## Regulations on Felling and Restocking

Strategic Environmental Assessment Environmental Report

August 2018

## Report prepared by:



## **Table of Contents**

List of Ab	breviations	5
Non-Tech	nnical Summary	6
1	Introduction	g
1.1	Background	g
1.2	Purpose of this Environmental Report	g
1.3	Report structure	g
2	Policy context	11
2.2	Basic Details	11
2.3	Objectives of the Regulations	11
2.4	Requirement for the Regulations	12
2.5	Summary of the proposed changes to the exemptions	13
2.6	Subject of the present assessment	13
2.7	Current Exemptions	14
2.8	Forest plans and felling permission	15
3	Consideration of reasonable alternatives	18
3.2	Potential limitations of the proposed approach	19
4	Environmental Baseline	20
4.1	Overview	20
4.2	Relevant aspects of the current environmental baseline	20
4.3	Environmental issues/opportunities relevant to forestry	22
4.4	Likely evolution of the environment without the Regulations	24
5	The approach to the assessment	25
5.1	The SEA process to date	25
5.2	Approach to the assessment	25
6	Assessment findings and recommendations	27
6.1	Overview	27
6.2	Small trees / Diameter threshold	27
6.3	Volume Threshold	27
6.4	Dead Trees and Windblow	28
6.5	Other Exemptions	28
6.6	Cumulative Effects	29
6.7	Summary of Conclusions	29

7	Identifying mitigation measures and opportunities for enhancement	30
8	Proposals for monitoring	31
9	Proposed programme of works and information on responding to the	32

## **Tables**

Table 1: Proposed changes to existing exemptions	16
Table 2: Environmental issues/opportunities associated with forestry	23
Table 3: Proposed programme of works	32
Table 4: Responding to the consultation	33
Appendices	
Appendix A: Current exemptions under the 1967 Forestry Act	35
Appendix B: The Forestry (Exceptions from Restriction of Felling) Regulations 1979 SI 1979/792	37
Appendix C: Other Plans, Programmes and Strategies	38
Appendix D: Relevant Baseline Information	42
Appendix E: Analysis of Consultation Authorities responses to the Scoping Report	47
Appendix F: Respondent information form	50

## List of Abbreviations

AQMA	Air Quality Management Area	
AWI	Ancient Woodland Inventory	
CA	Consultation Authority/ies	
CAP	Common Agricultural Policy	
CBD	Convention on Biological Diversity	
CCC	Committee on Climate Change	
CO2	Carbon Dioxide	
EC	European Commission	
EIA	Environmental Impact Assessment	
EU	European Union	
EUETS	European Union Emissions Trading Scheme	
FCS	Forestry Commission Scotland	
FLMA	Forestry and Land Management (Scotland) Act	
FS	Forestry Strategy	
FSC	Forest Stewardship Council	
HES	Historic Environment Scotland	
LRRS	The Land Rights and Responsibilities Statement	
LUS	The Land Use Strategy	
MtCO <sub>2</sub> e	Metric tons carbon dioxide equivalent	
NPF3	National Planning Framework 3	
NWSS	Native Woodland Survey of Scotland	
PEFC	Programme for the Endorsement of Forest Certification	
PM <sub>10</sub>	Particulate matter of diameter less than or equal to 10 micrometres	
PPS	Plans, programmes, and strategies	
RBMP	River Basin Management Plan	
SAC	Special Area(s) of Conservation	
SEA	Strategic Environmental Assessment	
SEPA	Scottish Environment Protection Agency	
SFM	Sustainable Forest Management	
SG	Scottish Government	
SNH	Scottish Natural Heritage	
SPA	Special Protection Area(s)	
SPP	Scottish Planning Policy	
SRDP	Scottish Rural Development Programme	
SSSI	Site(s) of Special Scientific Interest	
The 2005 Act	The Environmental Assessment (Scotland) Act 2005	
UKWAS	UK Woodland Assurance Scheme	
UNCED	United Nations Conference on Environment and Development	
UNFCCC	United Nations Framework Convention on Climate Change	

## Non-Technical Summary

#### Introduction

Following the passage of the Forestry and Land Management (Scotland) Act, the Scottish Government is proposing to bring forward secondary legislation to update the current provisions on felling and restocking, ensuring that statutory processes are proportionate to the activities they seek to regulate and to maintain the benefits of sustainable management of Scotland's forests.

#### What is Strategic Environmental Assessment (SEA)?

The development of proposals for the new Regulations on Felling and Restocking is considered to fall under Section 5(3) of the Environmental Assessment (Scotland) Act 2005 ('the 2005 Act'). The 2005 requires that public plans, programmes, and strategies (PPS) be assessed for their potential effects on the environment. Strategic Environmental Assessment (SEA) provides a means of identifying potentially significant environmental impacts at an early stage in the development of the PPS. SEA also considers how identified impacts can be avoided or minimised through appropriate mitigation measures and provides for engagement with stakeholders through public consultation on both the PPS as well as the findings of the SEA.

#### Approach taken to the SEA

The assessment methodology was initially developed to include an objective and question level approach. However, as the assessment progressed and in consideration of the Consultation Authorities input at scoping stage it became clear that the changes proposed warranted a more broad based assessment.

A range of alternatives were considered during the development of the proposals but for the reasons outlined within this Environmental Report - largely involving avoidance of disproportionate regulatory burden - these were deemed not to be reasonable inclusions for assessment. However, the opportunity to comment on the proposed exemptions is provided within the Consultation Paper.

## Relevant related policies and environmental objectives

The SEA process took into account wider existing environmental objectives. These include established policies and strategies relating to protection and enhancement of the natural and built environment. Key objectives are summarized in the body of the report in relation to the environmental baseline below.

More specifically, the Forestry and Land Management (Scotland) Act 2018 was passed by the Scottish Parliament on 20th March 2018 and received Royal Assent on 1st May 2018. The Act was the first of three principal legislative activities required to complete the devolution of forestry. It provides the legislative framework to enable delivery of a package of other policy initiatives to increase forestry's contribution to the Scottish Ministers' economic, environmental, and social ambitions.

Following the passage of the Act, provisions are being made to wind up the Forestry Commissioners as a cross-border public authority and to help establish new collaborative cross-border arrangements with the UK and Welsh Governments. There will also be arrangements for transferring some of the Forestry Commissioners' property and liabilities to the Scottish Ministers.

The activities presently delivered by the Forestry Commissioners in Scotland through Forestry Commission Scotland (FCS) and Forest Enterprise Scotland (FES) will be transferred to the Scottish Government. Regulatory, policy, support and grant-giving functions will transfer to Scottish Forestry, a Scottish Government Agency. Management of the Scottish Ministers' National Forest Estate will transfer to Forestry and Land Scotland, an agency of the Scottish Government.

As part of this it is necessary to set out procedures for the permitting of felling, ensuring restocking and for the associated procedures for appeals and compensation. Separately, the exemptions to have permission to fell have been reviewed. This SEA is concerned with these proposed changes.

#### What is our environment like today and how is it changing?

As recently as a few thousand years ago, forests in Scotland were widespread, with woodland cover stretching all the way to Shetland and the Western Isles. The advent of early agriculture prompted deforestation to occur on an extensive scale in the centuries that followed. Continued human influence and a shift towards a cooler, wetter climate transformed much of this formerly forested land into peat.

The 17th and 18th centuries brought new pressures as demand for woodland products such as charcoal and timber began to rise in response to industrialisation. Forest cover fell to a historic low of about 5% in 1900, but, following a campaign of steady reforestation initiated after the First World War, has since rebounded to roughly 18% of Scotland's total land area. Even so, Scotland has significantly less forest cover than most other European countries.

Hundreds of years of human intervention and the impacts of climate change have altered Scotland's forests such that no woodlands in Scotland can be regarded as truly natural. However, examples of semi-natural woodlands have endured to the present day and these are considered a conservation priority due to the biodiversity that they support.

Native woodlands are those in which over 50% of the canopy is comprised of species that are native to the region and are commonly classified according to four main types: native pinewoods, upland birchwoods, upland oakwoods, and lowland mixed deciduous woodland. Many of these are protected through designations such as Sites of Special Scientific Interest (SSSI) and Special Areas of Conservation (SACs).

Scotland's oldest woodlands have existed in some capacity for at least 250 years. These are referred to as ancient woodlands and are recognised for their particularly high levels of biodiversity. Many also possess considerable heritage value. Much like native woodlands, ancient woodlands are often fragmented and so are vulnerable to further degradation.

Minor woodland varieties include aspen woodland, urban and amenity woodland, and individual and small groups of trees. Despite their relatively limited spatial extent, these types perform many vital functions such as providing green space in urban environments and serving as a "living record" of historic land uses.

#### The evolution of the environment without the Regulations

In developing the proposals, opinions were sought regarding what could be improved and the strong message was that broadly the current system works well. This is what has led to proposals that, for the most part, maintain the status quo. However opportunities have been identified to make adjustments that should lead to benefits. It is considered that without the implementation of the new Regulations on Felling and Restocking specific issues with respect to felling and restocking will continue, including:

- Use of the 5m³ per quarter exemption to gradually remove woodland, particularly broadleaves and native woodland.
- Uncertainty over the meaning of some terms e.g. public open space, potentially leading to inappropriate felling (without restocking).

It is considered that if the proposed changes are not implemented, these effects could continue with negative effects on habitats and species particularly in native woodland and gradual loss of native woodlands and their heritage value. In addition, if the current exemptions were removed (i.e. no Regulations are put in place and the current exemptions fall by virtue of the 2018 Act coming into force) this would lead to all activity being subject to permissions which is not proportionate.

#### What are the environmental effects of the draft proposals?

The changes to exemptions and guidance are predicted to have at mostly a minor positive effect with a cumulatively major positive effect in the long term. It is expected that mitigation of environmental effects associated with tree felling and restocking will continue to be addressed primarily at a forest plan and site level.

There are a number of existing measures that serve to ensure that forestry-related operations in Scotland abide by the principles of sustainability and environmental protection. For example, the UK Forestry Standard describes the conditions that must be met when felling trees.

A wide range of existing programmes are in place to report on environmental status and assess performance against established environmental indicators. Given the general minor effect the Regulations are predicted to have in isolation and the range of indicators currently in use, it is recommended that existing indicators are utilised to monitor its cumulative effects with that of other PPS.

It is recommended that timing of felling and restocking is also monitored – perhaps making it a requirement to report once the activity has happened as part of the permission conditions.

## 1 Introduction

#### 1.1 Background

1.1.1 Following the passage of the Forestry and Land Management (Scotland) Act, the Scottish Government is proposing to bring forward secondary legislation to update the current provisions on felling and restocking, ensuring that statutory processes are proportionate to the activities they seek to regulate and to maintain the benefits of sustainable management of Scotland's forests. Regulations are also being considered to bring forward straightforward and transparent applications, permissions, directions, appeals, and compensation processes.

## 1.2 Purpose of this Environmental Report

- 1.2.1 The development of proposals for the new Regulations on Felling and Restocking is considered to fall under Section 5(3) of the Environmental Assessment (Scotland) Act 2005 ('the 2005 Act'). The 2005 requires that public plans, programmes, and strategies (PPS) be assessed for their potential effects on the environment<sup>1</sup>.
- 1.2.2 Undertaking a Strategic Environmental Assessment (SEA) provides a means of identifying potentially significant environmental impacts at an early stage in the development of the PPS. SEA also considers how identified impacts can be avoided or minimised through appropriate mitigation measures and provides for engagement with stakeholders through public consultation on both the PPS as well as the findings of the SEA. This feedback is used to inform the final iteration of the PPS. Following the adoption of the PPS a Post Adoption Statement will set out how the environmental considerations, and the results of the consultation have been taken into account.

## 1.3 Report structure

This Environmental Report sets out the findings of the SEA and is set out as follows:

**Section 1** – Provides a brief introduction to the proposals for the new Regulations, and an overview of the SEA process.

**Section 2** – Provides an overview of the wider policy context for the proposals. It also sets out the content and main objectives of the new Regulations.

**Section 3** – Provides an overview of the consideration of reasonable alternatives in the development of the proposals.

**Section 4** – Sets out the relevant aspects of the current state of the environment and the likely evolution thereof without the implementation of the Regulations. It also highlights any existing environmental problems/opportunities relevant to the Regulations.

**Section 5** – Sets out the approach to the SEA.

**Section 6** – Provides a narrative of the assessment findings.

<sup>&</sup>lt;sup>1</sup> Environmental Assessment (Scotland) Act 2005, asp 15 [online] Available at: <a href="https://www.legislation.gov.uk/asp/2005/15/introduction">https://www.legislation.gov.uk/asp/2005/15/introduction</a> (accessed 04/09/2017)

**Section 7** – Sets out information relating to the identification of mitigation measures and opportunities for enhancement.

**Section 8** – Sets out proposals for monitoring.

**Section 9** – Sets out the proposed programme of works in the development of the Regulations and the SEA process and the instructions on how to respond to the consultation.

## 2 Policy context

- 2.1.1 The 2005 Act requires that the Environmental Report provides an outline of the contents and the main objectives of the PPS and that it defines the plan's broader policy context, highlighting any relevant environmental protection objectives at the international, European, or national level that may influence its development and implementation. In line with the 2005 Act this section provides an overview of the Regulations, the legislative basis for the development of the Regulations and their compatibility with national development and environmental strategies which is further expanded in Appendix C.
- 2.1.2 The Scottish Government recognises the multiple benefits already delivered by forestry in Scotland, and is committed to ensuring it can deliver more in the future. In achieving its ambitions for forestry, the Scottish Government wants to establish a modern statutory framework, with appropriate governance and operational arrangements, to support and protect this valuable and growing sector. This section incorporates the key facts relating to the Regulations on Felling and Restocking.

#### 2.2 Basic Details

2.2.1 The Responsible Authority for the **Regulations on Felling and Restocking** in Scotland is the **Forestry Commission** but this responsibility will pass to Scottish Ministers in April 2019; **Forestry** is the subject of the plan and the plan covers **Scotland**. This is a **one off exercise** to establish a new regulatory regime. Any reviews of forestry related activities will happen via the future reviews of the Scottish Forestry Strategy (SFS).

#### 2.2.2 Contact Details:

Catherine Murdoch
Natural Resources Division
Directorate for Environment and Forestry
3-G South
The Scottish Government
Victoria Quay
Edinburgh
EH6 6QQ
0131 244 6544

## 2.3 Objectives of the Regulations

- 2.3.1 The objectives of the Regulations are to support woodland management, maximise timber availability to the market, enable robust enforcement, where possible reducing the administrative burden without compromising sustainable forest management.
- 2.3.2 The Scottish Government wishes to allow for the continuation of the principle of domestic usage of an owner's resource, but looks to further protect ancient woodlands from the cumulative effects of felling. Therefore, the exemptions from permissions to fell set out in the Forestry Act 1967 form the basis for exemptions under the Regulations but several changes are proposed as set out in Table 1.

## 2.4 Requirement for the Regulations

- 2.4.1 The Forestry and Land Management (Scotland) Act 2018 was passed by the Scottish Parliament on 20th March 2018 and received Royal Assent on 1st May 2018.
- 2.4.2 The Act was the first of three principal legislative activities required to complete the devolution of forestry. It provides the legislative framework to enable delivery of a package of other policy initiatives to increase forestry's contribution to the Scottish Ministers' economic, environmental, and social ambitions.
- 2.4.3 Following the passage of the Act, provisions are being made to wind up the Forestry Commissioners as a cross-border public authority and to help establish new collaborative cross-border arrangements with the UK and Welsh Governments. There will also be arrangements for transferring some of the Forestry Commissioners' property and liabilities to the Scottish Ministers.
- 2.4.4 The activities presently delivered by the Forestry Commissioners in Scotland through Forestry Commission Scotland (FCS) and Forest Enterprise Scotland (FES) will be transferred to the Scottish Government. Regulatory, policy, support and grant-giving functions will transfer to Scottish Forestry, a Scottish Government Agency.

  Management of the Scottish Ministers' National Forest Estate will transfer to Forestry and Land Scotland, an agency of the Scottish Government.
- 2.4.5 As part of this it is necessary to set out procedures for the permitting of felling, ensuring restocking and for the associated procedures for appeals and compensation. Separately, the exemptions to have permission to fell will be reviewed. This SEA is concerned with these proposed changes.
- 2.4.6 The Forestry and Land Management (Scotland) Act sets out the requirement to obtain a felling permission in part 4, chapter 2, section 23 as follows: Offence of unauthorised felling
  - (1) A person commits an offence if the person fells a tree unless—
    - (a) the felling is exempt under section 24, or
    - (b) the felling is carried out in accordance with—
      - (i) a felling permission,
      - (ii) a felling direction,
      - (iii) a restocking direction,
      - (iv) a registered notice to comply,
      - (v) a remedial notice.
  - Section 24. *Unauthorised Felling: Exemptions* sets out that Regulations may set out exemptions to the offence of unauthorised felling by reference to particular categories of person, particular places or activities, particular circumstances and trees of particular description.
- 2.4.7 The proposals are the situations, or types of felling, for which a permission from the Scottish Ministers would not be required and are primarily based on the current list of exemptions from felling licence requirements under the Forestry Act 1967.
- 2.4.8 The Scottish Government intends to provide for continuity as the change is made from the old regime to the new one, but also wishes look to further protect ancient woodlands from the cumulative effects of felling and provide more clarity on exemptions where possible.

2.4.9 The proposed changes are where discussions with stakeholders have indicated that improvements can be made, or where the way in which the 2018 Act is drafted requires some adjustments.

## 2.5 Summary of the proposed changes to the exemptions

- 2.5.1 Currently, statutory procedures for the licensing of felling and re-stocking, and associated provisions on enforcement and appeals, are contained in the Forestry Act 1967; in The Forestry (Felling of Trees) Regulations 1979<sup>2</sup>; and in the Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017<sup>3</sup>. Additionally, exemptions to licensing requirements are set out in Section 9 of the Forestry Act 1967 and through The Forestry (Exceptions from Restriction of Felling) Regulations 1979<sup>4</sup>. The above mentioned procedures will remain in place in England and Wales but will no longer apply to Scotland.
- 2.5.2 Table 1 summarises the existing statutory provisions covering tree felling license exemptions, alongside a summary description of the regulatory changes that are anticipated. Appendices A and B detail the current exemptions within the Act and current Regulations.
- 2.5.3 Proposals are also being considered to update provisions for applications, permissions, directions, compensation and appeals.

