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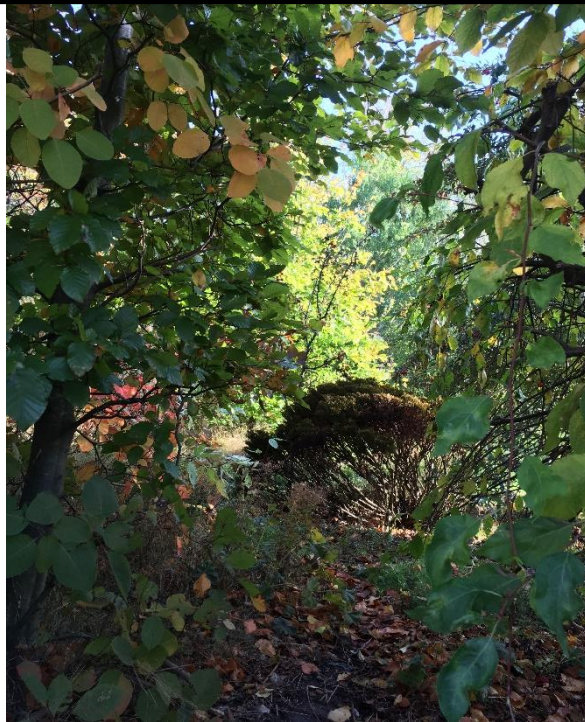
Supporting documents 1-2 and 4-6 for the Tree and Woodland Strategy for East Lothian - Ref Report to Cabinet 14 May 2024
(Supporting Doc 3 - IIA - published separately)

Authorised By	Keith Dingwall
Designation	Planning Services Manager
Date	29/04/24

For Office Use Only:	
Library Reference	58/24
Date Received	29/04/24
Bulletin	May 24

2024

Environment Report – Tree and Woodland Strategy for East Lothian



Planning Service

East Lothian Council

5/7/2024



Tree and Woodland Strategy for East Lothian

Strategic Environmental Assessment

Draft Environment Report

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Mapping

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KEY FACTS: East Lothian Tree and Woodland Strategy

The key facts relating to this Strategy are set out below:

Name of Responsible Authority: East Lothian Council (The Council)

Title of Strategy: Tree and Woodland Strategy for East Lothian

What prompted the Strategy: Legislative provision of the Planning (Scotland) Act 2019 amending Section A159 to the Town and Country Planning (Scotland) Act 1997, to require the Council as planning authority to prepare a Forestry and Woodland Strategy for East Lothian. This Tree and Woodland Strategy for East Lothian (TWSEL) will replace the Lothian Forestry and Woodland Strategy 2013-2017, which is now out of date, in East Lothian. The TWSEL should consider the East Lothian Green Network Strategy however is not bound by it.

Area covered by Strategy: East Lothian Council area, however the strategy should integrate with the Forestry and Woodland Strategies of neighbouring administrative areas

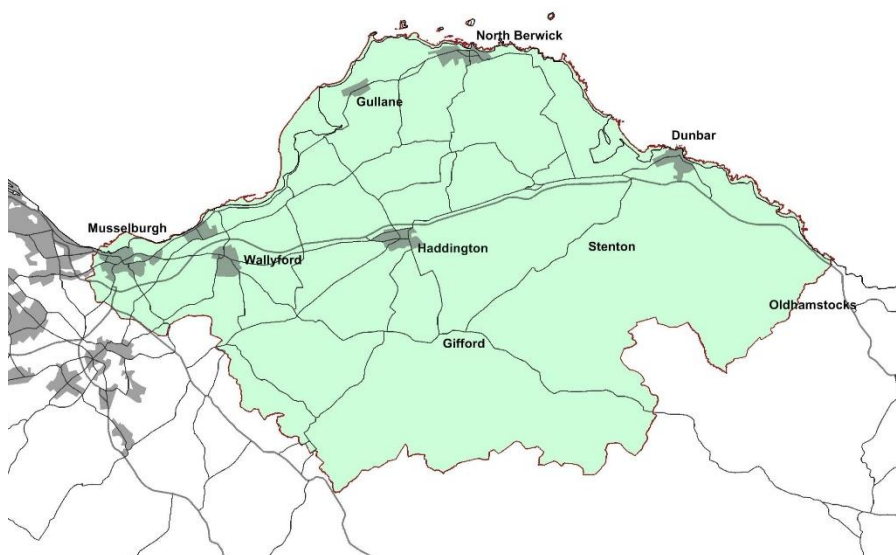


Figure 1: East Lothian

Subject: Forestry.

Period covered by Strategy: The Strategy does not have an end date but is intended to provide direction for the next ten years.

Frequency of updates: it is likely the Council will consider review of the Tree and Woodland Strategy in roughly the same timescales as the Local Development Plan.

Purpose of Strategy: To set framework for the expansion and management of tree, forestry and woodland cover across East Lothian including, as laid down by legislation:

- (a) the identification of woodlands of high nature conservation value in the planning authority's area, and
- (b) the planning authority's policies and proposals in their area, as to—
 - (i) the development of forestry and woodlands,

- (ii) the protection and enhancement of woodlands, in particular those mentioned in paragraph (a),
- (iii) the resilience to climate change of woodlands, in particular those mentioned in paragraph (a),
- (iv) the expansion of woodlands of a range of types to provide multiple benefits to the physical, cultural, economic, social and environmental characteristics of the area.

SEA Contact point:

Planning Service

East Lothian Council

John Muir House

Brewery Park

Haddington

EH41 3HA

Tel: 01620 827370

Email: ldp@eastlothian.gov.uk

ABBREVIATIONS

CAT	Countryside Around Town
COSLA	Convention of Scottish Local Authorities
EA(S) Act	Environmental Assessment (Scotland) Act
DEFRA	Department of Environment, Food and Regional Affairs
ELC	East Lothian Council
TWSEL	Tree and Woodland Strategy for East Lothian (East Lothian’s Forestry and Woodland Strategy under the Planning (Scotland) Act 2019)
ER	Environment Report
HRA	Habitat Regulation Appraisal
INNS	Invasive Non-Native Species
IPBES	Intergovernmental Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
JNCC	Joint Nature Conservancy Council
LBS	Local Biodiversity Site
PPS	Plan, Project or Strategy
NLCAR	National Landscape Character Assessment Review
NPF	National Planning Framework
SEA	Strategic Environmental Assessment
SEPA	Scottish Environment Protection Agency
SESPLAN	South East Scotland Plan, Strategic Development Plan 1
SIMD	Scottish Index of Multiple Deprivation
SNH	Scottish Natural Heritage (now Naturescot)
SPA	Special Protection Area
SPG	Supplementary Planning Guidance
SPP	Scottish Planning Policy
SSSI	Site of Special Scientific Interest
SUDS	Sustainable Urban Drainage
UN	United Nations

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1 INTRODUCTION

- 1.1 East Lothian is an attractive area lying to the East of Edinburgh. It is under considerable development pressure driven by the growth of the city, its attractive landscape, pretty towns and good quality of life. Trees and woodland play an important part in adding to the character of East Lothian, although canopy coverage here is less than average for Scotland. This is due in part to the suitability of much of the land for other purposes, including arable farming, housing, economic development and recreation.
- 1.2 This Strategy has been prepared in response to legislative requirements of the [Town and Country Planning \(Scotland\) Act](#). The Council in 2019 declared a Climate Emergency. The Council's ambition to plant a Climate Forest of 2 million trees followed this in 2021. Last year the Council further declared a Nature Emergency. These are both drivers for producing strategic guidance on woodland and trees in our area.
- 2.1 The Council must carry out Strategic Environmental Assessment on this Strategy. This document is the Environment Report of the Tree and Woodland Strategy for East Lothian (TWSEL), which is our statutory Forestry and Woodland Strategy. The purpose of SEA is to predict (identify and describe) and evaluate (make a judgement on the significance of) the environmental effects of the TWSEL and any reasonable alternatives.
- 1.3 Consultation with the public and the Consultation Authorities (SEPA, NatureScot and Historic Environment Scotland), as well as other interested bodies, are an important part of producing the final Environment Report. This has helped make sure all relevant environmental impacts are taken into account in finalising the TWSEL and making a decision on whether or not to adopt it
- 1.4 We sought the views of the public on the draft Strategy and Environment Report and have taken these into account in preparation of this final Strategy and this document.

2 APPROACH TO STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA)

Statutory requirements

- 2.1 This Environment Report has been prepared in accordance with the Environmental Assessment (Scotland) Act 2005 ('the EA(S) Act'). The Act requires certain plans, policies and strategies that are likely to have a significant effect on the environment to be subject to Strategic Environmental Assessment (SEA). The main stages of SEA are:

STAGE	PROGRESS
Screening – determining whether or not a plan needs SEA	✓
Scoping – establishing what aspects of the environment are likely to experience significant effects, and how this should be examined	✓
Environmental Assessment – draw up a draft Environment Report assessing the impacts of the proposed strategy, including consulting and 'Environment Report'.	✓

STAGE	PROGRESS
Consultation – Consulting the public and the Consultation Agencies on the draft Environment Report	✓
Finalised Environment Report – amend the draft Environment Report taking into account the views of key statutory bodies and the public	✓
Decision – deciding on whether or not to approve the plan, taking into account the environmental information contained in the finalised Environment Report	14 May 2024
Post-Adoption Statement – setting out how the assessment and views of the public and key statutory bodies were taken into account	June 2024
Monitoring – monitoring the significant effects of the plan and taking action if anything unexpected arises from the implementation of the plan	3, 6 and 9 years from 2024

2.2 The Council considered the TWSEL to be a plan that automatically requires SEA under Section 5 (3) of the EA(S) Act, so did not carry out Screening.

2.3 SEA must assess the **likely significant** environmental effects, both positive and negative, of the strategy. The purpose of SEA is to make better policy by taking account of environmental issues from the start. SEA gives both the public and decision takers a better understanding of the environmental impacts of a strategy.

2.2 The TWSEL will operate within a framework of the existing national and local policy, including the Scottish Forestry Strategy, the Scottish Biodiversity Strategy, National Planning Framework 4, East Lothian Local Development Plan the East Lothian Local Biodiversity Action Plan and many others. These strategies have where relevant been subject to SEA¹. The relationship of the TWSEL with other plans is included.

Reasonable Alternatives

2.3 The EA(S) Act requires the Council to consider reasonable alternatives to the plan or programme. The Council considered three potential options. The first was ‘do nothing’. However, there is a statutory requirement to produce a forestry and woodland strategy. The Council has also already indicated its ambition to plant a ‘Climate Forest’ of 2 million trees in East Lothian to help meet our carbon targets² through a decision in January 2021. It is strongly desirable that the planting of this woodland is steered to suitable locations. Therefore ‘do nothing’ is not a reasonable alternative.

2.4 The second option was to produce a higher-level strategy than the one now being proposed. This Strategy is detailed in terms of both mapping and policy. It was considered that the Strategy had

¹ The SEA documents for the East Lothian Local Development Plan 2018 and the plan itself can be downloaded following the links from https://www.eastlothian.gov.uk/downloads/download/13023/local_development_plan_2018

² Council decision January 2021

to contain sufficient detail to steer the creation of a climate forest, and to support the woodland grant making process. Therefore, producing a higher-level strategy would not have been useful and so was not a realistic option.

- 2.5 The last option considered was to focus on one aim, the most likely candidate being mitigating climate change. Focussing on this aim would be likely to have led to the planting of more faster growing species which can be used commercially (thus continuing to store the carbon after the removal of the tree). However, this was not considered realistic due to the legislative requirement to achieve multiple benefits.
- 2.6 The Consultation Authorities did not object to this approach. The Council has therefore not further considered or appraised any other approach to the one chosen. This is in line with the approach taken by the SEA of the Scottish Forestry Strategy³ which likewise did not consider any alternative to the strategy adopted.

Likely Evolution of the area without the Strategy

- 2.7 The Environment Report must set out how the area is likely to evolve without the strategy.
- 2.8 Without the Strategy, Scottish Forestry would continue to base their grants on the Edinburgh and the Lothians Forestry Strategy 2012-17. This Strategy is now somewhat out of date. Since then, Local Geodiversity Sites have been designated in the East Lothian Local Development Plan. These sites are therefore not recognised in that methodology. Battlefields and Designed Landscapes were also previously considered as 'sensitive' and therefore unlikely to attract funding, where it is now considered that some woodland creation could be possible (and in some cases even desirable) in such areas. Prime agricultural land was not included specifically as constraint previously: there is more emphasis on its protection now nationally. Although woodland can fit with this type of land, it should not be seen as 'preferred' as parts with no other constraint were previously.
- 2.9 Without the TWSEL there would be some further tree planting and woodland creation driven by public enthusiasm and the availability of grants to landowners. Planting under these conditions is likely to be more haphazard and less extensive than would occur under the Strategy. Species chosen may be less suitable for different areas and current and predicted conditions. Different environmental receptors would mostly continue to evolve as now; this will be set out in the topic chapters. It is less likely that the Climate Forest would be delivered in full.

Methodology

- 2.10 The report is structured by first giving background information on trees and woodland in East Lothian as baseline information. A chapter on each of the SEA topics follows. For each of the SEA topic areas, the Environment Report identifies the main issues for that topic in general. Each section provides information on the current state of the environment which could be affected by the TWSEL (baseline). Some issues could fall under more than one topic area, and the SEA has tried to cover each issue in only one place. For example, wildfires are considered under Air, though wildfire also affects for example biodiversity and material assets.

³ Scottish Government, "SEA of Scottish Forestry Strategy" at <https://www.gov.scot/publications/scotlands-forestry-strategy-2019-29-strategic-environmental-assessment-environmental-report/>

2.11 Officers identified relevant the environmental issues and the impact of the TWSEL using professional judgement. They looked at the baseline data and environmental protection objectives contained in other relevant policies and strategies, noted in Appendix 2. They also sought the views of the Consultation Authorities. The ‘Scoping Tables’ at the start of each topic chapter show which issues were considered relevant.

2.12 For each SEA topic, the aim was to identify the main issues that already exist for that topic; and the impact of TWSEL on that issue, for better or worse. This helped identify where there was potential for the TWSEL to either improve or worsen the situation for that issue. This approach helped apply the principle in the Continuity Act that protecting the environment should be integrated into policymaking. This process also indirectly covers cumulative impacts, although the other sources of harm may not be explicitly identified.

2.13 The assessment has been carried out partly in narrative form and partly by using ‘SEA Objectives’. ‘SEA Objectives’ help focus attention on how each target, action and policy of the TWSEL affects each of the SEA topics. This was a framed as a question. Where possible the SEA Objectives align with those in the SEA of the Scottish Forestry Strategy. Use of objectives is a common method of identifying the main effects of a strategy. The results of the assessment are shown in a matrix within each SEA topic chapter. A ‘score’ of Positive, Neutral, Unknown, Mixed or Variable, and Negative is given for each objective. This helped identify, predict and evaluate the effects of the Strategy. Narrative was included to make sure impacts were not hidden within a general ‘score’ against each SEA Objective, and to explain the reasons for the score given.

KEY

Score	Code
Positive	+
Neutral	0
Unknown	?
Mixed/variable	//
Negative	--

2.14 The Environment Report must consider short, medium and long-term effects; permanent and temporary effects; positive and negative effects; and secondary, cumulative and synergistic effects. Short, medium and long-term effects are considered under the chapter headings as relevant, along with permanent and temporary effects, be they positive or negative.

2.15 Secondary effects are side effects – something that is not the main effect of the action. Cumulative effects are those that act additionally on the same receptor with effects from other plans and projects which increase the overall effect on that receptor. Synergistic effects are effects resulting from multiple sources or combined effects different in nature from the individual effects, but which act together to affect a different receptor. The Environment Report notes these at the end of each chapter.

2.16 The topic chapters end with consideration of mitigation that is in place. The section below gives an overview of the main provisions which form mitigation external to the Strategy. Where relevant, each topic chapter notes this. The ‘mitigation’ section of each topic chapter includes external mitigation where it is particularly relevant. These sections also include embedded mitigation (that is, mitigation which forms part of the Strategy) and mitigation which will or should take place at project level.

2.17 An overall conclusion on the impact of the TWSEL, taking into mitigation into account is made for each topic area.

Mitigation

2.18 The EA(S) Act requires that the Environment Report includes “measures envisaged to prevent, reduce and as full as possible offset any significant adverse effects on the environment of implementing the plan or programme”. The TWSEL will sit alongside the East Lothian Local Development Plan 2018 (ELLDP) and below legislation and national policy. This legislation and policy, and the associated regulatory regimes, forms mitigation for some impacts that would otherwise be expected. The most important areas are noted below.

2.19 **Principles of sustainable forest management.** These principles have been agreed internationally⁴ at the Second Ministerial Conference on Forests in Europe, held in 1993. The UK and Scottish governments have adopted both the principles and definition. UK and Scottish forestry legislation, practice and related policies are built on this.

Sustainable Forest Management: Definition

“The stewardship and use of forest lands that maintains biodiversity, productivity, regeneration capacity, vitality and potential to fulfil now and in the future relevant ecological, economic and social functions at local, national and global levels and that does not cause damage to other ecosystems”.

2.20 The **UK Forestry Standard** sets out how the UK will apply the principles of sustainable forest management. This standard is reviewed every five years and is the basis for regulating forestry activities, including approvals for felling licences. Government grants and where relevant, consent, for woodland creation and forestry management are conditional on meeting the standard, including its supporting guidelines. The Standard includes provision for protection of biodiversity, landscape, cultural heritage assets and others.

2.21 **Environmental Impact Assessment (EIA).** The EIA regime requires formal assessment of the impacts of projects likely to have a significant effect on the environment. This may be required for forestry or related projects where there is likely to be a significant environmental effect. Forestry projects are covered by the **Forestry (EIA)(Scotland) Regulations 2017**, while related infrastructure – tracks, structures, buildings – is covered by the related provisions for town and country planning. The environmental impact assessment regulations also cover works that are normally permitted development, where they have a significant environmental effect. The EIA process can help reduce or prevent adverse environmental effects and strengthen positive effects through full exploration of environmental effects and the requirement for mitigation.

2.22 **Planning consent.** In addition to the UK Forestry Standard and EIA regulation, some projects or aspects of projects that come forward will be subject to the planning system. At the time of writing, the development plan consists of National Planning Framework 4 and the East Lothian Local Development Plan 2018 (ELLDP). These plans contain policies promoting and protecting specific interests, including amenity and natural and cultural heritage. Where planning permission is required, these policies will mitigate against some potential impacts as it can be assumed that they would apply as intended to prevent harm to relevant interests. The Council’s Planning Service will require Flood Risk Assessment, Transport Assessment, Coal Mining Risk Assessment, Habitats

⁴ Second Ministerial Conference on the Protection of Forests in Europe, June 1993
https://www.foresteurope.org/docs/MC/MC_helsinki_resolutionH1.pdf

Regulations Appraisal, Landscape and Visual Impact Assessment and any other relevant assessment to be carried out on any qualifying proposals

2.23 **Consents from HES, NatureScot and SEPA.** Some activities within SSSIs, at designated historic environment assets or within the water environment also require consent from NatureScot, HES or SEPA. The Environment Report assumes that regulatory control will be applied as intended to avoid harm to these sites. The Conservation (Natural Habitats, &c.) Regulations 1994 (Habitats Regulations) provide that where there is harm to a European Site from a plan or project, unless there are exceptional circumstances it cannot go ahead. Sites of Special Scientific Interest are protected from planting under the Wildlife and Countryside Act 1981 (as amended) and the Nature Conservation (Scotland) Act 2004. Planting on Scheduled Monuments requires consent under the Ancient Monuments and Archaeological Areas Act 1979.

2.24 Measures to prevent, reduce or offset any significant effects are set out in the 'Mitigation section' of each chapter.

Data gaps

2.25 The EA(S)A requires that gaps in knowledge or data and any difficulties in carrying out the assessment are reported. The main data gap in preparing both the TWSEL and the Environment Report was the lack of information on

- species, condition and location of urban trees
- species, condition and location of hedgerows
- location of orchards, wood pasture and parkland and ancient woodland not included in NatureScots inventory or National Library of Scotland mapping
- nationally recognised methodology for assessing connectivity of woodland (in preparation we believe)

2.26 The TWSEL contains proposals for a tree audit, Hedgerow Plan, and for mapping of orchards, wood pasture and parkland to help address this going forward. Scottish Forestry reported data in 2013 in the Native Woodland Survey of Scotland on the makeup of woodland, however this survey has not been repeated and is now somewhat out of date.

2.27 The Council also does not have information on demand for wood fuel locally.

Coordination with Habitats Regulation Appraisal

2.28 The plan is not directly connected with or necessary to the management of the European site(s) and has a likely significant effect on the Firth of Forth, Fala Flow and Gladhouse Reservoir SPAs. Accordingly, the TWSEL has been subject of a separate Habitats Regulations Appraisal and Appropriate Assessment. This assessment found that there is no adverse impact on the integrity of any European Site, and the Strategy can therefore be adopted.

UK Withdrawal from the European Union

2.29 As SEA is required for this Strategy, the Council must consider guiding principles on the environment set out in the UK Withdrawal from the European Union (Continuity) (Scotland) Act 2021. These are:

- (a) the principle that protecting the environment should be integrated into the making of policies,
- (b) the precautionary principle as it relates to the environment,
- (c) the principle that preventative action should be taken to avert environmental damage,
- (d) the principle that environmental damage should as a priority be rectified at source,
- (e) the principle that the polluter should pay.

2.30 Principle (a) above has been met through the SEA process is being carried out in tandem with the preparation of the TWSEL, with the same officers working on both. This has meant that protection of the environment is intertwined with the objectives and proposals of the strategy. Principle (b), the precautionary principle⁵, has been considered through recognition that tree planting/woodland creation, although in general beneficial, has the potential to cause environmental damage if done with the wrong species, in the wrong way or place, or at the wrong time. Mitigation of climate change is a strong driver for this strategy. Principle (c) is reflected in the strategy itself with its promotion and support of woodland creation. This is in support of the principle that preventative action should be taken to avert environmental damage. In addition, mitigation is set out which may be required at project level to avert specific environmental harms.

2.31 Principle (d) requires that environmental damage be rectified at source. The TWSEL is being prepared partly to mitigate climate change. The land on which trees will be planted is generally not the source of climate forcing emissions. However, the UK as a whole has a historic climate debt through early industrialisation and woodland clearance for agriculture. In this sense the environmental damage is being rectified at source. The Strategy also contains measures to avoid further environmental damage caused by tree planting and woodland creation.

2.32 Principle (e) the polluter pays principle is respected. The act of planting trees should have a net benefit rather than being a polluting activity. There can be emissions from tree planting and tree and forestry management. This will be managed through conditions on woodland grants, afforestation consent and planning consent. Where necessary action may be taken through other statutory mechanisms, such as CAR regulations, planning permission or Operation Requiring Consent to put the costs of avoiding harm to the environment onto the polluter.

Relationship with project level assessment

2.33 The purpose of the Environment Report is to identify the strategic level effects that could occur from the Strategy overall. It does not take the place of detailed assessment, including Environment Impact Assessment, Flood Risk Assessment, Landscape and Visual Impact Assessment and others, which may be required at project level.

⁵ The precautionary principle was stated in the Rio Declaration “where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation”. This definition was reiterated in Principle 7: Environment of the UN Global Compact – see <https://www.unglobalcompact.org/what-is-gc/mission/principles/principle-7>

3 OUTLINE OF CONTENTS AND MAIN OBJECTIVES OF THE PLAN

Background

- 3.1 The Planning (Scotland) Act 2019 introduced a statutory requirement that the planning authority should produce a Forestry and Woodland Strategy for their area. In the same year, both the Scottish Government and East Lothian Council declared a Climate Emergency, and Scottish Ministers approved the Scottish Forestry Strategy. East Lothian Council also approved its Green Network Strategy. Last year the Council declared a Nature Emergence also.
- 3.2 The TWSEL is being produced against a background of rising public demand to address the Climate and Nature Emergencies, and a strong feeling that tree planting and woodland creation needs to be part of the solution. East Lothian is also experiencing significant housing growth, and this needs to be balanced by conservation of the natural environment. At the same time, the Council recognises that there are areas that are unsuitable for trees. Some land is needed for other purposes, including food production and urban development. Parts of the historic or natural environment have a value which would be lost by tree planting there. Some land performs a carbon sequestration function in a different way, such as saltmarsh, peatland or even grassland, which can sometimes be overlooked.
- 3.3 The TWSEL therefore must fit in with a suite of existing designations and land-uses. The task for this strategy is to increase woodland cover in the right places, in line with maintaining the quality of East Lothian's natural and built assets and other land use requirements.

Purpose of the Strategy

- 3.4 The Council has an ambition to plant 2 million trees in the next 10 years to form a Climate Forest. The TWSEL aims to guide this planting in terms of location and species, as well as identifying and protecting existing woodland of high nature conservation value. The Strategy will meet the statutory requirement to produce a Forestry and Woodland Strategy and identify appropriate woodland types for different areas and purposes. It will help fulfil the Council's duty to promote sustainable forest management⁶. The Strategy will also set the framework for action such as the allocation of grants and planting on council owned or managed land. It will help maintain the quality environment that makes East Lothian attractive.
- 3.5 The draft proposed Vision is "Expanded and sustainably managed networks of woodland and trees across East Lothian contribute to addressing climate change, and provide healthy and resilient environment, nature recovery, a strong sustainable economy and enhanced quality of life for local communities". The strategy contains aims for each of the chapters:

Climate Mitigation "Increase the contribution that East Lothian's existing and future woodlands make to achieving net zero carbon in line with East Lothian Council and Scottish Government targets"

Resilience and Climate Adaptation "Increase resilience of East Lothian's environment and its woodlands, including using trees and woodland to adapt to Climate Change"

⁶ S2.2 of Forestry and Land Management (Scotland) Act 2018 "Forestry and Land Management (Scotland) Act (2018)"

Biodiversity “Work towards a more natural tree and woodland cover with thriving native flora and fauna, protecting, maintaining and connecting our distinctive native woodland types, and enhancing and connecting nature in our urban areas”

Community “maximise the benefits for all people of trees and woodlands for recreation, health, wellbeing and community including through placemaking”

Economy “Trees and woodland contribute towards a Sustainable and Inclusive Economy”

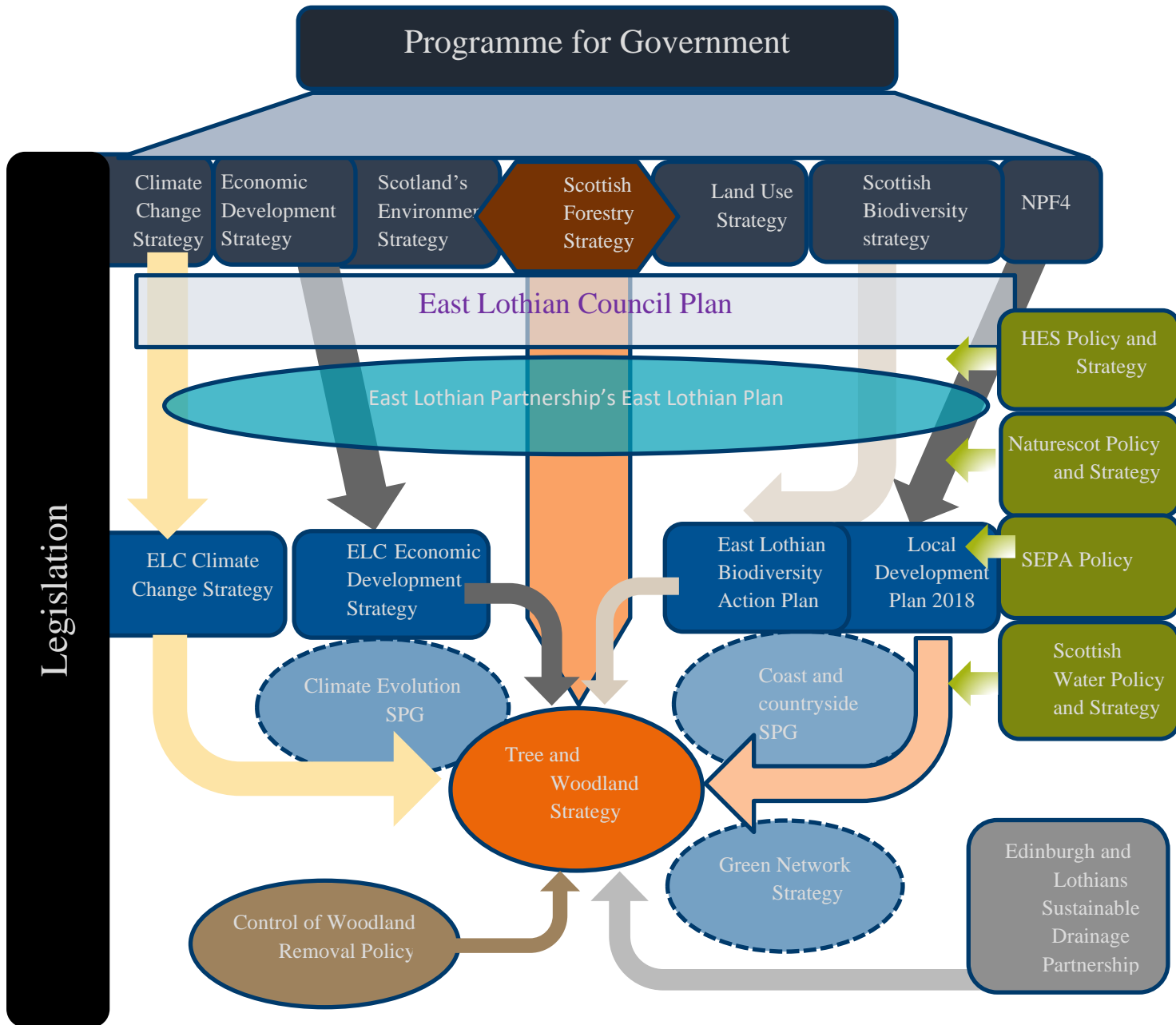
Cultural Heritage “Celebrate the role of trees and woodland as part of our cultural heritage and protect cultural heritage assets from harm from trees”

Landscape Character “Use trees to help retain and enhance the distinctiveness of landscape and settlement character within East Lothian”

3.6 A decade ago, Forest Research, in partnership with the Council and others, produced the Edinburgh and the Lothian Forestry Strategy 2012-2017. This Strategy updates and builds on that work.

4 RELATIONSHIP BETWEEN TWSEL & OTHER RELEVANT PLANS, PROJECTS AND STRATEGIES

4.1 The TWSEL sits in a hierarchy of plans, summarised in the diagram below. How the TWSEL has taken account of the objectives of different plans is shown in Chapter 12.



4.2 The Programme for Government continues to support a stepped increase in woodland creation, aiming for 18,000 hectares a year by 2024-25 across Scotland, of which 4000 hectares should be native woodland. The Scottish Climate Change Plan has a target of increasing Scotland’s woodland cover from 18% of our land to 21%. The Scottish Forestry and Woodland Strategy 2019-29 sets out the Scottish Government’s ambitions for this sector. The TWSEL will also help achieve the aims of the East Lothian Council Plan and Climate Change Plan. Legislation, including that on health and safety at work, protected species, development in the water environment and others will affect the TWSEL and actions coming forward under it. Other existing national, regional and local policies, strategies and guidance are also relevant. A list of the main ones and what environmental objectives they are intended to achieve is set out in Chapter 12. Chapter 12 also shows how the TWSEL fits with their objectives.

4.3 The Scottish Forestry Strategy sets the main policy context. How the TWSEL has taken this into account is shown in Chapter 12. The legislative and policy context for forestry is set out within that document (reproduced below).

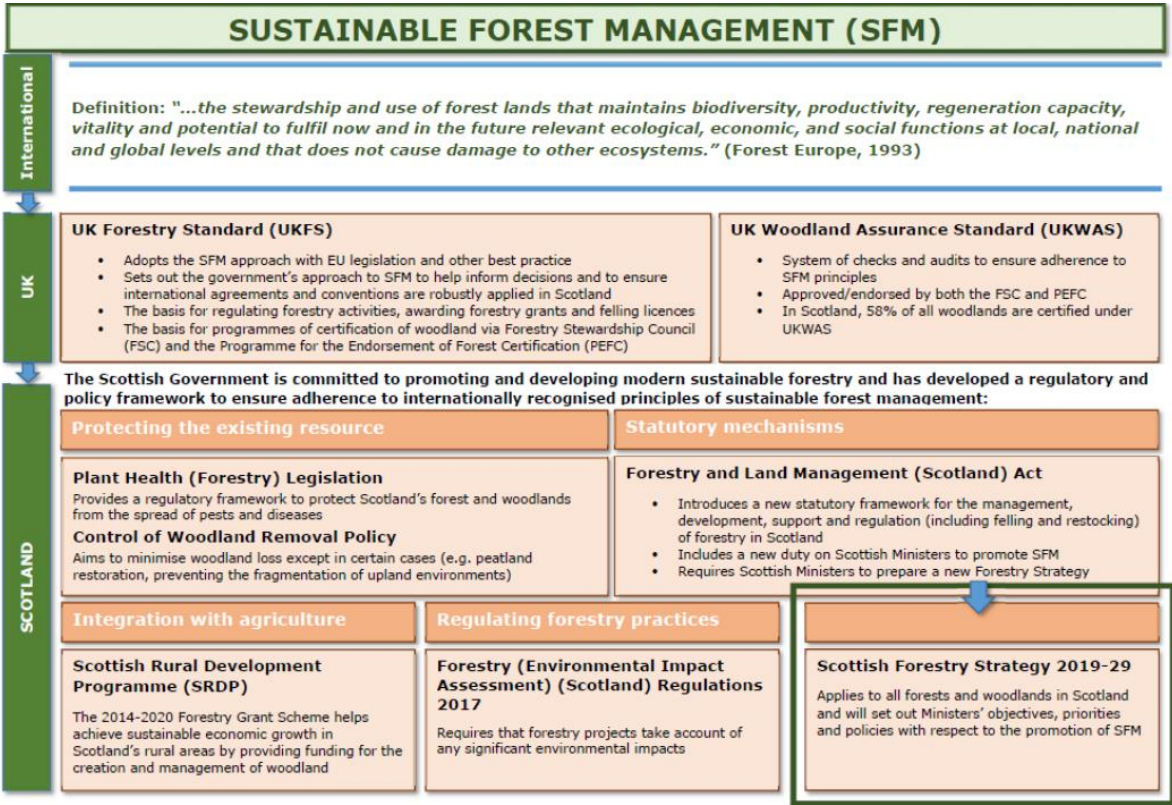


Figure 2 Where the Scottish Forestry Strategy sits (from Scottish Forestry Strategy 2019-2029)

5 TREES AND EAST LoTHIAN



5.1 The EA(S)A act requires that details are given of the character of the environment that may be affected including any existing pressures. This section gives general background on East Lothian, and of forestry and woodland in the area. More specific baseline information on the SEA topic areas is given in the topic chapters.

East Lothian – the place

5.2 East Lothian is a small area of 680 square kilometres, home to around 109,580 people⁷. Between 1999 and 2019, the population of East Lothian has increased by over a fifth, the highest percentage increase of Scotland’s 32 council areas. The population is concentrated to the west of the area however there are three towns – Haddington, North Berwick and Dunbar – to the centre and east, as well as numerous smaller settlements. Population in the Lammermuir Hills and foothills, to the south, is sparse.

5.3 East Lothian is located mainly within eastern central Scotland, with landscape characterised by attractive coast, open arable plains with igneous outcrops, and more treed river valleys. The land rises to the south to the broad plateaus of the Lammermuir Hills, with deeply incised cleughs on the slope of the southern upland slope. The landscape contains a rich architectural and archaeological heritage.

History of Forestry and Woodland

5.4 At the time of the Ice Age, some 11,000 years ago, East Lothian was under ice. The movement of this ice formed the glacial features seen here today. As the ice retreated, woodland started to reappear, though marshy ground in parts of the lowlands would have restricted growth. People have settled in East Lothian for a long time, with land clearance for early agriculture starting the decline of the original woodland. The combination of human activity and a change to a cooler,

⁷ <https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/east-lothian-council-profile.html>

wetter climate led to natural replacement of some woodland by peat. Agricultural improvements of the 17th and 18th centuries involved further removal of woodland, however, owners of the larger estate houses also created policy woodland, shelterbelts and plantation woodland.

5.5 The first half of 20th century saw the planting of some large areas of mainly coniferous trees intended as a timber crop. According to the 4th Statistical Account of East Lothian⁸, many of these were clear-felled to support the war effort (Binning Wood, Brownrigg, High Wood, Butterdean, Woodside, Colstoun and Saltoun Big Wood). The Account continues that the replanting of these areas was mainly with conifers due to lack of suitable hardwood seedlings, with growth of rhododendron as understorey. In the post war period, the Forestry Commission bought woods at Pressmennan, Saltoun Big Wood, Butterdean, and the seed orchard at Whittingehame. They sold these in the 1980's to the Woodland Trust and the Council. In the later part of the 20th century, Dutch Elm disease spread to East Lothian. This resulted in the loss of many of East Lothian's elms, in particular English elm. Wych elm, being scrubbier by nature, was less affected.

5.6 The Fourth Statistical Account notes that woodland expansion took place in the Lammermuirs from 1961 to 1981. Substantial areas were planted almost entirely with Sitka spruce at Ferneylea, Cracking Shaw and Stobshiel. Windfarm development has involved removal of some of this forestry, notably at Cracking Shaw but also at Monynut, with replacement planting with native woodland in the cleughs for the latter. From the 1960s to the 1980's there was also broadleaf planting, with some pine and larch, on estate land at Winton, Whittingehame, Lennoxlove and others, to improve agricultural and sporting value. Planting of broadleaves also occurred on the reclaimed or contaminated land at Musselburgh ash lagoons, Wallyford bing, and Carberry landfill site. The government's broadleaved woodland policy, published in 1985, led to around 300 ha of broadleaf woodland being planted by the year 2000.

Trees Today

5.7 Woodland cover now makes up around 10.5% of the total land area of East Lothian⁹ (compared to 19% for Scotland as a whole¹⁰), with only one fifth of this being native or nearly native woodland.

5.8 The SEA of the Scottish Forestry Strategy 2019-29 notes that no woodlands in Scotland can be regarded as truly natural, however some woodlands are semi-natural. These are a conservation priority due to their high levels of biodiversity. East Lothian contains a small amount of woodland on ancient woodland sites (893ha) of which around a third is native woodland i.e., woodland where more than half of the canopy is native. Scotland has six native woodland types, not

⁸ Jim Affleck (2000), 'Forestry' in The Fourth Statistical Account of East Lothian' <https://el4.org.uk/county/the-land/forestry/>

⁹ Derived from information in <https://scotland.forestry.gov.uk/images/corporate/pdf/fcs-nwss-east-lothian.pdf>

¹⁰ Scottish Forestry Strategy SEA
<https://www.gov.scot/binaries/content/documents/govscot/publications/consultation-paper/2018/11/scotlands-forestry-strategy-2019-29-strategic-environmental-assessment-environmental-report/documents/scotlands-forestry-strategy-2019-29-strategic-environmental-assessment-environmental-report/scotlands-forestry-strategy-2019-29-strategic-environmental-assessment-environmental-report/govscot%3Adocument/00543239.pdf>

including scrub. The most common type in East Lothian is lowland mixed deciduous woodland. There are no native pinewoods here; pine is not native to East Lothian.

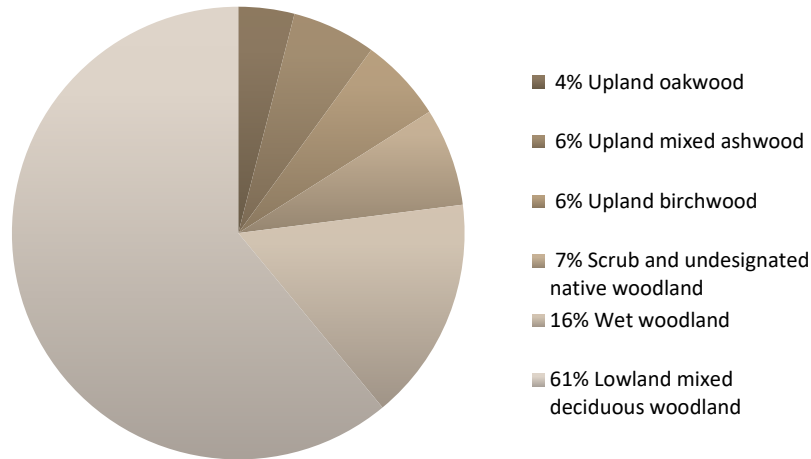


Figure 3 East Lothian's Native Woodland, by type ¹¹

5.9 SSSI designation protects some of these semi-natural woodlands – fen woodland at Danskine Loch, juniper scrub at Lammer Law, upland mixed ash woodland at Lammermuir Deans and Papana Water, valley fen at Lammermuir Deans, and Upland Oak Woodland at Rammer Cleugh and Woodhall Dean.

5.10 East Lothian had 7,130 ha of woodland in 2021 as recorded in Scottish Forestry's National Forest Inventory. This map shows the type and location of woodland.

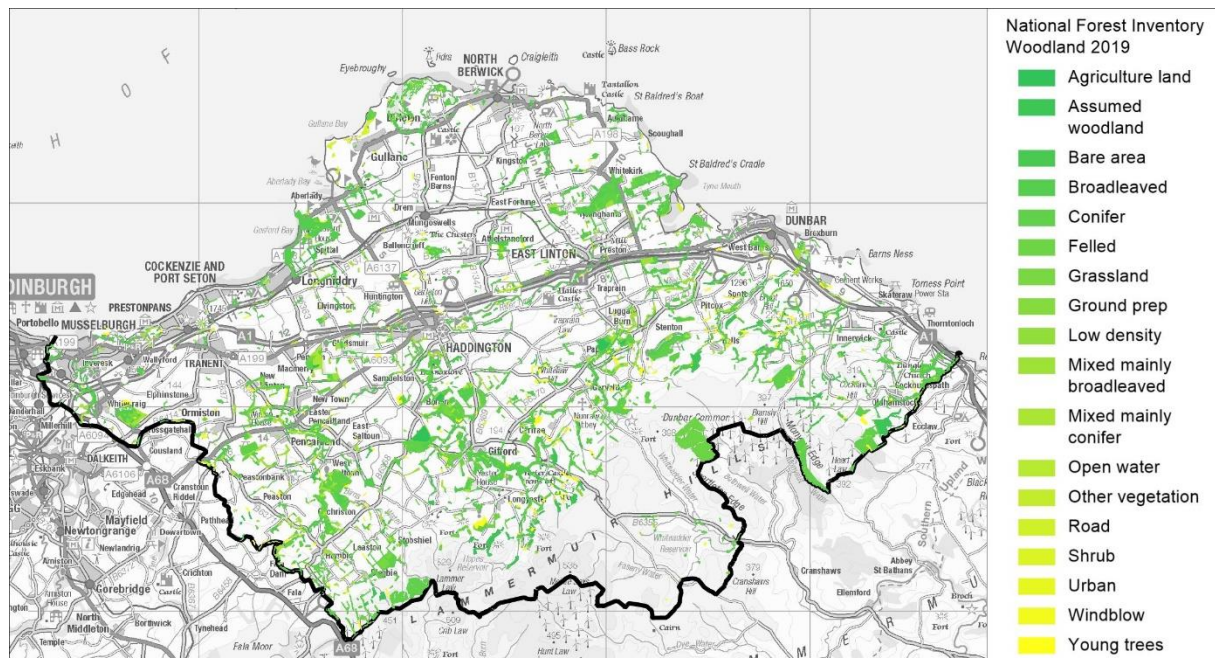


Figure 4 Woodland in East Lothian, from National Forestry Inventory 2019

¹¹ From Native Woodland Survey of Scotland, East Lothian, by Forestry Commission Scotland 2013 <https://scotland.forestry.gov.uk/images/corporate/pdf/fcs-nwss-east-lothian.pdf>

5.11 In addition to native woodland, forestry plantation, policy woodlands and shelterbelt, East Lothian also contains important small woodlands and individual trees within towns and villages. These often have significant amenity, landscape and/or heritage value. There are some significant individual trees in the rural areas also, such as the Ormiston Yew under which John Knox reputedly preached, some ‘champion’ trees (the largest or oldest known specimens of their species) and many field boundary trees¹².

5.12 A citizen science project supported by Forest Research (further information is here: <https://www.forestresearch.gov.uk/research/i-tree-eco/urban-canopy-cover/>) found tree canopy cover to be as follows:

Table 1 Tree Canopy Cover by Ward	
Ward	Estimated cover
Musselburgh	17.9%
Dunbar and East Linton	16.2%
North Berwick Coastal	9.8%
Haddington and Lammermuir	14.1%
Tranent, Wallyford and Macmerry	10.0%
Preston, Seton, Gosford	11.7%

5.13 Further information about tree canopy coverage in towns and villages, and in the lowest 30% of areas which are lowest in the Scottish Index of Multiple Deprivation, are shown in the Strategy itself.

Tree pressures

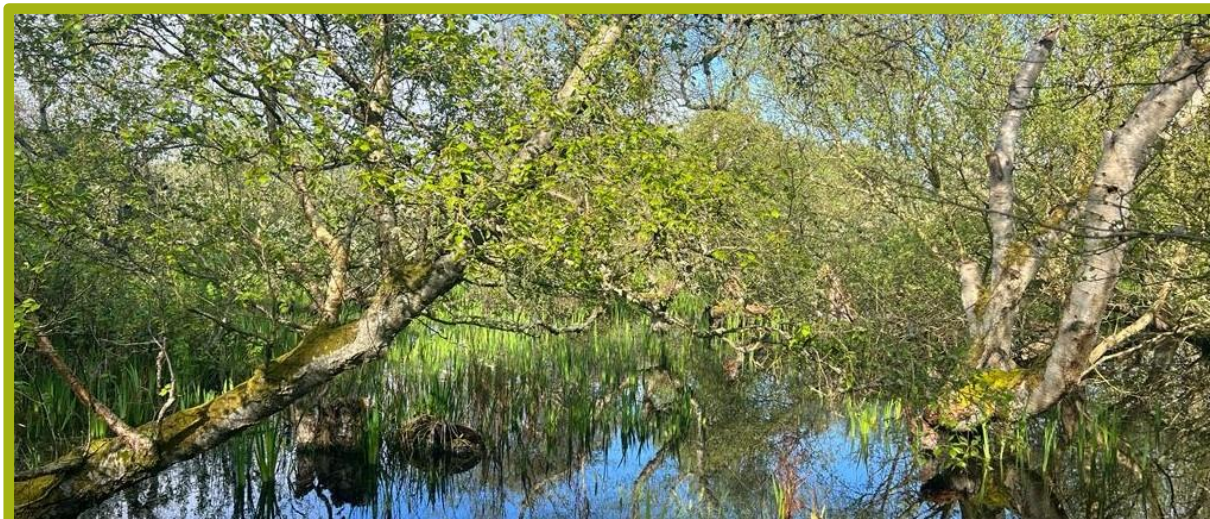
5.14 East Lothian’s trees and woodlands are facing pressures to their health, function and in some cases even existence. **Climate change**, in addition to affecting the distribution of pests and diseases, is likely to affect species distribution, and potentially the ability of some trees to survive in place. Climate change could also make drought conditions more likely so increasing the chance of fires and increase extreme weather events such as high winds which can cause damage to trees and consequent harm, including to people and the built environment. **Pests and diseases** such as *Phytophthora ramorum*, which affects larch, and *chalara* which causes ash die back are making an impact on East Lothian’s trees. Fragmentation of woodland has occurred historically, and this threat continues. Pressure for **built development or energy projects** has also led to loss of trees

¹² See East Lothian Cultural Heritage and the Built Environment SPG <https://www.eastlothian.gov.uk/downloads/file/27907/cultural-heritage-and-the-built-environment-spg> and Forthcoming Conservation Area Appraisals

and woodland. Although replacement planting is now generally required this takes time to replace the functions and value of the trees lost.

5.15 **Poor woodland management** affects woodland quality. **Grazing** by rabbits, deer or sheep can cause damage, as they eat young growth and affect woodland regeneration; under grazing can also be problematic. **Recreational pressure** can also affect woodland through trampling, setting fires or introduction of pathogens. Invasive species can affect the woodland's biodiversity. **Muirburn** has been an issue for the juniper scrub of the Lammermuirs. **Changes to drainage or water management** can affect wet woodland.

6 BIODIVERSITY, FLORA AND FAUNA



Introduction

6.1 Biodiversity is all the variety of life found on earth – plants, animals, fungi, microorganisms. It is critical to maintaining human life on this planet. Some people consider we also have a responsibility of stewardship towards our natural environment and the creatures that live in it.

6.2 Globally, nature is in crisis. According to the UN Environment Programme, one million of the world's estimated 8 million species of plants and animals are threatened with extinction. Human action has significantly altered three quarters of the Earth's land surface¹³. Issues relating to biodiversity should be considered in this global context i.e., that biodiversity is under pressure and urgent action is required to improve the situation. The Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) advises the United Nations on Biodiversity. The key message of their 'Global Assessment Report on Biodiversity and Ecosystem Services'¹⁴ in 2019 was that nature and its vital contributions to people, are deteriorating worldwide. The IPBES Report¹⁵ advises that both direct and indirect drivers of change adversely impacting biodiversity have sped up in the last half century. Those with the most impact are, in descending order of harm: changes in land and sea use; direct exploitation of organisms; climate change; pollution; and invasion of alien species. The report also identified as indirect drivers the disconnect of people from nature and lack of value and importance placed on nature.

6.3 The [Global Framework for Biodiversity](#) agreed at COP15, in recognition of this trend, adopted 4 main goals and 23 targets for action.

6.4 Trends in the UK reflect this global picture. The first report of the House of Commons Environmental Audit Committee¹⁶ described the UK as one of the most nature depleted countries in the world. Despite its reputation for its natural environment, Scotland is not bucking this global

¹³ UN Environment Programme website <https://www.unep.org/facts-about-nature-crisis> (accessed 18-05-2023)

¹⁴ <https://ipbes.net/global-assessment>

¹⁵ Global Report on Assessment and Biodiversity Services, above.

¹⁶ Environmental Audit Committee, '[Biodiversity in the UK: Bloom or Bust](#)' First Report of Session 2021-22

trend. In 2019 the NatureScot report, the State of Nature¹⁷ showed the abundance and distribution of Scotland's species has on average declined over recent decades. The report itself notes that its findings should be seen against a backdrop of profound historic influences on nature in Scotland. Key pressures on biodiversity identified were: agricultural management; hydrological change; urbanisation; woodland management; pollution; invasive non-native species (INNS); upland management; marine climate change and fisheries. More positive trends are reduction in freshwater pollution, some marked reductions in emissions of harmful pollutants, and some increase in woodland and wetland habitat overall.

6.5 These historic and current pressures are as relevant for East Lothian as for Scotland as a whole. East Lothian has a long history of land use change and biodiversity loss resulting from human efforts to control the land to provide for our needs for homes, food, materials, goods, energy and transport. This historic (and continuing) land use change has led to a paucity of both species and habitat, and loss of habitat connectivity. Early agricultural enclosure brought removal of woodland as well as drainage of the land for agricultural production, which has gradually intensified. It also however brought the introduction of hedges. The low point for woodland was probably reached around the end of the 19th century, since when tree planting has increased. However, some of this increase was of non-native trees for timber production, which has limited biodiversity benefit.

6.6 More recently, agricultural field expansion and mine-working, including opencast, has led to removal of features such as hedges and groups of trees, while wind farm development has involved removal of some commercial forestry. Built development and related recreational pressures in the area have had (and will continue to have) direct and indirect effects on both species and habitat¹⁸. Loss and fragmentation of the original woodland cover overall has had a considerable effect on its biodiversity from loss of large mammal species to loss of diversity of invertebrates.

6.7 Scotland's Biodiversity Strategy a Route Map to 2020¹⁹ set out Six Big Steps for Nature.

These are:

- Ecosystem restoration,
- Investment in Natural Capital,
- Quality Green Space for health and education benefits,
- Conserving Wildlife in Scotland,
- Sustainable Management of Land and Freshwater, and
- Sustainable Management of marine and coastal ecosystems.

NatureScot consulted on a draft replacement Scottish Biodiversity Strategy in summer 2023. The final version will be a high level, policy focussed strategy taking account of CoP15 and the new global biodiversity framework. This framework set global targets for 2030, including effective conservation and management of at least 30% of the world's land, coastal areas and oceans; reduce to near zero the loss of areas of high biodiversity importance; prevent the introduction of priority invasive alien species, and reduce by half the introduction and establishment of others.

¹⁷ Available here: <https://www.nature.scot/state-nature-scotland-report-2019>

¹⁸ See SEA and HRA of East Lothian LDP 2018 available here: https://www.eastlothian.gov.uk/info/210547/planning_and_building_standards/12242/local_development_plan/2

¹⁹ See <https://www.gov.scot/publications/scotlands-biodiversity-route-map-2020/documents/>

6.8 There are opportunities for the TWSEL to support these objectives either directly or indirectly through conservation of woodland, creation and management of woodland and planting of trees, and in some place avoidance of planting (for example in on coastal land used by coastal bird species).

6.9 The following Scoping Table shows the issues considered. The Environment Report considers people’s feeling of connection to nature under health, although it is recognised as important for preserving biodiversity also. There are opportunities to benefit biodiversity with woodland expansion, in particular woodland species. This could come from additional habitat, new types of woodland habitat, replacement planting of trees and woodland lost to pests and disease, and increased connectivity. There is also the opportunity to protect woodland habitat through better woodland management and managing public access.

6.10 However, there are also ways in which expansion and changes to management of woodland could affect other aspects of biodiversity. TWSEL Policy 14: Protection of the Natural Environment aims to protect existing designated sites, and balance woodland expansion with respect for other important habitats, as identified by the Central Scotland Green Network. These issues will require to further consideration project level.

Scoping Table 1: Biodiversity	
Issue	Scoped in/out
Contribute to addressing to national/international issues	
Changes in land-use	In
Direct exploitation of organisms	In
Climate change (biodiversity adaptation)	In
Pollution	Out
Impacts from invasive non-native species	In
Reintroductions of species made extinct in the UK	Out
Woodland management [added post-Scoping]	In
Conserve existing biodiversity	
Conservation of international and European sites – Firth of Forth SPA/Ramsar site, River Tweed SAC, Fala Flow SPA, Gladhouse Reservoir SPA, Greenlaw Moor SPA, Forth Islands, Outer Firth of Forth and St Andrews Bay complex	In
Conservation of all other European and International sites	Out
Conservation of SSSIs	In
Conservation of Local Biodiversity Sites (LBS)	In
Conservation of protected species	In
Non-designated biodiversity	In

Baseline and issues – Biodiversity

6.11 The habitats of East Lothian are strongly linked to land use. Much of the lowland area outwith settlement is arable, with some recreational use such as golf courses especially around the coast. As the land rises to the Lammermuirs, pasture and rough grazing starts to predominate, with grouse moorland on the hill plateau in the south of the area. In addition to these uses, some areas have been subject to mining, quarrying, use for water supply, or commercial coniferous planting, which has lessened and changed the biodiversity of those sites and the area as a whole.

6.12 A Phase 1 Habitat Survey was carried out in 1997 in support of the Lothian Region Structure Plan. Although now over 25 years out of date, it shows the general type and location of habitats across East Lothian.



Figure 5: Phase 1 Habitats (1997)

6.13 There are a few areas where natural or semi-natural habitat remain. These areas are mainly where it is too rocky, steep or wet for other beneficial use. The East Lothian Local Biodiversity Action Plan identifies East Lothian priority habitat. This includes coastal, grassland, woodland and wetland habitats, some of which are relatively extensive. There are also many reservoirs and smaller ponds. Hedgerows exist across most parts of the area (except the moorland plateau), though there are sections where these are lacking. Work for the Lothian Structure Plan 2015 identified habitat networks of Broadleaf and Yew, Fen Marsh Swamp and Neutral Grassland. The figure below shows these habitats, along priority habitat from the 1997 Phase 1 survey. This shows the connectivity of the main habitat networks.

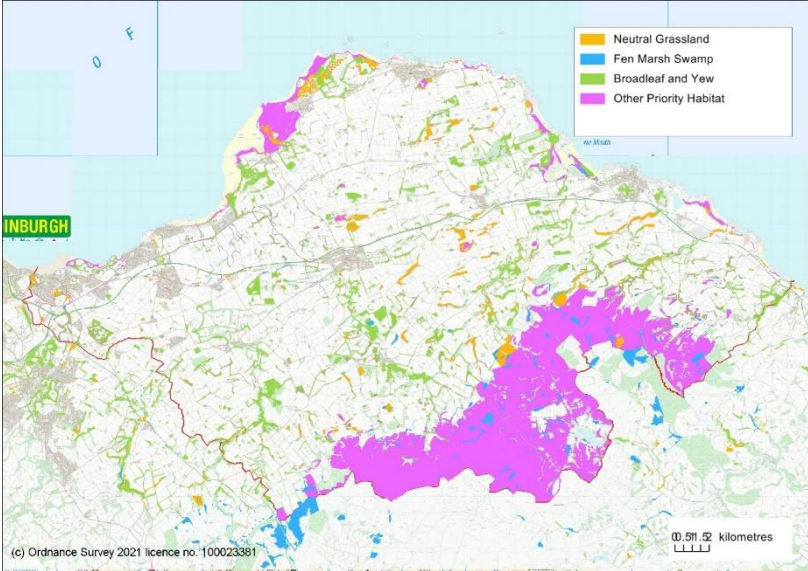


Figure 6: Integrated Habitat Networks and Ancient Woodland

6.14 Forest Research have mapped the native woodlands of Scotland in the Native Woodland Survey of Scotland²⁰. NatureScot have produced an Inventory of Ancient Woodland²¹. A map of these is shown below. As can be seen, both types of woodland (which sometimes overlap) form a small proportion of the total land area of East Lothian. In addition, the National Library of Scotland has identified ancient woodlands not previously mapped (see <https://maps.nls.uk/projects/woodland/info/>).

²⁰ Native Woodland Survey of Scotland data is available here: <https://data.gov.uk/dataset/da3f8548-a130-4a0d-8ddd-45019adcf1f3/native-woodland-survey-of-scotland-nwss>

²¹ Ancient Woodland Inventory data can be found following this link: <https://www.nature.scot/guide-understanding-scottish-ancient-woodland-inventory-awj>

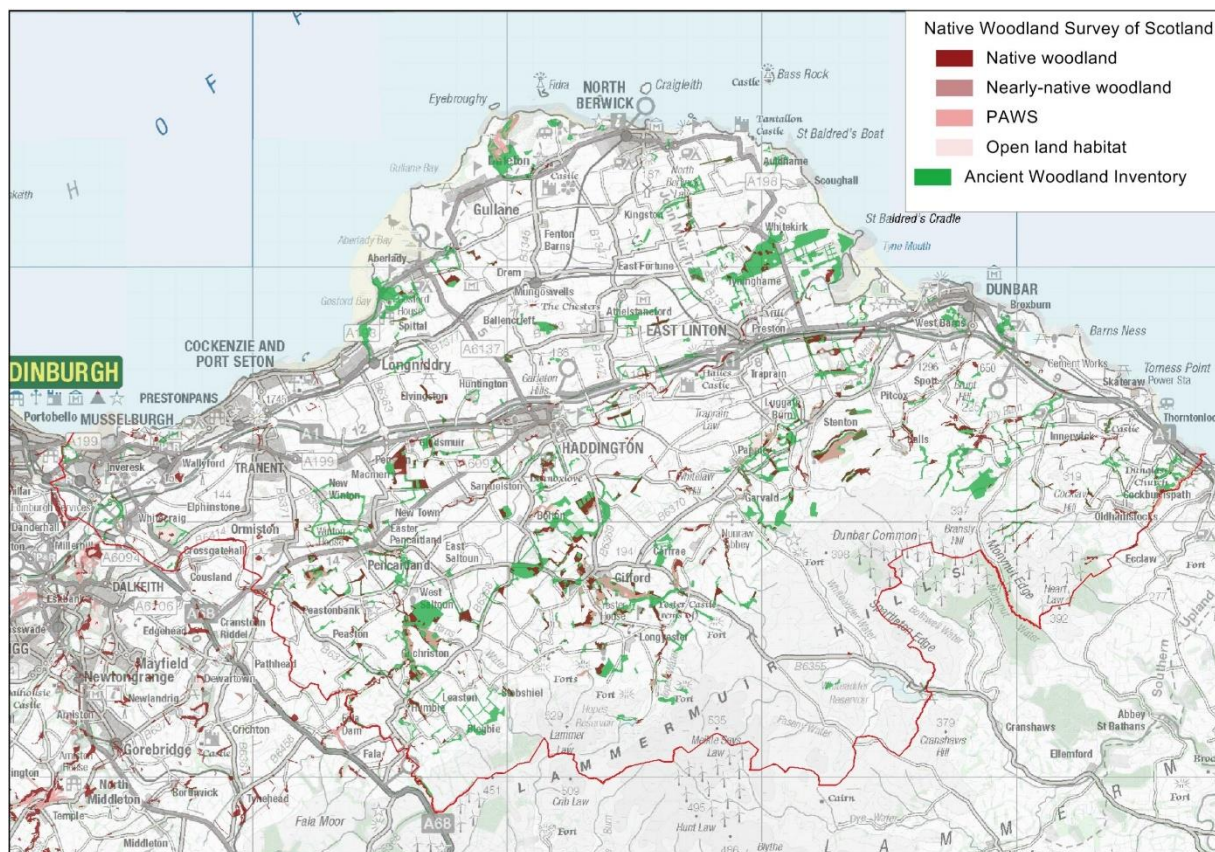


Figure 7 Native Woodland Survey of Scotland woodland, and land on NatureScot's Ancient Woodland Inventory

Contribution to International and National Issues

Changes in land use

6.15 The IPBES identifies changes in land and sea use as major pressure on biodiversity, with NatureScots' State of Nature also noting land use change as a pressure on biodiversity.

6.16 Previously (both in historic times and more recently) agriculture, urbanisation and windfarm development in East Lothian have led to some losses of both open and woodland habitat. The East Lothian Local Development Plan 2018 allocates land for housing and economic development. Development pressure is high here due to proximity to Edinburgh (which drives housing and employment land demand). There is also a good wind resource, which leads to pressure for windfarm development.

6.17 The TWSEL will create land use change through woodland creation and restructuring. Generally speaking, this change is positive for biodiversity as the woodland supported by the strategy is a richer habitat that those it will replace. Although there is the potential for impact on other important habitat directly or indirectly, including loss of connectivity, the Strategy contains mapping and policy protecting other valued habitats and if operated as intended, this will not happen. The potential for harm to other important habitat should be considered at project level.

- 6.18 There is the potential to mitigate biodiversity loss through land use change to urban use by increasing tree planting in and around urban areas. The Strategy also supports an increase of canopy coverage in urban areas, which will also help mitigate land use change to urban.
- 6.19 The Control of Woodland Removal policy limits circumstances where woodland can be removed for development, and where this is allowed, replacement planting is required. The TWSEL Policy 1 reaffirms commitment to the Control of Woodland Removal Policy, aims to guide this replacement woodland creation to suitable locations and recommends suitable woodland types.
- 6.20 Increased land use change to woodland could also bring the introduction or spreading of tree pests and diseases. The TWSEL aims to combat this through encouraging sustainable woodland management (Policy 7: Sustainable Woodland Management), support of the UK Forestry Standard and use of locally sourced stock in Policy 9: Seed and Tree Stock Sourcing.

