



Trees and Woodland Strategy 2019-2039

Strategic Environmental Assessment

Environmental Report: Draft for Consultation

February 2019

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1. Non-Technical Summary

1.1. Introduction

This report summarises the Strategic Environment Assessment (SEA) of the draft Trees and Woodland Strategy (the Strategy) published by Loch Lomond & The Trossachs National Park Authority. SEA is required under the Environmental Assessment (Scotland) Act 2005 to determine the environmental impacts of implementing the Strategy.

1.2. Consultation Process

This Environmental Report accompanies the draft Strategy which sets out a clear, ambitious vision for how trees and woodlands are protected, enhanced and used within Loch Lomond & The Trossachs National Park.

Copies of the Strategy and Environmental Report (including supporting figures and appendices) are available from the National Park Authority's website at www.lochlomond-trossachs.org.

The consultation will run from 8th April until 3rd June 2019.

1.3. Purpose of Environmental Report

The purpose of this report is to identify any potential significant positive and negative environmental impacts from implementing the draft Strategy. The effects of alternatives to the Strategy are also outlined and evaluated in the report, as well as the actions to prevent, reduce and, as fully as possible, offset any significant adverse effects.

1.4. Purpose and contents of the draft Strategy

The Strategy will detail the opportunities and constraints for woodland creation and management as well as individual trees and tree groups within the National Park. The document will drive the delivery of woodland objectives and support effective consultation between all partners on woodland creation and management proposals, helping the National Park realise its four statutory aims.

The Strategy covers the full geographic area of the National Park and contains the following sections:

1. Introduction
2. Vision
3. Strategic Objectives
4. Delivering National Park Partnership Plan Priorities
5. Strategy Guidance
6. References
7. Appendices

1.5. Current State of the National Park Environment

A summary of the current environmental baseline data for the National Park is included in **Table 2** of this report. Future monitoring of the environmental impacts of the Strategy will be based on this data.

1.6. Likely Significant Environmental Impacts of the Strategy

The assessment has concluded that the draft Strategy, with its emphasis on enhancing natural capital through appropriate woodland creation and management, will have overall positive environmental effects. Some potential for mixed effects on the Biodiversity, Landscape, Soil & Geology, and Cultural Heritage SEA Topics have been identified for Strategic Objective 7 but it is expected that any negative effects would be localised and could be mitigated through established regulatory regimes and guidance. A summary of

the results of the assessments can be found in **Table 9** and full details of the assessments are presented in **Appendix C**.

These results reflect the wide ranging benefits that can be realised through woodland creation and management in line with the Strategy plus the existing safeguards that regulate woodland creation/management proposals.

In terms of cumulative impacts from the Strategy, **Table 9** illustrates that there will be overall positive effects from the interaction of the key elements of the Strategy. In particular, **Major Positive** effects are predicted for 5 of the 10 assessments for Biodiversity and Population & Human Health and 4 of the 10 assessments for Landscape and Climate. As highlighted above, **Mixed Impacts** are identified for Biodiversity, Landscape, Soil & Geology and Cultural Heritage from Strategic Objective 7. However, these effects can be addressed at a lower tier.

The potential for effects in combination with other plans, programmes and strategies is considered in section 7 of the Environmental Report. Given the overall positive environmental effects predicted from the implementation of the Strategy, there is potential for further positive effects in combination with other plans, programmes and strategies. In particular, there is potential for positive in-combination effects to address the following environmental issues:

- Climate change mitigation and adaptation
- Reducing habitat fragmentation and improving ecosystem health
- Improving quality of life
- Protecting and improving the landscape

1.7. Alternative Approaches

The following alternative approaches for protecting, enhancing and using trees and woodlands within the National Park were identified in the Scoping Report are considered further in this report.

Alternatives	Description of options
No strategy	Woodland creation/management proposals continue to be considered on a case by case basis using relevant national policies and legislation.
High level strategy	A high-level, strategic strategy would be created for the National Park focusing on the key issues for woodland creation/management in the area.
Detailed strategy	A detailed strategy would be created for the National Park which aimed to provide guidance on all local woodland creation/management issues at an individual landowner scale.

The ‘High level strategy’ has been identified as the preferred approach for the draft Strategy as this secures the greatest positive environmental effects. This option will build on national policy and highlight key strategic issues/sensitivities within the National Park. In doing so, it will help to steer proposals to the most appropriate locations that maximise the benefits of woodland creation/management whilst minimising any potential negative impacts. It will also allow grant uplift to encourage woodland creation proposals that are in line with the Strategy. Whilst individual proposals that come forward in line with the Strategy will still need to be assessed, it is likely that any negative impacts can be addressed through sensitive design in line with the principles detailed in the Strategy. For further details of the assessment of alternatives, please see **Appendix C**.

1.8. Mitigation

A high level of mitigation is already built into the woodland creation/management process due to existing national policy and legislation. This includes a requirement for all forestry proposals within the National Park (e.g. planting, felling, forest roads and quarries) to be screened for significant environmental effects by Scottish Forestry. As a result, the potential for significant environmental effects from the Strategy is relatively low.

Commencing the SEA process alongside the initial development of the Strategy made it possible to amend the guidance in the Strategy to address potential environmental issues as they were identified. This included refining the *Opportunity mapping for native woodland creation* (Map 4) to highlight national/international nature conservation sites that would be sensitive to native woodland creation. **Table 8** illustrates the connection between the SEA Topics and the key guidance within the draft Strategy.

Mitigation measures to address the potential mixed effects of Strategic Objective 7 are set out in **Table 10** along with the party responsible for implementing the mitigation.

1.9. Monitoring

A monitoring framework is currently in place for the National Park Partnership Plan (2018-2023) and the impacts of the adopted Strategy on the environment will primarily be monitored via this framework. **Table 12** illustrates the connection between the National Park Partnership Plan Key Indicators and the SEA Topics. These indicators will be used to monitor the impact of the Strategy on the environment and inform the review of the Strategy in 10 years' time.

1.10. Next steps

Following an 8 week public consultation on both the draft Strategy and Environmental Report, the consultation responses received will be collated, considered and incorporated into the development of the final Strategy, ready for National Park Authority Board approval. The Environmental Report will be updated as required.

2. Introduction

The Strategic Environmental Assessment (SEA) of the draft Trees and Woodland Strategy (the Strategy) is being undertaken to comply with the requirements of the Environmental Assessment Scotland Act 2005. As the Strategy may have significant environmental effects and it is a qualifying plan under the terms of the Act, a Scoping Report was produced in August 2018 and submitted to the Consultation Authorities via the Scottish Government’s SEA Gateway. Feedback on the proposed assessment methodology and consultation period for the Environmental Report was received from the Consultation Authorities in September 2018. Comments from the consultation authorities have been incorporated into the final assessment methodology and are summarised in Appendix A below.

3. Purpose of the SEA Environmental Report

As highlighted in the Scottish Government’s Guidance (August 2013), “SEA is a means to judge the likely impact of a public plan on the environment and to seek ways to minimise that effect, if it is likely to be significant”. By undertaking the SEA in parallel with the preparation of the Strategy, potentially significant effects were identified early on and either mitigated or objectives modified or removed where required. The SEA also allows consideration of cumulative effects and synergistic impacts which occur in combination with either positive or negative impacts. The aim is to demonstrate where environmental effects are likely to occur, to clearly and succinctly explain their severity and to provide mitigation solutions to ensure adverse effects can be avoided or reduced as far as possible.

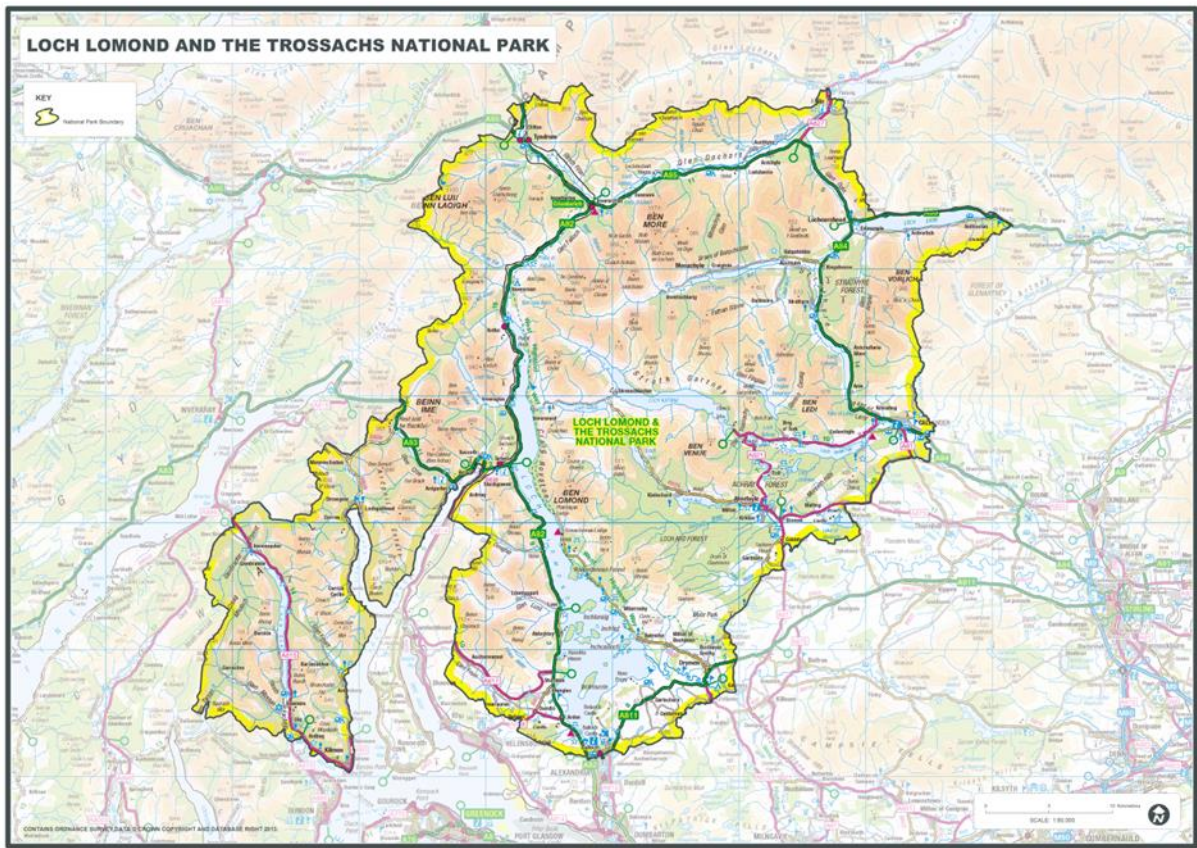
This draft Environmental Report outlines the findings from the environmental assessment of the draft Strategy and establishes any likely significant effects (positive and negative) of implementing the Strategy. Mitigation measures to avoid, reduce or offset adverse effects have been identified and, where appropriate, reasonable alternatives have also been considered.

4. Details of the National Park Trees and Woodland Strategy

Name of Responsible Authority:	Loch Lomond & The Trossachs National Park Authority
Title of Draft Plan, Programme or Strategy (PPS):	Loch Lomond & The Trossachs National Park Trees and Woodland Strategy 2019- 2039
Requirement for the PPS:	Scottish Forestry Strategy 2019-2029 Forestry Commission Scotland Guidance “The Right Tree in the Right Place: Planning for Forestry & Woodlands” National Park Partnership Plan 2018-2023 Climate Change Action Plan Live Park (Local Development Plan 2017-2021) Scottish Biodiversity Strategy Wild Park 2020, the Biodiversity Action Plan for the National Park
Subject of the PPS:	Tree and woodland planting and management
Period covered by the PPS:	2019 – 2039
Frequency of Updates:	Review every ten years.
Geographic Area covered by the PPS:	Area designated as The Loch Lomond & The Trossachs National Park. See Figure 1 below.
Purpose and/or objectives of the PPS:	The Strategy will detail the opportunities and constraints for woodland creation and management as well as individual trees and tree groups within the National Park.

	The document will drive the delivery of woodland objectives and support effective consultation between all partners on woodland creation and management proposals, helping the National Park realise its four statutory aims.
Contact:	Graeme Heenan Ecologist Loch Lomond & The Trossachs National Park Authority National Park Headquarters Carrochan Road Balloch G83 8EG Graeme.Heenan@lochlomond-trossachs.org 01389 722145

Figure 1: Loch Lomond and the Trossachs National Park



The strategy sets out a clear, ambitious vision for how trees and woodlands are to be protected, enhanced and used within Loch Lomond & The Trossachs National Park. It is a key document for land managers and regulators to inform and offer direction to forest, woodland and tree proposals over the next twenty years.

The strategy covers all types of woodland, from small-scale tree planting to landscape and productive forestry. It will help deliver both Scottish Government and National Park priorities relating to climate change, biodiversity and sustainable development.

There are seven strategic objectives:

1. Increasing woodland cover.
2. Improving woodland condition and diversifying woodland management.
3. Protecting and enhancing the National Park's Special Landscape Qualities.
4. Maintaining and enhancing economic sustainability through forestry-related skills and business development.
5. Promoting cooperative woodland management and creation as part of an integrated land management approach.
6. Improving community empowerment and resilience through active engagement in woodland management.
7. Encouraging and promoting public access to woodlands for recreation and improving people's quality of life.

The Strategy highlights five main themes that will help the National Park deliver its strategic objectives. Any forestry proposal should consider these where appropriate.

Habitat enhancements – The Strategy includes guidance on expanding woodland habitat networks, riparian and montane woodland and priority woodland habitats to increase diversity and protect flagship species. The importance of tackling invasive non-native species is also documented, as well as the restructuring of productive conifer (including PAWS restorations), climate change and tree health.

Landscape integration – The Strategy offers direction on how to design forestry proposals that enhance and protect the Special Landscape Qualities of the National Park and the enjoyment of these from key views valued by visitors and local communities. In this section, the National Park has been divided into ten areas, looking at the landscape character of each and how this would be taken into account in any forestry proposals.

Integrating woodland with other land uses – Guidance is included for designated sites, open ground habitats, herbivore management, deer fencing and agricultural land management (including how to integrate woodland creation and management with existing agricultural businesses). This could include the establishment of Land Use Partnerships.

Rural economic development – Opportunities for economic expansion within the National Park are highlighted. In particular, there is focus on improving woodland management skills, maintaining and diversifying the production of timber products, haulage and timber transport. As woodland creation and management proposals can affect the local landscape, tourism and visitor services, communities are encouraged to engage with woodland proposals through the consultation process.

Woodlands and people – The National Park's woodlands are used for tourism and outdoor recreation activities. The Trees and Woodland Strategy promotes responsible access and encourages the public use of woodland for recreation and outdoor education.

The Strategy contains strategic maps showing potential areas for woodland expansion. These maps are included as a guide, however, there remains a need for site-specific surveys and stakeholder engagement to be carried out before any woodland creation proposal is submitted to the Scottish Forestry.

The strategic guidance applies to both existing woodland management as well as woodland creation proposals to deliver innovative 21st century forestry proposals appropriate for the first national park in Scotland.

The proposed programme for the preparation of the Strategy and Strategic Environmental Assessment (SEA) is set out below in **Table 1**.

