

Dundee Tree and Urban Forestry Policy

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Dundee Tree and Urban Forestry Policy

1. Introduction

The City of Dundee covers an area of 6515 ha. To the South of City lies the Firth of Tay and to the North the land rises up towards the Sidlaw Hills. A survey of 37 woodland sites surveyed within the City in 2000 (Eamonn Wall & Co) identified that an estimated 4.3% of the City was given over to woodland cover.

Dundee has tremendous resources in terms of tree and woodland provision. The woodland portfolio includes the old estate woodlands such as Balgay and Camperdown, the designed landscapes around Landsdowne and Foggyley and historic gems such as the Howff and Baxter Park. Dundee is also famed as being the home of the world renowned Camperdown Elm, first discovered in the City by David Taylor and now grown widely around the world as a cultivar.

A strategic approach is required which recognises the real contribution that trees and woodlands can make to the development of an attractive, well designed and forward looking City. Through an integrated strategy, trees and urban woodland can play an active part in attracting inward investment and establishing Dundee as a desirable location for new business. Integrated management will also offer huge quality of life dividends including providing health, wellbeing and education opportunities.

In terms of the Council's statutory responsibilities as planning legislation and guidance emphasises that trees make an important contribution to the quality of the landscape. National Planning Policy Guidance 14 "Natural Heritage" indicates that trees and woodlands are of great importance and that planning authorities should seek to protect trees, groups of trees and areas of woodland where they have natural heritage value or contribute to the character or amenity of a particular locality. The Town and Country Planning (Scotland) Act formally recognises the importance of trees by requiring planning authorities to make appropriate provision for the planting and preservation of trees. This is carried out through the imposition of conditions on approved planning applications and the making of tree preservation orders.

The Policy forms part of a hierarchy of Strategies for the management of Dundee's natural environment. At the top of the hierarchy is the Dundee Partnership for the Environment Strategy with the Public Open Space Strategy below this. The Tree and Urban Policy effectively forms an appendix to the Public Open Space Policy.

2. The benefits of Trees and Urban Woodlands

Trees and woodlands provide an important range of environmental, social and economic benefits to the City. Some of the key benefits are:

Environmental

- Provision of an attractive visual backdrop for the City
- Screening of eyesores and softening of development
- Reduction of pollution and noise
- Absorbtion of atmospheric CO₂
- Reduction of extreme weather impacts
- Mitigation of flooding
- Provision of biodiversity refuges
- Enhancement of local character
- Provision of an environmental education resource

Social

- Provision of an outdoor play and recreation resource
- Encouraging physical activity and healthy lifestyles
- Provision of a resource for training and tackling social exclusion
- Build stronger communities through participation and involvement.
- Help to foster a sense of local pride through volunteering
- Promote mental wellbeing through providing relaxation and escape from the City

Economic

- Generating a positive image for the City
- Attracting visitors to the City
- Creating attractive conditions for business investment
- Providing a training resource for local people
- Providing timber and other woodland products for sale

3. What is the Vision for Dundee's Trees and Urban Woodlands?

The integrated vision of Dundee City Council in conjunction with the public, private and voluntary sectors is to seek to promote:

"A varied and diverse tree and woodland resource, which is well looked after and sustainably managed to the highest standards. This will deliver multiple benefits to the residents of the City. The trees and woodlands will be valued by the citizens of Dundee who will be able to have input, ownership and involvement as to how these assets will be managed"

4. What will the outcomes of the Tree and Urban Forestry Policy be?

The outcomes of the Tree and Urban Forestry Policy will embrace social, environmental and economic benefits in order to deliver a strategy that can fulfil the vision set out above

Outcome 1: Dundee's Trees and Woodlands will form part of a diverse, green network within the City offering an attractive environment for both people and wildlife.

Outcome 2: Dundee's Trees and woodlands will contribute to the economic prosperity of the City through helping to generate inward investment and tourism.

Outcome 3: Dundee's Trees and Woodlands will provide health, wellbeing and educational benefits for the City's residents through providing opportunities for increased contact with the natural environment.

