

Trees and Woodland Strategy 2025 - 2035

Consultation draft – January 2025





Figure 1: Gorie's oak in Kirkwall

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Figure 2: example of trees and hedging enhancing the setting of a street in Kirkwall

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1.0 Introduction

- 1.1 Trees have played a significant role in Orkney in the past and continue to do so today. Archaeological investigations indicate that Neolithic Orkney used to have a significant amount of woodlands. Clearance of native woodlands combined with the introduction of livestock grazing and changing climatic conditions are likely to have caused the depletion of almost all of the native woodlands in Orkney. As a result, Orkney is not renowned for its trees or woodlands, so having a trees and woodland strategy might not seem relevant. However, trees, hedges and woodlands are present and provide important environmental, social, cultural and economic benefits to Orkney.
- 1.2 For example, they provide key landscape features that help connect people to places and history (figures 1 and 3). They also provide shelter from the elements for people and in the countryside can shelter livestock and crops. With the changing climate, trees can assist in moderating flooding by slowing water flows and reducing soil erosion. They also remove carbon dioxide from the atmosphere, storing it in the wood. For the nature crisis, trees provide for a diverse range of species with food, shelter and places to live.

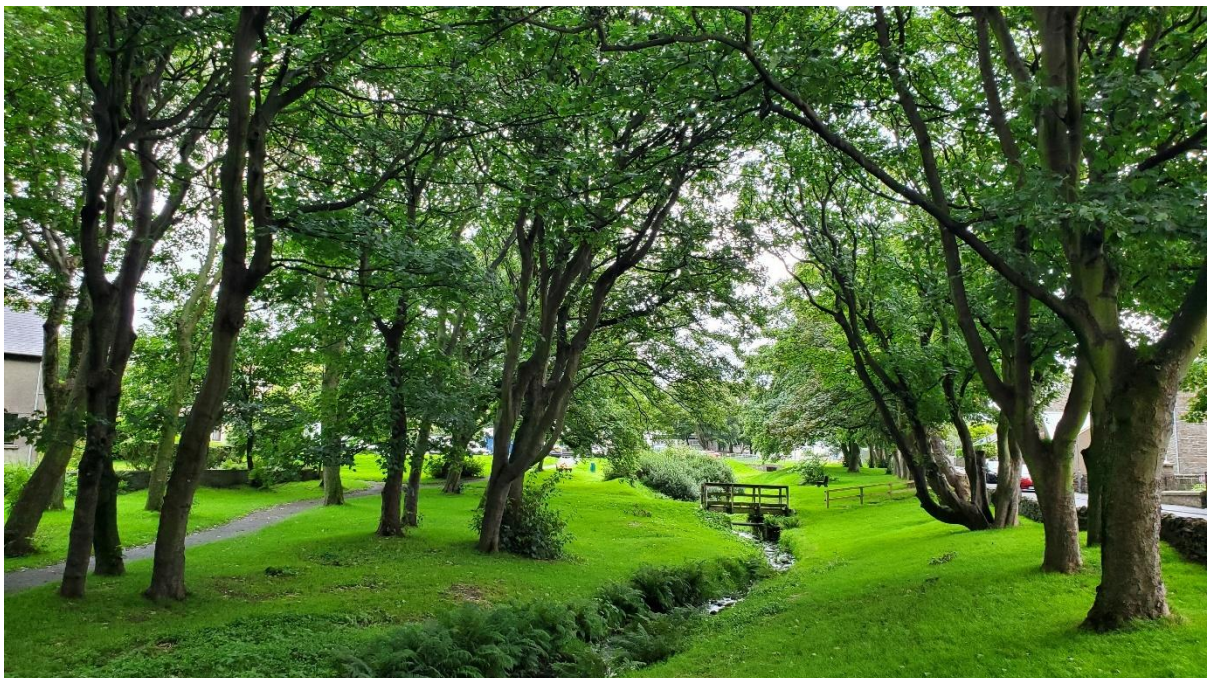


Figure 3: mature trees in the public park at the Willows, Kirkwall, some of which were planted circa 1937 by councillors, the then Provost and grammar school pupils

- 1.3 With Orkney’s weather, soil types, existing biodiversity and historic features, it is important to get the right tree in the right location. While recognising the challenges of tree planting, there is a role for trees in Orkney that this strategy seeks to outline.
- 1.4 There is a limited resource in Orkney in terms of expertise and capacity to facilitate tree planting. However for some years the Council have been part of the Orkney Woodland Group, working with the group and Scottish Forestry to promote planting in appropriate locations in Orkney, as well as potential sources of funding. This will continue, with the strategy informing partnership and delivery.
- 1.5 In the Trees and woodland strategy, the terms ‘tree’ and ‘trees’ are used as shorthand for ‘trees and shrubs’. This is because shrubs are an important contributor to woodland type habitat in Orkney, particularly around built development and in urban locations. Trees may also form ‘hedges’ (figure 4) or small ‘woodlands’. A glossary is provided at the end of the strategy to provide clarity and aid understanding, as some other terms may not be familiar or have different meanings to different people.