Direct Exploitation of organisms

- 6.21 Harvesting of wood may lead to loss of those elements of biodiversity adapted to live there, as well as the trees themselves. Previous productive forestry has resulted in some mainly coniferous plantations with lower biodiversity value. However, hardwood trees, including native trees, can be commercially exploited, including some with a high biodiversity value. The TWSEL encourages sustainable woodland management (Policy 7: Sustainable Woodland Management), which includes sustainable extraction of timber and avoids clear felling. The TWSEL encourages management of productive woodland to encourage biodiversity in Policy 20: Productive Woodland. Although felling a tree will lead to the loss of its biodiversity value, the potential for obtaining a return on the timber may encourage landowners to retain woodland as such. Overall, support for productive hardwood is likely to be beneficial.
- 6.22 Foraging is another way that woodland species may be directly exploited. There is legislation in place to prevent digging up of wildflowers however foraging for personal consumption is permitted under the Land Reform (Scotland) Act 2003. The Strategy does not encourage foraging. However, increasing access to and knowledge of woodland and woodland plants could lead to an increase in foraging, which may affect woodland biodiversity. This should be balanced by an increase in the woodland resource overall however (Target 1: Creation of the Climate Forest).

Climate change – biodiversity adaptation

- 6.23 Climate change could affect the survival of woodland species in East Lothian, and their ability to adapt. The impact of climate change on biodiversity in East Lothian (as elsewhere) is not entirely predictable. It may bring new invasive species and new diseases for plants, animals and people. Well-connected, diverse networks are needed to allow species to move in response to changed climate. Climate change could also affect resilience of the trees as the conditions to which they have evolved change. Drought, colder springs, and more extreme weather events, such as wind, can stress some trees and woodland species, making them more susceptible to pests and diseases.
- 6.24 Planning for increased woodland cover brings the opportunity to improve woodland connectivity. This can help species migrate. As noted above, the TWSEL provides for the protection of other habitat networks, which will also need to respond to climate change, in Policy 14: Protection of the Natural Environment. The TWSEL will help biodiversity adapt to climate change through encouraging species diversity and allowing for climate migration (Section 7, Connection for Climate Migration and related policy and mapping).

6.25 Sea level rise and coastal habitat squeeze is one of the main issues that might affect the East Lothian coast. In this area, there are limited options for replacing coastal habitat due to the presence of existing built development. Woodland creation could also reduce the land available to coastal habitat. The TWSEL encourages the formation of coastal mosaic habitat here (Target 3, Action 29, mapping). In the Innerwick Coastal Margin, which is a narrow area between the North Sea and the Lammermuirs, the TWSEL encourages the development of a Landscape Masterplan for this area to allow for climate migration of different habitats, while enhancing the landscape (Target 7 and Action 30).

Pollution

6.26 Biodiversity can be affected by pollution including air pollution and nitrogen enrichment. Nitrogen deposition effects are long lasting, altering plant communities and ecological functioning. New agrochemicals, pharmaceuticals and plastics also cause harm. Air quality has improved in Scotland, and of the main pollutants all bar ammonia are below 40% of their 1990 values²². NatureScot's State of Nature Report 2019 notes that forestry, along with agriculture, is one of the main causes of diffuse pollution in Scotland, with nutrient and pesticide run-off, soil erosion through cultivation. Noise pollution could potentially affect the amount and type of biodiversity in woodland²³.

6.27 Pollution of air, water and soil is considered in those respective sections of this Environment Report. Tree planting can help remove pollutants including from air, water and soil, and address noise in some situations.

6.28 The TWSEL is not expected to affect the levels of pollution which affect biodiversity other than through its effects on air or water quality, and pollution is Scoped out here.

Impacts from Invasive Non-Native Species

6.29 Invasive Non-Native species are an issue globally and for East Lothian. It is possible that Expansion of woodland could unintentionally lead to proliferation of invasive woodland species. Increasing woodland cover in wanted places could also lead to increased self-seeding in unwanted places. Species relevant for the TWSEL are sea buckthorn and rhododendron, cherry laurel, fallow and sika deer, among others (see also 'Woodland Management' below).

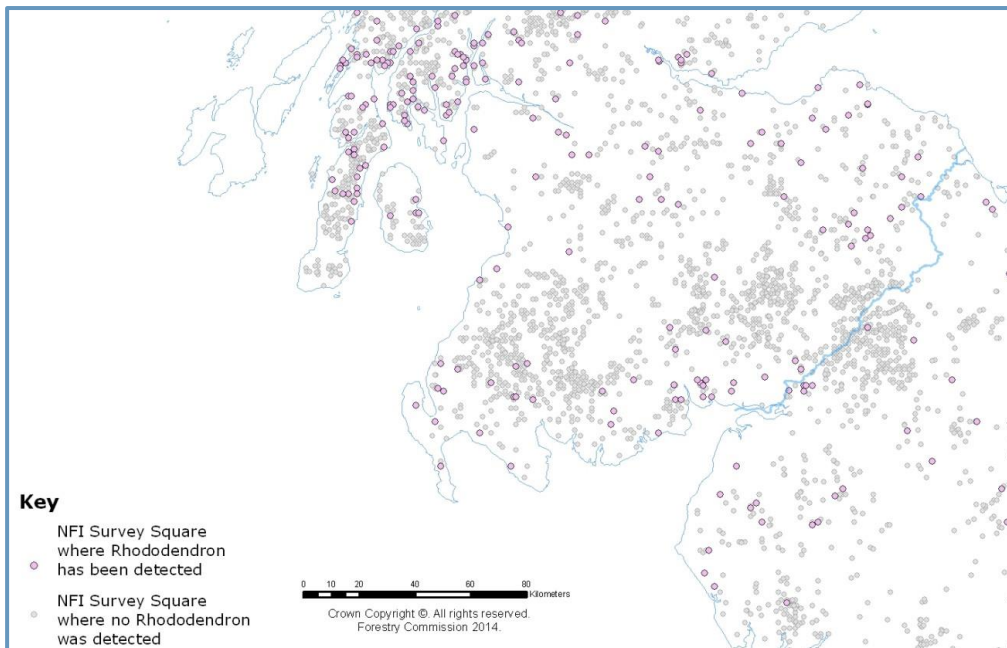
6.30 NatureScot suggest in their response to consultation on the draft Environment Report that a minimum of 100m buffer between planted woodlands and native and protected woodlands to reduce the spread of Invasive Non-Native Species should be included. Planted woodland could include Native woodland. While this may impact genetic diversity of the existing woodland, it is needed to improve connectivity overall. Further text has been added to the TWSEL at paragraph 6.85 in response to this. The Strategy is likely to lead to changes in the genetic make up of woodland species due to new planting, which could have an adverse impact even if it is

²² NatureScot "State of Nature" report 2019 <https://www.nature.scot/sites/default/files/2019-10/State-of-nature-Report-2019-Scotland-full-report.pdf>

²³ Phillips, Jennifer, et al. "Long-Term Noise Pollution Affects Seedling Recruitment and Community Composition, with Negative Effects Persisting after Removal." *Proceedings of the Royal Society B*, vol. 288, no. 1948, 2021, pp. 20202906., doi:10.1098/rspb.2020.2906 quoted in Treehugger Anna Nordseth "How Do Trees Reduce Noise Pollution" at <https://www.treehugger.com/how-do-trees-reduce-noise-pollution-4863592#citation-14> accessed 27/09/2021

native woodland. There could also be an increase of non-native species entering native woodland areas due to increased connectivity.

6.31 The flowing map extract is from a Forestry Commission Report in 2016²⁴ looking at rhododendron and shows that this plant does occur at several sites in East Lothian. The TWSEL notes that this species is a threat to woodland as it shades out the understorey and spreads pathogens, in particular to larch. This plant is a major cause of woodland SSSIs not being in good condition. The TWSEL supports removal of rhododendron, which would benefit biodiversity overall.



6.32 The Council will continue to manage sea buckthorn at the coast but does not aim to eliminate it. This existing practice is not a result of the TWSEL.

6.33 TWSEL Policy 11: Invasive Species supports management of invasive species in line with national policy. The Strategy also includes Policy 12: Deer Management, which supports addressing deer issues.



Figure 8 Sea buckthorn

6.34 The creation of the Climate Forest is likely to lead to some increase in invasive woodland species in particular deer. Deer control is needed as a priority mitigation measure against increased habitat

²⁴ Forestry Commission 2016, “NFI preliminary estimates of the presence and extent of rhododendron in British woodlands”

https://www.forestresearch.gov.uk/documents/2715/Presence_of_Rhododendron_in_British_Woodlands.pdf

creation for deer.

6.35 Pheasants are not native to the UK and probably arrived in the UK with the Normans. Use of woodland for pheasant rearing for game is a relatively common in East Lothian and may expand with further woodland creation. There are concerns that pheasant breeding and release may have a negative ecological impact, including the impact of pheasant release pens on the woodland ground flora and soils below the pen. However, the Game and Wildlife Conservation Trust quotes research²⁵ showing that the woodland management for game birds, including coppicing, maintaining glades and clearings, rides and hedges, and planting game crops, has many advantages for other wildlife.

6.36 Overall, there is likely to be some increase in invasive species, although this is not the intention of the strategy which does not support this. Rather it is the likely result of providing more suitable habitat.

Woodland Management

6.37 The UK Forestry Standard sets out requirements for sustainable forestry management, and meeting its provisions is a condition for woodland creation consents or distribution of Scottish Forestry grant funding. This will encourage and require sustainable forestry management. The TWSEL recognises and supports the UK Forestry Standard.

6.38 The SEA of the Scottish Forestry Strategy identified the following impacts of woodland management on biodiversity:

- deer browsing impacts and loss of woodland structure, and potential associated effects of deer management on deer welfare
- neglect or lack of management

²⁵ Game and Wildlife Conservation Trust “Pheasant release pens: The long-term effects of pheasants on the plant community” at <https://www.gwct.org.uk/game/research/species/pheasant/long-term-effects-of-pheasant-release-pens/> accessed 26/04/2024

- mismanagement (e.g. “scrub” clearance) impacts of poorly planned and designed woodland expansion (e.g., vulnerability to disease due to monocultures; interactions with native woodlands; impacts on open-ground habitats, land management practices etc.).

6.39 The Native Woodland Survey of Scotland (Forestry Commission 2013) showed that although there were hotspots of damage, over 90% of East Lothian’s native woodland was in the lowest two categories for impact of herbivores (see Figure 12).

6.40 While deer (or at least some species of deer) are native and part of woodland biodiversity, large numbers can be damaging as their browsing can damage trees, as well as stifling regeneration and development of the understorey. They can also contribute to road traffic accidents. Sustainable management of deer is an important part of sustainable forest management. The Scottish Forestry Strategy supports ‘Scotland’s Wild Deer: A National Approach’ which sets out Scotland’s vision for wild deer. This aims among other things, to manage deer as an integral and essential part of biodiversity. Activity carried out under the National Approach will continue. Deer management is subject to national legislation and procedures which will continue. The TWSEL supports this, encouraging land managers to work with NatureScot on deer issues (Policy 12, Deer Management).

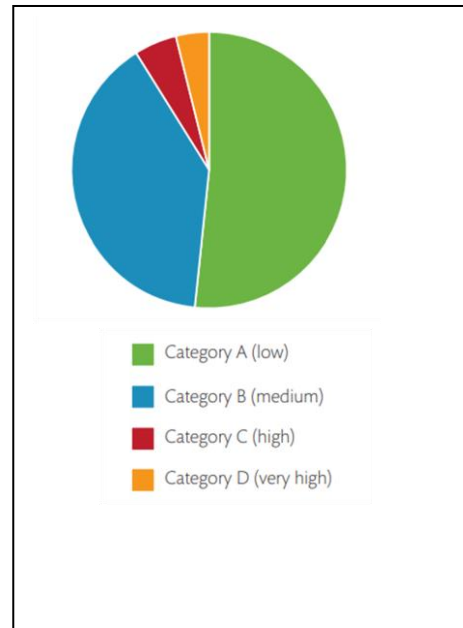


Figure 9 Herbivore Impact in East Lothian's Native Woodland (Forestry Commission 2013)

6.41 With regard to scrub clearance, the TWSEL also identifies Scrub as a Native Woodland Type and includes areas of scrub as woodland on the mapping. Scrub is noted through the text as a type of woodland that may be appropriate in some areas. This may help raise awareness of the value of this habitat and avoid harm to biodiversity through uninformed scrub clearance.

6.42 The TWSEL encourages woodlands to be positively and sustainably managed (Policy 7: Sustainable Woodland Management). The effects of the TWSEL are likely to be positive for sustainable management of woodland, especially alongside the UK Forestry Standard and the National Approach to deer management.

Reintroductions

6.43 Increasing woodland may make it more likely that reintroduced animals that favour woodland may arrive in East Lothian. Beavers have been reintroduced and are now a protected species (see ‘Protected species below).

6.44 Wild boar were made extinct in the UK in medieval times but were reimported from the continent for meat farming in the 1980s. Some of them escaped and there are now some feral populations. There have been some reports of feral boar in Scotland. Wild boar live in woodland. Wild boar have not been introduced into the wild as a matter of government policy however increasing woodland cover may make them more likely to establish here. Wild boar are dangerous and hard to catch, and also hard to control especially in areas with a relatively

dense human population. They are however part of our original woodland biodiversity and are generally positive for its overall biodiversity as they root in soils and leaf litter, mixing soil nutrients. This helps increase plant biodiversity.

6.45 Lynx and wolf are both woodland species that were once present in Scotland, and there is some public debate over the possibility of their reintroduction. An application to reintroduce Lynx to the Kielder Forest was rejected in 2018. Bears were also once present in Scotland, but their reintroduction is much less likely.

6.46 The TWSEL support increased woodland connectivity (Policy 10: Addressing Fragmentation, Target 4), which would help dispersal of woodland species including reintroductions. Discussion of potential long-term effects would however be purely speculative at this stage, and this topic is therefore Scoped out other than to note there could be an effect.

Conservation of existing biodiversity

6.47 Despite the overall picture of historic biodiversity loss, there remain some important areas of habitat and species. These require conservation. Existing law and policy has provided a framework for protection of valued habitats and species through designation of sites and legislation on protected species.

Conservation of International, European and National Sites

6.48 East Lothian contains areas designated internationally for birdlife. There are also areas designated nationally for their biodiversity value, including some woodland areas.

6.49 The Firth of Forth is internationally recognised as a Ramsar site and shares boundaries with the Firth of Forth Special Protection Area, a European site. The other European Sites in the area are the Forth Islands SPA (part) and the Outer Firth of Forth and St Andrews Bay Complex SPA (part). All the European sites are also covered by SSSI designation. There are 15 SSSI's within or partly within East Lothian, some of which (Bangley Quarry, Garleton Hills and Keith Water) are designated solely for their geological interest. The cited features of SSSIs, their status, trend, and pressures occurring within the SSSIs are shown in Appendix 1: Condition of SSSIs. Further information on international and national sites, including the most recent assessed condition of these sites, can be found on NatureScot's website at: <https://www.nature.scot/information-hub/snhi-data-services> . Figure 10 shows national and international sites in and near East Lothian.

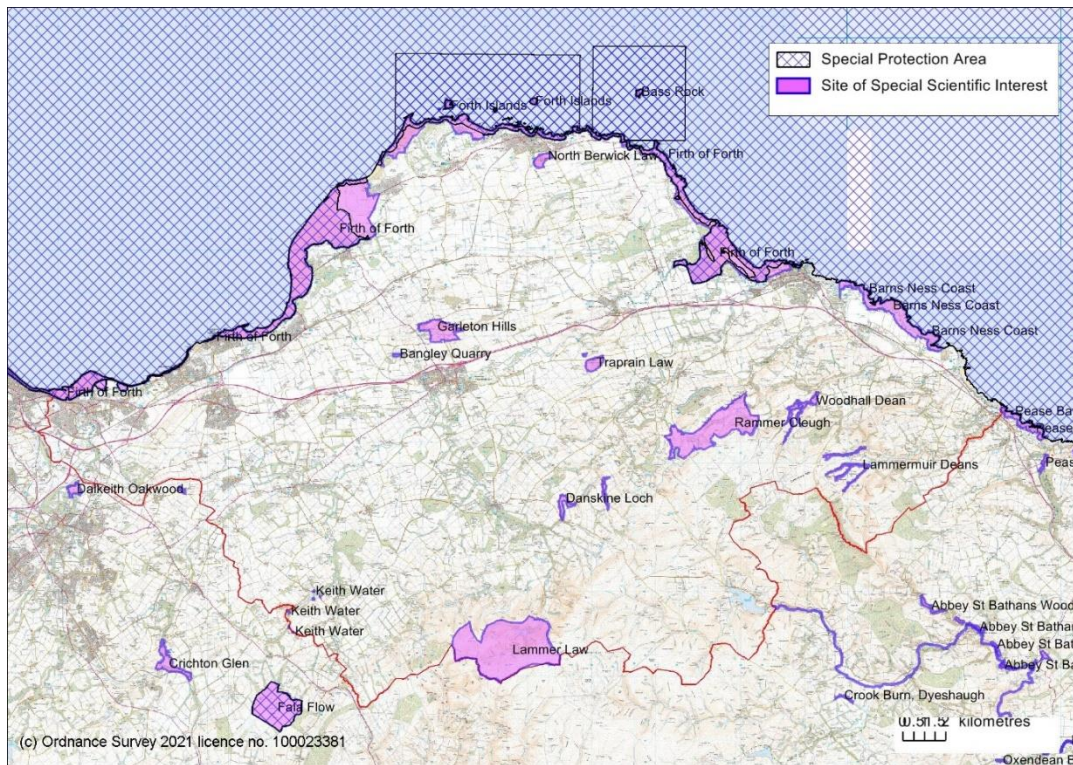


Figure 10 European Sites and Sites of Special Scientific Interest

6.50 The Council has undertaken Habitats Regulation Appraisal/Appropriate Assessment of this Strategy, which should be read alongside this Environment Report. This gives information on the qualifying interests and condition of European sites and the predicted effects of the TWSEL.

6.51 Some features of European Sites and Sites of Special Scientific Interest are either not in favourable condition, or are declining, or both. The pressures on the SSSIs include both those *on* woodland interests within a SSSI and *from* trees or shrubs on other qualifying interests of the SSSI. Poorly considered tree planting or woodland creation could have a significant detrimental effect on most if not all of these. However, all SSSIs have a list of Operations Requiring Consent, which where necessary include the introduction of a plant or seed, or woodland management. Given the operation of this scheme of control, SSSI's are protected from direct effects of planting or poor woodland management, where that is a risk.

6.52 Pressures on woodland sites include invasive species (Danskine Loch's Fen woodland, Lammer Law's juniper scrub) overgrazing by deer (affecting Upland Oak Woodland at Woodhall Dean and Upland Mixed Ashwood of the Lammermuir Deans, the latter also being affected by sheep), while invasive species and undergrazing are a pressure on the ash wood at Papan Water. Pressures arising from invasive tree and shrub species on non-woodland features are Scots Pine and scrub at Bangley Quarry; Forth Islands (mallow); and Firth of Forth (sea buckthorn). Forestry Operations are a pressure on the geological interest at Rammer Cleugh. The woodland SSSIs would naturally be part of a larger network. Lack of being part of a larger network means less resilience and genetic diversity for species there, especially woodland specialists.

6.53 There is the opportunity for a positive impact on woodland qualifying interests of SSSIs by expansion of similar woodland habitat which could help support genetic diversity and connectivity. The TWSEL also encourages neglect or lack of management of these sites to be addressed, though for many woodland sites, the Council cannot directly affect landowner activity.

- 6.54 Woodland creation could also create adverse indirect effects. Some trees and shrubs can be invasive in some situations, and expansion of forestry and woodland could lead to self-seeding which could affect both geological and biological SSSI's.
- 6.55 Without the Strategy, the Special Protection Areas, Ramsar Sites and SSSIs will continue to experience pressures as noted in NatureScot's information, the HRA and Appendix 1. The East Lothian Countryside Rangers and East Lothian Conservation Volunteers have an ongoing programme of work at coastal sites, which helps maintain the East Lothian section of the Firth of Forth site(s). The areas of supporting habitat used by inland waders will remain largely as now, though there may be some changes with minor residual effects through development proposed by the East Lothian Local Development Plan 2018.
- 6.56 The TWSEL supports improved connectivity (Target 4, Action 11, Action 12, mapping) and this would allow for greater resilience of the species within SSSIs especially woodland specialists.
- 6.57 The TWSEL supports peatland restoration over woodland creation in areas where this is possible (Policy 15: Peatland) as well as reducing run off into watercourses (Target 2B, mapping identifying riparian zones). In the areas that drain into the Tweed, this would be upland montane scrub mainly, with some cleugh woodland (Policy 6: Water Management and slope stability). The TWSEL supports natural regeneration over planting. This avoids silt run-off into the tributaries of the SAC which could occur with planting (Policy 9 Seed and Stock Sourcing).
- 6.58 The effects of the TWSEL on European Sites are noted in the Habitat Regulation Appraisal.

Conservation of Local Biodiversity Sites

- 6.59 The Council designated Local Biodiversity Sites (LBS) in 2018, and included sites with rare species and/or habitats but also sites for their connectivity and community value. These sites include areas with East Lothian priority habitat and species. The sites identified for community interest may not contain the rarest biodiversity, but have enough about them to inspire and allow people to connect with nature on their doorstep. The process therefore recognised that biodiversity does not exist in isolation, but benefits from supporting habitat and supportive people.
- 6.60 There is the potential for significant positive impacts on woodland Local Biodiversity Sites through improving connectivity and woodland structure. Local Biodiversity Sites do not have the benefit of Operation Requiring Consent control, and therefore could potentially be adversely affected by woodland creation where the interest is in another habitat.
- 6.61 Figure 11 shows Local Biodiversity Sites, the Local Nature Reserve (Aberlady Bay), the Country Park (John Muir) and land covered by Tree Preservation Orders. A list of Local Biodiversity Sites, their main habitats, notable species and wildlife can be found in Appendix 1 of [East Lothian's Green Network Strategy](#).
- 6.62 The main issues for Local Biodiversity Sites are connectivity, and potentially pressure from an increase in population in the area. There is also a lack of sites suitable for designation in some parts of this area, due to the overall lack of biodiversity.

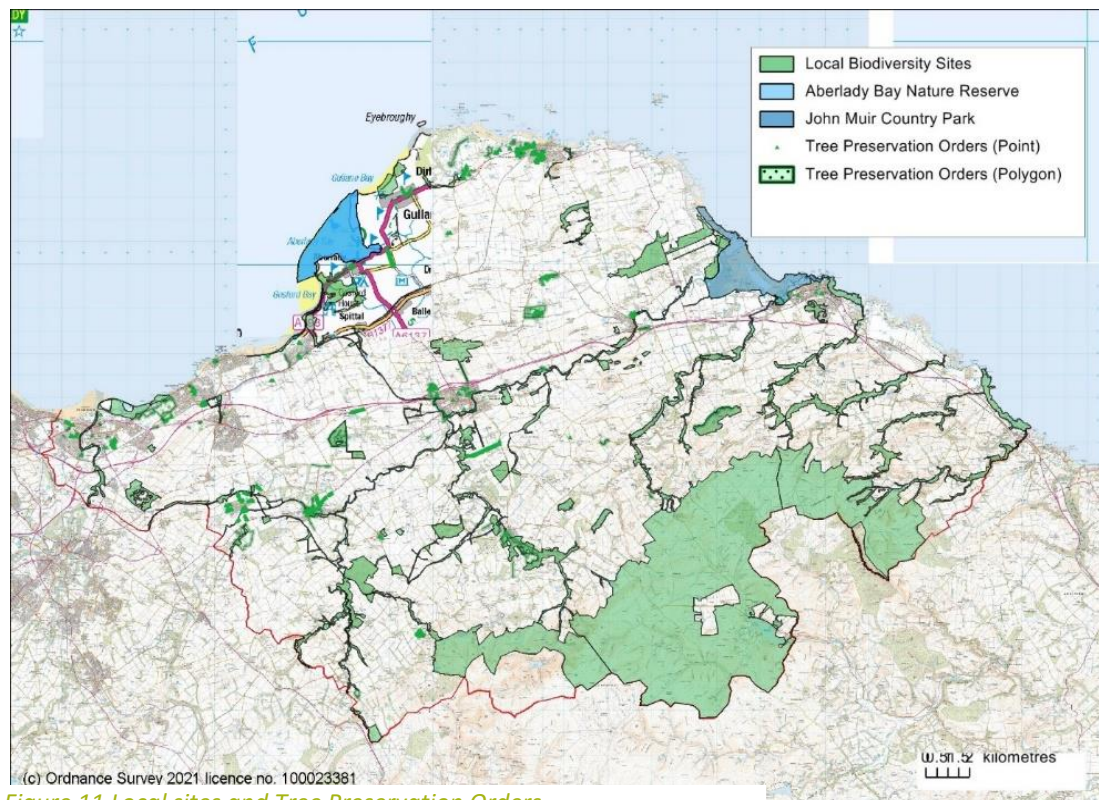


Figure 11 Local sites and Tree Preservation Orders

6.63 Without the Strategy the overall condition of Local Biodiversity Sites in this area is likely to remain similar to what is there now. There might be some ad hoc improvement due to community action, and also actions under the forthcoming East Lothian Local Biodiversity Action Plan.

6.64 The TWSEL identifies the woodland network Local Biodiversity Sites as Woodlands of High Nature Conservation Value. This helps protect these sites from development as National Planning Framework 4 Policy 6 states that development proposals will not be supported where there is adverse impact on native woodlands of high biodiversity value identified in the Forestry and Woodland Strategy. Policy 14: Protection of the Natural Environment states that woodland management, expansion, creation, removal or restructuring should not harm Local Biodiversity Sites. This gives both woodland and non-woodland sites greater protection than they would have had without the TWSEL.

6.65 Improving woodland connection generally should also help support the woodland Local Biodiversity sites ((Target 4, Action 11, Action 12, mapping). Implementation of the TWSEL should therefore benefit Local Biodiversity sites through greater connectivity of the woodland sites, increased sustainable management, and increased recognition of the existence and value of these sites.

Conservation of Protected Species

6.66 There is a range of protected species in East Lothian. European protected species include bats, which occur in suitable habitat across East Lothian; otter along many watercourses and the coast; great crested newt in a small selection of ponds. There are also records of marine mammals visiting the coast however these will not be affected by the Strategy. There are thought to be some small water vole populations remaining, and mountain hare in the uplands. Badgers are not uncommon across the area. There are also some Annex 1 birds.



6.67 The following table shows which species are considered and why.

Table 2 Protected Species Considered in Assessment			
Species	Threats / Opportunities	Why its relevant	Effects of the TWSEL
Bats	Vulnerable as impacts can have widespread effects	Bats tend to roost in woodland but forage over open ground or water. They may follow hedgerows to foraging sites. European Protected Species.	Expansion of woodland (Target 1, Action 2, mapping) and increasing riparian woodland (Target 2, mapping) should expand roosting sites. Increase of hedgerows would support navigation and invertebrate populations for feeding. Effects should be positive.
Otter	Disturbance	Woodland creation in riparian areas has the potential to affect otter habitat. European Protected Species	Riparian woodland would increase (Target 2B), providing more suitable habitat, supporting otter.
Great Crested newts	Loss of habitat	The newts live in ponds but need open land for foraging. Woodland creation could reduce this and adversely affect them. European Protected Species.	Increased woodland planting has the potential to impact on wetland habitat, Policy 14 states that woodland management or expansion should respect CGSN wetland, which is likely newt habitat, as well as avoiding harm to protected species through location of proposals. The impact on newts should be neutral.
Badgers	Loss of habitat, disturbance	Badgers can live in woodland but like a diversity of habitat and could be affected. Protected under the Protection of Badgers Act 1992.	The TWSEL should increase woodland habitat (Target 1, Action 2), but may also increase disturbance through increasing access to woodland. However, badger are not protected for reasons of rarity.
Water voles	Change in habitat	Water voles prefer unshaded waterways so an increase in riparian woodland	Increasing riparian woodland (Target 2B) in balance with open habitat along watercourses should improve water vole habitat. Increasing public access

Table 2 Protected Species Considered in Assessment

		could adversely affect them. Wildlife and Countryside Act 1981.	to woodland including along rivers may increase disturbance however this generally favours water voles as people with dogs deter mink, which predate the voles.
Beavers	Change in habitat	Beaver have been successfully re-introduced to Scotland and are a European Protected Species.	Beaver are not resident in East Lothian at present to our knowledge but in the long term it would be expected that they will migrate here. Increasing woodland habitat especially in riparian areas (Target 2B) should support beaver re-colonisation should they reach East Lothian. The effects of beavers on ecosystems can be considerable, being generally positive for woodland and biodiversity generally ²⁶ .
Birds – Annex 1 and Schedule 1	Disturbance during nesting / Change in habitat / Reduction to feeding grounds / Increase in shelter and feeding areas	Most of the Annex 1 species are qualifying interests of the SPA (Golden plover, bar-tailed godwit and sandwich tern) and impacts would be explored through HRA. Increased food availability and shelter would help barn owl.	Woodland expansion is expected to favour woodland birds over those of farmland. Farmland birds are declining in general. Hedgerows could favour such birds however as field margins provide good habitat for them. Most Annex 1 birds in East Lothian are qualifying interests of the Firth of Forth SPA. Woodland creation in arable fields and open land could affect foraging and roosting habitat of some of these birds and will require to be considered at project level (see also Habitat Regulation Appraisal/Appropriate Assessment). Barn owls roost in woodland but hunt generally over farmland and may suffer loss of foraging habitat.
Protected / rare / Schedule 8 plants	Change / loss of habitat / disturbance	Bluebell is a woodland species, the only Schedule 8 plant and has partial protection	Bluebell would be supported due to protection and expansion of woodland.
Salmon	Impediments to breeding grounds, high river water temperatures, oceanic issues	Woodland creation on river banks can affect river temperature; salmon prefer cool water and high temperatures can	The TWSEL plans to expand riparian planting in balance with open habitat. This will help regulate river temperatures and should help support salmon breeding.

²⁶ Scottish Government. 2017, “Beavers in Scotland” SEA Environment Report, at https://consult.gov.scot/forestry/beavers-in-scotland/user_uploads/sct09170881161-01-2.pdf

Table 2 Protected Species Considered in Assessment

		reduce breeding success	
Invertebrates	Change/loss of habitat	Northern brown argus	The northern brown argus feeds on rockrose. This appears generally on rocky grassland habitat, which could be adversely affected especially by cleugh planting which the TWSEL supports. This should be considered at project level.

6.68 Without the Strategy, legislation should protect these species from direct harm. However they can be vulnerable to indirect effects such as habitat loss.

Non-designated biodiversity

6.69 The TWSEL is expected to significantly increase the amount of woodland habitat. The Scottish Biodiversity List is a list of animals, plants and habitats that Scottish Ministers consider to be of principal importance for biodiversity conservation in Scotland. Woodland habitats on the list are: Lowland mixed deciduous woodland; native pine woodlands; upland birchwoods; upland mixed ashwoods; upland oakwood; wet woodland and wood pasture and parkland. Hedges and traditional orchards are also on the list.

6.70 An increase in woodland implies a decrease in some other habitat types. Habitat types where the TWSEL may support woodland creation or tree planting include amenity grassland within urban areas, agricultural land where food production capacity is not lost, and some types of grassland.

6.71 The value of amenity grassland for biodiversity is low. Arable land does have value, in particular for birds, and arable field margins are a Scottish Biodiversity List habitat partly for their importance in supporting farmland birds. Lowland calcareous and dry acid grassland are also on the list, having considerable biodiversity value which is often overlooked.

6.72 Where a habitat type on the Scottish Biodiversity List is created on a habitat that was not on the list, there is likely to be a gain for biodiversity overall. TWSEL Policy 14 recognises and seeks to protect the Central Scotland Green Network grassland and wetland habitat networks and protects them. Overall, the effect of the TWSEL on Scottish Biodiversity List grassland and wetland habitat is expected to be neutral as woodland creation and tree planting is not supported there. There may be a slight positive effect from bringing attention to the value of grassland networks, which can seem suitable sites for tree planting.

Table 3 Scottish Biodiversity List habitats

Coastal	Coastal saltmarsh
Coastal	Coastal sand dunes
Coastal	Coastal vegetated shingle
Coastal	Machair
Coastal	Maritime cliff and slopes
Freshwater & Wetland	Coastal and floodplain grazing marsh
Freshwater & Wetland	Eutrophic standing waters
Freshwater & Wetland	Lowland fens
Freshwater & Wetland	Lowland raised bog
Freshwater & Wetland	Mesotrophic lakes
Freshwater & Wetland	Oligotrophic and dystrophic lakes
Freshwater & Wetland	Ponds
Freshwater & Wetland	Reedbeds
Freshwater & Wetland	Rivers
Lowland	Arable Field Margins
Lowland	Hedgerows
Lowland	Lowland calcareous grassland
Lowland	Lowland dry acid grassland
Lowland	Lowland Heathland
Lowland	Lowland meadows
Lowland	Open mosaic habitats on previously developed land
Lowland	Purple moor-grass & rush pastures
Lowland	Traditional orchards
Lowland	Upland hay meadows
Woodland	Lowland mixed deciduous woodland
Woodland	Native pine woodlands
Woodland	Upland birchwoods
Woodland	Upland mixed ashwoods
Woodland	Upland oakwood
Woodland	Wet woodland
Woodland	Wood Pasture and Parkland
Upland	Blanket bog
Upland	Calaminarian grasslands
Upland	Inland Rock Outcrop and Scree Habitats
Upland	Limestone Pavements
Upland	Mountain heaths and willow scrub
Upland	Upland calcareous grassland
Upland	Upland flushes, fens and swamps
Upland	Upland heathland
Upland	Juncus squarrosus-Festuca ovina grassland
Upland	Nardus stricta-Galium saxatile grassland

6.73 The TWSEL seeks riparian planting (Target 2B) which will benefit river habitat.

6.74 The TWSEL also brings the opportunity to address neglect or lack of management for new and existing woodlands (including planning enforcement e.g., for woodland that has been planted but not grown); deer browsing impacts and loss of woodland structure, as well as fragmentation.

6.75 The TWSEL has the potential to support wetland and open water biodiversity. Properly designed riparian planting can help moderate shade and water temperature, which can help maintain a suitable environment for fish and other biodiversity. Ideally, around half of the watercourse should be open to sunlight, with the rest in dappled shade. The TWSEL supports riparian planting (Target 2B, Policy 10: Addressing Fragmentation). TWSEL Policy 14 recognises the CGSN wetland habitat network and seeks to protect it. Overall the effect on wetland and river biodiversity is expected to be neutral or positive.

Support the Central Scotland Green Network

Contribution to the East Lothian Green Network

6.76 The East Lothian Green Network Strategy²⁷ includes a Nature Network. The aim of this is to support wildlife recovery, while recognising the important role of agricultural land. The Green Network Strategy notes that movement of wildlife needs a connected network, and that habitat management is essential to maintain the quality of this network. The Green Network Strategy recognises public access to and enjoyment of biodiversity as important to improve public engagement with the natural world and therefore biodiversity conservation. One of its aims is that every community should have an area nearby that has some biodiversity interest. Contribution to the Green Network is related to the biodiversity topics above.

6.77 The Green Network Strategy sets out 'Tasks' to improve the Nature Network. The most relevant task is Nature Network Task 1: 'To improve woodland habitat, by seeking opportunities to expand native woodland and tree planting in appropriate areas, managing ancient woodland sites to encourage wildlife, and creating tree lines and woodland connections between areas of existing habitat'. The Nature Network shows the areas thought suitable. The TWSEL refines these through following the methodology of Right Tree Right Place to create constraints mapping. Policy 10: Addressing Fragmentation encourages new woodland and hedgerow connectivity, in particular where it supports the Central Scotland Green Network woodland habitat. The main aims of the Green Network Strategy for woodland, namely a strategic east/west corridor; river valley and cleugh planting and a strengthened woodland connection along the Longniddry/Haddington Railway walk are retained.

6.78 Nature Network Task 2: Coast, and Nature Network Task 3: Grassland and Farmland seek opportunities for saltmarsh and grassland and farmland habitat expansion respectively. Nature Network Task 4, Wetlands: Great Crested Newts and Water Voles seeks opportunities to improve and expand wetland habitat, including improving value of habitat along watercourses, improving and creating ponds in appropriate locations, improving and extending water vole habitat, and promoting great crested newt conservation. The TWSEL takes this into account in providing for protection of other important non-woodland habitat (Policy 14: Protection of the Natural Environment).

Likely Significant Effects - Biodiversity

6.79 The following table shows the SEA objectives for Biodiversity and summarises the impact.

²⁷ Available here: https://www.eastlothian.gov.uk/downloads/file/28136/green_network_strategy_spg

SEA Objective, Biodiversity: Maintain and enhance biodiversity			Theme 1 – Climate Mitigation	Theme 2 – Resilience and adaptation	Theme 3 – Biodiversity	Theme 4 – Community	Theme 5 - Economy	Theme 6 – Cultural Heritage	Theme 7 – Landscape Character
SEA Indicator questions for assessment. Does the plan....?	KEY								
	Positive	+							
	Neutral	0							
	Unknown	?							
	Mixed/Variabl e	//							
Negative	-								
Contribute to addressing national/international biodiversity issues			+	+	+	//	//	0	+
Conserve existing biodiversity			+	+	+	//	0	+	+
Support the Central Scotland Green Network			+	+	+	+	+	+	+

Commentary on Biodiversity Indicators

6.80 The TWSEL will contribute to addressing **national and international biodiversity issues and conserve existing biodiversity** through increasing protection of woodland (Policy 1: Retention of Woodland, Trees and Hedges) and guiding the creation of new sustainably managed native woodland, avoiding areas of other habitat networks (Constraints for Woodland Expansion Map, Policy 14: Protection of the Natural Environment). There will be a positive impact on woodland SSSIs and Local Biodiversity Sites, through increasing connectivity (Policy 10: Addressing fragmentation) and improving structure of woodland (Policy 7: Sustainable Woodland Management). It is the intention of the TWSEL that potential adverse impact on non-woodland SSSI and Local Biodiversity Sites be avoided both by these locations being identified as Sensitive in the mapping, and by the inclusion of Policy 14 which requires projects to enhance designated sites. This policy also requires projects to consider impacts on protected species.

6.81 There is the possibility that woodland creation could enable the spread of non-native invasive species, such as grey squirrel and rhododendron, as well as some species of deer. Policy 11 requires management of invasive species in line with national policy. However, an increase in non-native invasive species (and roe deer, which are native but invasive) may still occur as it is hard to expand woodland without also giving the opportunity for some invasive species to spread.

6.82 Impacts on European and Ramsar sites are considered through the HRA/Appropriate Assessment process and those documents should be read in conjunction with this SEA. It is possible that woodland proposals (in particular farmland woodland or coastal mosaic woodland habitat) could come forward in areas that are used by inland wader and the pink footed goose of the Firth of

Forth SPA/Ramsar/SSSI for roosting and foraging, potentially leading to the loss of this habitat. The Strategy recognises that the interest of the SPAs is a constraint. Policy 13: Protection of European Sites specifically requires that proposals that are likely to have a significant effect on a European site must undergo Habitat Regulation Appraisal and where needed, Appropriate Assessment.

6.83 The Strategy will **support** the Central Scotland Green Network both by increasing woodland habitat and by encouraging increased access to some woodlands. There is a tension between the biodiversity value of the wood and encouraging visitors to it – although encouraging visitors has the potential to engage people in biodiversity, helping support its protection. The Land Reform (Scotland) Act 2003 already gives a right of access to many woodland areas, with Core Paths running through some of them. Allowing visitors to woodland is therefore not a result of this strategy. However, access is encouraged and this may lead to possible negative impacts on woodland, including from dogs. The TWSEL recognises the need to manage visitor pressure from recreation. The TWSEL cannot prevent access to woodland as this is covered by Land Reform Act access rights. Paragraph 7.30 notes that steering recreation to robust woodlands helps protect sensitive woodland, and in the following paragraph notes the Councils intention to continue to manage the woodland sites it owns or manages to help manage pressures. The TWSEL draws attention to the Scottish Outdoor Access Code, which gives guidance on how countryside visitors should act to avoid damage. This will hopefully help balance recreational demand with the needs of more fragile woodlands, benefitting biodiversity.

Mitigation of potential adverse impacts of the Strategy – Biodiversity

6.84 **Embedded mitigation:** The Strategy contains Policy 13 European Sites and Policy 14 Protection of the Natural Environment that aims to protect biodiversity. The constraints mapping identifies areas that are sensitive for natural heritage reasons, which are therefore unlikely to receive funding for woodland creation.

6.85 **External Mitigation:** Scottish Ministers have a duty under the Forestry and Land Management (Scotland) Act 2018 to promote sustainable forest management. Scottish Ministers must have regard to this duty when managing forested land or considering felling applications. Scottish public authorities must also promote sustainable forest management in so far as it is consistent with the exercise of their functions. The UK Forestry Standard²⁸ has provisions on biodiversity, which will help mitigate some effects; adherence to the standard is required for payment of government grants for woodland creation and forest management. Public bodies in Scotland have a duty to further the conservation of biodiversity under the Nature Conservation (Scotland) Act 2004.

6.86 The existing policy and regulatory framework regarding protected species and designated sites will act as mitigation to some of the potential impacts on biodiversity. The Wildlife and Countryside Act 1981 and Conservation (Natural Habitats etc.) Regulations 1994 (as amended) set out a range of provisions to prevent harm to wildlife, including breeding birds and European Protected Species. National Planning Framework 4 and the Local Development Plan contain

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/687147/The_UK_Forestry_Standard.pdf

policies protecting biodiversity, which will apply to any development proposals coming forward that require planning permission.

6.87 **Project level mitigation:** The potential for conserving and enhancing important habitat and species should be considered at project level. Project level mitigation includes carrying out Habitat Regulations Appraisal and Appropriate Assessment where required. Surveys may be required prior to starting a project. Information on surveys is available on NatureScot's website at <https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/planning-and-development-protected-species>.

6.88 **Deer Control** NatureScot suggest in their consultation response that deer control be highlighted as a priority mitigation measure against increased habitat creation for deer. NatureScot has a statutory responsibility to further the conservation, control and sustainable management of all wild deer species in Scotland. Managing deer requires a collaborative approach and NatureScot work with a variety of partners to deliver sustainable management.

Secondary, Synergistic and Cumulative effects

6.89 Increasing woodland and woodland recreation could have adverse cumulative impacts on biodiversity as some recreational activities can have significant impacts on the natural environment and wildlife. Although impacts vary with type of recreation and area, there are 5 key generalisations (Cole, quoted in Forest Research "Recreational use of forests and disturbance of wildlife")

1. Impact is inevitable with repeated use;
2. Impact occurs rapidly, recovery slowly;
3. Impacts are greater on use of new places than on already impacted sites
4. Magnitude of impact depends on frequency, type and spatial distribution of use as well as environmental conditions and
5. The relationship between amount of use and level of impact is usually non-linear.

6.90 The TWSEL aims to increase recreation in some areas, and there is potential for cumulative impact with many other plans and projects (Edinburgh City Plan, Midlothian Local Development Plan, Climate Evolution SPG). This includes impacts from loss of supporting habitat or disturbance for qualifying interests of the Firth of Forth, which will be examined through Habitat Regulation Appraisal.

6.91 Mitigation could include management of recreation at the coast to protect the Firth of Forth SSSI/SPA/Ramsar. This needs to be considered regardless of the TWSEL; the pressures come mainly from changes to leisure activities, increased leisure time and an increase in population in the area generally, rather than from this strategy itself.

6.92 There is the potential for positive cumulative effects of increasing woodland with the Scottish Forestry Strategy and the Forestry and Woodland Strategies of the other 31 local authorities required by legislation.

6.93 The Strategy's aim of mitigating climate change, cumulatively with many other PPS, would also benefit biodiversity.

Conclusion – Biodiversity

6.94 The effects on woodland biodiversity are generally positive (Biodiversity Chapter and others). Woodland biodiversity will improve overall through protection of existing woodland, sustainable management of woodland and improved woodland connectivity. This includes likely cumulative effects with tree and woodland strategies of other areas. The TWSEL aims to protect valued non-woodland habitat from the impact of woodland creation (Policy 13 Protection of European Sites, Policy 14 Protection of the Natural Environment). An increase in the urban tree canopy will be positive for urban biodiversity.

Residual adverse effects

- Likely increase in invasive non-native plant species associated with woodland such as rhododendron.
- Some potential for adverse impact from increasing recreational access, including cumulatively with other plans, projects and strategies
- Likely increase in deer numbers, none of which other than roe are native. This is out of balance as adult deer now have no natural predators.
- Likely loss of habitat for northern brown argus, a butterfly

7 POPULATION



Introduction

- 7.1 East Lothian is one of the fastest growing areas in Scotland. There has been significant level of population change through new residential development here, and further growth is planned. The population is also predicted to have a greater proportion of older people. The western part of East Lothian is its most populous area. Although in general East Lothian is prosperous there are some areas which fall into the lowest 20% on Scotland’s Index of Multiple Deprivation.
- 7.2 The TWSEL brings the opportunity to help address some of the issues which come from an expanding and ageing population, such as increasing recreational pressures on the countryside, integrating development into the landscape (see ‘Landscape’ below) and creating well designed, accessible living environments. There is also the chance to mitigate the effects of living in areas of multiple deprivation by improvement to the visual and recreational qualities of the area. There is some limited potential for the Strategy to impact on the daytime distribution of population through increasing rural employment and recreation.
- 7.3 Through Scoping the following issues were considered. The Table below shows what existing issues are considered relevant to this strategy. SEA objectives are shown in red.

Scoping Table 2: POPULATION	
Issue	In/Out
Mitigate the effects of population growth	
Rapidly expanding population in East Lothian	In
Reduce the impact of inequality	
Some areas experience multiple deprivation as shown by the SIMD index	In
Ageing population	In
Other Equality Act protected characteristics	In
Community ownership of woodlands (opportunity)	In
Enabling increased participation in volunteering and learning new skills	In

Baseline, issues and impact – Population

Mitigate the effects of Population Growth

7.4 The TWSEL is not intended and is not likely to change the growth, decline or structure of population. However, it can help mitigate its effects through contributing to a good quality environment. In 2021²⁹ East Lothian had an estimated population of 109,580 living in 48,440 households. East Lothian's population has increased by the highest percentage of all Council areas in the last 20 years, increasing by 21.2% since 1999 compared with a 7.6% rise for Scotland as a whole.

7.5 It is projected that East Lothian's population growth will continue to outpace the Scottish average between 2018 and 2028. The number of households is expected to rise by 10.5% (Scotland 4.9%) over this time, and population by 7.2% (Scotland 1.8%). The large majority of this growth is expected to come from migration into the area. Most of this growth is in older (above 65) age groups; geographically, most of the population expansion will be in the western part of East Lothian. The projected rate of change is shown in the figure below, with projections by age and sex shown in [Figure 14](#).

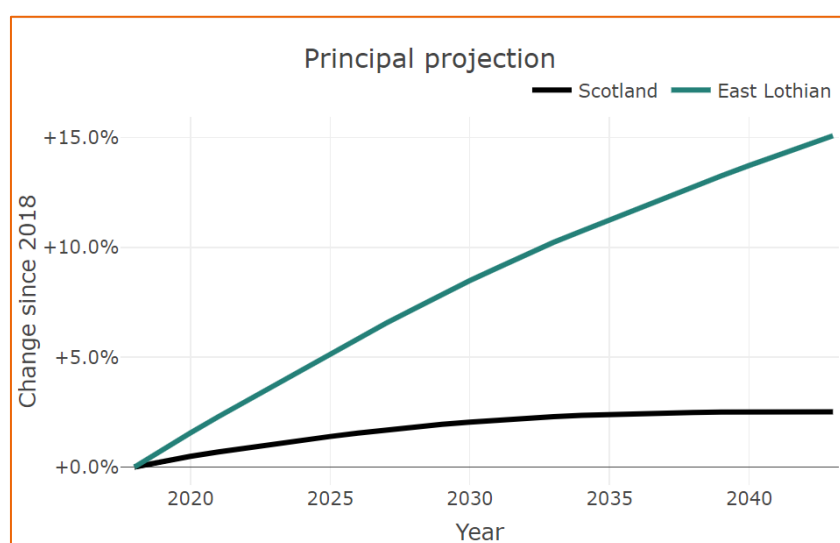


Figure 12 Projected population change, from [Subnational population projections of Scotland - National Records of Scotland \(shinyapps.io\)](#)

7.6 Further baseline information is available from the National Records of Scotland [East Lothian Council Area Profile \(nrscotland.gov.uk\)](#) and their interactive tool at [Subnational population projections of Scotland - National Records of Scotland \(shinyapps.io\)](#)

7.7 Population growth will bring pressures on existing coastal and countryside sites. Pressures increased during the Covid-19 pandemic, particularly at the coast. Increasing accessible woodland

²⁹ [East Lothian Council Area Profile \(nrscotland.gov.uk\)](#) Note this information is updated regularly; the figures are from the website as accessed 26/04/2024

could help reduce the recreational pressure on these areas. However, as the Scottish Forestry Strategy SEA notes “unmanaged woodland recreation can also introduce problems such as trampling, the disturbance of wildlife, and the introduction of pathogens³⁰”.

7.8 The TWSEL aims to increase accessible woodland (Target 4B, Action 14). This may draw some recreational pressure from the coast. The TWSEL also seeks an increase to the urban tree canopy and sets a working target of 30% in settlements. This should bring an improvement in urban living environment helping mitigate the impact of population growth. However, some trees may be planted in some places where they affect people’s enjoyment of their areas or homes. This is not the intention of the strategy, and this should be considered at project level. Nonetheless it could occur.

Equality issues

Areas of multiple deprivation

7.9 Increasing levels of woodland in and around towns can improve quality of life for those in deprived areas. Improving access to greenspace, integration of communities and improving perception of such areas will lessen the experience of inequality across East Lothian.

7.10 The Scottish Index of Multiple Deprivation (SIMD) shows the spatial distribution of relative deprivation across Scotland, last updated in 2020. The data is available on the Scottish Government website at <http://simd.scot> where the methodology for determining the rank of different areas can also be found.

7.11 People who live in areas of multiple deprivation are more likely to experience conditions that limit their opportunity. Not all people facing deprivation will live in deprived areas, and not all people in deprived areas will experience deprivation. However, the data can be used to help identify areas where placed based intervention will hopefully have the most beneficial effect.

7.12 The maps below, from the SIMD website: [SIMD \(Scottish Index of Multiple Deprivation\)](#) shows that the areas of relative deprivation are concentrated in the west of East Lothian. No area east of Tranent/ Prestonpans has a datazone within the most deprived 20%. Haddington does however contain two zones in the most deprived 30%. The Coalgate in Tranent and North Prestonpans are within the lowest 10%. As few datazones in East Lothian are within the most deprived areas, for some purposes related to reducing inequalities the Council looks at areas within the lowest 30%. This then takes in most of the remainder of Prestonpans, central/Eastern Tranent, some further areas of Wallyford and Musselburgh, and parts of the southeast, east and central Haddington.

7.13 The TWSEL also seeks an increase to the urban tree canopy and sets a working target of 30% in the lowest 30% SIMD areas. Funding is also available from Scottish Forestry for improving accessibility of woodlands within 500m of the lowest 15% SIMD areas.

³⁰ Forestry Research (2012) Recreational use of forests and disturbance of wildlife [online] Download from <https://www.forestresearch.gov.uk/research/recreational-use-of-forests-and-disturbance-of-wildlife/> (accessed 28/09/2021)



Figure 13 SIMD Datazones in the 20% most deprived, 2020

Ageing well

7.14 The UK population and workforce is ageing; connected policy is required to meet challenges of this demographic change³¹. There are implications for how we plan for and approach old age. Increasing accessible woodland and trees in towns can help people to age well in place.

7.15 In East Lothian in 2021, the 45 to 64 age group was the largest, with a population of 31,764. In contrast, the 16 -24 age group was the smallest, with a population of around 9,500. The average age in East Lothian is expected to increase as the baby boomer generation becomes more elderly and lifespans increase over previous generations. The 16 – 24 year age group is expected to see an increase of nearly 7%, but this is exceeded by the projected increase in over 75s (nearly 33%) and the 65-74 age group. In terms of absolute size however, the 45-64 year olds are projected to remain the most numerous group³².

³¹ See “Future of an Aging Population” – Government Office for Science at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/816458/future-of-an-ageing-population.pdf

³² NRS Scotland population projections East Lothian [East Lothian Council Area Profile \(nrscotland.gov.uk\)](https://www.nrscotland.gov.uk/east-lothian-council-area-profile)

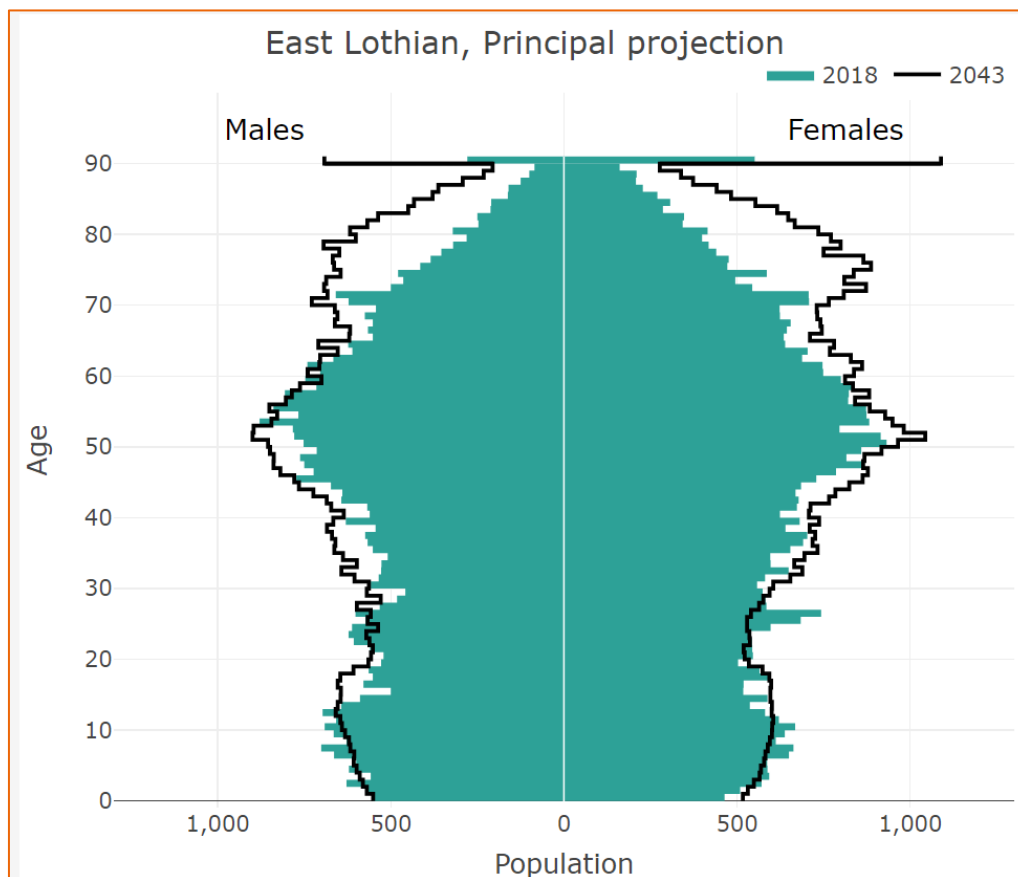


Figure 14: East Lothian population projection to 2043 by age and sex, from [Subnational population projections of Scotland - National Records of Scotland \(shinyapps.io\)](https://shinyapps.io/subnational-projections-of-scotland/)

7.10 Dementia is linked to age structure as an illness predominantly affecting older people. As healthcare improves and fewer people die younger of something else, dementia is likely to affect an increasing proportion of the population. Across East Lothian an estimated 7.4% of the population aged 65 and over suffers from dementia (2016)³³.

7.11 The workforce is also ageing. Becoming old where there is a large proportion of older people is different experience from growing old where there are many younger people. It poses challenges for the workforce, public services, care, and the built environment, and may change approaches to old age and what people can expect at that stage of life. Plans should therefore consider the needs of older people. Providing an environment where people can age well is increasingly important.

7.12 In some areas access to attractive outdoor space, including woodlands accessible to all, is limited. Some urban environments also have low woodland canopy coverage. This may be a factor in how much older people or people in deprived areas walk or cycle locally. Keeping active, including by walking, is important in maintaining health and mobility, as well as giving opportunities for social contact. Some of the Area Partnership Plans include action for older people, such as the promotion of dementia friendly communities.

7.13 The TWSEL sets a canopy cover target of 30% for settlements and lower SIMD areas, which if achieved would improve the living environment. The TWSEL also aims to protect trees with

³³ Tranent-Macmerry-Wallyford Ward Profile, ELC 2016

cultural value or notable trees. This can help make a landscape more legible which supports dementia friendly communities.

Other protected characteristics

- 7.14 Woodland planting and increasing trees in urban areas could affect actual and perceived safety of those who are or feel vulnerable. This may include some people who feel vulnerable due to a protected characteristic such as sex, disability, transgender status or racial origin. It could therefore limit the movement of such people around the area especially at night.
- 7.15 Information on the characteristics of East Lothian's population can be found on the Scottish Government's Equality Evidence Finder pages: www.equalityevidence.scot and Scotland's Census webpages at [Home | Scotland's Census \(scotlandscensus.gov.uk\)](http://Home | Scotland's Census (scotlandscensus.gov.uk)) . In 2011 East Lothian had a lower than average number of people with long term health problems or disabilities; around 36% had some problem or disability, with about half of these stating that it affected their life a lot. This is marginally lower than the average for Scotland. In terms of ethnic origin, in 2011 less than 2% of the East Lothian population (4% across Scotland) were from an ethnic minority, with Asian groups being the largest group other than white. Women slightly outnumber men overall, mainly due to there being greater numbers of older women than there are older men.
- 7.16 Collaboration with communities at project level and through Local Place Plans is included as well as recommendation that equality impact assessment is carried out at project level (Policy 18: Community Collaboration and Action 17). The TWSEL therefore aims that the concerns of different sectors of the community are fully taken into account. Action 16 notes that the Council will promote access to and enjoyment of the woodland for all, especially with respect to underrepresented groups. This aims to spread the benefits associated with visiting woodland to those who do not normally participate.

Volunteering and learning new skills

- 7.17 There is a shortage of skills in the forestry and woodland sector at presents, with the Forestry Commission in England offering free courses to combat this.
- 7.18 East Lothian Council runs a volunteer scheme through the Ranger Service, the East Lothian Countryside Volunteers and the Junior Rangers. Third sector organisations also organise volunteers such as Sustrans (path wardens), Friends of the River Tyne, and various In Bloom groups. The Woodland Trust and Scottish Wildlife Trust also own and manage woodland in East Lothian. Increasing the areas of woodland would increase volunteering and learning opportunities in local areas, supporting community cohesion and reducing inequality.
- 7.19 The TWSEL aims to encourage volunteering through inclusion of a section on encouraging positive individual action, which gives information on opportunities (Section 8, Volunteering). The 'Economy' section encourages businesses related to woodland, which along with greater amounts of woodland supports the gaining of new skills for green jobs.

Rural Employment

Job density and location

7.20 In 2021³⁴, the job density within East Lothian was approximately 0.63 jobs per working age person (suggesting a high out-commuting travel pattern). This compares to the Scottish job density of 0.81 jobs per person. The percentage of unemployed people of the working population in East Lothian is 2.8%, which was lower than for Scotland overall (3.5%). Although East Lothian is a generally prosperous area, levels of employment deprivation in some areas, particularly in the west, are above average. Living in such areas has well documented effects on people's health, well-being, employment prospects and life expectancy. This affects children as well as adults.

7.21 A high level of out commuting is well known as a climate change issue. However, it is also an issue for population. Movement of people out of their communities in the daytime affects the local economy, the vibrancy of place and can weaken community links.

7.22 TWSEL Section 9, 'Economy' aims to increase rural employment opportunities in forestry, tourism and recreation. This can help retain population in the countryside during the day. Although overall numbers are likely to be low, the effect is positive. The TWSEL also aims to support incomes in agriculture through agro-forestry (Policy 21 Woodland creation within farmland).

³⁴ Statistics in this para. from NOMIS at <http://www.nomisweb.co.uk/reports/lmp/la/1946157414/printable.aspx>

Likely Significant Effects – Population

7.23 The following table shows the SEA objectives for Population and summarises the impact of the impact of each Theme of the Strategy:

SEA Objective, Population: Maintain or enhance the quality of life for all East Lothian's residents			Theme 1 – Climate Mitigation	Theme 2 – Resilience and adaptation	Theme 3 – Biodiversity	Theme 4 – Community	Theme 5 - Economy	Theme 6 – Cultural Heritage	Theme 7 – Landscape Character
SEA Indicator	KEY								
	Positive	+							
Questions for assessment.	Neutral	0							
	Unknown	?							
Does the plan....?	Mixed/Variable	//							
	Negative	-							
<i>Mitigate the effects of population growth</i>			+	+	+	0	+	+	+
<i>Reduce the impact of inequality – older people, protected characteristics, lower SIMD areas</i>			+	+	+	0	//	+	+
<i>Support rural employment</i>			+	+	//	+	+	+	+

Commentary on indicators

7.24 The effect of the 'Climate mitigation' theme on population is generally positive. This section includes as Target 1 the creation of the Climate Forest (an existing Council ambition). The effect of this increase in tree cover will be positive in mitigating the impact of population growth through integrating new development into the landscape; reducing the effects of inequalities through improving townscape and landscape; and increasing rural employment in woodland creation and management.

7.25 The Climate Mitigation Theme also includes the Council investigating offsetting its unavoidable carbon emissions with woodland creation locally. Woodland creation, as supported through Key Target one and related woodland creation and tree planting actions and policies, are generally positive for population. However, this carries the risk that woodland and tree planting may occur in communities or near people that do not welcome them, and where they have safety issues or amenity issues. This is especially important in areas of social housing where people may have limited choice over where they live. The Strategy seeks a collaborative approach to make sure that tree planting does not occur where there are issues for particular groups or trees are unwanted. This includes inclusion of more local provision for woodland in Local Place Plans or Area Partnership Plans (Policy 18, Action 17).