Outcome 4: Dundee's Trees and woodlands will be managed to high standards which offer quality and best value through the production of timber and products to help offset costs.

Outcome 5: Dundee's Trees and Woodlands will be managed in partnership with the City's residents and local communities to ensure that they are safe, welcoming and accessible for all.

5. The current Situation in Dundee

5.1 Dundee City Context

Most of the woods in Dundee City are under Council ownership. The main non-council owners are the various Health Trusts and Scottish Enterprise Tayside. These woods are still effectively in public ownership and managed primarily in the public interest. Private woods account for approximately 5–10% of the total woodland area of the City.

5.2 Trees and Urban Woodlands in Dundee

Most of the larger woodland sites are located around the western and northern fringes of the City in park areas that originate from the 19th century with the exception of the landscape planting around the Technology Park that dates from the 1980s and 90s. The majority of woodlands in the more built up areas are smaller and younger blocks of less than 5ha.

The Dundee Urban Woodland Report (2000) found that semi mature and mature trees dominate the woodlands of Dundee, with a low percentage of young trees in the City. For sustainable future woodland there needs to be at least as many young trees present as semi mature and mature trees. Increased areas of young woodland will significantly enhance wildlife habitats within the City, as young trees support a varied and distinctive range of plant and animal life.

Dundee's street trees have a significant impact upon the City environment and contribute greatly to quality of life. It is vital that these are appropriately managed and threats such as root compaction and laying of underground services are appropriately mitigated against.

Species Composition and Distribution

In terms of species composition there is a fairly even split between conifers and broadleaves with just over half the broadleaves being of

native species. 23% of the woodland area is open ground. Whilst there may be opportunities for increasing the stocking of some woods, open ground in woodland helps to significantly enhance biodiversity and is therefore a valuable asset in its own right.

Elm is the dominant native broadleaf, accounting for 19% of all the native tree area in Dundee City. The future of elm is insecure in the light of Dutch Elm disease. This highlights the need to continue the present trend of focussing on native species in future planting schemes if their overall contribution to the City's woodland estate is not to decline. Apart from the large percentage of elm there is a good range and diversity of native species throughout the City.

Sycamore, Norway maple and beech are the main species of exotic broadleaves with Norway maple probably the most popular planting choice between the 1950s and the 1980s. Sycamore and beech are effectively naturalised in the area having been present for several hundreds of years and they regenerate naturally in many of the City's woods.

The conifer component of the City's woods is clearly dominated by larch, most of it planted around the same time as the Norway maple. Its popularity is largely due to its deciduous nature and the landscape impact of its changing appearance through the seasons. Scots pine is the only other conifer of significance.

Woodland Management Issues

Ninety eight percent of the woodland area is regularly managed in some way. Most of the work involves cutting of some description, whether for safety, plant health, or silvicultural reasons. The balance of the work comprises access works such as path construction and maintenance, litter picking or weeding.

All council owned woodlands are inspected a minimum of three times per year for safety and management reasons. Any public concerns regarding private owned woodland should be reported to the council for discussion with the appropriate land owners.

The management of Dundee's trees and woodland management has focused mainly on providing an attractive resource for residents whilst generating small amounts of income from marketable produce including timber. Management objectives and actions have been somewhat vague in the past. Clarifying more specific objectives for each wood may improve the delivery of benefits to the City's residents.

In terms of future management greatest opportunities lie in enhancing the nature conservation and access value of woodlands. Conservation improvements can often be made at little extra cost. For example, in larger woods where fire risk is lower, dead wood can be left safe to rot on the ground as a useful insect and fungi habitat. Elsewhere, the canopy can be opened up to increase light levels on the woodland floor and restocking work can make use of native species of Scottish genetic origin.

Enhancement Initiatives -

Scottish Forestry Grant Scheme (SFGS) and Woodlands in and Around Towns (WIAT)

Dundee has many important trees and woodlands which add to the quality of the City, provide valuable wildlife habitats and create recreational opportunities. However many of these sites have suffered from neglect in the past and consequently have not realised their full potential as a public asset. In addition to this communities have felt disenfranchised from their woodlands, have lacked a sense of ownership and, as a consequence, have had little involvement in the management of sites.