#### 2.6 Subject of the present assessment

- 2.6.1 Many aspects of the proposal focus solely on changes in procedure or guidance and the Regulations restate much current practice or statute and are therefore unlikely to lead to substantive changes in how felling or re-stocking is carried out in practice.
- 2.6.2 Therefore, during scoping, it was proposed that only those parts of the proposal with the potential to lead to significant environmental effects be subject to individual assessment, namely the exemptions (pertaining to changes to volume exemptions for ancient and semi-natural woodlands). The remaining aspects of the proposal are considered when assessing the potential for cumulative impacts to arise from the implementation of the entire suite of proposed Regulations.
- 2.6.3 These proposals are based on current exemptions and processes for giving consent for felling operations and requiring restocking. Changes are only proposed where
  - opportunities to make improvements have been put forward by stakeholders;
     or

<sup>&</sup>lt;sup>2</sup> The Forestry (Felling of Trees) Regulations 1979, SI 791 [online] Available at: http://www.legislation.gov.uk/uksi/1979/791/contents/made (accessed 22/02/2018)

<sup>&</sup>lt;sup>3</sup> The Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017, SI 113 [online] Available at: <a href="http://www.legislation.gov.uk/ssi/2017/113/made">http://www.legislation.gov.uk/ssi/2017/113/made</a> (accessed 22/02/2018)

<sup>&</sup>lt;sup>4</sup> The Forestry (Exceptions from Restriction of Felling) Regulations 1979, SI 792 (as amended) [online] Available at: <a href="http://www.legislation.gov.uk/uksi/1979/792/made">http://www.legislation.gov.uk/uksi/1979/792/made</a> (accessed 27/02/2018)

• they are required because of a fundamental change in the primary legislation (for example, because Scottish Ministers now have the ability to serve Temporary Stop Notices<sup>5</sup> for illegal felling).

## 2.7 Current Exemptions

- 2.7.1 Current provision in section 9 of the Forestry Act 1967 is that a felling licence must be obtained from the Forestry Commission to fell growing trees. There are however a number of exemptions to this general requirement, some contained within the Act itself and others prescribed in Regulations (i.e. The Forestry (Exceptions from Restriction of Felling) Regulations 1979). These Regulations on Felling and Restocking do not deal with felling which is required under the Plant Health (Forestry) Order 2005.
- 2.7.2 The list of current exemptions can be broadly grouped into 'classes' where a felling licence is not required. These are based on:
  - Felling of small trees, fruit trees and diseased/dying trees, including Elm affected by Dutch elm disease.
  - Felling of trees in gardens, church yards and public open spaces.
  - Felling trees on a small scale, with reference to the size of trees (diameter), volume of wood felled and a range of specific situations.
  - Felling of trees to prevent a danger or abate a nuisance.
  - Felling of trees by an electricity operator, water authority or under planning permission.
- 2.7.3 The above exemptions could be described as enabling:
  - Felling to abate/prevent nuisances or danger, or to allow necessary operations.
  - Felling in areas/locations, which would not traditionally be defined as 'woodland or forests', i.e. orchards, gardens, parks.
  - Felling of timber from the land that an owner occupies (their own woodland resource) for domestic use (but realistically not sufficient for operating a business).
- 2.7.4 The thresholds set by the volume and diameter exemptions mean that most felling and thinning in forests and woodlands requires a licence. The current felling licence process ensures:
  - The appropriate forestry authority has information as to where, when and how tree felling will occur.
  - The ability to assess any potential loss of woodland resource and ensure the restocking of land after felling.
- 2.7.5 However, whilst technical amendments have been made since the introduction of the 1967 Act, the objectives have not significantly changed and reflect a different era of forestry practice. The 1967 Act was a consolidation of older legislation, brought together at a time when the focus was firmly on timber supply and did not seek to address other aspects of forestry that are now so familiar, such as the protection of

<sup>&</sup>lt;sup>5</sup> Temporary Stop Notices (TSNs) are new as a result of the 2018 Act. They will allow the Scottish Ministers to require felling to stop on any site where they believe that felling is taking place unlawfully, allowing investigations to begin safely on site.

broadleaved woodlands. Although it has been modernised, it still does not completely reflect current practice.

## 2.8 Forest plans and felling permission

- 2.8.1 The Act does not dictate how permission to fell will be granted. However it is intended that the new regime will continue with a mix of one off permissions, and Long Term Forest Plans. This flexibility provides a strong framework for delivering sustainable forest management. It provides a proportionate process for simple applications but also avoiding the need for multiple permissions for larger or more complex forestry operations. This ensures that the resources required to gain permission are proportionate to the operations being carried out. Long Term Forest Plans<sup>6</sup> are also often used for gaining independent forest certification.
- 2.8.2 It is intended to also develop the use of management plans for smaller woodlands, such as farm woodlands, in order to cover thinning. The proposals for new Regulations largely maintain the status quo while offering flexibility for the development of new processes where there might be a need, such as the increased use of management plans.

<sup>&</sup>lt;sup>6</sup> Long Term Forest Plans are used to apply for licences to fell covering large, and often multi-phase and multi-site, forest management operations. They generally cover a period of twenty or more years but the licences that are granted are for a shorter period, the whole plan being reviewed at the point that the licences come to an end and the next phases require to licensed. Management are much smaller scale, but are more detailed and long term than a simple one-off licence application.

Table 1: Proposed changes to existing exemptions

#### Proposed changes with rationale **Current exemptions** Small trees / Diameter threshold The current minimum diameter threshold of 8 cm would continue to apply. However the other diameter thresholds in the Forestry The 1967 Act exempts the felling of trees Act of 10 cm for thinning and 15 cm for coppice would no longer apply. Felling of trees with a diameter of less than 8 cm at breast with a diameter not exceeding 8 cm; height would not require permission. in the case of coppice or underwood, with a diameter not exceeding 15 cm; or a diameter not exceeding 10 cm and the felling is carried out in order to improve the growth of This would continue to allow the felling, coppicing and thinning of small or young trees up to 8 cm in diameter without the need for a permission. Having only one diameter threshold simplifies understanding for all parties. The separate coppice threshold is not really relevant in Scottish conditions. The 8 cm overall threshold can be used to coppice. It specifies that the diameter is measured over the bark at a point 1.3 m above the ground level. Adjustment to the way in which the height at which the diameter is measured is described. The proposal the diameter should be measured over the bark at 1.3 m above the base of the tree, where the base of a tree is ground level when the tree is standing. Volume threshold The 1967 Act exempts felling where: The proposal is to maintain the effect of (i) so that felling that does not exceed five cubic metres in any quarter be exempt. (i) the aggregate cubic content of the trees which are felled does not exceed five cubic metres in It is not proposed to maintain a separate limit, (ii), for the proportion of those felled trees can be sold as the restriction does not deliver a tangible benefit in terms of maintaining woodland cover. any quarter; and The 5 m<sup>3</sup> per quarter<sup>7</sup> exemption is intended to support felling and thinning for small scale domestic and/or personal use and (ii) the aggregate cubic content of the trees which are sold by that person does not exceed two cubic metres in any quarter. should not be used as a vehicle to achieve woodland removal. The exemption would not apply to small native woodlands defined as woodlands that are between 0.1 ha and 0.5 ha and where 50% of the canopy is comprised of stated native species<sup>8</sup> This would mean that native woods, particularly ancient and semi natural woodlands would require permission to fell even small Section 9(6) of the 1967 Act defines a quarter as the period of three months beginning with the 1st January, 1st April, 1st July or 1st October in any year. volumes of timber where trees are over 8 cm diameter and therefore ensure that felling is for woodland management purposes and that the cumulative effect of the felling can be managed. Remove the current "2m<sup>3</sup> per quarter for sale" part of this exemption as it is of no clear policy benefit. **Dead trees and Windblow** The Scottish Government proposal is that an exemption is created for the felling of dead trees. This is new and a direct result of The 1967 Act requirement for a licence only extends to the felling of growing trees. This means that no the way that the 2018 Act defines the felling offence. To ensure no inappropriate deforestation occurs, the clearance of trees that licence is required to cover the felling of trees that have been uprooted or those that are dead. The 2018 are seriously compromised but still alive would require a felling permission. This includes those that are partially uprooted or have Act relies on the ordinary meaning of felling (with the addition of intentionally killing a tree, for example suffered damage as a result of wind, those that are diseased but not yet dead, been damaged by fire, or been damaged by a perby ringing or poisoning) which means that, if there is no exemption, cutting down dead trees will require son (for example by machinery being used in the area). a 2018 Act permission. Windblow, over 5 m<sup>3</sup>, would require a felling permission (unless all trees were fully dead). Windblow within an approved forest Under the Forestry Act a licence is required only for felling growing trees therefore dead and windblow plan or management plan would be covered by the tolerance table<sup>9</sup>, enabling speedy harvesting and replanting. trees are not licenced or subject to restocking conditions (i.e. there is no requirement to restock), they Post storm clearance of windblow impacting on infrastructure outwith an approved forest/management plan would need to be are effectively treated as exempt. covered by a permission (although the immediacy of the need would mean that there would be no consultation). Under the new Bill, permission is required to fell all trees and so the position for dead and windblown trees needs to be clarified. As windblow typically contains a mixture of live, dead and dying trees this would not generally be exempt and would now require permission to fell and be subject to restocking conditions where appropriate. Other exemptions Other exemptions The 1967 Act exempts the felling of fruit trees or trees standing or growing on land comprised in an No significant changes, but some clarification: orchard, garden, churchyard or public open space. Place Exemption

<sup>&</sup>lt;sup>7</sup> Per fixed calendar quarter (i.e. not rolling) (1 Jan to 31 March, 1 April to 30 June, 1 July to 30 September and 1 October to 31 December.)

Alnus glutinosa common alder, Malus sylvestris ssp sylvestris crab apple, Fraxinus excelsior ash, Populus tremula aspen, Betula pubescens downy birch, Betula pendula silver birch, Prunus padus bird cherry, Prunus avium gean (wild cherry)

Ulmus glabra wych elm, Quercus robur pedunculate oak, Quercus petraea sessile oak, Sorbus aucuparia rowan, Salix caprea goat willow, Prunus spinosa blackthorn, Sambucus nigra elder, Crataegus monogyna common haw thorn, Corylus avellana hazel

llex aquifolium holly, Euonymus europaeus spindle, Taxus baccata yew, Juniperus communis juniper, Salix pentandra bay willow, Salix aurita eared willow, Salix cinerea grey willow (sallow), Salix phylicifolia tea-leaved willow, Salix myrsinifolia dark-leaved willow, Salix purpurea purple willow.

<sup>&</sup>lt;sup>9</sup> An approved forest plan includes an approved tolerance table. The plan sets out felling boundaries, timescales and species for restocking. The tolerance table forms part of the approval and sets out the limits to which the felling boundaries, felling dates, restocking species, restocking dates can be amended from what is set out in an approved forest plan and maps.

Trees growing in these situations do not, generally, constitute a woodland and therefore are removed from the protection of the regime.

Trees growing in these situations do not, generally, constitute a woodland. They may be subject to other protections, such as Tree Preservation Orders, and exempting them from felling regulation does not affect that protection.

Keep orchards, gardens, churchyards,

- Add burial grounds,
- Define public open space.

This essentially maintains the current exemption. It is proposed to clarify the term 'public open space' as stakeholders have identified that this would be helpful. It is proposed to include burial grounds specifically as they are currently only partially catered for by virtue of churchyards being listed.

**Danger or nuisance** - The 1967 Act exempts felling for the prevention of danger or the prevention or abatement of a nuisance.

**Aerodromes** - The 1979 Regulations exempt felling where the Secretary of State for Defence or the Secretary of State for Trade has certified that the tree obstructs the approach of aircraft to, or their departure from, any aerodrome or hinders the safe and efficient use of air navigational or aircraft landing installations. Aerodromes are defined as any area of land or water designed, equipped, set apart or commonly used for affording facilities for the landing and departure of aircraft.

Improved interpretation and guidance to aid regulators and owners as to when the exemptions would or would not apply.

**Danger or nuisance** - Maintain prevention of danger but remove reference to nuisance – it is difficult to define what constitutes a nuisance and unlikely to be as urgent as, for example, the felling of a tree that is dangerous. The latter exemption would avoid delays in felling where there is an urgent need.

**Aerodromes** - Remove the need (in the current legislation) to have the Secretary of State 'certify' that the tree(s) are interfering with an aerodrome etc. This would maintain the ability to fell without permission, but removes the need for the obstruction to be certified first.

**Planning permission** - The 1967 Act exempts felling which is immediately required for the purpose of carrying out development authorised by planning permission granted, or deemed to be granted, under the Town and Country Planning (Scotland) Act 1997. Scottish Planning Policy states that the planning system should protect and enhance ancient woodland as an important and irreplaceable resource together with other native or long established woods, hedgerows and individual trees.

**Dutch elm disease** - The 1979 Regulations exempt felling of any tree of the genus Ulmus which is affected by the disease in elms caused by the fungus Ceratocystis ulmi and commonly known as Dutch elm disease to such an extent that the greater part of the crown of the tree is dead.

**The Electricity Act** - The 1967 Act exempts felling which is carried out by, or at the request of, an electricity operator, because the tree is or will be in such close proximity to an electric line or electrical plant which is kept installed or is being or is to be installed by the operator as:

- to obstruct or interfere with the installation, maintenance or working of the line or plant; or
- to constitute an unacceptable source of danger (whether to children or to other persons).

**Statutory undertakers** - The 1979 Regulations exempt felling by 'statutory undertakers' of trees on land in their occupation which obstruct the construction of any works required for the purposes of the undertaking of those undertakers or of trees which interfere with the maintenance or operation of any works vested in those undertakers. Statutory undertakers are defined as persons authorised by any enactment to carry out any railway, light railway, tramway, road transport, water transport, canal, inland navigation, dock, harbour, power or lighthouse undertaking, or any undertaking for the supply of hydraulic power or water, and public gas transporters within the meaning of Part I of the Gas Act 1986.

**Water Authorities/ Drainage Boards** - The 1979 Regulations also exempt felling by, or at the request of, a water authority established under the Water Act 1973, or an internal drainage board for the purposes of the Land Drainage Act 1976, where the tree interferes or would interfere with the exercise of any functions of that authority or board.

**Dedication agreements** - A dedication agreement is an agreement, between a landowner and the Forestry Commissioners, that the land it applies to will be managed for forestry purposes. The 1979 Regulations exempt felling on land which is subject to a dedication agreement and:

- the agreement is registered in the Land Register or General Register of Sasines and binding on the owner of the land; or
- the land is owned by the person who entered into the agreement.

The 2018 Act does not provide for new dedication agreements to be entered into, however under section 80 existing agreements will remain in place after the 1967 Act is repealed.

Maintain the status quo for felling under planning permission, dutch elm disease, the Electricity Act, statutory undertakers and water authorities or drainage boards and for dedication agreements.

Specifically for **Planning permission** - The Scottish Government's policy on The Control of Woodland Removal, which places a strong presumption against the removal of any woodland including ancient woodland, is how these principles are articulated. It sets out that approval for woodland removal should be conditional on achieving significant net public benefits and this is reinforced in Scottish Planning Policy. Therefore in light of this the proposal is to maintain this exemption.

## 3 Consideration of reasonable alternatives

- 3.1.1 The 2005 Act states that 'The report shall identify, describe and evaluate the likely significant effects on the environment of implementing (a) the plan or programme; and (b) reasonable alternatives to the plan or programme. SEA Guidance states that alternatives must be realistic and that when considering whether or not an alternative is reasonable, potential restriction to its implementation, for example, parameters set by relevant legalisation and any relevant policy commitments, will be fully considered.
- 3.1.2 Consideration of alternatives was undertaken during the preparation of the proposals and these were discounted as unreasonable with justification provided below. The alternatives were broken down by exemption and for some the only alternative was not carrying forward the exemption, essentially a 'do nothing' option. For some of the other exemptions several options were looked at and discounted.
- 3.1.3 A principal 'do nothing' option would be to have no exemptions and require all felling (no matter how insignificant or urgent) to require a permit (i.e. no Regulations are put in place and the current exemptions fall by virtue of the 2018 Act coming into force). However, this is not feasible as it would negate the objectives of the new Regulations which include reducing the administrative burden, maximising timber availability to market and make enforcement easier.
- 3.1.4 To illustrate the process behind discounting the alternatives, it is beneficial to consider two of the primary exemptions proposed by the new Regulations. This rationale is also also set out in the consultation paper and views are being requested on the proposals via consultation.
- 3.1.5 In terms of the **diameter exemption**, the first alternative was not to carry forward any exemption for small trees. However, this was considered to be an unreasonable and an unjustified burden on woodland managers. However, a second alternative, maintaining current exemptions (listed below) is considered to be confusing and difficult to enforce:
  - a. with a diameter not exceeding 8 centimetres;
  - b. in the case of coppice or underwood, with a diameter not exceeding 15 centimetres, or
  - c. a diameter not exceeding 10 centimetres and the felling is carried out in order to improve the growth of other trees.

A third alternative would be to create an exemption with a larger diameter (for example 15 cm rather than 8 cm). However, this is considered unreasonable based on the amount of woodland that would fall into the 15 cm or less category. A fourth alternative was to create an exemption that defines diameter at ground level. This was considered to be impractical since trees are not always straight all the way to the ground, and there may be a bulb, collar or bulge at the bottom of the tree. Basing the measurement here could constrain the amount of trees that could be felled without a permission for example, the diameter at ground level may be 12 cm but the majority of the rest of the trunk be 8 cm. Using the diameter at ground level as a measure would mean that that particular tree could not be felled.