7.26 The 'Resilience' theme is expected to have positive effects on all three indicators. Providing native woodland connections will help mitigate the impact of development related to population growth through helping to integrate this into the landscape. The TWSEL will also help avoid effects on

water quality which arise from extra waste and surface water of population growth and related increase in hard surfacing (Policy 6: Water Management and Slope Stability)

- 7.27 The 'Biodiversity' theme policies and actions are largely positive for mitigating the impact of population growth. The Strategy's support for biodiversity in general and native woodland in particular will give people living here greater opportunity to connect with nature, providing a better living environment. This helps mitigate the effects of inequality by improving places where people live. The Biodiversity Theme includes protection of woodland of high nature conservation value (Policy 8: Protecting the Biodiversity Value of East Lothian's Woodland, and following text box identifying those woodlands), identifying much of our native woodland as such.
- 7.28 In terms of Support for Rural Employment, protection of woodland may reduce opportunities for non-woodland economic activity that could otherwise have taken place there. Support for peatland restoration over woodland (Policy 15) may also marginally reduce employment opportunity. This land cover tends to have little associated economic activity. This policy is in line with Scottish Government policy towards protecting designated sites, ancient woodland and restoration of peatland.
- 7.29 The actions/policy of the 'Economy' theme will bring some minor positive effect on rural employment through support for productive woodlands, and promotion of woodland-based tourism.
- 7.30 The 'Community' Theme includes Key Target 4 for canopy coverage of 30% in settlements and lower SIMD areas. Action 17 and encourages communities to include policies for trees and woodlands in their plans. This Theme also includes support for increasing access to woodland. TWSEL includes policy (Policy 16: Design for All) and action (Action 15) to encourage provision of woodland suitable for people with disabilities, and increase access to woodland for people with disabilities. This is positive for both mitigating the impact of population growth and reducing the impact of inequalities by creating a more attractive environment with access to woodland for recreation for all. It will also have positive effects on urban air quality, heat and cooling, which helps reduce the effect of inequalities. Community fruit growing will also help reduce the impact of inequality through providing access to cheap, healthy food and opportunity to socialise. Policy 18: Community Collaboration recommends equality impact assessment to guard against schemes coming forward in places the community does not welcome them, and make sure equalities issues are addressed. This theme includes Policy 19: Management of Council Trees, which sets out the restricted circumstances in which the Council will remove trees. Although trees are usually seen as beneficial, there may be occasions where residents disagree. This may impact especially on lower income groups as they are likely to have less choice over their housing.
- 7.31 The Cultural heritage theme aims to protect and celebrate East Lothian's cultural heritage assets from potential adverse effects of woodland creation. It aims to identify, promote and retain trees of cultural significance (Key Target 6, Action 27, Policy 23: Notable Trees) and developing tree trails in towns and villages (Action 26). This will help mitigate the impact of population growth reduce the impact of inequality by improving the range of free things to do in the local area. It may also provide some small-scale employment opportunities.
- 7.32 The Landscape theme includes support for the planning of structural planting in the Blindwells Area (Action 31), as set out in the Climate Evolution Vision, and the Innerwick coast (Action 30). This theme also includes planning for replacement of ash trees lost to ash dieback, and tree

planting for green networks. Mitigation of the effects population growth was one of the main drivers behind developing the Climate Evolution vision, by providing a high quality green/blue infrastructure. Although the west of East Lothian is seeing the greatest pressure, there is increasing pressure on outdoor space throughout the area from recreational users. This was especially challenging in some areas during the Covid-19 pandemic. There are also development pressures at the eastern end of the area, around Innerwick, mainly from electricity infrastructure. These landscape scale plans would help mitigate that, as well as reducing the effect of inequality by provision of recreational opportunities close to communities. A programme of replacement of trees important to townscape character (Action 32) also supports both these goals.

Mitigation of potential adverse impacts of the Strategy – Population

7.33 Embedded mitigation: Policy 18 Community Consultation seeks consultation with people when planning tree planting or woodland creation. This will help avoid the impact of trees being planted in places they are unwanted. The Strategy’s provision for tree planting in urban areas, includes targets for an increase in canopy cover including in lower SIMD areas (Target 4A). This will help avoid a potential widening of the difference in environmental quality between less and more deprived areas.

7.34 Project level mitigation: At project level, locations for urban planting must be carefully considered. Lower SIMD areas where further canopy coverage is sought, often coincide with social housing areas where people may have low or no choice over their accommodation. Planting trees where they cause issues of shading or creating areas which feel unsafe to residents must be avoided.

7.35 The Strategy includes provision for equality impact assessment at project level, and involvement of communities. As projects come forward, provision for groups with protected characteristics and cross cutting themes including poverty should be specifically considered. This should include looking at the needs of older people and people with dementia in the design of woodlands, places and open spaces. How to maximise the benefits of woodland expansion for the existing population, especially those in areas of multiple deprivation, should be considered. This should include engagement with the community, and draw on knowledge from previous engagements. The safety and perceived safety of the project should be considered.

7.36 External mitigation: [East Lothian Council Plan 2022-27](#) includes as one of three over-arching objectives “reducing poverty and inequality”. The Council thus aims to address inequality, including that which has a spatial dimension, across all its activities. The Fairer Scotland Duty will further focus attention on this work.

Secondary, Synergistic and Cumulative effects

7.37 Positive There will be cumulative positive effects on socio-economic factors with other PPS such as the East Lothian Economic Development Strategy. There will be cumulative positive effects on older people with other Aging Well strategies, and those living in lower SIMD areas with other anti-poverty work of the Council and others, such as that carried out under the Fairer Scotland Duty. This arises from the planned improvement to amenity of urban areas and increasing accessible woodland.

Conclusion – Population

7.38 The effects of the TWSEL are generally expected to be positive for population. Guiding woodland creation to appropriate places in landscape and townscape supports good placemaking, and so mitigates the effect of population growth. Increasing canopy cover with a focus on lower SIMD areas will help reduce the effects of income inequality, and support people in ageing well in place. The Strategy is expected to bring an increase in employment which will allow people to stay in their communities in the day time. Although the numbers are is small, this may be noticeable in some rural areas.

Residual adverse impacts

- risk that tree planting in urban areas could affect the feeling of (and actual) security, which can affect some groups (such as women or people from BAME communities) more than others
- Some trees may be planted in some place that cause stress to some people, or adversely affects their enjoyment of their area or home. Although the Strategy aims to avoid this through Policy 18 Community Consultation it is likely that some effect will remain.

8 HUMAN HEALTH



Introduction

- 8.1 The World Health Organisation defines health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”³⁵. This definition therefore goes a lot further than merely not being ill, to encompass well-being of the body, mind, and self in relation to others. It is a very positive definition.
- 8.2 Health services are important, but they are only around a fifth what shapes our overall health. Social and economic factors are the most important, followed by health behaviours including supporting active lives³⁶. The physical environment can also directly influence human health – in obvious and immediate ways such as badly maintained pavements tripping us up or trees falling on us. It can also affect health in more long term and less obvious ways such as through the quality of our air or water. Climate change is a significant threat to health.
- 8.3 An accumulation of evidence shows that access to natural greenspace can help both mental and physical health. Greenspace within towns can also improve air quality and general quality of life. Trees in towns can increase the perception of environmental quality – the ‘leafiness’ of ‘leafy suburbs’ is a characteristic picked out for a reason. Natural spaces, even if viewed through a window, can improve our mental health. Provision of attractive open space and active travel routes can also influence health behaviours such as walking.
- 8.4 The total impact of environmental factors such as climate, geography and environmental hazards on health is termed the environmental burden of disease, most of which, in theory is preventable.

³⁵ See <https://www.who.int/about/governance/constitution>

³⁶ Public Health Service presentation at Sustainable Scotland Network Conference, 25-05-2023 <https://sustainablesotlandnetwork.org/events/ssn-annual-conference>

The aim should therefore be to reduce the adverse health effects that arise from living in poor quality environments, and maximise the benefits of living in good ones.

8.5 The Scottish Government and the Convention of Scottish Local Authorities (COSLA) have identified six priorities for public health in “Public Health Priorities for Scotland”. These are summarised as:

- living in vibrant, healthy and safe places and communities:
- flourishing in early years:
- good mental wellbeing;
- reduced harm from alcohol, tobacco and other drugs:
- a sustainable, inclusive economy with equality of outcomes for all; and
- eating well, have a healthy weight and are physically active.

8.6 The Strategy supports some of these objectives either directly or indirectly through the creation and management of woodland and planting of trees, as well as encouraging access to existing woodland. There are also potentially some adverse health effects that could result from increased numbers of trees. This includes increased pollen levels (which can affect those with hay fever), risk of spread of vector borne illness (mainly from ticks) and tree related accidents, including those occurring at work. The Human Health Scoping Table below shows, with reasons, what existing issues are considered relevant to this strategy.

8.7 Poor air quality is a leading environmental cause of ill health in the UK. It is implicated in a number of health conditions including heart disease and dementia, as well as diseases of the lungs. Poor air quality is also, as the Cleaner Air For Scotland Strategy notes, a health inequalities issue as “it affects the more vulnerable members of the population disproportionately (people who are very young, elderly, those with pre-existing medical conditions, and those living in urban areas and deprived circumstances)”. Tree planting of the right species in the right place can help mitigate existing air pollution. There is also some potential for air pollution through forestry operations. Air pollution is considered under ‘Air’ though the health effects are recognised.

8.8 The experience of being flooded, especially the experience of being flooded out of one’s home, can have significant health impacts across the full range of the community, with long-term impacts on mental and emotional health often a hidden impact. Woodland creation and tree planting in the right place can have significant benefits in reduction of flood risk. Although flooding is also primarily an issue due to its effects on human health (and also affects material assets) as it shares much of the baseline information with water quality it is considered in the ‘Water’ section.

8.9 Contaminated land can also have issues for health but is considered under ‘Soil’.

8.10 Creation of vibrant, healthy, safe places, and reduction of inequalities both have positive effects on health, and aspects of this are considered under ‘Population’ above also. Heat stress and wildfires are considered under ‘Climate Change’.

Scoping Table 3: HUMAN HEALTH	
Issue	In/Out
Creation of vibrant, healthy and safe places and communities, support good mental wellbeing, a healthy weight and physical activity	

Expansion of woodland and trees in around urban areas – opportunity	In
Expansion of woodland and trees in and around urban areas – threat	In
Flourishing in early years	
Increase opportunities for young people to experience play in woodland – opportunity	In
Reduce the direct health impact from woodland, and forestry operations	
Risks to the public from increase in trees and woodland – accidents	Out
Increased risk of animal/insect borne illness due to change in habitat	In
Risk to the public from trees – allergens	In
Risks to forest workers health and safety from forest operations	Out
Reduce the impact of noise	
Noise impact from forestry operations	Out
Impacts on Candidate quiet area	Out
Use of trees to absorb, deflect, or mask existing noise	In

Baseline, issues and impact – human health

8.11 Life expectancy in Scotland improved considerably until around 2012-14, when the increase stopped. Between 2017-19 and 2019-21, life expectancy fell by around 14 weeks per year for males and 7.9 weeks for females. The majority of this fall was due to Covid-19. Scotland now has the lowest life expectancy in Western Europe³⁷.

³⁷ National Records of Scotland, 2022 “Life expectancy in Scotland” at <https://www.nrscotland.gov.uk/files/statistics/life-expectancy-in-scotland/19-21/life-expectancy-19-21-report.pdf>

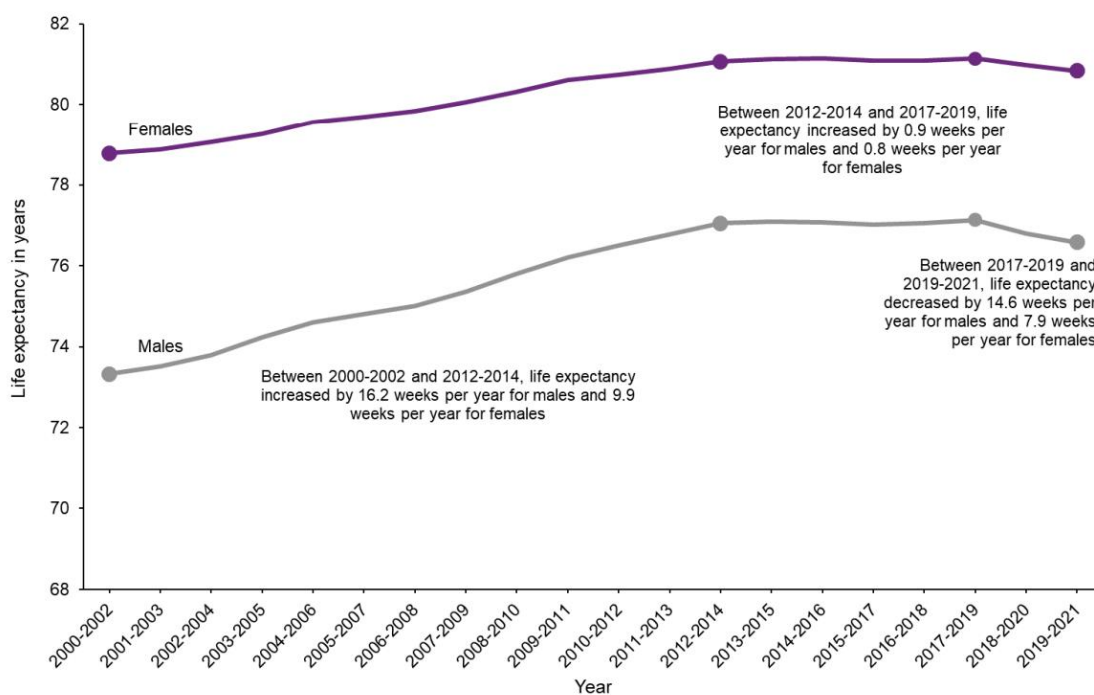


Figure 15 Annual change in life expectancy in Scotland, NRS 2022

8.12 Life expectancy in East Lothian is above average for Scotland, with life expectancy at birth currently (2019-21) being 78.9 years for males and 82.6 for females³⁸. The overall figures conceal variations within the area, with some areas having life expectancy below the Scottish average, generally within areas that are more deprived overall³⁹. Healthy life expectancy, the number of years that can be expected to be lived in good health, is also lower in deprived areas.

8.13 For men in East Lothian, the leading cause of death was ischaemic heart diseases followed by dementia and Alzheimer’s disease; these were the leading causes of death of women also though dementia and Alzheimer’s were ahead of heart disease. However, for both men and women cancer would be the leading cause of death if all cancers were grouped together for recording purposes⁴⁰. Levels of physical activity can affect heart disease, dementia and some cancers.

8.14 Obesity is a significant health problem, linked to many diseases and conditions and lowering life expectancy. The Scottish Public Health Observatory has found that in 2020, the majority of adults over 16 are overweight (28%) or obese (35%); more men than women are affected, and more older people than younger⁴¹. A clear gradient of inequality is evident for both men and women with obesity levels highest for those living in the most deprived areas⁴². Women and children in the most deprived areas are more likely to be very obese. Covid-19 has made the obesity situation worse, through an effect on both diet and physical activity levels.

³⁸ https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/east-lothian-council-profile.html#life_expectancy

³⁹ East Lothian by Numbers December 2016 (Scotpho 2015)

⁴⁰ See NRS East Lothian Profile at <https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/east-lothian-council-profile.html>

⁴¹ See <https://www.scotpho.org.uk/clinical-risk-factors/obesity/data/adults/>

⁴² <https://www.scotpho.org.uk/clinical-risk-factors/obesity/key-points> and ONS publication The Scottish Health Survey 2018 updated 2020, at <https://www.gov.scot/publications/scottish-health-survey-2018-volume-1-main-report/>

8.15 There is lower than average life expectancy in some of our most multiply deprived areas. There are also higher rates of cancer, emergency hospitalisation and low birthweight babies. The link between areas of deprivation and poorer health is complex however environmental issues are thought to play a role. These include poor access to open space, open space of poor quality, lack of active travel networks and poor access to healthy food, poorer air quality, noise, stress arising from low quality work, as well as health issues arising from perceived low socio- economic status.

Creation of Vibrant, Healthy and Safe Places

Expansion of woodland, and more trees in urban areas – opportunity

8.16 The places we live, work and play, the connections we have with others all have a significant impact on our health and wellbeing. Reducing the sedentariness of the population could significantly reduce morbidity and mortality rates. Woodland and trees close to where people live can help improve green space. This makes people more likely to use it, which should increase mental wellbeing and physical activity levels. People who live within 500m of accessible greenspace are 24% more likely to meet recommended levels of physical activity⁴³.

8.17 The Climate Change Committee predicts that climate change will exacerbate the urban heat island effect, so increasing the need for shady outdoor spaces in urban areas. Use of trees in urban areas can also help reduce the overall temperature of urban areas in summer. This helps reduce heat stress on people, especially those in buildings not adapted for hotter weather. Trees can also reduce the incidence of UV-related health problems by providing shade from the sun. The TWSEL aims to increase tree canopy coverage in those urban areas where the canopy is below 30%. This will help reduce heat stress and UV exposure.

8.18 The Central Scotland Green Network is a National Planning Framework 4 National Development extending over 21 local authority areas in central Scotland, and aims to provide a step change in environmental quality of the area. The East Lothian Green Network is part of the Central Scotland Green Network, and aims to create an environment that supports healthy lifestyles and well-being, mitigates and adapts to climate change, and provides a place for nature to flourish. East

East Lothian Green Network tasks include:

- A Place for Growth 2: create attractive employment sites with ‘oasis’ areas for workers to use at lunch and breaks
- A Place in Balance 2: Provide parks and high-quality greenspace close to where people live
- A Place to feel good 5: Increase the use of trees and plants in towns, especially along transport routes to combat air pollution.
- A Place to feel good 9: Increase natural and wild spaces in school grounds

⁴³ Coombes, E. G., Jones, A. P., Hillsdon, M (2009). ‘The relationship of physical activity and overweight to objectively measured green space accessibility and use.’ Social Science and Medicine, under review

Lothian Green Network Strategy contains many actions relevant to creating vibrant, healthy and safe places.

8.19 In November 2018, East Lothian’s Open Space Strategy was adopted (<https://www.eastlothian.gov.uk/meetings/meeting/16252/cabinet>.) The Open Space Strategy was informed by an Open Space Audit, which confirmed East Lothian enjoys a good supply of high quality parks and open spaces. The Open Space Audit looked at quantity, quality and accessibility. Other than Tranent cluster, all areas of East Lothian have sufficient open space in terms of quantity, though some areas fall short in terms of accessibility of some types of spaces, as shown in Figure 3 below. In Tranent, there is a lack of open space in total in Tranent and some of it is not well located in relation to the settlement (Polson Park).

Cluster	Green Networks (Semi-natural Greenspaces, Green Corridors)	Parks and Gardens			Amenity Greenspace	Playspace	Sports Areas
	Accessibility	Quantity	Quality	Accessibility	Quality	Accessibility	Accessibility
Dunbar	Yes	Yes	Yes	Yes	Yes	No	Yes
Haddington	Yes	Yes	Yes	No	Yes	Yes	Yes
Musselburgh	Yes	Yes	Yes	Yes	No	Yes	Yes
North Berwick	Yes	Yes	Yes	No	Yes	No	No
Prestonpans	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tranent	Yes	No	Yes	Yes	Yes	Yes	Yes

Figure 16: Excerpt from East Lothian Open Space Strategy 2018 Quantity, Quality & Accessibility Standards

8.20 East Lothian Council owns and manages a considerable number of the open spaces in the area, though some of the open spaces in residential developments are owned by the residents and managed through factoring arrangements. The costs and quality of factoring of open space can be an issue in some residential areas leading to a desire for it to be sold off. Population changes may also lead to a desire for a different type of open space, for example as estates mature typically there are fewer children, so less demand for formal play space.

8.21 Trees can also make walking and cycling routes more attractive and so increase levels of active travel. This supports fitness, which brings a range of health benefits. Active travel also brings more opportunity to meet other people, supporting vibrant communities.

8.22 Without the strategy, the Council will continue to deliver sustainable management of the open and green spaces it owns or manages, along with community groups such as ‘In Bloom’ groups. The policies of the East Lothian Local Development Plan 2018 will protect public open spaces. New housing development is coming forward at the main towns of East Lothian as well as at Blindwells, Wallyford, Gullane, Longniddry and some new public open space will come forward through this. The Design Standards for New Housing Areas SPG includes guidance on the design of new spaces and active travel connections within residential areas, with the aim of driving up quality. Improvements to existing open spaces may be identified through the Area Planning process, and there is some funding available for this.

8.23 The Scottish Household Survey asks respondents questions about their local area. The 2019 survey data is available from the Scottish Government, here: <https://scotland.shinyapps.io/sg-scottish-household-survey-data-explorer/>. The percentage of adults rating their neighbourhood as ‘Very Good’ or ‘Fairly Good’ in East Lothian has been

above 95% all years but one since 1999/2000. From 1999 – 2010, except for one year, the percentage was significantly higher than Scotland as a whole. This has only been repeated since in 2014 and 2018. The percentage of those in the lowest 20% SIMD areas (a measure of multiple deprivation) who rated their neighbourhood as ‘Very Good’ or ‘Fairly Good’ rose steadily from 77% in 2005/6 to 87% in 2016/17, though this has fallen off slightly since. This is lower than the average for neighbourhoods as a whole.

8.24 Canopy coverage tends to be lower in lower SIMD areas, and further tree planting as proposed in the TWSEL is likely to improve these areas. This will help create healthy communities and also to address the effects of inequality.

8.25 The TWSEL has as a component of its vision to provide enhanced quality of life for local communities, and a major part of this is through improving the environmental quality of East Lothian’s towns and villages through provision of trees in the right places. This supports healthy places through encouraging active travel. Guidance on suitable locations for East Lothian’s Climate Forest supports this, as do targets for increased tree canopy cover and accessible woodland. Landscape scale actions including planning for replacement of trees lost to ash dieback and increasing riparian woodland creation will also support this.

Expansion of woodland in and around urban areas – threat

8.26 Trees have the potential to cause accessibility issues for people with mobility issues (growing over roads and pavements, raising the surface). Trees in urban areas can also cause stress from unwanted shading, leaf dropping, worry about falling branches, garden maintenance &c. Tree and woodland planting may also increase real and perceived feelings of danger especially in the dark (see Population). Reducing sunlight penetration in parks and urban areas could reduce vitamin D absorption, which is important for health.

8.27 The TWSEL supports increasing (or in areas that already meet the 30% target, maintaining) canopy cover. However, it also encourages collaboration with communities where tree planting, especially in urban areas, is proposed, and encourages Local Place Plans to consider trees and woodland in their area (Action 17, Policy 18). This should reduce though not entirely avoid the possibility of trees coming forward in places where health issues such as stress, crime or fear of crime arise.

Flourishing in Early Years

8.28 Woodland and trees should be part of the play experience for children and teenagers. East Lothian’s Play Policy⁴⁴ notes that play is vital to children’s emotional and physical health and wellbeing, contributes to their learning and can reduce the impact of inequality of parental income. The Aim of East Lothian’s play policy is that “All children and young people will have access to a range of opportunities to play in East Lothian’s built and natural environment and their right to play will be recognised and supported by adults”. A Principle of this policy is that “Children and young people’s access to outdoor spaces should include natural and wild spaces with particular attention to actions to promote inclusive access.”

44

<https://www.eastlothian.gov.uk/downloads/file/27211/east-lothian-play-policy-2017-2020-with-appendices>

8.29 The TWSEL recognises the importance of play in children’s lives (para 8.35). Scotland’s Forestry Strategy supports the provision of more opportunities for children to play and learn in forests and woodlands, particularly in urban areas. Increasing the amount of accessible woodland and access to woodland (Target 4B, Policy 16: Design for All, Action 15, Action 16) will help meet this aim, as will an overall increase in woodland. Increasing canopy coverage may also provide greater opportunities for tree related play in urban areas. Mapping and promoting access to woodland for all will help disabled children to access woodland.

Direct Health impact from woodland, and forestry operations

Accidents

8.30 In the UK, there seem to be about 550-600 tree related Accident and Emergency admissions annually⁴⁵. These include where the person has slipped, tripped on or collided with a tree, been playing on it or fallen from it, been working on it or hit by it &c. There were 64 fatalities in the 10 year period from 1999, mostly related to wind. This topic is scoped out due to small numbers involved.

Vector borne illness

8.31 Increasing woodland and access to woodland may increase exposure to ticks as well as other current and potential future pests and pathogens.

8.32 Lyme disease is a serious illness caused by a bacteria carried by ticks. Lyme disease appears to be increasing in Scotland.

8.33 Some other serious illnesses are also tick borne, and surveillance for these continues⁴⁶. Ticks increase where there is suitable habitat for their mammal and avian hosts. Urban woodlands and woodland edge have been identified as key habitat for ticks infected with Lyme disease. Increasing accessible woodland areas may therefore increase the prevalence of and exposure to infected ticks.

8.34 Climate change may lead to an increase in ticks due to warmer winters as ticks are not killed off by frost. It may also bring other woodland related pests and pathogens that could have an impact on human health.

Figure 3.1 Laboratory confirmed cases of Lyme disease in Scotland

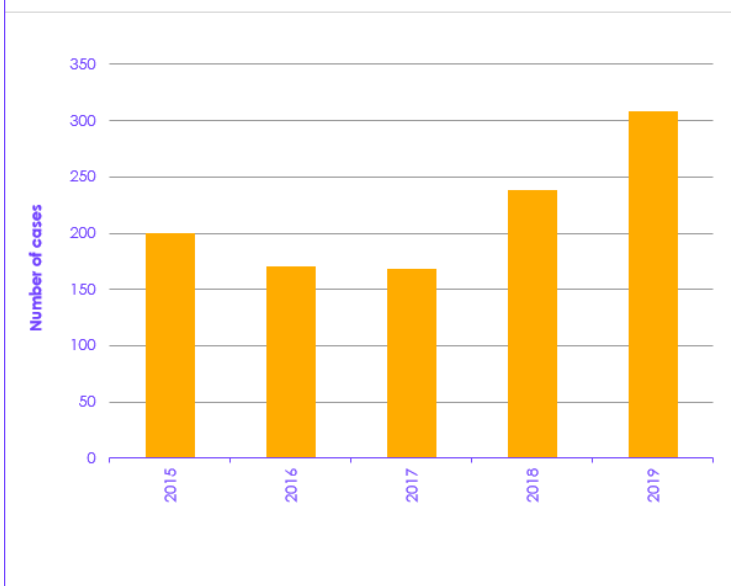


Figure 17: Lyme Disease in Scotland, from CCC [Supporting Charts and Data](#)

⁴⁵ <https://ntsgroup.org.uk/wp-content/uploads/2016/06/NTSG-Report-1-Trees-and-the-Risk-of-Harm.pdf>

⁴⁶ See <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6210260/>

8.35 The TWSEL aims to increase woodland cover, including accessible woodland (Targets 1 and 4, numerous actions and policy). This is likely to increase numbers of woodland mammals including deer, which in turn is likely to increase tick numbers and tick born disease.

8.36 Public information campaigns may be useful to mitigate this impact.

Allergens

8.37 Tree pollen allergies affect a large number of people (one in four people have hay fever and about a quarter of those are allergic to tree pollen⁴⁷) which can increase the risk of asthma attack as well as adversely affect quality of life. Climate change may change the amount and type of pollen released.

8.38 The appearance of tree pollen can start as early as February in Scotland, and continue until early July. The main species responsible here are Alder (February to May), Ash (mid-March until early June), Birch (mid-March to late June), and Oak (early April until early July)⁴⁸. More trees will mean more pollen, so more and/or more severe, illness. Climate change could affect the pollen season. Birch allergy can be particularly problematic as it can cause cross sensitivity with foodstuffs such as apple, almond, carrots, celery, cherry, hazelnut, kiwi, peach, pear and plum.

8.39 Mitigation could include publicising the Met Offices Pollen Forecast at <https://www.metoffice.gov.uk/weather/warnings-and-advice/seasonal-advice/pollen-forecast> so that affected people can plan their activities accordingly. It may also be possible to choose tree species which have lower allergenic potential especially locations where there are high concentrations of vulnerable people. These include schools and care homes, as younger and older people are more susceptible to allergies.

Forestry Workers Health and Safety

8.40 Increased number of trees is likely to lead to increased number of forestry and tree workers, and so a potential increased number of accidents at work. The Health and Safety at Work Act 1974 covers safety precautions which aim to address risk and this mitigates but will not completely overcome this impact. This impact is Scoped out due to the low numbers involved and control by health and safety legislation.

Noise

8.41 Noise is unwanted sound that can occur when it reaches certain levels or intensities, or has a certain tonal quality. The World Health Organisation considers there is “sufficient evidence from large-scale epidemiological studies linking the population’s exposure to environmental noise with adverse health effects at specific health end points”⁴⁹. Living in a noisy environment can cause

⁴⁷ <https://www.narf.org.uk/the-allergy-explosion> and <https://firstaidforlife.org.uk/tree-pollen-allergy-what-you-need-to-know-this-springtime/>

⁴⁸ See University of Worcester Pollen calendars at <https://www.worcester.ac.uk/about/academic-schools/school-of-science-and-the-environment/science-and-the-environment-research/national-pollen-and-aerobiology-research-unit/pollen-calendar.aspx>

⁴⁹ Edinburgh Noise Action Plan, at <https://noise.environment.gov.scot/action-planning-round-three.html>

high blood pressure which can then lead to cardiovascular disease⁵⁰ ; disturbed sleep from noise can also cause irritability and difficulty focussing, and in the long term can affect metabolic and endocrine systems⁵¹. Noise has the potential to affect the recreational experience below levels at which it would be considered a statutory nuisance.

8.42 Noise from roads and railway traffic is monitored under the [Environmental Noise \(Scotland\) Regulations 2006](#) around roads or railways where there are more than 6 million vehicle passages or 60,000 train movements. Urban areas of more than 250,000 population are also monitored. The noise mapping carried out under the regulations is available here: <https://noise.environment.gov.scot/noisemap/> . Figure 18 shows assessed noise from roads. There is also likely to be some contribution from rail traffic however this is below the level assessed under the regulations. Some parts of East Lothian have high levels of noise associated with roads. The East Lothian Local Development Plan 2018 has allocated new sites for housing and employment use in the area and this could increase levels of noise from traffic.

8.43 The Figure below shows assessed noise from major roads in the area.

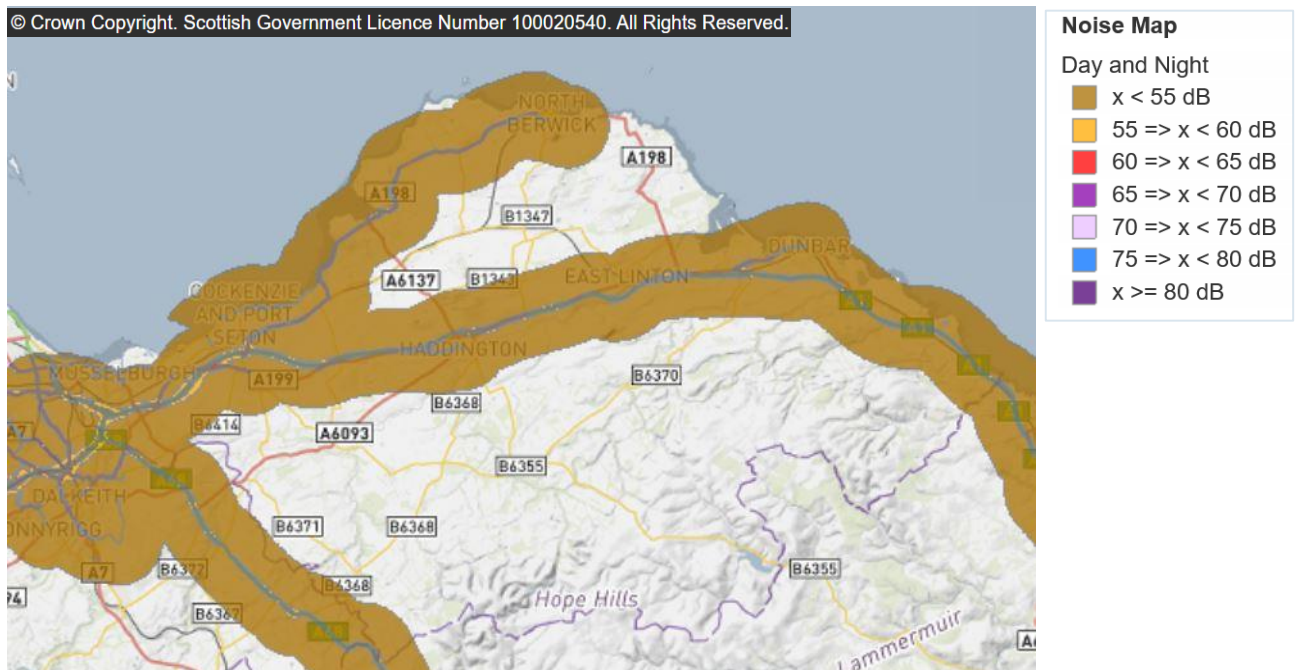


Figure 18: Average annual noise from roads (Day, Evening and Night (Lden))⁵².

Candidate Quiet Area

8.44 The [Edinburgh Agglomeration Noise Action Plan](#) notes that access to quiet areas and peaceful soundscapes is generally known to bring about a range of benefits to human health and well-

⁵⁰ Basner, Mathias, et al. "[Auditory and Non-Auditory Effects of Noise on Health.](#)" *The Lancet*, vol. 383, no. 9925, 2014, pp. 1325-1332., doi:10.1016/S0140-6736(13)61613-X quoted in Anna Nordseth "How to Trees Reduce Noise Pollution" Treehugger website <https://www.treehugger.com/how-do-trees-reduce-noise-pollution-4863592#citation-13> accessed 27/09/2021

⁵¹ Halperin, Demian. "[Environmental Noise and Sleep Disturbances: A Threat to Health?](#)" *Sleep Science*, vol. 7, no. 4, 2014, pp. 209-212., doi:10.1016/j.slsci.2014.11.003

⁵² Source: Scottish Noise mapping at <https://noise.environment.gov.scot/noisemap/>

being. Designation of Quiet Areas is required under the [Environmental Noise \(Scotland\) Regulations 2006](#). Parts of the coast at Prestonpans are part of the Firth of Forth Candidate Quiet Area. The Firth of Forth Candidate Quiet Area could be affected by increased use either from behavioural change or increased population in the area. Although further tree planting here could help buffer noise here this may not be desirable as qualifying interest species from the Firth of Forth SPA could use grassland habitat here.



Figure 19: Firth of Forth Candidate Quiet Area⁵³

8.45 The TWSEL is unlikely to affect the quietness of the Firth of Forth Candidate Quiet Area. Some tree planting has taken place here already, and this is likely to increase the perceived quietness of this area, and may reduce measured levels of noise. Some of the roads bordering this area already have tree and/or hedge planting along the roadside, though further such planting, which the strategy supports, could further reduce noise here.

Buffering existing noise

8.46 Trees can reduce urban noise through absorbing, masking and deflecting sound. The larch has found to be the most effective tree for the job⁵⁴. Some studies have shown that even where there is not a measurable difference in noise, people perceive noise to be lower as they expect trees to screen noise (Ward Thompson et al, 2016). There may be opportunities to use tree planting to mitigate the effects of noise from existing noise sources⁵⁵.

8.47 The likely evolution of the area without the strategy is that noise is likely to continue to be an issue for noise sensitive development close to roads, including at Blindwells where it will require be mitigated (not only by trees). Noise may also be an issue for noise sensitive receptors in older development that pre-dates modern noise standards or where traffic noise has increased.

8.48 TWSEL includes actions that are likely to reduce the effect or perceived effect of noise. This includes increasing the canopy in urban areas (Target 4), and planting along the side of roads to benefit air quality (Action 20).

⁵³ Source: Edinburgh Agglomeration Round 3 Noise Action Plan mapping at <https://noise.environment.gov.scot/pdf/RoundThree/Edinburgh/Edinburgh%20CQA.pdf>

⁵⁴ Applied Acoustics Journal, reported at BBC website <https://www.bbc.co.uk/news/science-environment-52139333> accessed 27/09/2021

⁵⁵ See https://ec.europa.eu/environment/integration/research/newsalert/pdf/328na6_en.pdf

Noise from forestry traffic and operations

8.49 The TWSEL on its own is unlikely to lead to such an increase in traffic that noise from roads or railways would change other than very marginally. Increasing the amount of accessible woodland and associated recreation or commercial use could bring a slight increase in movements on rural roads which currently have low traffic levels. However this would affect a small area and is not considered likely to be significant at the strategic level.

8.50 Noise from forestry operations could be a nuisance to noise sensitive receptors. There is limited impact on residential or recreational amenity at present due to the low levels of forested areas and their location. Where planning permission is required, operational noise would be controlled through conditions on hours of working. However some noise during forestry operations is often unavoidable. The effect of noise from forestry operations is not considered likely to be significant at the strategic level but some proposals may require project level assessments.

Likely Significant Effects – Human Health

8.51 The following table shows the SEA objectives for Human Health and summarises the impact of the TWSEL.

SEA Objective, Human Health:									
Maintain, or provide opportunities to improve, human health			Theme 1 – Climate Mitigation	Theme 2 – Resilience and adaptation	Theme 3 – Biodiversity	Theme 4 – Community	Theme 5 - Economy	Theme 6 – Cultural Heritage	Theme 7 – Landscape Character
SEA Indicator questions for assessment.	KEY								
	Positive	+							
	Neutral	0							
	Unknown	?							
	Mixed/Variable	//							
Does the plan....?	Negative		-						
<i>Help create vibrant, healthy and safe places and community, support good mental well-being and maintaining a healthy weight through physical activity</i>			//	+	+	//	0	+	+
<i>Flourishing in early years: increase opportunities for young people to experience play in woodland</i>			+	0	+	+	0	0	+
<i>Reduce health impact from woodland and forestry operations</i>			//	//	//	//	0	0	+

Reduce the impact of noise	0	0	0	+	0	0	+
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Commentary

8.52 The impact of tree planting and woodland creation (Climate, Resilience, Biodiversity, Community and Landscape themes) on health is positive in terms of creation of vibrant communities, as the increase in woodland and trees in towns and the landscape will improve amenity. This would be expected to reduce stress and increase levels of physical activity outdoors. It also brings opportunities for play in a natural environment. However, a greater number of trees, especially in towns and in accessible areas may also increase pollen allergies as well as more risk of tick borne illness. The 'Community' theme promotes increase in tree canopy cover and accessible woodland (Target 4). Encouragement of fruit and nut growth (Action 25) supports both nutritional health and physical activity. Action 23 provides for planting along strategic road corridors and industrial sites, with the aim of improving air quality and consequent improvement to health. This is also likely to reduce the impacts of noise. Policy 21 advocates tree planting being taken forward in a collaborative approach. This increases sense of ownership and community cohesion, which contributes to good mental health.

8.53 The Cultural Heritage theme will support a sense of identity and connection with nature through identification of Notable Trees locally and development of Tree Trails. This helps support good mental and physical health.

8.54 Generally, the effects on health are expected to be positive, due to improved mental health from an improved daily living environment and recreational opportunity. Air quality should also improve which has positive benefits for respiratory and heart health. There may be some adverse impact from an increase in tree allergies and ticks related illness.

Mitigation of potential adverse impacts of the Strategy

8.55 **External mitigation:** The existing policy and regulatory framework will act as mitigation to some of the potential impacts on health. National Planning Framework 4 and the East Lothian Local Development Plan together make up the development plan for this area. They contain policies protecting amenity (including noise) which will be applied to any development that requires planning permission, as is the case with felling permission. There are statutory provisions relating to noise enforced by East Lothian Council's Environmental Health and Protection service.

8.56 The National Health Service will treat patients who become ill from allergies or vector borne disease, or who suffer accidents.

8.57 **Embedded mitigation** includes policy on involving communities in planning for woodland creation and management, and urban tree proposals. This will help avoid stresses on people that arising from trees being poorly located.

8.58 **Project level mitigation** should include equalities assessment including consideration of perceived safety for vulnerable groups and where relevant a road safety audit. Species choice in urban areas should consider pollen potential.

8.59 **Further mitigation** should also include publicity about dangers of ticks such as provision of information on boards. Measures such as keeping grass short around paths are also helpful.

Publicising the availability of pollen forecasts so vulnerable people can take measures on days when levels are high would also be useful.

Secondary, Synergistic and Cumulative effects

8.60 **Positive:** There are many programmes, projects and strategies which aim to improve human health, or which impact on it. The TWSEL overall is expected to have a positive effect cumulatively with these strategies by supporting a healthier urban environment, reducing flood risk, improving air quality and in a small way, mitigating climate change which has been described as an existential threat.

Conclusion – Human Health

8.61 The effect on human health is expected to be generally positive on both physical and mental health. Planting more trees in settlement tends to improve both. Accessible woodland will encourage people to exercise in the outdoors. Air quality should improve, and this has strong links to health. The Strategy supports reduction of flood risk, which can damage physical and mental health. Perception of unwanted noise, which can cause stress, is expected to reduce. An increased amount of trees will likely bring with it an increase in vector borne illness and allergies.

Residual adverse impacts:

- Increase in vector borne illness and tree pollen allergies.

9 SOIL



Introduction

- 9.1 Soil is literally the foundation of our environment. It delivers essential functions of food production, carbon storage and maintaining the balances of gases in the air, filtering pollutants and regulating water flow. It also provides biodiversity habitat, provides raw materials including minerals, and preserves cultural heritage assets. Soil degradation can have a strong effect on air and water quality. Soils need to be managed and protected to make sure they continue to function effectively.
- 9.2 SEPA produced the 'State of Scottish Soils' Report in 2009⁵⁶. This noted that climate change and changes in land use and land management are the most significant pressures on Scottish soils. The main threats to soil structure were loss of organic matter, soil sealing, contamination (including deposition of acidifying and eutrophying air pollutants), changes in soil biodiversity, erosion and landslide, and compaction. These impacts are difficult to reverse.
- 9.3 The Scottish Soil Framework 2009⁵⁷ considered that due to largely sustainable land management, Scotland's soils were generally in good health. The document notes that threats associated with cultivation, namely erosion, loss of structure and compaction are not a risk at the national scale but can be locally. The impacts of this can be significant for example loss of peatland, damage to archaeological features and impacts to water quality. The Report notes that it is difficult to appraise emerging threats due to lack of data.
- 9.4 Much of the lowland area of East Lothian is prime agricultural land, with poorer soils in the Lammermuirs in the south of the area. There is some peat in the upland areas. There are significant urban areas here, with further growth planned. There are some areas of contamination, mainly from previous mining or industrial activity. More information on Soils is available at [Scotland's Environment Web](#).
- 9.5 Through Scoping the following issues were considered. The Table below shows, with reasons, what existing issues were considered relevant to this strategy. Deposition of acidifying and eutrophying air pollutants are a threat to soil but are considered under 'Air'.

⁵⁶ <https://www.sepa.org.uk/media/138741/state-of-soil-report-final.pdf>

⁵⁷

<https://www.webarchive.org.uk/wayback/archive/3000/https://www.gov.scot/resource/doc/273170/0081576.pdf>

Scoping Table 4: SOIL	
Overall objective: To maintain or improve soil quality, quantity and function	
Issue	In/Out
Conserve the food production capability of land	
Change of use from agriculture to forestry	In
Maintain soil quantity and quality	
Conserve soil organic matter – opportunity	In
Reduce soil erosion and landslides - opportunity	In
Compaction and soil sealing	Out
Minimise disturbance to carbon rich soils in particular peat – threat	In
To reduce levels of soil contamination	Out

Baseline and Issues– Soils

Food production capability of land

9.6 The Food and Agriculture Organisation Forestry Department sets out the global role of forest soils on their [website](#). They note that forests and forest soils make an essential contribution to agricultural production and global food security.

9.7 East Lothian contains some of Scotland’s best agricultural land. Agricultural land is vital for food production. Globally (and in Scotland), there is finite amount of prime agricultural land - indeed agricultural land in general. It is a resource that once lost is incredibly difficult to replace. Scotland imports around 40% of its food; UK food production to supply ratio (farm-gate value of raw food for production divided by value of raw food for human consumption) dipped under 60% in 2016⁵⁸. A lack of agricultural land could be significant in the future if for any reason (pandemics, climatic and population change, trade arrangements, economic performance) the country as a whole cannot import so much food. In a changing world then, demand for agricultural land both locally and globally could increase.

9.8 Adaptation Scotland warns that climate change may have an impact on food production globally, though a warming climate and longer growing season has the potential to improve conditions here. Prime agricultural land located close to population centres (as in East Lothian) also allows for a reduction in food miles, which can help mitigate climate change.

9.9 Pressures on the food production value of land include development (including changes of use) and potential changes to agricultural support payments.

⁵⁸ <https://www.gov.uk/government/publications/food-statistics-pocketbook-2017/food-statistics-in-your-pocket-2017-global-and-uk-supply>

9.10 The SEA for the East Lothian Local Development Plan 2018 found that there was loss of agricultural land overall as major development sites were allocated on prime land. National Planning Framework 4 aims to protect agricultural land or lesser quality land that is locally important. The plan supports development on such land only where it is for essential infrastructure, small-scale rural development, food processing or renewable energy. This may reduce losses of agricultural land to development going forward.

9.11 The maps below show agricultural land. The best, most versatile agricultural land is Class 1, with all land above Class 3.1 being prime. Although Class 1 agricultural land, and prime land in general, is relatively common in East Lothian, it is much rarer in Scotland as a whole.

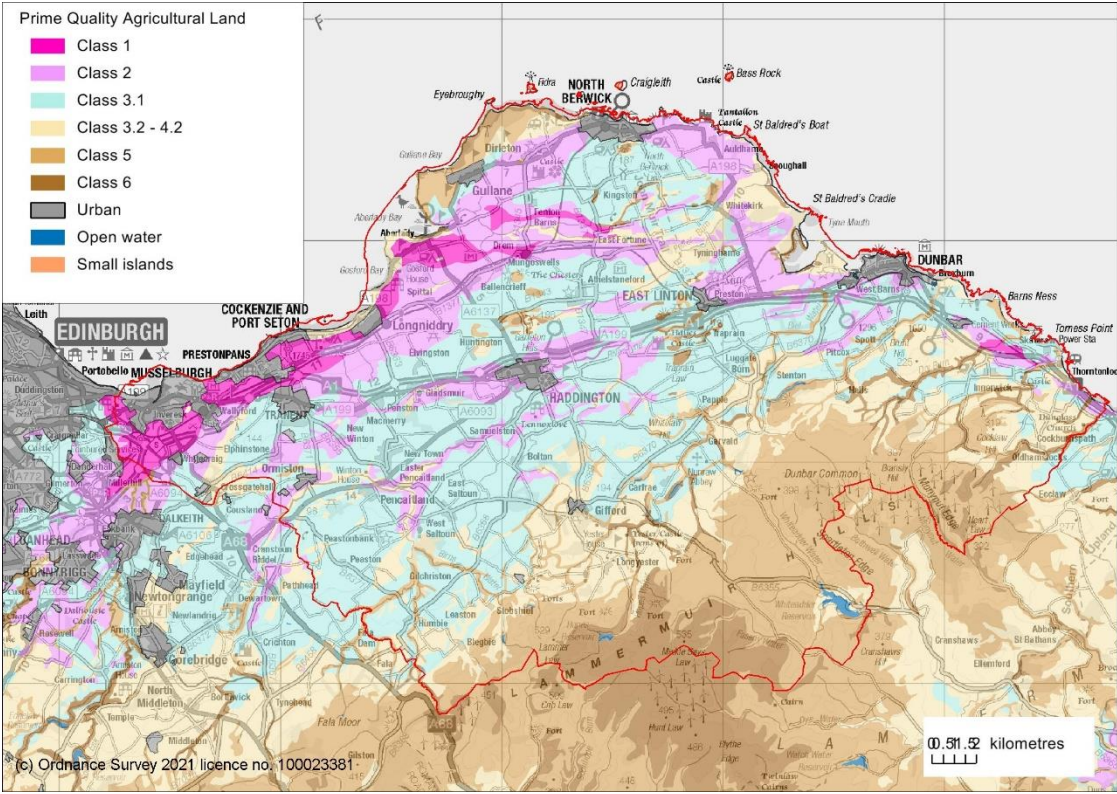


Figure 20: Agriculture land classification of East Lothian

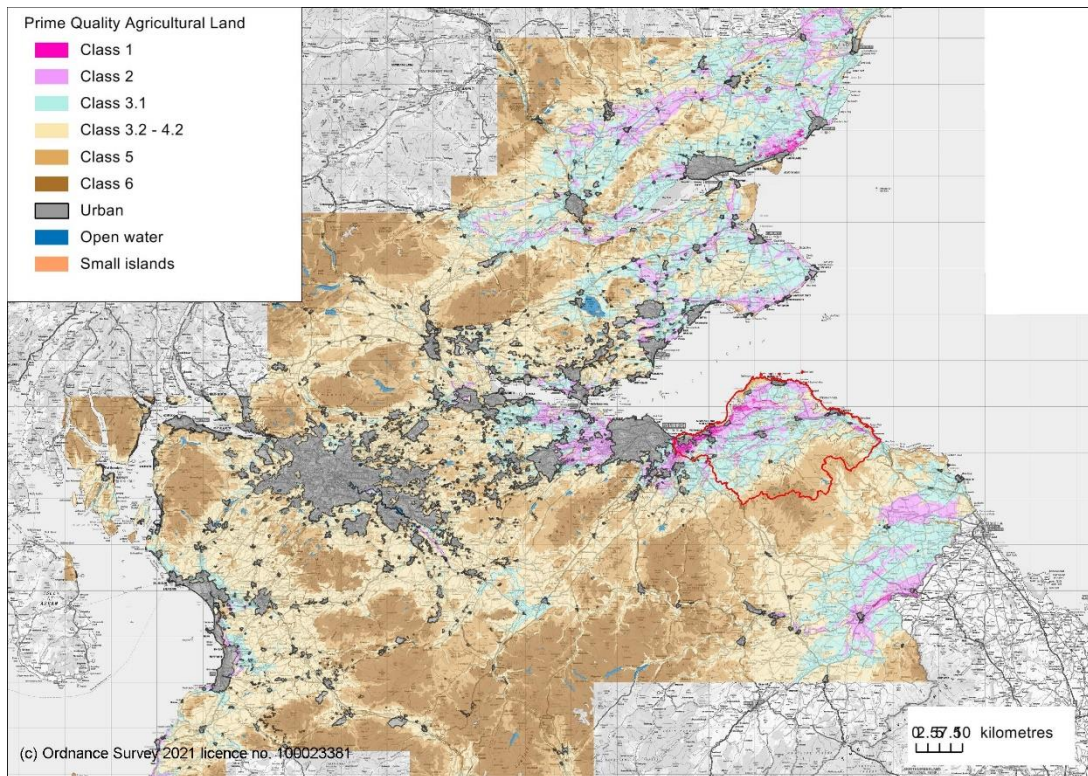


Figure 21 Agricultural land, Central Scotland

9.12 Woodland creation on agricultural land could affect agricultural production. There could be direct, negative effects from loss of land area, though there can also be positive effects from well-placed shelterbelts.

9.13 The TWSEL supports the planting of 2 million trees through the East Lothian Climate Forest (Target 1, Action 2). This will require between 800 – 2000 ha of land. Some of this will be in urban areas but it is likely that some will be on land currently in agricultural use. The TWSEL aims to guide woodland creation to areas that are less sensitive. The accompanying mapping identifies agricultural land, both prime and sub-prime, as a sensitivity. This does not rule out woodland creation in such areas. However, the Strategy only supports woodland creation where it will support agricultural production. Policy 21: Woodland Creation within Farmland states that such woodland should aim to complement and improve agricultural production, but may also be acceptable where it improves water quality and/or reduces flood risk. Target 4 aims to create 300 hectares of new farm woodland that supports agricultural production. Overall, although the TWSEL proposes considerable new woodland creation, it does not generally support this in areas where agricultural production would be harmed.

9.14 There is likely to be cumulative impact on loss of prime agricultural land with the East Lothian Local Development Plan 2018 and many other plans, strategies and projects.

9.15 It may be possible to mitigate the impact on agricultural production of loss of land given to woodland creation by using trees to help support food production, for example orchards, or shelterbelt trees that can help arable crops cope with drought⁵⁹. The TWSEL notes that woodland

⁵⁹ Woodland Trust “Managing crop drought with trees” website accessed 27/09/2021 <https://www.woodlandtrust.org.uk/publications/2012/03/managing-crop-drought-with-trees/>









creation should only occur where it supports the function of the land in food production. However, that does not avoid the reduction in the total quantity of prime agricultural land in itself.

Maintain soil quantity and quality

9.16 Loss of organic matter, changes in soil biodiversity, erosion/landslides and soil erosion are expected to remain significant issues⁶⁰.

Conserve soil organic matter

9.17 Intensive farming on soils can have long lasting effects on soil health, which can be difficult to restore⁶¹. Farming can disturb the soil structure, leading to loss of soil organic matter and an increase of bacteria at the expense of fungal communities. This can affect the fertility of the soil and ecosystem services provided by soils such as its ability to regulate water, hold nutrients or

Mineral soils	Erosion risk	Organic Peaty soils
	Low	
 	Moderate	 
	High	

break down pesticides. It can also reduce soil biodiversity, which again is core to how well soils can perform. It can take hundreds of years for soils to recover, even after farming has ended. From the point of view of the soil itself,

therefore, a change of use from agriculture to woodland, depending on the type, is likely to be beneficial.

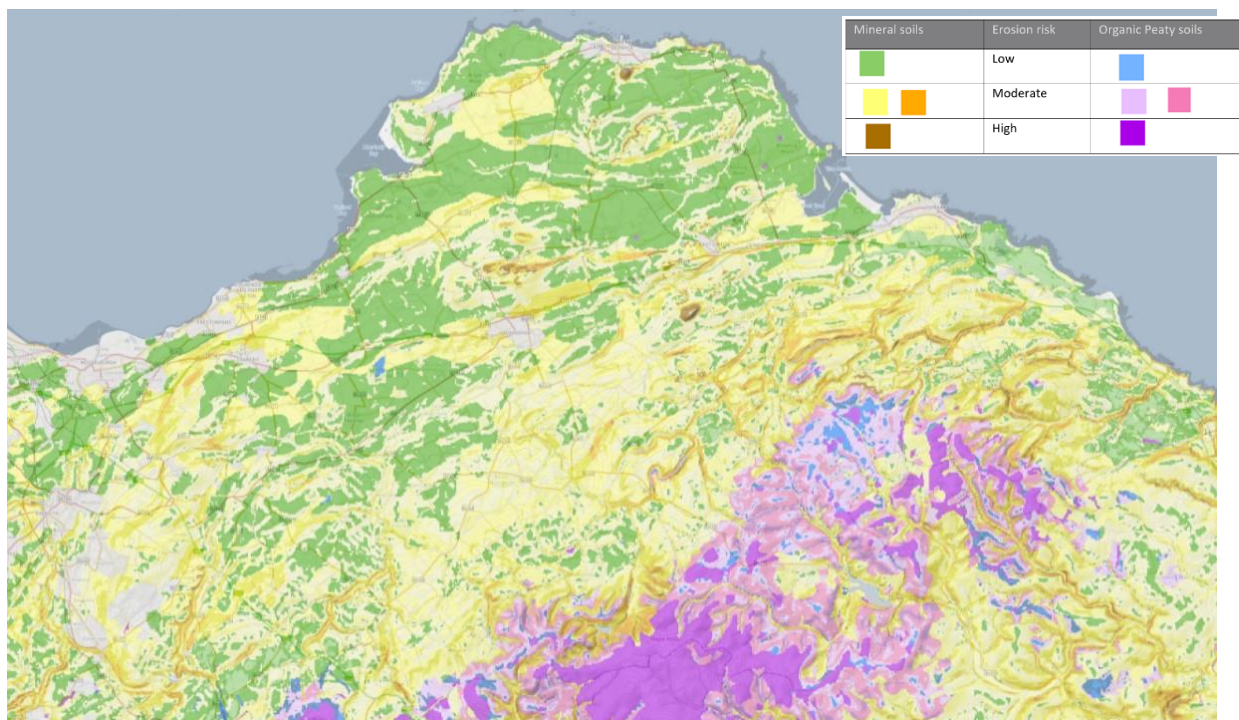
Landslide and erosion

9.18 Tree planting could help prevent landslide and soil erosion.

9.19 Erosion causes direct loss of soil and can reduce its long-term fertility. Soil erosion risk depends on the soil texture and its capacity to absorb rainfall as well as the slope of the land. The slope determines how erosive overland flow could be with steeper slopes leading to faster runoff. There is therefore most risk of erosion where coarse textured soils with a low water adsorption capacity are on steep slopes. Figure 22 shows the risk of a bare soil being eroded by water under intense or prolonged rainfall and primarily covers the cultivated land in Scotland. The data is from the John Hutton Institute and is available on [Scottish Environment Web](http://www.scottishenvironment.gov.uk/).

⁶⁰ Dobbie, K.E., Bruneau, P.M.C and Towers, W. (eds) 2011. The State of Scotland's Soil. Link: <https://www.sepa.org.uk/media/138741/state-of-soil-report-final.pdf>

⁶¹ European research "Intensive Agriculture leaves lasting legacy on soil health" 2012 https://ec.europa.eu/environment/integration/research/newsalert/pdf/291na4_en.pdf



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Figure 22 Soil erosion risk For full key and map see Scotland's Soils ⁶²

9.15 Wind can also cause loss of topsoil through erosion. Climate change could alter both wind, drought and rainfall patterns.

9.20 Woodland creation can help reduce soil erosion as the roots help bind the soil while the above ground parts can act as windbreaks. Strips of trees planted as windbreaks can help reduce the amount of soil lost to wind, particularly ploughed soil. Riparian planting can help bind the soil at riverbanks and reduce erosion there.

9.21 However, preparation of land for forestry planting can lead to soil erosion.

9.22 The effect of the TWSEL on soil erosion is likely to be positive. The 'Resilience and Climate Adaptation' chapter includes a section on the use of trees to protect and enhance the soil resource. Target 2B encourages riparian planting, while Target 5 seeks 300 ha of new small farm woodlands and shelterbelts, supported by Policy 21, which will reduce soil run-off into rivers as well as erosion by wind. Policy 9: Seed and Tree Stock Sourcing promotes natural regeneration that means preparation of land for planting is avoided.

Compaction and soil sealing

9.23 The use of heavy machinery can compact soils. Some development related to forestry such as tracks and other infrastructure may lead to soil sealing. No large scale expansion of commercial forestry is promoted through this Strategy. Where soil sealing occurs the effect is either from existing forestry, which the TWSEL would not affect, or localised and not strategically significant. This topic has therefore been Scoped out.

⁶² From Scottish Environment Web, full key is here: [Map of soil erosion risk \(partial cover\) | Scotland's soils \(environment.gov.scot\)](https://www.environment.gov.scot) Lilly, A. and Baggaley N.J. 2018. Soil erosion risk map of Scotland (partial cover). James Hutton Institute, Aberdeen

Carbon rich and rare soils

9.24 There are some relatively carbon rich soils in East Lothian, mainly in the Lammermuir Hills. The deepest peat is in the Lammer Law area and is covered by SSSI designation; however, there is some shallow peat elsewhere. The following figures show organic matter in soils and location of peat.

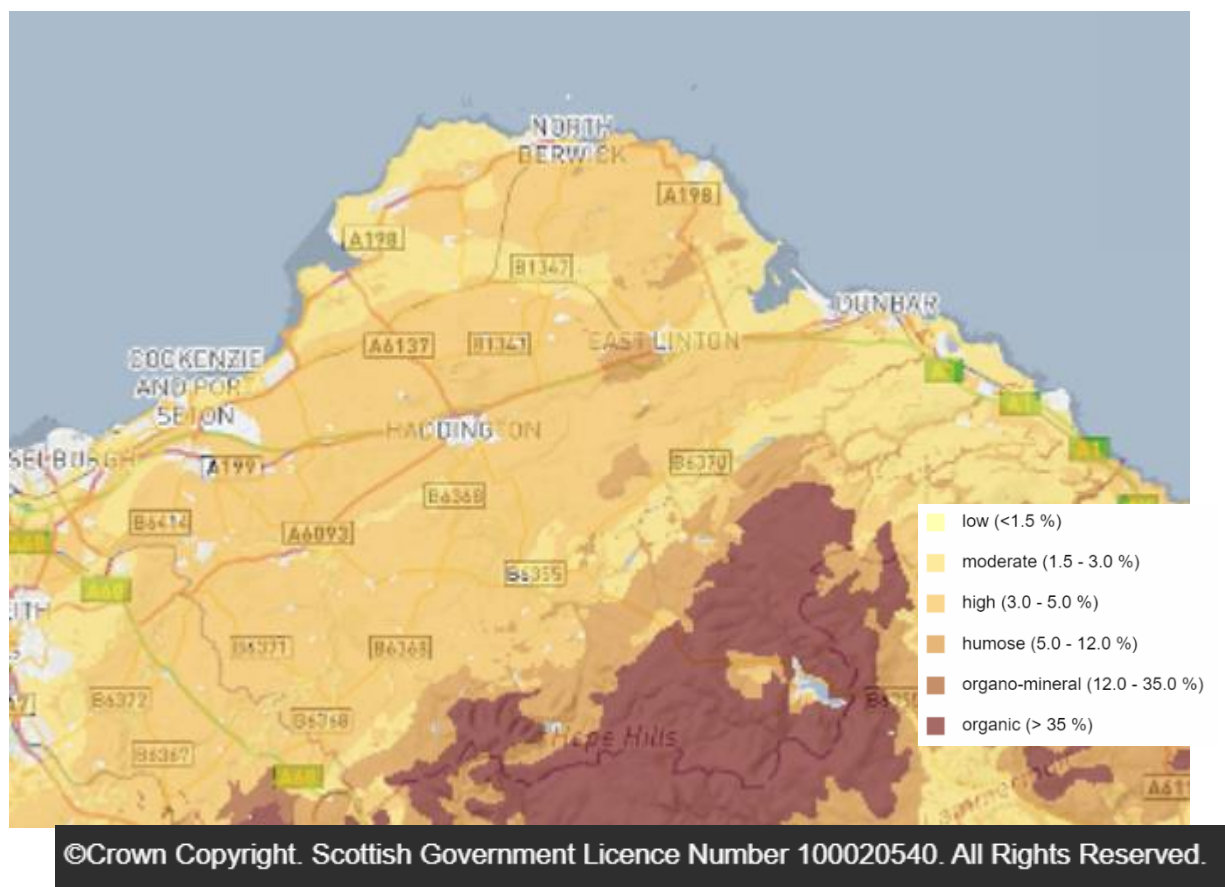
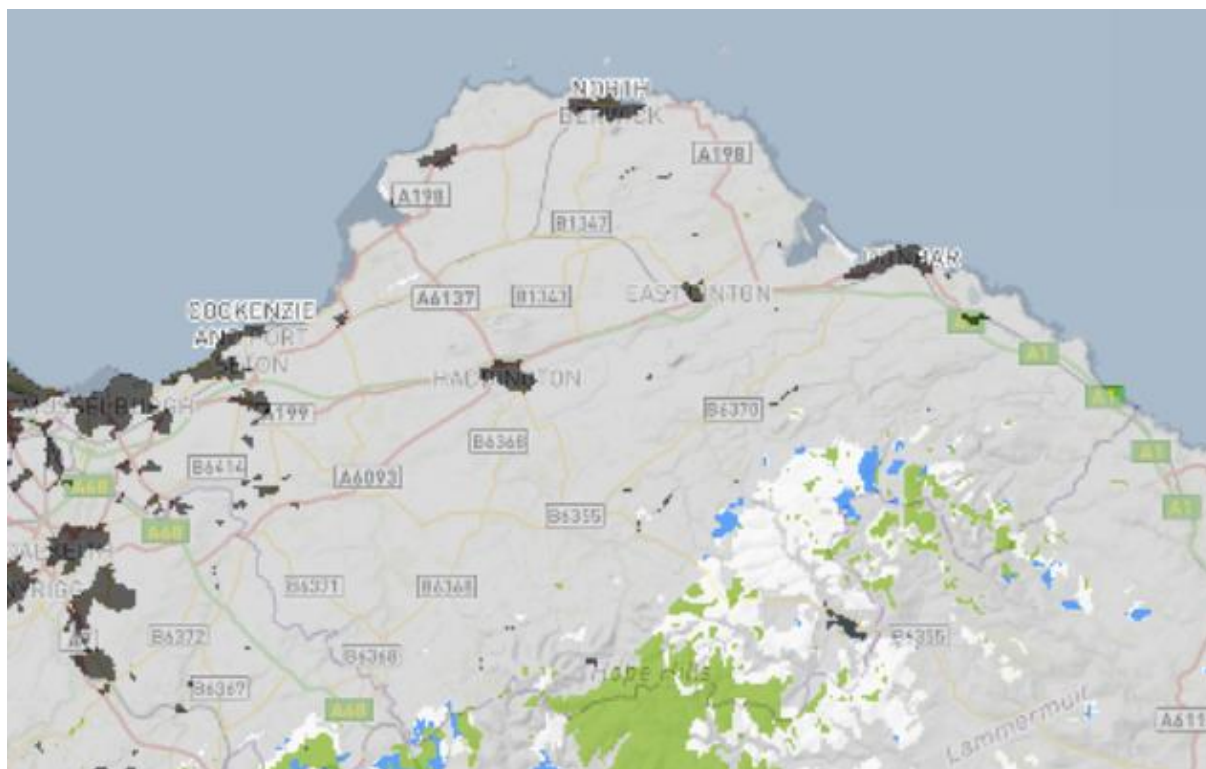


Figure 23 Topsoil organic carbon concentration⁶³

⁶³ From Scottish Environment Web at [Scotland's Soils - soil maps \(environment.gov.scot\)](http://environment.gov.scot)



	Class description	Indicative soil	Indicative vegetation
■	Class 3 - Dominant vegetation cover is not priority peatland habitat but is associated with wet and acidic type. Occasional peatland habitats can be found. Most soils are carbon-rich soils, with some areas of deep peat	Predominantly peaty soil with some peat soil	Peatland with some heath
□	Class 4 - Area unlikely to be associated with peatland habitats or wet and acidic type. Area unlikely to include carbon-rich soils	Predominantly mineral soil with some peat soil	Heath with some peatland
■	Class 5 - Soil information takes precedence over vegetation data. No peatland habitat recorded. May also include areas of bare soil. Soils are carbon-rich and deep peat.	Peat soil	No peatland vegetation
■	Mineral soil - Peatland habitats are not typically found on such soils (Class 0)	Mineral soils	No peatland vegetation
■	Unknown soil type - information to be updated when new data are released (Class -1)	Not classified (unknown soil type)	Not applicable
■	Non-soil (e.g. loch, built up area, rock and scree) (Class -2)	No soil	Not applicable

Figure 24 Carbon and peatland 2016⁶⁴

⁶⁴ From Scottish Environment web at https://map.environment.gov.scot/Soil_maps/?layer=10 accessed 09/09/2021

- 9.25 Where there is a high carbon content disturbance of the soil for forestry planting could initially cause a release of carbon. Drainage to support tree growth could also have this effect.
- 9.26 The TWSEL recognises the value of peatland both as habitat and as a carbon store. Policy 15 Peatland supports retention of existing peatland or creation/restoration of peatland where this is possible, over woodland creation. The effect on carbon rich soils is likely to be positive by promoting use for peatland and seek to avoid woodland creation on such areas.

