an urban site you are likely to be starting with a bare area of grass with your newly planted whips poking out of the ground. If the site was wooded in the past, flowers such as bluebells or wood anemones may appear over time. Plants will also colonise from surrounding hedges or be transported by animals, but many prefer shade and will not appear until the canopy has closed. Wild flowers can also be introduced as seed or small plants. Daffodil, snowdrop and crocus bulbs, while not native, will provide early spring colour in urban settings.

Public access



◁The routes through a wood need to be decided at the design stage, wide, long curving paths provide visitors with a greater feeling of safety.

It is essential to decide at the design stage whether you wish to provide public access through your planting. It gives people the opportunity to enjoy the area, however, it will also open the area to vandalism, probably become your largest maintenance cost and require public safety considerations. If you decide to provide public access, consider the following:

- Paths should follow existing 'desire lines' where people traditionally walk through the area. Official Rights of Way are the responsibility of the local council. Consult their access officer, as these will need to be incorporated at the design stage.

- Avoid wet areas that require costly drainage or infrastructure.
- Wide paths with long curves allow visitors a greater feeling of safety.
- Access for all – prams, double buggies and wheelchair users – should always be considered wherever practical.
- Decide whether to allow horses and bicycles on the paths.
- The choice to surface a path will depend on the ambience you want to achieve, the level of use and the budget. Grass paths may become muddy – a normal woodland experience – while surfaced ones create a more formal environment. Gravel is less invasive than tarmac but requires repair more frequently.
- Planning permission is normally required for the creation of new pedestrian entrances or access for management leading on to public roads and footpaths. Seek advice from your local highways authority.
- Provision of public access puts the responsibility of visitor safety on to the owner. Risk assessments must be carried out and the owner must have public liability insurance.

Species choice

In rural areas existing woodland can be expanded or adjacent new woods created by natural regeneration, but this is seldom an option in urban areas. In choosing the type of trees to plant consider:

1. Which species

The most suitable tree species should have become evident in the site survey. It will depend on soil type and moisture content, aspect and local climate. Take advice on suitability from a local tree supplier, look at what grows well in the neighbourhood or seek further information from one of the recommended books on page 23.

2. Size and growth rate

How large will the trees become when they are mature? Will they suit the space available, shade houses or the roots affect foundations and roads. How quickly do you want the tree to grow and how long would you like it to survive? In general the quicker the growth rate the shorter the lifespan.

3. Colour and flowers

Flowers, berries, autumn colours and green needles in winter, what effect are you looking for throughout the seasons? Also consider bark colour and tree shape.



<The autumn berries of rowan provide winter food supplies for birds, in particular thrushes.

4. Local provenance and native trees

Native trees grown from seed of local provenance will have a pattern of flowering and fruiting more in tune with the lifecycles of our native birds and other wildlife and will therefore be of greater benefit. Ideally seed should be gathered from a local ancient wood (with permission), come from the next closest source for collection or be available at the local tree nursery. Local seed can be grown in pots or sown directly on site. In an urban wood, however, there may be merit in not being too purist. Introduced trees, such as horse chestnut, walnut or a giant sequoia, can add interest.

5. Food and wood products

Would you like to produce a crop from the trees? Conkers from the horse chestnut, apples from an orchard, cones from a pine, elderberries or sloes to make wine, wood for timber or firewood, willow for craftwork, hazel for bean poles or spruce for Christmas trees.

6. Evergreens

Yew and holly are usually bought in pots and are therefore more expensive. They make lovely evergreen features but may well go missing and end up in people's gardens.

7. Leaf drop

It is wise not to plant trees that drop large amounts of leaves too close to small ponds or playing fields.

Ground preparation

Different tree varieties require specific conditions but good ground preparation prior to planting can improve the success rate and reduce the need for maintenance and replacement. Trees require a suitable soil substrate, water, light and nutrients to grow. The ground can be prepared to improve soil drainage and structure and to decrease competition for light, water and nutrients from other plants. It is particularly important where the soil is compacted, drainage is poor or where a dense and high grass sward exists; these will reduce tree growth and survival rates. If you are planting on a ploughed field, consider preparation to help establish ground cover, on other sites you may choose simply to plant straight into the ground.