Figure 4: urban hedging in Kirkwall

2.0 Context

- 2.1 The Trees and woodland strategy provides high level strategic encouragement for tree planting in Orkney to bring multiple benefits to people and nature such as landscape enhancement, biodiversity, amenity and recreational opportunities as well as the multiple benefits in tackling the effects of climate change.
- 2.2 The main audience are those involved in built development as it is a requirement of the Planning (Scotland) Act 2019 and National Planning Framework 4 (NPF4) for each planning authority to have a forest and woodland strategy. As there are no forests in Orkney, the strategy has been named a Trees and woodland strategy, however it still meets the requirements of the Act.
- 2.3 The Act, as well as Scottish Government's National forest strategy and Land use strategy have similar themes and objectives, particularly in relation to safeguarding existing resource, increasing the number of trees and recognition of the public health and well-being benefits of trees and woodlands. The Trees and woodland strategy will therefore contribute to delivery of Scottish Government's National forest strategy and the Land use strategy (and other related strategies such as the Scottish Climate Change Plan). By encouraging provision of additional habitat featuring trees and shrubs, the Trees and woodland strategy will also contribute to delivery of the Scottish biodiversity strategy, as well as supporting NPF4 policy 3 on biodiversity.
- 2.4 All proposals for development that affects trees, woodlands or hedges will be expected to meet the requirements of NPF4 policy 6, shown in figure 5.
- 2.5 Trees can be used to enhance new development, through retention of existing trees and inclusion of new planting to enhance existing trees and woodlands. Planning applications that come forward within areas that have the potential to contribute to the existing trees and woodland resource will only be supported where appropriate enhancement and improvement are integrated into the design along with new planting, in accordance with the Tree and woodland strategy. To aid identification of enhancement opportunities, settlement statements will be prepared by the Council alongside the Local Development Plan to highlight areas with existing trees and areas where development could contribute to enhancing the network.

NPF4 Policy 6

- a. Development proposals that enhance, expand and improve woodland and tree cover will be supported.
- b. Development proposals will not be supported where they will result in:
 - i. Any loss of ancient woodlands, ancient and veteran trees, or adverse impact on their ecological condition;
 - ii. Adverse impacts on native woodlands, hedgerows and individual trees of high biodiversity value, or identified for protection in the Forestry and Woodland Strategy;
 - iii. Fragmenting or severing woodland habitats, unless appropriate mitigation measures are identified and implemented in line with the mitigation hierarchy;
 - iv. Conflict with Restocking Direction, Remedial Notice or Registered Notice to Comply issued by Scottish Forestry.
- c. Development proposals involving woodland removal will only be supported where they will achieve significant and clearly defined additional public benefits in accordance with relevant Scottish Government policy on woodland removal. Where woodland is removed, compensatory planting will most likely be expected to be delivered.
- d. Development proposals on sites which include an area of existing woodland or land identified in the Forestry and Woodland Strategy as being suitable for woodland creation will only be supported where the enhancement and improvement of woodlands and the planting of new trees on the site (in accordance with the Forestry and Woodland Strategy) are integrated into the design.

Figure 5: policy 6 from NPF4

2.6 All planning applications are expected to take a design led approach to development in line with NPF4 policy 6. The mitigation hierarchy must be followed in a design led approach (figure 6), so that removal and adverse effects on existing trees, woodlands and hedges are avoided in the first instance, with remaining adverse effects then minimised (for example through careful siting of infrastructure and built development and through construction methods that avoid root protection areas), before any residual effects are mitigated (for example through comparable or better provision of trees or woodlands). An explanation of root protection areas and their importance can be found via <https://www.woodlandtrust.org.uk/blog/2021/04/root-protection-areas/>.