Contaminated land

- 9.27 There are some areas of contaminated land in East Lothian. Soil can become contaminated in a variety of ways. These include deposition from the air, forestry and agricultural operations including pesticide use and waste management as well as the industrial causes that perhaps first come to mind. Run-off from contaminated sites can lead to transfer of pollutants. Contaminated land can be remediated by removing or treating the pollutant; breaking or removing the pathway; or protecting or removing the receptor. Woodland creation can potentially do all three⁶⁵.
- 9.28 The Environmental Protection 1990 Act regulates some types of contaminated land. For land to be considered contaminated under Part IIa of this Act, there must potentially or actually be significant harm caused, or pollution of controlled waters. There must therefore be a source, a receptor, and a pathway. So there may be some soil which contains contaminants but is not considered contaminated under the Act as there is either no receptor or no pathway for harm or water pollution.
- 9.29 Although there is remarkably little obvious trace, East Lothian has had a varied industrial past, especially in the west of the area. This included potteries, brickworks, tanneries, iron foundries, gas works, timber works, power stations, railways and others, all of which produce hazardous wastes. Mining and quarrying was another major contributor to land contamination. Non-industrial uses such as petrol stations, military airfields, farms, scrap yards and even fly tipping can also lead to contamination. Current land uses that are potentially contaminating are managed through a system of licensing. The Council is the lead regulator for most contaminated sites, and on some sites where no other responsible person can be found, is responsible for remediation. The Council tackles the most pressing and serious problems first, and follows a risk based approach. It will require remedial action only where the contamination poses unacceptable risks to human health or the environment.
- 9.30 The East Lothian Contaminated Land Register lists land designated as contaminated and is available here:
https://www.eastlothian.gov.uk/downloads/download/12758/contaminated_land .
- 9.31 Land contamination issues will continue to be addressed through the planning process and contaminated land remediation process, including the Council taking action on 'orphan' sites on a prioritised basis.
- 9.32 Some types of planting can be used to remediate contamination. Natural land decontamination methods such as phytoremediation could be considered rather than soil stripping. The TWSEL does not consider use of trees or woodland as a method of remediating contaminated land.

⁶⁵ See Tony Hutchings, Forestry Commission 2002, "The Opportunities for Woodland on Contaminated Land" available at [Forestry Commission Information Note: The opportunities for woodland on contaminated land \(forestresearch.gov.uk\)](https://www.forestry.gov.uk/ForestryCommissionInformationNote:Theopportunitiesforwoodlandoncontaminatedland(forestresearch.gov.uk))

9.33 Preparation for tree planting may disturb and mobilise contaminants through the wider environment. The potential for hazard should be considered at the project level.

Likely Significant Effects Summary - Soil

9.34 . The following table gives SEA objectives and summarises the impact of the TWSEL on each.

SEA Objective, Soil: To maintain or improve soil quality, quantity and function			Theme 1 – Climate Mitigation	Theme 2 – Resilience and adaptation	Theme 3 – Biodiversity	Theme 4 – Economy	Theme 5 - Community	Theme 6 – Cultural Heritage	Theme 7 – Landscape Character
SEA Sub-objective/ questions for assessment. Does the plan....?	KEY								
	Positive	+							
	Neutral	0							
	Unknown	?							
	Mixed/Variable	//							
Negative	-								
Conserve the food production capability of land			0	0	0	+	0	0	-
Maintain soil quantity and quality			+	+	+	0	+	0	+

Commentary on soil indicators

9.35 Theme 1 Climate Mitigation includes the creation of the East Lothian Climate Forest. This will require up to 2000 ha of land over the 10 year period. It will be difficult to achieve this without some loss of agricultural land, though not necessarily prime land. The TWSEL guards against loss of agricultural production by Policy 18 ‘Woodland Creation within Farmland’ which states that woodland creation on farmland should aim to complement and improve agricultural production. The strategy also contains mapping to show where this is consideration. Despite this, it is likely there will be some loss of agricultural land, given that most of East Lothian consists of farmland.

9.36 The creation of new woodland is likely to have positive effects on maintaining soil quantity and quality, as trees tend to stabilise soil, reducing erosion. Woodland soils tend to be rich in biodiversity and to have good structure as they are generally undisturbed. Theme 2, Resilience, includes Action 4 to work with SEPA to help increase slope stability, which will reduce soil erosion, as will working with landowners (Action 5) to reduce water run-off onto roads. This section also encourages continuous cover forestry, which will reduce soil erosion (Policy 7).

9.37 Theme 3, Biodiversity, provides for the expansion of native woodland and increased connectivity. As with woodland creation overall, the effect of potential loss of agricultural land is mitigated by the inclusion of policy on protecting agricultural production and the inclusion of agricultural land

on the sensitivity mapping. An increase in native woodland is positive for soil conservation overall as the quality of soil in new areas of native woodland is likely to be good, and this landcover allows for new soil to form. Supporting natural regeneration over tree planting (Policy 9) is positive for conserving soil structure. Protection of biodiversity interests (Policies 8 and 15) will protect the soil in those areas also. Preparing a hedgerow management plan (Action 13) is expected to be positive for agricultural production, as this will allow for the best placing of hedgerows for multiple benefit including agricultural production. It also could benefit soil by reducing erosion. Prioritising peatland restoration over woodland creation (Policy 16) is also considered positive for soil quality.

- 9.38 The Economy theme includes a target of creating 300 hectares of farm woodlands and shelterbelts which align with agricultural production. This should support its food producing capacity, as well as soil quality. Policy 18 of this theme specifically states that woodland creation within farmland should aim to complement and improve agricultural production, though woodland planting to improve water quality is also acceptable. This policy should protect agricultural land from inappropriately sited woodland. Though purely from a soil conservation and quality point of view, woodland use may be preferable to arable, as it has less input, some of which can damage some aspects of soil. However, the food production value of soil is important.
- 9.39 Most of the Actions and Policies of Theme 5: Community have a neutral effect on soil. This theme includes action (Action 17) to increase accessible woodland. However, as with woodland creation in the Climate and Biodiversity themes, this will be mitigated by policy on protecting farmland. There is some tension between these two objectives (promoting accessible woodland and protecting agricultural production) however as many of our settlements, in particular Prestonpans and Haddington, which both lack accessible woodland in some places, are set amidst prime quality agricultural land. The Strategy supports promoting access to existing woodland before creation of new woodland on prime agricultural land ('Improving Woodland Access by Woodland Creation').
- 9.40 Promotion of access to woodland (Action 19, Policy 19), may harm soil structure. Although the Action requires this to be done without harm to the woodland, it will be difficult to avoid some level of compaction and potentially soil erosion on paths. Land Reform Act rights may make access and consequent damage difficult to control. Woodland expansion along road corridors (Action 23) may help trap pollutants near the source, and reduce pollution of soil from vehicle emissions. Hutting is supported by National Planning Framework 4, provided the impacts are manageable. Policy 20 seeks to restrict this in sensitive woodland areas, which will help reduce damage to soil from trampling and compaction. Although hutting is a low impact form of development, in sensitive areas damage can easily occur.
- 9.41 The Landscape Theme also involves woodland creation (Target 7 supporting structural planting in the Cockenzie/Blindwells area and Innerwick Coast, and Action 29, Coastal Mosaic creation). Masterplanning of these areas will help protect both agricultural and woodland creation interests. The effects of the structural planting for which masterplans are required are uncertain but would be considered at the time of preparation.

Mitigation of potential adverse impacts of the Strategy – Soil

- 9.42 **External mitigation:** The existing policy and regulatory framework will act as mitigation to some of the potential impacts on soil. National Planning Framework 4 and the East Lothian Local Development Plan contain policy which provides some protection for agricultural land from development. This would apply to forestry related development that requires planning

permission. National Planning Framework 4 also contains policy protecting peatland. The UK Forestry Standard⁶⁶ has provisions on soil as well as a supporting guideline, which will help mitigate some effects. Adherence to the standard is required for payment of government grants for woodland creation and forest management.

9.43 Embedded mitigation: includes Policy 18: Woodland Creation within Farmland, which aims for woodland to complement and improve agricultural production. The sensitivity mapping shows where such land is, and supporting text notes that loss of agricultural land which is not prime may nonetheless be important where it harms agricultural production overall. Policy 15 Peatland supports peatland restoration over new woodland planting in suitable areas, which will help support this carbon rich soil. The sensitivity mapping identifies peatland areas as a constraint to woodland planting.

9.44 Project level mitigation: address the potential for tree planting to disturb and mobilise contaminants in soil. Ensure that tree planting or woodland creation on prime and sub-prime agricultural land is designed to support agricultural production where possible.

Secondary, Synergistic and Cumulative effects

9.45 Negative: While policy in National Planning Framework 4 aims to avoid development significantly affecting prime agricultural land, much of East Lothian consists of this type of land. One of the targets of the TWSEL is to increase woodland cover while supporting agricultural production on agricultural land classes 1 – 4.2. It also encourages tree borne food production. However, it will be difficult to significantly expand woodland and forestry without some loss of land with capability for food production. Losses (including of prime quality agricultural land) will also occur through development proposed by the East Lothian Local Development Plan 2018, Midlothian Local Development Plan and others, leading to an overall loss.

9.46 Uncertain: Food production globally is affected positively by improvement to agricultural techniques, and also impacted both positively and negatively by climatic changes. Population changes also affect how much food is potentially available for each person. There could be synergistic and cumulative effects on food production that are hard to predict. The extra contribution of the TWSEL is likely to be negligible, however the receptor is sensitive.

9.47 Positive: Scotland's Peatland Action programme aims to restore peatland. The TWSEL prioritises peatland restoration over woodland creation, and aims to protect peatland. Together these strategies will help protect and restore peatland.

Conclusion – Soil

9.48 The effects of the TWSEL on soil are mixed. There is likely to be some loss of agricultural land, including prime agricultural land, to woodland. The aim of the strategy is that this does not affect the food production capacity of the soil. Creation of small farm woodlands and hedgerows should reduce soil erosion. The Strategy seeks to protect and restore peat soils.

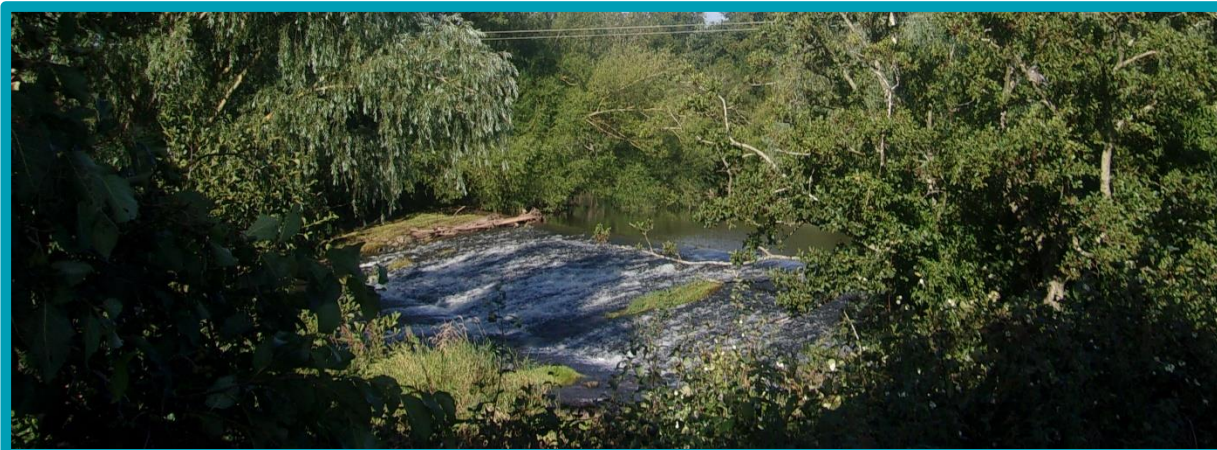
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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/687147/The_UK_Forestry_Standard.pdf

Residual adverse effects:

- Direct loss of some agricultural land including prime and sub-prime agricultural land

10 WATER



Introduction

10.1 Water is fundamental to supporting human life and environmental quality. We need good water to drink and wash in, for food production, for industrial processes, while its importance in both land and marine ecosystems cannot be underestimated. The quality of the water environment in Scotland is generally good, though there are problems such as diffuse pollution, discharge of wastewater, abstraction of water and historic physical alterations to watercourses. Other issues relevant to water include quantity of water (flooding and drought); drinking water quality; and the sustainability of natural ecosystems.

10.2 Trees can benefit the water environment through protecting water habitat, supporting drinking water quality, combatting flood risk, and preventing eroded soil entering watercourses. However, badly managed or planned operations can mean these benefits are not fully realised, or worse, contribute to flood risk or water quality issues. The TWSEL therefore has the potential to affect the water environment.

10.3 Regulations enacted under the Water Framework Directive set out how natural water is to be managed with the aim of improving its quality. SEPA coordinates action. Scottish Water manages drainage and drinking water. East Lothian Council and SEPA, as well as property owners, have responsibilities regarding flooding.

10.4 Through Scoping the following issues were considered. The Table below shows, with reasons, what existing issues are considered relevant to this strategy. The provision of drinking water and drainage is a water issue also relevant for material assets due to the infrastructure involved in providing the services.

Scoping Table 5: WATER	
Issue	In/Out
Reduce flood risk	
Flood risk	In
Protect or enhance water quality	

Impacts on water quality – watercourses and ground water – threat and opportunity	In
Impacts on water quality – drinking water	Out
Sewer issues and coastal water quality	??
Maintain availability of water	
Water availability – opportunity and threat	In

Baseline and Issues – Water

Flood Risk

10.5 Flooding happens when too much water arrives at the same time, and is a risk to life, health and property. Impacts of flooding may be worse for disadvantaged people and communities. Human activity can exacerbate flood risk; climate change is also like to increase this risk. Predictions are for wetter winters and more intense rainfall that will increase the likelihood of flooding. Some parts of East Lothian have a history of flooding and/or have been identified as at risk of coastal, surface water or fluvial flooding by SEPA, or are in Potentially Vulnerable Areas.

10.6 Trees and woodland can slow water run-off, helping to flatten peak flows and reduce flooding. This can also help restore habitats and provide for recreation. However, removal of forestry can lead to faster run-off, as can preparation of land for planting. There are some limited areas where tree planting may increase flood risk.

10.7 SEPA identifies areas of 1:200 flood risk which are used for development management purposes to help appraise risk of flooding. The map below shows areas that have been identified as at risk

(smaller watercourses are not including in the mapping). Further detailed information is available from SEPA at <https://www.sepa.org.uk/environment/water/flooding/flood-maps/>.

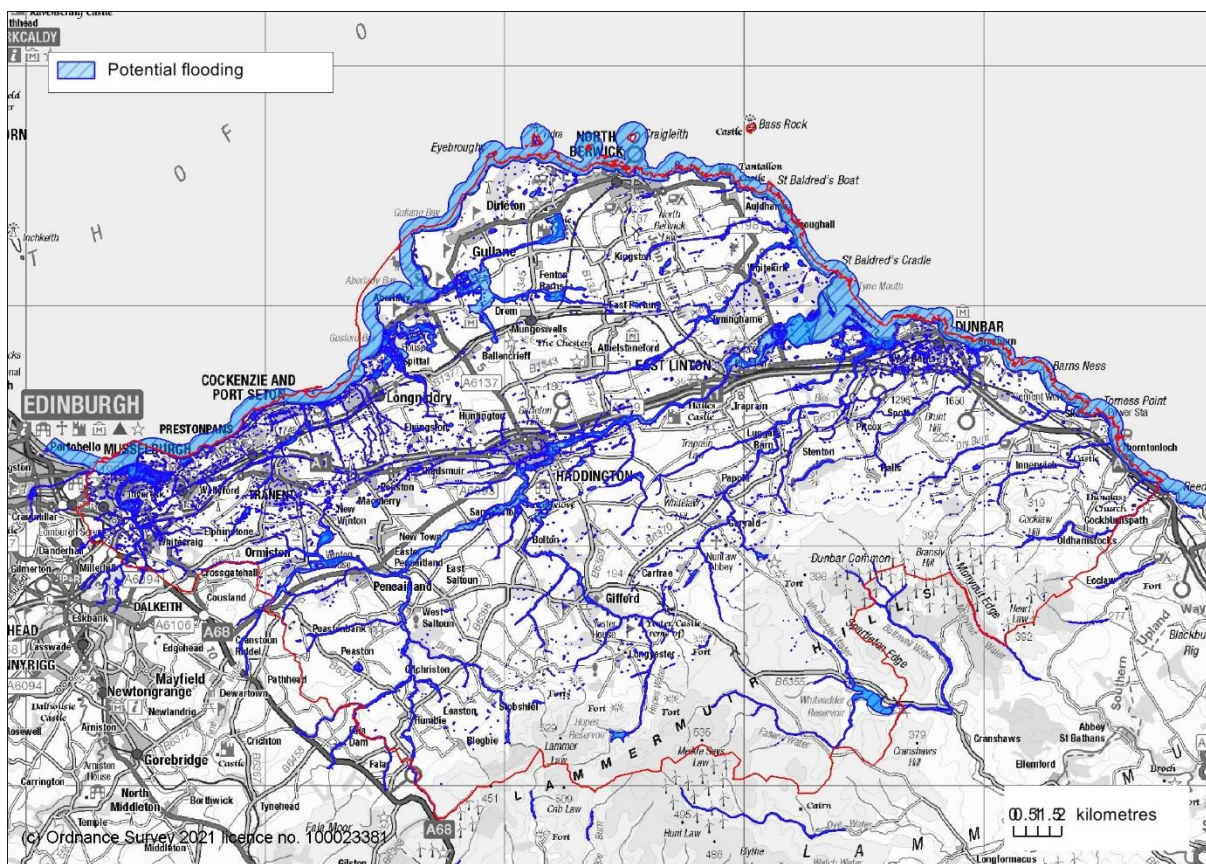
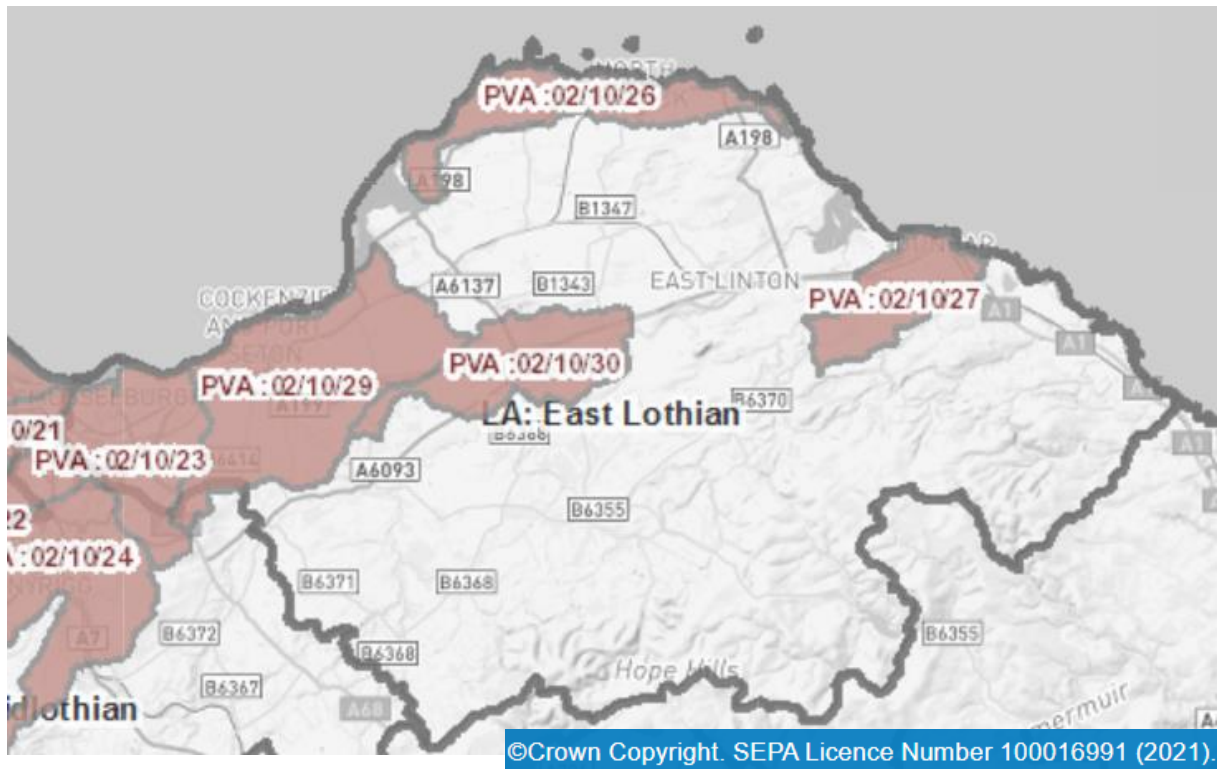


Figure 25: Areas of potential flood risk

10.8 SEPA’s National Flood Risk Assessment identified Potentially Vulnerable Areas – areas of potentially significant flood risk for people and property now or in the future. This assessment informed SEPA’s Flood Risk Management Strategy. This in turn informed the Forth Estuary Flood Risk Management Plan, which presents actions for the avoidance and reduction of the risk of flooding to communities within the Potentially Vulnerable Areas. Further information is available

at [Forth Estuary Local Plan District | Flood Risk Management Strategies \(sepa.org.uk\)](https://sepa.org.uk) and is shown in APPENDIX THREE – Flooding in Potentially vulnerable areas.



10.9 Both flooding and water quality are potentially affected by run-off rates. The risk of run-off arises from natural conditions such as type and texture of soil or steepness of slope⁶⁷. Run-off affects water quality through the water picking up potential pollutants. These include organic materials,

⁶⁷ See DEFRA “Runoff and soil erosion risk assessment” at [Countryside Stewardship Runoff and soil erosion risk assessment \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)

nutrients, chemicals or sediment. The maps below shows the risk of the soil becoming saturated, causing water to flow off the land and carry potential pollutants into watercourses.

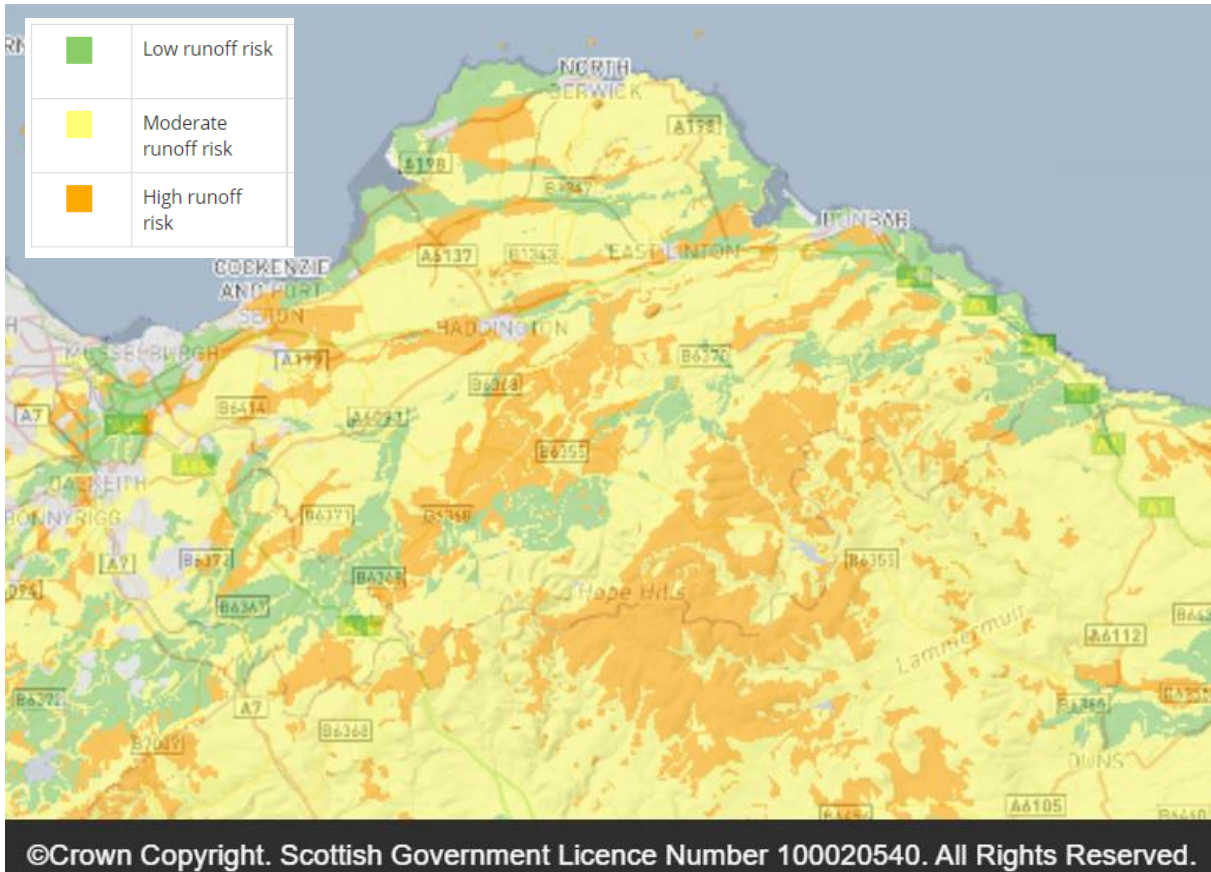


Figure 27 Run off risk⁶⁸

10.10 Run-off also affects how a river will respond to rainfall, with catchments where the soil run-off is high being more prone to peaks (flashy) while river catchments where soil run off is low will tend to maintain their flow even in dry spells.

10.11 SEPA and East Lothian Council are working to address flooding, with actions set out in the [Forth Estuary Local Plan District | Flood Risk Management Strategies \(sepa.org.uk\)](https://www.sepa.org.uk/forth-estuary-local-plan-district-flood-risk-management-strategies). Works in planning include a large scheme at Musselburgh. Risk of flooding from all sources is likely to increase due to climate change.

10.12 Woodland creation in a water catchment can help reduce flood risk downstream. Haddington has historically occasionally suffered from flooding from the Tyne: planting within the upper reaches of this river could help reduce the risk. Using planting to reduce flooding will also support

⁶⁸ Lilly, A., Baggaley, N. & Donnelly, D. (2012). Map of soil organic carbon in topsoils of Scotland. Map prepared for EU project GS-SOIL - Assessment and strategic development of INSPIRE compliant Geodata-Services for European Soil Data. ECP-2008-GEO-31800 at <https://soils.environment.gov.scot/maps/thematic-maps/map-of-topsoil-organic-carbon-concentration/>

adaptation to climate change including flood risk from increased frequency of intense rainfall events.

10.13 The effect of trees on flood risk are not well studied to date however SEPA note that modelling data suggests that in particular floodplain woodlands may have an effect on more frequent flood events and local catchments of less than 100 km². Opportunity mapping to identify priority locations to restore environmental system function, avoid unintended consequences and promote integrated catchment management was carried out by Forest Research for England and Wales, with a pilot project in Scotland at the Tay, however this information is not available for East Lothian.

10.14 It is possible for poorly located trees to worsen flood risk, for example if they slow the movement of water near a pinch point, or if they fall into rivers and become debris that blocks the river. Care is needed at project level to avoid this.

10.15 The TWSEL includes a section on flood risk in Resilience and Climate Adaptation. Action 4 notes that the Council will work with SEPA and others to identify where woodland retention, creation and management could most support reduction in flood risk. Action 5 notes that Council will work with farmers and landowner to encourage hedgerow and tree planting to reduce water run-off onto roads. Policy 6 Water Management and Slope Stability encourages use of woodland and trees to reduce flood risk. The effect of the TWSEL is likely to be positive.

Water Quality

10.16 Tree planting can also be used to improve water quality and riverbank morphology by preventing erosion, filtering pollution and regulating watercourse temperature. However, forestry operations can adversely affect water quality through sediment and other pollutants entering watercourses.

Natural water quality

10.17 The ecological and morphological status of the water environment should be retained or improved. Water quality can be affected by both diffuse and point source pollution. Diffuse pollution can come from atmospheric deposition of sulphur dioxide and oxides of nitrogen, urban development and numerous other sources. Point source pollution can come from agriculture, inadequate sewage treatment, industry, contaminated land and others. Historical land drainage works and current urban development can cause physical impacts on river morphology and floodplain wetlands. Many of the smaller watercourses in East Lothian are highly engineered, which leads to a loss of natural morphology and biodiversity of the watercourse and its margins.

10.18 East Lothian has four rural diffuse pollution priority catchment areas within cycle 2 (continued into cycle 3) (SEPA, 2021) of the RBMP. Of the rivers within the River Tyne area the River Tyne (from the Birns Water to the estuary) is identified as having moderate water quality caused by diffuse pollution. Of the rivers within the East Lothian Coastal area, the West Peffer/Mill Burn is identified as having poor water quality and East Peffer, as having moderate water quality caused by diffuse pollution. Within the River Esk (Lothian) area the South Esk has moderate water quality. No rivers within the Whiteadder Water area are identified as having poor or moderate water quality.

10.19 As described in the River Basin Management Plan for the Scotland (RBMP) (SEPA, 2015) a range of different sources can contribute to rural diffuse pollution. The main cause is silt,

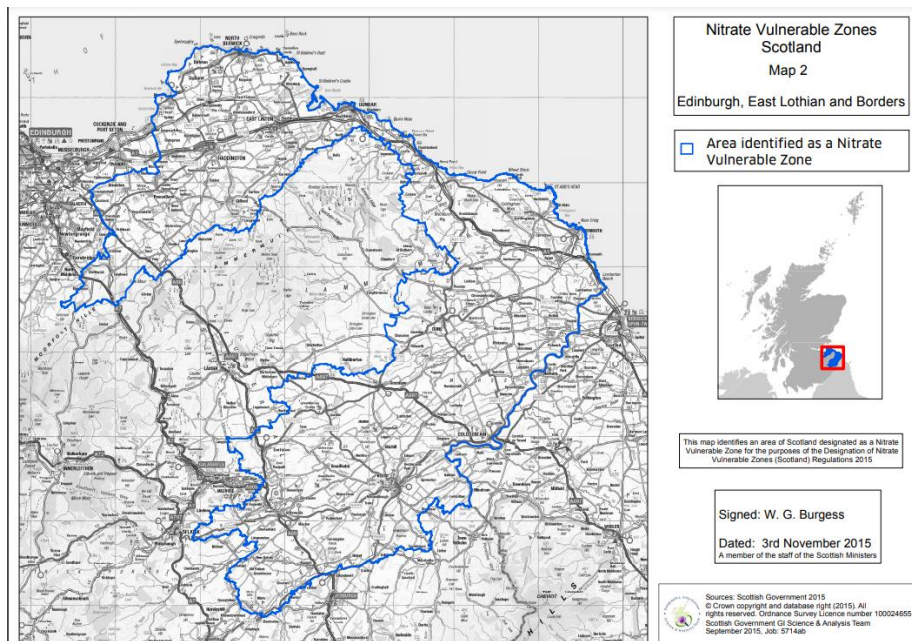
bacteria and nutrients from livestock excreta, and fertilisers and pesticides used in agriculture that are then caught up in rainwater run-off from land.

10.20 There are numerous watercourses and water bodies within East Lothian and/or into which land in East Lothian drains. SEPA monitors watercourses above a certain size for their water quality. Information on the overall ecological status of all water bodies in Scotland, including groundwater, can be found at <https://www.environment.gov.scot/our-environment/water/>. Some of the watercourses in the area have been shown by SEPA's river monitoring classification scheme to have 'Poor' or even 'Bad' status; few have 'Good' status, and none 'Excellent'. Figure 28 shows the status of river water bodies monitored under the Water Framework Directive regulations.



Figure 28; River Classifications SEPA from <https://map.environment.gov.scot/sewebmap/>

10.21 East Lothian is in the Edinburgh, East Lothian and Borders Nitrate Vulnerable Zone. This is due to agricultural diffuse pollution.



10.22 Trees and woodland and forestry activities can potentially affect water quality in a number of ways. Forestry activities such as preparation for planting and harvesting can potentially adversely affect water quality through sediment run off when the soil is disturbed. Use of chemicals and pesticides can affect water quality. Over-shading can adversely affect the ecological status of watercourses by over-shading, as lack of light reduces biological activity.

10.23 Woodland can also have positive effects. Riparian woodland can reduce run-off of sediment and nitrates from agricultural production into watercourses. Nitrogen run off is lower from woodland than arable or pastureland, as it is not applied to the crop in quantity, while new woodland can act as a buffer. Woodland planting can be used around watercourses to reduce the amount of nitrate leaching from surrounding fields (Woodland Trust 2012). Woodland can reduce the effect of airborne nitrogen deposition by planting in the lee of emitting sources, which 'catches' the pollutant. It can also improve the ecological status of water bodies through provision of shade balanced with sunlight penetration, helping regulate water temperatures.

10.24 The Scottish Pollutant Release Inventory is a database of annual mass releases of specified pollutants, including to water. Since the closure of Cockenzie Power Station, the only facility with reported discharges to water was Dunbar Sewage Treatment Works. As this discharges into the sea, it is not expected there would be any interaction with actions or policy of the TWSEL.

10.25 TWSEL includes a section Resilience and Climate Adaptation – Use Trees to Improve the Water Environment that focusses on water quality improvement. Policy 6 Water Management and Slope Stability encourages use of woodland and trees to reduce water quality. Target 2B seeks to encourage riparian planting up to a level where water quality benefits are achieved. This riparian woodland will also help intercept soil run-off. The effect of the TWSEL is likely to be positive for water quality.

Drinking Water

10.26 Public water in East Lothian is supplied by the Whiteadder, Rosebery, Glencorse or Castle Moffat reservoirs. In addition, there are some private water supplies, mainly in the Lammermuirs. Drinking Water Protection Areas have been identified to protect water supplied by Scottish Water.

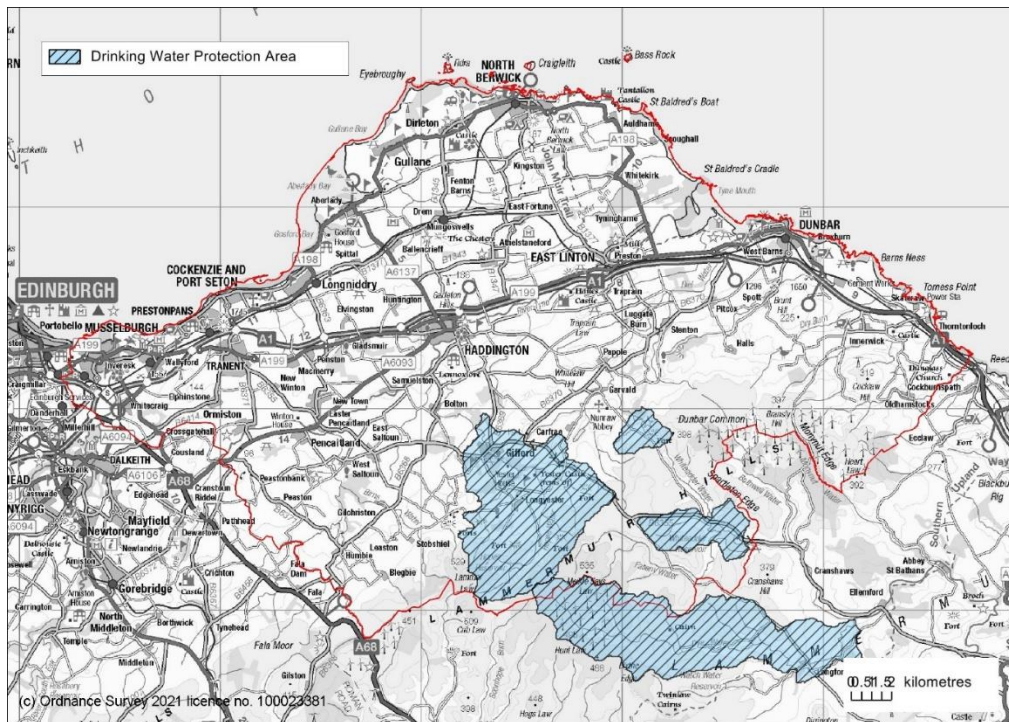


Figure 29 Drinking Water Protection Areas

10.27 Woodland creation around reservoirs has advantages and disadvantages. On the plus side, woodland can help control soil erosion, which improves water quality and extends the useful life of the reservoir. Filtration through forest soils will also support good water quality. On the down side, as trees also absorb water, less may be available for use. Commercial and coniferous forestry can also lead to problems as fertiliser and ground disturbance can adversely affect water quality. There is also a possibility of acidification and eutrophication⁶⁹.

10.28 Scottish Water have information, Guidance for Forestry Activities Near Scottish Water Assets⁷⁰ that sets out how the water supply should be protected during forestry activities, and extra precautions that should be taken. Forestry Scotland considers this in their approvals process⁷¹. However, smaller scale proposals would not be covered by this.

10.29 Scottish Water in their Net Zero Routemap⁷² state that they intend to improve peatlands in their water catchments, and increase tree planting on the land they own. This is in line with the aims of the TWSEL.

⁶⁹ See Natural Water Retention Measures website at <http://nwrn.eu/measure/afforestation-reservoir-catchments> (European Commission Service Contract)

⁷⁰ Scottish Water, 2017, “Guidance on Forestry Activities near Scottish Water Assets”, available from <https://www.scottishwater.co.uk/Help-and-Resources/Document-Hub/Key-Publications/Sustainable-Land-Management>

⁷¹ Scottish Water and Scottish Forestry “Guidance on Forestry Activities near Scottish Water Assets” 2017 available at <https://www.confor.org.uk/media/246711/guidance-on-forestry-activities-near-sw-assets-final.pdf>

⁷² Scottish Water, undated, ‘Net Zero Routemap’ available at <https://www.scottishwater.co.uk/Help-and-Resources/Document-Hub/Key-Publications/Net-Zero-Emissions>

Sewer issues/Bathing Water

- 10.30 The traditional sewage system collects both wastewater and surface water in a combined sewer. If too much surface water enters the system at one time, the sewer is overwhelmed, leading to unplanned discharge of water including foul water. This ends up in the sea, where it can affect coastal and bathing water quality. Woodland creation can help address this by placing trees where they can slow surface water runoff.
- 10.31 Over the next 25 years, Scottish Water faces three main challenges for its assets: the impact of climate change, ageing assets and reducing the emissions that contribute to the global climate crisis. Sewers and other water infrastructure in East Lothian were generally built for a smaller population than they will be expected to serve. Both flooding and drought can affect the operation of drainage infrastructure, and climate change predictions are for both to increase. Scottish Water’s Vision is that wastewater will be collected, treated and recycled in ways that add value and protect the environment⁷³.
- 10.32 Infrastructure such as sewers can have a very long life with proper maintenance, though other assets such as treatment works may require replacement in the foreseeable future. Scottish Water’s current level of asset replacement is well below the long-term required replacement rate. Scottish Water is making plans to transition to a sustainable maintenance and replacement programme⁷⁴.
- 10.33 Scottish Water’s drainage assets generally have some capacity but this may be stretched with increased rainfall. The sewer is required for removal of sewage; allowing surface water to enter this asset does not make best use of it, which is the situation at present. New development in the area is required to provide SUDS to prevent additional surface water entering the sewerage system. Without action to promote natural drainage, considerable investment in a piped solution would be required. This is uneconomic and unsustainable. It is also a higher risk solution as if something goes wrong it is harder to identify where the issue lies, leading to the potential for pollution.
- 10.34 There are several bathing waters around the coast of East Lothian, shown in [Figure 30](#) . Up to date information about their status is available from SEPA at <https://www2.sepa.org.uk/bathingwaters/>

⁷³ Scottish Waters 25-year strategy “Our Future Together”
<https://readymag.com/ScottishWater/SustainableFutureTogether/5/>

⁷⁴ “A Sustainable Future Together” – Scottish Water

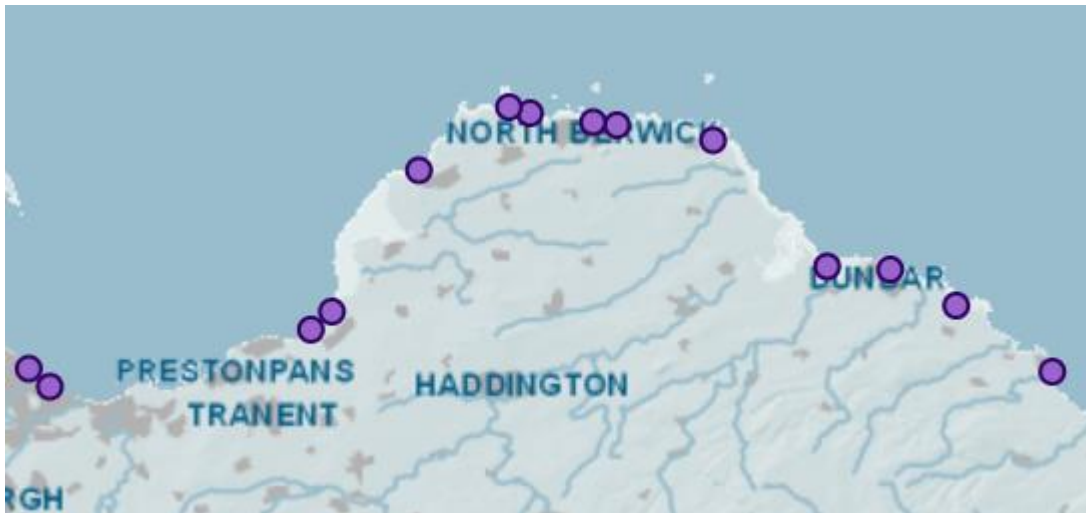


Figure 30 Bathing waters in and around East Lothian.

10.35 SEPA produces a profile for each Bathing Water, which includes risk to water quality. In most of East Lothian's bathing waters, there is a risk to bathers' health for 1-2 day following heavy rain. This comes from combined sewer overflows (Broad Sands, Dunbar, Dunbar East, Gullane, Longniddry, North Berwick both Milsey Bay and West – which is also at risk from treated sewage effluent - and Seton Sands) and agricultural runoff (Yellow Craig and Thorntonloch) and diffuse inputs (Whitesands). Only Seacliff was described as having no risks to water quality. Fisherrow is has recently been reinstated as a designated Bathing Water, having previously been found 'poor' for five consecutive seasons. Water quality there was affected by diffuse pollution from agricultural and urban sources, sewage and other discharges.

10.36 With no action, discharge from the sewer system is likely to become more frequent due to increased frequency of heavy rainfall (predicted under climate change). This will adversely affect water quality, including bathing water quality. The Council has been working with other agencies including Scottish Water and SEPA to examine options for natural flood management in the area around Blindwells/ Tranent/ Prestonpans/Cockenzie and Port Seton. This resulted in the Climate Evolution SPG, which outlines solutions for this complex area, aiming to reduce the amount of surface water entering Scottish Water's sewer here. A key proposal is the delivery of a catchment based sub-regional water management and sustainable drainage network, including the re-opening and re-naturalising of culverted watercourses. This could enable the removal of surface water from the combined sewer, which would help to address localised flooding and unplanned discharge.

10.37 The TWSEL encourages tree planting in urban areas, including street trees, and contains targets for canopy cover (Target 4A). Achieving the TWSELs urban tree canopy targets will reduce pressure on the drainage system. Target 7 supports structural planting around Cockenzie/Blindwells, which will also help reduce surface water entering the sewer there. Woodland created for the Climate Forest (Target 1, Action 2) TWSEL has the potential for reducing surface water entering the combined sewers slowing down surface water movement and absorbing pollutants. This will support natural surface water management in areas where surface water still enters the sewerage system to relieve pressure on sewers and help with the existing issue of untreated water leaving the sewer in an unplanned way.

Water availability

10.38 Trees have high water consumption and can reduce yields to surface and groundwater. This can have an effect on water availability, including for crops and drinking water. Trees can also reduce the amount of rain that reaches the soil as rain lands on and evaporates from their leaves. While this is positive for flooding, it may reduce yield.

10.39 Abstraction of water from watercourses, for example for agriculture, can lead to reduced recreational, amenity and biodiversity value of the water environment. Farm woodland and shelterbelts can help retain water in soil and reduce evaporation from farmland, potentially reducing the need for abstraction.

10.40 Re-naturalising watercourses and riparian planting/woodland creation should slow evaporation of water in the area, which would retain the flow of streams.

10.41 Climate change could also bring increasing competition between different uses for water which could affect its quantity and predicted extended times of drought could exacerbate this. In drought conditions extra water may be needed and therefore used to help establish new trees.

10.42 The TWSEL will result in an increase of woodland coverage of between 1 – 3 %. The direction of change on water availability arising from these new trees is uncertain. However, given the scale it is unlikely to significantly alter the current position.

Likely Significant Effects - Water

10.43 The following table shows the SEA objectives for Water and summarises the impact of the TWSEL.

SEA Objective, Water: Protect and improve the water environment and reduce flood risk			Theme 1 – Climate Mitigation	Theme 2 – Resilience and adaptation	Theme 3 – Biodiversity	Theme 4 – Community	Theme 5 - Economy	Theme 6 – Cultural Heritage	Theme 7 – Landscape Character
SEA Sub-objective/ questions for assessment.	KEY								
	Positive	+							
	Neutral	0							
	Unknown	?							
	Mixed/Variable	//							
Does the plan....?	Negative	-							
<i>Reduce flood risk</i>			+	+	0	+	+	0	+
<i>Protect or enhance water quality</i>			+	+	+	+	+	0	+
<i>Maintain quantity of water</i>			+	+	0	//	-	0	0

Commentary

10.44 There are few adverse effects expected from any of the Themes on flood risk or water quality. Creating the climate forest (Target 1, Action 20) overall is expected to help reduce flood risk and improve water quality. Riparian woodland creation (Target 2B) will help improve water quality through shading, and may also slow floodwaters, reducing flooding downstream. Policy 6 Water Management and Slope Stability seeks to use woodland and trees to improve water quality and flood risk. The TWSEL supports (Policy 9 Stock and Seed Sourcing) natural regeneration over planting, which will reduce potential silt run off into watercourses when planting.

10.45 Promotion of woodland based tourism and recreation could have a slight adverse effect on water quantity as tourist needs will require to be serviced. TWSEL encourages local tree fruit and nut growing, which could give rise to a water requirement.

Mitigation of potential adverse impacts of the Strategy - Water

10.46 **External mitigation:** The UK Forestry Standard⁷⁵ has provisions on water as well as a supporting guideline, which will help mitigate some effects. Adherence to the standard is required for payment of government grants for woodland creation and forest management. The Scottish Forestry approval system includes consideration of Scottish Water requirements on working within drinking water source catchments. This includes avoidance of refuelling, storage or handling of fuels, oils, or hazardous materials within source catchments, or if that is not possible, keeping a 50m buffer, and management of sediment and debris⁷⁶.

10.47 The policies of the development plan will mitigate against proposals that might affect water quality or flood risk by controlling the details of design for proposals where planning permission is required. National Planning Framework 4 contains updated policy on flood risk, aiming to avoid proposals that would increase the risk of surface water flooding to itself or others. Reduction in floodplain capacity is to be avoided. East Lothian Local Development Plan 2018 Policy NH9: Water Environment provides that where relevant, new development should protect and, where appropriate, enhance the water environment, in line with the Water Framework Directive 2000 (WFD) and the Water Environment and Water Services (Scotland) Act 2003 (WEWS).

10.48 **Project level mitigation:** Consideration should be given to the potential of the project to increase or decrease flood risk. For riparian planting, the effect on water temperature should be considered.

⁷⁵

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/687147/The_UK_Forestry_Standard.pdf

⁷⁶ See Scottish Water/Forestry Commission note 2017 “Guidance on Forestry Activities near Scottish Water Assets” September 2017, here; <file:///Z:/151018GuidanceOnForestryActivitiesNearSWAssets.pdf>

Conclusion – Water

10.49 The effects of the TWSEL on water are expected to be positive. Flood risk will be reduced through planting in catchments, and in areas such as around Blindwells where there are issues of excess surface water entering the combined sewers. Riparian planting will help with both flooding and water quality.

Secondary, Synergistic and Cumulative effects

10.50 **Positive** Changes to the water environment will improve biodiversity value. Lessening the risk of flooding can help avoid the physical damage to species and habitats, as well as flushing of pollutants and sediments that it can cause. Positive cumulative effects are expected with the Forth Estuary Flood Risk Management Plan, and the Fisheries Management Plan for the Forth Catchment and River Basin Management Planning

10.51 **Mixed:** Increasing woodland habitat is likely eventually to help re-establish beaver in East Lothian. Generally, beaver bring positive effects for water quality and flooding. However they can cause localised small-scale flooding issues as well as damage to property and sometimes woodland.

Residual adverse impacts

10.52 None expected

11 AIR



Introduction

- 11.1 Good air quality is essential to maintain human health, the climate, habitats and ecosystems. A range of substance from a variety of sources affect air quality, with sulphur dioxide, nitrogen dioxide, ground level ozone and particulates being the most significant for human health and the environment. Air quality across most of Scotland is generally good, though levels of some pollutants still exceed objectives, mainly in urban areas⁷⁷. In those places, Air Quality Management Areas have been declared, including in Musselburgh in East Lothian. The main sources of pollutants are industrial and transport emissions, along with some agricultural processes such as intensive poultry farming.
- 11.2 Tree planting has the potential to have a significant positive impact on air quality, through removal of some pollutants. Trees can also separate sources of pollution from sensitive receptors, avoiding harm.
- 11.3 Existing air pollution can affect tree health. This may be a consideration for the strategy, such as choice of species, but it is not a result of it.
- 11.4 Through Scoping the following issues were considered. The Scoping Table below shows, with reasons, what existing issues are considered relevant. The greenhouse gas balance of the TWSEL effects on air temperature are considered under 'Climate' below. Wildfires cause air pollution, and consequently can have adverse impact on human health. Potential for wildfire is considered here but also under 'Climate'.

⁷⁷ See Scottish Government, Air Quality in 2018, here http://www.scottishairquality.scot/assets/documents//Air_quality_scot_2018_Final_v2.pdf

Scoping Table 6: AIR	
Issue	In/Out
Protect Air Quality	
Emissions to air from forestry operations	Out
Emissions to air related to woodland recreation	In
VOCs - see under 'Improve air quality in urban areas' below	In
Fires	In
Improve air quality	
Filtering pollutants from the air	In
Improve air quality in urban areas	In
Buffer emissions to air from point source emitters and roads – see under 'Improve air quality in urban areas' above.	In

Baseline Air Quality

11.5 Although air quality is better now than at any time since the Industrial Revolution, it is estimated that across the UK poor air quality reduces life expectancy of every person by 7-8 months⁷⁸. Evidence of harm from poor air quality, especially from traffic emissions, is building. Increased levels of sulphur dioxide and nitrogen adversely affects biodiversity – ‘acid rain’ poisoning lakes in Scandinavia far from the source of pollution was an extreme example. Most semi-natural habitats and over two thirds of native wildflowers require low levels of nitrogen⁷⁹. Historic environment assets are affected by acidic rainfall, which erodes them faster. Climate change is also likely to affect air quality, as can some of the actions taken to mitigate it, notably use of wood burning stoves. Ground level ozone can affect both human health and plant growth.

Scottish Trends

11.6 Air quality is measured across the UK. Information on air quality can be found on the Scottish Government website at www.scottishairquality.co.uk/ and the National Atmospheric Emissions Inventory at <https://naei.beis.gov.uk/>. Information about pollutants at Local Authority level is available from at <https://naei.beis.gov.uk/laco2app/>.

11.7 The European Union developed a set of objectives and standards for several ambient air pollutants that can harm human health. The standards are a compromise between the evidence of harm and what was considered practical to achieve in terms of feasibility and cost. The substances monitored are volatile organic compounds, nitrogen oxides, carbon monoxide, Lead and polycyclic aromatic hydrocarbons and sulphur dioxide. Scotland has set higher standards for

⁷⁸ See Scottish Government Air Quality In Scotland Website, accessed 31/03/2020 <http://www.scottishairquality.scot/air-quality/>

⁷⁹ SNH State of Nature Report 2019 (now Naturescot)

both PM10 and PM2.5 (particulates) than required by the EU. The Scottish Government also monitors Ozone (O3). This is a secondary pollutant that forms through reaction of oxides of nitrogen and volatile organic compounds in sunlight. Ozone is not included in local air quality management regulations (see below) as it is relatively mobile. This means it is difficult for local authorities to control.

11.8 Scottish trends for emissions of all pollutants are shown below⁸⁰, with details of sources for nitrous oxides, ozone and PM10s and PM2.5s. This shows that levels of all pollutants have fallen since 2005. Sulphur dioxide shows the greatest fall, the result of the closure of coal fired power stations at Cogenzie and Longannet. The Covid-19 pandemic had a noticeable effect in 2020. Nitrous oxide emissions have also declined, due to both power station closures and reductions in road traffic emissions. Wood burning has increased substantially in the last 10-15 years in Scotland. This has led to an increase in emissions of PM10 and carbon monoxide from the residential and other combustion sector. Wood burning also releases dioxins and has become one of the main sources of emissions of this pollutant.

11.9 Downward trends for air pollutants are expected to continue, due to policy and legislation to reduce vehicle emissions. The use of wood fuel is an issue for the TWSEL due to its air quality effects.

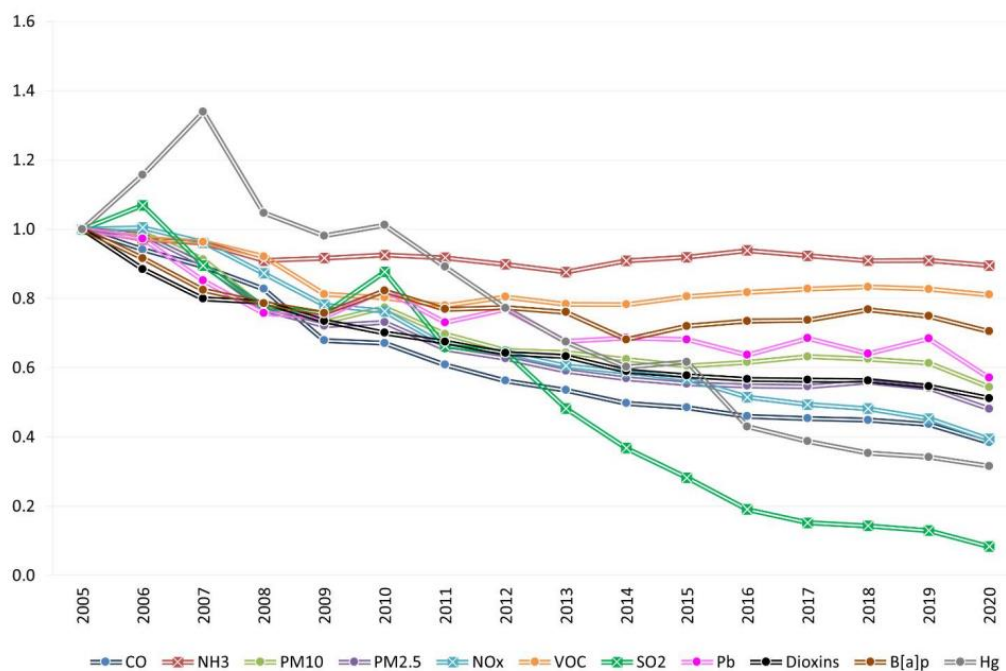
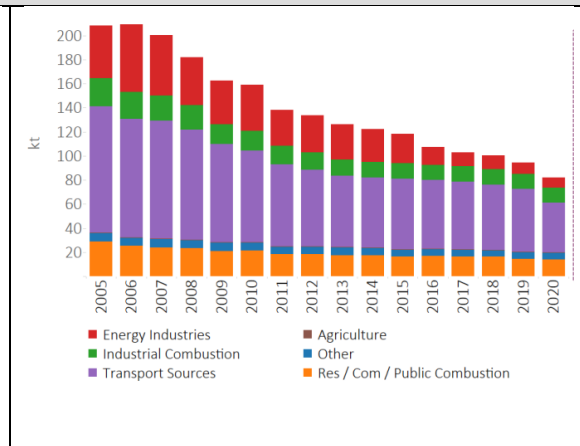
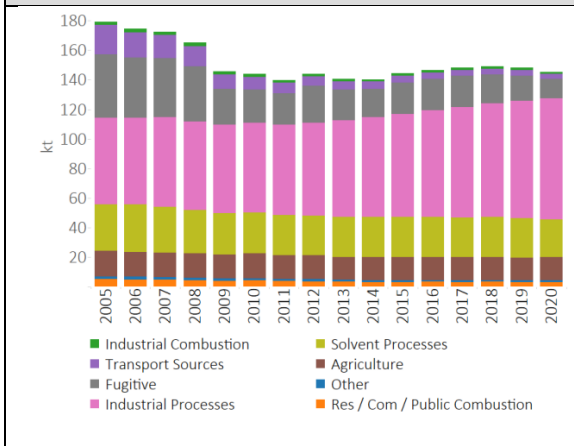


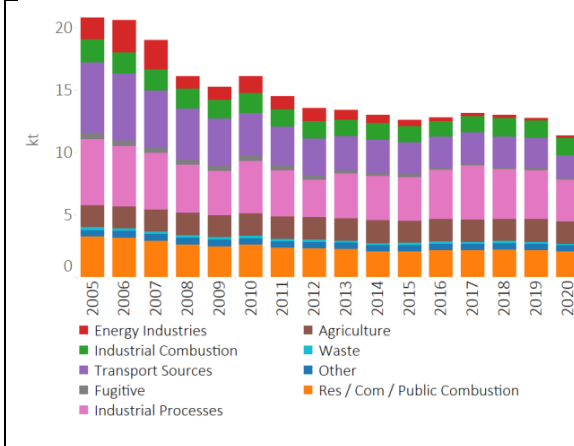
Figure 31 Trend of main air pollutants in Scotland, 2005 – 2020

⁸⁰ Figures in this section from DEFRA “Air Pollutant Inventories for England, Scotland, Wales and Northern Ireland, 2005-2020” https://uk-air.defra.gov.uk/assets/documents/reports/cat09/2210251052_DA_Air_Pollutant_Inventories_2005-2020_FINAL_v1.2.pdf

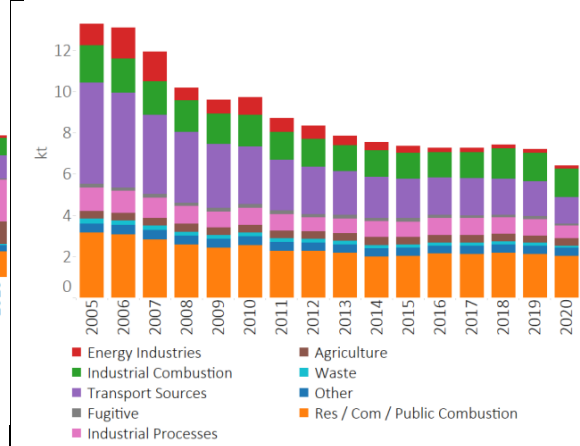
Air pollutants in Scotland, from the Air Pollutant Inventories for England, Scotland, Wales and Northern Ireland, 2005-2020



Non-methane VOCs



Nitrous Oxide emissions



PM10s

PM2.5s

Local air quality

11.10 Local authorities must keep air quality in their area under review to determine whether air quality objectives will be achieved. If it is likely they will not be, the authority must declare a Local Air Quality Management Area, and develop an Air Quality Strategy to bring pollutants within the levels set. By far the majority of Air Quality Management Areas in Scotland have been declared because of emissions from road traffic, in the form of nitrogen dioxide and PM10s.



Figure 32: Musselburgh Air Quality Management Area

11.11 East Lothian Council declared an Air Quality Management Area in Musselburgh High Street following a progress report in 2013 showing the NO₂ annual mean Air Quality Objective had been exceeded. Emissions from buses were the largest contributor. A package of measures was identified that reduced overall traffic, queuing and bus numbers. Further information on the AQMA including a copy of the Order, the Air Quality Action Plan and Progress reports are on East Lothian Council's website here:

https://www.eastlothian.gov.uk/info/210568/environmental_health/12172/pollution/4 .

11.12 In Musselburgh Air Quality Management Area and Tranent High Street, specific measures were included in the Local Transport Strategy and East Lothian Local Development Plan 2018 to address the existing situation and a predicted increase of traffic arising from the plan. Air quality there is improving, and objectives have continued to be met in Musselburgh AQMA and elsewhere. The most recent report (2022) concludes that it is unlikely that the nitrogen dioxide objective will be exceeded in future years, and recommends that the Council consider revoking the Air Quality Management Order.

11.13 In East Lothian, there has been a general downward trend of nitrogen dioxide concentrations between 2014 and 2018. There have been no exceedances of the Annual Mean Nitrogen Dioxide Objective recorded at any East Lothian location, including within Musselburgh AQMA, since 2016. There were no exceedances of the Air Quality Objective for PM10s. East Lothian Council does not monitor PM2.5, sulphur dioxide (SO₂), Carbon Monoxide, Lead and 1,3-Butadiene as exceedances are not expected.