- Ripping can be a useful method for large areas. It breaks up densely compacted soils that are often found in urban areas, but be aware it can break up land drains and unearth services.
- Mounding can reduce weed competition in the first year. A mound of soil is created using a digger and the tree planted into this. This can also be useful in poorly drained areas, however, there is the danger of the pile of soil becoming too dry and the roots being 'fried' in the sun.
- Drain creation can improve the drainage across the site.
- A dense grass sward can be mowed prior to planting to make the job easier but the resultant rapid growth will increase the competition for nutrients and water. Mowing a wavy row for planting or spot strimming is preferable to cutting the whole site. The latter is the most labour intensive but the best option where vandalism may be a problem as the temptation to walk along a row of cut grass and pull out each tree is often great.
- Spot spraying with herbicide prior to planting is an alternative to grass cutting. It removes all competition for light, nutrients and water, and allows the tree to be planted more easily into the ground, while mowing only removes competition for light but makes planting simpler. Spraying the whole site may be less effort, but a dead, brown area is particularly unattractive and the overuse of chemicals should have been identified as unreasonable in your environmental impact assessment.
- It is particularly difficult to establish trees in areas of bracken, laurel or rhododendron growth as they leave noxious chemicals in the soil. In this situation, and on sites where an agricultural crop was previously grown, it may be wise to re-seed the area with a low vigour grass mix, and leave it to establish for at least a year prior to tree planting. This will greatly reduce the need for weed control once the trees are planted.

Planting techniques and stocking densities

Spacing

- To plant specimen trees, determine how far apart you want the trees to be when mature. Then decide whether to plant the exact number required or a group that will be thinned in the future retaining the most healthy individuals.
- To create a hedge, plant trees in a staggered double row 20cm apart.
- To create an urban wood, the size and the planting density of the trees will depend on whether you want instant impact or slow evolution that might be missed by vandals.

Spacing (metres)	Trees per hectare
3	1,111
2.5	1,600
2	2,500
1.5	4,444
1	10,000

High stocking rates can be used to speed up the canopy closure and gain ‘control’ of a site more rapidly, especially on weedy sites to keep down maintenance costs or where rabbits may cause high losses. One to two year-old trees (40–100cm) planted at 2–2.5 metre spacing is the most common ‘formula’ providing reasonably rapid canopy closure. Older, taller trees will cost disproportionately more, grow more slowly when first transplanted and have a lower survival rate. They are also targets for vandals and may need to be secured to prevent them falling over.

Planting

There are many books (including those on gardening) that describe tree-planting methods in great detail. Plant single trees using either pit planting (digging a big hole) for larger trees or notch planting (cutting a slit in the ground and poking the roots in) for smaller trees. Large areas can be planted mechanically.

The most important points to remember are:

- Don’t let the roots dry out while trees are waiting to be planted.
- Ensure that the tree is planted to the same depth as in its nursery soil –

up to the root collar.

- Trees should be heeled in firmly afterwards.
- Recheck the trees soon after planting and firm up any which have fallen over.

Bare-rooted trees (not in a pot) from a tree nursery are less expensive than 'containerised' (potted) ones from garden centres. The former can be bought during the tree-planting season (November to March, after leaf fall and when trees are dormant). Trees also transplant more successfully during this winter period. Avoid days when snow is on the ground or a deep frost. Use of containerised or cell-grown stock will extend the planting season. These are produced in biodegradable paper pots or grown as plugs in special plastic cells.

Maintenance and establishment

It is prudent to consider the maintenance of the whole area at the design stage. Who will maintain the trees, any tree protection, paths and visitor features? If none of the trees survive, those involved will be disappointed and you might be required to pay back any grants received. The first five years are crucial for establishing the trees themselves. During this period they are most vulnerable to competition for light, nutrients and water, and provide the most juicy and tender meal for animals. After this time the canopy will shade the ground reducing competition from other plants and the tree stems will have become less susceptible to pest damage.

Trees may die or go missing due to natural death, pest damage or vandalism. You need to decide what percentage loss you or the funding providers are willing to accept before replacing trees. Beat-up (replacing trees that have died in the first few years after planting) can be built into a five-year creation and maintenance contract as a percentage replacement per year, for example five per cent per year. This encourages the contractor to ensure the trees are well planted and maintained.