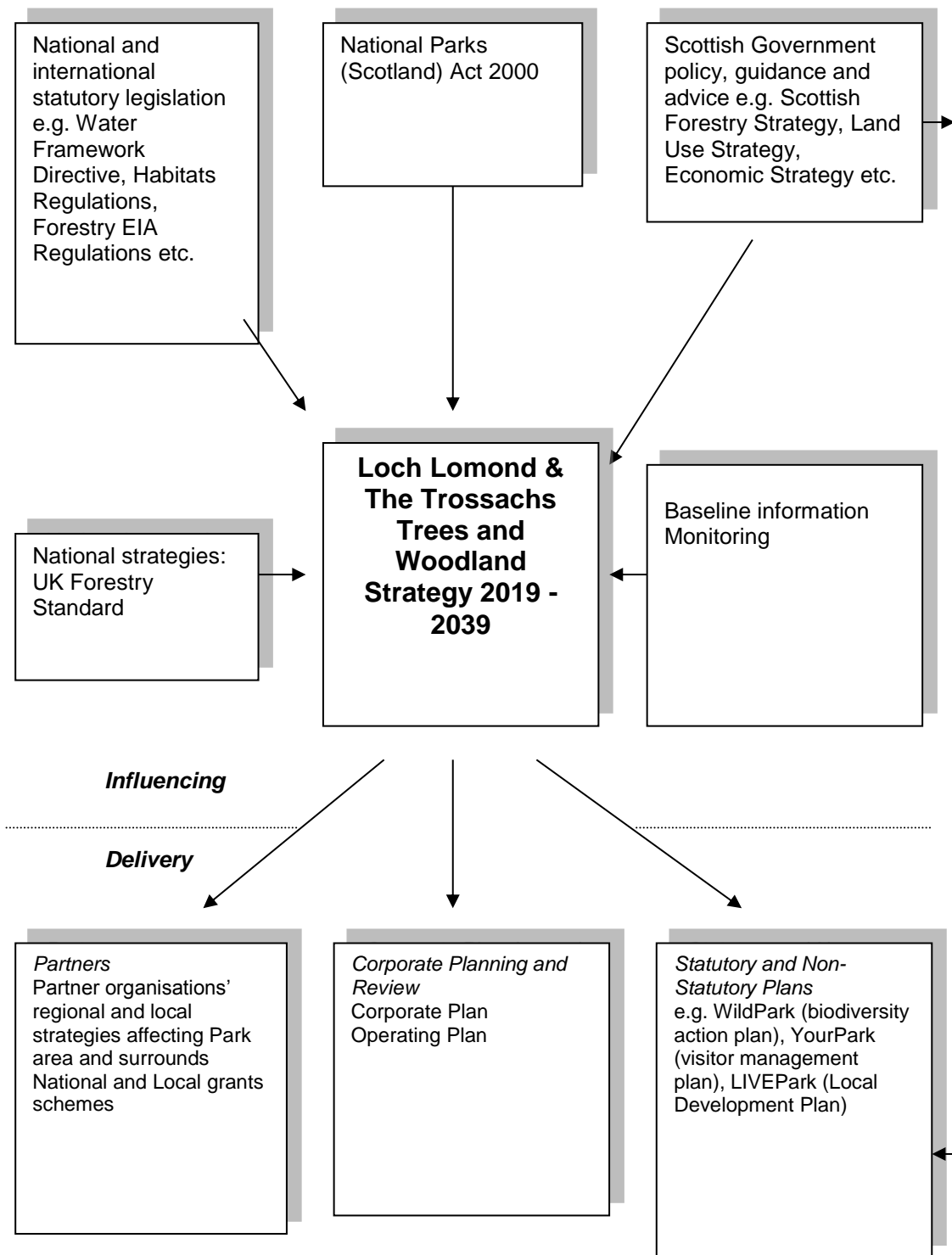
Table 1: Strategy and SEA Preparation Timetable Indicative

Milestone	Indicative Timescale	Status
Strategy Stakeholder Engagement Event	28 June 2018	Complete
SEA Scoping Report submitted to SEA Gateway	August 2018	Complete
Review of feedback from Consultation Authorities on Scoping Report	September 2018	Complete
Drafting of Strategy for formal consultation and informal consultation with key stakeholders	October to February 2019	Complete
Assessment of draft Strategy and preparation of draft SEA Environmental Report		
Formal consultation – 8 weeks (TWS and SEA Environmental Report)	8 April 2019	
Review of consultation responses and update of draft Strategy and SEA Environmental Report	2 June 2019	
Publish final Strategy Post Adoption Statement and Monitoring	Date to be Confirmed	

4.1. Relationship with other Plans, Policies, Programmes and Objectives

The draft Strategy has been influenced by a number of plans and policies at the national, strategic and local level. A review of relevant Plans, Programmes and Strategies (PPS) has been undertaken and the results are detailed in **Appendix B. Figure 2** below illustrates the main PPS that influenced the preparation of the Strategy.

Figure 2: Relationships with other relevant PPS



5. Methodology for the SEA

The Strategic Environmental Assessment (SEA) involved completing the following stages:

(a) Establish the environmental baseline

A fundamental aspect of the SEA is to establish the environmental baseline against which the Plan's future implementation is being assessed. The purpose of the SEA is to determine how the environmental baseline will be altered as a result of the implementation of the Strategy.

The National Park is a Category V Protected Landscape as defined by the International Union for Conservation of Nature, described as an:

- *“area of land with coast and sea as appropriate, where the interaction of people and nature over time has produced an area of distinctive character with significant aesthetic ecological and cultural value and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection maintenance and evolution of such an area”.*

The challenge for the National Park Authority in looking after the National Park is to fulfil the requirements of the National Parks (Scotland) Act 2000, which are to:

- a) Conserve and enhance the natural and cultural heritage of the area,
- b) Promote the sustainable use of the natural resources of the area,
- c) Promote understanding and enjoyment (including enjoyment in the form of recreation) of the special qualities of the area by the public, and
- d) Promote sustainable economic and social development of the area's communities.

These aims are to be collectively achieved, unless there is a conflict between the first aim and any of the other aims in which case the first aim must be given greater weight.

A list of the key environmental characteristics of the National Park was previously developed and refined by staff across the organisation for the SEA of the Local Development Plan, and most recently the National Park Partnership Plan. This included expertise in; planning, ecology, landscape, trees and woodlands management, access and environment. This list has been reviewed and updated for the purposes of this SEA. **Table 2** below summarises the environmental baseline for the SEA and key information sources.

Table 2: Scoped issues, trends and information sources to be included in SEA

Resource/topic	Current state of the Environment	Key trends	Implications of National Park Trees and Woodland Strategy for key trends	Information sources
Biodiversity	<ul style="list-style-type: none"> • Eight Special Areas of Conservation • Two Special Protection Areas • Two National Nature Reserves • 56 Sites of Special Scientific Interest (SSSI) with 136 notified features. Of these 56 SSSIs, 19 are designated for their woodland interest and 8 have at least 1 feature in unfavourable condition. • One Ramsar site • Large areas managed for conservation e.g. areas owned or managed by Royal Society for the Protection of Birds (RSPB) Scotland, National Trust for Scotland (NTS) and the Woodland Trust and parts of the Argyll and Queen Elizabeth National 	<ul style="list-style-type: none"> • Increase in invasive non-native species • Decline in some species, such as the powan and capercaillie • Population increases in some species such as pine marten and red squirrel. • On-going suppression of semi-natural habitats in large parts of the uplands by domestic sheep, wild deer and/or feral goats • Herbivore impacts limiting native woodland regeneration and establishment in some areas • Restricted species and structural diversity in existing woodlands due to unsustainable herbivore impacts • Increase in spate 	<ul style="list-style-type: none"> • Ensuring the protection of biodiversity within designated sites and encourage management to improve feature condition • Enhancing biodiversity outside of designated sites and improving functional connectivity at a landscape scale • Providing for the expansion of native woodlands and improvement of biodiversity quality of existing native woodlands • Providing for the continued protection of peatlands, as important habitats, carbon and groundwater stores • Providing for the continued protection of GWDTE • Undertake sustainable control of non-native invasive species • Impacts on existing woodland and forests due disease outbreaks (e.g. <i>Phytophthora ramorum</i> and Chalara ash dieback) • Ensuring that new productive forests are sensitively sited and well-designed. • Ensure that potential for increased herbivore impacts due 	<ul style="list-style-type: none"> • National Park Biodiversity Audit, 2010, Loch Lomond + the Trossachs National Park Authority (LLTNPA) • National Biodiversity Network • SNH – information on site condition and qualifying interests and features • Wild Park 2020 National Park Biodiversity Action Plan • Scottish Biodiversity Strategy (Scotland’s Biodiversity - It’s In Your Hands; 2020 Challenge for Scotland’s Biodiversity) • Study of the recreation impacts on Loch Lomond Islands, Walking the Talk, Macaulay Scientific Consulting Ltd and Paul Johnson, July 2010 • Fishery Management Plans for Loch Lomond, Tay, Forth and Argyll catchments • Strategic Deer Management in the LLTNP Issues Report 2002 - LLTNPA Deer Management Forum • Native Woodland Survey of Scotland- Loch Lomond & The Trossachs National Park (2014) • Association of Deer Management Groups - http://www.deer-

Resource/topic	Current state of the Environment	Key trends	Implications of National Park Trees and Woodland Strategy for key trends	Information sources
	<p>Forest Parks</p> <ul style="list-style-type: none"> • Invasive Non Native Species (INNS) include Rhododendron ponticum, Japanese knotweed, giant hogweed, Himalayan balsam, North American skunk cabbage, North American mink, Canada goose, grey squirrel and ruffe. • Plant health issues, such as tree diseases affecting ash trees, juniper, pine and larch. • High profile native species include golden eagle, osprey, pine marten, salmon, powan, Scots pine, red squirrel, black grouse, water vole, bryophytes, arctic-alpine plants • Presence of beaver in the north of the park and future European protected species status • Approximately 184 UK Biodiversity 	<p>events and flooding</p> <ul style="list-style-type: none"> • Landscape scale ecosystem approach to conservation and restoration (e.g. The Great Trossachs Forest Project). • Increase in renewable energy development projects such as run of river hydropower schemes in the uplands • Increase in plant health issues (in particular tree diseases) • Increased restoration of degraded peatland habitats through Peatland Action 	<p>to increased tree cover and connectivity promoted by the strategy are addressed via appropriate herbivore management.</p>	<p>management.co.uk/</p> <ul style="list-style-type: none"> • Conservation Sites of Arctic Charr, Loch Lomond Fish and Fisheries Trust, 2011 • Audit and management recommendations for invasive plants in the Loch Lomond & the Trossachs National Park, Final Report 2007 • YOUR Park consultation 2015

Resource/topic	Current state of the Environment	Key trends	Implications of National Park Trees and Woodland Strategy for key trends	Information sources
	<p>Action Plan Species of Conservation Concern, including 37 Priority Species</p> <ul style="list-style-type: none"> • Upper Fyne and Loch Goil Marine Protected Area. 			
Population and Human Health	<ul style="list-style-type: none"> • 15,600 resident population in 2001, 15,168 in 2011 and 14,900 in 2016 • Population density of 0.08 people per hectare, with highest concentrations in Balloch and Callander • Ageing population, loss of young people • Predicted decline in population of 7% between 2016 and 2026 	<ul style="list-style-type: none"> • Ageing population • Trend of younger population moving away from Park • Predicted population decline of 7% by 2026 	<ul style="list-style-type: none"> • Support sustainable rural development • Support community empowerment and encourage engagement between local communities and woodland owners/managers to explore opportunities for greater involvement in the use and management of woods. 	<ul style="list-style-type: none"> • 2011 Census - General Register Office for Scotland and the National Archives for Scotland www.scotlandspeople.gov.uk • Local Development Plan Background Report: Population and Housing, May 2017, LLTNPA • National Records of Scotland - Population Projections for Scottish Areas (2016-based)
	<ul style="list-style-type: none"> • 84.3% of Park's population describe their general health as good/ very good 	<ul style="list-style-type: none"> • Larger percentage of the Park population enjoys a higher standard of general health compared to 	<ul style="list-style-type: none"> • Promoting woodland management and creation that: <ul style="list-style-type: none"> ➢ Protects and enhances the special landscape qualities of 	<ul style="list-style-type: none"> • 2001 Census and 2011 Census - General Register Office for Scotland and the National Archives for Scotland www.scotlandspeople.gov.uk

Resource/topic	Current state of the Environment	Key trends	Implications of National Park Trees and Woodland Strategy for key trends	Information sources
	<ul style="list-style-type: none"> • 82.21% of Scotland's population describe their general health as good/ very good • Households - 6,515 households in 2001 and 6594 in 2011 • Transport – the car is the dominant mode of private transport within the park with 1.42 cars per household in 2001 and 1.46 cars per household in 2011 • Tourism accommodation – 19,000 beds available in 2013 • Visitor Services produced £205m in value(2011) • 85% of visitors to the Park travel by car 	<p>the national average</p> <ul style="list-style-type: none"> • The National Park has potential to help general health of Scotland as a whole • High levels of need for affordable housing • Strong external demand for second, retirement and commuter homes • Trend of out commuting to higher paid jobs and in commuting to lower paid jobs • Limited public transport options within and outwith the Park • Continued reliance on private car • Change from traditional agricultural activities to more diverse activities including tourism, recreation and renewable energy • Demand for tourism accommodation and facilities • Increase in number 	<p>the National Park to make it an attractive place to live, work and visit</p> <ul style="list-style-type: none"> ➤ Improves the resilience and sustainability of woodlands, both environmentally and economically, to maintain and improve employment opportunities ➤ Increases the local economic contribution of forestry in rural areas by realizing the benefits of processing and using wood resources near to source; identifying solutions to haulage or extraction issues; and delivering tourism and recreation services. ➤ Provides a framework for supporting land managers to plan for the future and maximise multiple benefits with support from funding sources such as Scottish Government Grants ➤ Promotes better integrated land management of woodland creation and management alongside others types of land use, including agriculture and renewable energy production. ➤ Encourages active travel and outdoor leisure 	<ul style="list-style-type: none"> • Local Authority Housing Need and Demand Assessments • Stirling Business Space Study • National Park background work to inform National Park Local Plan • National Park Economic Valuation Study • Planning application data July 2002 – December 2014 LLTNPA • Scottish Executive Environment + Rural Affairs Department Agricultural Census 2012– Scottish Government • LLTNPA Agricultural Forum 2003 • Community Futures Action Plans, LLTNPA • LLTNPA Camping Survey, 2006 • Tourism accommodation and tourism numbers audit 2003 – Scarborough Tourism Economic Activity Monitor • Visitor survey and Community Transport Feasibility Study 2004 - LLTNPA

Resource/topic	Current state of the Environment	Key trends	Implications of National Park Trees and Woodland Strategy for key trends	Information sources
		<p>of tourists with 85% travelling to the Park by car</p>		
<p>Geology, Minerals and Soils</p>	<ul style="list-style-type: none"> • Highland Boundary Fault • Glaciation has had a significant effect in shaping the landform of the area • History of slate, limestone and sandstone quarrying; and lead, zinc and gold mine exploration • Range of fertile and poor soil types for agriculture and forestry • 12 Sites of Special Scientific Interest have notified earth science features • Other significant earth science sites including Geological Conservation Review sites • Significant area of nationally important carbon-rich soils, deep peat and 	<ul style="list-style-type: none"> • Change from agricultural production in some areas to rural diversification • Identification of increased number of regionally important geological sites through geodiversity audit and development applications • Decreasing land stability in some areas • Increased restoration of degraded peatland habitats through Peatland Action 	<ul style="list-style-type: none"> • Protecting key geodiversity sites including earth science Sites of Scientific Interest and undesignated Geological Conservation Review Sites • Allowing geomorphological processes to continue • Protecting carbon rich soils as carbon sinks • Increase the storage of soil carbon in woodland soils by improvements in woodland condition 	<ul style="list-style-type: none"> • Geodiversity audit, 2007, LLTNPA • National Soil Inventory of Scotland – Macaulay Institute • Report on the current state and threats to Scotland's soil resource 2006 – Commissioned by Scottish Government, W. Towers, I.C. Grieve, G. Hudson, C.D. Campbell, A. Lilly, D.A. Davidson, J.R. Bacon, S.J. Langan and D.W. Hopkins Environmental Research Report 2006/01 • Carbon and Peatland map 2016, SNH