To remedy this situation, funding to revitalise 21 woods throughout the city was sought from the FCS (Forestry Commission Scotland) WIAT (Woods in and Around Towns) Challenge Fund and the SFGS (Scottish Forestry Grant Scheme). The resultant £500K WIAT initiative commenced in 2005. The project is a focus for developing health and well being priorities in Dundee. The aims of the scheme include;

- Provision of more opportunities to access woods for learning, activity and enjoyment;
- Increase in the contribution of woodlands to the quality of Dundee City.
- Provision of opportunities for communities to be involved in, and benefit from, management of their local woods;

Through the WIAT and SFGS schemes, Dundee City Council secured FCS funding to upgrade 21 sites including Balgay Hill, Camperdown Country Park and Dundee Law.

Dundee's woods are popular with local people for walking and cycling but have suffered from factors including dereliction and fly tipping. Many of the paths were previously unwelcoming, in a poor state of repair or required upgrading. Access improvements are generally expensive and so FCS funding has provided a welcome boost.

New car parks have been built at Middleton and Templeton Woods. Fly tipping and dumped cars have been removed from all the woods, and non native conifers have been thinned out in favour of native trees. More than 70 picnic benches and improved signage has contributed to the increased attractiveness of the woodlands for visitors.

5.3 The views of local People

There have been no detailed Citywide surveys of public perceptions specifically related to woodland within the City of Dundee. However, a number of localised studies have been undertaken which focus on specific areas of woodland and greenspace.

Included within this work was a participatory appraisal exercise which was carried out within Templeton Woods prior to any WIAT or SFGS work being undertaken. This identified a number of issues, particularly those relating to public safety within the woods, which have since been addressed through FCS funded management works.

In 2007 ground breaking research work, entitled "Making the Links", was undertaken within the Ardler Community. The project was funded by Greenspace Scotland and a number of public agencies with the aim of evaluating local community perceptions to greenspaces, including woodlands. The pilot involved strong capacity building and training. It is hoped to incorporate aspects of this methodology into local open space audits which will also incorporate woodlands.

The document reported that a high percentage (more than 60%) of those interviewed stated that natural features, including ponds and trees were the features that they most liked. However concerns were expressed about the quality of management of many of the planted areas.

Local people have been encouraged to actively engage in the City's Woodlands through "Friends of" groups. The Middleton Community Woodland Group has an established track record of active participation in the management of their woodland. Future funding regimes will increasingly be targeted toward such partnerships, so there will be greater emphasis placed on increasing interaction between professional woodland managers and local communities. In this respect the experience of the Community Woodland Association (CWA) is likely to be helpful in providing support to local groups.

6. Policy Context

6.1 National

There are a number of National Strategy documents and Government programmes which are relevant to the development of a tree and urban woodland strategy for Dundee. Increasingly these represent the wider sustainable development context of urban forestry and reflect the social, economic and environmental values which woodlands must reflect.

- Scottish Forestry Strategy
- UK Biodiversity Action Plan (UKBAP)
- National Planning Policy Guideline (NPPG 14) Natural Heritage
- Scottish Rural Development Programme (SRDP) 07-13
- Scottish Planning Policy 11 (SPP 11) - Planning and Open Space
- Nature Conservation (Scotland) Act 2004
- 'Choosing Our Future: Scotland's Sustainable Development Strategy', Scottish Executive, 2005

- Let's Make Scotland More Active' (Scottish Executive 2003)
- National Strategy for Physical Activity in Scotland.
- Its in Your Hands" Scottish Biodiversity Strategy; Scottish Executive 2004 Regeneration Statement - People and Place 2006
- Changing our Ways - Scotland's Climate Change Programme 2006
- UK National Forestry Standards
- Scottish Community Engagement Standards

6.2 Local

Dundee's Urban Woodlands are a vital element of delivering the Dundee Community Planning vision for the City and can make a significant contribution towards improving the quality of life within Dundee. Dundee Partnership's Community Plan sets out strategies for Dundee and the priorities of the City. The three principles which underpin all of the Dundee Partnership's activity are:

- Social inclusion
- Sustainability
- Active Citizenship

Attractive accessible woodlands can play their part in contributing to a thriving regional centre by helping to attract inward investment from businesses and tourism by contributing to the creation of a high quality urban environment. The aesthetic qualities trees and urban woodlands in Dundee are a very powerful contributor to the overall image of the city.