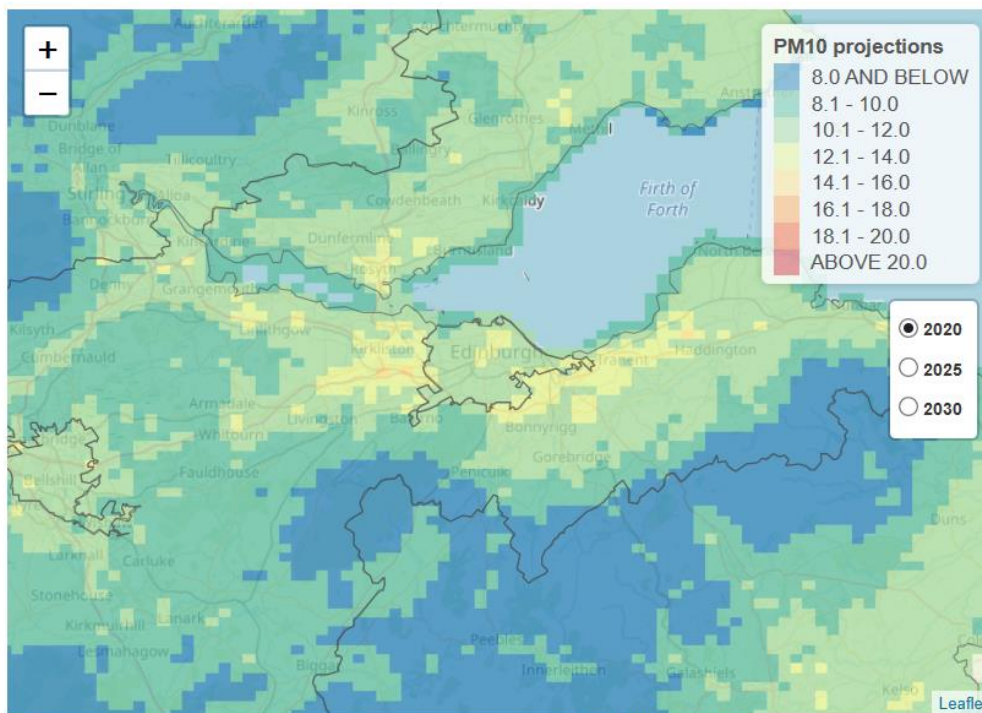
11.14 Particles are of concern even at low levels, as there is not thought to be any safe level⁸¹⁸². The following figure is an extract of DEFRA projections of background PM10 for 2020, available on

⁸¹ SWECO for East Lothian Council, 2022, "Detailed Assessment of Musselburgh AQMA" available at https://www.eastlothian.gov.uk/downloads/file/33067/detailed_assessment_of_musselburgh_aqma_2022

⁸² This includes increasing risk of dying from Covid-19 virus, see "Exposure to air pollution and COVID-19 mortality in the United States". Xiao Wu, Rachel C. Nethery, Benjamin M. Sabath, Danielle Braun, Francesca Dominici. medRxiv 2020.04.05.20054502; doi: <https://doi.org/10.1101/2020.04.05.20054502>

www.scottishairquality.scot along with other air quality data. This shows that areas in the west of East Lothian are likely to have higher than average levels of PM10, as is the area south of Dunbar.

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Figure 33: Estimated annual mean background PM10 maps for 2020

11.15 The Scottish Pollutant Release Inventory is a database of annual mass releases of specified pollutants, including to air, from SEPA regulated industrial sites. A range of sites across East Lothian report. The Inventory is available here: <https://informatics.sepa.org.uk/SPRI/>. The facilities that reported emissions to air in 2021 were Appin Poultry Farm, Drem; Dunbar ERF, Dunbar; Tarmac Ltd, Dunbar Plant; Top and Park Unit, Ruchlaw Mains Farm; Viridor Waste, Dunbar, Oxwell Mains.

Issues - Protecting Air Quality

Emissions to air from forestry operations

11.16 There are likely to be some emissions to air from forestry operations including from transport, operation of machinery, and timber processing. This considered to be small scale due to the small scale of commercial forestry in East Lothian, and has been Scoped out.

Emissions to air related to woodland recreation

11.17 Increasing the attractiveness of woodland could lead to increased trips to visit the woodland. Some of these trips are likely to be by car. The TWSEL aims to increase accessible woodland, which would reduce the need to travel by car. TWSEL Policy 16 Design for All encourages managers and designers of new and existing woodland to maximise provision for access by active and sustainable transport modes to and through woodland. It also asks for consideration of all levels

of ability. This will help provide the conditions for reducing car transport. Nonetheless, people are still likely to choose to travel to woodlands by car. While cars are still using petrol or diesel as fuel, this would lead to an increase in air pollution. Compared to overall travel in East Lothian, any increase would be small. As the locations of new woodland are not identified, and numbers visiting them or their means of transport would be speculative, the net impact cannot be further quantified.

Fires

11.18 Wood burning in domestic stoves and other uses can have an adverse impact on air quality. The TWSEL does not promote the use of wood for fuel at this time because of this issue. However, increased availability of wood from woodland and tree management may make this option more appealing and consequently lead to an increase in wood burning for fuel.

11.19 Garden fires can also contribute to poor air quality. The Strategy does not directly encourage homeowners to plant trees, but it encourages an increase in urban tree canopy which would imply this. Homeowners may then clear their gardens by burning leaves and/or branches that have been pruned. Mitigation could include encouragement of home composting and continued uplifting of garden waste.

11.20 A wildfire is an uncontrolled vegetation fire which requires a decision or action regarding suppression. They can have devastating impacts on people, property, wildlife, infrastructure and others. Wildfires can have an acute short-term effect on air quality. They also cause the release of climate forcing gases. In East Lothian wildfires currently occur mainly in grassland or from out-of-control muirburn. Changing climate may bring more frequent longer lasting drought conditions and temperatures in summer, increasing risk of wildfire.

11.21 Increasing the amount of woodland would mean more to burn. Woodland creation and tree planting may mean that woodland and trees is located closer to other natural or built assets. This may make these assets more likely to be affected if there is a fire. Management practices can also affect fuel load, which affects how a fire is maintained and spreads once it starts.

11.22 Good forest and woodland planning and management can help mitigate risk of wildfires. The UK Forestry Standard advises that managers should plan for forest resilience while considering the risks to woodland, and specifically fire. The TWSEL includes Policy 7: Sustainable Woodland Management that seeks to encourage woodland management that reduces the risk of wildfires.

11.23 The Scottish Fire and Rescue Service recommends that householders form a safety plan including a safety zone extending out for at least 10m around their home as free as possible from combustible material (which would include trees)⁸³. This may conflict with other aims for planting such as sheltering a building.

11.24 Retention of existing and creation of new woodland can also help mitigate climate change however, which is itself likely to increase the risk of wildfire.

⁸³ Scottish Fire and Rescue service website accessed 30/09/2021 <https://www.firescotland.gov.uk/your-safety/wildfires.aspx>

Issues - Improving Air Quality

General Air Quality Improvement

11.25 Trees remove gaseous pollutants from the air such as sulphur dioxide, carbon monoxide, and ozone, so increasing the number of trees increases the amount of pollutants removed. TWSEL supports the existing Council objective of creating a Climate Forest of 2 million new trees (Target 1, Action 2). This will benefit local air quality but also air quality overall as air pollutants can travel over a large area.

11.26 There are also some sites that emit air pollutants reporting under the Scottish Pollutant Release Inventory. Action 20 seeks planting adjacent to industrial sites. This may help reduce the dispersal of emissions to air.

Improving Air Quality in Urban Areas

11.27 Trees and hedges can affect urban air quality in two main ways. Firstly, they can act as a physical barrier to movement of air and so can trap particles. This can potentially be a benefit or a hazard. Secondly, they can remove some pollutants due to their biological processes; however, they also have the potential to emit chemicals that react and form ozone.

Particulates and vehicle emissions

11.28 For air quality to harm human health there must be a source and a receptor. Preventing the pollution from the source reaching the receptor will reduce or avoid harm. Road traffic is a major existing source of air pollution. Development coming forward through the East Lothian Local Development Plan 2018 is predicted to increase traffic levels overall. How this will affect air quality will depend on the actual increase in traffic that occurs as well as changes to emissions from each vehicle e.g. a switch to electric powered cars or ultra-low emission vehicles.

11.29 Particulates are a particular concern as there is thought to be no safe level. Trees can trap particulates, which are deposited on the tree surfaces instead of being held in the air. Most particulates will then be washed into soil by rain, though they can be re-suspended and transfer back into the air. Locating trees and hedges between a source of particulates, such as a road, and receptors, can therefore help prevent harm.

11.30 Urban areas have both a more dense population and generally higher vehicle emission levels. The layout of urban areas can mean air movement is reduced and pollutants are trapped. This can mean that air quality in urban areas is worse than in rural areas, while the number of receptors is greater. Tree planting in the right place can help shield people from particulate emissions. Conversely, although trees themselves do not emit particulates, planting them in the wrong place can trap air where sensitive receptors (people) are. For example, a tree canopy over a road lined with buildings with few gaps between (see Figure 24 of the TWSEL) may prevent movement of air.

11.31 TWSEL includes Action 20, which prioritises tree planting, and hedges in urban areas, woodland expansion along strategic road corridors and hedges along roadside edges where there will be benefits for air quality. This should help trap emissions of particulates near the source. Action 20 also encourages tree and hedge planting around facilities used by vulnerable people, such as hospitals, care homes, schools and sports fields. The inclusion of Figure 24 demonstrates where

trees should not be planted, guide planters away from places they will trap particulates and other pollutants where people can breathe them in.

11.32 The intention of the strategy is therefore that urban trees at least do not worsen existing harm from particulates.

Ozone

11.33 Ozone is a gas formed by a reaction of volatile organic compounds and nitrogen oxides in sunlight. This gas can trigger a variety of health problems. The relationship between trees and formation of ozone is complex. Trees can both remove and significantly contribute to ozone formation; this is also affected by the cooling/shading effect of trees. The net effect is dependent on the species of tree, its physiology, the surrounding air chemistry and climate⁸⁴.

11.34 The following chart, from Fitzky et al, 2019, shows which species are higher and lower emitters of different pre-cursors to ozone formation. In this chart, ISO is isoprene, MT is monoterpene, SQT is sesquiterpenes and OVOC is oxygenated volatile organic compounds. The potential emission rates are shown as none (white); low (green); medium (yellow) and high (red). Gray is no data available.

KEY: Standard emission potentials ($\mu\text{g g DW}^{-1} \text{h}^{-1}$; at 30°C leaf temperature and $1,000 \mu\text{mol m}^{-2} \text{s}^{-1}$ PPF) of isoprene (ISO), monoterpene (MT), sesquiterpenes (SQT), and oxygenated volatile organic compounds (OVOC) of frequent tree species in urban areas of northern/central (N/C) and southern (S) Europe. Potential emission rates are grouped in no (white), low (green), medium (yellow), and high (red) emission classes. ISO: low < 10 , high > 30.1 ; MT and OVOC: low < 2 , high > 5.1 ; SQT: low < 0.5 , high > 1.1 ; with medium categories with values in-between. A color gradient indicates emission rates crossing the defined classes; gray indicates: “no data available.”

⁸⁴ Fitzky Anne Charlott, et al “The Interplay Between Ozone and Urban Vegetation—BVOC Emissions, Ozone Deposition, and Tree Ecophysiology” in *Frontiers in Forests and Global Change*, Vol 2, 2019 at URL=<https://www.frontiersin.org/articles/10.3389/ffgc.2019.00050>

Genus	Species	Distribution area	ISO	MT	SQT	OVOC	References
<i>Acer</i>	<i>sp.</i>		Green	Green	Green	Yellow	c, n
	<i>platanoides</i>	N/C	Green	Green	Green	Green	c, t
	<i>pseudoplatanus</i>	N/C	Green	White	Grey	Grey	w
<i>Aesculus</i>	<i>hippocastanum</i>	N/C	White	White	Grey	Grey	u
<i>Betula</i>	<i>pendula</i>	N/C	Green	Yellow	Red	Green	g, h, l, r
<i>Carpinus</i>	<i>betulus</i>	N/C	Green	Green	Green	Grey	a, m
<i>Celtis</i>	<i>occidentalis</i>	S	Green	Green	Grey	Green	d, e
<i>Fagus</i>	<i>sylvatica</i>	N/C	White	Red	Green	Green	l, o°, t
<i>Fraxinus</i>	<i>sp.</i>		White	White	Grey	Grey	t
	<i>excelsior</i>	N/C	Green	Green	Green	Green	a, c
	<i>ornus</i>	S	White	White	Green	Green	c
<i>Picea</i>	<i>abies</i>	N/C	Green	Yellow	Green	Green	f, l
<i>Pinus</i>	<i>sylvestris</i>	N/C	Green	Yellow	Green	Green	a, j, l, v
	<i>pinea</i>	S	White	Yellow	Green	Green	y
<i>Platanus</i>	<i>acerifolia</i>	N/C, S	Red	White	Grey	Grey	b
	<i>orientalis</i>	N/C, S	Yellow	Green	Green	Green	a, c, b
<i>Populus</i>	<i>sp.</i>		Red	White	Grey	Grey	t
	<i>nigra</i>	N/C, S	Red	White	Green	Green	c
	<i>tremula</i>	N/C, S	Yellow	Green	Green	Green	a, c
<i>Prunus</i>	<i>avium</i>	C	White	Green	Green	Green	c, f
	<i>serotina</i>	N/C	White	Green	Green	Green	c, f
<i>Quercus</i>	<i>ilex</i>	S	Green*	Red	Green	Green	b*, l, p, t
	<i>pubescens</i>	N/C	Red	Green	Green	Green	t, y
	<i>robur</i>	N/C	Red	Yellow	Green	Grey	b, l, o°, t
<i>Robinia</i>	<i>pseudoacacia</i>	N/C, S	Yellow	Red	Green	Grey	b, c, r, t
<i>Sophora</i>	<i>japonica</i>	S	Yellow	Red	Green	Grey	b, k
<i>Tilia</i>	<i>cordata</i>	N/C	White	White	Green	Green	c, t
	<i>platyphyllos</i>	N/C	White	White	Green	Green	c
<i>Ulmus</i>	<i>minor</i>	S	Green	Green	Green	Green	c

11.35 Going forward, as emissions of nitrogen dioxide from vehicles fall, emissions from urban trees may gain more attention in ozone formation. Choosing species with lower emission potential now may reduce problems in the future. The TWSEL identifies this issue and includes the information above, encouraging species choice that lessens ozone production.

11.36 Trees within urban areas can also regulate air temperature, which is likely to become increasing salient with predicted climatic changes (see 'Climate – Heat Stress and Shelter'). Climate change could lead to a greater number of days when ozone (a climate forcing gas) is formed as this reaction occurs in sunlight, and tree planting could reduce this. The overall effect of further tree planting in urban areas on ozone formation is therefore largely uncertain.

11.37 Urban trees also remove some other pollutants from the air, including nitrogen dioxide and sulphur dioxide. The benefits of trees in the urban areas of Tranent, Prestonpans and Longniddry are estimated⁸⁵ as follows:

⁸⁵ Unpublished ELC data using methodology shown at <https://canopy.itreetools.org/survey.php>

Pollutant removed annually	Tranent	Prestonpans	Longniddry
Carbon Monoxide (lbs)	78	55	72
Nitrogen dioxide (lbs)	423	297	391
Ozone (O3) (tonnes)	2.1	1.48	1.95
Particles - PM2.5 (lbs)	205	144	189
Particles - PM10	1410	992	1304
Sulphur dioxide (lb)	266	187	246

Likely Significant Effects – Air

11.38 Taking into account the issues identified above, SEA objectives for Air have been identified. The following table gives the objectives and summarises the impact. Impacts of air borne tree pollen as an allergen is considered under 'Human Health'. A potential shift towards active travel would benefit air quality: this is considered under Human Health: Creation of Vibrant Communities.

SEA Objective, Climatic Factors			Theme 1 – Climate Mitigation	Theme 2 – Resilience and adaptation	Theme 3 – Biodiversity	Theme 4 – Community	Theme 5 - Economy	Theme 6 – Cultural Heritage	Theme 7 – Landscape Character
To protect and enhance air quality and reduce exposure to poor air quality									
SEA Sub-objective/ questions for assessment. Does the plan....?	KEY								
	Positive	+							
	Neutral	0							
	Unknown	?							
	Mixed/Variable	//							
	Negative	-							
<i>Help improve local air quality, particular in areas of elevated air pollution</i>			+	+	0	+	0	0	+

Commentary on Air Indicator

11.39 Proposals for tree planting/woodland creation proposals (Target 1, Action 2 and others) are generally expected to have positive impacts on local air quality overall, as trees intercept particulates and remove other forms of air pollution. Trees planted in urban areas (included in Theme 7: Landscape, and Theme 4: Community, Action 20) that provide physical barrier between the source of air pollution, such as traffic, and receptors, such as residents, are encourage. Action 20, as noted above, aims to encourage planting where it will support urban air quality and discourage it where it will not. However, the picture is complicated with regard to formation of ozone, as noted above. Current state of knowledge on this topic may mean choices that worsen air quality are inadvertently made and the impact is therefore uncertain.

11.40 An increase in woodland cover, in combination with predicted climatic changes, has the potential to increase the risk of wildfire, which is a source of severe localised poor air quality. Policy 7: Sustainable Woodland Management aims to make sure this is taken into account in woodland creation schemes however, some increased risk in the long term is probably not entirely avoidable.

11.41 The strategy seeks to use locally grown seeds and stock, and to encourage links between local plant suppliers, timber growers and processors. Section 9, Economy, includes Action 23 encouraging local producers to work together through a local timber forum. This will reduce transport emissions to air.

Mitigation of potential adverse impacts of the Strategy

11.42 **Embedded mitigation:** Increased potential for wildfire may result from the implementation of the strategy. Policy 7 Sustainable Woodland Management seeks to reduce the risk of wildfire through design of woodland. Tree planting in urban areas has the potential to trap polluted air by receptors: the Strategy seeks to avoid this through Action 20. Providing more woodland could increase emissions from vehicles travelling to woodland. Policy 16 Design for All aims to reduce travel emissions by providing for sustainable travel access.

11.43 **External mitigation:** Scottish Ministers have a duty under the Forestry and Land Management (Scotland) Act 2018 to promote sustainable forest management. Scottish Ministers must have regard to this duty when considering felling applications. Scottish public authorities must also promote sustainable forest management insofar as it is consistent with the exercise of their functions. For proposals that require planning permission, NPF4 Policy 23 does not support development proposals that are likely to have significant adverse effects on air quality. Development proposals are required to consider opportunities to improve air quality and reduce exposure to poor air quality. This will help mitigate some potential impacts to air.

11.44 The UK Forestry Standard advises managers to consider the risks to woodland from fire.

11.45 **Project level mitigation:** impacts on air quality of location of tree planting and choice of species should be considered (Action 20)

11.46 **Further mitigation:** The risk of wildfires from an increased amount of woodland combined with a changing climate could be mitigated further public education on fire risk. Home composting and recycling could be encouraged to mitigate potential impacts to air from garden fires.

Secondary, Synergistic and Cumulative effects

11.47 **Positive** The TWSEL is expected to improve air quality, along with many other plans. These include the Musselburgh Air Quality Management Plan, similar AQMA Management Plans for areas nearby within Edinburgh City Council area, and potentially Edinburgh's Low Emission Zone. Within East Lothian the Transport Strategy and Active Travel Improvement Plan aim to reduce emissions from transport. This will also benefit Human Health. NO_x emissions can cause inflammation of the airways due to short-term exposure; long-term exposure may affect lung function and respiratory symptoms. NO_x enhances the response to allergens in sensitive individuals. Exposure to particulates can lead to respiratory and cardio-vascular illness and mortality as well as other ill-health effects. Emissions of NO_x can alter climate and particulates

can have warming or cooling effects on climate both locally and globally. Climate change can increase the production of ground level ozone. NO_x is a contributor to acid rain which cumulatively can damage buildings and cultural heritage assets. Cumulatively, the effect of plans that reduce these pollutants is likely to be significant.

Conclusion – Air

11.48 Impacts on Air Quality are likely to be mostly positive. Increased hedge and tree planting, and woodland creation, will lead to reduction in gaseous pollutants, and increased trapping of particulates. Risk of severe, short term poor air quality from wildfires is likely to increase, even with careful planning. There may also be impacts from increased vehicular travel to visit woodlands, and from the emissions of ozone formation precursors in urban areas. The Strategy does not encourage wood burning for fuel, but the increased availability of wood from increased amount of trees and woodland management may increase this regardless.

Residual adverse impacts

- Increased long-term potential for increased severity of wildfire, with consequent negative effect on air quality.
- Vehicle emissions from additional travel to woodland
- Potential for increased emissions from wood burning for fuel and garden fires
- Urban trees may contribute to ground level ozone formation

12 CLIMATIC FACTORS



Introduction

12.1 It is now widely recognised that the climate is in crisis. The emission of greenhouse gases from both human and natural sources affects the climate. Overall the UK and the planet as a whole is warming. Countries agreed at the 2015 UN Climate Conference in Paris that they should try to limit temperature increase to 1.5 degrees above pre-industrial levels. Crossing this threshold risks unleashing more severe climate impacts. These include droughts that are more frequent, heatwaves and rainfall. The UK government, Scottish First Minister and East Lothian Council have declared a climate emergency.

12.2 The UN set up the Intergovernmental Panel on Climate Change (IPCC) to provide scientific advice on climate change, and to put forward mitigation and adaptation actions. In 2018 the IPCC warned that global temperature rise must be kept to under 1.5°C above pre-industrial levels to minimise catastrophic global impacts on society, human health and wellbeing, the economy, food production and the natural environment. Recent reports from the World Meteorological Organisation suggest there is a 50:50 chance of average global temperature reaching this level in the next 5 years⁸⁶. The IPCC warn the situation warn the [situation is now serious](#). The overwhelming priority is therefore to mitigate climate change.

⁸⁶ See UN website [Climate: World getting 'measurably closer' to 1.5-degree threshold | UN News](#) accessed 27-05-2023

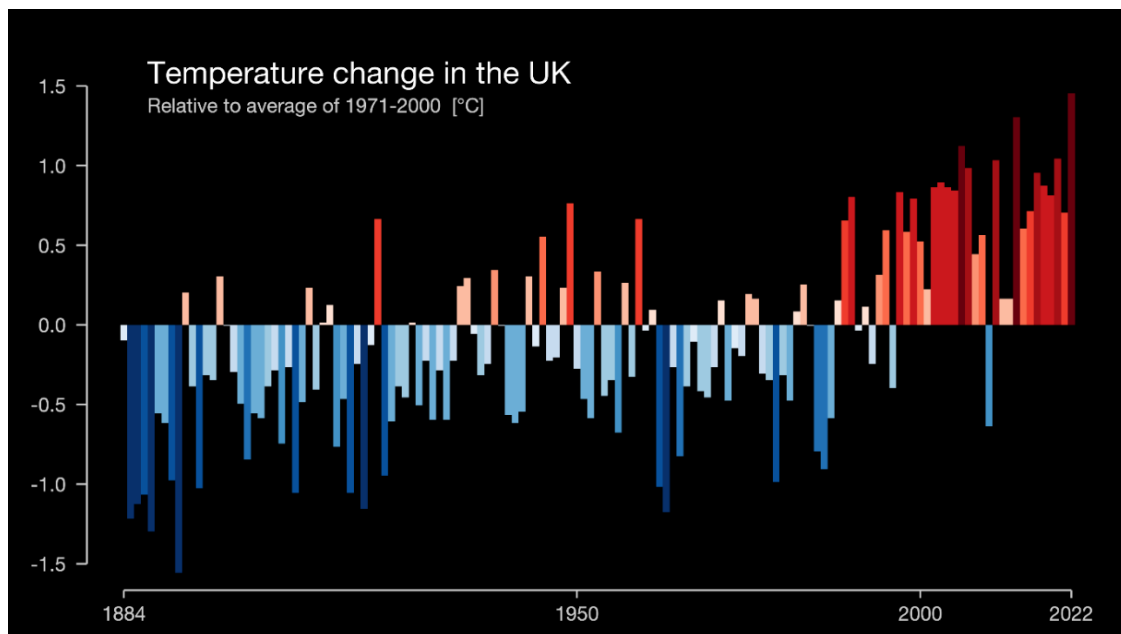


Figure 34: Temperature change in the UK, from www.showyourstripes.info

12.3 The balance of greenhouse gases (carbon dioxide, methane, particles, water vapour and others) from both human and natural sources to the atmosphere affects the climate. The main human emissions are from transport, energy generation, industry, waste management and agriculture. Plant and algal growth absorb carbon dioxide, one of the main greenhouses gases. Trees are particular good at this as they are large and can lock carbon in timber and wood products beyond their lifespan. Peatland is also effective as carbon is trapped within the peat. Limiting human induced global warming requires limiting cumulative greenhouse emissions, especially of carbon dioxide and methane. Retaining and increasing trees and other natural carbon sinks such as peatland areas will also contribute.

12.4 The IPCC 6th Assessment Report (IPCC, 2021) report found that human induced climate change is already bringing many weather and climate extremes, with evidence of observed changes strengthening. Global surface temperature will continue to increase until at least mid-century under all emissions scenarios considered. It will therefore also be necessary to adapt to coming climatic changes, *regardless* of success in reducing emissions. This should be done in a fair way, while maintaining or improving quality of life.

12.5 In 2021, the UK government produced its "[Net Zero Strategy: Build Back Greener](#)"⁸⁷ noting "by the middle of this century the world has to reduce emissions to as close to zero as possible, with the small amount of remaining emissions absorbed through natural carbon sinks like forests, and new technologies like carbon capture." The Strategy sets out the government's plans for reducing emissions, while 'hoovering up' any remaining emissions with greenhouse gas removals. The Scottish Government has set new climate change targets of net zero emissions by 2045. To help

⁸⁷ HM Government, 2021 "Net Zero Strategy: Build Back Greener" at <https://www.gov.uk/government/publications/net-zero-strategy>

achieve this, the Scottish Government strategy, [Climate Change Strategy Update](#)⁸⁸ includes a target of 12,000 hectares of woodland annually in 2020/21 up to 18,000 hectares annually in 2024/25. A target of 250,000 hectares of peatland restoration by 2030 is also set.

12.6 The Council set out how it intends to tackle the climate emergency locally in our [Climate Change Strategy 2020–2025](#)⁸⁹. That strategy commits the Council to embark on an ambitious programme to plant native trees across East Lothian. This has resulted in the Climate Forest proposal, which aims to plant two million trees in East Lothian. The East Lothian Green Network Strategy also includes the intention to contribute to maximising carbon storage potential through land use. It aims to do this by increasing tree and woodland cover, as well as conserving peatland and saltmarsh.

12.7 The Scoping Table below shows what existing issues are considered relevant to this strategy. Wildfires and flooding are relevant for climate change but considered under ‘Air’ and ‘Water’ respectively. Circular economy issues are considered under ‘Material assets’.

Scoping Table 7: CLIMATIC FACTORS	
Issue	In/Out
Mitigate Climate Change	
Impact on carbon emissions from land use change i.e. tree planting (threat and opportunity)	In
Timber and wood for industry and manufacturing	In
Climate forcing emissions related to woodland recreation (threat)	In?
Impact on emissions from use of renewable heat/renewable generation	??
Circular Economy – scoped in but considered under ‘Material Assets’.	In
Adapt to climate change	
Design of open space; effect on temperature, shade and shelter (Scoped in but considered under ‘Health’ - see Expansion of woodland and more trees in urban areas: opportunity)	In
Heat stress and shelter of buildings	In
Shelter of land and livestock	In
Potential for changes to health and growth of trees	In
Arrival of new pests or diseases	In
Coastal erosion and sea level rise	In

⁸⁸ Scottish Government “Securing a green recovery on a path to net zero: climate change plan 2018–2032 – update” available from <https://www.gov.scot/publications/securing-green-recovery-path-net-zero-update-climate-change-plan-20182032/>

⁸⁹ <https://www.eastlothian.gov.uk/climatechangestrategy>

Wildfires – scoped in but covered in ‘Air’	In
Flooding - scoped in but covered in ‘Water’	In

Climate Change Mitigation

Baseline – Climate Change Mitigation

National picture

12.8 The [Climate Change Committee](#) is an independent, statutory body established under the Climate Change Act 2008. Its purpose is to advise the UK and devolved governments on emissions targets and to report to Parliament on progress made in reducing greenhouse gas emissions and preparing for and adapting to the impacts of climate change. Its recent reports include “[Progress in reducing emissions: 2022 Report to Parliament](#)” and “[Scottish Emission Targets – first five yearly review & Progress in Reducing Emissions in Scotland – 2022 Report to Parliament](#)” (the ‘Scottish Report’).

12.9 The Climate Change Committee’s 2022 Report to the UK government, notes that this is a pivotal point for the UK in reaching net zero. The CCC notes that though emissions rose in 2021, they remain 10% below 2019 (see Figure 35 below). The CCC considers that in most areas the emissions reduction ambitions are credible, with a need now to focus on delivery. However there are policy gaps in some areas to drive this, and progress lags ambition. The CCC considers the approach does not include significant ambition to reduce consumer demand for high carbon activities, such as through low carbon diet or aviation demand. The TWSEL supports this by encouraging local fruit and nut growing. Providing more woodland locally may help reduce demand for overseas holidays.

12.10 There are also issues around how the full range of costs and benefits of transition to net zero will be shared fairly. Tree planting targets should not be met at the cost of unwelcome changes to living environment of those in lower SIMD areas (where the Council may have more control of

land) for example. The TWSEL includes provision for community consultation that aims to avoid this.

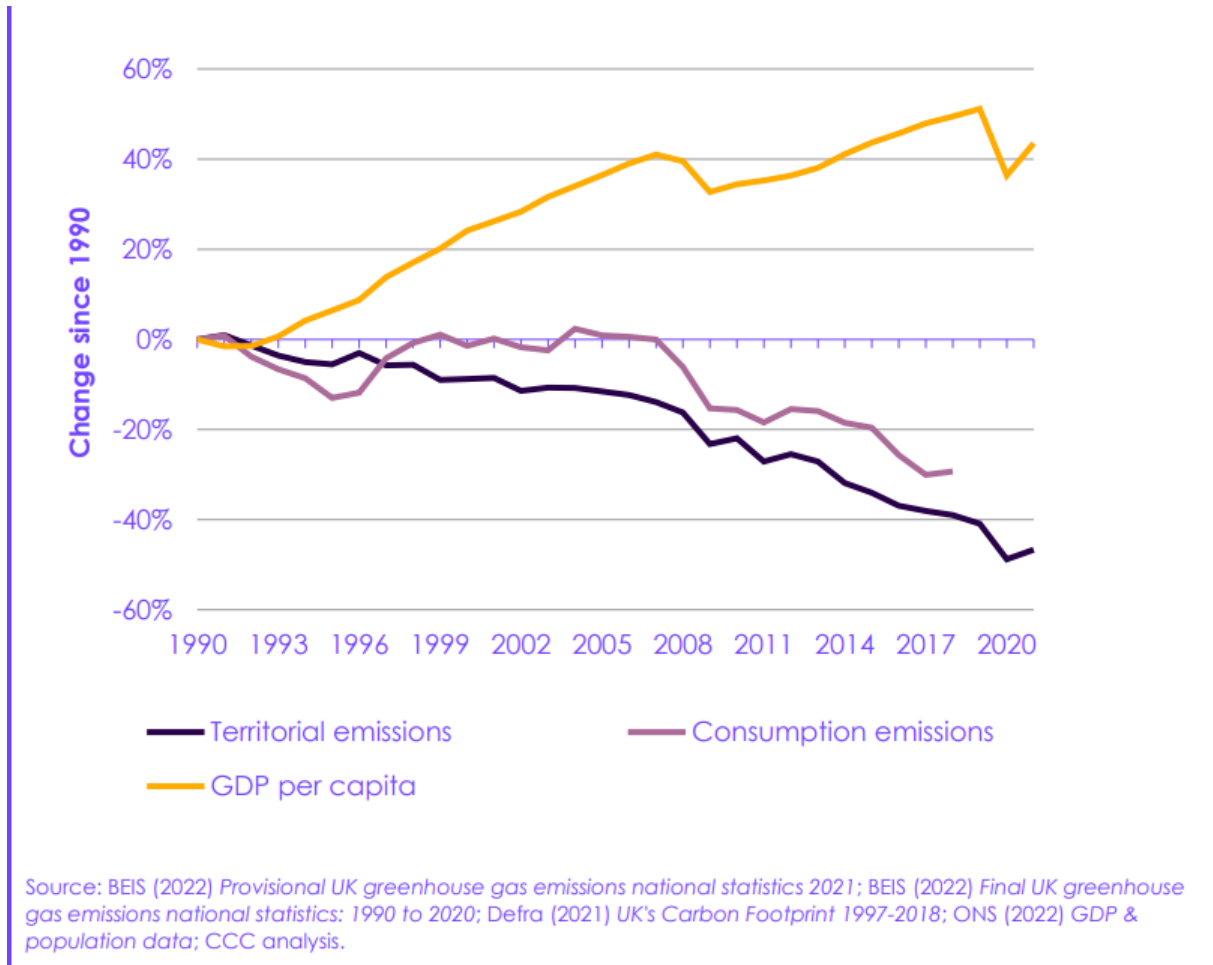


Figure 35 The UK's Historic Emissions and GDP: Extract from CCC's 2022 Progress Report to Parliament showing UK progress in emission reduction, 1990-21.

12.11 The following table shows the Climate Change Committee's view of UK progress against key targets. As can be seen from this, the Committee considers targets for new woodland are off

track, as are those for peatland restoration. Crop yields are slightly off track. A reduction in meat consumption is on track, due to changing consumer demand rather than government action.

Table 1 Summary of progress against key indicators				
Surface transport	Electricity supply	Buildings	Manufacturing and construction	Agriculture and land use
BEV car sales	Offshore wind, installed	Energy demand	Sector territorial emissions	Agriculture CH ₄
EV cars sales	Onshore wind, installed	Energy efficiency retrofits	Sector consumption emissions	Agriculture N ₂ O
BEV van sales	Solar PV, installed	Non-res buildings energy intensity	Carbon intensity of energy	New woodland
EV van sales	Grid emissions intensity	Low-carbon heat supply	Material and product use	Woodland management
ICE car intensity	Unabated gas generation	Heat pump installations	Steel: energy efficiency	Peat restoration
ICE van intensity	Low-carbon flexible capacity	Heat pump costs	Paper: energy efficiency	Energy crops
Charge points	Nuclear	Electricity to gas price ratio	Low-carbon energy use	Farmer action
Car km	Flexible demand	Heat networks	Industrial hydrogen project pipeline	Crop yields
Van km	Onshore networks	Retrofit coordinators	Industrial CCS project pipeline	Livestock numbers
HGV km	Offshore networks	Willingness to replace boiler	Average embodied carbon of buildings	Meat consumption
Key: 				
<small>Notes: An indicator is on track if it is going in the right direction at an appropriate rate. This is determined either by comparing to a quantified pathway/benchmarks using data from 2019, 2020 and 2021, where available. EV = electric vehicle, BEV = battery-electric vehicle, ICE = internal combustion engine.</small>				

Figure 36 Summary of progress against CCCs indicators, from CCC's 2022 Progress Report to Parliament

12.12 The Climate Change Committee's Scottish Report noted that the 2020 interim target of a 56% reduction on 1990 emissions was achieved. However, this was largely due to travel restrictions during covid-19 pandemic without which it is unlikely to have been met. The Committee considers Scotland is not delivering on key milestones such as energy efficiency in homes and peatland restoration, and that a quantified plan for emissions reductions is urgently needed.

12.13 The report notes the Scotland has set high ambition to increase new woodlands. Despite recent success in increasing planting, low rates of planting in the 1990s are influencing Scotland's greenhouse gas emissions. The net CO₂ sink has generally declined, having peaked in 2012. Fast growing conifers make up most of the new planting in Scotland.

12.14 The report notes that Scotland is falling behind on its afforestation targets. It is also falling behind on peatland restoration. The report considers that both of these aspects are likely to have adverse effects on the ability of Scotland to meet its climate change targets. TWSEL encourages both tree planting and peatland restoration.

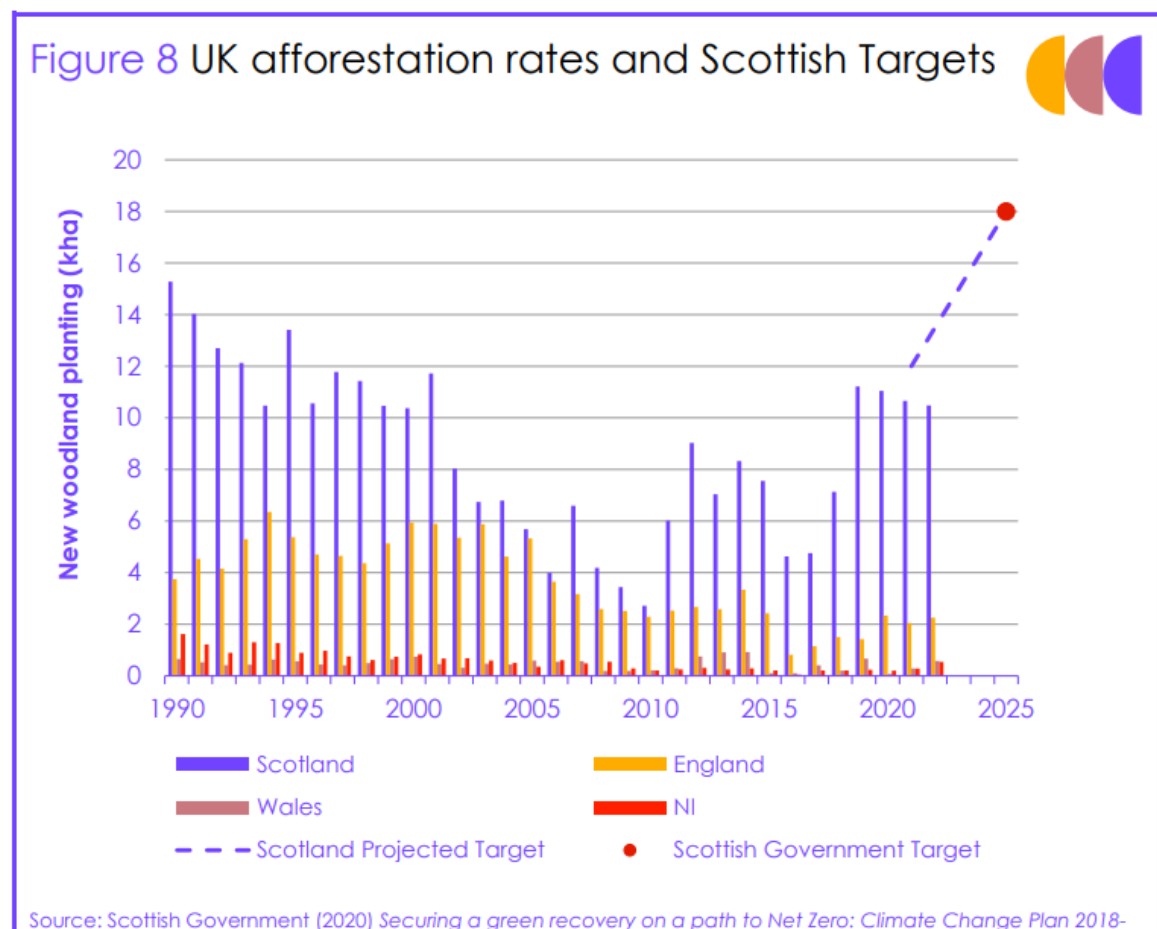


Figure 37 New Woodland Planting in Scotland, in CCC (2022)

12.15 The CCC report notes that agroforestry and hedgerows can increase carbon stocks on farms while allowing agricultural production to continue. The TWSEL supports woodland creation (Target 1) including both an increase in woodland creation on farmland and retention and increase of hedgerow planting. It also seeks to avoid afforestation on land suitable for peatland restoration (Policy 15). This will support moving towards getting targets for woodland creation and peatland on track. Promotion of fruit and nut growing in a small way helps to supports a lower meat diet.

East Lothian baseline

12.16 The main sources of climate change emissions in East Lothian and elsewhere are from energy use (domestic, commercial and industrial) personal sources (consumption of food and its effects, and consumption of goods produced elsewhere) and transport, with a smaller contribution from land management and production of waste, including waste water treatment. Further information can be obtained through national statistics published by the Department for Business, Energy and Industrial Strategy here: [UK local authority and regional carbon dioxide emissions national statistics - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/collections/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics). Land use, land use change and forestry is a category of greenhouse gas emissions accounting that covers emissions and removals of greenhouse gas

from direct human land use activity. This sector has the potential not only to avoid emissions but to remove carbon dioxide from the atmosphere. The Scottish Government's aim is that the 'Land Use, Land Use Change and Forestry' sector will increasingly act as a net carbon sink⁹⁰.

12.17 The following figures are excerpts from Department for Business, Energy and Industrial Strategy, 2021. East Lothian has higher than average CO₂ emissions in total, as well as higher than average net emissions for the land use, land use change and forestry sector.

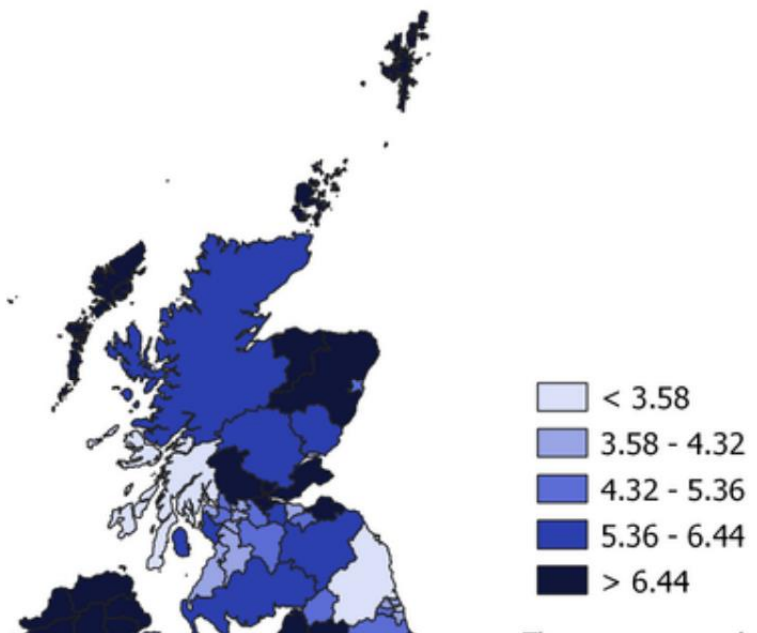


Figure 38: Net emissions of Carbon Dioxide per capita by Local Authority (tonnes CO₂ per capita, 2019) from BEIS, 2021

12.18 Figure 39 shows CO₂ emissions from Landuse, land Use change and forestry. Although East Lothians net emissions from this sector are higher than average, they have been decreasing⁹¹.

⁹⁰ East Lothian Climate Change Strategy
https://www.eastlothian.gov.uk/downloads/file/29179/climate_change_strategy_2020-2025

⁹¹ Source 2005 to 2017 UK local and regional CO₂ emissions – data tables (alternative format), from <https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2017>

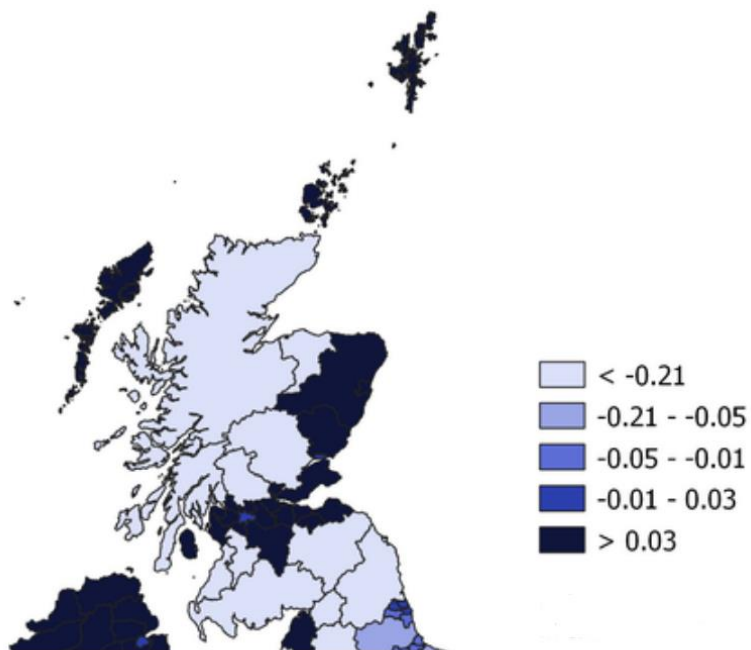


Figure 39: Land Use, Land Use Change and Forestry CO₂ net emissions per capita by Local Authority (tonnes CO₂ per capita) 2019, from BEIS, 2021

12.19 The following Figures are from [Mapping greenhouse gas emissions & removals for the land use, land-use change & forestry sector A report of the National Atmospheric Emissions Inventory 1990-2020](#), a report for BEIS. East Lothian has quite a low level of removals of CO₂ from forestry overall, which relates to its low level of woodland cover. Carbon stored in soil can change through drainage, either through export of organic carbon, methane emission from ditches or nitrogen dioxide. Forests planted on mineral or organo-mineral soils which have slow natural drainage and are prone to waterlogging are assumed to be artificially drained and N₂O₃ emissions are reported for this. Fertilisation, leading to emissions of N₂O, occurs on the first rotation of forests planted on nutrient poor soils and is applied in the years of planting and again three years later. Forest

fertilisation emissions and emissions due to drainage are lower than average for Scotland in East Lothian, reflecting lower forest planting and coverage. There were no forest wildfires in 2020

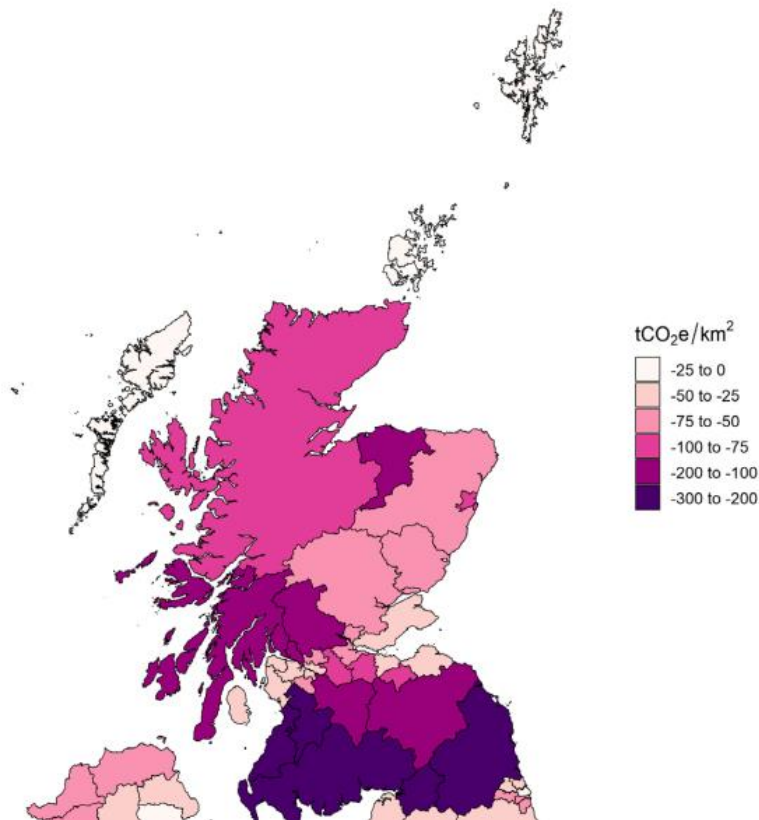
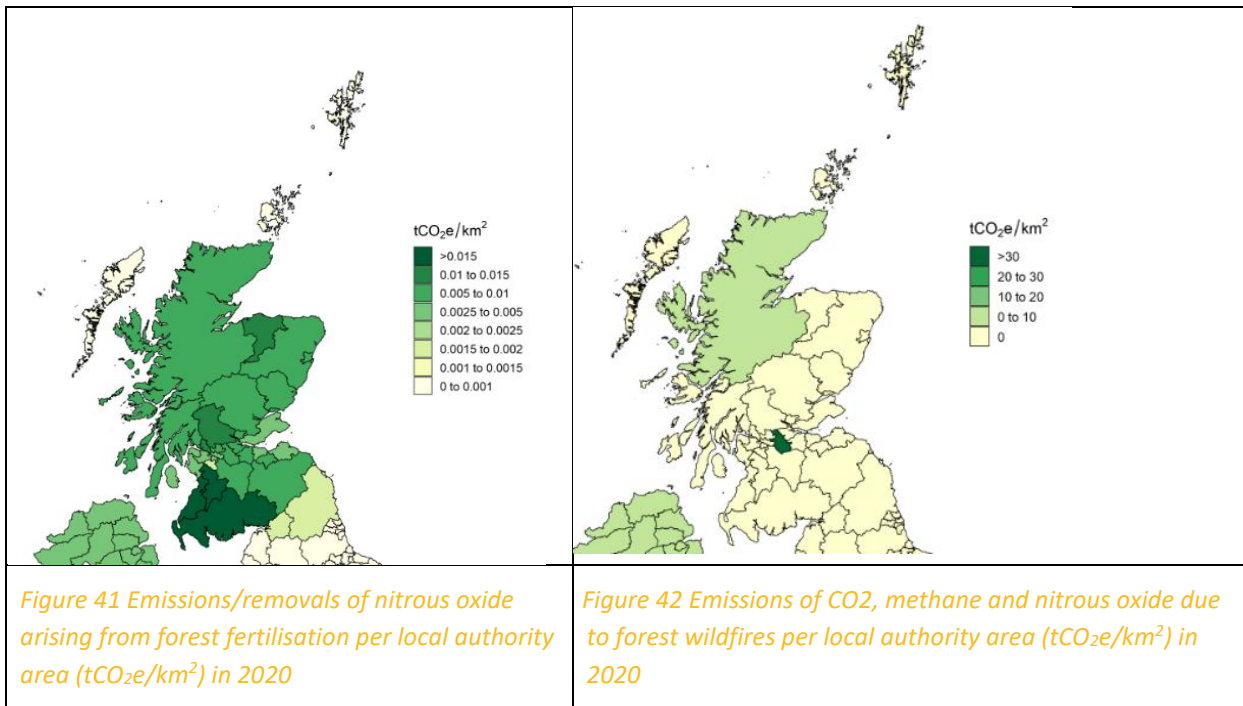
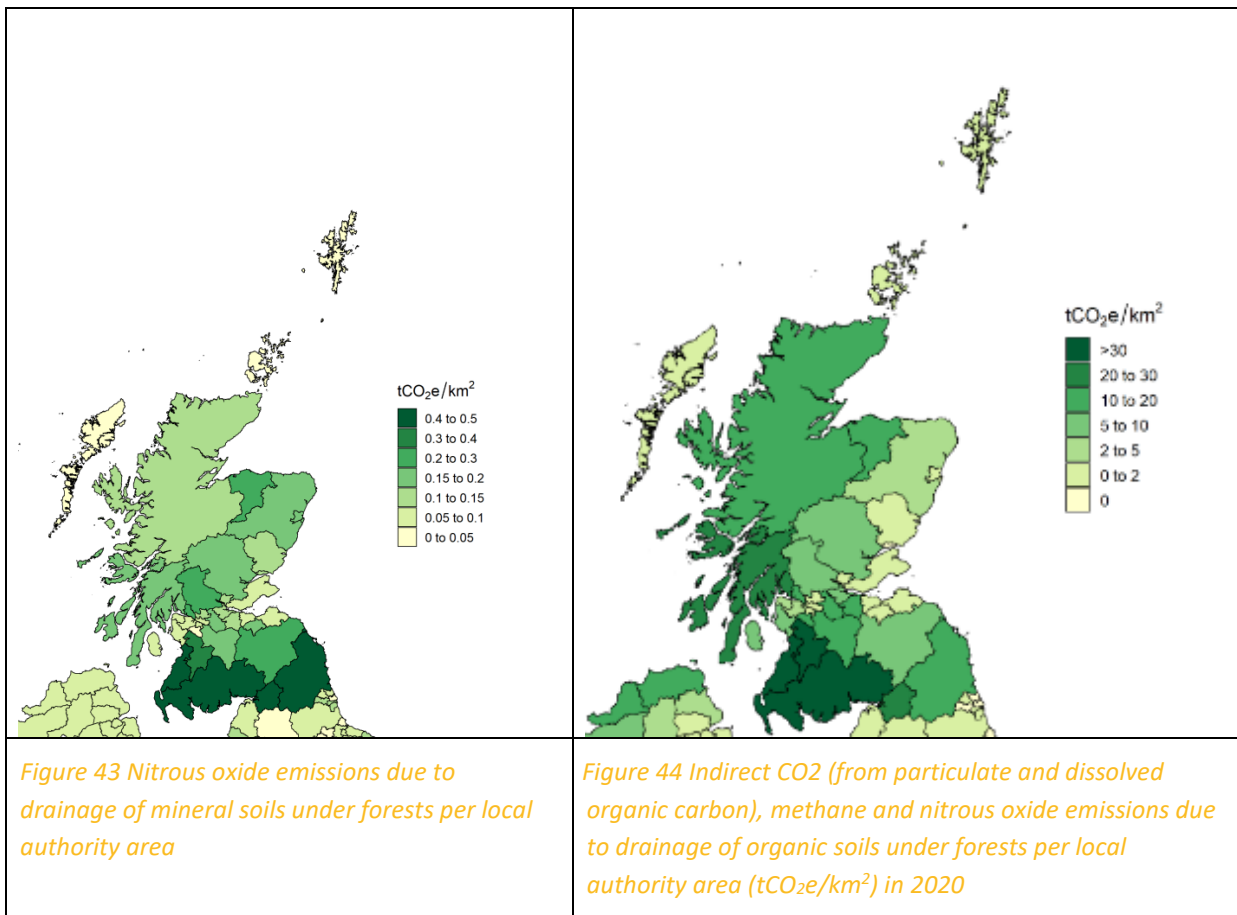


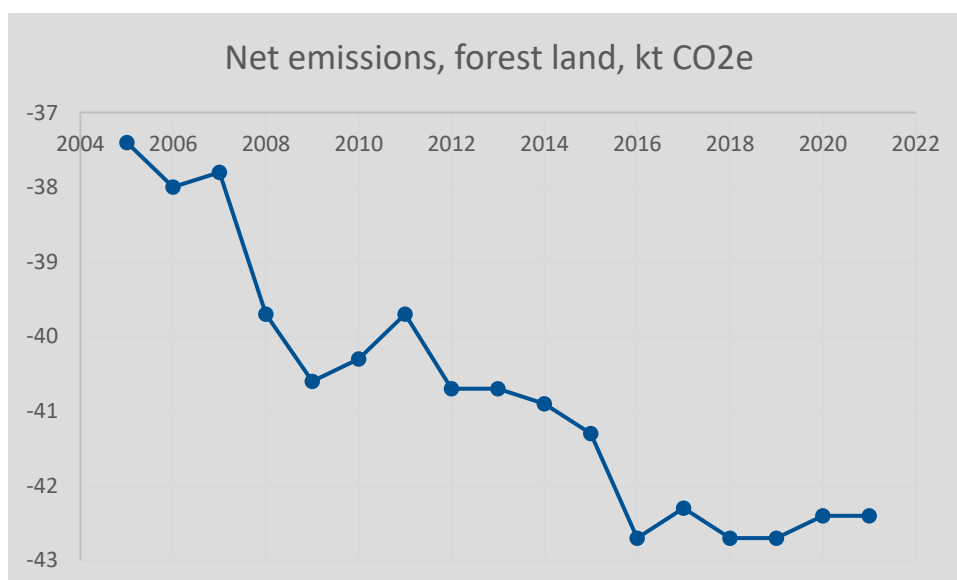
Figure 40 Distribution of forest carbon dioxide removals from the atmosphere by local authority area expressed as tCO₂ per km².





8.1 Net emissions from forested land are given in the national statistics series at:

<https://www.gov.uk/government/statistics/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics-2005-to-2021> . This shows that forested land has improved overall in terms of sequestering CO₂ since 2005, however this has levelled out since around 2015.



Issues – Climate change mitigation

Land use change

- 8.2 Climate change emission reduction is expected to be one of the main benefits arising from the TWSEL. This was the main driver behind the Council promoting the Climate Forest. Trees absorb carbon dioxide in growth. A tree can absorb between 10 and 40kg of CO₂ per year depending on a number of factors such as its size and species (Eco Tree, undated) however over its first 20 years this averages only 10kg per year (One Tree planted, 2022). Trees can also emit methane, a powerful climate forcing gas, at least some of the time. The main source seems to be from wetland trees in the tropics, with non-wetland trees emitting less, especially in cooler areas. This does not outweigh their overall positive contribution though⁹².
- 8.3 The TWSEL supports retention of existing woodland (Policy 1) recognising that it takes time for a young tree to sequester as much carbon as a mature one. The Scottish Government's Control of Woodland Removal Policy restricts removal of woodland. However, it can be acceptable in some circumstances. Development of renewable energy is a type of development that may justify removal where replacement planting is carried out. More recent renewable energy development in East Lothian has included replacement planting. The TWSEL supports this policy and encourages replacement planting to take place in East Lothian. Retaining existing woodland has a positive impact on climate.
- 8.4 Tree planting has the potential for short-term release of climate forcing gas in preparation of soil for planting and fertilisation. Forestry operations that drain carbon rich soils can result in organic matter being lost from the soil, reducing the carbon stored there. There are also related impacts (travel of workers to the site, tools, use of chemicals). This is usually outweighed by the amount of carbon that will be absorbed by the trees or woodland in their growth, through formation of forest soils and/or eventual use of wood in wood products⁹³. Mitigation through use of different planting techniques in order to reduce emissions is possible. TWSEL encourages this by supporting natural regeneration over planting and use of planting techniques to limit soil disturbance (Policy 3: Woodland Creation, Policy 9: Seed and Tree Stock Sourcing).
- 8.5 Although trees are well known for sequestering carbon, the contribution of other habitats (saltmarsh, peat, grassland) should also be kept in mind when planning projects. Trees are not always the most climate friendly use of a site. TWSEL recognises this by inclusion of policy protecting these habitats (Policy 14: Protection of the Natural Environment, Policy 15: Peatland).
- 8.6 The TWSEL aims to reduce net CO₂ emissions from land use, land use change and forestry, and so influence emissions overall. If successful, woodland creation under TWSEL will lead to around 1-3% more woodland cover in East Lothian. Although this appears relatively small scale, the increase is in line with Scottish Government targets and will contribute to meeting Scottish Government

⁹² See Fred Pearce, "Scientists Zero in on Trees as a Surprisingly Large Source of Methane" June 24, 2019, Yale School of the Environment at <https://e360.yale.edu/features/scientists-probe-the-surprising-role-of-trees-in-methane-emissions>

⁹³ See reports from Forest Research accessed from their website here (16/09/2021) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/687147/The_UK_Forestry_Standard.pdf

targets. The strategy is likely to have an overall positive effect on emissions from land use and land use change through promotion of woodland creation, promotion of climate sensitive planting methods and protection of other habitats that sequester carbon.

Timber and wood for industry and manufacturing

- 8.7 Use of timber and wood for construction and manufacturing can cut carbon emissions by replacing the more carbon intensive materials that would otherwise have been used. The product retains carbon within it while it is in use.
- 8.8 Forestry (and tree) operations can produce climate-forcing emissions through transport of workers to the site and use of machinery to process the wood. Decarbonisation of Scotland’s transport sector⁹⁴ including phasing out of petrol and diesel cars by 2032, a transition to ultra-low emission electric and hydrogen vehicles, and encouragement of active travel may help reduce the emissions of forestry/woodland related transport. Decarbonisation of the electricity supply will also reduce emissions from manufacturing.
- 8.9 The TWSEL promotes the use of wood and wood products and this supports the circular economy (Policy 5: Wood Products). In Policy 20: Productive Woodland, the TWSEL generally supports the continuation of coniferous production on existing sites, and hardwood production elsewhere. However, the strategy takes a multi-functional approach to woodland, which reduces the focus on timber production. The timber production potential of the area is therefore less likely to be maximised. This means that less carbon will be stored in timber products, some of which lock it up for a considerable time. The carbon balance of this is difficult to judge as woodlands where wood decays in place do also sequester carbon.

Woodland recreation

- 8.10 Visitors to countryside sites often travel by car. NatureScot’s Research Report 1227 – Scotland’s People and Nature Survey 2019-20⁹⁵ reported on a survey of people using outdoor recreational sites. This included questions about their mode of transport. An extract from this report is shown below, and shows that while an increasing number of visits were made on foot, and some by bicycle or bus, car travel remains a significant proportion of journeys. As the survey includes greenspace in towns and cities, it is likely that visits to countryside sites are more often made by car.

⁹⁴ As set out in East Lothian Council’s Climate Change Strategy
<https://www.eastlothian.gov.uk/climatechangestrategy>

⁹⁵ Report available from [NatureScot Research Report 1227 - Scotland's People and Nature Survey 2019/20 - outdoor recreation, health, and environmental attitudes modules | NatureScot](#)

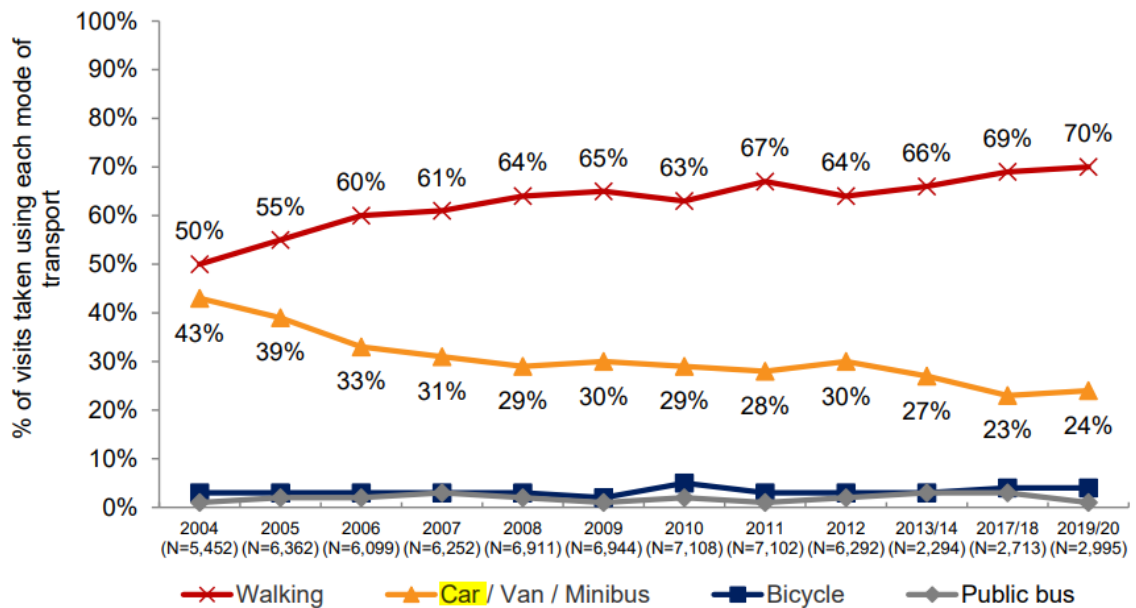


Figure 45 Means of transport used to reach destination of outdoor visits 2014- 2017-18 (Scotland)

8.11 One of the main aims of the TWSEL is to reduce carbon emissions, as well as to benefit human health, by increasing the accessibility of woodland. It aims to do this both by expanding woodland in accessible locations, and improving access to existing woods. Target 4B aims to increase access to trees and woodland for all by improving access to meet the Woodland Trust’s Access Standard (smaller woods within 500m, and large ones within 4km). TWSEL includes policy on sustainable travel to try to influence how people travel to woodland. This will mean it is more possible for more people to walk or cycle to woodland. However, it is not possible to predict whether people will do so. In addition, improving how accessible woodlands are may draw people from further afield. It is considered likely that increasing the accessibility of woodland will increase recreation travel by non-sustainable modes, although it is not the intention of the Strategy. However, the recognition that people should be able to access woodland by sustainable means should mean that efforts to improve woodland access are made in places that are or could be made accessible by sustainable means. This makes it more likely that these modes would be used. In this way, the approach of the TWSEL will help reduce carbon emissions compared to encouraging access elsewhere.