Resource/topic	Current state of the Environment	Key trends	Implications of National Park Trees and Woodland Strategy for key trends	Information sources
	priority peatland habitat			
Water Environment	<ul style="list-style-type: none"> • 22 large lochs and numerous small lochs (Loch Lomond is the largest area of freshwater in Britain) • Approximately 50 rivers and large burns and many small burns • Connection of waterways to three main river systems – Tay, Clyde and Forth • The main pressures on water quality in the park are from abstraction, along with morphological pressures and diffuse pollution • Five 'Potentially Vulnerable Areas' are partly or wholly located within the park, which identify the areas at the greatest risk to the cumulative effects of flooding, both now and in the future 	<ul style="list-style-type: none"> • Good water quality in most water bodies but there are still water bodies falling short of the Water Framework Directive target status of 'Good', including Loch Lomond. • Increase in development and Towns and Villages correlates with increased demand for drinking water, increased pressure on water quality and increased pressure on drainage systems and flooding • Growing demand for hydro electricity generation • Continued use of water bodies for recreation and tourism • Landscape scale projects to reduce flood risk – e.g. Strathard Ecosystems Services Project aims to 	<ul style="list-style-type: none"> • Maintaining good water quality and working with key partners to help meet the Water Framework Directive goals for achieving good ecological status for all water bodies by 2027 • Reducing diffuse pollution from settlements and rural sources • Continue to work with Regional Flood Management partnerships to review progress towards achieving agreed actions • Avoiding increases in flood risk (e.g. number of properties at risk) and working with our partners to ensure that wherever possible, flood risk within the park is reduced • Raising awareness of the intrinsic value of the water environment within the park and how it, along with other park assets, through adoption and application of an Ecosystem Service Approach. • Encourage appropriate woodland creation and management to reduce flood risk 	<ul style="list-style-type: none"> • Current Condition and Challenges for the Future report, Scottish Environment Protection Agency (SEPA) 2013 • SEPA interactive water body map, www.gis.sepa.org.uk/rbmp/ • SEPA Flood Risk Management Act 2009 information, www.sepa.org.uk/flooding/ • Planning Scotland's Seas: 2013 - Possible Nature Conservation Marine Protected Areas Consultation, Marine Scotland • Valuing the National Park, LLTNPA 2011 • Limits of Acceptable Change for Loch Lomond, LLTNPA, 2011 • River Basin Management Plan for Scotland, 2009 • Clyde, Tay, Forth, Argyll and Lochaber Area Management Plans, 2010 • A Preliminary Study into the Noise Aspects of Loch Lomond (2005) • Review of Ecological impacts of Boating and Associated Activities on Loch Lomond and its shores. Final Report 2005 • Glasgow University Boat Numbers Survey (SCENE, Collin Adams and Jennifer Dodd) 2010

Resource/topic	Current state of the Environment	Key trends	Implications of National Park Trees and Woodland Strategy for key trends	Information sources
		<p>identify land management solutions that will help to reduce flood risk downstream in and around Aberfoyle</p>		
Air	<ul style="list-style-type: none"> • Good air quality – NO₂ and SO₂ levels monitored by local authorities found to be well below risk levels of national standards 	<ul style="list-style-type: none"> • Stable air quality 	<ul style="list-style-type: none"> • Maintaining good air quality by encouraging clean home heating, reducing energy consumption, and encouraging sustainable development • Reducing transport emissions by encouraging local processing of biomass and sawn timber • The expansion of woodland networks in settlements and transport corridors can help reduce pollutant loads and improve air quality. 	<ul style="list-style-type: none"> • Scottish Air Quality Database, www.scottishairquality.co.uk • Air Quality Report for Scotland 2000 - SEPA
Climate	<ul style="list-style-type: none"> • Varying average rainfall from North to South, particularly during winter – between 180mm and 377mm • Average temperatures broadly consistent between North and South but vary significantly with altitude • Prevailing wind is South-Westerly 	<ul style="list-style-type: none"> • Predicted changes in temperature, precipitation and storm occurrence • Predicted sea level rise of 25cm by 2050 • Increased winter rainfall • Increase in winter river flows in River Teith • Climate change mitigation and 	<ul style="list-style-type: none"> • Encouraging carbon sequestration via planting of woodlands and increased use of timber as a construction material • Promoting retention of soils and increasing permeability of soils by planting/management of trees and woodlands • Encouraging sustainable and integrated flood and land management • Encourage the use of climate modeling to inform species and provenience choice in new 	<ul style="list-style-type: none"> • Patterns of Climate Change Across Scotland Handbook 2006 – Scotland and Northern Ireland Forum for Environmental Research • State of the Environment Report for Scotland 2006 – SEPA • UK Met Office • SEPA Gauging data • UK Climate Projections 2009 • Climate Change (Scotland) Act, 2009 • Climate Change Plan (2018-

Resource/topic	Current state of the Environment	Key trends	Implications of National Park Trees and Woodland Strategy for key trends	Information sources
		<ul style="list-style-type: none"> adaptation through restoration of peatland 	<ul style="list-style-type: none"> woodland and restocks. 	<ul style="list-style-type: none"> 2032) • Climate Ready Scotland – Scottish Climate • Change Adaptation Programme, 2014
Forests and Woodlands	<ul style="list-style-type: none"> • 52,532 hectares of Park area is forests and woodlands (30% of the Park’s land area) • Native woodland covers 4,226ha, Nearly-native woodland covers 113ha and Other (ancient) woodland (under 40% native species) covers 3,060 ha • The main priority habitat types are Upland birchwoods, Wet woodland and Upland oakwoods. These represent 32%, 27% and 18% of the native woodland area respectively • Designated woodlands include the SAC Western Atlantic Oakwoods • Two thirds of the tree cover in the Park area is coniferous (mainly 	<ul style="list-style-type: none"> • Restructuring of coniferous plantations resulting in an increase in biodiversity, recreation and landscape value • Felling of productive conifer forests is expected to increase over the next 20 years, accompanied by an increase in conversion to native woodlands • Natural regeneration occurring in some areas due to decline in grazing pressures • Herbivore impacts limiting native woodland regeneration and establishment in other areas • Growing recognition of veteran, heritage and landmark trees and their contribution to the biodiversity and cultural diversity of the 	<ul style="list-style-type: none"> • Protection of forestry and woodlands for natural habitat, sustainable timber production, recreation and tourism opportunities • Conserving and managing internationally and nationally important woodland sites • Protecting and enhancing functional connectivity • Providing a range of formal and informal recreation and visitor facilities • Ensuring appropriate infrastructure to support forestry • Considering the potential to develop rarer woodland types to ensure that all woodland types which would naturally occur within the National Park are present and well represented • Increasing the amount of woodland under continuous cover management systems in appropriate locations • Encourage increased woodland diversity in both species and age structure • Promote biosecurity measures to 	<ul style="list-style-type: none"> • Forestry Commission Scotland - National Woodland Inventory 2013 • Native Woodland Survey of Scotland- Loch Lomond & The Trossachs National Park (2014) • Integrated Habitat Network Forest Habitat Network data • Woodland Trust - Ancient Tree Inventory - https://ati.woodlandtrust.org.uk/

Resource/topic	Current state of the Environment	Key trends	Implications of National Park Trees and Woodland Strategy for key trends	Information sources
	<ul style="list-style-type: none"> productive) • 67 hectares of ancient • Caledonian pine woods • Wood pasture is a valuable UK Biodiversity Action Plan habitat in the National park (e.g. Glen Finglas) • A number of trees recorded on the Woodland Trust Ancient Tree Inventory • Tree health issues including diseases affecting ash trees, pine and larch. 	<p>National Park</p> <ul style="list-style-type: none"> • Growing appreciation of the importance of trees and woodland features in and around new developments and built up areas and the contribution they make to the quality of finished developments • Tree health issues affecting ash trees, pine and larch will impact on the landscape 	<p>help deliver resilient woodlands</p>	
Cultural Heritage	<ul style="list-style-type: none"> • 728 listed buildings in the National Park in 2015 • 62 Scheduled Ancient Monuments • 8 Conservation Areas • Inventory of Historic Gardens and Designed Landscapes • Undesignated unknown heritage assets such as archaeology, non-designated gardens 	<ul style="list-style-type: none"> • Encouraging the conversion and reuse of vacant historic buildings • Identification of Buildings at risk • Securing the sensitive repair and maintenance of traditional properties • Growing appreciation of the cultural heritage of the National Park 	<ul style="list-style-type: none"> • Ensure that woodland creation/ management and the planting of individual trees or groups of trees protects and, where appropriate, enhances cultural heritage assets (e.g. Gardens and Designed Landscapes, Listed buildings, Locally Important Designed Landscapes and Scheduled Monuments). • Ensure that non-designated and unknown archaeology features are also protected and, where possible, enhanced by proposals for woodland creation, 	<ul style="list-style-type: none"> • Listed buildings database – Historic Environment Scotland • Scheduled Monument Data – Historic Environment Scotland https://www.historicenvironment.scot/ • Inventory of Gardens and Designed Landscapes • Loch Lomond & the Trossachs National Park Non-Inventory Designed Landscape Study • Listed Buildings and Conservation Areas Planning Guidance (LLTNP)

Resource/topic	Current state of the Environment	Key trends	Implications of National Park Trees and Woodland Strategy for key trends	Information sources
	and designed landscapes, locally important non designated historic buildings / structures and non-designated battlefields		management and the planting of individual trees or groups of trees.	<ul style="list-style-type: none"> The Historic Landscape of Loch Lomond and The Trossachs 2001 (Royal Commission on the Ancient and Historical Monuments of Scotland)
Landscape	<ul style="list-style-type: none"> The Special Landscape Qualities of the National Park LLTNP Three National Scenic Areas including Loch Lomond, The Trossachs and the River Earn (Comrie to St Fillans only) Historic Gardens and Designed Landscapes (National Inventory) Landscape Character Assessment (SNH) Registered agricultural land accounts for approximately 55% of the Park area 2 Wild Land Areas Relative Wildness Mapping of National Park. 	<ul style="list-style-type: none"> Increased cumulative landscape impacts from development (housing, tourism, renewable energy, minerals, infrastructure) both within and outwith the Park Growing pressure for infrastructure upgrade with increased tourism and visitor numbers Increased value of wild land as part of National Park's special qualities Increased value of dark skies as part of Park's special qualities Decline in traditional land management resulting in effects on landscape character i.e. open agricultural ground and 	<ul style="list-style-type: none"> Providing strategic guidance for protecting and enhancing landscape special qualities and wild land, from impacts from woodland management and creation within the Park Providing strategic guidance on managing the impacts of harvesting infrastructure Providing information on delivering an ecosystems approach which includes landscape and siting considerations Ensuring high quality in design of forestry and woodlands and associated infrastructure in terms of landscape character, visual amenity and scenic quality 	<ul style="list-style-type: none"> Scottish Natural Heritage – www.snh.gov.uk Report No. 376: The special landscape qualities of the LLTNP, 2010, Scottish Natural Heritage LLTTNPA Wild Land Report – wild land institute 2011 Dark skies pollution survey, external lighting audit and core mapping 2010/11 SNH Wild Land Descriptions work contracted for WL6 - Ben Lui and WL 7 Ben More – Ben Ledi 2016-7. LLTNP Non Inventory Designed Landscape Study 2010

Resource/topic	Current state of the Environment	Key trends	Implications of National Park Trees and Woodland Strategy for key trends	Information sources
		traditional rural features, woodland or other management objectives		

(b) Develop the SEA objectives

To assist in assessing the impact of the Strategy on the environment, draft SEA objectives and questions were included in the SEA Scoping report. The finalised SEA objectives and questions are outlined in **Table 3** below and these reflect feedback from the consultation authorities at the scoping stage (see **Appendix A**). Some additional amendments have been made to the SEA objectives/questions to provide a more targeted assessment of the Strategy. The objectives and questions outlined in **Table 3** are fully compliant with the requirements of the Environmental Assessment (Scotland) Act 2005. The key elements of the Strategy (Vision, Strategic Objectives and Opportunity mapping for native woodland creation) have been assessed against these objectives and questions to identify significant positive and negative environmental impacts.

The assessment key and outline assessment matrix are illustrated in **Table 4** and **Table 5** below.

Table 3: SEA Objectives and Assessment Questions

SEA Objectives	Questions for assessment
<p>Biodiversity</p> <p>To protect, enhance, and restore biodiversity and encourage habitat connectivity</p>	<p>Will the key elements of the proposed Strategy (Vision, Strategic Objectives and Opportunity mapping for native woodland creation):</p> <ul style="list-style-type: none"> • be likely to have a significant effect on international or nationally important nature conservation sites? • enhance and restore biodiversity? • encourage connectivity between habitats and green networks?
<p>Landscape</p> <p>To protect, enhance and restore the special landscape qualities of the National Park</p>	<p>Will the key elements of the proposed Strategy:</p> <ul style="list-style-type: none"> • be consistent with the protection, conservation and sustainable management of the special qualities of the National Park and associated National Scenic Areas? • Maintain and enhance landscape character and distinctiveness? • be consistent with policies to enhance promote or maintain people’s enjoyment and understanding of the landscape?
<p>Air Quality</p> <p>To prevent deterioration and, where possible, enhance air quality</p>	<p>Will the key elements of the proposed Strategy:</p> <ul style="list-style-type: none"> • promote the role of woodland creation in reducing pollutant loads and improving air quality? • seek to improve the woodland resource within the National Park for carbon sequestration?

	<ul style="list-style-type: none"> • contribute to the management and improvement of ecosystems services?
<p>Population & human health</p> <p>To protect and improve human health</p>	<p>Will the key elements of the proposed Strategy:</p> <ul style="list-style-type: none"> • promote local employment opportunities? • encourage healthy lifestyles? • encourage local communities to become involved in the use and management of woodlands? • encourage active travel and outdoor leisure?
<p>Soil & Geology</p> <p>To maintain and enhance soils and geodiversity assets.</p>	<p>Will the key elements of the proposed Strategy:</p> <ul style="list-style-type: none"> • be likely to have a significant effect on geodiversity features of national or local importance? • enhance these features where possible? • protect and improve areas of peatland? • seek to prevent soil degradation and erosion?
<p>Water</p> <p>To protect and improve the water environment</p>	<p>Will the key elements of the proposed Strategy:</p> <ul style="list-style-type: none"> • seek to contribute to enhancing the ecological status of waterbodies? • support flood prevention measures, where appropriate?
<p>Climate</p> <p>To help mitigate the causes of climate change and adapt to its short and long term impacts</p>	<p>Will the key elements of the proposed Strategy:</p> <ul style="list-style-type: none"> • promote the creation of new woodland as a means of reducing greenhouse gases in the atmosphere? • ensure the woodland creation proposals protect areas of peatland? • promote woodland creation and management as a means to mitigate potential flooding risks?
<p>Material assets</p> <p>To promote the effective and sustainable use of forests and woodlands</p> <p>To safeguard and enhance existing natural and built resources</p>	<p>Will the key elements of the proposed Strategy:</p> <ul style="list-style-type: none"> • ensure that woodlands are sustainably managed? • reduce consumption of fossil fuels?

	<ul style="list-style-type: none"> • conserve mineral and soil resources? • balance loss of productive agricultural land against diversification of an holding • encourage use of local products?
Cultural Heritage To protect and, where appropriate, enhance the historic environment	Will the key elements of the proposed Strategy: <ul style="list-style-type: none"> • protect and, where appropriate, enhance cultural heritage assets (e.g. Gardens and Designed Landscapes, Listed buildings, Locally Important Designed Landscapes and Scheduled Monuments)? • protect non-designated and unknown archaeology, heritage features and historic landscapes?