Trees and urban forestry have therefore an important role to play in the delivery of the Dundee Community Plan particularly with regard the following Strategic themes;

Community Planning Theme No.	Topic Area	Relevance to Trees and Woodlands
1.	Building Stronger Communities	Community ownership Local participation in management provides interaction.
2.	Community Safety	Designing safe public woodlands through appropriate silviculture and design of visitor infrastructure
3.	Environment	Enhancing environmental quality through planting, screening and filtration of pollutants. Absorbtion of atmospheric CO2.
4.	Health and Care	Provision of opportunities for physical activity Improving mental wellbeing.
5.	Lifelong Learning	Providing an "outdoor classroom" and resource for Community

		Learning Development
6.	Work and Enterprise	Creating an attractive location for investors. Providing opportunities for social enterprise development based around woodland products.

Trees and Woodlands are also relevant to number of local and regional plans and strategy documents. The Dundee Local Plan Review 2005 is the principal point of reference in respect of planning proposals which may have an impact on existing trees and where additional landscaping including new tree planting is required if a proposal is to be approved.

- Dundee Public Open Space Strategy 2008 - 2011
- Dundee Local Plan Review 2005 para 78.1 - 78.5
- Dundee Partnership for the Environment Strategy
- Dundee Partnership Community Plan 2005 - 2010
- Dundee Council Plan, 2003 - 2007
- Dundee: A City Vision, 2006
- Dundee and Angus Structure Plan 2001 - 06, 2002

The diversity of these national and local plans, policies and strategies relevant to trees and woodland underlines the need for a corporate approach that recognises links and highlights the role for strong working relationships between private, voluntary and public sector organisations. Recently for example the SNH report on "Community Learning Development and the Natural Heritage" has helped to involve area based Community Officers in raising awareness of the tree, woodland and greenspace issues.

7. Overarching principles and relationship to Public Open Space Strategy

Dundee City Council and partner agencies aim to improve urban forestry within Dundee through the development of an Action Plan which accompanies this policy. The environmental, social and economic principles have guided the setting of objectives and tasks so that the important core values are kept at the heart of future work.

Sustainable Development Principles	Core Values for the Tree and Urban Forestry Policy
Environmental	Sustainable resource use
	Stewardship of the environment for future generations
Social	Equality of opportunity
	Community involvement and empowerment
	Meeting local needs

Economic	Providing best value through efficient, effective and responsive service delivery.
	Encouraging partnerships between the public, private and voluntary sectors.

These principles help foster an integrated approach that lays the foundations for establishing a sustainable quality of life in Dundee. The policy for achieving the vision and aims, in keeping with the core principles, is outlined in the following sections. This has been translated into a comprehensive implementation programme, contained in the 3 year Action Plan.

The policy and action plan are part of a wider hierarchy of documents for the management of Dundee's Greenspaces. In this respect the Tree and Urban Forestry Policy must be considered as an appendix of the Public Open Space Strategy which sets out the wider framework. At the top of the hierarchy is the Dundee Partnership for the Environment Strategy. All these Documents also link closely with the objectives of the Dundee Local Plan Review (2003). A full breakdown of relevant plans and strategies is shown in Appendix 1.

8. Key issues and main action summary

8.1 Management Opportunities in Existing Woods

Dundee offers considerable opportunities for bringing existing woodlands into improved management. Since 2005 much has been done to bring woodland on 21 separate sites into management using funding from the Scottish Forestry Grant Scheme (SFGS) and the Woodland in and Around Towns (WIAT) Challenge Fund. This funding has allowed a variety of management operations to take place including restoring neglected thinning cycles, removal of windblown timber, surgery on dangerous trees and access infrastructure enhancements. The council's forestry officer is available to offer advice to private tree and woodland owners to assist in their management and to ensure public safety. Where a tree is creating a hazard or danger to a public road or footway, the council has powers under the Roads (Scotland) Act to require the owner to take action to remove the danger.