When designing your public access and open-space features, keep your plan simple so that maintenance is minimised. Choose robust features or ones that are cheap to replace or a combination of both.

Planting to year five

Noxious weeds such as ragwort, thistles, dock and giant hogweed are notifiable weeds that you have a duty to control adjacent to agricultural land. Where they are likely to occur, try a higher planting density to achieve a faster canopy closure as they may require chemical treatment until they can be controlled naturally.

Weed-free ring



<Spraying with chemicals is one of the ways of maintaining a weed-free ring.

It is usually necessary to maintain a weed-free ring of 1 metre diameter around young trees for the first three years. This reduces the competition for light, nutrients and water and therefore enhances the tree's growth rate and chance of survival. It can also give the tree a safety zone where vandals burn long grass. A weed-free ring can be created in a number of ways including chemical application, mulching and physical weeding. In some instances, especially where vandalism is high, it may be best not to weed but allow the grass to grow around the trees to hide them during their early stages of development. This will mean up to a 50 per cent loss of the trees through weed competition, but maybe more desirable than losing a higher proportion through vandalism.

Physical weeding by hand or strimmer is the least effective method. A strimmer can be very damaging, as any bark removed will increase stress and can ultimately cause death. If strimming is the best option, use small strimmer guards to protect the trees. Physical weeding reduces the competition for light but may increase it for nutrients and water as, once cut, the grass tends to grow back more vigorously. Grass cutting the whole site only makes an area look 'tidy' and, as with physical weeding, increases the competition for nutrients and water.

Chemical weeding and mulching reduce the competition for light, nutrients and water. The choice between chemical application and mulching is one of time (therefore finance) and environmental impact. If a contractor is employed, chemical weeding will reduce costs as it takes less time. Chemical applications will be needed once or twice a year either by spray or as granules and can only be applied by trained individuals. Ensure that only chemicals thought to cause minimum long-term damage to the environment are used.

Mulching can be carried out by people with a minimum of training, and the weed-free ring can be created using a thick layer of bark chips, squares of carpet,

mulch mats or grass cuttings. Mulch mats need to be heavy enough not to blow away and to press down on the vegetation beneath until it rots. Bark chips or grass cuttings may need to be topped up annually, while mulch mats and carpet should be checked regularly and put back in place.

Tree support and protection

Tree shelters should only be used in urban areas where the young trees are in severe risk of being nibbled by deer, rabbits, hares or voles as children love to pull them off. Voles and rabbits like to nibble the tender bark, while hares and deer nip the whole juicy top off.

If a shelter is absolutely necessary, consider the types available. Spiral guards/vole guards offer protection from rabbits and voles (but not deer and hares) and attract less attention from children. Tubes can be used to give protection from hares and deer and, if supported by a wooden stake securely hammered into the ground, are difficult to remove; thin metal stakes are the most tempting and dangerous for children to pull out and play with. In some cases, where tubes or guards are likely to attract attention from vandals, it might be worth not protecting the trees and accepting natural losses.

For larger areas (generally anything more than 3 hectares) it is often cheaper to use fencing to exclude animals, rather than individual tree protection. Tree-planted areas can also be fenced to delineate planting areas or discourage pedestrian access. If fencing is appropriate, consider its impact on the landscape and what you are trying to keep out. Chestnut paling looks rustic and will discourage pedestrian use; stock-netting will discourage larger animals and pedestrians; rabbit-proof fencing requires much smaller gauge wire that must be buried below ground; while deer fencing must be at least 2 metres in height. In some circumstances planning permission may be needed for fences and you should check with your local authority if in doubt.

Large specimen trees are often planted with a stake to help stabilise them until the root network develops. These should be hammered into the hole at an angle; the tree can then be planted and attached to the stake with a flexible tree tie. This should be checked annually and loosened or removed to ensure it does not thwart the tree's growth.

Vandalism

Urban Woodland Management Guide 1: Damage and Misuse deals with this topic more fully. It is an intrinsic problem in urban areas, so don't become too despondent. People soon become bored once a newly planted area loses its novelty value. If trees are pulled out of the ground, try to replant them as quickly

as possible – either with the one that was pulled out or a replacement.