Table 4: Assessment key

Assessment Table Key		
++	Major Positive	√ SEA Preferred Option
+	Minor Positive	
X	No Significant Effect	
+/-	Mixed Impacts	
-	Minor Negative	
--	Major Negative	
?	Uncertain	

Table 5: Assessment matrix

Alternative	SEA Environmental Topics									SEA Preferred Option
	Biodiversity	Landscape	Air Quality	Population & Human Health	Soil & Geology	Water	Climate	Material Assets	Cultural Heritage	
Option 1:										
	<u>Assessment Commentary:</u>									
Option 2:										
	<u>Assessment Commentary:</u>									
Option 3:										
	<u>Assessment Commentary:</u>									

(c) Identify and assess alternative options

Part 2 Section 14 (20(b) of the Environmental Assessment (Scotland) Act 2005 requires the Environmental Report to identify, describe and evaluate the likely significant effects on the environment of implementing the plan and reasonable alternatives to the plan, taking into account its objectives and geographical scope.

Guidance advises that only reasonable, realistic and relevant alternatives are put forward and that it is helpful if these are sufficiently distinct to enable meaningful comparisons to be made of the environmental implications of each.

The alternatives outlined in **Table 6** below were considered against the SEA objectives and Option 2, High level strategy, was identified as the preferred option. This option will build on national policy and highlight key strategic issues/sensitivities within the National Park. In doing so, it will help to steer proposals to the most appropriate locations that maximise the benefits of woodland creation/management whilst minimising any potential negative impacts. It will also allow grant uplift to encourage woodland creation proposals that are in line with the Strategy. Whilst individual proposals that come forward in line with the Strategy will still need to be assessed, it is likely that any negative impacts can be addressed through sensitive design in line with the principles detailed in the Strategy. For these reasons, the High level strategy was been identified as the preferred SEA option. For further details of the assessment of alternatives, please see **Appendix C**.

Table 6: Potential alternatives in developing the strategy

Alternatives	Description of options
Option 1: No strategy	Woodland creation/management proposals continue to be considered on a case by case basis using relevant national policies and legislation.
Option 2: High level strategy	A high-level, strategic strategy would be created for the National Park focussing on the key issues for woodland creation/management in the area.
Option 3: Detailed strategy	A detailed strategy would be created for the National Park which aimed to provide guidance on all local woodland creation/management issues at an individual landowner scale.

(d) Assessment of key elements of draft Strategy

The assessment of the environmental effects and their significance is based on the consideration of how the key elements of the Strategy are likely to affect the environmental baseline and whether any anticipated changes to the environmental baseline will help or hinder the SEA objectives being achieved. This assessment process provided an opportunity to consider how each element of the Strategy could be refined to help deliver environmental benefits for the National Park.

An assessment matrix was completed for each of the key elements of the Strategy and the results are presented in **Appendix C**. The SEA process also considered potential cumulative effects through secondary and synergistic environmental effects. Secondary effects occur after the initial effect of the Plan whereas synergistic effects occur when two or more effects combine to create a new effect greater than the sum of the two effects. Where identified, these effects have been recorded in the assessment matrices in **Appendix C**.

The significance of an environmental effect is critical to the SEA and the criteria as set out in **Table 3** will consider:

- The probability of effects,
- The frequency duration and reversibility of effects,
- The magnitude and spatial extent,
- And the sensitivity of the environment.

e) Identify and incorporate mitigation

A high level of mitigation is already built into the woodland creation process due to the requirements of the Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017, grant administration process and compliance with the UK Forestry Standard (UKFS).

As National Parks are classified as 'sensitive areas' under the Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017, all forestry projects (e.g. afforestation, deforestation, forest roads and forest quarries) must be subject to an Environmental Impact Assessment (EIA) screening opinion from Scottish Forestry. This process ensures that any significant environmental effects from forestry projects within the National Park are identified and addressed at an early stage.

UKFS details how sustainable forestry will be undertaken by setting out relevant legislation and good practice which all forestry proposals must comply with. It is the standard against which all woodland proposals are assessed, covering biodiversity, climate change, historic environment, landscape, people (including access), soil and water. The Scottish Forestry Strategy 2019-2029 (SFS) outlines how, through compliance with UKFS, the principles of sustainable forest management will be implemented in practice. The SFS has also been subject to SEA and significant environmental effects have been addressed through this process.

As the National Park Strategy sits below these higher tier plans and the EIA requirements for forestry projects within the National Park, the potential for significant environmental effects from the Strategy is relatively low. **Table 7** summarises the key assumed mitigation and control measures relevant to each of the Strategic Objectives included in the draft Strategy.

Table 7: Assumed mitigation measures under each Strategic Objective

Strategic Objective	Assumed Mitigation	Responsibility
1. Increasing woodland cover	UKFS (includes related legislation, i.e. Forestry EIA etc.)	Scottish Government Private companies Land owners and Managers National Park Authority Environmental regulators
2. Improving woodland condition and diversifying woodland management	UKFS	Scottish Government Private companies Land owners and Managers Non-governmental organisations National Park Authority Environmental regulators
3. Protecting and enhancing the landscape	UKFS	Scottish Government Private companies Land owners and Managers Non-governmental organisations National Park Authority
4. Maintaining and enhancing economic sustainability through forestry-related skills and business development	UKFS Planning system	Scottish Government National Park Authority Woodland users Woodland owners and managers Private companies/Users Non-governmental organisations
5. Promoting cooperative woodland management and	UKFS	Scottish Government National Park Authority

creation as part of an integrated land management approach		Private companies Land owners and Managers Non-governmental organisations
6. Improving community empowerment and resilience through active engagement in woodland management	UKFS	Scottish Government Community Organisations Non-governmental organisations
7. Encouraging and promoting public access to woodlands for recreation and improving people's quality of life	UKFS	Scottish Government Woodland users Woodland owners and managers National Park Authority Non-governmental organisations

Commencing the SEA process alongside the initial development of the Strategy made it possible to amend the guidance in the Strategy to address potential environmental issues as they were identified. This included refining the *Opportunity mapping for native woodland creation* (Map 4) to highlight national/international nature conservation sites that would be sensitive to native woodland creation. **Table 8** illustrates the connection between the SEA Topics and the key guidance within the draft Strategy.

Table 8: Key mitigation embedded into guidance of draft Strategy

SEA Topics	Section of draft Strategy
Biodiversity	5.1.4 Priority Woodland Habitats & Flagship Species 5.3.1 Designated Sites 5.3.4 Open Ground Habitats
Landscape	5.2 Landscape integration and Special Landscape Qualities
Population & Human Health	5.5 Woodlands and People
Soil & Geology	5.3.2 Geological Conservation Review Sites 5.3.5 Peatland 5.3.9 Water and Soil Management
Water	5.3.9 Water and Soil Management
Climate	5.3.5 Peatland

6. Summary of the results of the assessment of the draft Strategy

The detailed scoring assessment of the key elements of the Strategy are set out in **Appendix C**.

The assessment of the environmental effects of the draft Strategy has been undertaken and options for mitigation to avoid, reduce, remedy or compensate for the environmental effects have been considered. Modification of the strategy has also been included where appropriate. Consideration has also been given to the requirement for all forestry proposals to comply with the UK Forestry Standard (UKFS) and legislative requirements such as Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017 and the Conservation (Natural Habitats, &c.) Regulations 1994 (Habitats Regulations).

Key Findings

A summary of the results of the assessment is presented in **Table 9** below. This table focuses on the results of the preferred options identified in the Environmental Report. All of the preferred options have been incorporated into the draft Strategy.

The assessment has concluded that the draft Strategy, with its emphasis on enhancing natural capital through appropriate woodland creation and management, will have overall positive environmental effects (57% of the assessments have concluded that there will be **Minor/Major Positive** effects and 39% of the assessments have concluded that there will be **No Significant Effect**). Some potential for mixed effects on the Biodiversity, Landscape, Soil & Geology, and Cultural Heritage SEA Topics have been identified for Strategic Objective 7 but it is expected that any negative effects would be localised and could be mitigated through established regulatory regimes and guidance. **Table 10** sets out the proposed mitigation measures against the potential impacts associated Strategic Objective 7 and the responsible party.

Consideration was also given to the inclusion of specific guidance on protecting and enhancing the Cultural Heritage assets of the National Park to try and achieve greater positive effects from the Strategy. However, it was concluded that this would primarily repeat the UKFS requirements for Forests and Historic Environment and not deliver significant additional benefits. In addition, the guidance on protecting and enhancing the Special Landscape Qualities of the National Park already includes some consideration of key cultural heritage components of the landscape. As a consequence, no specific guidance on protecting and enhancing the Cultural Heritage assets of the National Park is included in the draft Strategy.

The results of the assessment reflect the wide ranging benefits that can be realised through woodland creation and management in line with the Strategy plus the existing safeguards built into UKFS and statutory requirements such as Habitats Regulations Appraisal (HRA) and Environmental Impact Assessment (EIA).

In terms of cumulative impacts from the Strategy, **Table 9** illustrates that there will be overall positive effects from the interaction of the key elements of the Strategy. In particular, **Major Positive** effects are predicted for 5 of the 10 assessments for Biodiversity and Population & Human Health and 4 of the 10 assessments for Landscape and Climate. As highlighted above, **Mixed Impacts** are identified for Biodiversity, Landscape, Soil & Geology and Cultural Heritage from Strategic Objective 7. However, these effects can be addressed at a lower tier.

Table 9: Summary of the results of the assessment and identification of potential cumulative impacts

Key element of draft Strategy	SEA Environmental Topics								
	Biodiversity	Landscape	Air Quality	Population & Human Health	Soil & Geology	Water	Climate	Material Assets	Cultural Heritage
Vision	+	+	+	+	+	+	+	+	+
Strategic Objective 1	++	++	++	++	++	++	++	+	X
Strategic Objective 2	++	++	X	+	X	X	X	X	X
Strategic Objective 3	X	++	X	X	X	X	X	X	X
Strategic Objective 4	X	X	+	++	X	X	+	++	X
Strategic Objective 5	++	+	+	++	X	++	++	+	X
Strategic Objective 6	X	X	X	++	X	X	X	X	X
Strategic Objective 7	+/-	+/-	+	++	+/-	+	+	+	+/-
Opportunity mapping for native woodland creation	++	+	++	X	X	++	++	X	X
Alternatives	++	++	++	+	+	+	++	+	X

Table 10: Proposed mitigation measures

Potential Mixed Impact on SEA Objectives	Mitigation	Responsibility
Biodiversity (Strategic Objective 7)	<p>In addition to the requirements of UKFS, which require forest managers to take account of environmental objectives and minimise direct impacts on biodiversity and cultural heritage caused by visitors, long-term forest plans could incorporate a suitable recreation / visitor plan, for sites where the impacts are likely to be a significant issues.</p> <p>The requirements of the Scottish Outdoor Access Code will also help to minimise impacts.</p> <p>Other plans and strategies have a leading role in delivering this objective (e.g. Core Paths Plan, Outdoor Recreation Plan and Your Park Camping Management Strategy) and potential impacts on woodlands, and other sensitive habitats, can be considered further through the assessment of these plans.</p>	<p>Scottish Government Land owners and Managers National Park Authority Woodland users</p>
Landscape (Strategic Objective 7)	Same mitigation as identified above for 'Biodiversity'	<p>Scottish Government Land owners and Managers National Park Authority Woodland users</p>
Soil & Geology (Strategic Objective 7)	Same mitigation as identified above for 'Biodiversity'	<p>Scottish Government Land owners and Managers National Park Authority Woodland users</p>
Cultural Heritage (Strategic Objective 7)	<p>Same mitigation as identified above for 'Biodiversity'</p> <p>Additional information and guidance on protecting the historic environment is provided by Scottish Forestry</p>	<p>Scottish Government Land owners and Managers National Park Authority Woodland users</p>

7. Effects of the Strategy in combination with other Plans, Policies and Strategies

The potential for effects in combination with other Plans, Policies and Strategies (PPS) has also been considered. Given the overall positive environmental effects predicted from the implementation of the Strategy, there is potential for further positive effects in combination with other PPS. **Table 11** below highlights the potential positive in-combination effects that could be realised in conjunction with other PPS.

Table 11: Potential positive in-combination effects from Strategy with other PPS

Contribution of Strategy in addressing environmental issues	PPS with potential positive in combination effects with the Strategy
<p>Climate change mitigation and adaptation</p> <ul style="list-style-type: none"> Increased CO² sequestration through woodland creation and protection of carbon rich soils Alleviation of flood risk through natural flood management including woodland creation Increased use of wood products as a renewable resource 	<p>The key role that woodland creation/management can play in reducing greenhouse gas emissions and adapting to climate change is identified within a range of policies, including:</p> <ul style="list-style-type: none"> Climate Change Plan (2018-2032) Land Use Strategy (LUS) for Scotland, 2016 – 2021 National Park Partnership Plan 2018-2023 Flood Risk Management Plans/Strategies
<p>Reducing habitat fragmentation and improving ecosystem health</p> <ul style="list-style-type: none"> Promotion of woodland creation and individual trees and tree groups to enhance woodland habitat networks Promotion of restoration of Plantations on Ancient Woodland Sites to native woodland 	<p>The importance of reducing fragmentation and improving ecosystem health is set out in a range of PPS, including:</p> <ul style="list-style-type: none"> 2020 Challenge for Scotland’s Biodiversity, 2013 Climate Ready Scotland – Scottish Climate Change Adaptation Programme, 2014 Climate Change Plan (2018-2032) National Park Partnership Plan 2018-2023
<p>Improving quality of life</p> <ul style="list-style-type: none"> Promotion of public access to woodlands for to secure associated health/wellbeing benefits for people. 	<p>Encouraging people from a wider range of backgrounds to enjoy the National Park and to realise the personal health and wellbeing benefits of connecting with nature is a key priority of the National Park Partnership Plan 2018-2023.</p>
<p>Protecting and improving the landscape</p> <ul style="list-style-type: none"> Protection and enhancement of the Special Landscape Qualities of the National Park 	<p>Conserving and enhancing the Special Landscape Qualities of the National Park and promoting opportunities for people enjoy them is a key priority of the National Park Partnership Plan 2018-2023.</p>

8. Monitor environmental effects

The impacts of the adopted Strategy on the environment will primarily be monitored via the National Park Partnership Plan (2018 to 2023) indicators of success. **Table 12** illustrates the connection between the National Park Partnership Plan Key Indicators and the SEA Topics. These indicators will be used to monitor the impact of the Strategy on the environment and inform the review of the Strategy in 10 years’ time.

Table 12: National Park Partnership Plan – Key Indicators and associated SEA Environmental Topics

National Park Partnership Plan – Key Indicators & Targets	SEA Environmental Topics
<p>1. Area of new woodland</p> <ul style="list-style-type: none"> 2000 hectares of woodland expansion by 2023 	<p>Biodiversity, Air Quality, Climate</p>

2. Area and condition of restored peatland <ul style="list-style-type: none"> • 2000 hectares of restored peatland by 2023 	Biodiversity, Soil & Geology, Climate, Air Quality
3. Percentage of designated sites in favourable condition <ul style="list-style-type: none"> • Increase from 2017 baseline of 76% of designated site features to 80% by 2023 	Biodiversity
4. Percentage of waterbodies achieving at least good ecological status <ul style="list-style-type: none"> • Increase from 2016 baseline of 44% to 59% by 2023 	Biodiversity, Water
6. Proportion of people taking part in active recreation <ul style="list-style-type: none"> • Increase from 2015/16 Visitor Survey baselines of 24% for active sport and 49% for low-level walking 	Population & Human Health,
8. Reported public experience of the Park's settlements and landscapes <ul style="list-style-type: none"> • Increase in proportion of people reporting a good quality experience 	Landscape, Cultural Heritage
10. Number of young people having an outdoor learning experience in the National Park <ul style="list-style-type: none"> • At least 2500 young people per year over the Plan period 	Population & Human Health
13. Number of community-identified projects delivered <ul style="list-style-type: none"> • Delivery of 3 projects per Community Action Plan by 2023 	Population & Human Health
14. Number of new skills development opportunities from project in the National Park <ul style="list-style-type: none"> • Increase opportunities in the National Park over the Plan period 	Population & Human Health,

9. Consultation process

Schedule 3 of the Environmental Assessment (Scotland) Act 2005 requires the Environmental Report to outline how the SEA has been undertaken, and to be published for an appropriate consultation period.