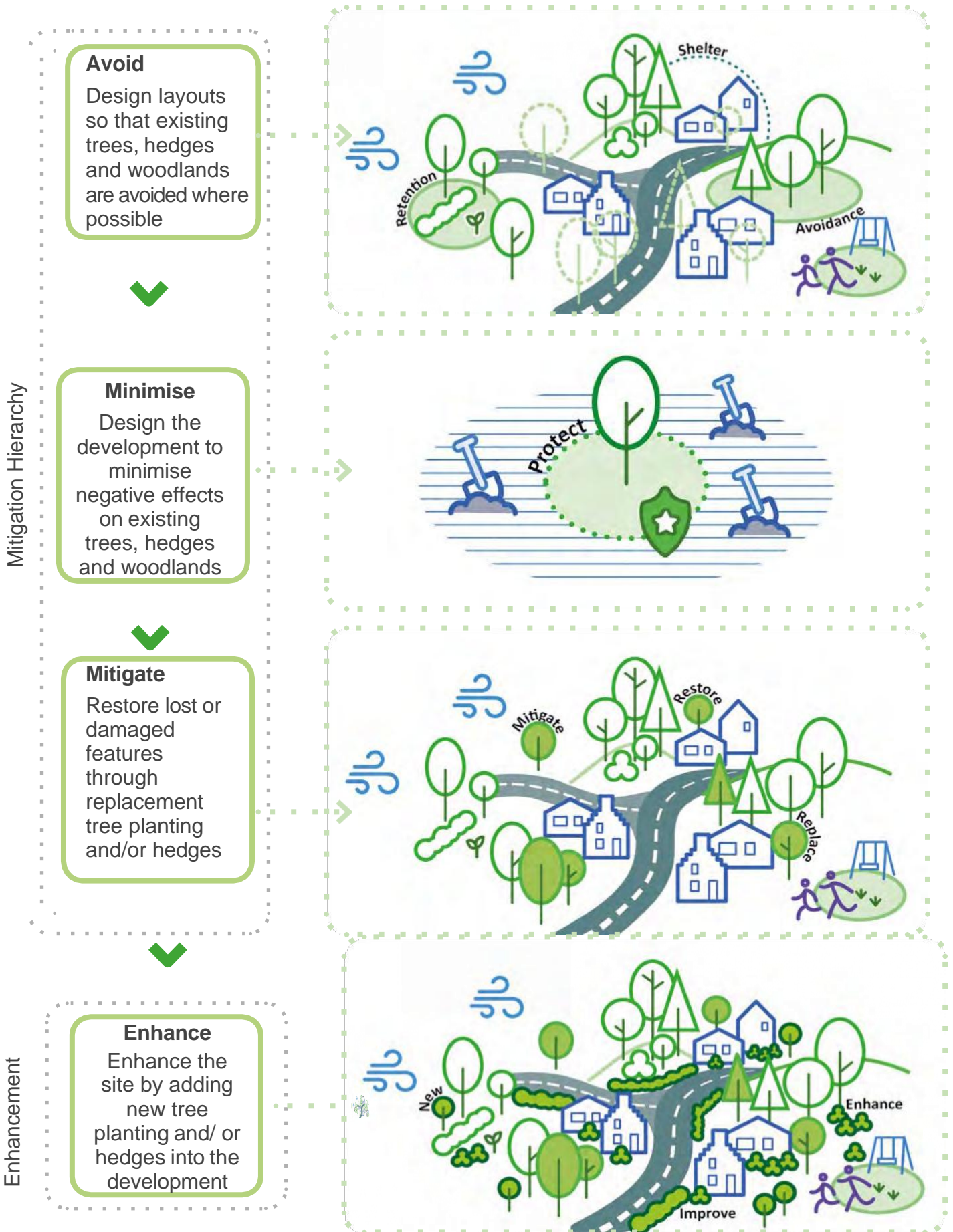


Figure 6: design led mitigation hierarchy, plus enhancement

- 2.6 Where mitigation is required, this should be delivered within the proposed development site. If this is not possible and off-site delivery (compensatory planting) is required, at least the equivalent woodland related public benefits will be required. Compensatory planting should occur on an appropriate area as close to the location of the original tree or woodland resource as possible, to minimise adverse effects on species that rely on trees or woodland habitat.
- 2.7 For clarity, where the addition of trees or hedges is proposed as part of development to meet the requirements of NPF4 policy 3 on biodiversity, they would only contribute to meeting the enhancement requirements where the trees were additional to whatever was present prior to development. If new trees or hedges are required under NPF4 policy 6 to replace trees or hedges that unavoidably need to be removed to accommodate development, the replacement trees would not be considered to contribute to the enhancement aspect of NPF4 policy 3. Other biodiversity measures would be required in addition to the mitigation or compensatory tree or hedge planting. (The Council guidance on Considering and including biodiversity in development should be referred to for more information about policy 3).

3.0 Vision and themes

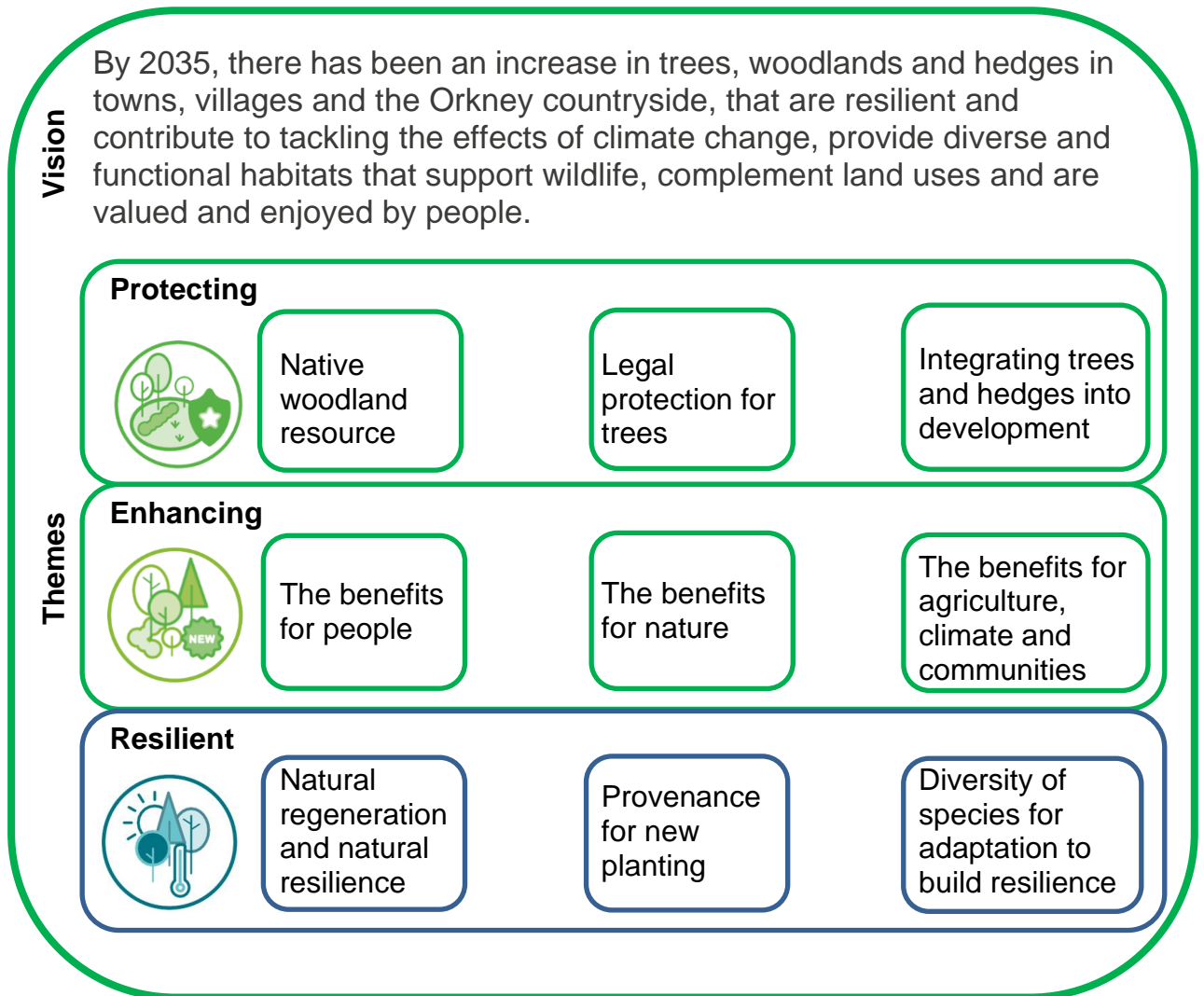


Figure 7: Trees and woodland strategy vision and themes

- 3.1 The Trees and woodland strategy has three themes, which combine to form the vision as shown in figure 7.
- 3.2 To help achieve the vision, existing areas of native woodland should be retained and enhanced where appropriate. A map showing native woodland identified in the Native Woodland Survey of Scotland in Orkney has been provided in Appendix I. However, because the native woodlands in Orkney are very small and do not show up very well on an Orkney wide map, it is better to view the data directly via the Native Woodland Survey of Scotland mapping on SE Web available via <https://map.environment.gov.scot/sewebmap/?layers=nativeWoodlandSurveyForScotland>.