Much ongoing work remains to be undertaken in terms of future management of sites. This includes implementation of future phased thinning works and undertaking management of neglected shelter belts and areas of amenity planting. Future management works will offer added value through the provision of a range of timber products suitable for domestic, agricultural and construction purposes. Woodchip production from silvicultural operations will also provide opportunities for woodfuel heating and contributing to carbon reduction strategies

Summary of Key Actions:

- An audit using an appropriate GIS based tree recording system to be established.
- A computerised management system to be developed for City Woods

- Prepare site specific management statements with specific targeted objectives.
- Promote ongoing dialogue between foresters, adjoining land managers, neighbourhood community planners and open space professionals.
- to develop best practice guidance for private tree and woodland owners to ensure public safety.

8.2 New Woodland Establishment

Because of the imbalance of age structures within Dundee, the Dundee Urban Woodland Report (2000) identified a need to establish approximately 60ha of new woods over the next 10 –20 years.

It is important that this is taken forward in a way that supports the strategic aspirations for Dundee's Greenspace as outlined in the City's Open Space Strategy. Where possible new planting should support the development of green networks and should aim to provide multi purpose benefits for City residents and visitors. In particular the biodiversity value of new woods will be enhanced by taking the opportunity to link new structures to existing woods or wildlife corridors such as the Dighty Burn and the City's Greenways. The dominant native species in the City's woods is elm, which continues to decline. If native species are to be represented in future then new planting should focus on native stock where possible. Native species do not in themselves result in native woodland. Future use of native species should be based on stock of Scottish seed origin. Other ways of increasing nativeness include careful matching of species to site, appropriate planting patterns and inclusion of non woodland habitats.

Summary of Key Actions:

- Develop a database of potential new planting sites.
- Use tree planting to reinforce green networks identified through Open Space audits, Community Plans and the Local Planning Process.
- Tree cover in open spaces and institutional establishments to be increased.
- Identify and encourage participation of key landowners in making full use of identified land.
- Reclamation of derelict land and advance planting of vacant land to be encouraged.
- Temporary greening of vacant development sites to be promoted
- Key nodes and gateway points to be targeted to strengthen the impact of urban woodland planting on the City's fabric.

- Develop an appropriate screening process and a simple scoring system to ensure new planting meets multipurpose objectives.
- Professional landscape design assistance should be sought where appropriate.

8.3 Urban Enhancement and Street Trees

Street trees make an important contribution to the quality of life in the urban environment through the provision of shade, shelter and the mitigation of the negative impacts of development. Attractive tree lined streets are frequently associated with a high quality of life and in the UK are generally located within more affluent areas. Street trees and urban greening also enhance opportunities for biodiversity within the City, providing a food source for pollinating insects and a shelter and nesting habitat for birds.

The difficulties associated with street tree establishment and management are often compounded by maintenance of underground services, surveillance camera requirements and inappropriate surfacing. Attention to maintenance and close dialogue with urban managers is therefore required for successful establishment.

Small patches of greenspace within the urban environment provide opportunities for enhancement such as the establishment of shrub cover. Equally the opportunities for promoting the establishment of trees within private gardens should not be overlooked as this will contribute to the overall quality of the urban environment.

Summary of Key Actions:

- An audit using a GIS based tree recording system will be undertaken. The audit to cover all the city's trees.
- A computerised management system to be developed.
- Free management advice and information on trees and urban woodlands will be provided to the public and other organisations.
- There will be a clear point of contact for the public. All enquiries to be dealt with promptly and professionally.
- Implement planned management of street trees according to predetermined rota.
- An annually approved list of arboricultural practitioners will be maintained to raise the standard of tree care in the city.
- All works to be inspected and signed off on completion.
- Promotional campaign to raise awareness of street trees to be instigated in partnership with national organisations (e.g. Tree council).