Table 1 above summarises the next steps in the SEA process. The Environmental Report is being published with the draft Strategy for a 8 week consultation period.

A Habitats Regulation Appraisal of the Strategy has also been undertaken in accordance with the Conservation (Natural Habitats &c) Regulations 1994 (as amended) and this is reported separately.

Following the 8 week public consultation process on both the draft Strategy and Environmental Report, the consultation responses received will be collated, considered and incorporated into the development of the final Strategy, ready for National Park Authority Board approval. The Environmental Report will be updated as required.

10. Post adoption statement

Once the Strategy has received approval, a post adoption statement will be prepared outlining how the Strategy has been modified as a result of the SEA process.

11. Conclusion

This Environmental Report for the SEA of the Loch Lomond & The Trossachs National Trees and Woodland Strategy is being submitted to the Consultation Authorities through the SEA Gateway for their consideration.

12. Appendices

Appendix A: Summary of key Scoping Report consultation responses

Scoping response comment	Suggested response / action
<i>Comments from Scottish Natural Heritage (SNH)</i>	
<p>Table 4: Scoped issues, trends and information sources to be included in TWS SEA <i>'Biodiversity' the 'key trends' column includes the pressure of grazing, from sheep, deer and goats suppressing regeneration of habitats. We agree that this is a key pressure on designated sites in the area. Under 'Forests and Woodlands' 'key trends' suggests that there is natural regeneration occurring due to a decline in grazing pressure. Although there can be areas of both, we suggest that overgrazing in some areas would also be a 'key trend' for forests and woodlands?</i></p>	<p>The equivalent table in the Environmental Report (Table 2) has been amended to highlight that herbivore impacts also limit native woodland regeneration and establishment in some areas.</p>
<p>Table 4: Scoped issues, trends and information sources to be included in TWS SEA <i>The 'Implications of National Part TWS for key trends', 'Biodiversity' includes ensuring protection within designated sites and encouraging management to improve feature condition. However, the increase in tree cover and connectivity intended through the TWS will increase the habitat available for deer and goats to shelter, therefore in may be pertinent to include a specific item related to increased management of deer and goats within the Strategy area.</i></p>	<p>The equivalent table in the Environmental Report (Table 2) has been amended to address this comment and specific guidance included in the draft Strategy to ensure that wild and feral herbivore management is addressed in all management plans.</p>
<p>SEA objectives <i>We note that in Table 4: Scoped issues, trends and information sources to be included in TWS SEA and in Table 5: Scoping In/ Out of SEA Issues; under 'Water Environment' the implications of the TWS for flood management are raised, including the potential for either positive or negative impacts depending on the successful planning of the woodland. However, there is no mention of flood management as an objective for assessment within Table 6: Proposed SEA Objectives and Assessment Questions, and we wonder whether it would be relevant to include this here?</i></p>	<p>An additional assessment question has been added to the Water SEA Objective in Table 3 to check whether the key elements of the Strategy will "support flood prevention measures, where appropriate?"</p>
<p>Habitats Regulations Appraisal <i>We are pleased to note that a Habitats Regulations Appraisal will be undertaken for the Trees and Woodland Strategy. Advice and guidance on this process is available here Habitats Regulations Appraisal of Plans: Guidance for Plan-making Bodies in Scotland.</i></p>	<p>Noted. SNH will be consulted separately on the Habitats Regulations Appraisal of the draft Strategy.</p>
<i>Comments from Scottish Environmental Protection Agency (SEPA)</i>	
<p>1 Relationship with other Plans, Policies and</p>	<p>PPS that are closely aligned with the aims of the</p>

<p>Strategies (PPS) <i>Some of the PPS included have themselves been subject to SEA. Where this is the case you may find it useful to prepare a summary of the key SEA findings that may be relevant to the Trees and Woodland Strategy (TWS). This may assist you with data sources and environmental baseline information and also ensure the current SEA picks up environmental issues or mitigation actions which may have been identified elsewhere.</i></p>	<p>Strategy and have already been subject to SEA are highlighted in the Environment Report.</p>
<p>1 Relationship with other Plans, Policies and Strategies (PPS) <i>Appendix A of the Scoping Report details existing legislation, plans, policies and programmes relevant to the TWS. Of those listed at National level, we would note that the principal planning legislation should be referenced as the Town and Country Planning (Scotland) Act 1997 (as amended), as this incorporates legislation brought in under the Planning etc (Scotland) Act 2006. In addition, the River Basin Management Plan for Scotland 2009 should be amended to reflect the 2015 update, The River Basin Management Plan for the Scotland River Basin District 2015-2027.</i></p>	<p>The references in Appendix B of the Environment Report have been updated accordingly.</p>
<p>6 Methodology for assessing environmental effects <i>Including a commentary section within the matrices in order to state, where necessary, the reasons for the effects cited and the score given helps to fully explain the rationale behind the assessment results. This allows the Responsible Authority to be transparent and also allows the reader to understand the rationale behind the scores given.</i></p>	<p>An assessment commentary has been included in the assessment matrices to explain the rationale behind the scores given.</p>
<p>6 Methodology for assessing environmental effects <i>When it comes to setting out the results of the assessment in the Environmental Report please provide enough information to clearly justify the reasons for each of the assessments presented. It would also be helpful to set out assumptions that are made during the assessment and difficulties and limitations encountered.</i></p>	<p>Uncertainties and assumptions have been highlighted in the assessment matrices where relevant.</p>
<p>6 Methodology for assessing environmental effects <i>It is helpful if the assessment matrix directly links the assessment result with proposed mitigation measures</i></p>	<p>Key mitigation embedded into the guidance of the Strategy is cross referenced in the assessment matrices and highlighted in Table 8.</p>
<p>6 Methodology for assessing environmental</p>	<p>An additional assessment question has been added</p>

<p>effects</p> <p><i>We note that as part of the justification for scoping in water as an SEA issue, as detailed in Table 5, the potential for woodland creation/management to impact on both the effects and management of flooding is recognised. However, mitigation or management of flooding is not included as an objective for assessment under the water environment. It may be prudent to include this here as the relationship between woodland creation/management and flooding, as a direct result of working practices in particular, is likely to be different from that considered under climate.</i></p>	<p>to the Water SEA Objective in Table 3 to check whether the key elements of the Strategy will “support flood prevention measures, where appropriate?”</p>
<p>7 Mitigation and Enhancement</p> <p><i>One of the most important ways to mitigate significant environmental effects identified through the assessment is to make changes to the plan itself so that significant effects are avoided. The Environmental Report should therefore identify any changes made to the plan as a result of the SEA.</i></p> <p><i>Where the mitigation proposed does not relate to modification to the plan itself then it would be extremely helpful to set out the proposed mitigation measures in a way that clearly identifies: (1) the measures required, (2) when they would be required and (3) who will be required to implement them. The inclusion of a summary table in the Environmental Report such as that presented below will help to track progress on mitigation through the monitoring process.</i></p>	<p>Table 10: highlights proposed mitigation measures that do not related to a modification of the Strategy along with who will be required to implement these measures.</p>
<p>Comments from Historic Environment Scotland (HES)</p>	
<p>Table 4: Scoped issues, trends and information sources to be included in TWS SEA</p> <p><i>We are broadly content with this in relation to the historic environment, but note that the information sources are limited to listed buildings and scheduled monuments. Data on other designated and non-designated heritage assets should also be included. This can be obtained from HES, Canmore, and your own HER.</i></p>	<p>The following additional cultural heritage datasets/information sources have been used to inform the assessment and Table 2 has been updated accordingly:</p> <ul style="list-style-type: none"> • Inventory of Gardens and Designed Landscapes • Loch Lomond & the Trossachs National Park Non-Inventory Designed Landscape Study • Listed Buildings and Conservation Areas Planning Guidance (LLTNP) • The Historic Landscape of Loch Lomond and The Trossachs 2001 (Royal Commission on the Ancient and Historical Monuments of Scotland)
<p>Methodology for the SEA</p> <p><i>Table 6: Proposed SEA Objectives and Assessment Questions: we recommend that the assessment questions should also refer to non-designated and unknown archaeology, heritage features and historic landscapes.</i></p>	<p>The SEA Objectives have been updated to reflect this advice (see Table 3 of the Environmental Report).</p>

<p>Methodology for the SEA Cumulative, secondary and synergistic effects: we note that the scoping report does not set out how the strategy will be assessed for cumulative, secondary and synergistic effects. This is an important element of the assessment process, and you should consider how this aspect of the assessment will be carried out and reported.</p>	<p>Cumulative impacts, including secondary and synergistic effects, have been identified in the Environmental Report.</p>
<p>Relevant Legislation: Plans Policies and Programmes and Related Environmental Objectives <i>For information, SHEP was superceded by the Historic Environment Scotland Policy Statement (HESPS) in 2016.</i></p> <p><i>We recommend that you also include Our Place in Time, Scotland’s strategy for the historic environment.</i></p>	<p>Appendix B of the Environment Report has been updated accordingly.</p>

Appendix B: Relevant Plans, Policies, Programmes & Related Environmental Objectives

Name of PPS / Environmental protection objective	Main requirements of PPS	Strategy relationship with PPS
International		
<p>Biodiversity</p> <ul style="list-style-type: none"> • The Habitats Directive 92/43/EEC • The Birds Directive 2009/147/EC • EU Biodiversity Strategy 2020 • Nature Conservation - the Ramsar Convention 	<p>Protection of habitats and species. Protection of wild birds and their habitats. Promotes the conservation and sustainable use of biological diversity. Protection of Wetland birds</p>	<p>A Habitats Regulation Appraisal (HRA) has demonstrated that there will be no adverse effects on the integrity of any European sites as a consequence of the Strategy. The HRA is reported separately.</p> <p>The guidance in the Strategy plus the requirements of UKFS (which includes guidelines on forests and water and biodiversity) will ensure compliance with these Directives and contribute towards these commitments.</p>
<p>Water</p> <ul style="list-style-type: none"> • Water Framework Directive 2000/60/EC • Nitrate Directive 91/43/EC 	<p>Protect and improve the water environment Ensure that water quality and good ecological status of the Water Framework Directive are maintained Safeguards the sustainable use of water systems; Supports the status of aquatic ecosystems and environments; Addresses groundwater pollution; flooding and droughts; river basin management planning.</p>	<p>The Strategy will comply with these Directives and the guidance and UKFS (which includes guidelines on forests and water) will contribute towards these commitments.</p>
<p>Climate Change</p> <ul style="list-style-type: none"> • The UN Convention on Climate Change • The Second European Climate Change Programme 	<p>Promotes reductions in greenhouse gas emissions and mitigation & adaption to climate change.</p>	<p>As the Strategy promotes the expansion of woodland cover and the protection of carbon rich soils, it will help to reduce greenhouse gas emissions in line with these PPS.</p>
<p>Landscape</p> <ul style="list-style-type: none"> • The European Landscape Convention 2000 	<p>Promotes the protection, management and planning of all landscapes.</p>	<p>The Strategy will contribute towards the aims of this convention through the protection and enhancement of the Special Landscape Qualities of the National Park and the enjoyment of these from key views valued by visitors and local</p>

Name of PPS / Environmental protection objective	Main requirements of PPS	Strategy relationship with PPS
		communities.
National		
Overarching Planning Policy <ul style="list-style-type: none"> The Town and Country Planning (Scotland) Act 1997 (as amended). National Planning Framework for Scotland 3 (NPF3) The Scottish Planning Policy 	Promotes inclusive and efficient planning system to improve community involvement, support the economy, and help it to grow in a sustainable way. Aims to guide Scotland's development to 2030 and sets out strategic development priorities to support the Government's goal of sustainable economic growth.	The Strategy recognises the importance of the planning system in protecting and enhancing trees, woodlands and the natural environment more generally.
Air & Climate Change <ul style="list-style-type: none"> Climate Change Plan (2008-2032) Getting the Best from our Land: A Land Use Strategy for Scotland 2016 to 2021 Air Quality Strategy for England, Scotland, Wales and Northern Ireland (2007) 	Sets out high level measures required to meet Scotland's statutory climate change targets, to 2020 and in the long term. A national land-use strategy has been prepared under the Act. This identifies key principles for the sustainable use of land, including: encouraging land uses which deliver multiple benefits; land highly suitable for primary uses should be recognised in decision-making; and examining options for restoring derelict or vacant land should be a priority. The Air Quality Strategy for England, Scotland, Wales and Northern Ireland sets objectives for Particulate Matter (PM), oxides of nitrogen (NOx), sulphur dioxide (SO2) and ozone (O3) amongst others.	As the Strategy promotes the expansion of woodland cover and the protection of carbon rich soils, it will help to reduce greenhouse gas emissions in line with these PPS. It will also help to improve Air Quality through the removal of pollutants from the air by trees, particularly where woodland expansion takes place in or around settlements and along transport corridors.
Cultural Heritage <ul style="list-style-type: none"> Historic Environment Scotland Policy Statement (HESPS) 2016 Our Place in Time – The Historic Environment Strategy for Scotland (Scottish Government, 2014) 	Guides the operation of decision making within the Scottish planning system. It replaces the operational practices set out in the Scottish Historic Environment Policy (2011). A high level framework for Scotland's historic environment with a key outcome. to	The Strategy will contribute to the aims of these PPS through the guidance in the Strategy and the requirements of UKFS (which includes guidelines on forests and historic environment).