8.12 The overall level of emissions related to means of accessing woodland may not be large however surface transport is one of the areas where action on climate change is lagging. The impact on climate of recreational travel will also depend on changes in private car fuelling (e.g. change to electric vehicle) and efficiency. The Tree and Woodland Strategy does not influence these factors. The overall impact of the TWSEL on recreational journeys by private vehicle is difficult to quantify. Increasing accessibility of recreational woodland is likely to result in more car journeys, but perhaps shorter ones than if there was not a focus on areas close to where people live.

Wood as fuel

8.13 In the UK as a whole, about 70% of domestic energy (in tonnes of oil equivalent) is used for space and water heating. Much of East Lothian is on the gas grid, though some solid fuel and oil fuelled heating remains, while older houses usually retaining chimneys even if unused. Some houses

have recently installed wood burning stoves. Use of wood source fuel is climate neutral (excluding transport impacts), and can replace fossil fuel use. Encouraging renewable heat is an important element of Scotland meeting its renewable energy targets. Both NPF4 and the East Lothian Local Development Plan 2018 encourage appropriate renewable energy development in the right locations as well as the provision of low and zero carbon technologies in new development. East Lothian Council's Climate Change Strategy includes aims to explore renewable energy generation. The Council is also required to produce a Local Heat and Energy Efficiency Strategy by 2024.

8.14 Woody biomass is no longer being promoted by Scottish Forestry as a fuel crop. The TWSEL does not support wood burning due to its effect on air quality and release of carbon. However, wood is used in domestic stoves, and there may also be some other small scale use of wood as fuel. There is some local supply of logs, both from commercial operators and sold as a side product by those carrying out work on trees. The cost of living crisis may increase use of wood fuel, with logs being taken informally from woodlands, with or without the consent of the landowner. The TWSEL is likely to increase the availability of wood as fuel due increased amount of trees and woodland, of which we encourage appropriate management. This will lead to more excess woody material as a by-product. The Council does not have information on the level of demand for wood fuel. If the demand is not met by local supply and fuel is imported to East Lothian, this will result in carbon emissions from transport.

8.15 The TWSEL plans to increase in woodland creation and tree planting. There is also support for softwood production on existing sites and hardwood production elsewhere. This may not be primarily to produce fuel logs but they are likely to be a by-product. This has the potential to increase local supply of wood fuel. This is positive for climate where its use replaces fossil fuel use. The choice not to further encourage wood fuel production could lead to more emissions from transport if logs are imported into East Lothian to meet demand. It is not clear if not encouraging use of wood fuel is positive or negative for climate. This would require appraisal of balance of supply and demand of fuel and what the alternative fuel use and destination of the wood would be.

Baseline – Adaptation

Climate change projections

8.16 Changes to the climate are slow due to a lag in the system; what we are experiencing now is the result of emissions up to a point around 40 years ago. An amount of climate change to which we will have to adapt is therefore inevitable regardless of any action on mitigation. Severe changes cannot be ruled out⁹⁶.

8.17 Climate change predictions are available from the Met Office⁹⁷. Predictions for East Lothian are for a warmer, wetter winters with periods of more intense rainfall and warmer, drier summers.

⁹⁶ Climate Ready Scotland, Scottish Climate Change Adaptation Programme, 4th Progress Report <https://www.gov.scot/binaries/content/documents/govscot/publications/progress-report/2018/05/climate-ready-scotland-scottish-climate-change-adaptation-programme-fourth-annual/documents/00535998-pdf/00535998-pdf/govscot%3Adocument/00535998.pdf>

⁹⁷ <https://www.metoffice.gov.uk/research/approach/collaboration/ukcp/index>

There is likely to be a longer growing season, linked to warmer weather. Extreme weather events are more likely.

Table 4 Climate Projections, Scotland East, 2020s to 2080s (UK Climate Projections 2017 Met Office Table 10.1)					
		2020s	2050s	2080s	Trend
Winter	Mean temperature	1.1°C (0.2°C – 2.0°C)	1.7°C (0.7°C – 2.9°C)	2.2°C (1.0°C – 3.7°C)	Warmer
	Precipitation	4% (-2% - 12%)	10% (1% - 20%)	12% (1% - 25%)	Wetter
Summer	Mean temperature	1.4°C (0.2°C – 2.0°C)	2.3°C (1.1°C – 3.9°C)	1.1°C (1.8°C – 5.7°C)	Warmer
	Precipitation	-6% (-17% - 7%)	-13% (-27% - 1%)	-17% (-33% - 0%)	Drier

8.18 Adaptation Scotland has identified some of the most important impacts of climate change⁹⁸. They note that globally, climate change may have an impact on food production, though a warming climate and longer growing season has the potential to improve conditions for growing here (see ‘Soil’, above). Warmer, wetter conditions may allow more pests and diseases to establish and spread (see also ‘Human health’, above). Summer droughts may mean different uses (agriculture, domestic, industry and the natural environment) are in competition for water, which could affect both is quality and quantity. A warmer climate could lead to demand for more outdoor activity, and differently designed outdoor spaces (see Human Health, above). The requirements for design of urban layout to avoid different climatic effects may change, including avoidance of overheating.

8.19 The Climate Change Committee report on adaptation to climate change. The most recent report is ‘[Is Scotland Climate ready? – 2022 Report to Scottish Parliament](#)’. The report finds that progress in delivering adaptation has stalled, though there are some areas where good progress is being made. Relevant areas where recommendations are made to the Scottish Government include:

- adaptations in the Housing to 2040 Strategy and route map to consider future increases in extreme weather, including overheating. Although the recommendation is for housing specifically, trees in urban areas can help regulate temperature and provide shade in urban areas, which can help cool houses and mitigate for high temperatures within homes
- Resilience of people to pathogens, and risks to people from vector borne diseases
- Flood alleviation
- Water demand
- Business opportunities from climate change adaptation, including new tourism opportunities

The CCC also recognises the desirability of a Just Transition. The Just Transition Commission set up by the Scottish Government has a working definition of the concept. This is: “Governments

⁹⁸ <https://www.adaptationscotland.org.uk/why-adapt/impacts-scotland>

design policies in a way that ensures the benefits of climate change action are shared widely, while the costs do not unfairly burden those least able to pay, or whose livelihoods are directly or indirectly at risk as the economy shifts and changes". The TWSEL Resilience theme covers adaptation issues.

Coastal erosion and sea level rise

8.20 Linked to climate change is expected sea level rise. Rising sea levels combined with expected stormy weather will also speed up coastal erosion and accretion processes, with land potentially being lost to erosion. Further information is available from NatureScot on their Dynamic Coast webpages, here: [Dynamic Coast](#). Coastal flooding is likely to increase in vulnerable areas; other flooding issues are also an important part of adaptation. This is considered in the 'Water' section.

Issues – Climate Change Adaptation

Heat stress and shelter of buildings

- 8.21 Trees can help shelter individual buildings to reduce the need for heating in winter and cooling in summer. This will be of benefit now, but also help better adapt to predicted climatic conditions. This feeds back into helping with mitigation as it also reduces the requirement for use of energy to heat or cool the building. Trees can also reduce the temperature of urban areas generally.
- 8.22 Heat stress can cause illness and fatalities. Those with chronic illness, or who are very old or poor, are more susceptible to the effects of heat. High temperatures can make the symptoms of respiratory illnesses worse. In urban areas, heat can build up as hard surfaces such as concrete absorb heat in the day to release it at night, extending exposure time (known as the heat island effect). Heat waves are also likely to become more common with climate change. Trees can help combat the heat island effect by reducing the heat reaching the hard surfaces, thereby reducing heat build up. They also help in heatwaves where they can provide shade and a cooling effect. This supports climate mitigation and adaptation goals.
- 8.23 Outdoor space within towns here may not currently be designed for an increase in heat or sudden downpours. In particular there is a low tree canopy cover in the urban areas of Prestonpans and Tranent. East Lothian Council's Climate Change Strategy⁹⁹ identifies managing the natural environment to provide climate adaptation benefits whilst protecting our natural heritage assets as a key challenge for adaptation. The TWSEL has targets to increase canopy coverage (Target 4A) within settlements and lowest 30% SIMD areas to a minimum of 30% canopy.

8.24 The effect on heat stress compared to without the strategy is expected to be positive.

Shelter of land and livestock

8.25 Livestock may also have more need for shelter to address more intense rainfall and heat stress. Trees can help provide this shelter. Increased heat and longer, drier summers may also result in an increase in wind blown soil erosion. TWSEL supports an increase in farm woodland, which could help provide shelter and reduce soil erosion (Target 5 and Policy 21: Woodland Creation within Farmland). The effect is therefore expected to be positive.

⁹⁹ <https://www.eastlothian.gov.uk/climatechangestrategy>

Potential for changes to health and growth of trees

8.26 Some tree species may perform better than others in the conditions of a changed climate. Lack of, or too much, water causes difficulties for living organisms including trees and the understorey plants and fungi of woodlands. Increased storminess could increase windthrow (when the wind knocks a tree over). There is also the potential to harness the effects of climate change (such as a longer growing season) positively for species growth and distribution.

8.27 In the face of changing and uncertain conditions, a diversity of species supports resilience as it is less likely that a large proportion of trees will be lost to pest or climatic conditions that are unsuitable for them. There is information on woodland types in the National Forestry Inventory and the Native Woodland Survey of Scotland available here: East Lothian Native Woodland Survey: <https://scotland.forestry.gov.uk/images/corporate/pdf/fcs-nwss-east-lothian.pdf> and National Forest Inventory: <https://www.forestresearch.gov.uk/tools-and-resources/national-forest-inventory/> contain information on the current species mix of East Lothian’s woodland. This is summarised in the TWSEL. The Forestry Commission has produced research¹⁰⁰ on forests at risk of drought. Most of East Lothians forests were not considered at high risk though some were considered at Moderate risk.

8.28 Pests and diseases encouraged by warmer, wetter conditions could impact on the health of existing forestry, woodland and individual trees. The [UK Plant Health Risk Register](#) monitors pests and organisms, including those that infect trees.

8.29 The TWSEL supports species diversity in woodland through Policy 7 on Sustainable Woodland Management. Policy 9 Stock and Seed Sourcing also encourages the growing of trees which are well adapted to East Lothian’s conditions. Natural regeneration, supported by this policy, should also encourage diversity. Actions 21 and 22 support planning for and managing the councils own trees, which will help identify issues with our tree estate, such as over reliance on a single species, and plan to address this. Target 2A is to improve resilience of East Lothian’s environment including by securing functional native woodland connections through the area to support migration of species under climate change. Policy 10: Addressing Fragmentation supports this target. The TWSEL also encourages biosecurity measures to reduce the spread of disease. The effect of the Strategy is likely to improve the adaptive capacity of East Lothian’s trees and woodland to climate change.

Likely Significant Effects – Climate

8.30 Taking into account the issues identified above, SEA objectives for Climatic Factors have been identified. The following table gives the objectives and summarises the impact:

SEA Objective, Climatic Factors	1	2	3	4	5	6	7
	Theme 1	Theme 2	Theme 3	Theme 4	Theme 5	Theme 6	Theme 7
To reduce harm from climate change by mitigation and adaption		Resilience	Biodiversity				

¹⁰⁰ Sarah Green et al “Potential impacts of drought and disease on forestry in Scotland” Forestry Commission (2009) available at <https://www.forestresearch.gov.uk/research/potential-impacts-of-drought-and-disease-on-forestry-in-scotland/> accessed 6/10/20221

SEA Sub-objective/ questions for assessment. Does the plan....?	KEY							
	Positive	+						
	Neutral	0						
	Unknown	?						
	Mixed/Variable	//						
Negative	-							
<i>Mitigate Climate Change</i>		+	+	+	+	//	0	+
<i>Support climate change adaptation</i>		+	+	+	+	+	0	+

Commentary on Climate Indicators

8.31 The 'Climate' and 'Resilience' themes focus on supporting climate mitigation and adaptation and the outcomes should therefore be positive. The original driver behind the Climate Forest (Target 1, Action 2 within the TWSEL) was to address climate change, and this new woodland will absorb carbon dioxide from the atmosphere and lock it up as carbon within the trees. Retention of existing woodland is probably even more important, due to the time taken for new trees to reach maturity. Policy 1 Retention of the carbon value of woodland, trees and hedges brings stronger policy on avoiding loss of existing woodland and should therefore be positive for mitigation. Encouragement of sustainable management of woodland is also positive as this helps store carbon within the woodland. The 'Resilience' theme also includes actions on flooding (Actions 4 and 5) and Policy 6: Water Management and Slope Stability, which are positive for adaptation. Use of trees to improve the water environment, enhance the soil resource and regulated the urban climate are also encouraged. The Strategy considers tree and woodland resilience and provides policy and guidance on this. This is directed specifically at helping East Lothian's trees and woodlands adapt to climatic changes.

8.32 The proposed Ash Dieback Action Plan will involve trees being actively removed while still holding carbon. This will result in some emissions from transportation and tree work, while the carbon within the tree may be released more than if the tree died in situ. This may lead to more emissions than doing nothing. Removal is however necessary for safety reasons and to reduce spread of disease. Some level of removal is likely to happen without the strategy. The plan to replace ash trees will however lead to positive effects.

8.33 Under the 'Biodiversity' theme, connecting woodland habitat (Policy 10, Addressing Fragmentation) supports mitigation through encouraging woodland creation. It supports adaptation by allowing for climate migration of woodland species. The development of a Hedgerow Plan (Action 13) will also support both SEA objectives. Over the longer term, restoration of native woodland on PAWS sites (Target 3E, Action 9) will benefit both mitigation and adaptation, through retaining woodland and increasing its diversity. However, choice of faster growing conifers would have had more immediate impact on absorption of carbon dioxide. It may

also be more likely that the carbon of such trees would be retained as timber, though this is not certain. Some native broadleaves also have timber potential. Peatland restoration is supported rather than tree plantation on suitable sites (Policy 15: Peatland Restoration), which is positive for climate mitigation. The approach to control of deer (Policy 12: Deer and Deer Fencing) also supports climate mitigation as deer can be very damaging to woodland, hindering its potential as a carbon store.

8.34 Support for local fruit and nut growing could have a positive effect both on mitigation, through supporting a plant based, locally grown diet, and also adaptation through diversifying food sources. Action 20 on encouraging communities to prepare local place plans and Policy 21 Community Collaboration, which supports equality impact assessment, should help make sure planting and woodland creation are taken forward in line with Just Transition aims.

8.35 As noted above there could be an increase in travel in private vehicles to access woodland, if new areas are created. This is not the intention of the Strategy, which seeks to increase woodland in accessible areas. However, these are not the only places woodland will be increased, and some increase in travel by private vehicle is likely. This may also arise from Action 15, which supports promotion of woodland based tourism and recreation.

Mitigation for the adverse effects of the Strategy

8.36 **Embedded mitigation:** Climate change mitigation and adaptation were one of the main drivers of the strategy and consequently the Strategy includes actions in support of this aim. The aim of woodland expansion could result in emissions from planting. There also a need to reduce the ‘peak’ of climate forcing emissions as well as the total amount. There is the potential for short-term increase in emissions from the woodland creation targets included in this Strategy, due to soil disturbance and vehicle emissions linked to planting. The TWSEL aims to reduce this by support for natural regeneration (Policy 9: Seed and Tree Stock Sourcing).

8.37 **External mitigation:** East Lothian Council’s Climate Change Strategy¹⁰¹ sets out actions that the Council will take across many areas. The Climate Change Strategy is a live document, and will evolve in response to changing national and local policy. This document is likely to influence how the Council manages its land. The UK Forestry Standard¹⁰² has provisions on Climate Change, which will help mitigate some potential emissions from forestry; adherence to the standard is required for payment of government grants for woodland creation and forest management.

8.38 [East Lothian Council Plan 2022-27](#) includes as one of three over-arching objectives “respond to the climate emergency”. Many public bodies, including the Council, have a duty in exercising their functions, to act in the way best calculated to contribute to Scotland’s Climate Change Targets, and in a way that it considers is most sustainable¹⁰³. This means the Council must consider climate

¹⁰¹ <https://www.eastlothian.gov.uk/climatechangestrategy>

¹⁰²

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/687147/The_UK_Forestry_Standard.pdf

¹⁰³ Climate Change (Scotland) Act 2009

change targets and sustainability in looking after its own tree estate and through its actions as regulator.

8.39 **Project level mitigation:** At project level, the climate impacts should be considered including aspects such as choice of location, species, planting/creation techniques and soil types. Variations in design and/or location may help reduce emissions.

Secondary, Synergistic and Cumulative effects

8.40 **Positive:** There are likely to be cumulative positive long-term benefits to climate with the Scottish Climate Change Strategy, East Lothian Climate Change Strategy and many others on climatic factors due to sequestration of carbon dioxide in growing trees from woodland creation and planting of trees. The extra contribution of the TWSEL is likely to be minor, however the receptor is very sensitive.

8.41 **Negative:** There are many other sources of climate forcing emissions globally, arising from plans, projects and actions by individuals or organisations. The Strategy may give rise to some climate forcing emissions as noted above; these include short term emissions for long term benefit, such as from tree planting. Short term emissions are important as a higher overall peak in emissions could lead to known and unknown 'tipping point' type changes. Although it is the intention to reduce emissions, there may be some areas where there is an increase, for example car journeys to visit woodland. This will have cumulative adverse impact with all other sources of emissions globally. This will, in accumulation with all other sources of emissions, lead to the well known secondary and synergistic effects on other receptors which will occur due to climatic change (see information from the [Intergovernmental Panel on Climate Change](#)).

Conclusion – Climate Change

Climate Change Mitigation

8.42 The TWSEL aims to help achieve Scotland's Climate Change targets. Woodland creation is an area currently identified as lagging in terms of Scottish Government targets, and the TWSEL will help address this. The Strategy also encourages use of timber and wood products, which store carbon. There may be a small increase in car travel for recreation.

Adaptation

8.43 The effect of the TWSEL on adaptation is expected to be strongly positive. The Resilience theme is specifically aimed at this, both in using woodland and trees to increase the resilience of the area overall, and considering how to make the woodland itself resilient to our changing climate. The TWSEL will benefit the resilience of the area by supporting woodland creation where it can help reduce flood risk, reduce heating and/or provide shade and shelter in urban areas. The strategy aims to increase the connectivity and species diversity of woodland, supporting its adaptation and allowing for climate migration of species northwards and uphill.

Residual adverse impacts

- Potential for climate forcing emissions from an increase in car borne visitors for woodland recreation

13 MATERIAL ASSETS



13.1 Material assets can cover a wide variety of assets and includes built assets such as roads, railways, paths and electricity supply, water supply and wastewater management, as well as some aspects of land, including prime agricultural land and forest as a timber resource.

13.2 The Scoping Table below shows the issues considered relevant to this strategy. Land has value as a material asset, however both contamination and degraded land (vacant and derelict) and the food production capability of land are considered under ‘Soil’ above. Use of trees to shelter buildings to reduce the need for heating and cooling could save the use oil, gas &c, which are material assets. This is considered under ‘Climatic Factors’ due to the climate forcing potential of use of energy for space heating. Public spaces and greenspaces in urban areas are material assets, which trees could enhance. This is considered under ‘Population’.

Scoping Table 8: MATERIAL ASSETS	
Issue	In/Out
Promote the effective and sustainable use of forests and woodland	
Management of the forest resource	In
Timber building materials and wood and wood products as material (see ‘Climatic Factors – Timber and Wood’)	In
Safeguard and enhance existing natural and built resources	
Transport network	In
Scottish Waters drainage assets (see under ‘Water’)	In
Built environment	Out
Efficient use of land (Scottish Land Strategy aim)	In
Mineral reserves	In
Promote the circular economy	
Treatment of waste from forestry operations	In

Baseline and Issues – Material assets

Effective and Sustainable Use of Forests and Woodland

Management of the Forestry Resource

13.3 Timber is a valuable resource. There are areas of commercial softwood plantation at either end of the Lammermuirs, and also some hardwood production in more lowland areas. The Scottish Forestry Map viewer shows information relevant to commercial forestry, as well as felling licences. See [Scottish Forestry Map Viewer \(arcgis.com\)](https://arcgis.com)

13.4 The TWSEL contains policy encouraging the use of wood and wood products (Policy 5: Wood Products) and continued production of wood and wood fibre from existing productive woodlands (Policy 20: Productive Woodland), other than in areas where peatland restoration would be possible. TWSEL supports inclusion of a greater variety of species in line with the UK Forestry Standard, as the opportunity arises. The TWSEL also supports retention and protection of existing woodland in Policy 1.

13.5 While the strategy supports timber production on existing sites and where it can be produced in woodlands with multifunctional benefit, it does not seek significant expansion of forestry for primarily commercial purposes. If successful, the strategy is likely to result in timber production that is not significantly different from now, with perhaps a small increase in hardwood production. The effect is therefore considered neutral.

Safeguard and enhance existing natural and built resources

Transport Network

13.6 The transport system is essential to allow people to access goods and services and get to where they need or want to go.

Railways

13.7 Management of trees and vegetation alongside the railway is essential for its safe operation, as well as preventing damage to the line and overhead cables. Fallen leaves, branches or trees are a serious risk to the safe operation of the railway. Growing trees can also interfere with overhead railway power lines. Network Rail manages trees and plants growing within the railway corridor – between the railway and the boundary fence - to protect the asset and ensure its safe operation. They can also seek an Order from the Council where neighbouring trees are a hazard, requiring the landowner to make the tree(s) safe. Network rail aim to carry out its work with a respect for the habitats growing alongside the line, and look to NatureScot and the Woodland Trust for advice¹⁰⁴.

Trunk Roads

13.8 Trunk roads are the responsibility of Transport Scotland. In East Lothian, the A1 is the only trunk road. Transport Scotland have a duty to manage and maintain landscape areas within transport corridors to reflect local conditions and requirements without compromising safety. They must

¹⁰⁴ Network Rail website access 23/03/2023 <https://www.networkrail.co.uk/running-the-railway/looking-after-the-railway/vegetation-management/>

also protect wildlife and habitats that come into contact with their transport networks. Their policy is to enhance and protect natural heritage, and to build in adaptability to change.

Local Roads

13.9 Traffic from forestry operations and woodland recreation is very unlikely to significantly affect the operation of the transport network, though there may be noticeable forestry traffic on some local roads.

13.10 Increased tree planting alongside local roads could affect their safe operation due to an increase in falling and fallen leaves, trees and branches. Trees in the road verge can be a road safety hazard, while trees or shrubs can also affect sightlines. Leaves can also cause blocked gullies, which can increase erosion from flooding and consequently damage the road. Tree roots may also cause damage to footways and roads. In urban areas, fallen leaves and sticks can be a safety hazard to footway users. The existence of trees alongside the footway may affect actual or perceived safety for some users, reducing its usefulness as a route.

Effect of the TWSEL on the Transport Network

13.11 The TWSEL supports an increase in trees and woodland overall (Target 1, Action 2). It supports planting along road corridors for air quality and noise mitigation purposes (Action 20) as well as planting generally in urban areas. Target 4A seeks increasing tree canopy cover in urban areas. Action 5 provides for working with farmers and landowners to help reduce water run-off onto the Council's roads through woodland creation. The Strategy notes that road safety must be taken into account at project level, avoiding tree planting on verges.

13.12 Network Rail, Transport Scotland and the Council will continue to manage their assets to avoid an adverse impact from trees. Provided care is taken at the project level, or even with the planting of individual trees, there should be no direct harm to transport infrastructure. However there could be adverse indirect effects, resulting more from poor planning or maintenance at project level. Increased canopy cover is likely to lead to increased leaf drop. This could lead to issues of blocked drains and perhaps an increase in pedestrian accidents. If the increase in urban tree canopy is badly planned or maintained, pedestrian routes in particular could be perceived as dark or unattractive to use.

13.13 There should be positive effects from reducing surface water run off to roads (Action 4) and on the appearance of the road network from increased tree cover.

13.14 Overall the effect is likely to be mixed.

Built Environment

13.15 Trees can potentially cause damage to elements of the built environment including buildings, footpaths and service infrastructure both above and below ground. Wayleaves are often in place to allow service providers to reduce tree growth if necessary. Careful species and site choice can help avoid problems. Root barriers can be used to prevent root damage to structures and services from planted trees.

13.16 Although the TWSEL promotes an increase in canopy coverage and other planting in the urban area (Target 4), if good practice is followed as recommended, there should not be damage to the

built environment. Any damage that does occur is likely to be small scale and localised, and related to the specific details of the project rather than strategic direction.

13.17 This topic has therefore been scoped out.

Efficient use of land

13.18 Much of the land in East Lothian is highly suitable for a number of purposes - highly accessible and therefore attractive for development, well placed as a recreational asset and much of it is prime agricultural land. Some parts of East Lothian are supporting habitat for qualifying interest species of European Sites. The East Lothian Local Development Plan 2018 aimed to balance these competing priorities through allocation of development land, along with indicating through designations such as Green Belt and Countryside Around Town areas where development should not generally occur.

13.19 Land has varying capability for agricultural purposes, depending on the characteristics of the environment and soil. The James Hutton Institute classified land according to those of its characteristics that affect potential productivity – such as climate, soil, gradient, wetness, droughtiness and erosion potential - which cannot be changed through land management. This nationally consistent system has been and is useful in planning for and protecting agricultural land, however it is a static model. Climate change is expected to make more land become suitable for a wider range of crop growing

13.20 The TWSEL aims to integrate woodland expansion with retention of agricultural land and its food production capacity. Target 4 seeks an increase in farm woodland where this aligns with agricultural production. Policy 18: Woodland Creation within farmland states that woodland creation in Class 1 – 4.2 land should aim to complement and improve agricultural production. This should support effective use of land. Areas deficient in accessible woodland are also identified. This will help use land efficiently for recreation. The constraints mapping exercise overall shows guides woodland creation to suitable areas, supporting the efficient use of land.

Minerals

13.21 Mineral reserves are a finite resource. While woodland might not sterilise them it can make extraction more expensive and less acceptable in terms of environmental harm.

13.22 The western part of East Lothian lies on the Lothian coalfield. Despite considerable mine working effort in this area in the past, both deep and opencast, some shallow coal deposits may remain. There are a small number of coal-fired generation plants in the UK, though all are due to close before 2025. There is also some domestic use of coal. Coal burning has strong climate forcing effects as well as other emissions to air. Coal extraction can also cause environmental and amenity issues. It is unclear if it would be possible to extract the coal resource remaining in this area while meeting environmental and amenity objectives. While coal continues to be used however it may be that the most sustainable solution is to extract this in the UK rather than import. NPF4 allows for extraction of conventional fossil fuels in exceptional circumstances.

13.23 There are some other mineral resources in East Lothian, notably aggregate at Markle and Bangley Quarry, sand and gravel at Yester and possibly Skateraw, and limestone at Barns Ness. NPF4 policy is that development is only supported where there is an overriding need for the development and prior extraction of the mineral cannot reasonably be undertaken; or if

extraction of the mineral is impracticable or unlikely to be environmentally acceptable. A landbank of mineral supply should be maintained if possible within the market area in which they are to be used.

13.24 Woodland creation is not development, though it may make it less acceptable to extract minerals as valuable habitat and landscape features can be created. Within the life of this strategy, any woodland created will be only up to 10 years old. It will therefore be unlikely to have significant environmental value such that removal of minerals in the lifetime of the strategy would be unacceptable, however it might be less acceptable to extract them as the woodland matures. It is unlikely that owners of minerals with a foreseeable prospect of extraction would seek to create woodland on these sites. The effect on potential mineral supply is considered to be negative, but not significant. Woodland would not harm the minerals themselves.

Promote the Circular Economy

13.25 The circular economy where products are kept in use for as long as possible, and the material within it treated as a resource to be recovered, recycled and reused. This stands in contrast to the linear economy where goods are made, used and disposed of. Timber is a renewable resource that generates little waste that cannot be reused. For example brush that arises from forestry operations can be re-used for ecological benefit, while machine waste can be used in animal bedding.

13.26 Tree planting uses some products which are not easy to recycle. Plastic used in tree planting and forestry is a resource however it can end up being a waste stream. TWSEL Policy 4 encourages following the waste hierarchy in use of materials in tree and forestry operations, and treatment of waste arisings. This aims to lead to a reduction in use of single use products, especially those that are difficult to recycle, such as plastic tree tubes. This supports Scottish Forestry Strategy Priority 6, which includes increasing efficiency, productivity and the value generated from forest products and services.

13.27 Wood products at the end of their life, such as old newspapers or timber from demolition, should also be considered as a resource. The TWSEL notes the Council's continuing actions with regard to wood waste it produces and paper and cardboard waste it collects. Use of timber products, which can then be recycled, is also encouraged. Policy 4 encourages following the waste hierarchy in forestry and woodland creation and operations. Policy 5 encourages the use of timber and timber products.

13.28 Together with the innovation supported through Scottish Forestry Strategy, and Scotland's Zero Waste Plan, the strategy is expected to have positive effects on the use of forestry by-products previously treated as waste, and the circular economy.

Likely Significant Effects – Material Assets

13.29 Taking into account the issues identified above, SEA objectives for Material Assets have been identified. Vacant and derelict land is considered under 'Landscape'. The following table gives the SEA objectives and summarises the impact of each Theme:

SEA Objective, Material assets:			Theme 1 – Climate Mitigation	Theme 2 – Resilience and adaptation	Theme 3 – Biodiversity	Theme 4 – Community	Theme 5 - Economy	Theme 6 – Cultural Heritage	Theme 7 – Landscape Character
Manage, maintain or promote the efficient, effective or appropriate use of material assets									
SEA Indicator/ questions for assessment. Does the plan....?	KEY								
	Positive	+							
	Neutral	0							
	Unknown	?							
	Mixed/Variable	//							
Negative	-								
<i>Help to ensure forests and woodlands are sustainably managed</i>			+	+	+	+	0	+	+
<i>Promote the circular economy</i>			+	0	0	+	+	0	0

Commentary on Material Assets Indicators

13.30 Policy 7 of the TWSEL explicitly encourages sustainable woodland management in line with the UK Forestry Standard so the effect on this indicator overall should be positive. Policy 3 Woodland Creation encourages land managers creating new woodland to seek to reduce the carbon impacts in how the woodland is created. Actions 6 and 7 the adoption of an ash dieback plan and the management and replacement of ash trees in accordance with this, increases the likelihood that these trees will be managed in a sustainable way. Continuous cover management is encouraged, as is consideration of the potential for decreasing risk from wildfires and pests and disease. Policies and actions within the Biodiversity Theme are positive, as they aim to protect and enhance woodland of high nature conservation value. Addressing fragmentation will help sustain native woodland quality.

13.31 The ‘Community’ Theme includes an action for the Council to produce a tree management strategy for its own trees, and this will help support sustainable management of our own trees. The Cultural Heritage theme includes actions to encourage recognition and protection of trees with cultural heritage value. This contributes to the sustainable management of these trees.

13.32 The TWSEL includes actions that will have positive effects on promoting the circular economy. This encourages preservation of wood and other resources as material assets. Actions include Action 3: The Council will explore ways of increase use of wood and wood products, particularly locally sourced timber. Use of wood means fewer non-renewable resources are used. Policy 5 gives general support for the use and retention of timber and wood products, as well as the use of wood products that are from recycled material. Policy 4: Reducing Climate Forcing Emissions from Tree Planting and Forestry Operations promotes the waste hierarchy of prevent, reuse, recycle, recover, dispose. This aims to treat material as a resource rather than waste and make the best use of it possible. Policy 17 supports continued production of wood and wood fibre from

existing productive woodlands, so supporting a source of wood products. Action 18 proposes that the Council will draw up a tree management strategy for our own trees, which will include how to manage our tree and woodland resource to support the circular economy.

Mitigation – Material Assets

13.33 **External mitigation:** where proposals require planning permission, the policies of the development plan protect transport infrastructure. This would include proposals for tree planting as part of development. Policy T2: General Transport Impact requires that development has no adverse impact on road safety; the convenience, safety and attractiveness of walking and cycling; public transport operations, both existing and planned, including convenience of access and travel times; or the capacity of the surrounding road network to deal with traffic unrelated to the proposed development.. Policy T4: Active Travel Routes and Core Paths as part of the East Lothian Green Network Strategy protects the existing core path and active travel networks and ensures that new development does not undermine them.

13.34 There is statutory provision for wayleaves for infrastructure provided by statutory undertakers which allows them to protect their equipment from tree growth. This operators of electricity lines and similar assets can remove tree growth where it is likely to affect their asset. The existence of wayleaves prevents tree planting where it may cause such damage. The Council as Roads Authority can take action against trees or other vegetation that is a road safety hazard.

13.35 **Project level mitigation:** Woodland creation and tree planting proposals should consider potential for damage to existing material assets, including drinking water supply, roads and the built environment, taking into account the future growth of both roots and above ground parts of the tree.

Secondary, Synergistic and Cumulative effects

13.36 There will be indirect effects on the circular economy from reduction of flooding which will lead to less disposal of flood damaged items.

Conclusion – Material Assets

13.37 The effects of the TWSEL on material assets are varied. No negative effects were identified on the indicators though these do not cover effects on the transport, electricity or water management network. Sustainable management of woodland should increase, and the circular economy benefit, with a reduction in material being disposed at lower levels of the waste hierarchy. The effect on the transport network overall is likely to be neutral. There is a possibility of some local issues arising from leaves or others. However, the appearance of road routes including pedestrian routes should improve. This is likely to increase the use of pedestrian routes. However, there may also be occasions where an increase in trees are perceived as making pedestrian routes appear less attractive or unsafe, reducing their functionality.

13.38 Despite the inclusion of guidance on how to avoid damage to structures from tree planting, there is likely to be some increased level of damage to buildings and hard surfacing from trees and tree roots. This could come from planted trees where mistakes are made about their siting or that grow differently from expected, or where tree or hedge maintenance was intended but stops. There could also be an increase in local damage arising from self-seeded trees arising from an increase in woodland cover and urban canopy cover in particular.

Residual adverse effects: Material assets

- An increase in local damage to structures and hard surfacing due to an increase in self-seeded trees
- Increased urban tree canopy cover may make some pedestrian routes appear to some people to be less attractive or unsafe
- There may be an increase in maintenance of the transport network including gully/drain clearance required due to more leaves

14 CULTURAL HERITAGE



Introduction

14.1 Cultural Heritage is “an expression of the ways of living developed by a community and passed on from generation to generation. It can include customs, practices, places, objects, artistic expressions and values, aesthetic, historic, scientific, social or spiritual aspects¹⁰⁵”. It is everything created by people over time¹⁰⁶. It includes the physical evidence for human activity that connects people with places, linked with the associations we can see, feel and understand. It includes built and natural features as well as intangible heritage. Cultural heritage is central to our everyday lives and our sense of place, identity and wellbeing.

14.2 Some parts of the heritage are recognised by designation which brings a level of protection, including Scheduled Monuments, Listed Buildings and Conservation Areas. Battlefields and Inventory Historic Gardens and Designed Landscapes also have a level of protection. Some woodland and individual trees also have a value as part of the cultural heritage, some of which are protected through Tree Preservation Orders.

14.3 The Historic Environment section of Scotland’s Environment website¹⁰⁷ sets out pressures and challenges on the Historic environment. These include: development pressures, land use, maintenance, climate change (both mitigation and adaptation), sustainability, sea level rise and coastal change, pollution and visitors. The Historic Environment Scotland Policy¹⁰⁸ also notes the need to create and maintain place, and to recognise and manage the historic environment in a way that reflects our whole society as well as economic and societal change, and change in skills. It also mentions the need to take a holistic approach to the environment.

14.4 There is the potential for woodland creation and tree planting to affect some historic assets. Designed landscapes and battlefields are the mostly likely as they are large-scale designations

¹⁰⁵ Historic Environment Policy for Scotland [Historic Environment Policy for Scotland | Historic Environment Scotland](#)

¹⁰⁶ From Scotland’s Environment website accessed 28/09/2021 at <https://www.environment.gov.scot/our-environment/people-and-the-environment/historic-environment/>

¹⁰⁷ Scotland’s Environment Website accessed 5/10/2021 at [Historic environment | Scotland's environment web](#)

¹⁰⁸ Historic Environment Policy for Scotland [Historic Environment Policy for Scotland | Historic Environment Scotland](#)

often containing areas where woodland could be created. The balance of trees and built elements is also important for many of East Lothian’s Conservation Areas. There is legislation in place which protects Scheduled Monuments, and Listed Buildings being structures are not suitable for planting. Direct effects on these assets would therefore not occur regardless of the policies and actions of the strategy. There is the potential for indirect effects on all of these assets however. The TWSEL also has the potential to affect the historic environment through effects on historic landscapes and townscapes overall.

14.5 The Scoping Table below shows, with reasons, what existing issues are considered relevant to this strategy.

Scoping Table 9: CULTURAL HERITAGE	
Issue	In/Out
Mitigate the effects of development and visitor pressure	
Potential for the TWSEL to mitigate the impact of new built development on the traditional setting of towns and villages [this is also an issue for landscape]	In
Visitor pressure on trees as heritage assets	In
Avoid Land use change and tree planting harming the cultural heritage	
Potential for direct visual effects and indirect ‘setting’ effects on designated historic environment assets including Conservation Areas, Listed Buildings, Battlefields, Scheduled Monuments and local and Inventory Gardens and Designed Landscapes	In
Potential for change to historic landscapes overall	In
Potential for loss of undesignated (including unknown) archaeology	In
Potential for effects on intangible Heritage	??
Avoid physical damage (maintenance)	
Potential for physical damage to designated historic environment assets including Listed Buildings, buildings in Conservation Areas and Scheduled Monuments	Out
Preservation of heritage and ancient woodland and trees	In
Climate change/pollution	
Climate change and pollution are a threat to some elements of the historic environment. The TWSEL will mitigate climate change (see Climatic Factors) and air and water pollution (see ‘Air’ and ‘Water’) but will not otherwise affect these threats to the historic environment.	In

Baseline and Issues – Cultural Heritage

14.6 East Lothian has been settled and exploited continuously since at least the Neolithic period (c.5000 BC), leading to a rich and varied heritage. There are a high number of known Historic Assets, both designated and undesignated, and a high potential for further unrecorded remains of all periods to be present. The area also has a significant amount of intangible heritage value in

the form of local stories and traditions as well as references in art and literature. Evidence and remains of prehistoric farming, medieval industry, conflict, industrial and agricultural innovation and expansion as well as settlement from all periods survive within the area.

14.7 There are numerous designated assets throughout East Lothian: Listed Buildings, Conservation Areas, both Inventory and Local Gardens and Designed Landscapes, and Scheduled Monuments. The map below is intended to give an indication of East Lothian’s rich heritage. Further information on the assets can be obtained from Historic Environment Scotland at: Pastmap, here: <https://pastmap.org.uk/> and their portal: <http://portal.historicenvironment.scot/>.

14.8 Over time, some historic environment assets will naturally deteriorate even with no human intervention. Buildings will come into and out of use, landscapes will alter through management and land use change. Climate change will deteriorate sites and sometimes there will be active damage from people.

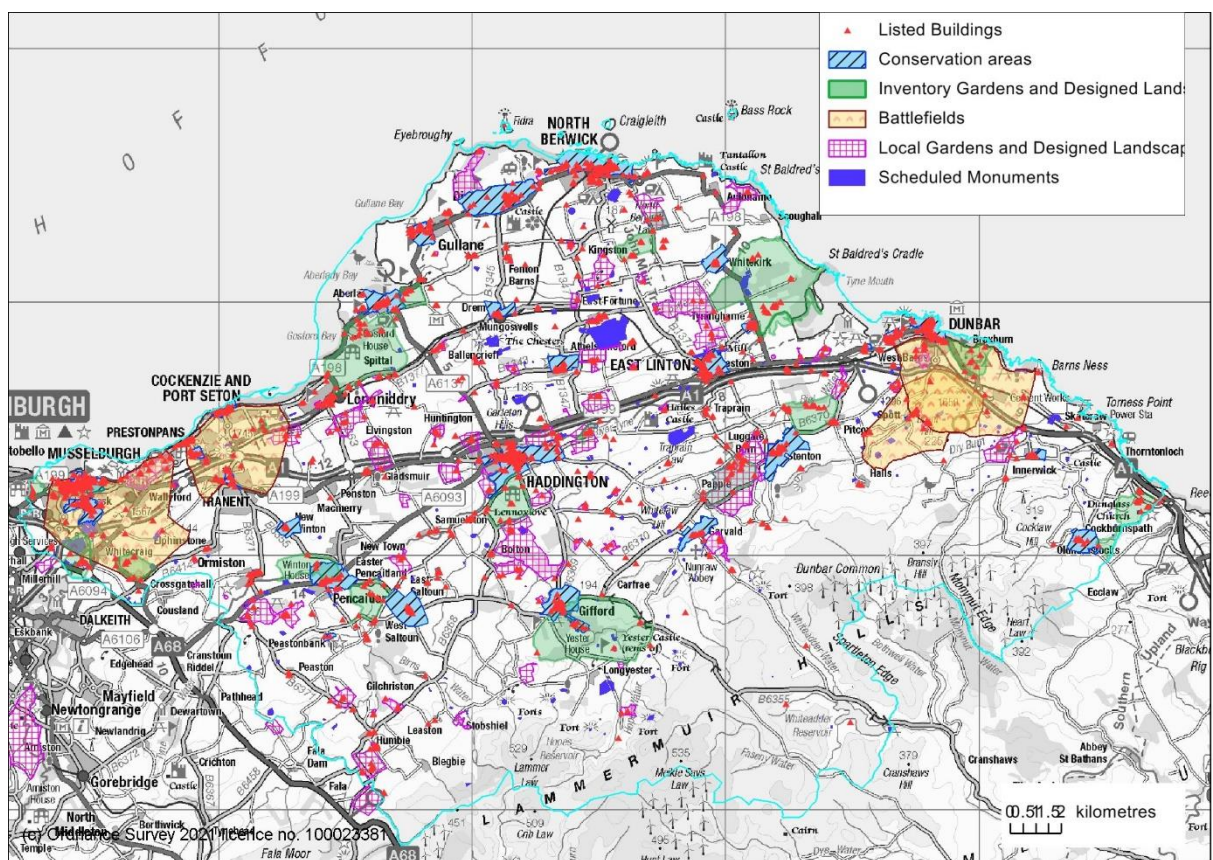


Figure 46: Designated Historic Environment Assets

Mitigate the effects of development and visitor pressure

Traditional setting of towns and villages

14.9 Changes to the economy and population and population distribution in Scotland have led to development pressure for housing and economic development in East Lothian. This has resulted in the growth of many of its traditional towns and villages, in some cases very considerable

growth. This development brings change to the setting of towns and villages and their townscape, for example new housing areas may lack the mature trees of the original towns and villages, and alter the traditional setting of the settlement. The TWSEL refers to the SPG on Design Standards for New Housing Areas. This aims to promote a harmonious relationship between new development and trees. Increasing tree canopy coverage (Target 4) is likely to help these new areas integrate into the landscape, so reducing the impact of new development on the traditional setting of towns and villages

14.10 Woodland creation could also affect the traditional setting of towns or villages where it changes an important element of the setting. For example, when a traditionally agricultural village is set among agricultural land, this shows the reason for the settlement being where it is and is part of its historic character. Trees may also obscure views of the built elements of towns and villages, harming their traditional setting in the landscape. This should be considered a project level.

14.11 The TWSEL contains guidance on tree planting in each town and village which aims to help reinforce its individual character, including its setting where relevant. It also refers to Conservation Area Appraisals which are being produced and will help identify places where tree planting should not occur, which in some cases includes setting.

14.12 Overall the effect will depend on what comes forward at project level and is difficult to predict overall.

Visitor pressure on trees as heritage assets

14.13 Some of East Lothian's trees are heritage attractions, while trees are an important part of Designed Landscapes which also draw visitors. Traditionally tourism is seen as a natural ally of the historic environment. However, this can be a double-edged sword if not properly considered. Heritage tourism can bring significant revenue into an area (heritage tourism day visitors brought in £171m to East Lothian in 2017/18. However, without considering the pressure of visitors in terms of aspects like erosion of sites, or visitor experience then this can quickly turn into a negative. Heritage which is biological such as trees may need particular consideration.

14.14 The TWSEL supports the celebration of heritage trees and woodland. Increasing prominence of heritage trees will increase visitor numbers to view these. Increasing visitor access or numbers could have a negative impact on the historic tree itself.

14.15 The TWSEL includes Action 26, which is to develop a series of tree trails for our towns and villages. The Strategy notes that any promotion of individual notable trees will have to be done carefully to avoid damage from visitors, and because many are on private land. The promotion of tree trails may help steer visitor pressure towards more robust sites. The TWSEL does advocate celebration of Notable Trees but by noting that promotion would have to be carefully done it is hoped that damage would be avoided. Overall the impact is considered to be neutral.

Avoid Land use change and tree planting harming the cultural heritage

Direct visual effects and indirect 'setting' effects on designated historic environment assets

14.16 Direct visual effects on a designated historic environment asset occur when the change takes place within the asset itself, for example within a battlefield landscape, a Conservation Area, or an Inventory or Local Garden or Designed Landscape. Indirect or 'setting' effects occur where

there are changes to the wider environs of an asset that affect how we appreciate and understand it.

14.17 Tree planting has the potential to have both direct and setting effects on some assets due to alterations in woodland cover and composition, or perhaps even the planting of an individual tree. There is the potential for both positive and negative effects.

14.18 Four major battles included on the National Inventory of Historic Battlefields have been fought in East Lothian. The Battlefields cover relatively large areas and have a high degree of intangible value for the area. The key landscape characteristics of a battlefield help us to understand how the landscape influenced the events of the battle particularly, and how the same features, topography, and landuse can be experienced today. For some of these battlefield landscapes the intervisibility of the certain points or openness of certain areas are important to the understanding of the battle.

14.19 Both Pinkie and Prestonpans battlefields have a high value to the area and beyond in terms of intangible heritage. The Battle of Prestonpans in particular has international recognition in terms of its cultural reach with numerous poems, songs and artistic works being associated with it. Dunbar 1 and 2 are perhaps less well recognised but also have some intangible value.

14.20 There are 25 Inventory Gardens and Designed Landscapes, as well as 151 recognised Local Gardens and Designed Landscapes. Some of these also cover relatively extensive areas, and often include woodland and tree plantings as part of the design. There is the potential for tree planting to directly impact on these sites if planted within the boundaries. Some of the gardens and designed landscapes include views and vistas to specific features of the surrounding landscape, which planting could adversely affect. However, it is also possible that the view or vista could be enhanced by planting to obscure modern intrusions. TWSEL also has the potential to improve Gardens and Designed Landscapes by encouraging restoration of the woodland and tree planting features of the original design. Policy 25 Protection of the Historic Environment seeks to protect Gardens and Designed Landscapes.

14.21 The TWSEL seeks restoration of PAWS, of which a number are within Historic Gardens and Designed Landscapes. If these sites were restructured this could have effects on the integrity of the site. In Victorian times explorers brought back plants from all over the world and the woods and tree planting as part of the designed landscapes were often a mixture of native and non-native. The potential for harm should be mitigated by Policy 25: Protection of the Historic Environment, which seeks to protect Historic Gardens and Designed Landscapes.

14.22 There are about 300 Scheduled monuments in East Lothian. These include numerous prehistoric forts, cairns, castles, standing stones; medieval remains such as Preston Tower and Seton and Dunglass Collegiate churches, coal mine at Birsely Brae and pottery and lime kilns, various enclosures, curcuses and ring ditches, pit alignments, as well as later remains such as East Fortune airfield. Tree planting has the potential to directly or indirectly harm Scheduled Monuments. Self-seeding from woodland or woodland understorey plants also has the potential to affect the monuments.

14.23 Any purposeful planting within a Scheduled Monuments requires consent from Historic Environment Scotland, which would not be granted were it to be harmful. The risk of direct harm

from tree planting is therefore not an issue for the TWSEL. The risk of self-seeded trees at monuments is likely to increase with increased woodland coverage in the vicinity. This could harm the monuments.

14.24 For some Scheduled Monuments increased woodland cover could harm their setting, such as where an open landscape is a feature of their setting, or where outlook is an important part of understanding of the monument. For example the lookout on North Berwick Law was positioned to watch for Napoleonic invaders in the Forth, and trees blocking this view would reduce this understanding. The Tithe Barn at Whitekirk would traditionally have kept an open setting to help avoid rodent damage to the stored grain. There also may be potential for some monuments to be enhanced by increased woodland cover, for example where the woodland would have been part of its original setting, or where it screens modern development.

14.25 The TWSEL shows Scheduled Monuments as 'Sensitive' in the opportunity mapping, highlighting that any planting in such areas would need to be very carefully considered, if it is suitable at all. Policy 24 Scheduled Monuments and Archaeological Sites and Policy 25 Protection of the Historic Environment seeks to protect cultural heritage assets.

14.26 East Lothian has 2662 Listed Buildings, located throughout the area though sparser in the Lammermuir area. Some of these Listed Buildings have extensive settings, which can be important both for understanding the building itself and for sense of place. As with Scheduled Monuments, there is potential for tree planting and woodland creation to affect the setting of Listed Buildings positively or negatively. There is also potential for an increase in self-seeding with an increase in trees and woodland, including in towns and villages where many of our listed buildings are. However this risk is mitigated by the responsibility of owners of listed buildings for their maintenance.

14.27 There are 32 Conservation Areas in East Lothian. Some of the Conservation Areas include the landscape setting of the village¹⁰⁹. While tree removal within Conservation Areas is subject to control, there is no control over tree planting. Tree planting and an increase in self-seeded trees in the urban areas of Conservation Areas or their landscape setting could potentially affect their historic character. The TWSEL advises that the tree planting within these areas should accord with the character of the area and the individual Conservation Area Character Statement, and some of the advice in the towns and settlement section covers Conservation Areas. This should help avoid the inappropriate planting of trees that harm Conservation Areas, insofar as the strategy can influence this.

14.28 Each asset and its setting (where applicable) is different. There is the potential for some of the assets to receive a direct visual effect from tree planting in that it would be physically possible to plant there, including in Conservation Areas, Battlefields and Designed Landscapes. It may be possible to enhance some assets or their settings using tree planting. For example, there may be places where there have historically been trees that could be replaced, or where trees have died or are coming to the end of their life, and would benefit from succession planting.

¹⁰⁹ Conservation Areas with landscape settings are Inveresk, Glenkinchie, New Winton, Pencaitland, East Saltoun, Gifford, Drem, Athelstaneford, Dirleton, Whitekirk, Stenton and Oldhamstocks

14.29 The TWSEL includes Policy 25 Protection of the Historic Environment, which provides that woodland creation, management, expansion or tree planting &c should aim to enhance the historic environment. The mapping includes Scheduled Monuments as Sensitive while Gardens and Designed Landscapes and Battlefields are mapped as Potential. 'Potential' does not mean that it is the intention that woodland will cover these areas but that it may be possible to increase woodland cover taking account of the constraint.

14.30 Even small scale planting of individual trees or woodland could affect cultural heritage assets, and there are generally no controls over this. There is enthusiasm for tree planting at the moment as individuals respond to the climate and nature emergencies. The TWSEL aims to guide this to locations where it will enhance rather than harm the cultural heritage. Its effects should therefore be positive overall.

Change to historic landscapes and townscapes overall

14.31 Changing a landscape which has not had significant tree cover, certainly in living memory, and reaching back to prehistoric times, has implications for the perception of the historic character of the area overall. Land use and land cover is constantly changing in response to people's need, for example current need to address climate change is leading to more woodland creation. The landscape shows evidence of our former needs and desires, for example planting Scot's pine for pit props, hedges to define field boundaries, yew trees in churchyards or the design of policy grounds of Estate Houses. Tree cover may also help understanding of previous events (such as battlefields). All of these go to make up the landscape as we see it now, often with strong historic element. Large-scale tree planting could affect the historic landscape overall.

14.32 Undesignated landscapes also have a historic value of place; local townscapes and landscapes. Although not cultural heritage 'assets' as such, street layout, settlement pattern, place names and styles of architecture forms part of the historic environment and can contribute to placemaking. Tree planting and woodland creation has the potential to affect the historic value of the landscape and townscape overall.

14.33 This is further discussed in 'Landscape'.

Loss of undesignated (including unknown) archaeology

14.34 In addition to the designated sites within the area there are over 600 other historic assets. These range from cropmarks through to industrial remains. This includes sites such as Scotland's earliest rail track. There is also the potential for as yet unidentified remains to exist throughout most of East Lothian (with the exception of areas affected by opencast mining). Tree planting, even on a small scale, has the potential to affect archaeological remains. The remains can be harmed by poorly planned and sub-standard cultivation, desiccation, root damage and disturbance, visitor erosion, burrowing animals, or chemical changes to the surrounding environment.

14.35 Larger scale afforestation is subject to screening for Environmental Impact Assessment, where this potential would be taken into account, and it is likely that prior to any large scale planting pre-determination fieldwork may be required. Archaeological potential would also be considered in assessing applications for grants for woodland planting. However, smaller scale planting may not consider the effect on remains, and it can also be that remains are not protected as intended when schemes are consented.

14.36 The TWSEL in Policy 24: Scheduled Monuments and Archaeological Sites encourages the identification and recording of archaeological remains. Where consent or government funding is required for woodland creation, the UK Forestry Standard will require consideration of archaeology, which will mitigate the impact of an increase in woodland creation. The TWSEL highlights the issue, which may reduce inadvertent loss of unknown remains. However the encouragement of woodland creation may still lead to some losses.

Intangible heritage

14.37 Tangible and intangible heritage are interlinked. By its very definition the intangible element is less obvious than the physical assets or landscapes but it is equally as important to how we appreciate the character of the area. The Intangible heritage aspects can be harder to identify and protect than physical assets.

14.38 There are stories around some of the trees in East Lothian – the hawthorn tree behind which Colonel Gardner hid at the battle of Prestonpans, the Yew under which John Knox and George Wishart are said to have preached at Ormiston Hall, the yew at Whittingehame where Bothwell allegedly plotted the murder of Queen Mary Queen of Scots husband, Darnley. There are many trees planted around East Lothian as commemoration or memorial.

14.39 The TWSEL aims to protect notable trees which are linked to events and so support the intangible element. It also supports the passing on of traditional skills and knowledge. Policy 22 supports the retention of Notable Trees. These include trees with a historic interest. Action 26 is to develop a series of tree trails celebrating East Lothian's tree heritage. Action 27 encourages recording of trees with cultural value. The TWSEL supports the legacy of The Queens Green Canopy which has commemorative value; the Climate Forest itself also has cultural and societal associations.

14.40 Overall the effect is likely to be positive.

Climate change

14.41 One of the emerging pressures on the Historic Environment is our changing climate and related sea level rise. The full impact of this is not yet understood but we are seeing impacts upon both built and buried heritage. The impact of TWSEL is expected to have positive effects on climate change (see Climate section above). Although its contribution is small, combined with the effect of many other strategies and actions, this will be positive for historic assets.

14.42 The TWSEL supports tree planting at the coast as part of coastal mosaic habitat, which may have some potential to reduce coastal erosion including that caused by sea level rise, though clearly there are limits to what can be achieved in this way. Both climate change mitigation and coastal erosion are considered in 'Climatic Factors'.

Avoid Physical Damage (maintenance)

Physical damage to designated historic environment assets

14.43 It is not the intention of the TWSEL to deliberately physically harm designated built assets through planting, although this could arise by self-seeding, which is more likely with more trees. Root barriers can be used to prevent root damage to structures and services from planted trees.

It is not possible to predict the extent or location of this and consideration of individual assets is Scoped Out.

Preservation of heritage woodland and trees

14.44 Woodland and trees in East Lothian tell a tale of life in former times just as do elements of the built heritage. Ancient woodland is part of our heritage as well as having value for biodiversity. As Steven and Carlyle noted of Scotland's native woodlands "to stand in them is to feel the past"¹¹⁰. Some individual trees also have considerable heritage value, for example the Ormiston Yew, and the Whittingehame Yew.

14.45 The TWSEL echoes the protection given to ancient woodland in National Planning Framework 4 and the Control of Woodland Removal Policy. Policy 1: Retention of woodland, trees and hedges/hedgerows supports retention of ancient woodland, and this is also identified as Woodland Of High Nature Conservation Value, adding to its protection. TWSEL Action 27 encourages the recording of important individual historic, ancient and veteran trees. These trees may also benefit from increased awareness of their value through their inclusion in the Strategy. The use of traditional techniques such as hedge laying and coppicing are encouraged. Overall, the TWSEL should help preserve heritage woodland and trees.

¹¹⁰ Steven, H.M and Carlisle, A. (1959) "The Native Pinewoods of Scotland". Oliver and Boyd, Edinburgh

Likely Significant Effects – Cultural Heritage

14.46 With regard to the issues identified above, the following SEA objectives for Cultural Heritage have been identified and the impacts appraised by theme:

SEA Objective, Cultural Heritage:									
Preserve or, where appropriate, enhance East Lothian’s historic environment									
SEA Sub-objective/ questions for assessment. Does the plan....?	KEY	Theme 1 – Climate Mitigation	Theme 2 – Resilience and adaptation	Theme 3 – Biodiversity	Theme 4 – Community	Theme 5 - Economy	Theme 6 – Cultural Heritage	Theme 7 – Landscape Character	
	Positive								+
	Neutral								0
	Unknown								?
	Mixed/Variable								//
Negative	-								
<i>Avoid adverse impacts on heritage assets, including archaeological sites and monuments</i>		-	+	//	//	0	+	//	
<i>Protect and deepen the appreciation of East Lothian’s historic woodlands and notable trees</i>		0	0	+	+	+	+	+	

Commentary on Cultural Heritage Indicators

14.47 The TWSEL aims to protect heritage assets through Policy 25: Protection of the Historic Environment which notes that woodland creation, management, expansion or tree planting should aim to enhance and not harm the historic environment. The mapping of constraints to woodland expansion includes some of these assets to show that there are sensitivities that need to be considered. This will help avoid harm.

14.48 However, when many of East Lothian’s historic assets (Listed Buildings, Conservation Areas, Gardens and Designed Landscapes, Battlefields, (though many Scheduled Monuments are earlier)) were originally created, the landscape was less treed than it is now. East Lothian is rich in historic assets (and other constraints to planting) and the new woodland planting has to go somewhere. It is therefore almost inevitable that if more trees are inserted into landscape and townscape, the setting of some heritage assets will change from how they were originally. Views or vistas from them may also be affected. The potential for harm to settings from woodland creation is the main reason for scoring the ‘Climate’ theme as ‘negative’ and other Themes that

include woodland creation (for habitat connectivity, or recreation) as 'mixed'. For Gardens and Designed Landscapes, and Battlefields, the assets themselves may experience change though some of this, such as replacement of coniferous planting with native woodland, is likely to be positive.

14.49 There could be direct physical damage to some cultural heritage assets arising from self-seeding from greater woodland coverage, or from trees that are poorly positioned or maintained.

14.50 Action 7 is for a plan for the landscape scale replacement of Ash trees. This will take heritage assets into account in replacement planting, and help restore some of the traditional woodland lost to this disease. The effect of this on heritage assets is therefore likely to be positive.. Restoring PAWS to native woodland (Target 3) is also likely to benefit heritage assets, as this woodland is not native and its alien and often regimented appearance can adversely affect assets such as Designed Landscapes, as well as setting of heritage assets. Action 28 promotes positive management of Gardens and Designed Landscapes, which should be positive for this asset.

14.51 Most of the Themes have positive effects on protecting and deepening the appreciation of East Lothian's historic woodlands and notable trees, the 'Cultural Heritage' Theme being the main one. Part of the aim of the 'Cultural Heritage' section is to celebrate the role of trees and woodland as part of our cultural heritage. The 'Cultural Heritage' theme Target 6 is to improve recognition and protection of trees with cultural heritage value. The development of tree trails (Action 26), recording of important historic trees (Action 27), and promotion of positive management of historic gardens and designed landscapes (Action 28) support this indicator. Protection of ancient woodland, which is pursued by the Strategy is important as it is necessary to allow people to experience being within it, deepening their appreciation of this woodland type.

14.52 The Biodiversity Theme includes Policy 8: Protecting the Biodiversity Value of East Lothian's Woodland. This is positive for this indicator as it encourages appropriate management of historic woodland types such as orchards and parkland woodland. Retaining such woodland means it can be appreciated. Completing the Ancient Woodland Survey for East Lothian (Action 8) also supports this, as does mapping hedgerows (Action 12) and developing a plan for them (Action 13). Mapping of orchards, parkland and wood pasture as part of Action 8 will help improve the recognition of these historic treed areas. Positive effects were identified from the Landscape theme, including from Action 31 which supports managed replacement of trees important to townscape character.

14.53 Within the Economy Theme, promotion of woodland based tourism and recreation (Action 15) and tourism enterprises linked to woodland (Action 16) is also likely to increase appreciation of East Lothian's historic woodland and notable trees. The Community Theme includes an action to promote access and enjoyment of woodland for all (Action 17) which again supports this indicator. Action 18 within this theme encourages those preparing Area Partnership Plan and Local Place Plans to include proposals for trees in their area. This should help identify and protect trees that have historic meaning to people in East Lothian's communities.

Mitigation – Cultural heritage

14.54 **External mitigation:** There are some specific existing projects and proposals for enhancement of the historic environment. Historic Environment Scotland has a programme of funding for

historic Town Centres, the Conservation Area Regeneration Schemes, which funds works in those areas. A council driven project to improve the heritage infrastructure at Prestongrange Industrial Heritage Museum currently underway. The East Lothian Council Area Partnerships also take action locally to improve various aspects of the historic environment, as do some voluntary groups. Scotland's Garden and Landscape Heritage aim to promote and protect Scotland's garden and designed landscape heritage.

14.55 The UK Forestry Standard¹¹¹ has provisions on the Historic Environment as well as a supporting guideline, which will help mitigate some effects. Adherence to the standard is required for payment of government grants for woodland creation and forest management.

14.56 Where proposals require planning permission, legislation and/or the policies of the East Lothian Local Development Plan 2018 and National Planning Framework 4 protect cultural heritage assets including Scheduled Monuments, Battlefields, Gardens and Designed Landscapes, and Listed Buildings, and for some assets, their settings, as well as archaeological sites. The development plan also contains policy on loss of trees and woodland on development sites (Policy NH8). Any works within the boundary of a Scheduled area also require consent from HES, including planting; separate consent is also required for some works to listed buildings and their settings. Some trees with historic associations are protected through Tree Preservation Orders or their location within a Conservation Area. Ancient woodland has policy protection from felling or development.