- 3.3 There is no definitive Orkney-wide mapping available for non-native trees and woodland, however it is recognised that non-native trees are also important for the services they provide to nature and people. Such trees and woodland should be retained and enhanced where appropriate.
- 3.4 Within settlements, trees thrive and contribute positively to the setting and amenity of urban locations (figure 2). Sycamore for example thrive in the more sheltered areas in towns and villages, growing to significant size. It is expected that development will contribute to the enhancement of the existing tree and woodland resource where appropriate. For example, the indicative mapping shown in figure 8 highlights areas with existing trees and woodlands in Kirkwall, as well as potential areas where development could contribute to enhancing, both within the settlement boundary and through connecting with the countryside beyond, for example along watercourses. Settlement statements to be prepared alongside the Local Development Plan will include more detailed mapping on this and other matters for different settlements across Orkney.

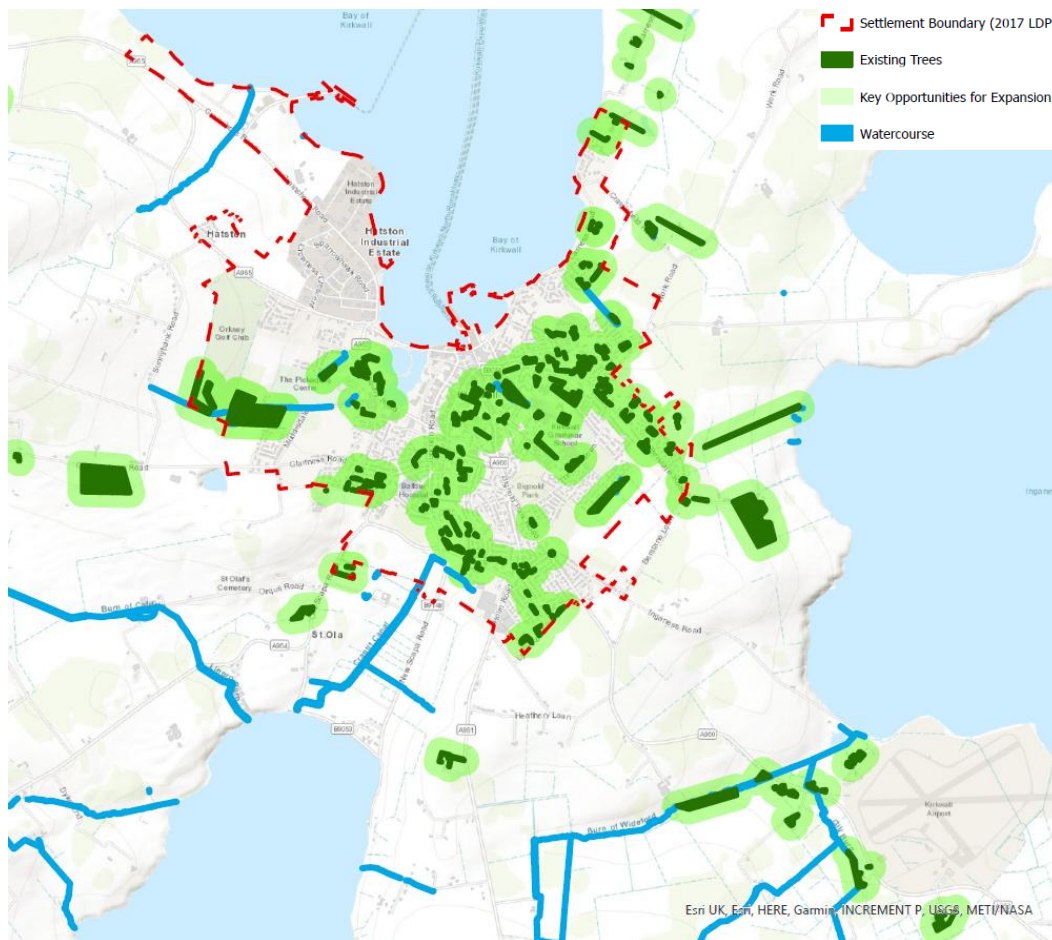


Figure 8: indicative Kirkwall tree opportunities map

4.0 Themes

4.1 Targets to increase the percentage or hectareage of woodland cover have deliberately not been set. This is in recognition of the climatic, nature conservation and land use sensitivities found in Orkney, which reduce opportunities for large scale planting. (This is also recognised in Scottish Forestry grant funding, which encourages smaller scale proposals of 0.25 to 1ha in Orkney.) While there are no specific targets set out, the strategy seeks to encourage and promote the value of tree and woodland planting in appropriate locations, acknowledging that most of these opportunities are likely to be small scale planting proposals that will emerge over time, creating an incremental increase in the number of trees and woodlands. This strategy encourages an increase in the provision of good quality trees, woodlands and hedges that deliver multiple benefits to people and nature through the three strategy themes: protecting, enhancing and resilient. The following sections explain more about each strategy theme.



Protecting

4.2 Orkney has a number of native woodlands identified in the Native Woodland Survey of Scotland (Appendix I). There are also many trees and woodlands in other locations throughout Orkney, including in gardens, within open spaces in towns and villages, along path networks and scattered throughout rural areas. It is important to protect what Orkney already has because recreating their value is challenging and takes a long time in the Orkney climate.