Name of PPS / Environmental protection objective	Main requirements of PPS	Strategy relationship with PPS
	ensure the cultural, social, environmental and economic value of Scotland's heritage makes a strong contribution to the nation's wellbeing.	
Soil <ul style="list-style-type: none"> The Scottish Soil Framework (2009) 	To promote the sustainable management and protection of soils consistent with the economic, social and environmental needs of Scotland, achieved through targeted activities including reducing soil erosion; greenhouse gas emissions from soil contamination.	The Strategy will contribute to this PPS through the guidance in the Strategy and the requirements of UKFS (which includes guidelines on forests and soil).
Population and Human Health <ul style="list-style-type: none"> Community Empowerment (Scotland) Act 2015 Land Reform (Scotland) Act 2003 	Seeks to empower community bodies through the ownership or control of land and buildings, and by strengthening their voices in decisions about public services. Establishes the statutory rights of access to land and inland water for outdoor recreation.	The Strategy takes account of these Acts and seeks to promote community empowerment and to engage communities in their environment. It also promotes public access to woodlands for recreation and improving people's quality of life.
Biodiversity <ul style="list-style-type: none"> Wildlife and Countryside Act 1981 (as amended) The Nature Conservation (Scotland) Act 2004 Scotland's Biodiversity: It's in Your Hands. A strategy for the conservation and enhancement of biodiversity in Scotland (2004) 2020 Challenge for Scotland's Biodiversity 2013 UK Biodiversity Action Plan 1994 The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) 	<p>Gives protection to wildlife and countryside from disturbance, injury intentional destruction or sale. Duties are placed on public bodies to further the conservation of biodiversity and sets out measures to protect and enhance the biological and geological natural heritage of Scotland. Protects individual sites and promotes conservation on a broader scale.</p> <p>Aims to halt loss and reverse decline of species and habitats. Includes measures for designated sites, habitats and species.</p>	The Strategy takes account of these requirements and seeks to protect and enhance biodiversity through the guidance included the Strategy and the need for proposals to comply with UKFS (which includes guidelines on forests and biodiversity).
Forestry and Woodlands <ul style="list-style-type: none"> UK Forestry Standard 	The UKFS is the reference standard for sustainable	The Strategy is closely aligned to the aims of these

Name of PPS / Environmental protection objective	Main requirements of PPS	Strategy relationship with PPS
<p>(UKFS)</p> <ul style="list-style-type: none"> • Scottish Government's Policy on Control of Woodland Removal • Rationale for Woodland Expansion • Right Tree, Right Place • Scottish Forestry Strategy 2019-2029 • Woodlands and the Historic Environment 	<p>forest management in the UK. Provides policy direction for decisions on woodland removal in Scotland. Explains the rationale for the expansion of woodland coverage in Scotland A planning document for the planting of trees and woodland in Scotland including the development of forest and woodland strategies Protect and expand Scotland's forests and woodlands and increase their value to society and the environment.</p>	<p>PPS and seeks to build on national policy to highlight the key strategic issues, sensitivities and opportunities within the National Park.</p>
<p>Water</p> <ul style="list-style-type: none"> • Water Environment (Controlled Activities) (Scotland) Regulations 2011 • Water Environment and Water Services (Scotland) Act (WEWS) 2003 • The Flood Risk Management (Scotland) Act 2009 • The River Basin Management Plan for the Scotland River Basin District 2015 - 2027 • SEPA Groundwater Protection Policy for Scotland v3: Environmental Policy 19 (2009) • SEPA Indicative Flood Map • Local Flood Risk Management Strategies/Plans 	<p>Integrates the control of pollution, abstractions, dams and engineering activities to protect the water environment. Ensures that all human activity that can have a harmful impact on water is controlled. Creates a framework in which organisations involved in flood risk management can coordinate actions to deliver sustainable and modern approaches to flood risk management. Details the strategy for River Basin Management Planning in Scotland. Aims to provide a sustainable future for Scotland's groundwater resources by protecting legitimate uses of groundwater. Provides maps indicating potential flood extents</p> <p>SEPA has produced a Flood Risk Management Strategy for each Local Plan District in conjunction with others. These describe the agreed ambition for managing</p>	<p>The Strategy will contribute to the aims of these PPS through the guidance in the Strategy and the requirements of UKFS (which includes guidelines on forests and water).</p>

Name of PPS / Environmental protection objective	Main requirements of PPS	Strategy relationship with PPS
	flooding and the priority of actions to be taken forward to deliver this. Local Flood Risk Management Plans are prepared by local authorities and these provide additional detail on the local responsibility, funding and coordination of actions.	
Local		
Overarching policy <ul style="list-style-type: none"> • National Parks (Scotland) Act 2000 • Loch Lomond & the Trossachs National Park Partnership Plan (NPPP) 2018 to 2023. 	<p>The conservation and enhancement of the environment is central to National Parks achieving their purpose. It underpins delivery of all four aims and is integral to the sustainable development needed to support communities and businesses to protect and enhance these areas for future generations.</p> <p>The National Park Partnership Plan is the overarching vision to guide how all those with a role in looking after the National Park will work together over the next five years to ensure a successful, sustainable future for this iconic place</p>	<p>The Strategy is consistent with the four aims detailed in the Act and will contribute to the delivery of the NPPP. In particular, the Strategy will play a key role in delivering the planned 2000 ha of woodland expansion by 2023 and contribute to the achievement of a number of the other targets in the NPPP (see Table 12 for further details).</p>
Biodiversity <ul style="list-style-type: none"> • Loch Lomond & the Trossachs National Park Local Biodiversity Action Plan (Wild Park 2020) 	<p>Conserve species and habitats throughout the Park that are considered vulnerable or threatened on a local or national basis, and in turn contribute to the conservation of our global biodiversity; promote awareness of local natural resources; promote community engagement in, and ownership of, the practical conservation of natural resources; and promote the sustainable and wise use of resources.</p>	<p>The Strategy will help deliver the Woodland Habitat Network, Rhododendron, Black Grouse and Red Squirrel Wild Challenge Action Plans aims.</p>
Landscape <ul style="list-style-type: none"> • Loch Lomond & the Trossachs National Park Special Qualities. 	<p>To promote the protection and enhancement of the Special Qualities of the National Park.</p>	<p>The Strategy will protect and enhance the Special Landscape Qualities of the National Park and the enjoyment of these from key views valued by visitors and</p>

Name of PPS / Environmental protection objective	Main requirements of PPS	Strategy relationship with PPS
		local communities
Climate Change <ul style="list-style-type: none"> • National Park Authority Climate Change Action Plan. 	<p>Sets out how the National Park Authority will mitigate against the causes of climate change and adapt to the likely impacts.</p>	<p>As the Strategy promotes the expansion of woodland cover and the protection of carbon rich soils, it will help to reduce greenhouse gas emissions in line with the Action Plan. It also promotes woodland creation and management as a means of mitigating potential flooding risks.</p>
Population and human health <ul style="list-style-type: none"> • Loch Lomond & the Trossachs National Park Core Paths Plan (2011) • Outdoor Recreation Plan (ORP) (2013) 	<p>The Core Paths Plan provides a system of paths in the National Park which, as a whole, gives the public reasonable access throughout area.</p> <p>The action plan outlines commitments and intention by all stakeholders which will enhance outdoor recreation opportunities</p>	<p>The Strategy promotes public access to woodlands for recreation and improving people's quality of life in line with these plans.</p>

Appendix C: SEA Assessment Matrices

Assessment Table Key			
++	Major Positive	√	SEA Preferred Option
+	Minor Positive		
X	No Significant Effect		
+/-	Mixed Impacts		
-	Minor Negative		
--	Major Negative		
?	Uncertain		

Alternatives – Assessment Matrix

Alternative	SEA Environmental Topics									SEA Preferred Option
	Biodiversity	Landscape	Air Quality	Population & Human Health	Soil & Geology	Water	Climate	Material Assets	Cultural Heritage	
Option 1: No strategy	X	?	++	X	X	X	++	X	X	
<p><u>Option 1:</u> Woodland creation/management proposals would continue to be considered on a case by case basis using relevant national policies and legislation.</p> <p><u>Assessment Commentary:</u> The consideration of woodland creation/management proposals against relevant national policies and legislation would ensure that there would be no negative impacts on the SEA Topics. However, there is a risk that this option would not realise the maximum benefits from woodland creation/management proposals as the key strategic issues, sensitivities and opportunities within the National Park would not be promoted by this approach. Whilst there is existing information on these interests, there is a lack of specific advice for considering impacts from woodland creation/management on these interests within the National Park. In addition, as there would be no grant uplift in the absence of the Strategy and proposals that tackle key strategic priorities within the National Park would not be incentivised.</p> <p>In the absence of a Strategy for the National Park, proposals would not be steered away from sensitive locations or directed to locations that would deliver the greatest biodiversity benefits through improved</p>										

	<p>connectivity. There would also be a greater risk of conflicts with other land uses and whilst any conflicts are likely to be addressed at the consenting stage, this option would not steer proposals away from inappropriate locations at an early stage.</p> <p>In the absence of specific guidance on protecting and enhancing the Special Landscape Qualities of the National Park for woodland creation/management proposals, Uncertain effects on Landscape are predicted from this option.</p> <p>No Significant Effects on the following SEA Topics are predicted from this option due to the requirement for proposal to comply with national policy and legislation:</p> <ul style="list-style-type: none"> • Biodiversity • Population & Human Health • Soil & Geology • Water • Material Assets • Cultural Heritage <p>Major Positive impacts on Climate and Air Quality are predicted from this option as expanding woodland cover will help to reduce greenhouse gas emissions through increased CO² sequestration and peatland will be protected by the requirements of UKFS. Woodland creation will also help to improve Air Quality through the removal of pollutants from the air by trees, particularly where woodland expansion takes place in or around settlements and along transport corridors.</p> <p><u>Uncertainties/assumptions</u></p> <ul style="list-style-type: none"> • Assessment of this objective assumes that woodland creation proposals will meet the requirements of the UKFS and all relevant statutory requirements including Habitats Regulations Appraisal and Environmental Impact Assessment 										
<p>Option 2: High level strategy</p>	<table border="1" data-bbox="248 1129 1617 1165"> <tr> <td style="background-color: #008000; color: white;">++</td> <td style="background-color: #008000; color: white;">++</td> <td style="background-color: #008000; color: white;">++</td> <td style="background-color: #008000; color: white;">+</td> <td style="background-color: #008000; color: white;">+</td> <td style="background-color: #008000; color: white;">+</td> <td style="background-color: #008000; color: white;">++</td> <td style="background-color: #008000; color: white;">+</td> <td style="background-color: #cccccc;">X</td> </tr> </table> <p><u>Option 2:</u> A high-level strategy would be created for the National Park focussing on the key issues for woodland creation/management in the National Park.</p> <p><u>Assessment Commentary:</u> As per option 1, negative impacts on SEA Topics would be avoided through the application of national policy and legislation but this approach would build on national policy and highlight key strategic issues,</p>	++	++	++	+	+	+	++	+	X	√
++	++	++	+	+	+	++	+	X			

sensitivities and opportunities within the National Park. In doing so, it would help to steer proposals to the most appropriate locations that maximise the benefits from woodland creation/management whilst minimising any potential negative impacts. This approach would provide strategic guidance on protecting and enhancing the Special Landscape Qualities of the National Park, native woodland connectivity and designated sites. It would also allow grant uplift to encourage woodland creation proposals that are in line with the Strategy.

As a result, **Major Positive** effects on **Biodiversity** and **Landscape** are predicted from this option. Whilst there would still be a need to assess proposals that come forward in line with the high level strategy, it is likely that any negative impacts on SEA Topics could be addressed through sensitive design following the principles detailed in the Strategy.

Major Positive impacts on **Climate** and **Air Quality** are predicted from this option as expanding woodland cover will help to reduce greenhouse gas emissions through increased CO² sequestration and proposals could be directed away from carbon rich soils through guidance in the High level strategy and UKFS. Woodland creation will also help to improve **Air Quality** through the removal of pollutants from the air by trees, particularly where woodland expansion takes place in or around settlements and along transport corridors.

A High level Strategy could also provide more tailored guidance on addressing potential conflicts between woodland creation/management and other land uses within the National Park. As a result, **Minor Positive** effects are predicted for the following SEA Topics:

- **Population & Human Health**
- **Soil & Geology**
- **Water**
- **Material Assets**

No Significant Effects on **Cultural Heritage** are predicted from this option due to the application national policy.

Option 2 has been assessed as having **Major Positive** effects **Biodiversity**, **Landscape**, **Climate** and **Air Quality** and **Minor Positive** impacts on **Population & Human Health**, **Soil & Geology**, **Water** and **Material Assets** as it will steer proposals to the most appropriate locations and details strategic guidance that must be addressed by individual proposals. **As Option 2 secures the greatest positive impacts, it has been identified as the preferred SEA option.**

	?/++	?/++	?/++	?/++	?/++	?/++	?/++	?/++	?/++	
<p>Option 3:</p> <p>Detailed strategy</p>	<p><u>Option 3:</u> A detailed strategy would be created for the National Park which aimed to provide guidance on all local woodland creation/management issues at an individual landowner scale.</p> <p><u>Assessment Commentary:</u> Whilst this option potentially offers the greatest positive impacts on all SEA Topics, it would be a highly complex and time consuming task to provide the level of detail required to provide robust guidance at this scale. It is unlikely that there is sufficient existing data to inform such an approach and either extensive additional data would have to be commissioned or there would be a risk of unintended impacts on SEA Topics. As a consequence, Uncertain/Major Positive impacts are predicted for all SEA Topics.</p> <p>There is also a risk that such a prescriptive approach may not be accepted by stakeholders and it would quickly become out of date.</p> <p>Option 3 has not been identified as the preferred SEA option as a result of the uncertainty of impacts on the SEA Topics.</p>									

Strategy Vision – Assessment Matrix

Alternative	SEA Environmental Topics									SEA Preferred Option
	Biodiversity	Landscape	Air Quality	Population & Human Health	Soil & Geology	Water	Climate	Material Assets	Cultural Heritage	
Option 1: Proposed Vision	?	?	?	?	?	?	?	?	?	
	<p>Proposed Vision: “Our vision is for the trees, woodlands and forests of Loch Lomond and The Trossachs National Park to flourish and to expand, providing us and future generations with sustainable natural capital”.</p> <p>Assessment Commentary: Whilst the expansion of trees, woodlands and forests can be beneficial for all SEA Environmental Topics (SEA Topics), there can also be negative impacts from unchecked expansion into sensitive habitats, landscapes, soils, geodiversity sites, catchments, agricultural land, cultural heritage sites and associated negative impacts on species and carbon storage. As a consequence, the potential impact of the proposed vision on all SEA Topics has been assessed as Uncertain.</p>									
Option 2: Alternative Vision	+	+	+	+	+	+	+	+	+	√
	<p>Alternative Vision: “Our vision is for the trees, native woodlands and forests of Loch Lomond & The Trossachs National Park to flourish and to expand in appropriate locations, providing us and future generations with sustainable natural capital”.</p> <p>Assessment Commentary: The addition of “in appropriate locations” to the vision highlights that the expansion of trees, woodlands and forests will not be supported in all cases and the need for proposals to consider potential impacts on other interests. This amendment signposts the need to consider the guidance contained in the remainder of the Strategy, and higher level plans such as UK Forestry Standard, when devising proposals.</p> <p>Option 2 has been identified as the preferred SEA option as it secures minor positive benefits for all SEA Topics.</p>									

Strategic Objective 1 - Assessment Matrix

	SEA Environmental Topics									SEA Preferred Option
	Biodiversity	Landscape	Air Quality	Population & Human Health	Soil & Geology	Water	Climate	Material Assets	Cultural Heritage	
	++	++	++	++	++	++	++	+	X	
Draft Strategic Objective 1	<p><u>Strategic Objective 1 - Increasing Woodland Cover</u></p> <p>The Trees and Woodland Strategy promotes woodland creation that provides multiple benefits for the National Park, especially where it delivers on the conservation objectives outlined in this document.</p> <p><u>Assessment Commentary:</u></p> <p>This objective promotes the expansion of woodland cover within the National Park to achieve the current National Park Partnership Plan target of 2,000ha of new woodland by 2023 and in the years beyond. In particular, this objective supports the creation of woodland where it will provide <i>multiple benefits</i> and achieve the conservation objectives outlined in the Strategy.</p> <p>A high level of mitigation is already built into the woodland creation process due to the requirements of the Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017, grant administration process and compliance with the UKFS.</p> <p>The emphasis on achieving <i>clear multiple benefits</i> and delivering the conservation objectives of the Strategy highlights the need for proposals to take account of wider interests and to enhance these interests through appropriately designed schemes. It also provides a clear link between this objective and the more detailed guidance in the Strategy. The Strategy contains specific guidance on designing woodland creation proposals to protect and enhance the following SEA Topics;</p> <ul style="list-style-type: none"> • Biodiversity (e.g. 5.3.1 Designated Sites, 5.1.4 Priority Woodland Habitats & Flagship Species and 5.3.4 Open Ground Habitats); • Landscape (5.2 Landscape integration and Special Landscape Qualities); • Population & Human Health (5.5 Woodlands and People); • Soil & Geology (5.3.9 Water and Soil Management, 5.3.5 Peatland, 5.3.2 Geological Conservation Review Sites) • Water (5.3.9 Water and Soil Management); 									√

- **Climate** (5.3.5 Peatland)

This guidance seeks to avoid negative impacts and maximise positive benefits on these SEA Topics through well designed woodland creation proposals. The requirements of the Strategy were designed to address the SEA Objectives and Questions outlined in **Table 3**. As a consequence, increasing woodland cover in line with the Strategy will result in **Major Positive** effects on these SEA Topics.