- Resources required to manage these assets will be identified from partnerships and external sources including Forestry Commission Scotland and Lottery Funding.
- A set of best practice guidelines will be developed with the statutory authorities and underground utilities. Appointed contractors to abide by standards.

8.4 Community Involvement and Partnership Working

Increasing emphasis on community planning methodologies has established a tradition of partnership working in the management of Dundee's tree and woodland resources.

Community engagement has now become accepted as the norm for new woodland creation initiatives. To this end Dundee City Council and other agencies are encouraging the formation of woodland management groups and local partnerships for the management of existing sites. There are already a number of established groups such as the Middleton Community Woodland Group and the Friends of Balgay who are involved in the management of woodland sites. In future it is likely that funding streams will be more directly targeted to local groups. Increased levels of dialogue, participation and interaction will therefore be required.

At a strategic level, the Dundee TWIG (Trees and Woods in Greenspace) partnership was established in 2005 with the aim of pulling together the various agencies, local groups and stakeholders involved in the planning, delivery, promotion and management of woodlands. The TWIG initiative reports to the Dundee Partnership for the Environment thus linking the economic, social and environmental strands of sustainable development. It is vital for the future of Dundee's Trees and woods that continuing emphasis is placed on partnership working at both a local and strategic level.

Summary of Key Actions:

- Local involvement and consultation mechanisms will be established for all new planting sites based on National Standards of Community Engagement.
- Stakeholders to be encouraged to participate in meetings with professional staff. New management groups to be established where required.
- The Tree Warden Scheme to be set up within the city to enhance the care and educational value of trees and woodland.
- Community Woodland groups will be promoted and supported within the City.
- The planting and care of trees in school grounds will be promoted.
- Schools and youth groups to be encouraged to participate in organised planting events in City woodlands.

- New groups to be established through outreach and promotion of incentives
- Existing community woodland initiatives such as Middleton will be publicised.
- There will be a presumption to partnership working at a strategic level (e.g. Dundee TWIG, Dundee Partnership)

8.5 Education and awareness raising

Woodlands provide a superb opportunity for outdoor learning and can effectively become outdoor classrooms, which can be used actively as a teaching resource.

There is growing awareness of the benefits of outdoor education and the self confidence that this brings to participants. In particular the Forest Schools initiative has shown how woodlands can provide opportunities for developing interaction, communication and practical skills as well as delivering aspects of the school curriculum. Forest Schools bring children directly into contact with nature and have a therapeutic effect on those with issues such as Attention Deficit Disorder or hyperactivity.

The Forest Education Initiative has been promoting the development of Forest Schools throughout the UK. So far a number of individuals from Dundee have undertaken Forest School training and venues such as Templeton Woods have been used to deliver training. This potential should be further developed through providing increased training resources.

Informal education also needs to be developed through provision of high quality interpretation, information and guided activities. Users of the City's woodlands should be given opportunities to understand the wildlife and natural heritage value of these areas. Ranger lead actives and community learning development programmes will help to get information across to the public.

Summary of Key Actions:

- Communication strategies to be developed for any new proposals and initiatives
- High quality Interpretation, signage and promotional material will be provided within woodland sites. To be in a uniform house style throughout the City.
- High profile promotional campaigns to be developed around themes such as heritage trees, Camperdown elm, red squirrels etc.
- Develop public events such as Treefest, Food and Flower show, apple days and seasonal campaigns
- Initiate a free tree schemes for City residents.
- Develop community and school tree nurseries within the City.

- Ranger events and activities to be linked with WIAT and woodland management activities.
- New events opportunities to be evaluated and developed as appropriate.
- Events to be organised around National themes such as "National Tree Week", "Seed Collection Sunday" and "Trees Love Care"
- Forest Schools initiatives to be developed in partnership with DCC Education Department.
- Special needs education and vocational training to be developed using woodland themes.
- Provide assistance and advisory services and widely promote contact details.