If the trees are snapped off, snip the broken end off with secateurs just above a bud or branch and it may sprout again from further down the stem. Some species will re-grow more easily than others; willow in particular can take a lot of abuse and will keep on growing.

Thorny shrubs can deter vandals, while nettles and brambles can discourage access to undisturbed areas for wildlife, however, they can cause problems with neighbours or may be seen as untidy by some.

Year five onwards

From year five onwards the trees will require little annual maintenance, but associated paths or visitor features may require continued attention.

A tree should survive and flourish without pruning, however, formative pruning may improve its form and produce better timber in the long-term, if this is one of your objectives. If trees are snapped off, singling of leaders in any re-growth might be necessary. This will also show that the area is being looked after – numerous snapped-off trees with dangling tops will only encourage more of the same treatment.

Tree shelters, stakes and tree ties should be removed when they are no longer needed for support and protection.

Over time blocks of trees will thin naturally or can be thinned manually to leave one or two specimens of each species in a block. At around year 15-20, trees can be thinned to open up dense stands and let more light on to the woodland floor. Log piles can be created to encourage dead-wood insects and other wildlife, or some income can be generated by selling the wood for firewood or stakes.

Costs

The financial resources needed to carry out tree planting and woodland creation projects in urban areas and their subsequent maintenance can be considered under three headings: acquisition, creation and maintenance. Additional to these may be administration, accountancy fees and fundraising costs.

1. Acquisition costs:

This will include any costs incurred in acquiring or leasing the land. It may include legal, land valuation and site survey fees, costs of maps and the price of the land itself.

2. Creation costs:

This will include the costs of community consultation, design drawings, ground preparation, trees and tree protection, access infrastructure, contractors or machinery hire, signage, public liability insurance and any events.

3. Maintenance costs:

This will include the maintenance of weed-free rings, replacement of failed trees, repair of damage caused by vandalism (trees, shelters, fencing), maintenance of visitor and access features, litter clearance and public liability insurance.

Some Typical Costs for a Woodland Creation Project (2002):

Consultancy fees (design drawings, surveys, event supervision)	£100–£300 per day
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Site preparation	
• Ripping or mounding	£100 per ha
• Establishment of low vigour grass sward	£200 per ha

Trees from tree nurseries	
• 1–2 year transplants	£0.50–£1 per tree
• Root trained	£0.50–£1 per tree
• 2–3m standards.....	£5–£15 per tree

Tree planting	£0.50–£1 per tree
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Shelters	
• Spiral shelter	£0.10–£0.20 per tree
• Tube + stake + tie.....	£1 per tree

Fencing	
• Chestnut paling.....	£5–£10 per m
• Post and rail.....	£8–£15 per m
• Post and wire	£2.50–£3.50 per m
• Rabbit proof.....	£2.50–£5 per m
• Deer proof.....	£6–£10 per m

Paths	
• Grass path cutting	£0.10 per m ²
• Hardcore path creation	£10–£15 per m ²

Entrances	
• Management gate	£200–£300 each
• Kissing gate	£150–£300 each

Chemical weed-free ring	£0.06–£0.15 per tree per year
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Mulch mat	£0.50–£1 per tree
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Litter collection	up to £100 per day
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Financing the project

There are a number of ways to help finance tree planting and woodland creation in urban areas.

- Many councils and housing associations have an annual budget for planting trees or access provision on their land. If you are planting on their land, they may be able to provide the plants and will be responsible for their long-term maintenance.
- Local people may be interested in sponsoring a tree.
- Local business may be willing to donate money or materials.
- Local groups or schools can carry out fundraising projects.
- There are a host of charitable trusts, government departments, Lottery bodies, council departments, European agencies and businesses that will fund projects focussing on issues such as urban regeneration, tree planting, environmental improvement or community development.
- Help in kind: a number of the bodies listed above will recognise 'help in kind' as part of the matched funding for a project. Volunteer time and gifts of land, materials, machinery or services can be given a value and then matched against the funding offered by organisations such as the Lottery.

Consider carefully the opportunities and obligations attached to offers of financial support.