4.3 Examples of valued trees in Orkney include:

- the large mature trees seen in views in and around settlements such as Kirkwall (figures 9 and 21), Stromness and Finstown (figure 10), where they contribute to the character of the settlement;
- veteran trees of cultural interest such as the Big tree and Gorie's oak (figure 1) in Kirkwall;
- the contribution trees make to the setting of villages such as Norseman (figure 11) and Evie;



Figure 9: view of trees across Kirkwall



Figure 10: view of trees across Finstown



Figure 11: trees at Norseman village

- remnant native woodland of particular species lineage importance at Berriedale on Hoy, the most northerly native woodland in Britain;
- patches of woodlands/groups of trees and hedges scattered throughout Orkney that provide shelter to gardens and farmland (figure 12)



Figure 12: trees and hedging around gardens and farmland (near Finstown)

- wooded areas and path networks used by the public for recreation such as Arcadia park near Balfour hospital, Muddisdale (figure 13) and the Willows in Kirkwall (figure 3), and those that also have historic and cultural interest such as Happy valley in West Mainland, Binscarth wood near Finstown (figure 14) and Olav’s wood in South Ronaldsay (figure 20).



Figure 13: Muddisdale wood in Kirkwall (credit Erica Niven)

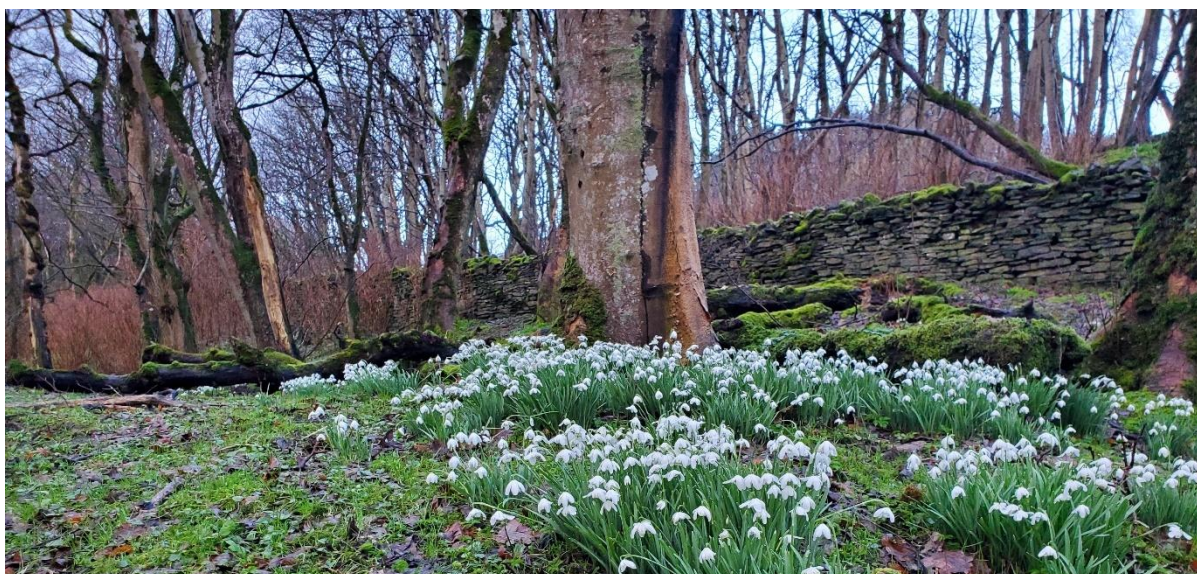


Figure 14: snowdrops in Binscarth wood near Finstown

- 4.4 These trees and woodlands also all make an important contribution to the biodiversity of Orkney. It is not just the trees themselves that are important, but the associated species that rely on them both within the soil and above ground. For example fungi and invertebrates such as earthworms that live under the ground, lichens and mosses that live on the surface of trees, and the shelter trees provide for wildlife such as birds to breed and protection from the weather. Trees also capture and store carbon. This helps counter greenhouse gas emissions and so contributes to tackling climate change.
- 4.5 Some trees in Orkney have specific protection, either through Tree Protection Orders (TPOs), being within a Conservation Area or by a condition of a previous planning permission (figure 15). It is the landowner/manager's responsibility to check whether or not a tree or trees are protected and to gain the necessary permission before undertaking any works. The Development Management team of the Council can be contacted to find out whether a tree is protected and what permissions may be required.

Conservation Areas, Historic Gardens and Designed Landscapes

Trees within a Conservation Area are protected as they provide an important contribution to the character and amenity of the area. Conservation Areas are areas of special architectural or historical interest with a character or appearance that is desirable to preserve or enhance, which trees contribute to. In Orkney there are six Conservation Areas, five on the mainland (in Kirkwall, Stromness, St Margaret's Hope, Brodgar and Eynhallow) plus one at Balfour village on Shapinsay. Information about Conservation Areas in Orkney can be found on council website. Six weeks prior notice must be given to the Planning Authority of the intention to carry out works affecting a tree or trees within a Conservation Area. The law relating to conservation areas and trees within them is Part II of the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997. Planning circular 1 (2011) provides information on what work requires permission from the Planning Authority.



Trees within the Historic Garden and Designed Landscapes (HGDLs) of Melsetter house on Hoy and Balfour Castle on Shapinsay make an important contribution to the character and cultural significance of the area. HGDLs are grounds laid out for artistic effect, which trees often contribute to. Information about HGDLs in Orkney can be found on Historic Environment Scotland website. While HGDLs do not have statutory protection, the planning authority must take their cultural significance into account during the planning process.