3.1.6 For the **volume threshold**, the alternatives that were considered included not carrying forward any volume exemption. This was considered unreasonable as an unjustified burden on woodland managers/owners. The second alternative that was considered

was to maintain the current exemptions for felling and sale. Restricting the proportion on timber that can be sold, of the timber that is produced from felling using the volume exemption, delivers no tangible benefit. There is no reason to limit what can be sold, as the policy interest lies in what is felled in the first place as a means of maintaining woodland cover.

- 3.1.7 A third alternative to maintain only the current exemption for felling but dropping the sale volume would be a missed opportunity to protect small native woodlands. However, just simply creating a smaller volume exemption, for example 2 m² per quarter only or 10 m² per year is considered to be unreasonable constraint on woodland managers due to the disproportionate regulatory burden. Finally creating the volume exemption for non-native woodlands only is considered to be unreasonable based on the constraints it would put on all native woodland owners, regardless of the size of woodland.
- 3.1.8 It is considered that these justifications cascade to all of the alternatives that were considered for each exemption. For the reasons illustrated it is considered that the preferred options for the exemptions are the only options that are reasonable for assessment. Nevertheless, as mentioned above the consultation paper provides opportunity to comment on the proposed exemptions.

#### 3.2 Potential limitations of the proposed approach

- 3.2.1 There are some uncertainties with respect to the assessment of the Regulations on felling and restocking. For example, some of the Consultation Authorities' comments on the scoping report (see Appendix E) pertain to the subject of restocking locations. such as, concerns with planting on areas of peat land, as well as activities associated with forestry operations, such as haulage routes, buildings and waste production. These are subjects that; will either not be affected by the implementation of the Regulations and on which the Regulations will have no or minimal effect, for example, the use of low Carbon technology. Or, in the case of planting locations is a subject not dictated by the Regulations but rather is governed by the principles of sustainable forest management (SFM). In the new regime SFM forms the basis for all decisions taken by the regulator: Scottish Ministers will have a duty to promote SFM and in taking decisions and determining applications as a regulator will have to have regard to that duty; a new requirement placed on Scottish Ministers, in section 27 of the new Act, to have regard to their duty to promote sustainable forest management when making decisions); there is no equivalent link in the current regime. It is therefore considered that these issues are outside the scope of the assessment and further notes are provided in Appendix E.
- 3.2.2 Whilst the comments posed by the Consultation Authorities are not applicable to the Regulations on Felling and Restocking, it is considered that these will be considered within future reviews of other strategies, policies and the guidance that support the regulatory regime such as the Scottish Forestry Strategy<sup>10</sup> and the Policy on control of woodland removal<sup>11</sup>.

<sup>&</sup>lt;sup>10</sup> Forestry Commission (2006) The Scottish Forestry Strategy [online] Available at: http://scotland.forestry.gov.uk/images/corporate/pdf/scottish-forestry-strategy-2006.pdf (accessed 29/03/2017)

<sup>&</sup>lt;sup>11</sup> Scottish Government (2009) control of Woodland Removal [online] Available at: <a href="https://www.forestry.gov.uk/PDF/fcfc125.pdf/\$FILE/fcfc125.pdf">https://www.forestry.gov.uk/PDF/fcfc125.pdf/\$FILE/fcfc125.pdf</a> (accessed 20/08/2018)

## 4 Environmental Baseline

#### 4.1 Overview

- 4.1.1 It is a requirement of the 2005 Act that Responsible Authorities provide details of the character of the environment which may be affected, including any existing pressures and the likely evolution of the environment in the absence of the new plan or programme. The proposals are assessed against this baseline to provide an indication of the type and significance of any environmental impacts that could arise.
- 4.1.2 At scoping stage, it was considered that potentially significant impacts would likely focus on the following topics: biodiversity, flora and fauna; soil; water; cultural heritage and landscape. Climatic factors and material assets have also been included as topics following recommendations made by SEPA during the scoping consultation (Appendix E).
- 4.1.3 The Consultation Authorities also recommended that the information sources defined during scoping were supplemented by further data which has been included within this Environmental Report.
- 4.1.4 Relevant aspects of the current environmental baseline are discussed in this section. Further detail for each environmental topic area is presented in the Environmental Baseline set out in Appendix D.

## 4.2 Relevant aspects of the current environmental baseline

- 4.2.1 Scotland is a relatively small country of 77911 km² with a population of approximately 5.43 million people¹². Although the vast majority (98%) of Scotland is classified as rural land, there is a marked contrast in the number of people living in rural areas (18%) versus non-rural areas (82%)¹³. Further, the population is mainly concentrated in seven city-regions: Glasgow City (1 827 240), Edinburgh City (1 375 880), Perth and Kinross (787 500), Dundee City (787 500), Aberdeen City (490 600), and Inverness (Highland) (235 180)¹⁴. Since 1997, Scotland's population has grown by about 6%¹⁵ and future projections estimate Scotland's population will grow by an additional 6.1% by 2041, for a total of roughly 5.69 million¹⁶.
- 4.2.2 Scotland is internationally renowned for its varied and dramatic landscapes including impressive mountain ranges, broad plateaus, expansive lowlands, and striking coastal features<sup>17</sup>. Many of these are the result of ancient glacial and periglacial activity as well

<sup>&</sup>lt;sup>12</sup> Scottish Enterprise (2018) Scottish key economic facts [online] Available at: <a href="https://www.scottish-enterprise.com/knowledge-hub/articles/publication/scottish-key-facts">https://www.scottish-enterprise.com/knowledge-hub/articles/publication/scottish-key-facts</a> (accessed 11/05/2018)

<sup>&</sup>lt;sup>13</sup> Scottish Government (2015) Rural Scotland Key Facts 2015 – People and Communities, Services and Lifestyle, Economy and Enterprise [online] Available at: <a href="http://www.gov.scot/Resource/0047/00473312.pdf">http://www.gov.scot/Resource/0047/00473312.pdf</a> (accessed 14/05/2018)

<sup>&</sup>lt;sup>14</sup> Scottish Enterprise (2018) Scottish key economic facts [online] Available at: <a href="https://www.scottish-enterprise.com/knowledge-hub/articles/publication/scottish-key-facts">https://www.scottish-enterprise.com/knowledge-hub/articles/publication/scottish-key-facts</a> (accessed 11/05/2018)

<sup>&</sup>lt;sup>15</sup> Scottish Government (2017) Summary: Age Demographics [online] Available at: <a href="http://www.gov.scot/Topics/People/Equality/Equalities/DataGrid/Age/AgePopMig">http://www.gov.scot/Topics/People/Equality/Equalities/DataGrid/Age/AgePopMig</a> (accessed 11/05/2018)

<sup>&</sup>lt;sup>16</sup> Scottish Government (2017) Scotland's population is projected to increase and age [online] Available at: <a href="https://news.gov.scot/news/scotlands-population-is-projected-to-increase-and-age">https://news.gov.scot/news/scotlands-population-is-projected-to-increase-and-age</a> (accessed 11/05/2018)

<sup>&</sup>lt;sup>17</sup> James Hutton Institute (2018) Regional Landscapes of Scotland [online] Available at: http://www.hutton.ac.uk/learning/exploringscotland/regional-landscapes-scotland (accessed 11/05/2018)

as changes in sea level<sup>18</sup>. The three primary landscape classifications are the Central Lowlands, the Highlands and Islands to the north and west, and the Southern Uplands<sup>19</sup>. Situated among these natural features are the many iconic manmade landmarks and townscapes that help give Scotland its reputation as a tourist destination<sup>20</sup>.

- 4.2.3 As recently as a few thousand years ago, forests in Scotland were widespread, with woodland cover stretching all the way to Shetland and the Western Isles <sup>21</sup>. The advent of early agriculture prompted deforestation to occur on an extensive scale in the centuries that followed <sup>22</sup>. Continued human influence as well as a shift towards a cooler, wetter climate transformed much of this formerly forested land into peat <sup>23</sup>. The 17th and 18th centuries brought new pressures as demand for woodland products such as charcoal and timber began to rise in response to industrialisation. Forest cover fell to a historic low of about 5% in 1900 <sup>24</sup>, but, following a campaign of steady reforestation initiated after the First World War, has since rebounded to roughly 18% of Scotland's total land area <sup>25</sup>. Even so, Scotland has significantly less forest cover than most other European countries <sup>26</sup>.
- 4.2.4 Hundreds of years of human intervention and the impacts of climate change have altered Scotland's forests such that no woodlands in Scotland can be regarded as truly natural<sup>27</sup>. However, examples of semi-natural woodlands have endured to the present day and these are considered a conservation priority due to the extremely high levels of biodiversity that they support<sup>28</sup>.
- 4.2.5 Native woodlands are those in which over 50% of the canopy is comprised of species that are native to the region and are commonly classified according to four main types: native pinewoods, upland birchwoods, upland oakwoods, and lowland mixed deciduous woodland<sup>29</sup>. Many of these are protected through designations such as

<sup>&</sup>lt;sup>18</sup> SNH (2017) Landforms [online] Available at: <a href="https://www.nature.scot/landforms-and-geology/scotlands-rocks-landforms-and-soils/landforms">https://www.nature.scot/landforms-and-geology/scotlands-rocks-landforms-and-soils/landforms</a> (accessed 03/05/2018)

<sup>&</sup>lt;sup>19</sup> The James Hutton Institute (2018) Regional Landscapes of Scotland [online] Available at: <a href="http://www.hutton.ac.uk/learning/exploringscotland/regional-landscapes-scotland">http://www.hutton.ac.uk/learning/exploringscotland/regional-landscapes-scotland</a> (accessed 03/05/2018)

<sup>&</sup>lt;sup>20</sup> Historic Environment Scotland (2016) Scotland's Historic Environment Audit 2016 – Summary [online] Available at: <a href="https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=315b3f0d-631b-4a24-b12b-a6db00ba1696">https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=315b3f0d-631b-4a24-b12b-a6db00ba1696</a> (accessed 11/05/2018)

<sup>&</sup>lt;sup>21</sup> SNH (2017) History of Scotland's woodlands [online] Available at: <a href="https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/forests-and-woodlands/history-scotlands-woodlands">https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/forests-and-woodlands/history-scotlands-woodlands</a> (accessed 09/05/2018)

<sup>&</sup>lt;sup>22</sup> ibid

<sup>&</sup>lt;sup>23</sup> ibid

<sup>&</sup>lt;sup>24</sup> SNH (2017) Woodland expansion across Scotland [online] Available at: <a href="https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/forests-and-woodlands/woodland-expansion-across-scotland">https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/forests-and-woodlands/woodland-expansion-across-scotland">https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/forests-and-woodlands/woodland-expansion-across-scotland</a> (accessed 04/05/2018)

<sup>&</sup>lt;sup>25</sup> Forestry Commission (2017) Forestry Statistics 2017 – Chapter 1: Woodland Areas and Planting [online] Available at: <a href="https://www.forestry.gov.uk/pdf/Ch1">https://www.forestry.gov.uk/pdf/Ch1</a> Woodland FS2017.pdf/\$FILE/Ch1 Woodland FS2017.pdf

<sup>&</sup>lt;sup>26</sup> SNH (2017) Woodland expansion across Scotland [online] Available at: <a href="https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/forests-and-woodlands/woodland-expansion-across-scotland">https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/forests-and-woodlands/woodland-expansion-across-scotland">https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/forests-and-woodlands/woodland-expansion-across-scotland</a> (accessed 04/05/2018)

<sup>&</sup>lt;sup>27</sup> Scotland's Environment (Available at: <a href="https://www.environment.gov.scot/our-environment/habitats-and-species/woodland-and-forests/">https://www.environment.gov.scot/our-environment/habitats-and-species/woodland-and-forests/</a> (accessed 04/05/2018)

<sup>&</sup>lt;sup>28</sup> Forestry Commission (2016) What are Scotland's native woodlands? [online] Available at: <a href="https://scotland.forestry.gov.uk/supporting/strategy-policy-quidance/native-woodland-survey-of-scotland-nwss/scotlands-native-woodlands">https://scotlands-native-woodlands/strategy-policy-quidance/native-woodland-survey-of-scotland-nwss/scotlands-native-woodlands</a> (accessed 09/05/2018)

<sup>&</sup>lt;sup>29</sup> ibid

- Sites of Special Scientific Interest (SSSI) and Special Areas of Conservation (SACs) such as ashwoods, Caledonian pinewoods, alluvial forests, and bog woodland <sup>30</sup>.
- 4.2.6 Scotland's oldest woodlands have existed in some capacity for at least 250 years. These are referred to as ancient woodlands and are recognised for their particularly high levels of biodiversity. Many also possess considerable heritage value<sup>31</sup>. Much like native woodlands, ancient woodlands are often fragmented<sup>32</sup> and so are vulnerable to further degradation<sup>33</sup>.
- 4.2.7 Scotland's forests have adapted to exist across a wide range of environmental conditions. For example, the oceanic climate of the west coast gives rise to "rainforests" of Atlantic hazel and upland oakwood while the drier east coast favours different species. Native pine woodlands colonise thin, infertile, mineral soils, whereas ecologically rich collections of ashwoods become established on richer soils. Wet woods are predominantly found in areas of poor drainage, such as depressions, whereas montane scrub thrive above the treeline along Scotland's hills and mountains<sup>34</sup>.
- 4.2.8 Minor woodland varieties include aspen woodland, urban and amenity woodland, and individual and small groups of trees<sup>35</sup>. Despite their relatively limited spatial extent, these types perform many vital functions such as providing green space in urban environments and serving as a "living record" of historic land uses.
- 4.2.9 Further baseline information relating to Scotland's forests is presented in Appendix D. In addition, baseline information for each SEA topic is presented, including descriptive statistics, current condition(s), and past and projected trends, if known. This is intended to give an account of the present state of Scotland's environment. The majority of the data has been derived from Scottish Government sources, Forestry Commission publications, Scotland's Environment web, and the websites of the statutory Consultation Authorities (SEPA, SNH, and Historic Environment Scotland), with additional sources consulted as necessary.

## 4.3 Environmental issues/opportunities relevant to forestry

4.3.1 Table 2 highlights the environmental issues and opportunities that relate to the Regulations preparation and scoped in topics.

 $<sup>^{30}</sup>$  SNH (2017) Woodland habitats [online] Available at: <a href="https://www.nature.scot/habitats-and-ecosystems/habitats-types/woodland-habitats">https://www.nature.scot/habitats-and-ecosystems/habitats-types/woodland-habitats</a> (accessed 11/05/2018)

<sup>&</sup>lt;sup>31</sup> Forestry Commission (2016) What are Scotland's native woodlands? [online] Available at: <a href="https://scotland.forestry.gov.uk/supporting/strategy-policy-quidance/native-woodland-survey-of-scotland-nwss/scotlands-native-woodlands">https://scotland.forestry.gov.uk/supporting/strategy-policy-quidance/native-woodland-survey-of-scotland-nwss/scotlands-native-woodlands</a>

<sup>&</sup>lt;sup>32</sup> SNH (2017) History of Scotland's woodlands [online] Available at: <a href="https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/forests-and-woodlands/history-scotlands-woodlands">https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/forests-and-woodlands/history-scotlands-woodlands</a> (accessed 04/05/2018)

<sup>&</sup>lt;sup>33</sup> Scotland's Environment (2014) Woodlands and forests [online] Available at: <a href="https://www.environment.gov.scot/media/1202/land-woodlands-and-forests.pdf">https://www.environment.gov.scot/media/1202/land-woodlands-and-forests.pdf</a> (accessed 11/05/2018)

<sup>&</sup>lt;sup>34</sup> SNH (2017) Woodland habitats [online] Available at: <a href="https://www.nature.scot/habitats-and-ecosystems/habitats-types/woodland-habitats">https://www.nature.scot/habitats-and-ecosystems/habitats-types/woodland-habitats</a> (accessed 14/05/2018)

<sup>&</sup>lt;sup>35</sup> SNH (2017) Minor woodland types [online] Available at: <a href="https://www.nature.scot/habitats-and-ecosystems/habitat-types/woodland-habitats/minor-woodland-types">https://www.nature.scot/habitats-and-ecosystems/habitat-types/woodland-habitats/minor-woodland-types</a> (accessed 11/05/2018)

<sup>&</sup>lt;sup>35</sup>SPICe Information Centre (2016) Scottish Forestry [online] Available at: http://www.parliament.scot/ResearchBriefingsAndFactsheets/S5/SB 16-93 Scottish Forestry.pdf (accessed 18/07/2018)

Table 2: Environmental issues/opportunities associated with forestry

Topic	Environmental Issue/Opportunity
Biodiversity,	Incidence and prevalence of tree diseases (e.g. ash dieback <sup>36</sup> ); pests; deer grazing;
fauna and	decline of native species (e.g. decline in Caledonian pinewoods <sup>37</sup> ); invasive non-
flora	native species (e.g. rhododendron <sup>38</sup> ); fragmentation; neglect or lack of manage-
	ment <sup>39</sup> ; mismanagement (e.g. "scrub" clearance <sup>40</sup> )
Soil	Loss of organic matter; erosion and landslides; compaction; soil sealing; contamina-
	tion; leaching; alterations in soil biodiversity; emerging issues (e.g. genetically modi-
	fied organisms)41
Water	Alterations to water levels and flows 42; high water consumption by trees 43; reductions
	in water quality due to increased sedimentation and turbidity arising from forestry
	operations; diffuse pollution (e.g. phosphorous) originating from fertiliser application;
	changes in shore and bank morphology due to erosion; acidification of water bodies
	in areas with mature conifer forests and sensitive geology 44; flooding 45
Climatic fac-	Northward spread of species; spread of pests and pathogens and increases in their
tors	occurrence (e.g. red band needle blight); alterations in the timing of seasonal events
	(i.e. phenology) such as trees coming into leaf; release of greenhouse gases from
	the drying out/oxidisation of peatlands and carbon-rich soils46; improvement or de-
	cline in the fitness of certain species in response to changing environmental condi-
	tions (e.g. decline in Sitka spruce in areas of increased drought); flooding and ex-
	treme weather events; fires; wind throw <sup>47</sup>
Historic and	Uncertainty regarding location and extent of buried archaeological remains in forests
cultural her-	and woodlands; destruction to archaeological remains due to cultivation, desiccation,
itage	root damage, visitor erosion, burrowing animals, or chemical changes to the sur-
	rounding environment; changes in setting of historic and cultural features due to al-