- Will you have to pay back funding (perhaps with interest) if the trees do not establish?
- What do the sponsors require from you in the form of publicity, signage on site, tree establishment or reports?
- Are there any restrictions on matched funding from government bodies or lottery sources? Most Lottery-based grants must show an element of match funding and for many government grants you must confirm that you are not receiving double funding from another government department.
- Will you require a separate bank account and audited accounts for the project?
- Is the sponsorship dependent on time constraints or deadlines?
- What are you willing and able to commit yourself to? The Forestry Commission/Forest Service, through their Woodland Grant Schemes (WGS), provide grants for the creation of new woodland. These schemes vary between countries, regions and over time. Contact your local Forestry Commission/Forest Service office for details of schemes that apply to your

area. All these schemes require that the trees are established satisfactorily or the grant may be reclaimed with interest.

Plan carefully how to promote the funding opportunity to the potential sponsors. Phrase your applications and conversations appropriately to suit the ideals and criteria of prospective sponsors. What will each fund? Many sponsors will find woodland creation and public involvement an attractive proposition while funding the maintenance phase may not appeal.

Allocate time for fundraising and preparing the funding applications when planning the project. Often work must not start until the grant has been approved. Many grants will be paid only following satisfactory completion of the work or on production of paid invoices or bank statements. Consider therefore how you will pay for the goods and services prior to receiving any grant aid.



◁Tree planting and interest in the environment can start at an early age.

Community events

Community events such as seed collecting, tree planting or a final celebration event are a good way to make more local people aware of their environment and encourage them to improve their neighbourhood. You may choose selected groups of people, such as a class of schoolchildren, or promote the event to the whole community through posters and press articles. A number of points need to be covered.

1. Public Liability Insurance

Adequate insurance cover is required to involve local people in practical conservation events. This can often be achieved through affiliation to a registered community group, local council, school, contractor, the British Trust for Conservation Volunteers or Conservation Volunteers Northern Ireland.

2. Preparing a risk assessment

This should examine first-aid provision, training of event leaders and a talk about

how to use the tools for the job. Training can be gained through one of the groups or volunteer organisations mentioned above, or it may be possible to get training on the job from the contractors planting the wood.

3. Delivery of the trees

A tree nursery may deliver the trees to the planting site for an additional fee. If they need to be stored before use, ensure their roots do not dry out or are affected by frost. They can be 'heeled in' (stuck in bundles in a soil bed at sufficient depth to prevent frost damage to the roots) or kept in a bag stored in a cool place.

4. Planning the planting

Whether 10 or 100 people are attending the event, you will need to organise the planting. Mark out the location for individual trees with bamboo canes or similar before the event starts. To make certain the right tree goes in the correct hole, consider colour coding the canes. Individual bags of trees can also be coloured – like painting by numbers. Marking out where the secondary and shrub species are to go first to define the edge of the planting blocks. Then fill in the blocks of larger canopy species.

5. Tools

People can bring their own spades or a local conservation group may lend you a selection. Small spades are easier for young children to use. Bare-root trees from a nursery usually come tied together in clumps of 50-100, don't forget a knife or pair of scissors will be needed to cut the cord.

6. Suitable clothing

Tree planting and mud go hand in hand – recommend people wear their old clothes, waterproofs and a pair of Wellingtons in any of your notices or local news releases.

7. Organisation on the day

Find a good leader and supervisors to make the day run smoothly. Organise parking if necessary.

8. Refreshments

Providing refreshments at the end of the tree-planting event is a good way to involve the community. However whether serving food outdoors or indoors people will need to be able to wash their hands before they eat a biscuit or crisps.

9. Naming a tree

This can encourage or discourage vandalism. Ownership of a group of trees is preferably as if one dies or is thinned out people can still come back and see how the group has grown.

10. Tidying up

Don't underestimate the time this will take.

Press and public relations

Whether seeking public support, donations, reduced vandalism or reporting on progress, local newspapers, radio stations and television channels are there to inform the public about what is happening in their area and should be pleased to hear from you. A local photographer or television crew may be attracted to an event with a number of interesting activities. Remember to thank your sponsors in any news releases.

Conclusion

Trees and woods are long-lived habitats that change and develop over time. Throughout your planning, always keep sight of your original objectives and the long-term maintenance of the trees or woodland.

Further reading

BTCV publications

Trees and Aftercare: a practical handbook.

Woodlands: a practical handbook.

Hedging: a practical handbook.