Tree Protection Orders (TPOs)

TPOs are a means of protecting individual trees, groups of trees or woodlands, where the removal of or damage to those trees could have an adverse effect on the public amenity of an area. TPOs are made by the Planning Authority and form a legal constraint permanently attached to the title of the land where the trees are located. Prior consent is required from the Planning Authority for any works affecting TPO trees. Information about the law for TPOs can be found in the Town and Country Planning (Tree Preservation Order and Trees in Conservation Areas) (Scotland) Regulations 2010. Further information on Orkney TPOs can be found on the Council website.



Previous planning conditions

Some trees may be protected by way of a planning condition of a previous planning permission, for example to safeguard existing trees as part of biodiversity measures to meet the requirements of NPF4 policy 3. Information on previous planning permissions can be found by searching planning applications by address or using the map function on Application search section of the Council website.



Figure 15: ways in which trees may be protected



Enhancing

- 4.6 As trees, woodlands and hedges provide benefits to people and nature (figures 16 – 18), increasing the amount of trees, woodlands and hedges is encouraged to enhance the existing resource.
- 4.7 Location specific assessment will be required by those considering tree planting to take account of site specific sensitivities, to identify the most suitable areas to plant and the species of tree most appropriate to the potential site.
- 4.8 Site specific sensitivities that will require consideration include, but are not limited to: archaeology, biodiversity (including protected species and areas protected for nature conservation or otherwise important for nature), soils, water environment, landscape character in particular how proposals fit within the open landscape of Orkney (and, if relevant, effects on the special qualities of the Hoy and West Mainland National Scenic Area), existing and neighbouring land uses. An understanding of exposure and local topographical effects on exposure is also essential. Optimum sites for planting have deep, rich soil as well as good shelter from strong salt winds. Useful sources of information to help with site specific assessment are provided at the end of the strategy. Detailed formal assessment through an Environmental Impact Assessment may also be required for proposals meeting the criteria set out in the Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017.
- 4.9 It is expected that native species will be used as the first choice for new and replacement (compensatory) planting, as native species are considered to have evolved with and adapted alongside native wildlife, providing greater benefits compared with non-native tree species. However it is recognised that in some locations and circumstances, non-native species may be better able to achieve the desired outcome. For example, within settlements that require a specimen tree as a landscaping feature, or evergreen shrubs for year-round privacy and screening purposes. In such situations, the non-native species must be known to survive Orkney conditions.

- 4.10 The Orkney woodland design guide contains information about native and other species known to survive Orkney conditions (as well as guidance on integrating woodland into the Orkney landscape). In all situations, invasive non-native species listed in Annex B of the NatureScot guidance on Developing with nature must not be planted.

More trees and hedges: benefits for people

Trees and green spaces provide opportunities for people to be in nature, which has health and well-being benefits. Trees and hedges added to existing development or incorporated into the layout and design of new development can also enhance the character, setting and amenity of the development. For example, hedges and trees can be used to define boundaries, provide focal points and areas of interest. Clusters of trees and hedges, particularly along path networks, can also offer shelter from the elements.

Scrubby woodland can be found around many farms and houses throughout the Orkney countryside, either planted to form wind breaks or making use of buildings as shelter in order to grow. More significant areas of woodlands and clusters of trees can also be found in more sheltered locations and associated with larger historic estate houses, such as Binscarth wood near Finstown and Balfour castle in Shapinsay. Such trees and scrub woodland contribute to the landscape character of Orkney, providing features, variety and interest.

More trees and hedges: benefits for nature

The expansion of existing woodlands and the planting of new trees or hedges is particularly encouraged where it would contribute to nature networks. Nature networks provide links between areas important for biodiversity, to enable wildlife to move between areas using habitat corridors and stepping stone patches of habitat. The planting of new trees and hedges that enable connection with nature networks would provide biodiversity benefits over a wider area than would otherwise be achieved from planting in isolation.

There are opportunities to enhance the woodland habitat network along watercourses and around waterbodies. This would increase connectivity across the landscape, allowing a wide range of woodland species to disperse, recolonise and migrate across the landscape more easily, while also providing shelter to other species. In areas protected for nature conservation, there may be small scale opportunities for tree planting or woodland expansion that is compatible with the habitats and/or species that the area is important for. For example, planting of native wet woodland species around a loch that contributes towards achieving the conservation objectives of the area.

Figure 16: examples of the benefits of trees to people and nature

More trees and hedges: benefits for agriculture, climate and communities

Trees and hedges on farms provide shelter for livestock and crops, while also enhancing biodiversity by providing food and protection for wildlife. Due to their carbon capture ability, trees and hedges should contribute positively to farm carbon audits. New planting proposals could also be eligible for agri-environment schemes and/or woodland grants.

Trees absorb carbon dioxide from the air, locking carbon into their wood. By removing carbon from the air, trees play an important role in helping tackle emissions that contribute to climate change. However it is important to have trees in the right place. For example, peaty soils act as a significant carbon store, so planting trees in them should be avoided as it causes carbon to be released, as well as tending to have a low tree survival rate.

As the climate is changing, with extreme weather events becoming more frequent, trees can help lessen the effects. For example by slowing water flows, reducing soil erosion and providing shelter.

Communities may be able to benefit from free trees and funding opportunities. Some charities such as the Woodland Trust run initiatives to give away free trees to community led projects on a range of scales, including small groups of trees or short hedges, as well as woodlands. Where communities have ownership or access to land where they wish to plant trees or hedges, there may be potential for communities to partner with developers that need to deliver biodiversity measures as a result of NPF4 policy 3, but are unable to do so within their development site. The developers could instead help fund or deliver community tree or hedge planting as an alternative way of delivering for biodiversity.