8.6 Recreation, health and physical activity

Lack of physical activity within Scotland in association with poor diet is now regarded as a serious issue for the future health of the nation. In particular, low levels of physical activity are contributing to burgeoning obesity levels within the country. This in turn puts burdens on the NHS through encouraging incidence of preventable disease such as heart disease and diabetes.

Dundee's woodlands provide a valuable resource to help counter the present problems associated with lack of physical activity. Woodland sites also provide great capacity to provide both informal and organised recreation opportunities for walking, mountain biking and horse riding.

There is great potential to increase the use of these sites through the provision of dedicated facilities such as path networks and bike tracks. In addition to infrastructure provision there is scope for greater public involvement through Ranger led activities and structured programmes including community health walks.

In addition to this use of woodlands for promotion of natural play will encourage new generations of children to become active. The challenges created by a wooded environment also help to stimulate self confidence, problem solving ability and interaction.

There is great scope for working in creative partnership with NHS Tayside and other health promotion initiatives. In this respect it is likely that woodlands will play an ever increasing role.

Summary of Key Actions:

- New multi-purpose path networks to be developed within existing and proposed new woodland areas
- Leaflets and web based materials will be developed where possible.

- Quality on site interpretation will be provided where possible.
- Linkages between woodlands and wider green networks will be developed through creation of linking "green chains" and green corridors
- Integrated promotion of health benefits of woodland. Promotional events and initiatives to be undertaken.
- New activities including green play initiatives, green volunteering and the Camperdown Cycling for All Scheme to be developed and promoted.
- More work to be undertaken in partnership between foresters, adjoining communities, areas and initiatives.
- Improved threshold signage and gateway features will be provided to encourage people into the woodlands

8.7 Tree protection and conservation of habitats

Urban Trees are frequently under threat as the result of development pressures. This applies to new development on both greenfield and brownfield sites and through the installation of above and below ground services.

For this reason it is important that urban trees, particularly street trees, are afforded a high degree of protection. The Tree Preservation Order (TPO) system has been developed for this purpose and provides the best degree of protection.

There are provisions in the planning legislation which can open the way for action to be taken by the council in the event of any breach of a TPO. Prosecution is one of the options available but remediation in the form of the replacement of trees the subject of a TPO which have been removed uprooted or destroyed in contravention of the provisions of a TPO is often a more positive option. Circumstances will dictate what kind of action the council may undertake.

Woodlands, along with other habitats, have already been mapped and recorded through the Dundee Habitats and Species Survey (2000). This information has been used to advise the Dundee Local Subject Nature Conservation Plan which is now included within the 2003 Local Plan Review. Sites listed within this document are subject to a degree of protection under local planning procedures.

In the long run much will be achieved through the formation of effective partnerships with developers and city planners. This will include creative development of green infrastructure projects prior to development proposals going ahead. It will also mean more effective use of planning gain as a means of funding habitat creation and new planting projects.

Summary of Key Actions:

- Designation of new TPOs (Tree Preservation Orders) will be promoted where required. Where the contravention of a TPO takes place and is drawn to the Council's attention will consider the most appropriate action to take within the provisions of the planning legislation and which is appropriate to the circumstances of the case concerned.
- Recommendations laid out in the current British Standards in relation to trees on construction sites will be adopted.
- A bonding scheme for developers, to ensure adequate tree protection during site works to be adopted.
- As appropriate developers will be requested to provide details relating to tree protection and landscaping as part of their application submissions.
- A continuing programme of regular inspections and maintenance as per best arboricultural practice will be implemented.
- Use appropriate management techniques including natural regeneration to perpetuate ancient woodland and historic landscapes.
- Environmentally sensitive practices to be adopted including retention of deadwood, maintaining varied habitat types, open ground and mixed age classes.
- Initiatives to protect national and local BAP species (including red squirrels) to be further developed
- Evaluate planting proposals against existing survey information including the Dundee Habitats and Species Survey

8.8 Tree health

Dundee is fortunate to have a healthy tree population which is well maintained and managed. Like people, trees can be vulnerable to disease and it is important that Dundee City professional staff and City residents remain vigilant to any disease outbreaks within the City.