<sup>&</sup>lt;sup>36</sup> SNH (2017) Woodland habitats [online] Available at: <a href="https://www.nature.scot/habitats-and-ecosystems/habitats-types/woodland-habitats">https://www.nature.scot/habitats-and-ecosystems/habitats-types/woodland-habitats</a> (accessed 03/05/2018)

<sup>&</sup>lt;sup>37</sup> ibid

<sup>&</sup>lt;sup>38</sup> SNH (2017) Native versus non-native woodland [online] Available at: <a href="https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/forests-and-woodlands/native-versus-non-native-woodland">https://www.nature.scot/professional-advice/land-sea-management/managing-land/forests-and-woodlands/native-versus-non-native-woodland (accessed 04/05/2018)</a>

<sup>&</sup>lt;sup>39</sup> SNH (2017) Woodland condition [online] Available at: <a href="https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/forests-and-woodlands/woodland-condition">https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/forests-and-woodlands/woodland-condition</a> (accessed 11/05/2018)

<sup>&</sup>lt;sup>40</sup> SNH (2017) Atlantic hazelw ood [online] Available at: <a href="https://www.nature.scot/habitats-and-ecosystems/habitat-types/woodland-habitats/atlantic-hazelwood">https://www.nature.scot/habitats-and-ecosystems/habitat-types/woodland-habitats/atlantic-hazelwood</a> (accessed 11/05/2018)

<sup>&</sup>lt;sup>41</sup> Natural Scotland (2011) The State of Scotland's Soil [online] Available at: <a href="https://www.sepa.org.uk/media/138741/state-of-soil-report-final.pdf">https://www.sepa.org.uk/media/138741/state-of-soil-report-final.pdf</a> (accessed 03/05/2018)

<sup>&</sup>lt;sup>42</sup> Forestry Commission (2011) Forests and water – UK Forestry Standard Guidelines [online] Available at: <a href="http://www.confor.org.uk/media/246145/forest-and-water-guidelines.pdf">http://www.confor.org.uk/media/246145/forest-and-water-guidelines.pdf</a> (accessed 11/05/2018)

<sup>&</sup>lt;sup>43</sup> Forestry Commission (2005) Water Use by Trees – Information Note [online] Available at: https://www.forestry.gov.uk/pdf/FCIN065.pdf/\$FILE/FCIN065.pdf

<sup>&</sup>lt;sup>44</sup> Forest Research (undated) Forestry and Diffuse Pollution [online] Available at: <a href="https://www.forestry.gov.uk/fr/beeh-a5gl8v">https://www.forestry.gov.uk/fr/beeh-a5gl8v</a> (accessed 11/05/2018)

<sup>&</sup>lt;sup>45</sup> Forestry Commission (2011) Forests and water – UK Forestry Standard Guidelines [online] Available at: <a href="http://www.confor.org.uk/media/246145/forest-and-water-guidelines.pdf">http://www.confor.org.uk/media/246145/forest-and-water-guidelines.pdf</a> (accessed 11/05/2018)

<sup>&</sup>lt;sup>46</sup> SNH (2017) Woodland and climate change [online] Available at: <a href="https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/forests-and-woodlands/woodland-and-climate-change">https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/forests-and-woodlands/woodland-and-climate-change</a> (accessed 11/05/2018)

<sup>&</sup>lt;sup>47</sup> ClimateXChange (2018) Suitability and productivity (forests) [online] Available at: <a href="https://www.climatexchange.org.uk/research/indicators-and-trends/natural-environment/suitability-and-productivity-forestry/">https://www.climatexchange.org.uk/research/indicators-and-trends/natural-environment/suitability-and-productivity-forestry/</a> (accessed 11/05/2018)

	terations in forest and woodland cover and composition; changes in historic land use due to afforestation/deforestation <sup>48</sup> ; loss of native and ancient woodlands <sup>49</sup>
Material as-	Unsustainable management of forest resources 50; competing land uses (e.g. agricul-
sets	ture, landfills, energy infrastructure, etc.) <sup>51</sup>
Landscape	Altered landscape character and appearance due to woodland expansion, particular-
	ly in the uplands <sup>52</sup> ; visual removal of geological features (e.g. "landscape sculp-
	tures" <sup>53</sup> ) due to afforestation

## 4.4 Likely evolution of the environment without the Regulations

- 4.4.1 In developing the proposals, opinions were sought from a wide range of interest groups regarding what could be improved and the strong message was that broadly the current system works well. This is what has led to proposals that, for the most part, maintain the status quo. However opportunities have been identified to make adjustments that should lead to benefits. It is considered that without the implementation of the new Regulations on Felling and Restocking specific issues with respect to felling and restocking will continue, including:
  - Use of the 5m³ per quarter exemption to gradually remove woodland, particularly broadleaves and native woodland.
  - Uncertainty over the meaning of some terms e.g. public open space, potentially leading to inappropriate felling (without restocking).

It is considered that if the proposed changes are not implemented, these effects could continue with negative effects on habitats and species particularly in native woodland and gradual loss of native woodlands and their heritage value. In addition, if the current exemptions were removed (i.e. no Regulations are put in place and the current exemptions fall by virtue of the 2018 Act coming into force) this would lead to all activity being subject to permissions which is not proportionate.

<sup>&</sup>lt;sup>48</sup> Crow, P. (2003) Managing the historic environment in woodland: the vital role of research (Forest Research Annual Report and Accounts 2002-2003) [online] Available at:

 $<sup>\</sup>underline{\text{https://www.forestry.gov.uk/pdf/frhistoricenviron0203.pdf/\$FILE/frhistoricenviron0203.pdf}} \quad (accessed 11/05/2018)$ 

<sup>&</sup>lt;sup>49</sup> Forestry Commission (2013) Scotland's Native Woodlands – Results from the Native Woodland Survey of Scotland [online] Available at: <a href="https://www.forestry.gov.uk/PDF/FCMS126.pdf/\$FILE/FCMS126.pdf">https://www.forestry.gov.uk/PDF/FCMS126.pdf</a>/\$FILE/FCMS126.pdf (accessed 13/05/2018)

<sup>&</sup>lt;sup>50</sup> Forestry Commission (2017) Forestry Statistics 2017- Sources [online] Available at: <a href="https://www.forestry.gov.uk/website/forstats2017.nsf/0/218e61bbf1abe26580257fe0004b2d21">https://www.forestry.gov.uk/website/forstats2017.nsf/0/218e61bbf1abe26580257fe0004b2d21</a> (accessed 11/05/2018)

<sup>&</sup>lt;sup>51</sup> Scotland's Environment (2011) Land use and management [online] Available at: https://www.environment.gov.scot/media/1211/land-land-use-and-management.pdf (accessed 11/05/2018)

<sup>&</sup>lt;sup>52</sup> SNH (2017) Woodland expansion in the uplands [online] Available at: <a href="https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/upland-and-moorland/woodland-expansion-uplands">https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/upland-and-moorland/woodland-expansion-uplands</a> (accessed 13/05/2018)

<sup>&</sup>lt;sup>53</sup> SNH (2017) Pressures on landscape sculptures [online] Available at: <a href="https://www.nature.scot/landforms-and-geology/pressures-geodiversity/pressures-landscape-sculptures">https://www.nature.scot/landforms-and-geology/pressures-geodiversity/pressures-landscape-sculptures</a> (accessed 11/05/2018)

## 5 The approach to the assessment

## 5.1 The SEA process to date

5.1.1 SEA consists of several distinct stages: screening, scoping, the environmental assessment and the production of an Environmental Report, and the publication of a Post-Adoption Statement. At each stage, there is a requirement to consult the statutory Consultation Authorities. These are Historic Environment Scotland (HES), Scottish Natural Heritage (SNH) and the Scottish Environment Protection Agency (SEPA). The present SEA process began with the production of a Scoping Report submitted via the SEA Gateway to the consultation authorities in April 2018. This set out initial information on the likelihood of significant effects arising from the Regulations. It also provided an initial view on the proposed evidence base that would be used to inform the assessment. The representations of the Consultation Authorities (Appendix E) to the Scoping stage have helped to inform the content of the draft Regulations and the SEA process.

## 5.2 Approach to the assessment

- 5.2.1 This section describes the approach for predicting the environmental effects that could arise from the proposal, the consideration of mitigation and enhancement measures, and suggestions for implementing a monitoring programme.
- 5.2.2 A number of previous SEAs, particularly those pertaining to policies with implications for land use, set an appropriate framework for the present assessment. These assessments have already compiled a considerable amount of baseline data on forests and woodlands in Scotland, and have explored the possible environmental impacts that could result from changes to the sector. Recent examples include:
  - 'Getting the best from our land A land use strategy for Scotland 2016-2021'54;
  - 'Draft Climate Change Plan: The Draft Third Report on Policies and Proposals 2017-2032' and 'Draft Scottish Energy Strategy: The Future of Energy in Scotland' (joint assessment)<sup>55</sup>;
  - 'Proposals for a Draft Climate Change Bill'56;
  - 'The Scottish Forestry Strategy 2006<sup>57</sup>

<sup>&</sup>lt;sup>54</sup> Scottish Government (2015) Getting the best from our land, consultation on a draft Land Use Strategy for Scotland 2016-2021 – Strategic Environmental Assessment Environmental Report [online] Available at: <a href="http://www.gov.scot/Resource/0048/00489448.pdf">http://www.gov.scot/Resource/0048/00489448.pdf</a> (accessed 22/02/2018)

<sup>&</sup>lt;sup>55</sup> Scottish Government (2017) The Draft Climate Change Plan: The Draft Third Report on Policies and Proposals 2017-2032 and Draft Scottish Energy Strategy: The Future of Energy in Scotland – Strategic Environmental Assessment Environmental Report [online] Available at: <a href="http://www.gov.scot/Resource/0051/00513440.pdf">http://www.gov.scot/Resource/0051/00513440.pdf</a> (accessed 22/02/2018)

<sup>&</sup>lt;sup>56</sup> Scottish Government (2017) Proposals for a new Climate Change Bill – Strategic Environmental Assessment Environmental Report [online] Available at: <a href="https://consult.gov.scot/energy-and-climate-change-directorate/climate-change-bill/supporting\_documents/SCT07175538641\_environmental\_%20Final\_v2.pdf">https://consult.gov.scot/energy-and-climate-change-directorate/climate-change-bill/supporting\_documents/SCT07175538641\_environmental\_%20Final\_v2.pdf</a> (accessed 22/02/2018)

<sup>&</sup>lt;sup>57</sup> Forestry Commission (2006) Scottish Forestry Strategy SEA ER, SEA Database case number 00026 [online] available at: https://www.gov.scot/Topics/Environment/environmental-assessment/sea/SEAG (accessed 20/08/2018)

- SEA of Forest District Plans<sup>58</sup>
- 5.2.3 Additional SEAs of relevance include those undertaken on National Planning Framework 3 and Scottish Planning Policy<sup>59</sup> (joint), 'A Consultation on 2020 Challenge for Scotland's Biodiversity'<sup>60</sup>, and 'Climate Ready Scotland: Draft Scottish Climate Change Adaptation Programme'<sup>61</sup>. The assessment of these policy areas has largely been undertaken by the Scottish Government SEA team, thereby providing the added benefit of good institutional knowledge of the broader policy area and a consistency of approach.
- 5.2.4 Relevant environmental baseline information and findings have been collated from these previous assessments and used to guide this assessment.
- 5.2.5 The Scoping Report set out SEA objectives and associated questions to help describe, analyse, and compare environmental effects. They cover all of the SEA topic areas that have been scoped into the assessment including climatic factors and material assets following comment from SEPA during the scoping consultation. The example objectives and their corresponding assessment questions were derived from the key environmental issues, baseline data, and environmental protection objectives of relevance to the proposal.
- 5.2.6 During the scoping stage the Consultation Authorities provided additional questions for inclusion in the assessment. However, it soon became evident that many of the questions were not applicable to the proposals due to the level of the proposals; and that the original assessment methodology did not lend itself well to the relatively minor changes reflected in the proposals. Therefore, the assessment is presented as a narrative overview drawing more broadly on each of the topic areas.
- 5.2.7 The aim is to focus the assessment on the key issues and potential for significant environmental effects (short, medium and long-term<sup>62</sup>, permanent and temporary, positive and negative, secondary, cumulative and synergistic) associated with the proposals, ensuring this is framed in the context of current environmental obligations.

<sup>&</sup>lt;sup>58</sup> Forestry Commission (2008) Forest Enterprise Scotland Forest District Strategic Plans SEA ER, SEA Database case number 00181 [online] available at: <a href="https://www.gov.scot/Topics/Environment/environmental-assessment/sea/SEAG">https://www.gov.scot/Topics/Environment/environmental-assessment/sea/SEAG</a> (accessed 20/08/2018)

<sup>&</sup>lt;sup>59</sup> Scottish Government (2013) National Planning Framework 3 and Scottish Planning Policy – Strategic Environmental Assessment Environmental Report [online] Available at: <a href="http://www.gov.scot/Publications/2013/04/3435">http://www.gov.scot/Publications/2013/04/3435</a> (accessed 23/02/2018)

<sup>&</sup>lt;sup>60</sup> Scottish Government (2012) A Consultation on the 2020 Challenge for Scotland's Biodiversity – Environmental Report and Non-Technical Summary [online] Available at: <a href="http://www.gov.scot/Topics/Environment/environmental-assessment/sea/SEAG">http://www.gov.scot/Topics/Environment/environmental-assessment/sea/SEAG</a> (accessed 23/02/2018)

<sup>&</sup>lt;sup>61</sup> Scottish Government (2013) Climate Ready Scotland: Draft Scottish Climate Change Adaptation Programme – Strategic Environmental Assessment Environmental Report [online] Available at: <a href="http://www.gov.scot/Resource/0042/00426535.pdf">http://www.gov.scot/Resource/0042/00426535.pdf</a> (accessed 23/02/2018)

## 6 Assessment findings and recommendations

#### 6.1 Overview

6.1.1 This section sets out the significant environmental effects expected as a result of the changes to exemptions which it is proposed will be carried over from the existing legislation. The remaining aspects of the proposal are considered when assessing the potential for cumulative impacts to arise from the implementation of the entire suite of proposed Regulations.

#### 6.2 Small trees / Diameter threshold

- 6.2.1 Using only the minimum diameter threshold for all circumstances provides clarity for felling of trees and associated enforcement. The effect of this change streamlines the exemptions and clarifies the position for owners and operators, still allowing for some management but limiting the potential reduction of woodland. This is considered to have a minor yet long-term positive direct effect on **biodiversity** in terms of maintaining and limiting disturbance to designated and non-designated species and habitats as well providing some protection to the **cultural heritage** value of native woodlands.
- 6.2.2 Ultimately the amended exemption is likely to help to retain the value of forests via a slightly more stringent control of felling.
- 6.2.3 Coppicing has limited application in Scotland and the current 10 cm threshold for thinning is also limited in application. Removing this may preserve some trees and afford additional protection to associated native species and habitats (**biodiversity**, **cultural heritage and material assets**) where the exemptions had previously been misunderstood or misused, but the benefits are considered to be minor in magnitude.
- 6.2.4 Young forests grow rapidly and soak up carbon more quickly than mature forests<sup>63.</sup> The more stringent exemption may discourage some felling of young trees and therefore ultimately have a cumulative minor positive effect across all time frames in terms of reducing GHG emissions, thereby contributing to climate resilience (climatic factors).
- 6.2.5 Controlling felling via a more stringent diameter threshold will cumulatively have a minor positive effect in providing protection to **soil** and **water** by limiting uncontrolled felling. These are also considered to be minor positive effects.

#### 6.3 Volume Threshold

6.3.1 The intention of the Regulations is to prevent woodland removal whilst allowing small scale domestic felling. Overall, limiting felling without a permission can have a minor positive effect across **all topics** by limiting disturbance to the environment via the requirement of a permission. However, it is recommended that clear guidelines regarding the exemption of specific native woodlands are provided; to allow identification and to prevent confusion regarding the areas to which this exemption applies.

<sup>63</sup> https://www.forestry.gov.uk/forestry/infd-7m8fa6

- 6.3.2 This proposed exemption would mean that native woodlands, particularly ancient and semi natural woodlands would require permission to fell even small volumes of timber where trees are over 8 cm in diameter and therefore ensure that felling is for woodland management purposes and that the cumulative effect of the felling can be managed. A resultant long term minor positive effect of a permanent nature is predicted on **biodiversity** (habitat creation and connectivity) and **cultural heritage** value of native woods.
- 6.3.3 In combination, where distinct areas of a woodland have different owners the risk remains that a woodland could be split to take advantage of the exemption and to enable deforestation. However, the likelihood of this occurring is considered to be quite low and adding any further limits to the exemption could affect the legitimate use of the exemption.
- 6.3.4 Removing the 2 m³ per quarter for sale exemption is unlikely to have any discernible effect across the topics.

#### 6.4 Dead Trees and Windblow

- 6.4.1 The introduction of an exemption for the felling of dead trees and no requirement for consultation where windblow impacts on infrastructure provides protection to **material assets** as well as protecting from an health and safety standpoint.
- 6.4.2 The licensing of the felling of wind blow over 5m³ will allow the regulator, where appropriate, to require restocking, which would have a positive effect on availability of timber (material assets) as a resource as well as medium term positive effects as the trees grow and absorb more carbon (climatic factors). Assuming restocking is well managed in terms of location it will help to preserve the setting of cultural heritage and landscape into the future. Similarly the restocking sites and species need to be carefully managed. The UK Forestry Standard (UKFS) is the reference standard for sustainable forest management in the UK and provides a basis for regulation and monitoring. Also, the regulator controls opportunities to place conditions on a licence where these types of concerns would be considered.
- 6.4.3 Whilst the licence requirement for windblown trees will allow the regulator to control any necessary restocking of any site that has been compromised, the effects will also partly depend on whether the dead trees are removed or left in situ after felling has taken place, however, this is not within the remit of the Regulations.