In terms of **Biodiversity**, the Strategy includes a broad scale assessment of the sensitivity of designated sites to native woodland creation and provides an initial indication of the issues that will need to be addressed by native woodland creation proposals in these areas. Whilst the expansion of woodland cover in appropriate areas will be beneficial for biodiversity, there is also risk that improved cover and connectivity could also improve the habitat for herbivores and lead to increased browsing pressure on woodlands. However, the Strategy includes a requirement for all management plans to include effective herbivore management. As a consequence, **Major Positive** effects on **Biodiversity** are predicted

Major Positive impacts on **Air Quality** are predicted as expanding woodland cover will help to reduce greenhouse gas emissions through increased CO² sequestration and proposals will be directed away from carbon rich soils as a result of the Peatland guidance in section 4.4.5 of the Strategy. Cumulative benefits will also be realised as a consequence of the National Park Partnership (2018-2023) target to restore 2000 hectares of peatland by 2023 as this will increase CO² sequestration alongside the increase in woodland cover promoted by this objective. Woodland creation will also help to improve **Air Quality** through the removal of pollutants from the air by trees, particularly where woodland expansion takes place in or around settlements and along transport corridors.

The impact of woodland expansion on Gardens and Designed landscapes (national and local) is considered in section 5.3.3 of the Strategy and this includes refining the native woodland opportunity map (Map 4) to ensure that any sites which do not have capacity are highlighted as sensitive. Promotion of planting of individual trees and tree groups may benefit many Gardens and Designed Landscapes (national and local) where it is targeted to replace existing, but often now declining, features such as parkland trees, avenues, hedgerow trees and amenity woodlands. Whilst the impact of woodland expansion on wider Cultural Heritage interests is not explicitly considered in the Strategy (e.g. the setting of Listed Buildings, Scheduled Monuments, Conservation Areas and unknown archaeology), the requirements of the Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017, grant administration process and compliance with the UKFS will ensure that this objective will not have negative impacts on Cultural Heritage. **No Significant Effects** on **Cultural Heritage** are predicted as a consequence of this objective.

	<p>In terms of Material Assets, this objective will increase the woodland resource within the National Park and provide associated benefits for people and businesses. These benefits include; providing an increased source of renewable building material and other timber products plus additional recreation opportunities for people. Section 5.3.8 of the Strategy will ensure that impacts on better quality agricultural land are balanced against the potential benefits from woodland creation proposals. As a result, it is considered that there will be Minor Positive impacts on Material Assets from this objective.</p> <p><u>Uncertainties/assumptions</u></p> <ul style="list-style-type: none">• The high-level nature of the Strategy means that the detailed site specific actions associated with the implementation of this objective are not specified.• Assessment of this objective assumes that woodland creation proposals will meet the requirements of the UK Forestry Standard (UKFS), which defines the requirements for the sustainable management of forests in the UK including Scotland, and all relevant statutory requirements including Habitats Regulations Appraisal and Environmental Impact Assessment.	
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Strategic Objective 2 - Assessment Matrix

	SEA Environmental Topics									SEA Preferred Option
	Biodiversity	Landscape	Air Quality	Population & Human Health	Soil & Geology	Water	Climate	Material Assets	Cultural Heritage	
	++	++	X	+	X	X	X	X	X	
Draft Strategic Objective 2	<p><u>Strategic Objective 2 - Improving Woodland Condition and Diversifying Woodland Management</u></p> <p>The Trees and Woodland Strategy will identify issues and solutions to enhance woodland management, with a focus on priority woodland habitats and flagship species found within the National Park (as defined in the <i>National Park Partnership Plan 2018 – 2023</i>). The Strategy will encourage increased woodland diversity in species and age structure to deliver more resilient woodlands.</p> <p><u>Assessment Commentary:</u></p> <p>Given the current extent of woodland cover in the National Park (approximately 30%), this objective identifies that improving the condition and diversity of existing woodland (native and productive conifer) is a key priority for the Strategy. In order to achieve this objective, the Strategy identifies potential solutions to the key woodland management issues in the National Park. Management to benefit priority woodland habitats, flagship species and improve the species and age diversity of existing woodlands are identified as particular priorities for the Strategy.</p> <p>Given the emphasis on improving the condition of existing woodland to benefit priority woodland habitats and flagship species, this objective will result in Major Positive benefits for Biodiversity. Cumulative benefits can also be realised in conjunction with Objective 1 through the expansion of woodland cover in appropriate areas. This offers the potential to deliver improved connectivity between new and existing woodland habitats and associated benefits for flagship species such as red squirrels. The potential need for grey squirrel control and the selection of tree species to favour red squirrels, particularly in the priority grey squirrel control area, is identified in the Strategy to ensure that woodland management/creation does not favour grey squirrels over red squirrels. As a result, Major Positive effects on Biodiversity are still predicted for this objective when taking into account potential cumulative impacts.</p> <p>The explanatory text highlights that enhancing landscape quality and character through sustainable management of existing native and productive conifer woodland is a priority of this objective. This coupled with Strategic Objective 3 (Protecting and Enhancing the Landscape) and the guidance in</p>									√

	<p>the Strategy will ensure that this objective will have Major Positive benefits for Landscape.</p> <p>As this objective focuses on improving the condition of existing woodland rather than creating new woodland, there will be No Significant Effect on Air Quality as a consequence of this objective.</p> <p>Diversifying woodland management could result in increased opportunities for local employment and communities to become involved in the use and management of woodlands (e.g. a greater variety of woodland management techniques could result in the production of a greater range of wood products and foster additional employment opportunities). As a result, Minor Positive impacts on Population & Human Health are predicted.</p> <p>No Significant Effects on Soil & Geology, Water, Climate and Cultural Heritage are predicted through the implementation of this objective which focuses on the improvement of the condition of existing woodland.</p> <p>Improving the condition and diversity of existing woodland will increase the resilience of the woodland resource to pressures such as tree health threats and climate change. This will enhance the sustainability of existing woodland and Minor Positive impacts on Material Assets as predicted as a result.</p> <p><u>Uncertainties/assumptions</u></p> <ul style="list-style-type: none"> • The high-level nature of the Strategy means that the detailed site specific actions associated with the implementation of this objective are not specified. • Assessment of this objective assumes that woodland management proposals will meet the requirements of UKFS and all relevant statutory requirements including Habitats Regulations Appraisal and Environmental Impact Assessment. 	
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Strategic Objective 3 - Assessment Matrix

	SEA Environmental Topics									SEA Preferred Option
	Biodiversity	Landscape	Air Quality	Population & Human Health	Soil & Geology	Water	Climate	Material Assets	Cultural Heritage	
Draft Strategic Objective 3	X	++	X	X	X	X	X	X	X	√
<p><u>Strategic Objective 3 - Protecting and Enhancing the Landscape</u></p> <p>The Trees and Woodland Strategy will identify how different types of woodland and tree planting could be located to bring landscape enhancement while not detracting from the Special Landscape Qualities of the National Park. The Strategy will provide a toolkit to assist with woodland landscape assessment and design.</p> <p><u>Assessment Commentary:</u></p> <p>This objective promotes the protection and enhancement of the nationally important landscape of the National Park through the provision of a landscape toolkit to assist with woodland landscape assessment and design. This objective provides a clear hook to the more detailed guidance in the Strategy on the location and design of new woodlands, restructuring of existing woodland and the retention and replacement of parkland and road-side trees. This guidance has been informed by a landscape capacity study.</p> <p>This objective will clearly have Major Positive impacts on Landscape as it focuses on protecting and enhancing the landscape of the National Park and links to more detailed guidance on how this can be achieved.</p> <p>Although there are likely to be many instances when measures to protect and enhance the landscape are also beneficial for Biodiversity (e.g. the extension of native woodland along watercourses and maintenance of parkland habitats), there may also be occasions where there is a conflict between these topics. Any such conflicts will be addressed through the guidance in the remainder of the Strategy and through compliance with UKFS and No Significant Effects on Biodiversity are predicted as a result of this objective.</p> <p>The Landscape Capacity Study and Guidelines document (Appendix 1) considers potential impacts on Gardens and Designed Landscapes (national and local) and those designed landscapes that are sensitive to native woodland creation are identified on Map 4. As a result, impacts on designed</p>										

	<p>landscapes are addressed by the Strategy. Any negative impacts on other Cultural Heritage interests will be addressed through compliance with UKFS. Promotion of planting of individual trees and tree groups may benefit many Designed Landscapes (national and local) where it is targeted to replace existing, but often now declining, features such as parkland trees, avenues, hedgerow trees and amenity woodlands. No Significant Effects on Cultural Heritage are predicted as a consequence of this objective.</p> <p>This objective is primarily concerned with the location and design woodland creation and management proposals to enhance the landscape of the National Park. Any negative impacts on the following SEA Topics will be addressed by the other Strategic Objectives and guidance in the Strategy or through compliance with UKFS. As a result, No Significant Effects on the following SEA Topics are predicted:</p> <ul style="list-style-type: none">• Air Quality• Population & Human Health• Soil & Geology• Water• Climate• Material Assets <p><u>Uncertainties/assumptions</u></p> <ul style="list-style-type: none">• The high-level nature of the Strategy means that the detailed site specific actions associated with the implementation of this objective are not specified.• Assessment of this objective assumes that woodland creation proposals will meet the requirements of UKFS and all relevant statutory requirements including Habitats Regulations Appraisal and Environmental Impact Assessment.	
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Strategic Objective 4 - Assessment Matrix

	SEA Environmental Topics									SEA Preferred Option
	Biodiversity	Landscape	Air Quality	Population & Human Health	Soil & Geology	Water	Climate	Material Assets	Cultural Heritage	
Strategic Objective 4	X	X	+	++	X	X	+	++	X	√
<p><u>Strategic Objective 4 - Maintaining and Enhancing Economic Sustainability Through Skills and Business Development</u></p> <p>The Trees and Woodland Strategy will promote sustainable woodland management of both productive conifer and broadleaf woodlands and integrated land management techniques where appropriate, identifying new economic markets and seeking solutions to issues preventing harvesting/timber haulage of existing conifer forests.</p> <p><u>Assessment Commentary:</u></p> <p>This objective promotes the sustainable management of productive conifer and broadleaf woodlands and seeks to increase the economic contribution of forestry to the local area by realising the benefits of processing and using woodland resources near to source, resolving timber haulage and extraction issues. It also seeks to promote woodland management to deliver tourism and recreation services.</p> <p>The focus of this objective on realising the economic benefits of forestry and delivering tourism and recreation services will result in Major Positive impacts on Population & Human Health through increased local employment opportunities and encouraging healthy lifestyles.</p> <p>A Minor Positive impact on Climate and Air Quality is identified as using wood resources closer to source will lead to a reduction in emissions from transporting timber.</p> <p>This objective will result in a Major Positive impact on Material Assets as it will promote the sustainable management of productive conifer and broadleaf woodlands, encourage a reduction in the consumption of fossil fuels from timber transport and promote better integration of woodland creation and management alongside other land uses through integrated land management.</p> <p>Any negative impacts on the following SEA Topics will be addressed by the other Strategic Objectives and guidance in the Strategy or through compliance with UKFS. As a result, No Significant Effects on the following SEA Topics are predicted:</p>										

	<ul style="list-style-type: none">• Biodiversity• Landscape• Soil & Geology• Water• Cultural Heritage <p><u>Uncertainties/assumptions</u></p> <ul style="list-style-type: none">• The high-level nature of the Strategy means that the detailed site specific actions associated with the implementation of this objective are not specified.• Assessment of this objective assumes that woodland management proposals will meet the requirements of UKFS and all relevant statutory requirements including Habitats Regulations Appraisal and Environmental Impact Assessment.	
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Strategic Objective 5 - Assessment Matrix

	SEA Environmental Topics									SEA Preferred Option
	Biodiversity	Landscape	Air Quality	Population & Human Health	Soil & Geology	Water	Climate	Material Assets	Cultural Heritage	
Strategic Objective 5	++	+	+	++	X	++	++	+	X	√
<p><u>Strategic Objective 5 - Promoting Cooperative Woodland Management and Creation as Part of an Integrated Land Management Approach</u></p> <p>The Trees and Woodland Strategy will encourage and support land managers/owners and local communities to identify the best ways to co-ordinate and manage a balanced approach to woodland management and creation as part of integrated land management to support a healthy environment along with a sustainable rural economy. This support could be achieved by the formation of Land Use Partnerships.</p> <p><u>Assessment Commentary:</u></p> <p>This objective promotes cooperative woodland management and creation between land managers/owners and local communities to support a healthy environment along with a sustainable rural economy. As woodland creation and management can have wider landscape-scale impacts such as causing changes to the movement of deer, disrupting established sheep hefts or other implications for rural businesses, cooperation between land managers/owners and local communities is important.</p> <p>Encouraging better coordination between land managers/owners and local communities to support a healthy environment will have Major Positive impact on Biodiversity as will help to address issues that need to be tackled at a landscape scale (e.g. deer management and invasive non-native species) and improve woodland habitat networks.</p> <p>Cooperative management and creation of woodland offers the opportunity to tackle issues that are best addressed at a catchment scale (e.g. flood risk and the ecological status of watercourses/bodies). Major Positive impacts on Climate and Water are predicted as a result of this objective.</p> <p>This approach also offers the potential to secure a more joined up consideration of landscape issues between adjacent land manager/owners and encourage proposals that follow landscape characteristics rather than simply being reflective of ownership boundaries. Minor Positive impacts on Landscape are predicted from the objective as a result.</p>										

	<p>This objective will have Major Positive impacts on Population & Human Health as it promotes a sustainable rural economy which will support local employment opportunities. It also seeks to encourage and support local communities to identify the best ways to co-ordinate and manage a balanced approach to woodland management and creation. This will encourage local communities to become more involved in the use and management of woodland.</p> <p>Minor Positive impacts on Material Assets are predicted from this objective as it seeks to support integrated land management which will balance the loss of better quality agricultural land against the benefits of the diversification of a holding.</p> <p>Minor Positive impacts on Air Quality are predicted from this objective as it encourages the coordinated creation of new woodland which will help to reduce greenhouse gas emissions through increased CO2 sequestration and proposals will be directed away from carbon rich soils as a result of the Peatland guidance in section 4.4.5 of the Strategy. Woodland creation will also help to improve Air Quality through the removal of pollutants from the air by trees, particularly where woodland expansion takes place in or around settlements and along transport corridors.</p> <p>No Significant Effect on Soil & Geology and Cultural Heritage are predicted from this objective as any negative impacts will be addressed by the guidance in the Strategy or through compliance with UKFS.</p> <p><u>Uncertainties/assumptions</u></p> <ul style="list-style-type: none"> • The high-level nature of the Strategy means that the detailed site specific actions associated with the implementation of this objective are not specified. • Assessment of this objective assumes that woodland management/creation proposals will meet the requirements of UKFS and all relevant statutory requirements including Habitats Regulations Appraisal and Environmental Impact Assessment. 	
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Strategic Objective 6 - Assessment Matrix