In particular Dundee's large elm population is potentially vulnerable to the impact of Dutch Elm Disease, which has had catastrophic impacts in other parts of the country. Recently there have also been incidences of disease which has affected alder. For this, and for other tree diseases, it is important that appropriate health monitoring systems are established. It is also crucial that appropriate contingencies are developed to deal with the various threats posed by disease and that these are ready to set into place at short notice if required.

In order to minimise the impact of future disease it is also important that Dundee's tree stock is obtained from diverse sources and is suitably varied to minimise the impacts created by future disease outbreaks. New threats to tree health may also emerge as a result of ongoing impacts of climate change.

Summary of Key Actions:

- Periodic checks for disease and serious tree pests including Dutch Elm Disease to take place.
- Appropriate mitigation mechanisms to be put in place as required.
- Dead and diseased trees to be replaced (except where contributing to habitat conservation objectives).
- These trees to be replaced on a one for one basis with species of similar size and character.

8.9 Marketing and Income generation

Ongoing silvicultural and management operations within Dundee's woodland ensures a steady supply of timber and wood residue products which can be used to generate income.

The sawmill at Camperdown Park previously dealt with such products however this facility was closed in 2007 on commercial and safety grounds. A number of short term alternative uses for these materials have been developed including fence posts, gates and countryside furniture. Firewood and more recently woodchips for woodfuel heating systems are also supplied to a variety of local outlets.

The increasing use of woodfuel heating systems might create a growth in demand for this type of product. In order to maximise any potential income from the manufacturing of such products, further investment in new technology for timber processing would be required. It will be necessary therefore to develop a business case in support of such a proposal.

In addition to this Dundee's woodlands generate income in the form of grants and incentives from central government by way of Forestry Commission Scotland, SNH and other grant giving bodies. These income streams should continue to be maximised through ongoing grant applications to ensure Dundee's woods are managed efficiently and deliver best value.

There may also be potential for income generating projects which offer training and development opportunities and which could potentially be run as social enterprises. In this respect Dundee City Council should look to best practice examples from other locations such as the Galgael Trust in Glasgow and Hillholt Wood in Lincolnshire. In this respect input from the Community Woodlands Association might be useful.

Summary of Key Actions:

- Applications to be drafted for future funding from FCS and other funding streams including "Woodlands in and Around Towns" and "Forestry for People".
- Promote existence of small scale funding sources including Tayside LBAP, the Tree Council, Woodland Trust and Breathing Spaces.

- Develop markets further through advertising and market research to identify customer base.
- Add value through processing of timber products to access niche markets (eg quality hardwoods) where appropriate and where a business case can be demonstrated.
- Develop longer term initiatives and a business case for the production of sustainable woodland products. Evaluate the potential for social enterprise development based around woodland products and forest management.
- Develop effective partnerships with established social enterprises and training organisations.
- Evaluate and develop proposals for a timber transfer station to be identified and developed in Dundee to maximise efficient distribution of forest products.
- Potential for developing biofuels using woodfuel technology to be further evaluated to include both the supply and utilisation aspects of woodfuel

9.0 Monitoring and evaluation

The Tree and Urban Forestry Policy will continually be monitored and evaluated, with major reviews being conducted every three years alongside the review of the Public Open Space Strategy. The TWIG partnership will be given the remit to agree timescales for completion of the key actions outlined in the previous section. Reviews will be conducted and action plans adjusted in the interests of continual improvement and best value. The rolling programme of review will enable appropriate adjustments to be made to the strategy as necessary in response to future changes or opportunities. An update of the progress of key actions will be reported to Committee.

The performance indicators for the action plans will be monitored using the City Council's Strategic Monitoring Database. Actions attributable to other partner organisations will also be fed in to the system and the achievements reported. As a Strategic Greenspace Partnership the Dundee Partnership for the Environment will also make use of the LEAP (Learning Evaluation and Planning) Framework developed by Greenspace Scotland to evaluate the outcomes of this policy.