## 6.5 Other Exemptions

6.5.1 Other exemptions include improving forestry guidance and clarifying what is meant by the term public open space. 'Public open space' is not currently defined and this introduces a risk that people will interpret this to their advantage. This exemption will specify practical requirements and hence potentially preserve the environment to a minor degree across several topics, for example, a minor positive cumulatively across Scotland in terms of **biodiversity** and **landscape** where woodland that was previously perceived as 'public open space' can no longer be defined as such and therefore is subject to felling permissions. Therefore more protection is afforded for habitats and species and the quality of the landscape. There may be circumstances where the delivery of this outcome will potentially reduce damage from felling to **cultural heritage** 

- features however, it is considered that this is a minor positive effect and would be dealt with at project level and via licence conditions.
- 6.5.2 It is uncertain the extent of felling which has been undertaken previously due to misinterpretation or use of perceived loopholes but clarification can only serve to better enforce the Regulations. For example, framing the exemption for removal of dangerous trees so it captures only felling that is necessary will help to prevent removal of entire trees where, for example, removing one dangerous branch would have removed the danger thus resulting in a minor positive effect across all topics for example, by affording protection to species and habitats that benefit from using the trees (biodiversity).

#### 6.6 Cumulative Effects

- 6.6.1 Cumulatively the exemptions are predicted to have a major positive effect on both ancient and semi-natural woodlands in terms of controlling and limiting felling without a licence. This cascades to protection primarily across the topics of **biodiversity**, **cultural heritage** (in terms of the trees themselves) and to some extent, **material assets**.
- 6.6.2 It is also considered that these changes to the way the Regulations are implemented, supported by other PPS such as the UKFS will have a positive long term effect on the preservation of native woodlands and the value of forestry as a resource.

## 6.7 Summary of Conclusions

- 6.7.1 The proposals set out for the Regulations on Felling and Restocking are primarily to provide more protection for the forestry resource by seeking to improve clarity and enforcement around exemptions. After consideration of each of the topics, it is predicted that the effects of the new Regulations will largely be minor positive in nature extending to major positive when considering the cumulative effect over the long term.
- 6.7.2 The Consultation Authorities provided comment on the scoping report and these comments have been considered within the assessment (also see Appendix E). However, many of the comments are more appropriately dealt with via separate legislation. For example, controlling potential negative issues around the effect of restocking on the soil e.g. use of heavy machinery, would be more appropriately addressed via conditions provided by the regulator. Similarly, decisions about restocking are made on the basis of the evidence that is provided during the licence application process, including via site visits. This evidence is considered alongside the current body of knowledge about healthy forest systems, for example, current policy is to stage replanting so that there is a variety in the age of the trees in a specific area. These proposals do nothing to affect this approach.

# 7 Identifying mitigation measures and opportunities for enhancement

- 7.1.1 The 2005 Act requires information to be provided on measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the PPS.
- 7.1.2 There are a number of existing measures that serve to ensure that forestry-related operations in Scotland abide by the principles of sustainability and environmental protection. For example, the UKFS describes the conditions that must be met when felling trees<sup>64</sup>.
- 7.1.3 The changes to exemptions and guidance are predicted to have a mostly minor positive effect but potentially with a cumulatively major positive effect in the long term. It is expected that mitigation of environmental effects associated with tree felling and restocking will continue to be addressed primarily at a forest plan and site level.
- 7.1.4 As noted by the Consultation Authorities in response to the scoping report consultation, the general operation of felling and restocking can have negative effects for example, root growth damage to archaeological remains and masonry, particularly with young trees, whose roots can grow rapidly and also effects on peaty soils. Consideration will be required at forest plan / project level to mitigate any negative effects such as appropriate siting and minimising ground disturbance.

<sup>&</sup>lt;sup>64</sup> Forestry Commission Scotland (2017) Updated standard for forest management [online] Available at: http://scotland.forestry.gov.uk/news-releases/1811-updated-standard-for-forest-management (accessed 21/02/2018)

## 8 Proposals for monitoring

- 8.1.1 Section 19 of the 2005 Act requires that the responsible authority monitors the significant environmental effects of the implementation of the PPS in order to identify any unforeseen adverse effects at an early stage and undertake appropriate remedial action.
- 8.1.2 A wide range of existing programmes are in place at the national and local level to report on environmental status and assess performance against established environmental indicators. Since the publication of the second SFS, indicators have been developed which enable progress against the objectives of SFS to be judged<sup>65</sup>. These include indicators that are probably of most relevance to the Regulations such as: area of native woodland, area of coniferous woodland and area of broadleaved woodland where timber production is a significant management objective. Given the minor effect the Regulations are predicted to have in isolation and given the range of indicators currently in use, it is recommended that existing indicators are utilised to monitor its cumulative effects with that of other PPS.
- 8.1.3 It is recommended that timing of felling and restocking is also monitored perhaps making it a requirement to report once the activity has happened as part of the permission conditions.

<sup>&</sup>lt;sup>65</sup> SPICe Information Centre (2016) Scottish Forestry [online] Available at: http://www.parliament.scot/ResearchBriefingsAndFactsheets/S5/SB 16-93 Scottish Forestry.pdf (accessed 18/07/2018)

# 9 Proposed programme of works and information on responding to the consultation

Table 3: Proposed programme of works

Indicative timeline	Preparation of Secondary Legislation	Stage of the SEA
January - April 2018	Development of proposals (phase 3) following informal consultation	Scoping: Setting scope of assessment and submission of Scoping Report to Consultation Authorities
April - May 2018	Further development of proposals	Environmental assessment: Undertake assessment and produce SEA Environmental Report
August - October 2018	Public consultation on 'package' of draft proposals or draft 'policy document'	Environmental Report: Out to consultation (8 weeks)
October - December 2018	Consultation analysis of all responses received and drafting of Regulations	
1st Quarter of 2019	Regulations laid in Parliament	
April 2019	Regulations in force	Post- Adoption: Draft and finalise the Post-Adoption Statement.
		Advertise and publish the Post Adoption Statement

#### Table 4: Responding to the consultation

#### When can I respond?

Respondents are asked to submit responses to this Environmental Report directly to the Scottish Government by closing date of Sunday 14 October 2018.

#### **How can I respond?**

- Online: You can respond online using the Scottish Government's consultation platform, Consultation Hub, at: <a href="https://consult.gov.scot/forestry/fellingandrestocking">https://consult.gov.scot/forestry/fellingandrestocking</a>. Consultation Hub allows you to save and return to your responses while the consultation is still open. A copy of your final response will be emailed to you.
- By Email or Post: Responses can be submitted by email, with the Respondent Information Form (see Appendix F), to FutureForestry@gov.scot by mail to Catherine Murdoch, Natural Resources Division, Directorate for Environment and Forestry, 3-G South, The Scottish Government, Victoria Quay, Edinburgh EH6 6QQ

#### How will responses be considered?

Following the consultation, a Post-Adoption Statement will be prepared. The Statement will reflect on the views provided on the findings of the assessment and the proposals in the Consultation Paper and will explain how the issues raised have been taken into account in the proposals for the new Regulations on Felling and Restocking.

This Post-Adoption Statement will be prepared and published alongside, or as soon as practicable following the enactment of the Regulations on Felling and Restocking.

#### Suggested questions for responses to this Environmental Report

Respondents may find the following questions helpful to provide a focus for their responses to this Environmental Report. Please note that responses do not need to be limited to these questions, and more general comments on this Environmental Report and the proposals set out in the Consultation Paper are also invited.

- 1. What are your views on the evidence set out in the Environmental Report that has been used to inform the assessment process? (Please give details of any additional relevant sources).
- 2. What are your views on the predicted environmental effects as set out in the Environmental Report?
- 3. Do you agree with the conclusions and recommendations set out in the Environmental Report?
- 4. Please provide any other further comments you have on the Environmental Report.

# **Appendices**

#### Appendix A: Current exemptions under the 1967 Forestry Act

#### Section 9.— Requirement of licence for felling.

- (1) A felling licence granted by the Commissioners shall be required for the felling of growing trees, except in a case whereby or under the following provisions of this Part of this Act this subsection is expressed not to apply.
- (2) Subsection (1) above does not apply—
  - (a) to the felling of trees with a diameter not exceeding 8 centimetres or, in the case of coppice or underwood, with a diameter not exceeding 15 centimetres; or
  - (b) to the felling of fruit trees or trees standing or growing on land comprised in an orchard, garden, churchyard or public open space; or
  - (c) to the topping or lopping of trees or the trimming or laying of hedges.
- (3) Subsection (1) above does not apply to the felling by any person of trees on land in his occupation or occupied by a tenant of his—
  - (a) where the trees have a diameter not exceeding 10 centimetres and the felling is carried out in order to improve the growth of other trees; or
  - (b) where the following conditions are satisfied, that is to say—
    - (i) the aggregate cubic content of the trees which are felled by that person without a licence (exclusive of trees to whose felling subsection (1) above does not apply) does not exceed 5 cubic metres in any quarter; and
    - (ii) the aggregate cubic content of the trees so felled which are sold by that person whether before or after the felling (exclusive as aforesaid) does not exceed 2 cubic metres in any quarter, or such larger quantity as the Commissioners may in a particular case allow.
- (4) Subsection (1) above does not apply to any felling which—
  - (a) is for the prevention of danger or the prevention or abatement of a nuisance;
  - (b) is in compliance with any obligation imposed by or under an Act of Parliament, including this Act;
  - (c) is carried out by, or at the request of, an electricity operator, because the tree is or will be in such close proximity to an electric line or electrical plant which is kept installed or is being or is to be installed by the operator as to have the effect mentioned in paragraph 9(1)(a) or (b) of Schedule 4 to the Electricity Act 1989;
  - (d) is immediately required for the purpose of carrying out development authorised by planning permission granted or deemed to be granted under the Town and Country Planning Act 1990 or the enactments replaced by that Act, or under the Town and Country Planning (Scotland) Act 1997.
- (5) Regulations made by the Commissioners under this Part of this Act may modify subsections (2) to (4) above as follows, that is to say—
- (a) they may provide for additional exceptions from the application of subsection (1) above and may in particular substitute—
  - (i) in subsection (2)(a), for the reference to 8 centimetres a reference to a larger diameter;
  - (ii) in subsection (3)(a), for the reference to 10 centimetres a reference to a larger diameter;
  - (iii) in subsection (3)(b) for the reference to 30 cubic metres or the reference to 5.5 cubic metres in either case a reference to a larger quantity;
- (b) they may substitute in subsection (2)(a) for the reference to 15 centimetres a reference to a smaller diameter: and

(c) they may restrict or suspend the exception in subsection (3)(b) and may in particular substitute, for the reference in sub-paragraph (i) to 30 cubic metres, or for the reference in subparagraph (ii) to 5.5 cubic metres, in either case a reference to a smaller quantity; and the said subsections shall have effect with any modification made by regulations under this subsection.

#### (6) In this section-

"electricity operator" means a licence holder within the meaning of Part I of the Electricity Act 1989 by whom the powers conferred by paragraph 9 (tree lopping) of Schedule 4 to that Act are exercisable;

"electric line" and "electrical plant" have the same meanings as in Part I of the Electricity Act 1989; "public open space" means land laid out as a public garden or used (otherwise than in pursuance of section 193 of the Law of Property Act 1925 or of Part V of the National Parks and Access to the Countryside Act 1949 or Part I of the Countryside and Rights of Way Act 2000) for the purpose of public

"quarter" means the period of three months beginning with the 1st January, 1st April, 1st July or 1st October in any year;

#### [ "relevant territory" means—

recreation, or land being a disused burial ground;

- (a) England and Scotland where the felling is carried out in England or Scotland;
- (b) Wales where the felling is carried out in Wales;] and references to the diameter of trees shall be construed as references to the diameter, measured over the bark, at a point 1.3 metres above the ground level.]

## Appendix B: The Forestry (Exceptions from Restriction of Felling) Regulations 1979 SI 1979/792

#### 4. Exceptions from restriction of felling

The following shall be exceptions from the application of section 9(1) of the Act (which prohibits the felling of growing trees unless a licence is in force authorising the felling) additional to the exceptions specified in section 9(2), (3) and (4) of the Act and accordingly no licence shall be required in respect of—

- (1) the felling of any tree where the Secretary of State for Defence or the Secretary of State for Trade has certified that the tree obstructs the approach of aircraft to, or their departure from, any aerodrome or hinders the safe and efficient use of air navigational or aircraft landing installations;
- (2) the felling by statutory undertakers of trees on land in their occupation which obstruct the construction of any works required for the purposes of the undertaking of those undertakers or of trees which interfere with the maintenance or operation of any works vested in those undertakers:
- (3) the felling of any tree by, or at the request of, a water authority established under the Water Act 1973, or an internal drainage board for the purposes of the Land Drainage Act 1976, where the tree interferes or would interfere with the exercise of any functions of that authority or board:
- (4) the felling of any tree of the genus Ulmus which is affected by the disease in elms caused by the fungus Ceratocystis ulmi and commonly known as Dutch elm disease to such an extent that the greater part of the crown of the tree is dead;
- (5) the felling of trees on land which is subject to an agreement entered into with the Commissioners, being an agreement to which section 5(1) of the Act refers, namely an agreement to the effect that the land shall not, except with the previous consent in writing of the Commissioners or, in the case of dispute, under direction of the Minister, be used otherwise than for the growing of timber or other forest products in accordance with the rules or practice of good forestry or for purposes connected therewith: provided that this exception shall not apply unless—
  - (a) the agreement is a forestry dedication covenant or a forestry dedication agreement registered in the General Register of Sasines, and the following conditions are fulfilled, that is to say—
    - (i) any positive covenants or terms on the part of the owner of the land contained in the same document as the said forestry dedication covenant or agreement are at the time of the felling binding on the person who is then the owner of the land; and
    - (ii) the felling is in accordance with a plan of operations approved by the Forestry Commissioners under such document;

10

- (b) the agreement, being an agreement relating to land situate in England or Wales, is not made under seal or, being an agreement relating to land situate in Scotland, is a forestry dedication agreement not registered in the General Register of Sasines, and the following conditions are fulfilled, that is to say—
  - (i) the land is at the time of the felling owned by the person or persons who entered into the agreement with the Commissioners or by the survivor or survivors of such persons; and
  - (ii) the felling is in accordance with a plan of operations approved by the Commissioners under the agreement.

#### Appendix C: Other Plans, Programmes and Strategies

PPS/Legislation Context and Name	Main requirements of the PPS or Legislation
International Forestry Policy	•
United Nations	United Nations Strategic Plan for Forests 2017-2030 (UNSPF <sup>66</sup> )
	The UNSPF provides a global framework to sustainably manage all types of forests and trees outside forests, and halt deforestation and forest degradation.
	<ul> <li>Also provides a framework for forest-related contributions to the implementation of the 2030 Agenda for Sustainable Development, the Paris Agreement adopted under the UN Framework Convention on Climate Change, the Convention on Biological Diversity, the UN Convention to Combat Desertification, the United Nations Forest Instrument (UNFI) and other international forest-related instruments, processes, commitments and goals.</li> </ul>
	Serves as a reference for the forest-related work of the UN system and for fostering enhanced coherence, collaboration and synergies among UN bodies and partners towards the following vision and mission, as well as a framework to enhance the coherence of and guide and focus the work of the International Arrangement on Forests (IAF) and its components.
	At the heart of the UNSPF are 6 Global Forest Goals and 26 associated targets to be achieved by 2030. The Global Forest Goals and targets are voluntary and universal. They support the objectives of the IAF and aim to contribute to progress on the Sustainable Development Goals, the Aichi Biodiversity Targets, the Paris Agreement adopted under the United Nations
	Framework Convention on Climate Change and other international forest-related instruments, processes, commitments and goals. The vision, principles and commitments set out in the 2030 Agenda for Sustainable Development provide the context for the Global Forest Goals and targets, which are interconnected and integrate the economic, social and environmental dimensions of SFM and sustainable development.
European Union	Although there is no provision for a common forestry policy at the EU level, forests are influenced by a wide range of community policies, regulations and initiatives, particularly those relating to protecting biodiversity and addressing climate change <sup>67</sup> . Additionally, the <b>EU Forestry Strategy</b> provides a non-legislative framework to guide the development of policies having an impact on forests <sup>68</sup> .
Europe	Forest Europe (previously the <b>Ministerial Conference on the Protection of Forests in Europe</b> ), is the principal regional fora which develops the principles and definitions of sustainable forest management. The UK is a signatory of all Forest Europe commitments and resolutions <sup>69</sup> for the sustainable management of forests that reflect the objectives of the Forest Principles and other agreements of the 1992 Earth Summit <sup>70</sup> as well as its own vision of a European forest resource which supports 'a green economy, livelihoods, climate change mitigation [and] biodiversity conservation' and improves water quality and combats desertification <sup>71</sup> . The UK Forestry Standard is the mechanism by which these commitments are carried out domestically <sup>72</sup> .
UK	The <b>UK Forestry Standard</b> ( <b>UKFS</b> ), revised in 2017, acts as the reference standard for sustainable forest management in the UK, applying to all woodland regardless of ownership <sup>73</sup> . It also serves as a vehicle for meeting the requirements of, and monitoring for international agreements on sustainable forest management of which the UK is a part <sup>74</sup> . The UKFS is regulated and monitored in Scotland by Forestry Commission Scotland (FCS) <sup>75</sup> . The UKFS and its associated guidelines captures all international, EU and domestic legislation relevant to forestry practices in the UK.
Scotland	The <b>Forestry Act 1967</b> <sup>76</sup> and its subsequent amendments is the principal legislation relating to the forestry sector in Scotland. It specifies the statutory duties and powers of the Forestry Commissioners as promoting the interests of forestry, the development of afforestation, and the production and supply of timber and other forest products <sup>77</sup> . The Act will be repealed by the <b>Forestry and Land Management (Scotland) Act 2018</b> and that Act, once commenced, will introduce new provision about Scotlish Ministers' functions in relation to forestry, in relation to the management of forestry land, and other land.
	Forestry Commission Scotland (FCS) deliver, advise upon, and implement forest policy in line with Scottish Government's National Performance Framework and other relevant priorities and policies. The current Scottish Government vision for forestry is provided by the 2006 <b>Scottish Forestry Strategy</b> <sup>78</sup> . However, under the <b>Forestry and Land Management (Scotland) Act 2018</b> Scottish Ministers will have a duty to prepare, publish and report on a new strategy. The new strategy will be in place by 1 April 2019. The Strategy describes a forest resource that is diverse and robust, environmentally sensitive, and enhances human wellbeing in a number of ways <sup>79</sup> .
	woodland removal - The removal of trees and woodlands is controlled by a number of legislative and policy measures, depending upon the circumstances and scale of the removal. Statutory

Scotland - Policies covering tree and woodland removal - The removal of trees and woodlands is controlled by a number of legislative and policy measures, depending upon the circumstances and scale of the removal. Statutor procedures for the licensing of felling and restocking, and associated provisions on enforcement, appeals, and exemptions, are discussed in Section 2 of this report.