14.57 The Council also has powers to require the repair of Listed Buildings, and has exercised these to secure the repair of Harlaw House, Prestonpans, however resource and other issues mean use of these powers is a last resort.

14.58 **Embedded mitigation:** Policy 25: Protection of the Historic Environment.

14.59 **Project level mitigation:** The effect on setting of the heritage assets should be considered. Consideration should be given to protection of undesignated archaeology in carrying out tree planting and woodland creation. It is also important that there is community involvement to make sure that the history of the place continues to connect with those who live there, and that the heritage value of trees is not lost. Reference is made in the Strategy to Conservation Area Statements and Appraisals and these should be referred to as they become available. This will help make sure that new planting reflects the historic value of Conservation Areas.

Secondary, Synergistic and Cumulative effects

14.60 **Positive** Any positive effect on climate change, cumulatively with other plans will help avoid damage to cultural heritage assets from extreme weather events and sea level rise. Improvements to air quality, cumulatively with other plans, will also help avoid damage to assets from e.g. acid rain.

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/687147/The_UK_Forestry_Standard.pdf

Conclusion – Cultural Heritage

14.61 The Cultural Heritage section of the strategy aims to ‘celebrate the role of trees and woodland as part of our cultural heritage and protect our cultural heritage assets from harm from trees’. The TWSEL has policy on notable trees, protection of the historic environment and archaeology. It also supports the passing on of traditional skills and knowledge. Detailed advice at settlement level and the production of Conservation Area appraisals will help make sure the traditional setting and valued historic elements of towns and villages are not harmed by trees. Through the constraints mapping, the Strategy has identified as ‘sensitive’ or ‘potential’ those designated assets where tree planting and woodland creation could cause most harm.

14.62 As East Lothian was formerly less treed, increased tree and woodland creation could bring changes which may be or be perceived by some as being negative on aspects of the cultural heritage. Alteration to some heritage assets or their settings may occur. This may be direct in the case of battlefields, Conservation Areas and Gardens and Designed Landscapes, or indirect, which could also affect Listed Buildings and Scheduled Monuments. There may be some change to the traditional setting and townscape of some of our towns and villages which affects their traditional appearance

14.63 The Strategy encourages site specific project work to identify constraints. It notes that, in line with the UK Forestry Standard Historic Environment section, proposals for woodland planting and restructuring should take account of the historical character and cultural values of the landscape and policies associated with historic landscapes, battlefield sites, and gardens and designed landscapes. Together this should minimise any residual adverse impacts on setting of some heritage assets from woodland creation or tree planting in towns and villages.

14.64 The ‘Cultural Heritage’ theme, and the actions specifically aim to benefit the cultural heritage in relation to trees and woodland. This includes improving recognition, recording and protection of trees with cultural heritage value, and promotion of positive management of Gardens and Designed Landscapes. The Strategy also aims to strengthen protection of Ancient Woodland, which can sometimes include signs of historic management and in itself is an important part of our heritage. Traditional types of woodland such as parkland, orchards and hedgerows are also promoted. There are likely to be some positive effects on the historic landscape from actions under other themes, including through implementation of replacement planting for ash dieback, which would otherwise cause significant impacts to this historic appearance of some parts of the landscape.

14.65 Overall, the effect on cultural heritage is likely to be positive.

Residual adverse effects Cultural Heritage

- An increase in trees and woodland will bring landscape change: as the area was less treed when most cultural heritage assets were created, this could impact on them

15 LANDSCAPE



Introduction

15.1 Landscapes play a large part in forming identity and distinctiveness of place. Good landscapes support quality of life and encourage us outdoors. They also have economic value for tourism, attracting economic development and helping promotion of brands. Poor and degraded landscapes restrict social and economic opportunity, and adversely affect quality of life. Landscapes can change when open ground, woodlands, wetlands and other habitats are fragmented or replaced by buildings, roads, utilities, and other forms of development. Woodland creation or removal can also significantly alter landscape.

15.2 The spirit of a landscape comes from the play between its geology and topography, vegetation cover and land use. Nowhere stays the same forever. Good landscapes can become degraded, poor ones improved. Places must evolve to balance the needs of environment, community, and economy. Professor Brian Mark Evans warns “Landscape change is slow and pernicious: it is cumulative, and when finally obvious to all is hard, if not impossible, to reverse¹¹²”. Pressures on the landscape in Scotland (summarised from Scotland’s Environment – Landscape¹¹³) include both climate change itself and our policy response to it, including the emphasis on onshore renewables, flooding, loss of land to the sea, impact of changing temperatures, drought, and potential spread of pests and pathogens. The national (and local) target for increasing tree cover will also have a significant impact. Land use, and intensification of land use and management is a pressure, including a move towards agricultural monoculture driven by focus on maximising yields and producing cheap food. Incremental and ongoing development is also altering the landscape; housing, expansion of settlements, upgrading roads, telecoms and others.

15.3 Landscape is one of the Themes of the TWSEL, with the aim to “use trees to help retain and enhance the distinctiveness of landscape and settlement character within East Lothian”.

15.4 The Scoping Table below shows, with reasons, what existing issues were considered relevant to this strategy. The impact on Inventory Gardens and Designed Landscapes and Local Designed

¹¹² Quoted in “Landscape for Scotland” Landscape Institute (undated) <https://scotland.landscapeinstitute.org/wp-content/uploads/2017/12/Landscape-for-Scotland-2017.pdf>

¹¹³ Summarised from Scotland’s Environment – Landscape at <land-landscape.pdf> (environment.gov.scot)

Landscapes is recognised as relevant for landscape, however this is considered under ‘Cultural Heritage’.

Scoping Table 10: LANDSCAPE	
Issue	In/Out
Protect and enhance the quality of landscapes and townscapes	
Protect the special qualities and features of Special Landscape Areas	In
Protect the interest of the Green Belt and Countryside around Towns areas	In
Preserve TPO trees and woodland	In
Protect and enhance the distinctiveness of local and regional landscape character	In
Protect and enhance the distinctiveness of townscape and settlement character	In
Address vacant and derelict land	In
Conserve geological heritage	
Avoid impact on sites designated or identified for their geological interest: Geological SSSIs, Geological Conservation Review Sites and Local Geodiversity Sites	In
Avoid loss of visual appreciation of geological features	In

Baseline and Issues

Protect and enhance the quality of landscapes and townscapes

Special Landscape Areas

15.5 Special Landscape Areas replaced Areas of Great Landscape Value as the local landscape designation in 2018. There are 32 Special Landscape Areas – most of the coast and Lammermuir area is designated, along with areas of river valley and agricultural land in the lowlands. Overall, these areas cover a significant proportion (just under half) of East Lothian. The purpose of the designation is to safeguard and improve particularly valued landscapes and landscape features; to protect some of the most important landscape settings for recreation and tourism; and to promote understanding and awareness of the distinctive character and special qualities of the landscapes.

15.6 The Special Landscape Area series as a whole was designated with the intention of ensuring that each of the main landscape types that characterise East Lothian were represented and to include:

- all significant rare features or a representative part of an extensive feature;
- the places with the strongest scenic and sensory qualities;
- areas with important viewpoints or landmarks, or are important in views;
- historic landscapes and those with strong cultural association.

15.7 East Lothian's Special Landscape Area SPG includes an appraisal of each of its Landscape Character Areas. It includes a Statement of Importance for each Special Landscape Area describing its special qualities and features, issues for that area and giving guidance for development. The Statements of Importance include Management Guidelines to enhance the areas.

15.8 In some SLAs, woodland creation would be welcome to reinforce character, while in others openness is an important feature which could be harmed by creation of woodland in inappropriate places. Inappropriate species choice also has the potential for harm. If this occurred this would not only harm the SLA itself but also the effectiveness of the SLA designation in achieving its aims overall.

15.9 The TWSEL does not identify Special Landscape Areas as sensitive on its mapping. Instead the TWSEL aims to avoid harm to these landscapes by drawing out relevant advice from their Statements of Importance within the Landscape Theme. This should help guide woodland creation to locations where it would enhance the Special Landscape Areas. The TWSEL also includes Policy 27 which provides that the interest of Special Landscape Areas should be taken into account in woodland proposals. This should help avoid harm. Overall, the effect of the TWSEL on SLAs is expected to be positive.

Green Belt

15.10 The purposes of the Green Belt were set out in the East Lothian Local Development Plan 2018 and are now shown in NPF4. These are that:

- Development is directed to the right locations, urban density is increased and unsustainable growth is prevented.
- The character, landscape, natural setting and identity of settlements is protected and enhanced.
- Nature networks are supported and land is managed to help tackle climate change.

A purpose from the East Lothian Local Development Plan 2018 which is not contradictory to this is to provide opportunities for access to open space and the countryside.

15.11 A Report, "Edinburgh Green Belt, Landscape Character Assessment" was carried out in 2008. The purpose of the report was to characterise the landscapes within the Greenbelt and inform decisions on its boundaries. Relevant landscape issues identified in this were included in the Landscape Character Area review section of the Special Landscape Area SPG. Issues included:

Newhailes The role of perimeter woodland and parkland trees in the integrity of the landscape, and of the perimeter woodland in supporting the identity of Musselburgh and Joppa, and landscape separation between them and Newcraighall as a robust landscape and physical boundary. The study noted that woodland links to the surrounded areas could be enhanced.

Musselburgh Golf Course The mature trees and open green space close to the River Esk and Musselburgh are of scenic value and these provide an attractive landscape setting to the historic settlement of Inveresk. Planting could be simplified and a more naturalistic character to the course created as this would enhance the visual association with the River Esk and improve scenic value. Broadleaved trees of a more substantial scale should be planted to replace small ornamental species. While the core of this landscape is largely screened from view from major roads, it is seen

from the railway. Tree belts on the southern periphery of the golf course are visible from the A1. Scots pine tree belts provide a screen against the A1 and recent housing development. Woodland here connects to the network associated with the River North Esk. Small-scale potential to link internal generalist woodland to the wider Forestry Habitat Network.

Falside Hill Slopes These farmed north-west facing hill slopes have a distinctly open character. The smooth elongated slopes of Falside Hill provide a distinct backdrop to settlement aligned against the Firth of Forth and the flat farmland which forms their immediate hinterland. The hedgerows are intermittent in places and there is little woodland and few field trees. Potential enhancement includes management of roadside trees and hedgerows, as well as planting of additional trees, hedgerows and woodlands. The area contains only small isolated areas of broadleaved and generalist network connecting to Carberry policies. The role of the area in providing accessible open space could be enhanced through general landscape improvements such as tree/woodland planting, creating viewpoint seating areas and safe footpaths along minor roads. There is limited forestry habitat network potential other than to Carberry.

Smeaton farmland The landscape is characterised by large open arable fields and extensive views toward Edinburgh. The landscape is relatively unwooded and the large disused tip located towards Carberry is the most distinctive landscape feature. The individual landscape features of hedgerows and field boundaries, and the small areas of woodland are not highly maintained. At Thornybank the boundary is partly reinforced by the wooded edge and there is some woodland at the edge of Whitecraig. The area contains a key link along the Penicuik – Musselburgh foot and cycle way, which includes some broadleaved specialist woodland. There are also pockets of fragmented woodland generalist network. Links between the fragmented areas of woodland could be enhanced to create a connection to Carberry.

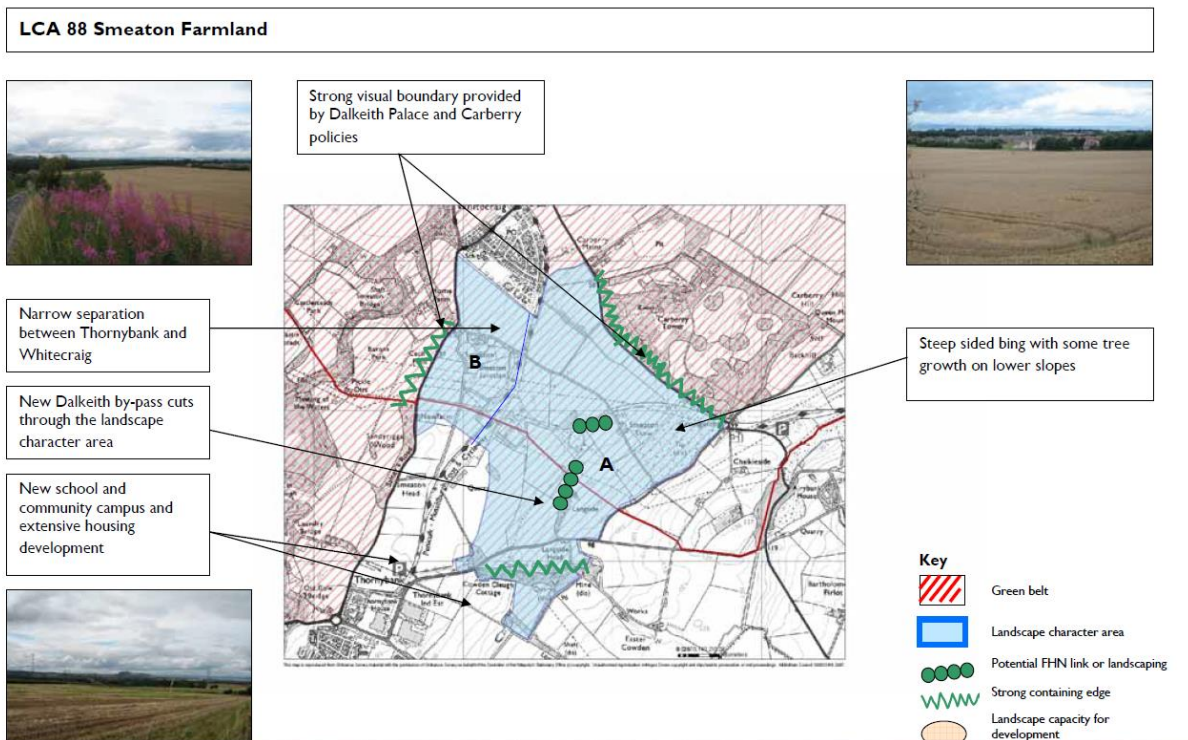


Figure 47 Smeaton Farmland, extract from Edinburgh Green Belt Study (SESPLAN, 2008)

Wallyford Farmland This extensive area of intensive farmland, is dissected by major communications including the A1 and East Coast Railway and has a fragmented character where it abuts settlement, limiting its integrity. The arable farmland is well managed though hedgerows are intermittent in places. There is little woodland and few field trees, other than extensive woodland planting undertaken to provide a robust containing edge to settlement edges. There is little connectivity with the native woodland habitat network. The role of the area in providing accessible open space could be improved through general landscape enhancement of farmland and planting of woodlands which could deaden noise from transport corridors. Enhanced connection along the A1 would improve the connectivity of this area.

Old Craighall Farmland Potential for enhancement includes restoration of railway sidings and former tips, as well as planting of new woodlands, especially designed to strengthen settlement boundaries. Further woodland coverage alongside the A1 road would substantially increase the size of the woodland habitat network in the area; to neighbouring areas in the north (Brunstane) and southwest (Dalkeith Policies).

15.12 TWSEL Policy 27 requires that the landscape interest of the Green Belt should be taken into account. Woodland creation is generally in line with Green Belt objectives in particular supporting nature networks and enhancing the natural setting of settlement. Action 28 promotes positive management of Garden and Designed Landscapes, such as Newhailes. Inventory and local Gardens and Designed Landscapes are identified as 'Sensitive' on the TWSEL mapping. This will help draw attention to their special qualities as designed landscapes. Promotion of woodland creation for habitat migration, marked as 'ELC Strategic Connections' will enhance the landscape of the Green Belt, as will Woodland Expansion of the Central Scotland Green Network woodland network. Overall the effect on Green Belt is likely to be positive.

Countryside around Towns areas

15.13 Countryside Around Towns (CAT) areas were designated for the first time in 2018. Further guidance on these areas is given in ELC's Countryside and Coast SPG¹¹⁴. The three main objectives for CAT areas are to conserve the landscape setting, character or identity of the particular settlement; to prevent the coalescence of settlements; and, where it can, provide opportunity for green network and recreation purposes. The Council has designated CAT areas around Tranent/Prestonpans/Cockenzie Port Seton/Longniddry, Ormiston, Haddington, Aberlady, Gullane, Dirleton, North Berwick, East Linton, and West Barns/Belhaven.

15.14 Pressure for development is an issue for both Green Belt/CAT areas, and is the main reason for their designation.

15.15 Tree planting in the CAT areas is likely to be positive for their objectives as it can support recreation, help prevent visual coalescence and if well sited and designed can improve landscape. However, care is needed at project level to make sure woodland creation does not

¹¹⁴ East Lothian's Countryside Around Towns SPG, here: https://www.eastlothian.gov.uk/downloads/file/28998/countryside_and_coast_spg

obscure key views or alter important aspects of the setting. Safety and perceived safety should be taken into account to avoid deterring recreation by making the countryside appear less welcoming.

- 15.16 Many of the CAT areas include areas of farmland, which can be an important element of the landscape setting of the area. Policy 21: Woodland Creation within Farmland suggests that woodland creation should aim to complement and improve agricultural production. As these arable fields are mostly prime agricultural mass planting here would be unlikely to fit with this policy. Where the CAT includes a Garden or Designed Landscape, Policy 25 provides that woodland creation should aim to enhance this feature. This will also support the landscape of the CAT.
- 15.17 At Dunbar, there is a small CAT between Belhaven and West Barns. The TWSEL supports woodland creation in this area as it is within the Secondary zone for Core Woodland (Native Woodland mapping). Woodland creation here would help with the CAT objective of preventing coalescence.
- 15.18 At East Linton, there are important views over farmland. The TWSEL supports woodland creation around the Tyne, which would not harm the setting of East Linton; views of the Preston Mill across the floodplain and from Pencraig Hill should be considered at project level. The North Berwick CAT mainly consists of farmland and the North Berwick Law. The TWSELs Native Woodland mapping supports woodland creation around the eastern part of the base of the Law. Tree growth here would not harm the landscape setting of North Berwick or the Law. At Dirleton the Native Woodland mapping encourages woodland creation as a secondary opportunity Native Woodland zone to the south of Dirleton Castle and on the western entry to the village. Woodland creation to the south of the Castle would have the potential for adverse effect on the landscape setting of the village.
- 15.19 At Haddington 'ELC Strategic Connections' are shown. Woodland in association with the Tyne and other riparian areas, and Gardens and Designed Landscapes is encouraged. This would enhance the CAT landscape.
- 15.20 Gullane CAT mainly consists of arable farmland. This area is included within the area where coastal mosaic is encouraged at the strategic level. Much of this area is sensitive due to SSSI designation but some appropriate woodland creation may be possible within this. This would accord with the landscape aims of the CAT.
- 15.21 Around Blindwells, Riparian Zones are shown, and this area is also a focus for structural planting in association with development at Cockenzie/Blindwells. Additional woodland planting will enhance the area around Blindwells. This will enhance the landscape setting of the surrounding towns and villages.
- 15.22 Overall, provided care is taken at project level, the TWSEL is likely to either benefit or at least not harm CAT objectives.

TPO trees and woodland

- 15.23 Trees and woodlands covered by Tree Protection Orders are protected from being felled or having other works undertaken without permission from the Council. These trees are therefore

not expected to be at risk from felling. Lack of good tree management is an issue for some of the TPO areas. The TWSEL encourages better tree management. It should avoid changes to hydrology and drainage through tree planting that cause harm to TPO trees and woodland.

15.24 Tree Preservation Orders bring a considerable level of protection for trees from direct action against them. The main threat to TPO trees is damage. This can come from damage to its roots or damage to its trunk and crown through inappropriate development too close to the tree which can include changes to watercourses. Lack of appropriate management of woodlands can also be a threat leading to trees growing too close together and suppressing or out competing each other. The third threat is diseases such as ash dieback disease.

15.25 The TWSEL will not affect the protected status of TPO trees as they are protected by existing legislation. Policy 7: Sustainable Woodland Management encourages good management of woodlands which includes some TPO trees. The TWSEL includes advice on managing ash dieback and links to the Ash Dieback Strategy. The TWSEL is therefore expected to be positive for TPO trees.

Local and regional landscape character

15.26 The European Landscape Charter values all landscapes. It is important to retain diversity and distinctiveness of different landscape types at local, regional and national level. Landscape character assessment helps this process by picking out the key characteristics defining the landscapes. NatureScot have recently carried out a National Landscape Character Assessment Review (NLCAR) describing the landscape types¹¹⁵.

15.27 The Council has also carried out a recent Landscape Character Area (LCA) boundary review published as part of the Special Landscape Area SPG. The Council's Landscape Character Area Review identified Landscape Character Areas in more detail than the National Landscape Character Assessment Review. The Landscape Review includes Management Guidelines for each area some of which are relevant for planning of tree planting. For example the Guidelines for the Northern Coastal Margins include to seek to ensure long-term management of key estate landscape features, retain the wide-open character of sandy beaches and their immediate hinterlands including at Gosford and Seton sands, including avoiding extensive woodland plantation, which could affect this character.

15.28 The East Lothian Landscape Character Area Review also defined some regional landscape features/elements that characterise Eastern Coastal areas of Lowland Scotland, the Central Lowlands and the Southern Uplands of South Scotland. Retention and reinforcement of these features will help maintain the distinctiveness of these areas in relation to the rest of Scotland and the UK. The aim is to avoid an adverse impact on these features and to strengthen this regional character where possible.

15.29 The pressures on the landscape identified in Scotland's Environment – Landscape mostly apply in East Lothian. There is pressure from built development and land use. Much of the land is in agricultural use, often in larger fields. Although there is some variety – there is usually wheat, barley and rape grown, along with some vegetables – this is perhaps less so than in former times.

¹¹⁵ See <https://www.nature.scot/professional-advice/landscape/landscape-character-assessment/landscape-character-assessment-scotland> where there is a link to the Scottish Landscape Character Types Map

There has been some commercial forestry with limited species choice, though the UK Forestry Standard now requires greater species mix. There is also pressure from incremental and ongoing development, both urban development driven by proximity to Edinburgh, and renewable energy development. Issues identified through the National Landscape Character Assessment Review and/or the East Lothian Landscape Character Area Review include:

- intrusive infrastructure such as high voltage power lines;
- maintaining the setting of major transport routes;
- pressure for residential expansion and the need to integrate this into the landscape;
- high visual sensitivity arising from the openness of the agricultural plain giving a high degree of intervisibility;
- the need to manage recreational activity and visitor pressure;
- large scale loss of trees to disease.

15.30 Woodland creation could alter the landscape character of some areas. This could either weaken or strengthen landscape character overall and has the potential to be a significant effect. Native woodland creation is generally seen as beneficial for the landscape as it adds interest and diversity. Reinstatement of traditional field boundaries, roadside planting and woodland planting in scale with landscape character would generally be beneficial.

15.31 The TWSEL can help address the issues identified above in a number of ways.

- The major transport routes run east west through East Lothian similar to the climate migration corridor proposed in Target 2 and Target 7A for structural planting in the Innerwick area suggests including investigation of the potential of strengthening woodland along the A1 / railway corridor.
- Target 5 to create 300 hectares of new small farm woodlands and shelterbelts which align with and support agricultural production can help to integrate residential development into the landscape and help reduce intervisibility across the agricultural plain. Target 4 to improve and increase access to woodlands will provide woodland suitable for recreation, thereby reducing recreational activity and visitor pressure on more sensitive woodlands and/or the coast. Where these are close to settlement they may also help integrate this into the landscape. Action 25 to encourage the development of small scale low impact tourism enterprises linked to appropriate woodlands also helps spread recreational activity to less sensitive areas.
- Action 7, the plan for landscape scale replacement of Ash trees, will help to address large scale loss of trees to disease.

15.32 A comment was received through public consultation on the draft ER that interpretation should be kept to a minimum. Interpretation can reduce the natural appearance of wooded areas, which can for some people affect their enjoyment of the woodland. Although interpretation can have benefits, it clearly has to be designed carefully. The inclusion of an interpretation plan, rather than ad hoc interpretation, is likely to lead to a more coherent approach which is likely to make the interpretation used more effective. However, there may be more interpretation than there would otherwise have been, and some people may experience this as detrimental to landscape character.

Townscape and settlement character

15.33 Tree planting in and around urban areas could help improve townscape and settlement character.

15.34 East Lothian has a variety of settlements from market towns, coastal villages, planned agricultural settlements and former fishing and mining villages. There has been considerable residential expansion in the last 50 years. In terms of townscape, some of the urban environments are of poorer quality than others, including some of our lower SIMD areas. Trees can improve environmental quality when well sited so as not to cause overshadowing or other issues. However, places do have their own distinctive identity and it may be that trees are not appropriate for all areas.

15.35 There is considerable existing and planned urban development in the area. Some existing urban development is poorly integrated into its surroundings or has landscaping which is yet to mature. The Council's Design Standards for New Housing Areas SPG aims to improve standards of design and landscape setting for new development and is referred to in the TWSEL. The East Lothian Green Network Strategy seeks design for the countryside that defines different identities for each town, and to provide attractive greenspace around towns however the timescales for this are anticipated to be medium-long term.

15.36 The TWSEL provides guidance on character and tree planting in each settlement and village. The TWSEL also has an Action (32) to create a managed programme of replacement of street trees important to townscape character. Together these have the potential to guide and improve townscape.

15.37 Information on tree canopy coverage in different settlements and SIMD areas is contained within the TWSEL. The setting of the target of 30% canopy cover is also expected to focus effort on those places that have the least canopy coverage. This will help improve the townscape of those settlements and areas long term.

Vacant and derelict land

15.38 Vacant and Derelict land can affect the overall appearance of the area, as well as impacting those who live nearby. The Green Action Trust reports that almost a third of Scotland's population lives within 500m of a derelict site, rising to 55% for deprived communities¹¹⁶. East Lothian does not have such an issue with vacant and derelict land as some other parts of Scotland. At 2007 East Lothian had 59ha of vacant and derelict land. The 2022 Vacant and Derelict Land Survey shows that this figure has increased to just over 82ha. Whilst a number of vacant and derelict sites have been brought back in to use since 2007, the overall area of such land has increased. This is largely due to the closure of the Cockenzie Power Station, but also Edenhall Hospital.

15.39 People living in the lower SIMD areas are more likely than average to live within 500m of a vacant or derelict site. 12644 out of 55279 addressable properties are within 500m of a vacant or

¹¹⁶ See <https://greenactiontrust.org/transforming-scotlands-approach-to-vacant-and-derelict-land/> accessed 14/02/2023

derelict site, just under 23% (not all of these are homes). 4116 of these are within the lowest 30% of SIMD areas. There are 10512 addressable properties within the lowest SIMD areas. Therefore 39% of addressable properties within lower SIMD areas are within 500m of VDL.

15.40 As land values in East Lothian remain high some of these sites are likely to be re-developed in the foreseeable future. The Council owns some of the sites including at the former Cockenzie Power Station, which has recently received levelling up funding for site preparation. Climate Evolution provided a high level vision for the Blindwells/Cockenzie area. This included some woodland creation at the former Cockenzie Power Station site. Wayleaves for electricity pylons may in practice act as a constraint, as will development coming forward to connect offshore windfarms.

15.41 TWSEL draws attention to Vacant and Derelict sites by showing them on its mapping, noting that some of these sites may have potential for temporary greening or even long term tree growth. This may help focus attention on these sites. The TWSEL has a Target to provide structural planting in the Cockenzie and Blindwells area through Action 31 to Develop and implement a landscape framework and planting programme for this area. This will have the benefit of helping provide a use for a large area of derelict land whilst also providing landscape setting for new development at Blindwells .

Conserve geological heritage

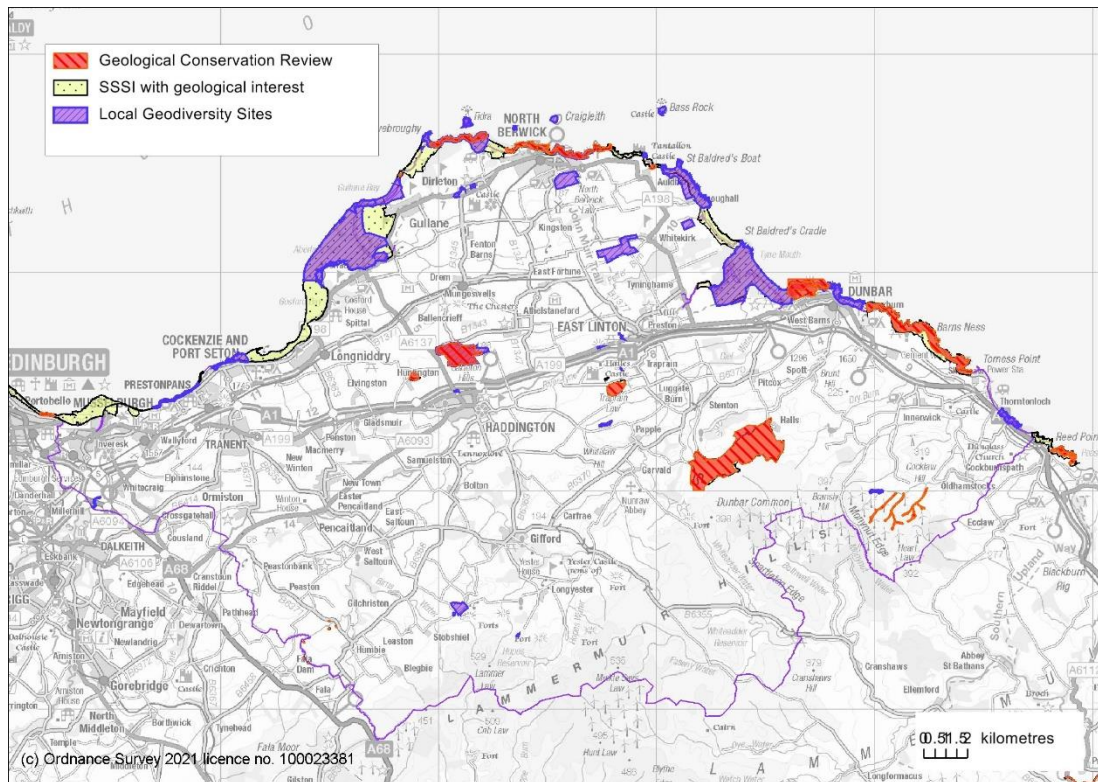
Designated Geological sites

15.42 East Lothian contains nationally important geological sites recognised through designation as SSSI. A Geological Conservation Review was undertaken under the Nature Conservancy Council to identify those sites of national and international importance needed to show all the key scientific elements of the Earth heritage in Britain. The original aim was to designate these as SSSI – and some of them already were – however although the review was completed the designation aspect was not taken forward. The Council therefore recognises these sites through planning policy however they do not have the statutory protection given to SSSIs. There is therefore some risk that planting could damage their interest. This would be regrettable as these sites are part of a series.

15.43 The Council has also designated sites with local interest, Local Geodiversity Sites. Although these sites have some protection through planning policy, there would be no restriction on planting there (though some are coastal sites where trees would not grow). This is would be likely to harm their interest.

15.44 Woodland near geological sites could also increase unwanted self-seeding which could damage or obscure the geological interest.

15.45 Geological sites are shown below (there is some overlap between all three of these types of site). Further information on the interest and condition of SSSIs and Geological Conservation Review sites can be found on NatureScot's Sitelink pages, here: <https://sitelink.nature.scot/home> . Further information on East Lothian's Local Geodiversity Sites is available here: <http://nora.nerc.ac.uk/id/eprint/509518/> Appendix 1 gives details of the interest of SSSI sites.



15.46 NatureScot have identified some existing pressures on these sites. These include forestry operations and invasive species, tidal erosion, recreation and disturbance, dumping and storage of material and water quality, agricultural operations, lack of proactive management, undergrazing and trampling.

15.47 The TWSEL identifies SSSI, GCR and Local Geodiversity Sites as ‘Sensitive’ on its mapping. This will help protect these sites by steering woodland creation towards other areas. The Strategy includes Policy 14: Protection of the Natural Environment, which requires that woodland management, expansion, creation, removal or restructuring should enhance and not harm the interest of designated sites which includes Earth Science SSSIs and Local Geodiversity Sites. The TWSEL contains policy on combating invasive tree and shrub species, encouraging management of this in line with national priorities. Increasing accessible woodland, as promoted through the TWSEL, may help reduce recreational pressure on sensitive geological sites.

15.48 There remains some risk that an increase in woodland will also increase self-seeding into sensitive geological areas.

Tree Preservation Orders (TPO)

15.49 See ‘cultural heritage’ section.

Likely Significant Effects – Landscape

15.50 With regard to the issues identified above, the following SEA objectives for Landscape have been identified and the impacts appraised by theme:

SEA Objective, Landscape: Protect and enhance East Lothian's landscapes and townscapes			Theme 1 – Climate Mitigation	Theme 2 – Resilience and adaptation	Theme 3 – Biodiversity	Theme 4 – Community	Theme 5 - Economy	Theme 6 – Cultural Heritage	Theme 7 – Landscape Character
SEA Sub-objective/ questions for assessment. Does the plan....?	KEY								
	Positive	+							
	Neutral	0							
	Unknown	?							
	Mixed/ Variable	//							
Negative	-								
<i>Protect the diversity and value of East Lothian's Landscapes</i>			+	+	+	0	//	+	+
<i>Improve and reinforce townscape character and sense of place</i>			+	+	+	//	0	+	+

Commentary on Landscape Indicators

15.51 All Themes are positive for 'Protecting the diversity and value of East Lothian's landscapes other than 'Community' which has neutral effects and 'Economy' which is mixed. Positive effects arise from those Themes which include woodland creation, as trees in the right place are generally seen enhancing landscape. The 'Landscape' Theme aims specifically at protecting landscape character, including its diversity. This Theme includes Target 7, which provides for landscape scale structural planting and tree planting to enhance green networks. Policy 26: Protection and Enhancement of Landscape provides that woodland expansion or tree planting, woodland removal or restructuring should not harm landscapes and landscape character, in particular designated areas with a landscape dimension including Special Landscape Areas, the Coast, and Green Belt.

15.52 The promotion of broadleaves and native woodland including different types of native woodland (Policy 3: Woodland Creation and others) supports diversity of landscape character as different types of woodland are found in East Lothian's different landscape character areas. The planning and management of Ash Dieback Plan (Actions 5 and 6) under the 'Climate' Theme supports both Objectives, as this will benefit both landscape and townscape through appropriate tree planting to mitigate for the loss of ash trees. Promotion of native woodland expansion and connectivity (Target 2A, climate theme, Target 3A and 3B, biodiversity theme, and Action 10) will improve the diversity of the landscape. Protection of other types of valued habitat networks such as grassland, wetland and saltmarsh (Policy 14, Protection of the Natural Environment, Biodiversity Theme) helps ensure these attractive and varied types of landcover are not lost to tree planting. Promotion of restoration of peatland over tree planting (Policy 15: Peatland) also ensures diversity of landscape character. Restoration of PAWS to native woodland (Action 9) and protection of ancient woodland (Policy 8: Protecting the Biodiversity Value of East Lothian's Woodland) will also retain and bring increased interest to the treescape. Hedgerows break up expanses of agricultural

land, particularly large expanses of monoculture arable land, helping make the landscape look more intricate. Planning for hedgerows (Action 13) should increase their length and quality, in line with Management Guidelines suggested for Special Landscape Areas.

- 15.53 Large swathes of single species non-native coniferous plantation in Scotland as a whole has had a considerable impact on the landscape. There has been criticism of this for its lack of variety, an appearance (monoculture, straight edges and rides) which does not reflect the natural condition of the landscape and close planting which makes access to the landscape very difficult. In East Lothian the main softwood plantation is at either end of the Lammermuirs, at Monynut Forest and Heatherly Rig/Brown Dod Wood. There is also softwood planted in smaller woodlands and shelter belts intended as a crop, some of which has not over time been managed for production. The TWSEL supports continuation of productive woodland on these sites, which is likely to be coniferous due to the characteristics of the sites, and this will have continuing adverse impact on landscape.
- 15.54 Although the TWSEL supports existing productive woodland it does not support new solely softwood plantations due to adverse visual landscape impact (Policy 20: Productive Woodland). The strategy also encourages restructuring of existing softwoods to improve landscape value
- 15.55 The TWSEL does not support continued softwood production on ancient woodland sites, nor on peatland, in line with national policy. This will have benefits for landscape character as well as biodiversity and climate.
- 15.56 Target 5 for creation of farmland woodland, supported by Policy 21, will have positive benefits for landscape character through increased diversity of the agricultural landscape.
- 15.57 Theme 5, Community, will generally have positive benefits for both indicators. Increasing urban canopy coverage will primarily benefit townscape Where this helps integrate built elements there will also be landscape benefits. The Council owns and maintains a considerable number of trees, and the development of a Tree Management Strategy (Action 18) will help maintain a healthy well-managed tree stock including succession planting. Consideration of townscape character will be included in this. Policy 19 on managing Council owned trees resists cutting back or felling trees other than for exceptional overriding reasons such as safety.
- 15.58 Theme 6, Cultural heritage, should have positive effects particularly for townscape. Encouraging the identification and protection of Notable Trees (Target 6, Action 27, Policy 22) is positive. The support for positive management of Gardens and Designed Landscapes (Action 28) will also result in improvements to these areas, which are a landscape as well as a cultural heritage designation. The discouragement of plaques in association with memorial trees in countryside and natural areas is positive for the landscape as it maintains the natural appearance of areas (Policy 23).
- 15.59 Resisting the inclusion of woodland into garden ground is positive for townscape (Policy 2). Trees within garden ground do not have the usual protection from felling, and can therefore be lost.

Mitigation – Landscape

- 15.60 **Embedded mitigation** Woodland expansion under the strategy has the potential to harm valued non-woodland landscapes such as the open landscapes at the coast. Policy 26: Protection and

Enhancement of Landscape seeks to avoid this, including through protection of the interest of designated landscapes. The production of a Tree Management Strategy (Action 18) will also help protect urban treescapes in the Council's own work.

15.61 **External mitigation:** The UK Forestry Standard¹¹⁷ has provisions on Landscape which will help mitigate some potentially adverse impacts, some of which were included in this standard to address past practices no longer encouraged. This includes a requirement to include variety in species planted. Adherence to the standard is required for payment of government grants for woodland creation and forest management.

15.62 Where proposals require planning permission, the policies of the Local Development Plan on landscape and design will guide proposals. Supplementary Planning [Guidance on Special Landscape Areas](#) (which includes guidance on all landscapes) and [Countryside and Coast](#)¹¹⁸ (and any successors) provide further guidance.

15.63 **Project level mitigation:** The TWSEL contains advice in its Community section about issues to consider when planting in urban areas. This will help avoid adverse impact on townscape. The TWSEL refers to Conservation Area Statements and Appraisals as sources of advice at project level, and these should be referred to as they become available. This will help make sure new planting reflects and enhances townscape. Projects should consider the guidance in Special Landscape Area SPG especially Statements of Importance of Special Landscape Areas. The height of mature trees should be considered when planting near a noted viewpoint to avoid obscuring important views. Views of important features within the setting of towns should be considered

Secondary, Synergistic and Cumulative effects

15.64 **Positive:** The Strategy is likely to have cumulative positive benefit for landscape along with the protective policies of the East Lothian Local Development Plan 2018 and the East Lothian Green Network Strategy.

Conclusion

15.65 Improving Landscape is one of the aims of the Strategy, and the TWSEL is expected to have a positive effect.

Residual adverse effects on Landscape

- Potential for a small increase in self-seeding of trees into geodiversity sites

¹¹⁷

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/687147/The_UK_Forestry_Standard.pdf

¹¹⁸ https://www.eastlothian.gov.uk/downloads/file/28998/countryside_and_coast_spg

16 ENVIRONMENTAL PROTECTION OBJECTIVES OF RELEVANT HIGHER TIER PPSs

16.1 A wide range of international, national and other local level plans, programmes and strategies (PPSs) contain policy and objectives relevant for the TWSEL. The main relevant Strategy is the Scottish Forestry and Woodland Strategy, which sets out the Scottish Government's vision and ten priorities for woodland in Scotland overall. National Planning Framework 4 (NPF4) sets out a plan for the development of Scotland as a whole, in tandem with the third Scottish Land Use Strategy sets out Scottish Ministers vision for the country. The Scottish Government's Control of Woodland Removal Policy is critical in the ability of the TWSEL to plan to retain woodland. At a local level, the environmental aims of the East Lothian Council Plan, Local Development Plan and Green Network Strategy are important.

16.2 Relevant legislation includes the Climate Change (Scotland) Act 2009 (as amended), the Conservation (Natural Habitats, &c.) Regulations 1994 (commonly known as the 'Habitats Regulations'), the Town and Country Planning (Scotland) Act 2019, and others. Appendix 2 sets out the relevant PPSs together with a brief summary of what each is intended to achieve and their implications for the TWSEL.

16.3 How the TWSEL have taken these PPS and statute into account is set out in the tables below¹¹⁹.

Scottish Forest Strategy

16.4 The Scottish Forestry Strategy follows the principle of 'the right tree, in the right place, for the right purpose'. The overall objectives are that by 2032 Scotland's woodland cover will have increased to 21% by 2032, and the use of Scottish wood products in construction to 3 million cubic meters. 3000-5000 ha of new native woodland is intended to be created annually, with the restoration of around 10,000ha to native woodland.

16.5 The following table shows how the TWSEL takes the aims of the Scottish Forestry Strategy into account

Scottish Forestry Strategy Priority	TWSEL Proposals, policy and actions	Assumed mitigation	Responsibility
1. Promote and develop the concept of sustainable forest management as it applies to Scotland.	Policy 7 Sustainable Forest Management Policy 3 Woodland Creation (supports the UKFS) Action 12 Produce a Tree Management Strategy for Trees on our own Action 20 Encourage those undertaking Local Place Plans to include tree and woodland policy	UK Forestry Standard (UKFS) and related legislation, i.e. Forestry EIA etc.	Scottish Government Scottish Forestry

¹¹⁹ Scottish Government Circular 6/2013 Development Planning paragraph 12 - 14

Table 4: How the TWSEL takes the aims of the Scottish Forestry Strategy into account

Scottish Forestry Strategy Priority	TWSEL Proposals, policy and actions	Assumed mitigation	Responsibility
	Promotion of Woodland Carbon Code accreditation. Promotion of PEFC/FSC accreditation		
2. Sustainably expand the area of all types of woodlands and forests across Scotland and ensure harvested sites are replanted appropriately.	Action 1 Offsetting our carbon emissions locally Action 2: Climate Forest and Target 1 Policy 3 Woodland creation Action 4 Water quality Action 5 Water run off Action 7 Ash replacement Policy 6 Water Management and slope stability Target 3 Double native woodland Policy 10 and Target 4 Fragmentation	UKFS	Scottish Government Private companies Land owners and Managers Local Authorities
3. Ensure wood fibre availability from Scotland's forests is predictable and increases over time.	Policy 11 Productive woodland Action 46 on supply chain Action 45 on managing woods as a source of specialist material	UKFS	Scottish Government Private companies Land owners and managers
4. Protect forests and woodlands from damage caused by new or existing pests and diseases, promote the sustainable management of wild deer and build resilience to support adaptation to climate change.	Actions 16 – 19 (resilience) Action 22 on continuous cover management Action 23 on promotion of planting in support Policy 3 on Wildfire and disease Action 25 on management to improve resilience on council owned land Action 26 – biosecurity Action 27 raise awareness of tree disease Action 28 – Council ash Policy 3a Flood Management Policy 7 on deer	UKFS Plant Health (Forestry) legislation	Scottish Government Private companies Land owners and managers
5. Increase community ownership and management of forests and woodlands.	Action 72 – support community woodland groups Action 73 – help communities understand their rights	UKFS	Scottish Government Community organisations Non-governmental organisations

Table 4: How the TWSEL takes the aims of the Scottish Forestry Strategy into account

Scottish Forestry Strategy Priority	TWSEL Proposals, policy and actions	Assumed mitigation	Responsibility
	Action 74 – maintain and publicise a list of community orchards		
6. Increase efficiency, productivity and the value generated from forest products and services and help develop forestry’s role in creating a low-carbon economy, by supporting technological innovation, improving the capacity and skills of those working in the sector, and developing existing and new markets.	Promotion of wood and wood products: Actions 9 - 12 Action 47 (joint marketing) Action 48A (encourage wood and tree businesses Promotion of individual action as consumers (Section 8)	UKFS Planning system Energy consents	Scottish Government Private companies Planning Authorities Local Authorities Professional bodies
7. Increase the natural capital value of Scotland’s woodlands and forests by improving the condition of native woodlands and forests, and increasing the positive impacts of forest and woodland management on biodiversity, air, water, soils, flood management, landscapes and the historic environment, mitigating the risks of negative impacts.	Policies and actions included in Section 6 (biodiversity) Action 70 (air quality) Water quality – Action 16, 17 Soils – Action 20 (erosion of loams) Action 21 (benefits of farm forestry) Flood (see above in resilience) Landscapes – guidance in section 10 Historic environment – section 9	UKFS	Scottish Government Private companies Land owners and managers Non-governmental organisations Environmental regulators Local Authorities
8. Increase the use of Scotland’s forests and woodlands to improve health and well-being, help people better understand forestry, and support wider Scottish Government activity to help children become confident and resilient members of Scottish society.	Section 8 community – Accessibility Actions 54, 55 Action 61 (hutting) Recreation Actions 56, 57,58 Action 60 (play)	UKFS	Scottish Government Forest users Forest Owners and managers Local Authorities Non-governmental organisations
9. Enhance forestry’s contribution to sustaining viable rural communities and increase the positive impact of forest and	More efficient agriculture: Policy 12 and Actions 49 ad 50. Tourism: Actions 51 and 52	UKFS Planning system	Scottish Government Planning Authorities Local Authorities Forest users

Table 4: How the TWSEL takes the aims of the Scottish Forestry Strategy into account			
Scottish Forestry Strategy Priority	TWSEL Proposals, policy and actions	Assumed mitigation	Responsibility
woodland management on other businesses, especially in agriculture and tourism.			Forest owners and managers Private companies/Users Non-governmental organisations
10. Increase the positive contribution that urban forestry makes in Scotland's towns and cities.	Landscape: Character and setting of development section Urban forest 8.25 on. Action 62, Policy 21	UKFS Planning system	Scottish Government Planning Authorities Forest owners and managers

Other Plans, Policies and Strategies

16.6 The following Plans, Policies and Strategies have been considered as relevant in preparing the TWSEL.

KEY	
✓	Helps achieve main plan, policy or strategy aims
//	Helps achieve some aims, but hinders others
=	Neutral
?	Uncertain
x	Does not meet a main plan, policy or strategy aim

Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
BIODIVERSITY, FLORA AND FAUNA				
<u>Nature Conservation (Scotland) Act (2004)</u>	<p>Introduced a new general duty on public bodies to further the conservation of biodiversity.</p> <p>Made changes to the system for conserving SSSI's including regulating land management operations.</p> <p>Protection of wildlife through amendments to law on species</p>	<p>The TWSEL should aim to conserve biodiversity by conserving habitats and species and raising public awareness of the importance of biodiversity.</p> <p>The TWSEL should avoid adverse impacts on SSSIs and protected wildlife.</p> <p>The TWSEL should take account of the Scottish Biodiversity Strategy.</p>	The TWSEL aims to conserve biodiversity through support for the delivery of the Global Biodiversity Framework by restoring and connecting woodland without harm to other habitat, considering genetic diversity including its adaptive potential, using and managing woodlands	✓

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
		<p>protection and wildlife crime with measures that apply wherever such species occur, not just in a specific place like SSSI.</p> <p>Provision for the preparation of a Scottish Biodiversity Strategy, to which public bodies must have regard.</p>		<p>sustainably, reducing pollution risk, minimising the impact of climate change and increasing the connection of people to nature especially in urban areas.</p> <p>The TWSEL aims to support SSSIs through encouraging good management of woodland SSSIs.</p> <p>The TWSEL has taken account of the Scottish Biodiversity Strategy (see below).</p>	
	<p>Wildlife and Countryside Act 1981 (as amended)</p>	<p>Promotes the protection of wildlife, the countryside, National Parks and the designation of protected areas and public rights of way. Gives protection to many specified animals and plants, as well as broad protections such as to nesting birds. It requires that the risks posed to wildlife by tree work and work in woodland are carefully assessed. The Act was amended in 1985 with the effect of requiring Forestry Commissioners to achieve a reasonable balance between productive forestry and natural environment factors.</p>	<p>The TWSEL should support the aims of this act by promotion of the UK Forestry Standard. This includes a guideline on biodiversity which has due regard for this legislation. The TWSEL should take account of its aims in planning the location of new and management of existing woodland.</p>	<p>The TWSEL supports the aims of this act through promotion of the UK Forestry Standard. This includes a Guideline on biodiversity which references this legislation.</p>	<p>✓</p>
	<p>Wildlife and Natural Environment (Scotland) Act 2011</p>	<p>Affects the way land and the environment is managed. The Act also</p>	<p>The TWSEL must ensure relevant environmental legislation can be met,</p>	<p>The TWSEL includes information on reporting wildlife crime.</p>	<p>✓</p>

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
		amended earlier environmental legislation, including the Wildlife and Countryside Act 1981 and the Deer (Scotland) Act. Among other things the Act strengthens protection for badgers, requires three yearly reports by public bodies on their compliance with the biodiversity duty and introduced new provisions on introducing non-native species, and further protection of birds and leporids.	including promoting awareness of wildlife crimes that might be committed in tree planting/felling or management operations. It should help meet the council's biodiversity duties and that wherever relevant associated steps are recorded in the biodiversity duty reports.	The TWSEL includes policy on re-structuring Plantation on Ancient Woodland Sites, much of which is non-native. The Strategy notes (para 6.64) that naturally regenerating sites will require to be managed to avoid establishment of non-native tree species. Policy 11 supports appropriate management of Invasive species, including non-native invasive species.	
	Protection of Badgers Act 1992	Covers various offences related to harming badgers, including intentional or reckless interference with a badger sett.	Activities that would result in interference with a badger sett must be avoided.	Policy 14 provides that woodland management, expansion, removal or restructuring should avoid harm to protected species. This would include badgers.	✓
	The Conservation (Natural Habitats, &c.) Regulations 1994 (commonly known as the 'Habitats Regulations')	Regulations originally derived from the EU Habitats Directive. Provides the basis for sites that are important for nature conservation – the European sites; and gives strict protection to certain species including otter, great crested newt, bats, and marine mammals.	The TWSEL must meet the terms of legislation and avoid harm to protected habitats and species.	Policy 13 restates the requirements of legislation, that proposals that are likely to have a significant effect on a European Site must undergo assessment under these regulations. The SPAs are shown as sensitive on the mapping. There are no SACs within East Lothian. The need to consider the birds that are the qualifying interest of the SPA is also noted in paragraph	✓

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
				6.102, which promotes coastal mosaic.	
	Environment Strategy for Scotland	The Vision is “One Earth. One Home. One shared future. By 2045; By restoring nature...our country is transformed for the better” Notes the scale and urgent action needed to halt global biodiversity loss. The natural environment should be restored and resilient. Makes the link between ecological and climate action. An outcome is that Scotland’s Nature is protected and restored with flourishing biodiversity and clean and healthy air, water, seas and soils. The strategy notes that our ability to survive and thrive is fundamentally dependent on the health of our natural world, which provides basic life support for humanity including clean air and water, fertile soils, pollination, buffering from extreme weather; material goods e.g. food.	Aim to avoid biodiversity loss and seek opportunities to restore nature. Biodiversity should be planned and supported to be resilient. Action on biodiversity should be mindful of the climate challenge. Proposals and the plan overall should not adversely affect biodiversity, on land or at sea. The strategy should recognise the ecosystem services of the natural world and seek to support and work with them.	The TWSEL seeks to expand native woodland and improve connectivity (Targets 1, 2, 3). The Strategy recognises the risks to woodland of climate change and promotes resilience (Target 2) including diversity of species. Policy 14 provides for protection of the natural environment including non-woodland habitat networks. Ecosystem services of flood risk management are recognised through Policy 6: Water Management and Slope Stability, and Actions 4 and 5, which consider how to work together to use woodland to reduce flood risk and improve water quality.	✓
	Scotland's Biodiversity - It's in Your Hands 2004 & 2020 Challenge for Scotland's Biodiversity 2013.	Sets out Scottish aims relating to biodiversity over 25-year period. Seeks to go beyond a previous emphasis on protecting individual sites to achieve conservation at a broader	The TWSEL should aim to conserve Scotland’s biodiversity for future generations by conserving habitats and species and raising public awareness on the importance of biodiversity.	The TWSEL aims to conserve and expand native woodland habitat while respecting other habitat networks as above. The strategy also aims to connect people to	✓

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
	A strategy for the conservation and enhancement of biodiversity in Scotland.	scale. Aims to halt loss and reverse decline of key species, to raise awareness of biodiversity value at a landscape or ecosystem scale, and to promote knowledge, understanding and involvement amongst people.		woodland by increasing the accessibility of woodland (Target 4B, Action 15, Action 16 and Policy 16: Design for All).	
	National Planning Framework 4 Biodiversity PAN 60 Planning for Natural Heritage (2000)	Policy Intent: To protect biodiversity, reverse biodiversity loss, deliver positive effects from development and strengthen nature networks. Policy Outcomes: • Biodiversity is enhanced and better connected including through strengthened nature networks and nature based solutions.	Biodiversity and Landscape: these priorities should be taken into account and progressed as far as possible within the TWSEL. The TWSEL should not adversely affect designated natural heritage sites, and should aim to support conservation and appreciation of natural heritage at a landscape scale.	The TWSEL intends to expand woodland biodiversity without harm to other designated sites or habitat networks. Annex E Guidance for Developers aims to support the provisions of NPF4 Policy 3 by stating what the Council expects from developers in terms of trees and woodland.	✓
	Scotland's Third Land Use Strategy 2021 - 2026 – Getting the Best from our Land	Sets out the Scottish Governments vision, objectives and policies to achieve sustainable land use, aiming to provide a more holistic understanding of our land, the demands we place on it and the benefits arising. Land Use Strategy Objectives: 1. Land based businesses working with nature to contribute more to Scotland's	The TWSEL should consider how best to support ecosystem functions and services.	The TWSEL seeks sustainable land use through pursuing nature-based solutions for flood risk, and air quality management (Action 21). The use of trees to provide shade and shelter is also encouraged (mapping section on Urban Tree and Woodland Planting, Urban Tree Canopy section.	✓

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
		<p>prosperity</p> <p>2 Responsible Stewardship of Scotland's natural resources delivering more benefits to Scotland's people.</p> <p>3 Urban and Rural communities better connected to the land, with more people enjoying the land and positively influencing land use.</p> <p>The use of an ecosystems approach continues, this recognises that all aspects of the environment, including humans, are interrelated and should not be viewed in isolation, and continues to seek landscape scale change.</p> <p>Notes that natural assets underpin ecosystem services and that we need our land for habitats and species, trees, peatbogs and others. Notes that Sustainable land use means our land will fully contribute to the fight against biodiversity loss. Recognition of the importance of effective deer management in tackling biodiversity loss.</p> <p>Changes expected over the plan period are:</p> <p>Increase in urban woodland</p>		<p>Section 8 Economy includes encouragement for land base businesses. Land managers are encouraged to manage woodlands in a sustainable way (Sustainable Woodland Management section,</p> <p>The TWSEL aims to increase access to woodland, better connecting communities to their land.</p> <p>Ecosystems services (flood risk management, air quality and others) are encouraged.</p> <p>The Strategy aims for our land to contribute to the fight against biodiversity loss. The Strategy recognises deer management as an issue (para 6.83 and following; Policy 12, Deer and Deer fencing.</p> <p>The TWSEL aims to integrate forestry with agriculture (Target 5, the creation of 300ha of farm woodland, Policy 21, Woodland Creation within Farmland.</p> <p>The TWSEL aims that more of our land will be forested (Target 1, Policy 1: Retention of woodland,</p>	

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
		<p>More of our land will be forested and this will increasingly be integrated with agriculture.</p> <p>Enclosed farmland and semi-natural land will contain better quality peat habitats and wider range of wildlife thriving in wild areas.</p>		<p>trees and hedges/rows and Policy 3 Woodland Creation)</p> <p>Policy 15 provides for protection and enhancement of peatland.</p>	
	<p>Scotland's Forestry Strategy (publication postponed due to Covid-19)</p> <p>The Scottish Forestry Strategy Implementation Plan (2015-18) and Progress Report (2014-15)</p> <p>Scotland's Forestry Strategy 2019-2029 Environmental Report</p>	<p>See also Table 4 above.</p> <p>The vision is for Scotland to have more forests and woodlands, sustainably managed and better integrated with other land uses. Objectives include improving the resilience of Scotland's forests and woodlands and increasing their contribution to a healthy and high quality environment and increasing their use to enable more people to improve their health, well-being and life chances.</p>	<p>Aims to conserve and enhance biodiversity including expanding woodlands, which should be addressed by the TWSEL. Population & Human Health: aims to improve health and wellbeing by providing biodiversity and green infrastructure benefits; The TWSEL should enhance this.</p> <p>Climatic Change: aims to reduce impact on and adapt to climate change.</p>	<p>TWSEL plans for an increase in woodland (Target 1). Policy 7 provides for Sustainable Woodland Management.</p> <p>Target 4 of TWSEL aims to increase access to trees and woodland and increase canopy in urban areas</p> <p>Target 2 of TWSEL aims to increase resilience of woodlands</p> <p>Target 7 of TWSEL aims to improve high quality environment by woodland creation. The TWSEL includes Policy 26, which supports protection and enhancement of landscape.</p>	✓
	<p>A Fisheries Management Plan for the Forth Catchment – review of actions, reprioritisation and update for 2015-2020</p>	<p>Strategy to promote a self-sustainable Forth fishery. Includes objectives of tackling Invasive non-native species at catchment level (including giant</p>	<p>The TWSEL should consider invasive species and the impact on river morphology.</p>	<p>The TWSEL includes Policy 11: Invasive Species.</p>	✓

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
		hogweed); monitor the impacts of point source pollution; reduce diffuse pollution of water; work cooperatively to restore natural morphology of rivers and remove fish barriers; stop excess water flow entering the river system through management of land use pressures		The mapping shows riparian area of 30m either side of most of East Lothian's watercourses, where planting is encouraged (subject to project level constraints and effect of shading). Opportunities for combatting run-off at catchment scale are identified.	
	The Pollinator Strategy for Scotland 2017-2027	The Strategy aims to address the causes of declines in populations, diversity and range of pollinator species; and to help them thrive in future.	The TWSEL should support objectives to halt and reverse the decline in native pollinator populations e.g. by targeting land use and management incentives in areas where there will be greatest benefit and minimal impact on pollinator habitats.	TWSEL includes Policy 14: Protection of the Natural Environment, which includes protection of grassland habitat networks. This should avoid harm to pollinating plants there.	✓
	Local Biodiversity Action Plan: East Lothian (2008 – 2013) (not available online)	The Local Biodiversity Action Plans translate national targets for species and habitats into effective local action, stimulates local working partnerships into tackling biodiversity conservation, raises awareness, identify local resources, identify local targets for species and habitats, ensure delivery and monitor progress.	Although this strategy is dated, it is still the most recent Biodiversity Action Plan. The TWSEL should support the aims of the LBAP and avoid adversely affecting key habitats and species as identified there. Although this strategy is out of date, it contains useful information about priorities and habitat in East Lothian. Its priorities are now contained in the Green Network Strategy SPG and the East Lothian	The TWSEL includes Policy 14: Protection of the Natural Environment, which seeks to avoid woodland management, expansion, creation, removal or restructuring harming designated sites or other habitat networks, or East Lothian Priority Habitats. These habitats were selected based on their inclusion in the Local	✓

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
			Biodiversity Action Plan will be updated in due course.	Biodiversity Action Plan so this aligns.	
	East Lothian Green Network Strategy SPG	The SPG sets out how the Central Scotland Green Network will be delivered in East Lothian. It aims to contribute to reversing the decline in quantity and quality of biodiversity, and protect geodiversity. It aims to protect and enhance the water environment, and reduce pollution issues, and strengthen landscape character and diversity. It includes actions for the Western Sector, Urban, Coast, Countryside and Nature Network.	<p>The TWSEL should consider how it could contribute to reversing the decline in quantity and quality of biodiversity.</p> <p>Human health.</p> <p>Water. The TWSEL should consider natural solutions to water management and reducing pollution.</p> <p>Climatic factors. The TWSEL should consider how climate change could be mitigated through landuse, and how the design can be adaptive to climate change.</p>	<p>Target 3 of TWSEL aims to improve biodiversity value of East Lothian's woodland habitats in line with the Green Network SPG</p> <p>Target 7 of the TWSEL aims to improve landscapes through woodland creation.</p> <p>Target 2 aims to improve resilience of environment through woodland creation</p> <p>Policy 6 supports water management to protect and enhance water environment</p> <p>Policy 14 includes for protection of geodiversity and natural environment.</p>	✓
POPULATION					
	Scotland's National Strategy for Economic Transformation, 2022	Sets a framework for a more competitive and fairer Scotland. It forms the strategic plan for existing and future Scottish Government policy. It prioritises boosting investment and	The TWSEL should support the implementation of this strategy in terms of the provision of a circular economy and	The objective of Theme 5 – Economy in the TWSEL is that trees and woodland will contribute	✓

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
		innovation, supporting inclusive growth and maintaining our focus on increasing internationalisation.	opportunities for employment and tourism.	towards sustainable and inclusive economy. The TWSEL encourages farm and woodland diversification.	
	Fairer Scotland Action Plan 2016	Aims to change deep-seated, multi-generational, deprivation, poverty and inequalities. One of the key ways they will do this is by eradicating child poverty. Includes actions to help people to have a say in their local areas; deliver warm, affordable homes; make society fairer; enabling more people to have access to affordable, healthy, nutritious food;	The TWSEL should engage with local people, and support the other aims of the strategy.	Policy 18 in the TWSEL is that proposals for tree planting in and around urban areas should be taken forward in a collaborative approach and seek consensus from all sectors of the community. It recommends equality impact assessment to identify issues. Action 17 also promotes access to and enjoyment of woodlands for all	✓
	East Lothian Council Plan	Has a vision of an “even more prosperous, safe and sustainable East Lothian, with a dynamic and thriving economy, that enables our people and communities to flourish”. The overarching objective is “reducing inequalities within and across our communities”.	The TWSEL should aim to support investment and incomes, reduce inequalities.	The objective of Theme 5 – Economy in the TWSEL is that trees and woodland will contribute towards sustainable and inclusive economy. Action 17 also promotes access to and enjoyment of woodlands for all Target 4 aims to increase access to woodlands by all and increase canopy coverage for all by a working target of 30%	✓

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
	East Lothian Economic Development Strategy 2012-2022 (refreshed)	<p>Set out the council's strategy for economic development. The Strategy contains environmental objectives including increasing the proportion of East Lothian residents working in East Lothian, and to be Scotland's most sustainable local economy.</p>	<p>The TWSEL should support the environmental objectives of the strategy in looking to provide local, sustainable employment.</p>	<p>Action 24 of the TWSEL aims to Encourage and enable smaller producers to work together in joint marketing, promotion and equipment sourcing through a local timber forum.</p> <p>The TWSEL encourages sourcing of locally grown stock which may require expansion of local businesses.</p> <p>The TWSEL supports recycling of timber waste locally</p> <p>Action 3 encourages the use of locally sourced timber</p>	<p>✓</p>
	East Lothian Poverty Action Plan 2021-2023	<p>Aims to tackle the causes and effects of poverty in East Lothian and reduce the gap between the poorest and the richest people</p> <p>Includes to extend community engagement and decision making and increase community and individual resilience</p>	<p>The TWSEL should aim to reduce inequalities.</p>	<p>Policy 18 in the TWSEL is that proposals for tree planting in and around urban areas should be taken forward in a collaborative approach and seek consensus from all sectors of the community. It recommends equality impact assessment to identify issues.</p> <p>Action 17 also promotes access to and enjoyment of woodlands for all</p>	<p>✓</p>