Our Native Trees: A Guide to Growing Northern Ireland's Native Trees from Seed.
Conservation Volunteers Northern Ireland.

Forestry Commission publications

Community Woodland Design Guidelines. 1991.

Davies, R.J. 1987. *Trees and Weeds: weed control for successful tree establishment* (Handbook 2).

Hibberd, B.G. 1989. *Urban Forestry Practice* (Handbook 5).

Hodge, S.J. 1995. *Creating and managing woodlands around towns* (Handbook 11).

Rodwell, R.S. 1994. *Creating New Native Woodland* (Bulletin 112).

Woodland Trust publications

New woods for people.

Other publications

Emery, M. 1996. *Promoting nature in cities and towns.* Croom Helm for Ecological Parks Trust.

Appendix 1

Example letter to service providers or historic monuments agency

(Your address)

(Address of organisation to be contacted)

(Date)

Dear (add name),

Our organisation, (add name), plans to create a new wood at (area town/village), grid reference (add grid reference). I enclose a map of the site, outlined by the red line, and would be grateful if you could indicate any archaeological features/services within or adjacent to this area and return it to me by (insert date).

It would also be valuable if you could enclose any recommendations as to:

1. Whether you require access to any of these features;
2. The responsibilities associated with these features;
3. How close trees and shrubs can be planted to these features.

This information will give us the flexibility to work around the features and assess the risks on site, which should help all those concerned with the management of both these features and the site.

If you have any queries or would like to discuss the sites in more detail, please contact (add contact and telephone number).

Yours sincerely

(Name)

(Position in your organisation)

Enc: Map of site

Useful contacts

Forestry Commission

231 Corstorphine Road, Edinburgh, Scotland EH12 7AT.

telephone: 0845 3673787

e-mail: enquiries@forestry.gsi.gov.uk

website: www.forestry.gov.uk

Forest Service of Northern Ireland

Dundonald House, Upper Newtownards Road, Belfast BT4 3SB.

telephone: 02890 524480

e-mail: customer.forests-service@dardni.gov.uk

website: www.forests-service-ni.gov.uk

National Urban Forest Unit

The Science Park, Stafford Road, Wolverhampton, WN10 9RT.

telephone: 01902 828600

e-mail: info@nufu.org.uk

website: www.nufu.org.uk

Disclaimer

The information included within this publication is based on the experiences of Woodland Trust staff in managing its own woods. While its content is intended to broaden understanding in the management of urban woodland, the Woodland Trust does not accept liability for any errors or omissions, or for any loss arising from use of the information contained herein by other parties. In any circumstances outside the knowledge and competence of a site manager, he or she should always seek advice from an appropriate qualified professional such as a surveyor or solicitor depending on the case. None of the information in this document is to be relied upon as a statement of fact.



WOODLAND TRUST

The Woodland Trust was founded in 1972 and is the UK's leading woodland conservation organisation. The Trust achieves its aims through a combination of acquiring woodland and sites for planting and through advocacy of the importance of protecting ancient woodland, enhancing its biodiversity, expanding native woodland cover and increasing public enjoyment of woodland.

The Trust relies on the generosity of the public, industry, commerce and agencies to carry out its work. To find out how you can help, and about membership details, please contact one of the addresses below.

The Woodland Trust (Registered Office)

Autumn Park, Dysart Road
Grantham
Lincolnshire NG31 6LL

Telephone: 01476 581111
Facsimile: 01476 590808

The Woodland Trust Wales/Coed Cadw

Uned K, Yr Hen Orsaf
Llanidloes
Powys SY18 6EB

Telephone: 01686 412508
Facsimile: 01686 412176

The Woodland Trust Scotland

Glenruthven Mill, Abbey Road
Auchterarder
Perthshire PH3 1DP

Telephone: 01764 662554
Facsimile: 01764 662553

The Woodland Trust in Northern Ireland

1 Dufferin Court, Dufferin Avenue
Bangor
County Down BT20 3BX

Telephone: 028 9127 5787
Facsimile: 028 9127 5942

Website: www.woodland-trust.org.uk

This report should be referenced as:

Urban woodland management guide 4: Tree planting and woodland creation. The Woodland Trust 2002.
(www.woodland-trust.org.uk/policy/publications.htm)