<sup>&</sup>lt;sup>66</sup> http://www.un.org/esa/forests/documents/un-strategic-plan-for-forests-2030/index.html

<sup>&</sup>lt;sup>67</sup> European Commission (2016) EU Forest policies [online] Available at: <a href="http://ec.europa.eu/environment/forests/fpolicies.htm">http://ec.europa.eu/environment/forests/fpolicies.htm</a> (accessed 21/02/2018)

<sup>68</sup> European Commission (2017) The new EU Forest Strategy [online] Available at: https://ec.europa.eu/agriculture/forest/strategy\_en\_ (accessed 21/02/2018)

<sup>&</sup>lt;sup>69</sup> Forest Europe (undated) What is Forest Europe? [online] Available at: <a href="http://foresteurope.org/foresteurope/">http://foresteurope.org/foresteurope/</a> (accessed 21/02/2018)

<sup>&</sup>lt;sup>70</sup> Forestry Commission (2017) The UK Forestry Standard – The governments' approach to sustainable forestry [online] Available at: <a href="https://www.forestry.gov.uk/pdf/FCFC001.pdf">https://www.forestry.gov.uk/pdf/FCFC001.pdf</a> (accessed 21/02/2018)

<sup>&</sup>lt;sup>71</sup> Forest Europe (undated) Vision and Mission [online] Available at: <a href="http://foresteurope.org/foresteurope/#1470741557748-134fb529-3b91">http://foresteurope.org/foresteurope.org/foresteurope/#1470741557748-134fb529-3b91</a> (accessed 23/02/2018)

<sup>&</sup>lt;sup>72</sup> Forestry Commission (2017) The UK Forestry Standard – The governments' approach to sustainable forestry [online] Available at: <a href="https://www.forestry.gov.uk/pdf/FCFC001.pdf/\$FILE/FCFC001.pdf">https://www.forestry.gov.uk/pdf/FCFC001.pdf</a> (accessed 21/02/2018)

<sup>73</sup> Forestry Commission Scotland (2017) Updated standard for forest management [online] Available at: <a href="http://scotland.forestry.gov.uk/news-releases/1811-updated-standard-for-forest-management">http://scotland.forestry.gov.uk/news-releases/1811-updated-standard-for-forest-management</a> (accessed 21/02/2018)

<sup>&</sup>lt;sup>74</sup> SPICe (2016) SPICe Briefing: Scottish Forestry [online] Available at: <a href="http://www.parliament.scot/ResearchBriefingsAndFactsheets/S5/SB 16-93">http://www.parliament.scot/ResearchBriefingsAndFactsheets/S5/SB 16-93</a> Scottish Forestry.pdf (accessed 21/02/2018)

<sup>&</sup>lt;sup>75</sup> ibid

<sup>&</sup>lt;sup>76</sup> Forestry Act 1967, Chapter 10 [online] Available at: <a href="https://www.legislation.gov.uk/ukpga/1967/10/introduction">https://www.legislation.gov.uk/ukpga/1967/10/introduction</a> (accessed 21/02/2018)

<sup>&</sup>lt;sup>77</sup> Forestry Commission (2017) Ministers and Commissioners [online] Available at: <a href="https://www.forestry.gov.uk/commissioners">https://www.forestry.gov.uk/commissioners</a> (accessed 21/02/2018)

<sup>&</sup>lt;sup>78</sup> Scottish Government (2018) Forestry [online] Available at: <a href="http://www.gov.scot/Topics/farmingrural/Forestry">http://www.gov.scot/Topics/farmingrural/Forestry</a> (accessed 23/02/2018)

<sup>&</sup>lt;sup>79</sup> Forestry Commission (2006) The Scottish Forestry Strategy [online] Available at: <a href="http://scotland.forestry.gov.uk/images/corporate/pdf/scottish-forestry-strategy-2006.pdf">http://scotland.forestry.gov.uk/images/corporate/pdf/scottish-forestry-strategy-2006.pdf</a> (accessed 29/03/2017)

Town and Country Planning (Scotland) Act 1997	Requires planning authorities to provide for the preservation or planting of trees when granting planning permission 80. It also confers on Scottish planning authorities powers to make <b>TPO</b> for individual or groups of trees in the interests of amenity and cultural or historical significance, and sets out provisions on protection for <b>trees in conservation areas</b> . The <b>Town and Country Planning (Tree Preservation Order and Trees in Conservation Areas) (Scotland) Regulations 2010</b> updated the procedure for making, varying, and revoking TPOs under the Act <sup>81</sup> .
Scottish Government policy on the control of woodland removal	Provides a strategic framework for appropriate woodland removal, covering the maintenance and expansion of forest cover and the achievement of an appropriate balance between forested and non-forested land82.
National Peatland Plan	Guidance around felling in afforested peatland sites is provided by the <b>National Peatland Plan</b> , which permits felling without restocking in certain cases <sup>83</sup> .
Nature Conservation (Scotland) Act 2004	Amended the Forestry Act 1967, enabling Forestry Commissioners to refuse felling licenses in instances where biodiversity or the visual quality of the land could be at risk84.

#### Scotland - Policies covering woodland expansion and reforestation

In general, woodland expansion is promoted by several national PPS such as the **Land Use Strategy**, the Climate Change Plan, and Scotland's Rural Development Programme<sup>85</sup>. The **Rationale for Woodland Expansion** lays out the Scottish Government's thinking on how woodland expansion can best increase the delivery of public benefits from Scotland's land<sup>86</sup>. The FCS publication '**The creation of small woodlands on farms**' advises on opportunities for creating new small woodlands in three different types of agricultural settings: arable land, permanent grassland, and hill land and unimproved grazing<sup>87</sup>.

#### Wider Policy Objectives related to the scoped in topics

Biodiversity, Flora, and Fauna policy International policies provide a framework for the conservation, protection, and sustainable use of biodiversity, flora, and fauna.

- The **Convention on Biological Diversity** (**CBD**) was opened for signature at the 1992 Earth Summit, which also gave rise to the Forest Principles 88. It functions as an internationally legally-binding treaty founded upon three primary goals: the conservation of biological diversity, the sustainable use of natural resources, and the fair and equitable use of biological and natural resources, including forests 89. It is often regarded as the key international instrument guiding sustainable development 90.
- This progress towards an international commitment to halting biodiversity loss continued with the development of the Aichi Targets for 2020<sup>91</sup>. The 2020 Challenge for Scotland's Biodiversity Strategy to 2020<sup>93</sup>. The 2020 Challenge supplements the 2004 Scottish Biodiversity Strategy<sup>94</sup> and together they comprise the overall Scottish Biodiversity Strategy. Scotland's Biodiversity a Route Map to 2020 sets out the priority work needed to meet the Aichi targets and improve the state of nature in Scotland<sup>95</sup>. In terms of woodland, it specifies targets relating to bringing native woodland to good condition as well as for woodland creation and restoration.
- At the European level, Scotland abides by the **EC Habitats** (92/43/EEC)<sup>96</sup> and **Birds** (2009/147/EC)<sup>97</sup> **Directives**. The Natura 2000 network is the primary vehicle for meeting collective aims of these Directives<sup>98</sup>, which largely centre on the protection of rare and endangered natural habitats and wild species of European significance. The Natura 2000 network comprises terrestrial and marine Special Protection Areas (SPAs) and Special Areas of Conservation (SACs). Many of these sites are also underpinned by Sites of Special Scientific Interest (SSSI)<sup>99</sup>, which are designated under the **Nature Conservation (Scotland) Act 2004**<sup>100</sup>.

<sup>80</sup> Town and Country Planning (Scotland) Act 1997, Chapter 8 [online] Available at: https://www.legislation.gov.uk/ukpga/1997/8/introduction (accessed 21/02/2018)

<sup>81</sup> The Town and Country Planning (Tree Preservation Order and Trees in Conservation Areas) (Scotland) Regulations 2010, No. 434 [online] Available at: http://www.legislation.gov.uk/ssi/2010/434/introduction/made (accessed 29/03/2017)

<sup>82</sup> Forestry Commission Scotland (2009) The Scottish Government's Policy on Control of Woodland Removal [online] Available at: https://www.forestry.gov.uk/pdf/fcfc125.pdf/\$file/fcfc125.pdf (accessed 26/02/2018)

<sup>83</sup> SNH (2015) Scotland's National Peatland Plan - Working for our future [online] Available at: https://www.nature.scot/sites/default/files/2017-07/A1697542%20-%20150730%20-%20peatland\_plan.pdf (accessed 26/02/2018)

<sup>84</sup> Nature Conservation (Scotland) Act 2004, asp 6 [online] Available at: <a href="http://www.legislation.gov.uk/asp/2004/6/introduction">http://www.legislation.gov.uk/asp/2004/6/introduction</a> (accessed 26/02/2018)

<sup>85</sup> Scottish Government (2018) Scottish Rural Development Programme (SRDP) 2014-2020 [online] Available at: http://www.gov.scot/Topics/farmingrural/SRDP (accessed 27/02/2018)

<sup>86</sup> Forestry Commission (2009) The Scottish Government's Rationale for Woodland Expansion [online] Available at: http://scotland.forestry.gov.uk/images/corporate/pdf/ForestExpansion.pdf (accessed 26/02/2018)

<sup>87</sup> FCS (2006) The creation of small woodlands on farms [online] Available at: http://scotland.forestry.gov.uk/images/corporate/pdf/small-woodlands-on-farms.pdf (accessed 26/02/2018)

<sup>88</sup> United Nations (undated) Convention on Biodiversity [online] Available at: http://www.un.org/en/events/biodiversityday/convention.shtml (accessed 26/02/2018)

<sup>89</sup> Convention on Biological Diversity (1992) Text of the Convention [online] Available at: https://www.cbd.int/convention/text/ (accessed 26/02/2018)

<sup>90</sup> United Nations (undated) Convention on Biodiversity [online] Available at: http://www.un.org/en/events/biodiversityday/convention.shtml (accessed 26/02/2018)

<sup>91</sup> Convention on Biological Diversity (2010) Aichi Biodiversity Targets [online] Available at: https://www.cbd.int/sp/targets/default.shtml (accessed 29/03/2017)

<sup>92</sup> Scottish Government (2013) 2020 Challenge for Scotland's Biodiversity: A Strategy for the conservation and enhancement of biodiversity in Scotland [online] Available at: http://www.gov.scot/Resource/0042/00425276.pdf (accessed 29/03/2017)

<sup>93</sup> European Commission (2011) The European Biodiversity Strategy to 2020 [online] Available at: <a href="http://ec.europa.eu/environment/nature/info/pubs/docs/brochures/2020%20Biod%20brochure%20final%20lowres.pdf">http://ec.europa.eu/environment/nature/info/pubs/docs/brochures/2020%20Biod%20brochure%20final%20lowres.pdf</a> (accessed 29/03/2017)

<sup>&</sup>lt;sup>94</sup> Scottish Government (2004) Scotland's Biodiversity Strategy: It's in Your Hands – A strategy for the conservation and enhancement of biodiversity in Scotland [online] Available at: <a href="http://www.scotland.gov.uk/Publications/2004/05/19366/37239">http://www.scotland.gov.uk/Publications/2004/05/19366/37239</a> (accessed 26/10/2015)

<sup>95</sup> Scottish Government (2015) Scotland's Biodiversity - a route map to 2020 [online] Available at: http://www.gov.scot/Publications/2015/06/8630 (accessed 26/02/2018)

<sup>&</sup>lt;sup>96</sup> European Commission (1992) The Habitats Directive [online] Available at: http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index\_en.htm (accessed 29/03/2017)

<sup>&</sup>lt;sup>97</sup> European Commission (2009) The Birds Directive [online] Available at: <a href="http://ec.europa.eu/environment/nature/legislation/birdsdirective/index\_en.htm">http://ec.europa.eu/environment/nature/legislation/birdsdirective/index\_en.htm</a> (accessed 29/03/2017)

<sup>98</sup> Scottish Government (2016) Natura 2000 [online] Available at: <a href="http://www.gov.scot/Topics/Environment/Wildlife-Habitats/protectedareas/NATURA">http://www.gov.scot/Topics/Environment/Wildlife-Habitats/protectedareas/NATURA</a> (accessed 29/03/2017)

<sup>99</sup> Scottish Natural Heritage (2016) Sites of Special Scientific Interest [online] Available at: <a href="http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/national-designations/sssis/">http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/national-designations/sssis/</a> (accessed 29/03/2017)

<sup>100</sup> Nature Conservation (Scotland) Act 2004, asp 6 [online] Available at: http://www.legislation.gov.uk/asp/2004/6/introduction (accessed 26/02/2018)

The Wildlife and Countrys     assessed for their potential	side Act promotes the protection of wildlife, the countryside, National Parks, and the designation of protected areas and public rights of way <sup>101</sup> . It requires tree work and work in woodland are carefully risks to wildlife.
Soil policy	• The importance of soil protection has been recognised at the European level in the form of the European Commission's <b>Thematic Strategy for Soil Protection</b> <sup>102</sup> . The Strategy is founded on the principles of preventing further soil degradation and safeguarding its functions, ensuring responsible soil use and management patterns, mitigating the effects of human activities and environmental phenomena on soil condition, as well as restoring degraded soils to an acceptable level.
	• Many of these aims are shared by the <b>Scottish Soil Framework</b> , which places the sustainable management of soils within the context of the economic, social, and environmental needs of Scotland <sup>103</sup> . The Framework identifies 13 key soil outcomes such as protecting soil biodiversity, reducing and remediating soil erosion, and tackling greenhouse gas emissions.
	• Peatland receives particular consideration under the <b>National Peatland Plan</b> , which aims to secure the sustainable use, management, and restoration of peatlands, including priority habitat bog woodland <sup>104</sup> .
	• At present, there is no legislative or policy tool developed specifically for the protection of soil in Scotland <sup>105</sup> . However, designations and their associated management agreements and operations often extend protection to soil as a means of enhancing the biodiversity, geodiversity, landform value, and cultural resources of the site <sup>106</sup> . For example, <b>SSSI</b> are notified to protect areas of land and water that best represent Scotland's natural heritage in terms of its flora, fauna, geology, geomorphology, and/or a mixture of these natural features <sup>107</sup> .
Water policy	• The EU's <b>Water Framework Directive</b> ( <b>2000/60/EC</b> ) (WFD) was introduced as a more comprehensive approach to managing and protecting Europe's water bodies including rivers, lochs, transitional waters, coastal waters, and groundwater resources <sup>108</sup> . The WFD sets out a requirement for an assessment of both chemical and ecological criteria and has a goal of bringing all European waters to 'Good' status.
	• Scotland fulfils its water protection obligations under the WFD primarily through the Water Environment and Water Services (Scotland) Act 2003 <sup>109</sup> (The WEWS Act) which defines the establishment of River Basin Management Plans <sup>110</sup> , and the Water Environment (Controlled Activities) (Scotland) Regulations 2011 <sup>111</sup> . The WEWS Act established river basin planning in Scotland, except for the Solway Tweed area which is covered by separate legislation, Water Environment (Water Framework Directive) (Solway Tweed River Basin District) Regulations 2004 due to its cross-border nature. Other relevant legislation includes the Pollution Prevention and Control (Scotland) Regulations 2012, which applies specifically to pollution originating from industry discharges <sup>112</sup> .
	• The EU Floods Directive (2007/60/EC) <sup>113</sup> is implemented at the national level through the Flood Risk Management (Scotland) Act 2009 <sup>114</sup> . The Directive mandates the creation of flood risk management plans for all inland and coastal areas at risk of flooding, integrating their development and employment with existing River Basin Management Plans. Flood risk management plans are designed to minimise negative impacts due to flooding on a range of receptors, including human health, the environment, and cultural heritage.
Cultural Heritage policy	National cultural heritage objectives are set out in legislation including the <b>Historic Environment (Amendment) (Scotland) Act (2011)</b> The Act builds upon existing legislation pertaining to ancient monuments and listed buildings as well as providing for the creation of inventories of gardens and designed landscapes, as well as obstitlefields. Specifically, the 2011 Act amends the Historic Buildings and Ancient Monuments Act 1953 <sup>116</sup> and modifies the Ancient Monuments and Archaeological Areas Act 1979 <sup>117</sup> as well as the Planning (Listed Buildings and Conservation) (Scotland) Act 1997 <sup>118</sup> .
	Our Place in Time – The Historic Environment Strategy for Scotland, published in 2014, lays out a 10 year vision for Scotland's historic environment 119. The vision is founded upon the fundamental aims of understanding, protecting, and valuing our historic environment, ensuring it continues to benefit Scotland's wellbeing through its cultural, social, environmental, and economic contributions. The Strategy and the Historic Environment Scotland Policy Statement 20 set out an overarching framework for historic environment policy in Scotland.
	Other relevant policies include National Planning Framework 3 <sup>121</sup> and Scottish Planning Policy, Historic Environment Circular 1 <sup>122</sup> , and Historic Environment Scotland's Managing Change in

<sup>&</sup>lt;sup>101</sup> Wildlife and Countryside Act 1981, Chapter 69 [online] Available at: <a href="https://www.legislation.gov.uk/ukpga/1981/69">https://www.legislation.gov.uk/ukpga/1981/69</a> (accessed 26/02/2018)

 $<sup>102 \ \</sup>text{European Commission} \ \ (2006) \ \text{Thematic Strategy for Soil Protection [online] Available at:} \ \underline{\text{http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52006DC0231}} \ \ \ \ (\text{accessed 29/03/2017})$ 