Figure 17: examples of the benefits of trees to agriculture, climate and communities



Figure 18: hedging providing shelter and food for livestock



Resilient

- 4.11 Orkney's native trees and woodlands have evolved over millennia in a relatively stable albeit slowly changing climate. However with human induced climate change, both native and non-native trees in Orkney are facing new challenges due to the increased rate of change. The warmer, wetter seasons and stronger winds also allow pests and diseases to spread more easily. An example would be ash dieback, caused by a fungus, which spread across the UK from 2012 and was first reported in Orkney ash trees in the early 2020s. Planting the right species of tree and in the right location are key to supporting and building resilience in trees against the effects of climate change, pests and diseases.
- 4.12 While there is limited scope for natural regeneration in Orkney due to the limited extent of seed producing woodlands and suitability of adjoining habitat, allowing natural regeneration of existing trees or collecting and growing on seed from existing trees for use to expand an existing woodland should result in the strongest seedlings most able to withstand climate and other pressures. This should help build natural resilience to local conditions, as well as contributing to woodland expansion.
- 4.13 When planting new trees, there are different views on provenance. Some consider that local provenance should be first choice as they consider that trees will be best adapted to local conditions and weather patterns. However an alternative view is that greater genetic diversity should be encouraged, to increase resilience to the future effects of climate change. It is recognised that it may not always be possible to source Orkney provenance trees due to limited stock. In such situations, the next choice would be trees with provenance within the same seed source region, preferably also with similar exposed northern coastal conditions.
- 4.14 The Scottish Forestry seed sources for planting native trees and shrubs in Scotland guidance provides information on seed zones and the species native to them, which may be helpful in identifying alternative tree supplies.

4.15 For all planting of more than one tree, species diversity is essential (figures 19 and 20). Different species have different strengths and weaknesses. A mix of species should therefore ensure that the trees or hedging are better able to withstand adverse effects caused by climate change, pests and diseases and so remain functional. For example, a woodland planted of only ash trees would be susceptible to ash dieback, with all the trees likely dying over time and so losing the woodland habitat. Whereas a woodland with a variety of species would lose any ash trees but should remain a functioning woodland.



Figure 19: example of mixed planting at the Peedie Sea in Kirkwall, including rowan, birch and alder



Figure 20: example of mixed planting at Olav's wood in South Ronaldsay, including willow, oak, hawthorn and conifers

5.0 Further information

Orkney Woodland Project - provides a range of information focused on trees in Orkney, including the **Orkney woodland design guide** to selecting and establishing trees for woodland projects, which contains a list of native and other tree species known to grow in Orkney. <https://www.orkneycommunities.co.uk/woodland/>

Woodland Trust - provide a range of information on a range of topics, including: The Highlands & Islands Woodland Handbook (pages 179 - 181) available via the bottom of the The Croft Woodland Project webpage <https://www.woodlandtrust.org.uk/about-us/where-we-work/scotland/croft-woodlands/> as well as funding for community and other woodland creation projects under the 'Plant trees' heading on <https://www.woodlandtrust.org.uk/>

Tree root protection zone calculations - Woodland Trust information providing an explanation of root protection areas and their importance in safeguarding the health of existing trees. <https://www.woodlandtrust.org.uk/blog/2021/04/root-protection-areas/>

Scottish Forestry Seed sources for planting of native trees and shrubs - Scottish Forestry policy and information about selecting suitable origins and provenances of native plants and seeds. <https://www.forestry.gov.scot/forests-environment/biodiversity/native-woodlands/seed-sources>

UK Forest Standard Practice Guide: Adapting forest and woodland management to the changing climate - guidance on choosing and implementing appropriate adaptation measures to help forests and woodlands adapt to the changing climate. <https://www.forestresearch.gov.uk/publications/adapting-forest-and-woodland-management-to-the-changing-climate/>

Scottish Forestry grants and funding - information and support for tree planting <https://www.forestry.gov.scot/support-regulations/woodland-creation>

Agri environment schemes - the Agri-Environment Climate Scheme (AECS) promotes land management practices which protect and enhance Scotland's magnificent natural heritage, improve water quality, manage flood risk and mitigate and adapt to climate change. <https://www.ruralpayments.org/publicsite/futures/topics/all-schemes/agri-environment-climate-scheme/>

UK Forest Standard - sets out the UK Government approach to sustainable forestry. Although written for commercial forestry, it contains information on topics including biodiversity, historic environment, soils and people that will be useful for non-commercial woodland creation and tree planting.

<https://www.gov.uk/government/publications/the-uk-forestry-standard>

Archaeology and historic environment - Orkney is exceptionally rich in heritage assets and is internationally famous for its prehistoric archaeology. While some archaeological assets may be obvious and well known (and in some places, given legal protection through a designation), much may remain unknown, concealed underground. Tree planting could affect heritage assets by having a direct physical effect (such as damage caused by intruding tree roots), affecting the setting of a heritage asset (for example by changing the landscape context), or through indirect effects (for example by increasing erosion caused by increased visitor numbers). All known historic environment assets, designated or not, must be taken into consideration during a site assessment.

Orkney Islands Council, Islands Archaeologist may be able to provide advice on the potential for unknown and undesignated archaeology

<https://www.orkney.gov.uk/our-services/planning-and-building/development-and-marine-planning-policy/#>

Canmore and Pastmap provide information about known archaeological sites, buildings and industrial heritage. <https://canmore.org.uk/map/about>

Historic Environment Scotland provide information about scheduled monuments and other known historic environment designations

<https://www.historicenvironment.scot/advice-and-support/listing-scheduling-and-designations/scheduled-monuments/> as well as information about the three Historic Gardens and Designed Landscapes (HGDLs) designated in Orkney, two of which contain trees (Melsetter house on Hoy and Balfour Castle on Shapinsay).

<https://www.historicenvironment.scot/advice-and-support/listing-scheduling-and-designations/gardens-and-designed-landscapes/>

National soil map - map showing the different soil types found across Scotland, with more detailed mapping available for Orkney by selecting the partial cover map. This can be used to identify areas of carbon rich and peaty soils, which are important

stores of carbon unlikely to be suitable for tree planting.