	SEA Environmental Topics									SEA Preferred Option
	Biodiversity	Landscape	Air Quality	Population & Human Health	Soil & Geology	Water	Climate	Material Assets	Cultural Heritage	
Draft Strategic Objective 6	X	X	X	++	X	X	X	X	X	√
<p><u>Strategic Objective 6 - Improved Community Empowerment and Resilience From Active Engagement in Woodland Management</u></p> <p>The Trees and Woodland Strategy will encourage better engagement between local communities and woodland owners or managers to explore opportunities for greater involvement in the use and management of woods, as well as greater understanding of the opportunities and constraints associated with woodland management and creation.</p> <p><u>Assessment Commentary:</u></p> <p>This objective seeks to improve community empowerment and resilience through active engagement in woodland management.</p> <p>There is potential for this objective to have Major Positive impacts on Population & Human Health as it seeks to encourage local communities to become more involved in the use and management of woods and in doing so, foster healthier lifestyles and increased recreational use of woodlands. In the longer term, there may also be knock on positive effects as a result of improved environmental awareness through increased community involvement in the management of woodland.</p> <p>It is not considered that greater community involvement in woodland management will affect the other SEA Topics as management proposals will still require to be considered against the guidance in the remainder of the Strategy and comply with UKFS. As a result, No Significant Effects on the following SEA Topics are predicted from this objective:</p> <ul style="list-style-type: none"> • Biodiversity • Landscape • Air Quality • Soil & Geology • Water 										

	<ul style="list-style-type: none">• Climate• Material Assets• Cultural Heritage <p><u>Uncertainties/assumptions</u></p> <ul style="list-style-type: none">• The high-level nature of the Strategy means that the detailed site specific actions associated with the implementation of this objective are not specified.• Assessment of this objective assumes that woodland management/creation proposals will meet the requirements of UKFS and all relevant statutory requirements including Habitats Regulations Appraisal and Environmental Impact Assessment.	
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Strategic Objective 7 - Assessment Matrix

	SEA Environmental Topics									SEA Preferred Option
	Biodiversity	Landscape	Air Quality	Population & Human Health	Soil & Geology	Water	Climate	Material Assets	Cultural Heritage	
Draft Strategic Objective 7	+/-	+/-	+	++	+/-	+	+	+	+/-	√
<p><u>Strategic Objective 7 - Encourage and Promote Public Access for Recreation and Improving People's Quality of Life</u></p> <p>The Trees and Woodland Strategy will encourage and promote responsible access as detailed in Land Reform legislation and related guidance, while encouraging and supporting the diversification of the public use of woodland, including for recreation and education opportunities.</p> <p><u>Assessment Commentary:</u></p> <p>This objective promotes public access to woodlands for recreation and improving people's quality of life.</p> <p>There is potential for Major Positive impacts on Population & Human Health from this objective as it seeks to promote public access to woodlands for recreation and to secure associated health/wellbeing benefits for people. The physical and mental health benefits of outdoor recreation and contact with nature are well documented and this objective offers the opportunity for more residents and visitors to the National Park to experience these benefits.</p> <p>There is potential for negative impacts on Biodiversity as a result of increased visitor numbers (e.g. trampling of vegetation, erosion, disturbance of wildlife and increased litter). Whilst these impacts would be mitigated to some extent by established mitigation such as the Scottish Outdoor Access Code, the potential for minor negative affects remains. However, there is also potential for visitors to gain a better understanding and appreciation of the value of woodland through their experiences and for this to have minor positive benefits in the longer term (e.g. through initiatives such as forest schools). As a consequence of these conflicting outcomes, Mixed Impacts on Biodiversity are predicted for this objective. Similar affects from increased woodland recreation could extend to Landscape, Soil & Geology and Cultural Heritage and Mixed Impacts on these SEA Topics are predicted as a result.</p> <p>As detailed for Biodiversity, improved awareness and respect for the environment can have a positive</p>										

	<p>effect on all aspects of the environment over the long term. As a result, Minor Positive impacts on the following SEA Topics are predicted:</p> <ul style="list-style-type: none">• Air Quality• Water• Climate• Material Assets <p><u>Uncertainties/assumptions</u></p> <ul style="list-style-type: none">• The high-level nature of the Strategy means that the detailed site specific actions associated with the implementation of this objective are not specified.• Other plans and strategies in the National Park have a leading role in delivering this objective (e.g. Core Paths Plan, Outdoor Recreation Plan and Your Park Camping Management Strategy) and potential impacts on woodlands, and other sensitive habitats, will principally be considered through the assessment of these plans.	
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Opportunity mapping for native woodland creation - Assessment Matrix

Alternative	SEA Environmental Topics									SEA Preferred Option
	Biodiversity	Landscape	Air Quality	Population & Human Health	Soil & Geology	Water	Climate	Material Assets	Cultural Heritage	
Option 1: Preferred/Potential areas only (No sensitive areas identified)	X	X	++	X	X	++	++	X	X	
<p>Option 1: The opportunity mapping for native woodland creation would identify preferred/potential areas using the following datasets:</p> <ul style="list-style-type: none"> • Rationale for Woodland Expansion (Scottish Government Woodland Expansion Advisory Group (WEAG), 2008) • Native Woodland Integrated Habitat Network (Forestry Commission Scotland, 2015) • Climatic Suitability for Forestry Grant Schemes (Forestry Commission Scotland, 2014) • Important Plant Areas (Western Atlantic Woodlands) and Zones of Opportunity (Plantlife International, 2015) • National Forest Inventory (Forestry Commission Scotland, 2011) - this was used to remove any existing woodland from subsequent analysis <p>No sensitive areas for native woodland creation would be identified and impacts on national/international designated sites for biodiversity/geodiversity and Garden and Designed Landscapes (national and local) would be considered at the application/consenting stage. This would include consideration of the proposals against the requirements of UKFS and all relevant statutory requirements including Habitats Regulations Appraisal (HRA) and Environmental Impact Assessment (EIA).</p> <p>Assessment Commentary:</p> <p>Whilst the use of the above datasets to identify preferred/potential areas provides an initial assessment of the land suitable for native woodland creation, the map would not address potential impacts (positive or negative) on national/international designated sites for biodiversity/geodiversity. These issues can be addressed at the application/consenting stage but option 1 doesn't steer proposals away from potentially sensitive areas and proposals that are incompatible with these interests might be more likely to come forward as a result. However, the guidance on Designated Sites in the Strategy (section 4.4.1) and the requirement for proposals to comply with UKFS will ensure that there are No Significant Effects on Biodiversity from option 1.</p>										

The option 1 map would not address potential impacts (positive or negative) on Gardens and Designed Landscapes (national and local). These issues can be addressed at the application/consenting stage but option 1 doesn't steer proposals away from potentially sensitive areas and proposals that are incompatible with these interests might be more likely to come forward as a result. In addition, there is also no consideration of the impact of native woodland expansion on wider Cultural Heritage interests by option 1. However, the requirement for proposals to comply with UKFS will ensure that there are **No Significant Effects** on **Cultural Heritage** from option 1.

Although impacts on the Special Landscape Qualities, landscape character and perceptual qualities of the National Park would not be addressed by the option 1, any effects would be addressed by section 4.2 *Landscape integration and Special Landscape Qualities* of the draft Strategy. As highlighted above, impacts on Gardens and Designed Landscapes (national and local) would also need to be addressed at the application stage through compliance with UKFS. **No Significant Effects** on **Landscape** are predicted from option 1 as a result.

As highlighted above, option 1 doesn't steer proposals away from designated sites classified for their geodiversity interest and this approach also doesn't address impacts on non-SSSI GCR sites and peatland outwith designated sites. However, impacts on designated sites are addressed by section 5.3.1 of the Strategy and impacts on peatland and non-SSSI GCR sites would be addressed by sections 5.3.9 Water and Soil Management, 5.3.5 Peatland, and 5.3.2 Geological Conservation Review Sites of the draft Strategy. **No Significant Effects** on **Soil & Geology** are predicted as a result of option 1.

Major Positive impacts on **Climate** and **Air Quality** are predicted from this option as expanding woodland cover will help to reduce greenhouse gas emissions through increased CO² sequestration and proposals will be directed away from carbon rich soils as a result of the Peatland guidance in section 5.3.5 of the Strategy. Woodland creation will also help to improve **Air Quality** through the removal of pollutants from the air by trees, particularly where woodland expansion takes place in or around settlements and along transport corridors.

Whilst areas of open water are excluded from the preferred/potential areas for native woodland creation, native woodland expansion around waterbodies and along watercourses can have a range of benefits for water quality including reducing diffuse pollution and moderating water temperature. As a consequence, **Major Positive** impacts on **Water** are predicted as a result of this approach.

No Significant Effects on **Population & Human Health** and **Material Assets** are predicted for option 1.

	<p><u>Uncertainties/assumptions</u></p> <ul style="list-style-type: none"> • The high-level nature of the Strategy means that the detailed site specific actions associated with the implementation of this objective are not specified. • Assessment of this objective assumes that woodland creation proposals will meet the requirements of the UK Forestry Standard (UKFS), which defines the requirements for the sustainable management of forests in the UK including Scotland, and all relevant statutory requirements including Habitats Regulations Appraisal and Environmental Impact Assessment. • Early consultation with SNH is advised for all proposals that may affect a designated site. 										
<p>Option 2: Classify all designated sites, Garden and Designed Landscapes (national and local) as sensitive</p>	<table border="1" data-bbox="360 549 1713 580"> <tr> <td>+/-</td> <td>+/-</td> <td>++</td> <td>X</td> <td>X</td> <td>++</td> <td>++</td> <td>X</td> <td>+/-</td> </tr> </table> <p>Option 2: The preferred/potential areas for native woodland creation would be identified as for option 1 but all national/international designated sites for biodiversity/geodiversity and Gardens and Designed Landscapes (national and local) would be classified as sensitive.</p> <p>Assessment Commentary:</p> <p>This approach would steer native woodland creation proposals away from all designated sites for biodiversity/geodiversity. Whilst this would protect sites sensitive to native woodland creation, it would also steer proposals away from sites that would benefit for native woodland creation or where expansion could be achieved without affecting the interests of these sites. As a result, Mixed Impacts on Biodiversity are predicted from option 2.</p> <p>Option 2 would also steer proposals away from all Gardens and Designed Landscapes including those that would benefit from native woodland creation or replacement tree planting to retain features or where expansion could be achieved without affecting the character of the site. The impact of native woodland expansion on wider Cultural Heritage interests is not explicitly considered by option 2 (e.g. the setting of Listed Buildings, Scheduled Monuments, Conservation Areas and archaeological remains) but the requirement for proposals to comply with UKFS will ensure that this option would not have negative impacts on Cultural Heritage. Mixed Impacts on Cultural Heritage are predicted due to the failure of this approach to direct proposals to Gardens and Designed Landscapes that would benefit from native woodland creation.</p> <p>Although impacts on the Special Landscape Qualities, landscape character and perceptual qualities of</p>	+/-	+/-	++	X	X	++	++	X	+/-	
+/-	+/-	++	X	X	++	++	X	+/-			

	<p>the National Park would not be addressed by the option 2, any effects would be addressed by section 5.2 <i>Landscape integration and Special Landscape Qualities</i> of the draft Strategy. However, as this approach would not direct proposals to Gardens and Designed Landscapes that would benefit from native woodland creation, Mixed Impacts on Landscape are predicted from this option.</p> <p>Whilst classifying all designated sites as sensitive will protect those classified for their geodiversity interest, this doesn't take account of un-notified GCR sites and potential impacts on peatland outwith designated sites. However, impacts on peatland and 'un-notified GCR sites' would be addressed by sections 5.3.9 Water and Soil Management, 5.3.5 Peatland, and 5.3.2 Geological Conservation Review Sites of the draft Strategy. No Significant Effects on Soil & Geology are predicted as a result.</p> <p>The impact of option 2 on the following SEA Topics is the same as outlined about for option 1:</p> <ul style="list-style-type: none"> • Air Quality • Climate • Material Assets • Population & Human Health • Water <p><u>Uncertainties/assumptions</u></p> <ul style="list-style-type: none"> • Same as outlined above for Option 1. 										
<p>Option 3:</p> <p>Identify sensitive areas through broad scale assessment of designated sites, Gardens and Designed Landscapes (national and local) for sensitivity to native woodland</p>	<table border="1" data-bbox="353 890 1720 925"> <tr> <td>++</td> <td>+</td> <td>++</td> <td>X</td> <td>X</td> <td>++</td> <td>++</td> <td>X</td> <td>X</td> </tr> </table> <p>Option 3: The preferred/potential areas for native woodland creation would be identified as for option 1 but a broad scale screening exercise would be carried out to identify those designated sites and Gardens and Designed Landscapes (national and local) that would be sensitive to native woodland expansion and those that would benefit or where the interests of the sites could be protected. Sensitive sites would be marked as such on the opportunities map.</p> <p>Proposals would still require to be assessed against the guidance in the Strategy and a high level of assumed mitigation is built into the woodland creation process due to the requirements of the Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017, grant administration process and compliance with the UKFS.</p> <p>Assessment Commentary:</p>	++	+	++	X	X	++	++	X	X	<p>√</p>
++	+	++	X	X	++	++	X	X			

<p>expansion</p>	<p>This approach would help steer native woodland creation proposals to designated sites that would benefit from native woodland expansion or replacement tree planting and protect those that would be sensitive to native woodland expansion. It would also identify sites where appropriately designed schemes could be accommodated without adversely affecting the interests of the site. As a result of this more targeted approach, option 3 has been assessed as having Major Positive impacts on Biodiversity.</p> <p>Option 3 would also steer proposals to Gardens and Designed Landscapes (national and local) that would benefit from native woodland expansion and protect those that would be sensitive. Whilst the impact of woodland expansion on wider Cultural Heritage interests is not explicitly considered by option 3 (e.g. the setting of Listed Buildings, Scheduled Monuments, Conservation Areas and archaeological remains), the requirement for proposals to comply with UKFS will ensure that this objective will not have negative impacts on Cultural Heritage. No Significant Effects on Cultural Heritage are predicted as a consequence of this approach.</p> <p>Although impacts on the Special Landscape Qualities, landscape character and perceptual qualities of the National Park would not be addressed by the option 3, any effects would be addressed by section 4.2 <i>Landscape integration and Special Landscape Qualities</i> of the draft Strategy. Given the potential enhancement of Gardens and Designed Landscapes via option 3 and the protection given to the Special Landscape Qualities, landscape character and perceptual qualities of the National Park via the other guidance in the Strategy, Minor Positive impacts on Landscape are predicted from this option.</p> <p>Whilst option 3 would not steer proposals away from peatland outside designated sites and ‘un-notified GCR sites’, these interests will be protected by sections 5.3.9 <i>Water and Soil Management</i>, 5.3.5 <i>Peatland</i>, and 5.3.2 <i>Geological Conservation Review Sites</i> of the draft Strategy. No Significant Effects on Soil & Geology are predicted as a result.</p> <p>The impact of option 3 on the following SEA Topics is the same as outlined about for options 1 and 2:</p> <ul style="list-style-type: none"> • Air Quality • Climate • Material Assets • Population & Human Health • Water <p>Option 3 has been identified as the preferred SEA approach as it secures the greatest positive impacts for Biodiversity, Landscape and Cultural Heritage whilst delivering the same Major Positive impacts on Air Quality, Water and Climate as the other options. No Significant Effects on Population &</p>	
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	<p>Human Health, Soil & Geology and Material Assets have been identified for all options.</p> <p><u>Uncertainties/assumptions</u></p> <ul style="list-style-type: none">• Same as outlined above for Options 1 and 2.	
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Appendix D: List of Documents

The following documents should also be read in order to gain context that the Strategy operates in:

- Draft Strategy
- Habitats Regulations Appraisal
- National Park Partnership Plan 2018-2023

All of these papers can be found at <https://www.lochlomond-trossachs.org/park-authority/>