<sup>&</sup>lt;sup>103</sup> Scottish Government (2009) The Scottish Soil Framework [online] Available at: <a href="http://www.gov.scot/Publications/2009/05/20145602/0">http://www.gov.scot/Publications/2009/05/20145602/0</a> (accessed 29/03/2017)

<sup>104</sup> SNH (2015) Scotland's National Peatland Plan – Working for our future [online] Available at: https://www.nature.scot/sites/default/files/2017-07/A1697542%20-%20150730%20-%20peatland\_plan.pdf (accessed 26/02/2018)

<sup>105</sup> Scottish Government (2009) The Scottish Soil Framework [online] Available at: <a href="http://www.gov.scot/Publications/2009/05/20145602/0">http://www.gov.scot/Publications/2009/05/20145602/0</a> (accessed 21/11/2017)

<sup>&</sup>lt;sup>106</sup> ibid

<sup>107</sup> SNH (2017) Sites of Special Scientific Interest [online] Available at: <a href="https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/protected-areas-and-species/protected-areas-national-designations/sites-special-scientific-interest">https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/protected-areas-and-species/protected-areas-national-designations/sites-special-scientific-interest</a> (accessed 24/01/2017)

<sup>108</sup> European Commission (2000) Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy [online] Available at: <a href="http://eur-lex.europa.eu/legal-content/ENTXT/?uri=CELEX:32000L0060">http://eur-lex.europa.eu/legal-content/ENTXT/?uri=CELEX:32000L0060</a> (accessed 27/11/2017)

<sup>109</sup> Water Environment and Water Services (Scotland) Act 2003, asp 3 [online] Available at: http://www.legislation.gov.uk/asp/2003/3/pdfs/asp 20030003 en.pdf (accessed 21/11/2017)

<sup>110</sup> SEPA (2016) River Basin Management Planning [online] Available at: <a href="http://www.sepa.org.uk/environment/water/river-basin-management-planning/">http://www.sepa.org.uk/environment/water/river-basin-management-planning/</a> (accessed 21/11/2017)

<sup>111</sup> The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended), SSI No. 206 [online] Available at: http://www.legislation.gov.uk/ssi/2011/209/pdfs/ssi 20110209 en.pdf (accessed 21/11/2017)

The Pollution Prevention and Control (Scotland) Regulations 2012, SSI No. 306 [online] Available at: <a href="http://www.legislation.gov.uk/ssi/2012/360/introduction/made">http://www.legislation.gov.uk/ssi/2012/360/introduction/made</a> (accessed 21/11/2017)

<sup>&</sup>lt;sup>113</sup> European Commission (2007) The EU Floods Directive [online] Available at: <a href="http://ec.europa.eu/environment/water/flood\_risk/">http://ec.europa.eu/environment/water/flood\_risk/</a> (accessed 21/06/2017)

<sup>114</sup> Flood Risk Management (Scotland) Act 2009, asp 6 [online] Available at: <a href="http://www.legislation.gov.uk/asp/2009/6/pdfs/asp">http://www.legislation.gov.uk/asp/2009/6/pdfs/asp</a> 20090006 en.pdf (accessed 21/06/2017)

<sup>115</sup> Historic Environment (Amendment) (Scotland) Act (2011), asp 3 [online] Available at: http://www.legislation.gov.uk/asp/2011/3 (accessed 29/03/2017)

<sup>116</sup> Historic Buildings and Ancient Monuments Act 1953, Chapter 49 [online] Available at: http://www.legislation.gov.uk/ukpga/1953/49/pdfs/ukpga 19530049 en.pdf (accessed 29/03/2017)

<sup>&</sup>lt;sup>117</sup> Ancient Monuments and Archaeological Areas Act 1979, Chapter 46 [online] Available at: <a href="http://www.legislation.gov.uk/ukpga/1979/46">http://www.legislation.gov.uk/ukpga/1979/46</a> (accessed 29/03/2017)

<sup>118</sup> Planning (Listed Buildings and Conservation) (Scotland) Act 1997, Chapter 9 [online] Available at: http://www.legislation.gov.uk/ukpga/1997/9/introduction (accessed 29/03/2017)

<sup>119</sup> Scottish Government (2014) Our Place in Time - The Historic Environment Strategy for Scotland [online] Available at: http://www.gov.scot/Publications/2014/03/8522/0 (accessed 03/07/2017)

<sup>120</sup> Historic Environment Scotland (2016) Historic Environment Scotland Policy Statement June 2016 [online] Available at: <a href="https://www.historicenvironment.scot/archives-and-research/publications/publication/?publication/?publication/public

	the Historia Environment quidance note series 123
	the Historic Environment guidance note series <sup>123</sup> .
	• Scotland's Woodlands and the Historic Environment communicates the forestry sector's shared understanding of how forests and woodlands contribute towards Scotland's historic environment and cultural heritage 124. It outlines the practical measures the forestry sector can take to ensure its activities enhance the stewardship of the historic environment.
Landscape policy	• The European Landscape Convention strives to promote landscape protection, management, and planning as well as achieve a more concerted approach to addressing landscape issues at the European scale <sup>125</sup> . The Convention presents a highly inclusive definition of landscape, specifying that protection and enhancement activities should apply equally to both 'outstanding' as well as less remarkable or degraded landscapes. This definition encompasses natural, rural, urban, and peri-urban landscapes across land, marine, and inland water environments.
	• At a national level, the role of Scotland's natural heritage and landscapes in informing land use planning is set out in <b>Scottish Planning Policy</b> 126. Additionally, the <b>National Planning Framework 3</b> acknowledges the multiple benefits we derive from landscapes, such as improved human health and wellbeing as well as contributions to our quality of life 127. Both Scottish Planning Policy and National Planning Framework 3 also give significant protection to wild land areas 128.
	• SNH's Landscape Policy Framework strives to 'safeguard and enhance the distinct identity, the diverse character, and the special qualities of Scotland's landscapes as a whole' 129.
	• 'The right tree in the right place – Planning for forestry and woodlands' provides Scottish Government advice to planning authorities on planning for forestry and woodlands <sup>130</sup> . Development should consider how existing woodlands factor into local landscape character and value, while also recognising the potential contribution of future woodland creation, restructuring, and in exceptional cases removal, to landscape <sup>131</sup> . The Scottish Government has a number of measures designed to protect woodland. This is principally articulated through the Scottish Government's policy on the control of woodland removal, which places a strong presumption against the removal of any woodland.
	Scottish Planning Policy states that the planning system should protect and enhance ancient woodland as an important and irreplaceable resource together with other native or long established woods, hedgerows and individual trees. Tree Preservation Orders can be used to protect individual trees and groups of trees considered important for amenity or their cultural or historic interest. Development Plans should identify woodlands of high nature conservation value and include policies for protecting them and enhancing their condition and resilience to climate change.
	Under the forthcoming Planning Bill, Scottish Planning Policy will be given new statutory status as part of the Development Plan. Scottish Planning Policy is expected to be reviewed in parallel with preparation for National Planning Framework 4, which is expected to commence in 2018 with a view to adoption in 2020.
	• In addition The Scottish Plant Health Strategy <sup>132</sup> sets out the Scottish Government's approach to the protection of the health of plants (agricultural and horticultural crops, plants in parks and gardens, forestry and the natural environment) in Scotland.

<sup>121</sup> Scottish Government (2014) National Planning Framework 3: A Plan for Scotland: Ambition, Opportunity, Place and Scottish Planning Policy [online] Available at: <a href="http://www.gov.scot/Topics/Built-Environment/planning/NPF3-SPP-Review/NPF3">http://www.gov.scot/Topics/Built-Environment/planning/NPF3-SPP-Review/NPF3</a> (accessed 29/03/2017)

<sup>122</sup> Historic Environment Scotland (2016) Historic Environment Circular 1 [online] Available at: <a href="https://www.historicenvironment.scot/archives-and-research/publications/publicatio

<sup>123</sup> Historic Environment Scotland (undated) Managing Change in the Historic Environment: Guidance notes [online] Available at: <a href="https://www.historicenvironment-scot/advice-and-support/planning-and-guidance/legislation-and-guidance/managing-change-in-the-historic-environment-guidance-notes/">https://www.historicenvironment.scot/advice-and-support/planning-and-guidance/legislation-and-guidance/managing-change-in-the-historic-environment-guidance-notes/</a> (accessed 29/03/2017)

<sup>124</sup> Forestry Commission Scotland (2008) Scotland's Woodlands and the Historic Environment [online] Available at: <a href="http://scotland.forestry.gov.uk/images/corporate/pdf/fcfc123.pdf">http://scotland.forestry.gov.uk/images/corporate/pdf/fcfc123.pdf</a> (accessed 26/02/2018)

<sup>125</sup> European Landscape Convention (2000) Text of the ELC [online] Available at: https://rm.coe.int/1680080621 (accessed 21/11/2017)

<sup>&</sup>lt;sup>126</sup> Scottish Government (2014) Scottish Planning Policy [online] Available at: <a href="http://www.gov.scot/Publications/2014/06/5823">http://www.gov.scot/Publications/2014/06/5823</a> (accessed 03/07/2017)

<sup>127</sup> Scottish Government (2014) National Planning Framework 3: A Plan for Scotland: Ambition, Opportunity, Place and Scottish Planning Policy [online] Available at: <a href="http://www.gov.scot/Publications/2014/06/3539">http://www.gov.scot/Publications/2014/06/3539</a> (accessed 03/07/2017)

<sup>128</sup> SNH (2012) Landscape policy: wild land [online] Available at: <a href="https://www.snh.scot/professional-advice/landscape-change/landscape-policy-and-guidance/landscape-policy-wild-land">https://www.snh.scot/professional-advice/landscape-change/landscape-policy-and-guidance/landscape-policy-wild-land</a> (accessed 21/11/2017)

<sup>129</sup> SNH (2005) Statement: SNH's Landscape Policy Framework [online] Available at: http://www.snh.org.uk/pdfs/polstat/Landscapepolicy.pdf (accessed 21/11/2017)

<sup>130</sup> Forestry Commission Scotland (2010) The right tree in the right place - Planning for forestry and woodlands [online] Available at: <a href="http://scotland.forestry.gov.uk/images/corporate/pdf/fcfc129.pdf">http://scotland.forestry.gov.uk/images/corporate/pdf/fcfc129.pdf</a> (accessed 26/02/2018)

<sup>&</sup>lt;sup>131</sup> ibid

<sup>132</sup> http://www.gov.scot/Publications/2016/03/7136

## Appendix D: Relevant Baseline Information

Environmental Topic	Baseline Information	Key Data	Trends	Source
Biodiversity, flora, and fauna	Forest and woodland cover (2017)	1 440 000ha (18% of Scotland's land area)	forest and woodland cover has <b>increased</b> over the 20 <sup>th</sup> century from 351 000ha in 1905 to 656 000ha in 1965 to 1 281 000ha in 1995-99	Forestry Commission - Forestry Statistics 2017
	New planting (2016-2017)	4 800ha planted (73% of UK total amount)	new planting has <b>decreased</b> since 2012-2013 (7 000ha)	see above
	New planting by ownership (2016-2017)	1 100ha Forestry Commission	private sector new planting has decreased (e.g. 6 200ha in 2012-2013) but has remained greater than Forestry Commission new planting (e.g. 800ha in 2012-2013)	see above
		3 700ha private sector		
	New planting by forest type (2016-2017)	3 200ha conifers	broadleaf planting has decreased considerably to become less extensive than conifer planting, which	see above
	,	1 500ha broadleaves	has increased	
	Woodland area by ownership (2017)	470 000ha (33%) owned by FC; 970 000ha (67%) owned by the private sector	these proportions have been fairly <b>stable</b> since 2013	see above
	Species composition (2017)	74% conifers (1 061 000ha)	no trend data available	see above
		26% broadleaved species (378 000ha)		
	Native woodland cover (2013)	319 100ha (22.5% of Scotland's total woodland area as of March 2011 and roughly 4.0% of Scotland's total land area)	native woodland cover <b>decreased</b> during the 20 <sup>th</sup> century but began to <b>recover</b> after 1985 in response to policy changes	Forestry Commission - Native Woodland Survey of Scotland; SNH - Natural Heritage Trends - Forest and woodland: native woodland
	Condition (2013)	46% found to be in satisfactory condition	overall, conditions are <b>stable</b> or <b>declining</b> , with some areas exhibiting improvements and others declining	see above; Scotland's Environment – Woodlands and forests
	Ancient woodland cover (2013)	120 305ha (65%/64 130ha of these ancient woodlands qualify as native woodland, comprising 20.6% of native woods in total and just 4.6% of all woodlands in Scotland)	as compared to previous surveys (i.e. Scottish Ancient Woodland Inventory), ancient woodland cover appears to have decreased	see above
	Condition (2013)	40% found to be in satisfactory condition	no trend data available	see above
	Scotland Biodiversity List woodland habitats	lowland mixed deciduous, native pine woodlands, upland birchwoods, upland mixed ashwoods, upland oakwood, wet woodland, wood pasture and parkland		Scottish Government - Scottish Biodiversity List
	Designated protected areas (2016)	1 423 Sites of Special Scientific Interest (SSSI), 51 Ramsar sites, 153 Special Protection Areas (SPAs), 249 Special Areas of Conservation (SAC)		SNH - Protected areas
	Condition of notified species National Indicator (SSSI, Ramsar, SPA, SAC) (2016)	71% of all species features were in favourable condition; 3% were unfavourable recovering; 3% were unfavourable with corrective measures agreed; and 24% were in an unfavourable condition	considered to be in <b>stable</b> condition	SNH Biodiversity Indicator S010 – Condition of notified species

Environmental Topic	Baseline Information	Key Data	Trends	Source
		the percentage of species features that were favourable or unfavourable recovering were:  • 88% of terrestrial mammals; 72% of birds;		
		<ul> <li>76% of fish; 57% of marine mammals; 50% of amphibians and reptiles;</li> </ul>		
		<ul> <li>100% dragonflies; 87% of butterflies; 82% of other invertebrates; and</li> </ul>		
		<ul> <li>82% of vascular plants; 65% of non-vascular plants</li> </ul>		
	Condition of notified habitats national indicator (SSSI, Ramsar, SPA, SAC) (2016)	53% of woodlands were favourable/unfavourable recovering	considered to be in <b>stable</b> condition	SNH Biodiversity Indicator S011 – Condition of notified habitats
	Index of abundance of terrestrial breeding birds national indicator (woodland species) (2014)	163	this figure reflects a <b>significant increase</b> (63%) since 1994	SNH Biodiversity Indicator S003 – Abundance of terrestrial breeding birds
Soil	Characteristics	in general, Scotland's soils are young, acidic, carbon rich, and nutrient poor compared to those found elsewhere in UK and mainland Europe		SEPA - Making the Case for the Environment: Soil
	Condition (2014)	Scotland's soils are considered to be in good condition	no trend data available	Scotland's Environment - State and Trend Assessment
	Main soil types	podzols (associated with coniferous woodland), brown earths (associated with semi-natural woodlands to the west), gleys, organic peat soils		The James Hutton Institute - Soils - Introduction
	Spatial extent of peat soils (2015)	peat soils cover 22% of Scotland's land area, mostly to the north and on the islands of Lewis and Shetland		SEPA - Making the Case for the Environment: Soil
	Condition of peat soils (2018)	it is estimated that over 80% of peat soils are degraded	certain peat soils are considered to be <b>improving</b> due to focused restoration efforts	Scotland's Soils - Peatland Restoration; ClimateXChange - NB22a Peatland restoration area
	Carbon uptake by peat soils (2018)	estimated at 0.018 Mt CO <sub>2</sub> e/year	by 2027, carbon uptake by peat soils could <b>increase</b> to 1.5-5.4 Mt CO₂e/year if all degraded peatlands were immediately restored	ClimateXChange – Soil Carbon and Land Use in Scotland
	Soil carbon storage (2011)	3 000 million tonnes (roughly 50% of the UK total)	this figure has remained relatively <b>stable</b> over time, although there may be small changes in individual land use categories over short time periods	see above
Water	Water bodies in Scotland	125 000km of river, 25 500 lochs (2 000km²), 49 estuaries (1 000km²), 19 000 km of coastline (48 000km²), and 462 000km² of offshore waters; additionally, significant volumes of groundwater (greater than rivers and lochs combined)		Key Scottish Environment Statistics 2016; BGS/SEPA - Scotland's aquifers and groundwater bodies
	Condition (2014)	Rivers: nearly half now reported as being in good condition or better	conditions are considered to be <b>stable</b> or <b>improving</b>	Scotland's Environment - State and Trend Assessment
		Lochs: almost two-thirds are in good or high condition	conditions are considered to be stable or improving	
		Estuaries: 85% are in good or high environmental condition	conditions are considered to be improving	
		Coastal waters: 97% are in good or high condition	conditions are considered to be stable or declining	
		Groundwater: more than 80% in good condition	no trend data available	
	Flood risk (2015)	1 in 22 homes and 1 in 13 businesses are at risk from flooding	episodes of flooding are expected to become <b>more common</b> and <b>severe</b> in response to climate change	SEPA - Flood risk management in Scotland; Committee on Climate Change - Scottish Climate Change Adaptation Programme: An independent