<https://soils.environment.gov.scot/maps/soil-maps/national-soil-map-of-scotland/>

Native Woodland Survey of Scotland - information and a map for the Scotland wide surveys carried out from 2006-2013 to identify native woodlands.

<https://www.forestry.gov.scot/forests-environment/biodiversity/native-woodlands/native-woodland-survey-of-scotland-nwss>

Ecological site classification tool - a tool provided by Forest Research to suggest what tree species are suited to a particular site based on climate background data. However it should be noted that the tool does not take account of localised topographical exposure/shelter, so the results may not be accurate for Orkney conditions and do not replace the need for local advice and site specific assessment.

<https://www.forestresearch.gov.uk/tools-and-resources/fthr/ecological-site-classification/>

Scotland's environment web - provides a range of environmental datasets that can be viewed on a map or downloaded, including on areas protected for nature conservation. <https://map.environment.gov.scot/sewebmap/>

National Scenic Area and landscape character - information on the Hoy and West Mainland NSA and wider landscape character of Orkney.

<https://sitelink.nature.scot/site/9128> and <https://www.nature.scot/doc/landscape-character-assessment-orkney-landscape-evolution-and-influences>

Local Nature Conservation Sites (LNCS) - information and maps about LNCS in Orkney, including what habitats and species they are important for. LNCS are identified by the Council as part of the Local Development Plan process.

<https://oic.maps.arcgis.com/apps/MapJournal/index.html?appid=273d8d6359ae451cbe16f3a867297276>

RSPB Orkney - may be able to help provide advice on the location of areas important to birds and other wildlife that is reliant on non-wooded habitat, such as corncrake and waders, which would help during the site assessment.

<https://www.facebook.com/RspbOrkney>

List of invasive non-native species – Annex B of the Developing with nature guidance provides a list of invasive non-native species that must not be included in any planting. <https://www.nature.scot/doc/developing-nature-guidance#annex-b>



Figure 21: St Magnus cathedral spire through the trees at Papdale woods, Kirkwall (credit Erica Niven)

6.0 Glossary

Ancient woodland - land that has maintained continuous woodland habitat since at least 1750. There is no ancient woodland in Orkney.

Forest - a term often used interchangeably with woodland (see the definition of a woodland) but generally considered to mean a significant area of ground covered in trees.

Hedge – a line of two or more trees or shrubs planted closely together, typically (but not always) planted to form a boundary.

Mitigation hierarchy - NPF4 defines the mitigation hierarchy as indicating the order in which the impacts of development should be considered and addressed. These are: i. Avoid – by removing the impact at the outset. ii. Minimise – by reducing the impact. iii. Restore – by repairing damaged habitats. iv. Offset – by compensating for the residual impact that remains, with preference to on-site measures over off-site measures.

Native species - species that have evolved to grow naturally in a particular geographic area and are adapted to survive the conditions found there (as opposed to having been transported there by humans, either deliberately or accidentally). The Orkney Woodland Design Guide consider Orkney native tree species to be downy birch (*Betula pubescens*), hazel (*Corylus avellana*), rowan (*Sorbus aucuparia*), aspen (*Populus tremula*), eared, grey, tea leaved and creeping willows (*Salix aurita*, *cinerea*, *phylicifolia*, *repens*), glandular dog, glaucous dog, soft downy and downy roses (*Rosa squarrosa*, *vosagiaca*, *mollis*, *sheradii*), honeysuckle (*Lonicera periclymenum*) and juniper (*Juniper communis*).

Native woodland - can be semi-natural (self-sown) or planted, in which over 50% of the canopy is made up of species native to the region.

Native Woodland Survey of Scotland- Scotland wide surveys carried out from 2006-2013 to identify native woodlands.

Non-native species - species that have been transported outside of their native range. The Orkney Woodland Project Woodland design guide includes

A list of non-native species known to survive Orkney conditions

<https://www.orkneycommunities.co.uk/woodland/index.asp?Pageid=595117>.

Origin - the original ancestral location and native range of the plant or seed, eg a monkey puzzle tree growing in Orkney will have a South American origin.

Plantation - a woodland where the trees are directly planted, as opposed to naturally spreading (or regenerating) through seed dispersal, made of native, non-native, or mixed species. The majority of Orkney woodlands are plantations.

Provenance - the geographic source of the plant or seed, e.g. Seed collected in Hoy would have Orkney provenance regardless of where the seed was then grown on.

Shrub - a woody stemmed plant with multiple stems that sprout from low down (rather than a single trunk) with a bushy appearance, for example hazel. Some plants that appear to be shrubs in Orkney would normally be trees elsewhere due to the climatic conditions affecting growth in Orkney. In the Orkney context, shrubs play an important role in providing woodland type habitat and shelter.

Tree - a woody single stemmed plant usually with one tall main trunk, for example a sycamore tree. However some plants that would normally grow into trees elsewhere can have a shrub like appearance in Orkney due to the climatic conditions affecting growth.

Veteran tree - NPF4 defines veteran trees as those classified as such due to age (including relative age for its species) or for its biological, aesthetic, or cultural interest. Veteran trees are usually mature and provide additional habitat from natural damage, environmental conditions or management (eg coppice, decay hollows, fungal fruiting bodies, cavities).

Woodland - NPF4 defines woodlands as land under stands of trees with a canopy cover of at least 20%, or having the potential to achieve this, including integral open space, and including felled areas that are awaiting restocking (replanting). The minimum area is 0.1 ha and there is no minimum height.

Appendix I Map of native woodland in Orkney

For an interactive version of the map, see the Native Woodland Survey of Scotland data available on SEWeb via

<https://map.environment.gov.scot/sewebmap/?layers=nativeWoodlandSurveyForScotland>.