Environmental Topic	Baseline Information	Key Data	Trends	Source
				assessment for the Scottish Parliamen
Climatic factors	Greenhouse gas emissions* (EU ETS adjusted) (2015)  * includes carbon dioxide, methane, and nitrous oxide (1990 baseline) and hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride, and nitrogen trifluoride (1995 baseline)	45.5 MtCO₂e	41.0% <b>reduction</b> from 1990/1995 baseline	Scottish Government - Scottish Greenhouse Gas Emissions 2015
	Greenhouse gas emissions by forestry sector (2015)	-7.0 MtCO₂e (i.e. net emissions removal)	absorption by forestry is likely to <b>fall</b> over the coming decades due to low planting and forests maturing	see above; SPICe - Scottish Forestry
	Mean annual temperature (2016)	7.83°C	in general, temperatures have been <b>increasing</b> ; eight of the ten warmest years on record in Scotland have occurred since 2001; the average temperature in the 2000s was 0.90°C warmer than the 1961-1990 average and warmer than any other decade since records began in 1910	Scottish Government temperature data (Metadata: Met Office); Key Scottish Environment Statistics 2016 (Metadata: Met Office)
	Mean annual precipitation (2015)	2015 was the second wettest year since records began in 1910 with precipitation recorded at 33.3% above the 1961-1990 baseline	records show an overall <b>increase</b> in rainfall since the 1980s over previous decades, but there is <b>seasonal</b> and regional variation	Key Scottish Environment Statistics 2016 (Metadata Met Office)
	Climate projections for Scotland	in general, projections suggest observed climate trends will continue and intensify in the future. These include:  • projected increases in mean annual temperature by the 2080s for Scottish regions range from 1.6°C to 4.5°C, with central estimates between 2.6°C and 3.0°C;  • drier summers and wetter winters;  • more seasonal rainfall; and  • increased risk of flood, drought, and extreme weather events		see above
Historic and cultural heritage	Condition (2014)	Scotland's historic environment is considered to be in moderate condition	conditions are considered to be <b>stable</b>	Scotland's Environment - State and Trend Assessment
	Percentage of pre-1919 dwellings classified as having disrepair to critical elements national indicator (2016)	67%	this is a <b>reduction</b> from a peak of 80% in 2012	Scottish Government - Improve the state of Scotland's historic sites National Indicator
	Designations (2018)	6 World Heritage sites, 8 167 scheduled monuments, 377 gardens and designed landscapes, and 663 conservation areas		Historic Environment Scotland – Listing, scheduling and designations
	Archaeological features associated with Scotland's woodlands	approximately 25 000		Forestry Commission Scotland – Scotland's woodlands and the historic environment
	Examples of historical woodland features	wood banks, charcoal platforms, saw pits, park pale, ancient coppice stools, veteran trees		Forestry Commission – Archaeology OF wooded environments
	Records of non-designated historic assets (2015)	320,000 records of historic assets. This is information on historic environment assets that are not necessarily nationally important or legally protected,		Scotland's Environment - People and the environment historic environment

Environmental Topic	Baseline Information	Key Data	Trends	Source
		but nonetheless contribute to Scotland's overall historic environment. Based on data in the Canmore database around 93% of archaeological sites and monuments recorded in Canmore are undesignated		
Material assets	Main types of land use (2014)	Agriculture (~70%), woodland (~18%), urban (~2.5%)	thousands of years ago, <b>woodland</b> cover was the dominant land use type; over time, this <b>decreased</b> to make way for agriculture, which today greatly surpasses all other types of land use, although <b>agricultural land</b> has <b>decreased</b> in area from 1982, likely due to woodland and urban expansion	Scotland's Environment – Land use and management
	Key land-based industries	agriculture (crops and livestock), forestry, sporting (e.g. deer management), food and drink, mining and aggregate extraction, energy, tourism		see above
	Agricultural land use in Scotland (2016)	~50% rough grazing; ~25% grass; ~10% used for crops or left fallow; ~15% used for woodland, ponds, yards, or other uses	since 2000, these proportions have remained relatively <b>stable</b> ; however, the NA2 Area of Prime Agricultural Land (Land Capability) Indicator suggests a long-term trend towards an <b>increase in prime agricultural land</b> in response to climate change (e.g. warmer, drier summers)	Scottish Government – Agricultural Land Use in Scotland; Scottish Government Rural and Environment Analytical Services – Economic Trends in Scottish Agriculture; ClimateXChange – NA2 Area of Prime Agricultural Land (Land Capability) Indicated
	Area of woodland on farms (2016)	502 400ha	woodland on farms has <b>increased</b> in area since 2007 (279 900ha)	Forestry Commission - Forestry Statistics 2017
	Extent of built development landscape national indicator (2009)	122 498ha (1.55% of Scotland's land area)	no trend data available	SNH Landscape Indicator LBD1 – Extent of Built Development
	Waste sent to landfill (2014)	4.02 million tonnes	42% <b>reduction</b> from 2005	Key Scottish Environment Statistics 2016 (Metadata SEPA)
	Amount of Biodegradable Municipal Waste (BMW) sent to landfill (2014)	1.06 million tonnes	51% <b>reduction</b> from 2005	see above
	Household waste recycling rate (2015)	44.2%	increase from 42.8% in 2014	see above
	Timber harvesting (2016)	8.4 million m <sup>3</sup>	timber harvesting has <b>increased</b> relatively steadily over the past 35 years, with current volumes roughly seven times those of the late 1970s	Forestry Commission - Forestry Statistics 2017
	Restocking in Scotland (2016-2017)	11,100ha		see above
	Restocking by ownership (2016-2017)	6,700ha Forestry Commission		see above
		4,400ha private sector		
	Restocking by forest type (2016-2017)	9,100ha conifers		see above
	, ,	2,000ha broadleaves		
	Non-timber forest products	more than 200, including wild and managed game; berries, mushrooms, and other edible plants; medicinal plants; foliage, seeds, bark, and resins; dyes and craft materials		ForestHarvest website
Landscape	Condition (2014)	Scotland's rocks and landforms considered to be in generally good condition	conditions are considered to be <b>stable</b> or <b>declining</b>	Scotland's Environment – Rocks and landforms

Environmental Topic	Baseline Information	Key Data	Trends	Source
	Geoparks	3 (10% of Scotland's total land area)		
	Wild land areas	42 (mostly in the north and west)		SNH - Wild Land Area descriptions
	Area of National Landscape Designations national indicator (2016)	<ul> <li>25.2% (1,988,000ha) of land was covered by one or more form of landscape designation;</li> <li>17.5% (1,381,100ha) of land and sea was designated as National Scenic Area (13% of Scotland's land was designated as National Scenic Area, mostly found in more remote and mountainous areas).</li> <li>8.1% (639,100ha) of land was designated as National Parks;</li> <li>1.0% (76 500ha) of land was of Inventory of Gardens &amp; Designed Landscapes status;</li> <li>0.3% (27,000ha) of land was of Battlefields Inventory status;</li> <li>0.2% (18,300ha) of land was of land was scheduled as Scheduled Monuments</li> </ul>	increase from approximately 17% in 1996, due in large part to designation of Cairngorms and Loch Lomond & the Trossachs National Parks	SNH Landscape Indicator LLQ1 0 Area of National Landscape Designations
	Visual influence of built development national indicator* (2013)  * The components that make up this indicator are: Airfields; Major bridges; Extraction industries; Offshore	one or more types of built development could be seen from 73% (5,750,855ha) of Scotland's land area (7,880,880ha)	this represents an increase from 71.4% in 2012 and from 65.4% in 2008	SNH Natural Heritage Indicator N3 - Visual influence of built environment
	surface structures; Wind Turbines; Tall structures without wind turbines; Building density (low and high); Motorways; Trunk roads; Non trunk A roads; B Roads; Minor roads and tracks (all); Railways; Overhead lines			

## Appendix E: Analysis of Consultation Authorities responses to the Scoping Report

Consultation period for the Environmental Report  Approach to the assessment  We in T prin second	In the basis of the information provided, we are content with this approach proposed for the assessment. However, we have provided one comments on the scope and level of detail of the assessment in the attached annex.  I've note that the historic environment has been scoped in.  I've note the information provided on consultation and next steps. However, it would be beneficial if the timescales for consultation on the Environmental Report could be confirmed.  I've ease note that, for administrative purposes, we consider that the consultation period commences on receipt of the relevant focuments by the SEA Gateway.  I've welcome the inclusion of cultural heritage within the scope of the assessment. However, we note the reasons for inclusion set out Table 2 (proposed scoping in/out of SEA topics). We consider that the focus of likely impacts on the historic environment as relating	Noted.  The Consultation Authorities have been notified via the SEA Gateway on 9th August 2018 that the consultation period will be 8 weeks.  Noted. Potential effects have been considered
Consultation period for the Environmental Report  Approach to the assessment  We in T prin second	ome comments on the scope and level of detail of the assessment in the attached annex.  The note that the historic environment has been scoped in.  The note the information provided on consultation and next steps. However, it would be beneficial if the timescales for consultation on the Environmental Report could be confirmed.  The ease note that, for administrative purposes, we consider that the consultation period commences on receipt of the relevant occuments by the SEA Gateway.  The welcome the inclusion of cultural heritage within the scope of the assessment. However, we note the reasons for inclusion set out	The Consultation Authorities have been notified via the SEA Gateway on 9th August 2018 that the consultation period will be 8 weeks.
Environmental Report the Ple door  Approach to the assessment We in T prin second	e Environmental Report could be confirmed.  ease note that, for administrative purposes, we consider that the consultation period commences on receipt of the relevant ocuments by the SEA Gateway.  The welcome the inclusion of cultural heritage within the scope of the assessment. However, we note the reasons for inclusion set out	the SEA Gateway on 9 <sup>th</sup> August 2018 that the consultation period will be 8 weeks.
in T prin sec		Noted Potential effects have been considered
furti	imarily to impacts on ancient and semi-natural woodlands as being too narrow. We note that setting is referred to as a possible econdary impact to the historic environment under the landscape category. However, both the felling and restocking of trees have the otential to have a direct impact on the historic environment.  ee felling and restocking operations have the potential to have a direct impact on archaeology through disturbance and to create or rther disturbance through bioturbation by tree roots. Impacts on setting should be considered as direct due to the potential for effects	accordingly within this Environmental Report.
	the cultural significance of archaeological sites. We recommend that the assessment of effects takes a broader approach to onsidering impacts on archaeology.	
	e note the proposed objectives and assessment questions. We recommend that the assessment questions are broadened to include ovision for potential effects on both site and setting of archaeological sites and monuments.	Noted. Consideration of these issues has been included in the assessment but the assessment methodology has been changed to reflect the nature of the proposals.
environmental baseline (SP app atta	e note the policy context for cultural heritage as set out in paragraphs 4.3.14 – 17. We note the reference to Scottish Planning Policy (PP) in paragraph 4.3.16. SPP makes provision for designated archaeological sites which it states should be preserved in situ and in oppopriate setting. We would highlight that Scottish Ministers' policy for scheduled monuments as set out in paragraph 145 of SPP taches equal weight to impacts in both site and setting and it is important that the assessment reflects this.	Noted and accounted for within the assessment.
	e would also highlight that SPP also makes provision for non-designated archaeological sites (paragraph 150) which it recommends e preserved in situ where feasible.	
	e recommend that Historic Environment Scotland's data is added to the list of information sources for the environmental baseline nich appears on page 27 of the Scoping Report.	The Scoping Report will not be updated but HES data has been used in the baseline of the
ass	e note the proposed baseline as set out in Figure 2 ( <i>Proposed Baseline</i> ). We recommend that the baseline gathered for the sessment reflects the policy context for the historic environment and takes into account the advice on the approach to the sessment as discussed above.	Environmental Report.
Consultation Authority - SEPA		
sen eler	e note that the scope of the assessment will be focussed on the proposal to make changes to volume exemptions for ancient and emi-natural woodlands. We are content with this approach as we recognise that it is a proportionate approach, focussing on the ements of the proposal which are deemed to have the potential to lead to significant environmental effects. We note, and welcome, at the remaining elements of the proposed changes will be brought into the assessment for consideration of cumulative effects.	Noted.
We	e note that in terms of our interests the SEA topics of biodiversity, soil and water have been scoped into the assessment (Table 2). e would however recommend widening the scope of the assessment to consider the following issues:  imatic factors  • We infer from the Scoping Report that there will be a presumption to restock and we are therefore particularly concerned that it is proposed to scope climatic factors out of the assessment. We would recommend that climatic factors is included in order to pick up issues associated with peat, acidification from sea-salt events and, risks from changes in distribution of invasive species / pathogens.	Climatic factors and material assets have been scoped into the assessment based on SEPA's advice to assess any possible effects. However, sea salt events, invasive species, energy requirements, forestry infrastructure and waste are considered to be beyond the remit of the proposal.
	<ul> <li>We would also highlight the note in Table 2 that trees and soil are intricately linked on the issues of soil condition and stability.         Any impacts on soil condition and stability could also have impacts on transfer of greenhouse gases (GHG), hence we would recommend including consideration of climatic factors in the assessment.     </li> </ul>	In terms of restocking locations (peat) and waste associated with felling and restocking, conditions are set on a case by case basis. Guidance is provided by the regulator on a case by case basis
	<ul> <li>You may also wish to give consideration to energy requirements associated with felling, restocking, haulage, and waste management activities, including the application of low carbon technologies.</li> <li>aterial assets</li> </ul>	and also operators should rely on the UKFS to some extent – but that is also likely to form part of the specific conditions in any case.

	<ul> <li>Infrastructure is an essential element of forestry activity. We would therefore recommend that you give consideration as to whether the proposals may result in significant effects on infrastructure elements such as forestry tracks, haulage routes, management of machinery (including transport) and oil storage.</li> </ul>	
	<ul> <li>We would also recommend that consideration of waste issues is included in the assessment. This should examine elements such as felling waste and management of brash; the potential cumulative impacts of waste are also likely to be particularly important.</li> </ul>	
Proposed methodology	Our comments on the proposed methodology reflect our recommendations above on expanding the scope of the assessment. We would recommend the following amendments / additions to the proposed methodology as set out in Table 3 ( <i>Proposed methodology: SEA objectives and assessment questions</i> ):  Soil	The assessment has considered these recommendations where they are of relevance to the proposals.
	All soils should be protected bearing in mind the impact of a degraded soil on issues such as water quality, flood risk and greenhouse gas emissions.	
	The proposed assessment questions should include reference to (i) protecting carbon stores and improving resilience to climate change through the protection and enhancement of soils, (ii) protecting and enhancing soil quality and the wider environment by reducing erosion and compaction, (iii) protecting and enhancing soils to act as a buffer to protect water against pollution, and (iv) protecting soil functionality.	
	<ul> <li>A specific question on peat and peatland restoration should be included to address issues around restocking in areas of deep peat.</li> </ul>	
	<ul> <li>Water</li> <li>The water objective should be amended to "Protect and improve the water environment". This is the statutory objective in the Water Framework Directive.</li> </ul>	
	Climatic factors	
	An objective should be framed around the reduction of existing and the avoidance of new GHG emissions.	
	The assessment questions should include reference to (i) the avoidance of disturbance of carbon rich soils, (ii) the promotion of restoration opportunities for peatlands, and (iii) the potential for low carbon technology to support felling, restocking, haulage and waste management activities.	
	Material assets	
	An objective should be framed around the sustainable use and management of material assets.	
	<ul> <li>The assessment questions should include reference to (i) sustainable use and management of existing infrastructure e.g. forestry roads, haulage routes and machinery, and (ii) creation and management of felling waste and brash.</li> </ul>	
Mitigation and monitoring proposals	We note that mitigation proposals are largely set within the context of existing standards and environmental Regulation. We would highlight the importance of considering the potential for multiple unregulated activities (e.g. those at too small a scale individually to fall within existing Regulations) to cumulatively result in effects of a significant nature. We would welcome this issue to be addressed in the ER.	This is considered to be outwith the scope of the proposed Regulations.
Reasonable alternatives	We note that as yet no reasonable alternatives have been developed. We would be pleased to provide input to the development of alternatives as you progress with the assessment.	SEPA have been invited to comment on the proposals via their representatives on the Regional Forestry Forums
Environmental baseline	We would highlight the following points for your information and / or clarification with regard to Figure 2 ( <i>Proposed Baseline</i> ):	Noted. The Scoping Report will not be updated
	The <u>Water Environment (Water Framework Directive) (Solway Tweed River Basin District) Regulations 2004</u> should also be included at paragraph 4.3.12. The Water Environment and Water Services (Scotland) Act 2003 established river basin planning in Scotland, except for the Solway Tweed area which is covered by separate legislation due to its cross-border nature.	but relevant information has been included in the baseline within this Environmental Report.
	<ul> <li><a href="http://soils.environment.gov.scot/">http://soils.environment.gov.scot/</a> contains relevant information on soils including soil maps and the carbon and peatland map 2016.</li> </ul>	
	<ul> <li>Our <u>SEA topic guidance</u> notes on air, soil, water, climatic factors and material assets include links to sources of baseline information which you may find relevant to this assessment.</li> </ul>	
Consultation Authority - SNH	•	
Approach to the assessment	I'm responding on behalf of Scottish Natural Heritage to let you know that we are satisfied with the Scoping approach to the assessment of the Regulations on Felling and Restocking, and don't require any further changes.	Noted.
Policy Content	While the actual assessment is still to be made, it's perhaps worth noting that while we are generally happy with the proposed changes, an aspect that does need further clarity is around diseased trees. Every tree disease is different, and we would caution against a blanket approach to 'diseased trees', perhaps focussing more on the felling of trees that are either a) dangerous, or b) necessary to fell in order to control the spread of that specific disease.	The Scottish Government are maintaining the exemption for Dutch Elm. The Scottish Government agree that there are many questions around diseased trees and that extending the

	exemption would require careful consideration
	although we have had no representations so far to
	extend it to any other disease.
	-

### Appendix F: Respondent information form



# **RESPONDENT INFORMATION FORM – Regulations on Felling and Restocking Consultation**

Please Note this form must be complete	ed and returned with your response.
Are you responding as an individual or a	an organisation?
	Individual
	Organisation
Full name or organisation's name	
Please specify organisation type (if appl	icable):
	Community group or organisation
	Third sector organisation
	Private sector organisation
	Academic or research organisation
Publi	c Body, including Local Government, Executive Agencies etc.
Other – please state	
Phone number Address	
Postcode	

Email	
The Scottish Government would like your permission to publish your consultation response. Please indicate your publishing preference:	
	Publish response with name
	Publish response only (without name)
	Do not publish response
We will share your response internally with other be addressing the issues you discuss. They may require your permission to do so. Are you conten in relation to this consultation exercise?	wish to contact you again in the future, but we
	Yes
	No
Information for organisations:	
The option 'Publish response only (without name)' is available for individual respondents only. If this option is selected, the organisation name will still be published.	
If you choose the option 'Do not publish response', your organisation name may still be listed as having responded to the consultation in, for example, the analysis report.	