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	East Lothian Green Network Strategy	Supports the aims of the Economic Development Strategy by providing a high quality landscape and recreational setting. It aims to help people feel they live in resilient communities, and not in isolation, to feel safe in and take pride in their environment. Provides that green infrastructure should be designed to be accessible to all.	The TWSEL should provide a high quality landscape and recreational setting. It should support resilient design, and bear in mind the need for green infrastructure to be accessible for all. The TWSEL should consider how it can reduce the impacts of inequality and create resilient communities.	<p>Target 4 of the TWSEL aims to increase access to trees and woodlands for all.</p> <p>Policy 18 in the TWSEL is that proposals for tree planting in and around urban areas should be taken forward in a collaborative approach and seek consensus from all sectors of the community. It recommends equality impact assessment to identify issues.</p> <p>Action 17 also promotes access to and enjoyment of woodlands for all</p> <p>Target 7 of the TWSEL aims to improve landscapes through woodland creation</p>	✓
	HEALTH				
	Water Environment and Water Services (Scotland) Act 2003	Enabling legislation in Scotland for the Water Framework Directive. Sets out measures for the protection of the water environment. Describes pollution in relation to the water environment in terms of substances resulting from human activity that may give rise to harm, including harm to the health of human beings.	The TWSEL should avoid and address pollution in the water environment in terms of substances that may give rise to harm to human health. This is relevant in this area in terms of pollution of bathing water from the waste water system.	TWSEL policy 6 aims to use woodland and trees to improve water quality. Supported by Action 5, which encourages multi-group working to identify where woodland creation can most improve water quality.	✓

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				Target 2B aims to increase riparian woodland	
	Flood Risk Management (Scotland) Act 2009	Introduces a framework to reduce the adverse consequences of flooding; transposes EU Floods Directive; updates legislation on flooding; amends reservoirs legislation. Describes flood risk as the combination of the probability of a flood and of the potential adverse consequences, associated with a flood, for human health, the environment, cultural heritage and economic activity.	Some parts of this area are vulnerable to flooding, mainly from surface water. The TWSEL should avoid increasing flood risk and where possible reduce it.	Policy 6 states Planting of new trees and woodland must avoid increasing flood risk. It also encourages woodland creation where the most benefit for flood risk is identified. Action 5 encourages multi-group working to identify where woodland creation can support reduction in flood risk Target 2B aims to increase riparian woodland	✓
	National Planning Framework 4	The National Spatial Strategy's vision includes that Scotland's future places will have homes and neighbourhoods that are healthier, affordable and vibrant places to live. Inequality should be address. Cleaner, safer and greener places and improved open spaces will build resilience and provide benefits for people and health. Local living, active travel links and green infrastructure that brings nature into towns and cities are key to this.	The TWSEL should aim to support the provision of vibrant places, reduce inequalities, have regard to the role of green networks, and address vacant and derelict land. The TWSEL should support the aims of local living through woodland creation in and near towns. The health impacts of trees and woodland both positive and negative should be recognised, especially where there is the potential to influence health inequalities.	Positive and negative effects from trees are recognised. Areas where certain trees should not be planted within urban areas are identified around 'vulnerable' sites in the Urban mapping. Vacant and derelict sites are identified in the mapping. Target 7 includes improving landscapes by structural planting in the Cockenzie area.	✓

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		Lifelong Health and Wellbeing is a cross cutting outcome of NPF4. Links between health and the natural environment recognised.		Target 4 aims to increase access to trees and woodlands for all, both in canopy coverage and access to local woodlands for recreation The lowest SIMD areas are identified to enable these to be targeted for improved canopy coverage and woodland access.	
	PAN 65 Planning and Open Space (2008)	Provides advice on the role of the planning system in protecting and enhancing existing open spaces and providing high quality new spaces.	Landscape and Townscape: The TWSEL should enhance open space.	Theme 7 objective is to use trees to help retain and enhance the distinctiveness of landscape and settlement character within East Lothian	✓
	Scottish Government Cleaner Air for Scotland Strategy (2015)	Sets out proposals to further reduce air pollution to protect human health and comply with legal requirements relating to air quality. There are links between poor air quality and ill health.	The TWSEL should look at how it can address air pollution and contribute towards targets in the strategy.	ACTION 21 Where appropriate, plant street trees and hedges in urban areas, including in Air Quality Management Areas and around sensitive sites including hospitals, schools, care homes and play areas and sports fields; woodland expansion along strategic road corridors and adjacent to industrial sites; and hedges along roadside edges Action 14 Develop a Hedgerow Plan for retention, replacement, increase and management of	✓

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				hedgerows and hedgerow trees including in urban areas for air quality.	
	Review of Public Health in Scotland 2015	Identifies environmental factors (water, air and general environment) as a key determinant to health. Advocates addressing environmental determinants of health and health inequalities. Notes the importance of tackling poverty and inequalities given the clear links between social deprivation and poorer health outcomes. Priorities are inequalities, inactivity, nutrition, obesity and poor mental wellbeing, concurrent with the demography of an ageing population.	The TWSEL should aim to improve environmental quality and reduce inequalities.	TWSEL aims to improve environmental quality and reduce inequalities by improving the quality of the urban environment through increased tree canopy cover, focussing on SIMD areas, and increasing access to recreational woodland. Policy 18, Target 4, Action 14, Action 21, Action 17, Action 16, Action 15, Action 18.	✓
	Equally Well, 2008	A public health strategy for Scotland with a focus on health inequalities. A key principle is reducing people's exposure to factors in the physical and social environment that cause stress, are damaging to health and wellbeing and lead to health inequalities. Recommends providing physical environments that allow for activity, and promote healthy weight, tackling poverty.	As above	As above	✓

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	Good Places Better Health	The Scottish Government's strategy on health and the environment. The approach recognises that the physical environment has a significant impact on the health of Scotland's people and that action is required to create health-nurturing environments for everyone	The TWSEL should aim to provide a health-nurturing environment.	As above.	✓
	Scotland's Environment Strategy	Includes outcome 'Our healthy Environment supports a fairer, healthier, more inclusive society' while another notes the importance of clean and healthy air. The strategy makes the link between human health and the health of the natural world.	The TWSEL should ensure that the plan overall links into areas of deprivation and is inclusive. The strategy should look for opportunities to improve air quality and avoid exposure of sensitive receptors to bad air quality. The strategy should recognise and look for nature-based solutions to health issues.	As above. The TWSEL aims to use trees to improve air quality and reduce exposure to poor air quality. The strategy seeks to avoid an increase in ground level ozone through careful choice of species, and to avoid trees with high pollen producing potential near sensitive receptors.	✓
	Public Health Priorities for Scotland, COSLA and The Scottish Government	Priority 1 A Scotland where we live in vibrant, healthy and safe places and communities: Priority 2 A Scotland where we flourish in our early years: Priority 3 A Scotland where we have good mental wellbeing Priority 4 A Scotland where we reduce the use of and harm from alcohol, tobacco and other drugs: Priority 5 A Scotland where we have a sustainable, inclusive economy with equality of outcomes for all: Priority 6 A Scotland where we eat	The TWSEL should look to improve the vibrancy, health and safety of the area; consider play; contribute to mental wellbeing, and support physical activity. These aims can be supported by well-planned woodland and trees in urban areas.	As above. The TWSEL contains guidance to help with the planning of woodland and trees in urban areas.	✓

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		well, have a healthy weight and are physically active			
	Active Scotland Delivery Plan	<p>Outcomes are:</p> <ul style="list-style-type: none"> • We encourage and enable the inactive to be more active • We encourage and enable the active to stay active throughout life • We develop physical confidence and competence from the earliest age • We improve our active infrastructure – people and places • We support wellbeing and resilience in communities through PA & sport • We improve opportunities to participate, progress and achieve in sport 	<p>The TWSEL should:</p> <ul style="list-style-type: none"> *improve opportunities for physical activity by creation of accessible woodland. *improve opportunities for outdoor play and challenge which help develop physical confidence *use tree and woodland planting and planning of woodlands to improve active infrastructure 	<p>The TWSEL contains a target for increasing accessible woodland – Target 4B to increase access to trees and woodland for all, and others e.g. Action 31 encouraging landscape planting in the Blindwells area. This will also give more opportunity for outdoor plan and challenge.</p> <p>The TWSEL notes that opportunities for tree planting and enhancing green networks alongside paths and active travel routes are being taken forward by the Central Scotland Green Network, but does not specifically promote tree planting along routes. (There is some potential for this to give rise to equalities issues as some groups may be put off use of the path by tree planting alongside).</p>	✓
	Health and Social Care Delivery Plan (2016) – Scottish Government	The Delivery Plan aims to promote and support healthier lives from the earliest	The TWSEL should provide access to healthy environments.	The TWSEL has a target to increase accessible woodland, and to	✓

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	East Lothian Integrated Joint Board Strategic Plan	years, reducing health inequalities and adopting an approach based on anticipation, prevention and self-management.		increase urban tree canopy coverage, which should improve the healthiness of urban environments.	
	East Lothian Core Paths Plan (2010)	<p>Core Paths Plans look to promote themes of:</p> <ul style="list-style-type: none"> • green spaces • human health and well being • Accessibility • inclusion • biodiversity 	The TWSEL should contribute towards improving the health and wellbeing of East Lothian by promoting core paths and accessibility to the countryside and green spaces.	The TWSEL promotes accessible woodland, taking core paths into account.	✓
	Central Scotland Green Network Vision for Central Scotland and Action Plan	<p>The Central Scotland Green Network aims to make a step change to environmental quality across central Scotland through five themes:</p> <ul style="list-style-type: none"> • A place for growth: creating and environment for sustainable economic growth • A Place in Balance: creating an environment more in balance, to thrive in a changing climate • A Place to feel good: creating an environment which supports health lifestyles and well-being 	The TWSEL should contribute towards delivering the aims of the Central Scotland Green Network through creating an environment for business to invest, providing attractive green space and including space for nature.	The TWSEL considers attractiveness of the environment through its 'Landscape' Theme, including providing a landscape framework in the Blindwells/Cockenzie area, which should support inward investment. Increasing urban tree canopy cover should also increase the attractiveness of towns and villages for investment.	

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		<ul style="list-style-type: none"> A Place to Belong: creating an environment that people can enjoy and where they choose to live A Place for Nature: creating an environment where nature can flourish 			
	Strategic Noise Action Plan for the Edinburgh Agglomeration (2014)	<p>This plan is one in a suite of six draft noise action plans produced under the terms of the Environmental Noise Directive (END). The three main objectives of the Directive are as follows:</p> <ul style="list-style-type: none"> To determine the noise exposure of the population through noise mapping To make information available on environmental noise to the public <p>To establish Action Plans based on the mapping results, to reduce noise levels where necessary, and to preserve environmental noise quality where it is good</p>	<p>The TWSEL should not add to noise levels and seek to preserve noise quality where it is good.</p>	<p>The TWSEL (air quality section, para 7.67) supports tree and hedgerow planting where most benefits for air quality can be achieved. Action 21 is to plant street trees and hedges around sensitive sites including hospitals, schools, care homes and play areas and sports fields; woodland expansion along strategic road corridors and adjacent to industrial sites. Planting/woodland creation on these sites is likely to reduce noise to sensitive receptors. Being able to see trees also reduces the perception of noise, regardless of actual noise levels, and this will help achieve the objectives of this plan. The Strategy does not recognise candidate Quiet Areas however.</p>	✓
	East Lothian's Green Network Strategy SPG	<p>The Strategy takes the five themes of the Central Scotland Green Network</p>	<p>The TWSEL should consider how it could contribute to the improvement of physical</p>	<p>The TWSEL contains Target 4A for tree canopy cover in towns and</p>	✓

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		and applies them to the East Lothian context. The ELC Green Network Strategy identifies action in this geographical area as a priority. The Strategy recognises the role of the Green Network in health and includes among other things, action to improve the core paths, increase trees and plants in towns, and provide multifunctional open space.	and mental health through provision of green infrastructure and recreation improvements.	villages. This will help promote mental health through provision of green infrastructure. Target 4B seeks more people having access to woodland, which will also help this.	
	East Lothian Open Space Strategy 2018	Set out East Lothian's approach to planning for and maintaining the quantity, quality and accessibility of open space within the area. The related audit shows where there are shortfalls in quantity or quality of open space.	The TWSEL should have regard to the findings of the Open Space audit, and if applicable follow the standards in the Open Space strategy.	Increasing canopy coverage is likely to lead to an increase in trees in open spaces, which should improve their quality. The TWSEL will not provide any new open space.	=
	East Lothian Play Policy	Aim: All children and young people will have access to a range of opportunities to play in East Lothian's built and natural environment and their right to play will be recognised and supported by adults. Principles include that adults should positively promote and support children and young people's right to play.	The TWSEL should consider how play could be incorporated into the strategy.	Target 4b to increase accessibility of woodland supports play as woodland can be a rich play environment. Increasing tree canopy coverage (Target 4A) may also add to the play environment. Action 21 intends to plant trees around play areas and sports fields where this would help improve air quality. This may contribute to helping children with breathing problems access play.	✓

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SOIL					
	National Planning Framework 4 Prime agricultural land and carbon rich soils	Policy Intent: To protect carbon-rich soils, restore peatlands and minimise disturbance to soils from development. Policy Outcomes: • Valued soils are protected and restored. • Soils, including carbon-rich soils, are sequestering and storing carbon. • Soils are healthy and provide essential ecosystem services for nature, people and our economy.	The TWSEL should seek to avoid loss of prime and locally valued agricultural land. It should encourage and not prevent the restoration of peatland. It should support the capacity of soils to store carbon and provide ecosystem services for nature, people and the economy.	Target 5 seeks the creation of 300 ha of new small farm woodlands that align with agricultural production. Policy 21 states that woodland creation in farmland should aim to complement and improve agricultural production or water quality. Agricultural land, both prime and subprime, are shown as constraints on the Constraints Mapping.	✓
	PAN 33 Development of Contaminated Land (Revised Oct 2000)	Document provides advice with regards to the development of contaminated land, which any developments will need to adhere to.	Soil: should follow this guidance on planting in areas of contaminated land.	Trees can be used for phytoremediation of contaminated land. The TWSEL does not address this specifically, however an increase in tree planting may include some planting on contaminated sites.	=
	Scottish Soil Framework (2009)	The main aim of the Framework is to promote the sustainable management and protection of soils consistent with the economic, social and environmental needs of Scotland. Activities identified for focus include:	Soil: The TWSEL should promote the sustainable management of soils, including consideration of erosion, greenhouse gas emissions from soil, biodiversity in soil and its use as agricultural land. The TWSEL should	The TWSEL contains a section within the Resilience theme on the use of trees to protect and enhance the soil resource. This notes (para 5.16) that as part of the East Lothian Climate Forest the Council	✓

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		<ul style="list-style-type: none"> • soil organic matter stock protected • soil erosion reduced • greenhouse gas emission from soils reduced • soil's capacity to adapt to changing climate enhanced • soil biodiversity as well as above ground biodiversity • protected soils making a positive contribution to sustainable flood management 	investigate ways of conserving or enhancing soil quality.	will encourage the expansion of farm hedgerows, woodlands and shelter belt planting as a means of sustainable soil management (see Section 9 Economy – Rural Diversification and Section 7 Biodiversity – Hedgerows and Hedgerow Trees).The TWSEL seeks to protect peatland through Policy 15. Policy 9 seeks natural regeneration as the preferred form of woodland creation, which avoids soil disturbance and retains its structure. Target 2 is for increasing riparian planting; as well as protecting water quality this will also reduce soil loss. Woodland creation in support of agriculture (Target 5) will also help avoid loss of soil to wind erosion.	
	<u>Scotland's Third Land Use Strategy 2021 - 2026 – Getting the Best from our Land</u>	Soil is recognised as a natural capital asset. Healthy soils have a role in storing carbon and are essential for the long term sustainability of our land and securing a sustainable source of food for generations to come. Restoring peatland is vitally important. Forestry should meet the UKFS including increasing positive impacts of forests	TWSEL should recognise soil as an asset and seek to protect it. The role of soil in storing carbon should be retained and enhanced. The food production value of soil should be protected and enhanced. Woodland creation should not prevent peatland restoration. Forestry should aim to be positive for soil. Increasing riparian	The TWSEL recognises the importance of peatland as a carbon store and seeks to protect it through Policy 15. The food production capacity of agricultural land is recognised, and this is mapped as a constraint. Target 5 seeks woodland in support of agricultural production, while	✓

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		and woodlands on soils. Increasing riparian tree cover can improve water management in upstream areas and reduce flooding and soil erosion further downstream.	woodland cover to reduce soil erosion should be considered.	Policy 21 seeks to avoid woodland creation that impacts on the food production capability of land. Riparian planting (Target 2B) and planting to reduce flooding (Action 4, Action5) should both reduce soil erosion also.	
	National Peatland Plan, 2015	Aims to secure the sustainable use, management and restoration of peatlands, including priority habitat bog woodland.	TWSEL should have regard to the aims of this strategy in planning where to plant trees.	Policy 15 supports peatland creation or restoration over woodland creation in suitable areas. Central Scotland Green Network heath/fen habitat is also recognised as a constraint to woodland creation.	✓
	East Lothian Contaminated Land Strategy	ELC Strategy for inspection of land to identify contaminated land based on the source-receptor-pathway model with a bias towards protection of public health and enhancing the well-being of communities. The Strategy aims to support economic development through the provision of attractive sites and the re-use of brownfield land.	The TWSEL should consider to this strategy.	The TWSEL does not address this specifically; however an increase in tree planting may include some planting on contaminated sites.	=
	East Lothian Climate Change Strategy 2020 - 2025	The Climate Change strategy seeks primarily to mitigate and adapt to climate change. The Strategy recognises the role of soil in absorbing rainfall, helping to avoid flooding. It	The TWSEL should recognise the role of soil in preventing flooding, and aim to avoid loss of topsoil.	Policy 21 Woodland Creation within Farmland accepts woodland creation to reduce flooding, including surface water runoff to roads. This will help reduce the loss	✓

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		notes that the next Local Development Plan will evaluate development location to avoid loss of topsoil.		of topsoil. The Strategy contains a section on the use of trees to contribute to reducing flood risk. This includes the value of tree roots in soil stability.	
WATER					
	The Marine (Scotland) Act (2010)	The Marine (Scotland) Act provides a framework which will help balance competing demands on Scotland's seas. It introduces a duty to protect and enhance the marine environment and includes measures to help boost economic investment and growth in areas such as marine renewables	The TWSEL should aim to reduce adverse impact from water pollution on the marine environment.	Policy 6 supports the use of woodland and trees to improve water quality. Action 5 is to work with SEPA, neighbouring authorities and stakeholders to identify where woodland retention, creation, and management could most improve water quality. The Marine environment is not explicitly considered.	✓
	Water Environment and Water Services (Scotland) Act 2003 And Water Environment and Water Services (Scotland) Act 2003 (Designation of Scotland River Basin District) Order 2003	Protects the water environment including groundwater, surface water and wetlands, for, or in connection with the implementation of the Water Framework Directive.	Water Status: The TWSEL should support this plan through the promotion of sustainable flood management and promotion and adherence to the UK Forestry Standard, which includes a guideline on forests and water.	The TWSEL 'resilience' Theme includes a section on the use of trees to contribute to reducing flood risk. Policy 6 encourages the use of woodland and trees to reduce flood risk, which is a form of sustainable flood management. Actions 4 and 5 also promote this.	✓

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				The UK Forestry Standard is noted and promoted.	
	The Water Environment (Controlled Activities) (Scotland) Regulations, 2018	Outlines different levels of authorisation to allow for proportionate regulation of the water environment.	The TWSEL should take cognisance of the regulations in planning for planting and related activities. The potential need for authorisation under these regulations should be noted where applicable.	The TWSEL does not mention the Controlled Activity Regulations. The legislation will still apply.	=
	Flood Risk Management (Scotland) Act 2009	The Scottish Ministers, SEPA and responsible authorities must exercise their flood risk related functions with a view to reducing overall flood risk through: promotion of sustainable flood risk management, acting with a view to raising public awareness of flood risk, and acting in the way best calculated to contribute to the achievement of sustainable development.	Water Status: flood risk management across Scotland is important; The TWSEL should not create flood risk and should actively promote sustainable flood risk management.	Policy 6 aims to use trees to reduce flood risk so promotes sustainable flood risk management. Policy 6 also notes that planting of new trees and woodland must avoid increasing flood risk. An increase of tree canopy cover in urban areas (Target 4A) and riparian planting (Target 2) is also likely to reduce flood risk by sustainable means.	✓
	National Planning Framework 4	Policy Intent: To strengthen resilience to flood risk by promoting avoidance as a first principle and reducing the vulnerability of existing and future development to flooding. Policy Outcomes: • Places are resilient to current and future flood risk. • Water resources are used efficiently	Tree planting and woodland creation in the right place can reduce flood risk. TWSEL should look to reduce flood risk.	Policy 6 aims to use trees to reduce flood risk so promotes sustainable flood risk management. Policy 6 also notes that planting of new trees and woodland must avoid increasing flood risk. An increase of tree canopy cover in urban areas (Target 4A) and riparian planting	✓

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		and sustainably. • Wider use of natural flood risk management benefits people and nature.		(Target 2) is also likely to reduce flood risk by sustainable means.	
	East Lothian Local Development Plan 2018 Strategic Flood Risk Assessment (2018)	Sets out the approach to strategic flood risk management within the East Lothian Local Development Plan 2018, including the identification of where Flood Risk Assessment will be needed for sites. The SFRA notes that East Lothian Council seeks to achieve more sustainable solutions for flood protection schemes and is working with relevant agencies on this, to help establish suitable, beneficial and evidenced measures for natural flood management. Upstream flood storage for the River Tyne is a potential contributor to reducing flood risk in Haddington	The TWSEL will need to follow the East Lothian Local Development Plan 2018 Strategic Flood Risk Assessment as appropriate.	The TWSEL encourages the use of woodland and trees to reduce flood risk through working with others (Actions 4 and 5) and Increased woodland creation in river catchments (through riparian and other planting, Target 1, Target 2B) which would usually be expected to reduce flooding downstream.	✓
	The river basin management plan for the Scotland river basin district 2021 - 2027 River Basin Management Plan – Solway and Tweed	<ul style="list-style-type: none"> • Identifying areas of the water environment for protection and improvement • Identifying where current or historic activities are • constraining the quality of the water environment and the biodiversity it supports 	The TWSEL proposals should prevent deterioration and enhance the status of the water environment; promote sustainable water use; reduce pollution; and contribute to the mitigation of floods and droughts	Policy 6 supports the use of woodland and trees to improve water quality and reduce flood risk. Action 5 is to work with SEPA, neighbouring authorities and stakeholders to identify where woodland retention, creation, and	✓

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		Details the actions required to ensure waters of special value (e.g. drinking, biodiversity, shellfish, bathing) are up to standard and maintain the quality where they are already met; support economic regeneration of settlements whose livelihoods is dependent on coastal or marine activities and features.		management could most improve water quality. The TWSEL aims to encourage use of species which are resilient to expected climatic conditions, including hotter drier weather in summer.	
	Flood Risk: Planning Advice (updated 2015)	Supports and integrated approach to Flood Risk Management. Recognises desirability of avoiding new development in areas of flood risk but also that it may sometimes not be possible.	The TWSEL should support an integrated approach to flood risk management	Policy 6 supports the use of woodland and trees to improve water quality and reduce flood risk. It notes that woodland creation or tree planting must not increase flood risk.	✓
	Forth Estuary Flood Risk Management Plan	Sets out the agreed goals or objectives of local flood risk management; and the specific actions that will deliver these actions over the short to long term. Actions in this area (10/23) include a Flood protection study, strategic mapping and modelling, maintenance of flood protection and flood warning, self help, awareness raising and use of planning policies.	The TWSEL may be able to support the objectives of this plan through encouraging woodland creation in appropriate places. However decisions on how best to manage flooding are not within the scope of this strategy.	Policy 6 aims to use trees to reduce flood risk. Policy 6 also notes that planting of new trees and woodland must avoid increasing flood risk. An increase of tree canopy cover in urban areas (Target 4A) and riparian planting (Target 2) is also likely to reduce flood risk by sustainable means.	
	SEPA Scotland's National Water Scarcity Plan	The water scarcity plan sets out how water resources will be managed prior to and during periods of prolonged dry	The TWSEL will need to take account of the National Water Scarcity Plan.	The TWSEL contains targets for riparian planting. This can help slow evaporation of water,	✓

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		weather. This is to ensure the correct balance is struck between protecting the environment and providing resource for human and economic activity.		meaning more is available for abstraction while allowing water to remain in the channel for biodiversity and amenity purposes. The TWSEL does not specifically consider its contribution to water availability.	
	Better Bathing Waters , Scottish Government	Regulations provide that waters that are popular for bathing are given special protection to ensure they are safe for people to swim in. The strategy sets out how it will meet water quality standards, ensure public participation in decisions and provide information on bathing water.	The TWSEL should support the water quality of bathing waters.	Policy 6 supports the use of woodland and trees to improve water quality. Planting trees to reduce the flow of surface water into the waste water system can help avoid overflow events where untreated wastewater is discharged into the sea (see Water section, Scottish Water wastewater assets for more).	✓
	East Lothian Green Network Strategy SPG	The strategy aims to adapt to climate change by reducing flooding, and by providing adaptive environments.	The TWSEL should aim to reduce flooding by providing an adaptive environment.	Policy 6, Actions 4 and 5 and Targets 2 and 4A aim to address this as noted above.	✓
AIR					
	Clean Air Programme for Europe (2013)	Includes measures to ensure that existing ambient air quality targets are met by 2020 and new air quality objectives set to reduce emissions by 2030. It notes air pollution is the	The TWSEL should seek to support compliance with air quality standards.	The TWSEL has a section within Community Theme starting paragraph 7.54 to use tree planting to enhance air quality. Action 21 supports this by encouraging tree	✓

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		<p>number one environmental cause of premature death in the EU, mainly due to particulate matter and ozone. Eutrophication is also an issue.</p> <p>Measures are focussed on improving compliance with existing standards, reducing emissions at source and targetting pollutants that also contribute to climate change.</p>		<p>planting between roads and sensitive receptors. Design guidance is given to avoid trapping pollutants from vehicles near where people are, and advises on species choice to avoid ground level ozone production. This supports compliance with air quality standards.</p>	
	<p>Air quality plan for nitrogen dioxide (NO2) in UK (2017)</p> <p>Air Quality Plan for tackling roadside nitrogen dioxide concentrations in Edinburgh Urban Area (UK0025)</p>	<p>Statutory air quality plan for nitrogen dioxide (NO₂), setting out how the UK will be reducing roadside nitrogen dioxide concentrations.</p> <p>Implemented locally by the Edinburgh Urban Area plan; measures include promoting park and ride, walking and cycling, electric charging of vehicles to support modal shift targets.</p>	<p>The TWSEL should support actions taken and plans to reduce NO₂.</p>	<p>The TWSEL promotes accessible woodland, which may help reduce the use of private vehicle for travel to visit woodland. However, increasing the amount of woodland that welcomes the public may increase private vehicle travel overall. The TWSEL does not have much influence over overall levels of traffic, however it does encourage planting of trees in locations where this pollutant can be intercepted, which supports the aims of this plan.</p>	<p>✓</p>
	<p>Clean Air Strategy 2019 (UK)</p> <p>and</p>	<p>The Clean Air Strategy 2019 sets out the air quality strategy for the UK with objectives and targets, and notes that the UK government will work closely with devolved administrations. The</p>	<p>Air Quality: The TWSEL should use placemaking to reduce exposure to pollutants through use of green infrastructure</p>	<p>As 'Clean Air Programme for Europe', above.</p>	<p>✓</p>

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	<p>Scottish Government Cleaner Air for Scotland Strategy (2015)</p> <p>(Air quality targets are set at a UK level however air quality is largely a devolved matter)</p>	<p>Strategy is implemented by the Cleaner Air for Scotland Strategy.</p> <p>Actions include: reducing peak levels of air pollutants especially in local communities: driving down background levels of preventable air pollution; behaviour change in relation to transport; reducing transport emissions by supporting the uptake of low and zero emission fuels and technologies, and supporting modal shift towards low emission modes and active travel; reducing the need to travel through spatial planning and digital technologies; using intelligent traffic system management to use assets efficiently; consider workplace car parking levies with ULEV exemptions; reviewing speed limits for air quality; look into 'last mile' logistics; Placemaking: integrate greenspace into new and existing development to act as a buffer against noise and air emissions; plan for active travel; Climate change; energy efficiency, renewable energy, low emission fuels; public engagement</p>			

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	Local Air Quality Management Guidance, 2016 (Part of the Environmental Act 1995)	Sets out duties requiring local authorities to review and assess air quality in their area from time to time, the reviews forming the cornerstone of the system of local air quality management.	<p>Air Quality: sets out requirements to reduce air pollution which the TWSEL should contribute to if possible</p> <p>Human Health and Safety: looks to maintain and improve air quality for the benefit of human health to which the TWSEL should make a contribution.</p>	The TWSEL encourages use of trees to reduce exposure to air pollution, and use of species to avoid ground level ozone production (section 'Use Tree Planting to Enhance Air Quality', community theme.	✓
	Musselburgh Air Quality Management Plan	Sets out actions to tackle NOx in Musselburgh. As well as coordination with the East Lothian Local Development Plan 2018 and Local Transport Strategy actions include enforcement against idling; SCOOT signalling changes and SUSTRANS active travel study; awareness campaign on the impact of emissions; bus stop relocation; promotion of green travel plans; electrification of buses; longer trains and platforms at Musselburgh station	The TWSEL should support the aims of the Musselburgh Air Quality Management plan	Action 21 mentions planting street trees and hedges where appropriate in Air Quality Management Areas. The aim is to reduce exposure to air pollutants. The TWSEL also encourages species choice that avoid supporting production of ground level ozone.	✓
CLIMATIC FACTORS					
	The Paris Agreement	Agreement to reduce emissions to contribute to the reduction of greenhouse gas. Commitment to limit global warming to less than 2°C and to take action to minimise climate change.	The TWSEL should help contribute towards Scotland meeting its commitments and also through its support for the delivery of the Scottish Government's Climate Change Plan.	The Climate Change Mitigation section of TWSEL aims to increase the contribution that East Lothian's existing and future woodlands make to achieving net zero carbon in line	✓

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		Calls for action to conserve and enhance sinks of greenhouse gases, including forests.		with East Lothian Council and Scottish Government targets. The Strategy aims to retain existing trees and woodland, and create new woodland of 2 million trees. There are other actions in the strategy that contribute to this target (see 'Climatic factors' chapter above).	
	Climate Change (Scotland) Act 2009	<p>The Act</p> <ul style="list-style-type: none"> • sets a target for the year 2050, an interim target for the year 2030, and to provide for annual targets, for the reduction of greenhouse gas emissions; • makes further provision about mitigation of and adaptation to climate change; • makes provision about energy efficiency; • makes provision about the reduction and recycling of waste 	The TWSEL should promote and contribute towards targets for reduction in greenhouse gas emissions and support adaptation to climate change. It should consider energy efficiency and reduction and recycling of waste.	The TWSEL will contribute to targets for reduction in green house gas emissions by woodland creation and others as above in the 'Climatic Factors' section above. The TWSEL contains a section on 'Resilience which promotes using trees to help adapt to climate change, and also choosing trees that are adaptive to a changing climate.	✓
	Climate Change (Emissions Reduction Targets) (Scotland) Act 2019	Act of the Scottish Parliament to amend the Climate Change (Scotland) Act 2009. The Act set new targets for the reduction of greenhouse gases emissions of net zero by 2045 with an interim target of 75% by 2030; required Scottish Ministers to prepare a Climate Change plan; and embedded the 'just	The TWSEL must take account of the targets set in the Act, aiming to reduce greenhouse gas emissions, and recognise that these should be achieved in a way that reduces inequality and promotes fair work.	The TWSEL aims to create woodland in line with the amount required across Scotland to meet targets in Scotland's Climate Change Strategy. The Strategy aims to reduce the effect of inequality by promoting increased tree canopy coverage in areas in the bottom 30% of Scottish	✓

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		transition' i.e. reducing emissions in a way which tackles inequality and promotes fair work.		Index of Multiple Deprivation Areas, and to increase access to woodland which also promotes equality.	
	The Environment Strategy for Scotland: Vision and Outcomes	Strongly links the crisis in climate and nature, and seeks nature based solutions to climate mitigation and adaptation. The vision is for "One Earth. One home. One shared future. By 2045: By restoring nature and ending Scotland's contribution to climate change, our country is transformed for the better - helping to secure the wellbeing of our people and planet for generations to come." The strategy states that in Scotland we will play our full part in responding to the global climate crisis.	The TWSEL should recognise both the climate and biodiversity crisis.	The TWSEL recognises the climate and biodiversity crisis and contains actions to help play a part in addressing both. See Climatic Factors and Biodiversity sections above and in the TWSEL.	✓
	National Planning Framework 4	The twin global crises of climate and nature are at the heart of NPF4. Recognises the importance of both mitigating and adapting to climate change. NPF4 sets out a National Spatial Strategy, which is that 'Scotland's future places will be net zero, nature-positive places that are designed to reduce emissions and adapt to the impacts of climate change, whilst protecting, recovering and	The TWSEL should aim to mitigate and adapt to climate change. It should support energy efficient development. This could be done by encouraging use of trees in layouts to reduce energy use. Trees could also be used to mitigate the climatic effects of development which has unavoidable emissions. For adaptation, the TWSEL should aim to promote climate resilient woodland, and plan to reduce vulnerability to flooding. In	The TWSEL contains a Theme on Climate mitigation, which includes retention and sustainable management of emissions. The TWSEL includes Tree Design Action Group graphics which advise on use of trees to provide shelter, however other than this the Strategy does not explicitly advocate for use	//

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		<p>restoring our environment". NPF4 recognises that this will require rapid transformation across all sectors of the economy and society. The Strategy encourages low and zero carbon design and energy efficiency, development that is accessible by sustainable travel and expansion of the renewable energy sector. Building resilience to the future impacts of climate change is also crucial.</p> <p>Policy 1 Climate Mitigation and Adaptation has the intention to "encourage, promote and facilitate development that minimises emissions and adapts to the current and future impacts of climate change". The outcome is that emissions from development are minimised and our places are more resilient to climate change impacts.</p>	<p>preparing the TWSEL we should consider whether we can promote the use of wood or wood products as fuel. We should consider how trees can be used as part of energy efficient design.</p> <ul style="list-style-type: none"> • coordinate with development plan policy on protecting and enhancing woodlands; • reduce vulnerability to flooding • influence patterns of production and consumption to contribute to a low carbon future e.g. by promoting use of wood products 	<p>of trees as part of energy efficient layouts.</p> <p>Increased tree canopy cover is promoted and one of the reasons for this is that it can improve the energy efficiency of buildings by reducing wind chill. The Council has also produced Supplementary Planning Guidance for New Housing Areas, which covers all aspects of design, energy efficiency being only one aspect of good design, albeit an important one.</p> <p>Wood fuel was not promoted in the TWSEL due to issues with air quality.</p> <p>For Flooding see the 'Water' section above.</p>	
	<p>Climate Change Plan (2018-2032)(3rd Report) and Securing a Green Recovery on a Path to Net Zero: Climate Change Plan 2018-2032 - update</p>	<p>Sets out the Scottish Government's decarbonisation plans to 2032.</p> <p>The Update follows the Covid-19 pandemic, with the Scottish Government committed to a 'green</p>	<p>The TWSEL will need to take account of the Climate Change Plan and Update.</p> <p>The TWSEL should be part of nature-based solutions, and aim to increase green jobs, adaptation and resilience, action to</p>	<p>The TWSEL seeks nature-based solutions for flooding and soil erosion through woodland creation. An increase in woodland is likely to lead to green jobs in managing woodland and looking after trees, as</p>	<p>✓</p>

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		<p>recovery'. The Update sets out emissions reduction pathways over 7 sectors: Electricity, Buildings, Transport, Waste and the circular economy; Industry, Agriculture and Land use, land use change and forestry. Negative Emissions Technology is also added.</p> <p>A key consideration is the importance of leadership in the public sector, with the expectation that public services will lead by example. Public bodies must report on their targets for achieving net zero, and how their spending aligns with emissions reduction. The focus is on</p> <ul style="list-style-type: none"> • Whole System Energy Approach • Land Use, Nature Based Solutions and the link to Biodiversity • Circular Economy • Transport Demand • The Planning System and National Planning Framework 4 (NPF4) • Wellbeing and National Outcomes <p>The CCPU emphasises the importance of community and place-based climate change action, with land use and</p>	<p>maintain positive behaviours and delivering a place based approach. The TWSEL should support the circular economy.</p>	<p>well as other woodland related enterprise. The Resilience Theme addresses adaption. Provision of accessible woodland and increasing tree canopy coverage in towns supports positive active travel behaviours by provision of local woodland and an attractive environment which encourages walking and cycling.</p> <p>The TWSEL supports the circular economy through support for wood products, which can be recycled if not re-used.</p>	

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		<p>nature based solutions having a critical role. The importance of the circular economy is also key.</p> <p>Recovery from Covid-19 should be just and fair and take the opportunity to design a better future. There is commitment to increasing the number of green jobs, adaptation and resilience, action to maintain positive behaviours and delivering a place-based approach.</p>			
	<p>Scotland's Energy Efficiency Programme (SEEP) and Heat Policy Statement And Biomass Action Plan for Scotland (2007)</p>	<p>Aims to improve energy efficiency in homes, non-domestic buildings and across Scotland. Sets out goal of decarbonising heat.</p> <p>The Heat Policy Statement sets out policy for how we use, distribute and generate heat, with an ambition of achieving 1.5TWh of Scotland's heat demand to be delivered by district or communal heating by 2020.</p> <p>The Biomass Action Plan for Scotland sets out a coordinated programme for the development of biomass sector in Scotland.</p>	<p>There may be opportunities for the TWSEL to contribute to renewable heat through provision of biomass. The TWSEL should take account of the Biomass Action Plan.</p>	<p>The TWSEL does not promote the use of wood fuel at this time because of the potential for impact on air quality. As such, it does not promote the growing of tree species for biomass.</p> <p>The Strategy does provide encouragement in the form of Tree Design Action Group diagrams, for use of trees in sheltering buildings, but this is not otherwise included.</p>	//

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	Climate Ready Scotland: climate change adaptation programme 2019-2024	<p>Scottish Government’s statutory five-year programme for adapting to climate change. It sets out the Scottish Government’s policies and proposals for the next five years to increase the capacity of Scotland’s people, communities, businesses and public sector to adapt to climate change. Outcomes include Outcome 1, that communities are inclusive, empowered, resilient and safe in response to changing climate; Outcome 2: the people in Scotland who are most vulnerable to climate change are able to adapt and climate justice is embedded in policy; Outcome 4: Our society’s supporting systems are resilient Outcome 5: Our natural environment is valued, enjoyed, protected and enhance and has increased resilience to climate change</p>	<p>The TWSEL should look for opportunities to adapt to climate change including adapting to flooding, and considering provision of shade and shelter for buildings, people, and livestock.</p> <p>The TWSEL should consider how those most vulnerable to the effects of climate change can be supported (outcome 2). It should consider how to value, enjoy and protect the natural environment, and bring increased resilience to climate change.</p>	<p>The TWSEL aims to use trees to reduce flood risk (adaptation) in the ‘Resilience’ theme. Target 5 aims to increase farmland woodland, which could include that which provides shade and shelter for livestock. The Strategy also supports the retention of existing woodland, some of which has that function. Target 4A is to increase tree canopy cover in towns and larger villages to 30%. This will provide shade for both people and urban buildings. Developers are encouraged to follow Tree and Design Council advice on integrating trees into the urban environment, and a graphic is reproduced indicating use of trees to provide shelter.</p> <p>TWSEL supports those most vulnerable to the effects of climate change by promoting increased canopy coverage in areas in the lowest 30% on the Scottish Index of Multiple Deprivation. This will help these areas adapt by cooling and providing shade.</p>	<p>✓</p>

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				Policy 14 Protection of the Natural Environment seeks to avoid harm to existing biodiversity and geodiversity.	
	East Lothian Climate Change strategy	<p>The strategy aims:</p> <p>To engage, support and work with all relevant agencies, partners and communities to reduce Council services to net zero by 2045;</p> <p>To set out a coordinated approach, framework, outcomes, priorities and action plan for the implementation of climate change mitigation and adaptation across East Lothian;</p> <p>To contribute to the development of a sustainable, resource efficient and equitable East Lothian, with a thriving low carbon economy, a healthy and diverse natural environment, and flourishing low carbon communities that are resilient to the effects of future climate change;</p> <p>To prepare our communities for the impacts of climate change and adapt to future predicted changes in our climate locally.</p>	<p>The TWSEL should do what it can to reduce Council services to net zero by 2045.</p> <p>It should contribute to a sustainable, resource efficient and equitable East Lothian.</p> <p>It should support the low carbon economy.</p> <p>It should help maintain a healthy and diverse natural environment</p> <p>It should help communities become low carbon and resilient to the effects of future climate change.</p>	<p>The TWSEL Action 1 is to investigate opportunities for offsetting its own unavoidable carbon emission through creation of new multifunctional woodland locally. If successful, this will help reduce Council services to net zero.</p> <p>The TWSEL supports resource efficiency through support for the circular economy and use of wood and wood products which will often replace more material and carbon intensive products.</p> <p>The TWSEL supports an increase in native woodland, and aims to protect non-woodland habitat and species, which helps maintain a healthy and diverse natural environment.</p> <p>The 'resilience' section includes actions which will help communities become more resilience included by seeking</p>	✓

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				nature-based solutions to flooding, provision of shade and others.	
	East Lothian Green Network Strategy SPG	The Strategy aims to help people make choices which have less climate impact and mitigate climate change through landuse.	The TWSEL should support and encourage climate friendly behavioural choices for example by providing recreational areas close to homes, as well as mitigating climate change.	Target 4B seeks to increase access to trees and woodland for all. The TWSEL seeks to mitigate climate change in the 'Climate Mitigation' section.	✓
MATERIAL ASSETS					
	National Planning Framework 4 Zero waste Circular Economy Minerals	<p>Conserving and recycling assets is one of the six spatial principles: "We will make productive use of existing buildings, places, infrastructure and services, locking in carbon, minimising waste, and building a circular economy".</p> <p>Resource efficiency is included as one of the six qualities of a successful place ('Sustainable') with reference to climate resilience and integrating nature-based solution. Supports planning for zero waste, including the waste hierarchy.</p> <p>Policy is included to maintain the operation and safety of the Strategic Transport Network</p>	<p>The TWSEL should aim to support the zero waste aspirations and take the waste hierarchy into account.</p> <p>This means thinking about how forestry waste is disposed and encouraging use of forest products to replace products that are harder to recycle.</p> <p>The TWSEL should also aim to support the circular economy through promotion of consideration of the whole life cycle of wood.</p>	TWSEL Policy 4 notes that use of materials in tree and forestry operations should follow the waste hierarchy. The Strategy promotes the sustainable use and reuse of wood and wood products. Policy 5: Wood Products supports the use and retention of timber and wood products over less sustainable materials.	✓

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	<p>A National Mission with Local Impact: Infrastructure Investment Plan for Scotland 2021-2 to 2025-5</p> <p>Scottish Government's Infrastructure Commission for Scotland's Blueprint for Scotland</p>	<p>The Infrastructure Investment Plan outlines a coherent, and strategic approach to delivering our National Infrastructure Mission. The Plan demonstrates the vital role infrastructure has to play in helping businesses and communities to adapt and recover from the COVID-19 pandemic</p> <p>Sets out why, how and what strategic, large-scale investments the Scottish Government intends to take forward over the next 20 years for transport, education, health, water, waste management, sports, business, flood prevention and regeneration. Aims to deliver a wellbeing economy with sustainable and inclusive growth for all. The Vision is that infrastructure supports Scotland's resilience and enables inclusive, net zero and sustainable growth. The Strategy contains an investment hierarchy of 1. Maximise the useful life of existing</p>	<p>The TWSEL should support a well-being economy with inclusive growth for all.</p> <p>The role of woodland in supporting infrastructure for addressing flood risk, active travel networks and 20-minute neighbourhoods should be considered and included.</p> <p>The TWSEL should make sure that new woodland does not impact on existing assets which would then have to be repaired or replaced.</p> <p>The TWSEL should consider the role of woodland in addressing heat and cold in buildings to avoid the need for new infrastructure in buildings.</p>	<p>The TWSEL supports the use of trees to help reduce flood risk. Active travel is supported through use of trees to improve the urban environment (Target 4A). Action 4 seeks to work with farmers and landowners to reduce water run-off onto roads, which can damage them.</p> <p>The Councils Ash Dieback Plan, referred to in the Strategy but not part of it, will consider risks to roads.</p> <p>Design advice (paragraph 7.47) notes that tree planting proposals adjacent to roads and railways should be designed to avoid adverse impacts on these assets, and that trees and hedges should not be planted in the road verge for road safety reasons.</p> <p>Tree canopy targets for urban areas (Target 4A) will help moderate temperatures of buildings to reduce need for new infrastructure within buildings.</p>	<p>✓</p>

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		<p>assets. 2. Repurpose and co-locate 3. Replace, create or build new assets.</p> <p>Aims include decarbonising transport and supporting active travel, decarbonising heat, supporting a circular economy, boosting resilience and adaptation and investing in natural capital including woodland creation. T seeks better local places by supporting 20-minute neighbourhoods and high quality social infrastructure including water and waste water infrastructure.</p>			
	Making Things Last: A Circular Economy Strategy for Scotland	<p>Aims to increase the circularity of Scotland's economy with a focus on food and drink, remanufacture, construction and the built environment, and energy infrastructure</p>	<p>The TWSEL should look for opportunities to promote the circular economy.</p>	<p>The TWSEL notes in para 8.1 that productive forestry, sustainable use of woodland and manufacture of wood products support the circular economy and green economy. The TWSEL encourages the waste hierarchy in Policy 4, and the use of wood products in Policy 5). Hardwood timber production is supported, as well as softwood production on existing sites.</p>	<p>✓</p>
	Getting The Best From Our Land: A Land Use Strategy For Scotland 2016 - 2021	<p>Sets out Scotland's approach to land as a resource, with principles including that where land is highly suitable for a primary use (for example food production, flood management, water</p>	<p>The TWSEL should recognise the suitability of land for primary use.</p>	<p>The TWSEL recognises the value of peatland for carbon sequestration (Policy 15) and other non-woodland habitat for their biodiversity value (Policy 14). The</p>	<p>✓</p>

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		catchment management and carbon storage) this value should be recognised in decision making.		importance of prime agricultural land for food production is recognised through constraints mapping, which includes this. Golf courses, which are important for exercise and recreation are also recognised on this mapping, along with land that has significant natural or cultural heritage value.	
	Zero Waste Plan (2010)	Sets out a vision for a zero-waste society in which all waste is seen as a resource; waste is minimised; valuable resources are not disposed of in landfills and most waste is sorted, leaving only limited amounts to be treated.	The TWSEL should support measures to improve resource efficiency and implement zero waste objectives.	TWSEL Policy 4 supports the waste hierarchy and (Policy 5) the sustainable use of wood products.	✓
	Scottish Water Delivery Plan 2015 – 2021 and Delivery Update 2019	Sets out Scottish Waters priorities for delivery of drinking water and wastewater network.	The TWSEL should avoid adverse impacts on Scottish Water infrastructure.	The TWSEL recognises the role that trees can have in reducing surface water runoff, reducing pressure on water assets. The strategy supports structural planting in the Blindwells/Cockenzie area (Target 7A) which will reduce pressure on wastewater assets there.	✓
	25 Year Water Resource Plan (2015) Scottish Water	Scottish Water sets out its strategy to ensure that all customers have a secure supply of clear, fresh, safe drinking water to 2031/32 and beyond. The key	The TWSEL should avoid adverse impacts on Scottish Water infrastructure	See comment on ‘Scottish Water Delivery Plan’ above.	✓

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		<p>environment challenges for Scottish water is to adapt to pressures on water resources due to climate change and environmental constraints.</p>			
	<p>Fitting Landscapes – Transport Scotland</p>	<p>Transport Scotland policy on the landscape design and management of our transport corridors. The vision is “To promote the more sustainable design, implementation, maintenance and management of the transport estate and ensure that the landscapes we create and manage are of high quality, well integrated, bio-diverse, adaptable and deliver a meaningful contribution to national sustainability targets.”</p> <p>The aims are: to ensure a high quality of place; enhance and protect natural heritage; use resources wisely; build in adaptability to change.</p> <p>The policy was developed to assist with maintaining a safe and reliable road network, promoting and sustaining healthy growth, assisting transport corridors to integrate as far as possible into surrounding landscapes, encouraging high quality design and place making, minimising driver</p>	<p>The TWSEL should take account of the design and management objectives of this policy as they apply to the A1 and East Coast Main line railway in particular.</p> <p>The policy notes that it is important that transport corridors are designed and managed not only to meet functional objectives but also to fit with the landscape through which they pass.</p>	<p>The A1 is a major transport route and also provides a barrier to woodland connectivity in East Lothian. The TWSEL seeks a connection for climate migration which will have to address the challenges posed by the A1. The soft landscaping does also provide some woodland connectivity alongside this linear feature. The aims of Fitting Landscapes align with those of the TWSEL in terms of biodiversity connectivity and improvement to landscape distinctiveness. Para 6.75 notes that new hedgerows and hedgerow trees must consider road safety implications. Target 2A of the TWSEL seeks functional native woodland corridors through East Lothian to support migration of species under climate change. Target 3B seeks to improve connectivity of woodland habitat. This fits with Fitting Landscapes</p>	

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		visibility issues and problems with vegetation encroachment, protecting and enhancing biodiversity and reducing habitat fragmentation; and ensuring the soft estate is as sustainable and self-reliant as possible.		vision of ensuring the landscapes they create are biodiverse and adaptable.	
CULTURAL HERITAGE					
	Historic Environment (Scotland) Act 2014	Set up Historic Environment Scotland and amended previous legislation on elements of the historic environment.	The TWSEL should be aware of legislation regarding changes and harm to listed buildings and Scheduled monuments.	The TWSEL encourages consideration of the effects of the mature size of a tree on historic assets including listed buildings. Policy 25 seeks to avoid harm to listed buildings from woodland creation or tree planting. Policy 24 seeks to protect Scheduled Monuments.	✓
	Historic Environment Policy for Scotland (2019)	Contains policy for managing the historic environment. This includes that decisions affecting any part of the historic environment should be informed by an inclusive understanding of its breadth and cultural significance; that its understanding and enjoyment as well as its benefits are secured; that unavoidable detrimental impacts should be minimised; that opportunities for enhancement should	The TWSEL should seek to protect and enhance the historic environment based on an inclusive understanding of it, and with regard to intangible as well as tangible heritage. It should minimise any unavoidable impacts.	The TWSEL contains a Cultural Heritage Theme which seeks to protect and enhance cultural heritage assets, including heritage trees and woodlands, and intangible heritage such as woodland skills and lore. Policies 24 and 25 seek to protect heritage assets from harm.	✓

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		be identified; and that decisions on it should contribute to sustainable development of communities and places; be informed by an inclusive understanding of the potential consequences for people and communities. It highlights intangible heritage as an underdeveloped area.			
	National Planning Framework 4 Historic assets and places	Policy Intent: To protect and enhance historic environment assets and places, and to enable positive change as a catalyst for the regeneration of places. Policy Outcomes: <ul style="list-style-type: none"> • The historic environment is valued, protected, and enhanced, supporting the transition to net zero and ensuring assets are resilient to current and future impacts of climate change. • Redundant or neglected historic buildings are brought back into sustainable and productive uses. • Recognise the social, environmental and economic value of the historic environment 	Cultural Heritage: The TWSEL should avoid negative impact on historic environment assets and places. The TWSEL should seek to enhance historic assets where this is possible for example Historic Gardens and Designed Landscapes. The TWSEL should be informed by considerations including the character of settlements and areas of countryside as well as individual historic assets and look to accommodate planting in a way that enhances their historic value. The TWSEL should aim to involve people in understanding and celebrating the cultural heritage.	See comments on Historic Environment Policy for Scotland, above. The TWSEL considers the character of settlements through specific guidance for towns and larger villages. The TWSEL also supports character appraisals for Conservation Areas. Action 28 encourages identification and recording of important individual historic, ancient and veteran trees including through citizen science.	✓
	PAN 2/2011: Planning and Archaeology	Sets out the considerations in determining the importance of archaeology and recommends seeking	There may be unknown archaeology and undesignated remains in this area as well as designated assets, and The TWSEL	TWSEL Policy 24 seeks archaeological assessment where planting, felling or restructuring	✓

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		professional advice when this issue arises.	should take these into account relative to their importance, informed by professional opinion.	might affect an archaeological site. The TWSEL also promotes the UK Forestry Standard, which includes this.	
	Our Past Our Future: The Historic Environment Strategy for Scotland (a Scottish Government strategy)	<p>Sets out a vision for the historic environment. The priorities are:</p> <ul style="list-style-type: none"> Delivering the transition to net zero Empowering resilient and inclusive communities and places Building a wellbeing economy <p>Outcomes include reducing emissions from the historic environment and improving its climate resilience; communities having more opportunities to participate in decision making about the historic environment; the historic environment is more diverse and inclusive; the historic environment makes a responsible contribution to Scotland's economy and there is improved well-being through engagement with the historic environment.</p>	The TWSEL should seek to support these aims.	<p>The TWSEL aims to protect and enhance the historic environment (Policy 25: Protection of the Historic Environment) and record archaeological sites where this cannot be done (Policy 24). The constraints mapping recognises some cultural heritage designations. The Cultural Heritage Theme sets out other ways the Strategy will support these aims.</p> <p>The cultural heritage value of trees is recognised; this can help improve well being through engagement with historic trees, woodlands and skills. Promotion of trees with cultural heritage significance may help engage people in heritage who would not engage with built environment based heritage.</p>	✓
	Managing Change in the Historic Environment: Guidance Notes	A range of guidance notes that set out the principles that apply to developments of different types that affect the historic environment. They	Some of the Managing Change series are relevant including on Conservation Areas, Listed Buildings, Historic Gardens and Designed Landscapes, and Battlefields.	The TWSEL recognises that trees have the potential to damage cultural heritage assets either physically or in terms of setting.	✓

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		<p>should inform planning policies and the determination of applications. This includes guidance on considering setting and change.</p>	<p>The TWSEL should take these into account when planning planting proposals.</p>	<p>Policy 25 Protection of the Historic Environment aims to make sure this is taken into account where the Council has control. The TWSEL encourages those planting trees or creating woodland to consider this and includes links to some of the 'Managing Change' documents.</p>	
LANDSCAPE					
	<p>European Landscape Convention</p>	<p>The aim of the convention is to promote landscape protection, management and planning, and to organise European cooperation on landscape issues. To be achieved by:</p> <ul style="list-style-type: none"> • recognising landscapes in law as an essential component of people's surroundings, an expression of the diversity of their shared cultural and natural heritage, and a foundation of their identity • establishing and implementing landscape policies aimed at landscape protection, management and planning through the adoption of the specific measures set out in Article 6 	<p>Landscape and Townscape: The TWSEL should support the articles of the European Convention on Landscape in particular noting the 'all landscapes' approach.</p>	<p>The TWSEL contains a Theme on Landscape character which aims to use trees to help retain and enhance the distinctiveness of landscape and settlement character within East Lothian. Policy 26 Protection and Enhancement of Landscape provides that woodland expansion and tree planting should enhance and not harm landscapes and landscape character. Several 'spotlight' areas are singled out as needing a coordinated approach.</p> <p>The TWSEL notes (para 10.2) that "The Council takes an 'all landscapes' approach. All landscapes are valued as everyone</p>	<p>✓</p>

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		<ul style="list-style-type: none"> • establishing procedures for the participation of the general public, local and regional authorities, and other parties with an interest in the definition and implementation of landscape policies • integrating landscape into regional and town planning policies and in cultural, environmental, agricultural, social and economic policies, as well as in any other policies with possible direct or indirect impact on landscape <p>In addition member parties should adhere to Article 6- Specific Measures which includes: awareness raising, training and education, identification and assessment.</p>		<p>has a right to live in and enjoy vibrant surroundings.” Communities are encouraged to set their own tree canopy coverage targets and include policies on trees in Local Place Plans. This supports participation in landscape decision making.</p>	
	Creating Places (2013)	<p>Policy statement sets out the overarching policy on design including architecture and place. The document contains an action plan that sets out the work that will be taken forward to achieve positive change.</p>	<p>The TWSEL should seek to create a sense of place through good planning and design.</p>	<p>Trees are generally considered to enhance both urban and rural areas. The TWSEL seeks an increase in woodland creation and tree planting. This is expected to improve quality of place.</p>	<p>✓</p>
	Green Infrastructure: Design and Placemaking	<p>Provides an overview of the policy context for green infrastructure and sets out design issues and techniques for integration into place-making.</p>	<p>The TWSEL should take account of the good practice shown in this guidance where relevant. It should consider how tree planting can form a green</p>	<p>The TWSEL seeks multiple benefits from woodland creation. The Strategy seeks to address fragmentation of woodland to</p>	<p>✓</p>

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
		<p>Confirms that ‘green infrastructure’ includes ‘blue’ infrastructure such as SUDS, wetlands, watercourses and open water. Notes that Green infrastructure can deliver on functions and services such as shelter, access and travel, drainage, pollution mitigation and food production, and that this approach has the benefit of enhancing habitats and creating attractive places. It notes that linking such areas into green networks can lead to further benefits at the strategic level. Green infrastructure should be considered at every scale. Consideration should be given to how the scheme will integrate with existing roads, paths and surrounding development.</p>	<p>infrastructure network with multiple benefits at the strategic scale.</p>	<p>achieve a more resilient habitat network across the area. This will improve biodiversity but also allow for climate migration of species which can help make the woodland more resilient, helping to retain it as a landscape feature.</p> <p>Connectivity is also considered at a more local scale through the guidance given on individual settlements.</p>	
	<p>Natural Heritage Futures and Update SNH (now Naturescot)</p>	<p>Produced as a non-proscriptive visionary document describing the regional distinctiveness of the Eastern Lowlands and looking at what they could become in the future. The vision includes river systems responding naturally to rainfall and a variety of habitats flourish in the diverse environments created by natural flooding; low ground is dominated by productive arable farming, but the</p>	<p>The TWSEL should look to this document for inspiration, although it is not intended to be prescriptive it sets out a vision for Eastern Lowland Scotland as a whole.</p>	<p>The TWSEL seeks more riparian planting (Target 2) which will help river systems respond more naturally to rainfall as this is likely to be the land cover that would be around most of them naturally. The TWSEL recognises the important of arable agriculture and does not support woodland creation there unless it supports food production or water management objectives.</p>	<p>v✓</p>

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
		<p>diversity of the landscape has increased. Native woodlands have expanded with networks of broadleaves, open space, paths and tracks contribute to multi-benefit woodland management. Safer countryside access routes have been developed. The urban fringe of Edinburgh and smaller towns is well integrated through landscaping of high wildlife value. Transport infrastructure contributes to habitat.</p>		<p>TWSEL Target 3A seeks a doubling of native woodland with Target 3N to improve connectivity of broadleaf and yew habitat.</p>	
	<p>People, Place and Landscape – Joint Position Statement by SNH (now Naturescot) and HES</p>	<p>The vision is that “All Scotland’s landscapes are vibrant and resilient. They realise their potential to inspire and benefit everyone. They are positively managed as a vital asset in tackling climate change. They continue to provide a strong sense of place and identity, connecting the past with the present and people with nature, and fostering wellbeing and prosperity.”</p> <p>Actions include engaging people in decisions about landscape, strengthening the role of landscape in planning</p>	<p>The TWSEL should consider how the landscape can become vibrant and resilient, as well as encouraging management to tackle climate change. The landscape should provide a strong sense of place and identity.</p>	<p>TWSEL encourages (Target 1) an increase in woodland cover to tackle climate change. Choice of species to consider future climatic conditions is encouraged. Sustainable woodland management is encouraged. This will help the landscape become more resilient.</p>	<p>✓</p>

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
	Scottish Landscape Character Types and Descriptions -SNH (now Naturescot)	The aim of Landscape Character Assessments is to classify landscape within certain areas, to identify the forces for change which may affect their distinctive character, give guidelines for conservation/enhancement of the different types of landscape and to find opportunities for landscape conservation, restoration or enhancement	Landscape and Townscape: The TWSEL should seek to support conservation and enhancement of different types of landscape in East Lothian.	The TWSEL encourages different types of woodland cover in different areas. The TWSEL contains a map showing the potential for native woodlands in different areas (Figure 25). The commentary to this explains what type of woodland is sought in different areas. This will support the distinctiveness of different landscape types through encouragement of woodland which is suitable for that area.	✓
	East Lothian's Special Landscape Areas SPG (2018)	This SPG describes the Landscape Character Areas of East Lothian, with guidance on how their character can be strengthened. It provides Statements of Importance for each of the Special Landscape Areas designated in the East Lothian Local Development Plan 2018 including the qualities and features which led to their designation, guidelines for development and management recommendations.	Landscape: The ELFSW should seek to reinforce the landscape character of the different areas of East Lothian, and avoid harm to Special Landscape Areas, in line with this guidance.	Policy 26 Protection and Enhancement of Landscape seeks to protect Special Landscape Areas. Para 10.3 draws attention to this guidance.	✓
	East Lothian Green Network Strategy SPG	The Strategy supports the aims of the Economic Development Strategy by aiming to provide a high-quality landscape and recreational setting.	The ELFSW should aim to provide a high-quality landscape and recreational setting.	The TWSEL contains a section on the character and setting of towns and villages, noting that trees can be important for the setting and	✓

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
				amenity of many East Lothian settlements. Comments are made on setting in Appendix A; Trees and Woodlands in Settlements	
	ELC Countryside and Coast SPG 2019	The SPG gives guidance on the operation of East Lothian Local Development Plan 2018 policy towards the Countryside and Coast, within the framework set by that plan, including the Countryside Around Towns areas. It aims to improve design in coastal areas through guidance on character of the different coastal areas. The main objectives for the CAT areas are: protection of the landscape setting of settlements; prevention of coalescence of settlements to retain the distinctive identities of separate communities; provision of green networks and recreation.	The TWSEL should take account of the design guidance with this SPG.	The TWSEL seeks to create a coastal mosaic habitat around the coast (Action 14, Vision diagram). Setting of towns is considered in Appendix A, which took the Countryside around Town areas into consideration.	✓
	OVERARCHING				
	Forest Principles (UNCED 1992)	Introduced the 'Forest Principles' which lay the foundation for later policy developments, seeking to balance and harmonise competing demands on forest resources.	TWSEL should support these principles, with reference also to their expression in the Scottish Forestry Strategy.	The TWSEL supports sustainable forest management and the multifunctional role of forests and the UK Forestry Standard, which derive from the Forest Principles.	✓

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
	<u>Control of Woodland Removal Policy (Scottish Government and Forestry Commission, 2009)</u>	Provides a strategic framework for appropriate woodland removal, the maintenance and expansion of forest cover, the achievement of an appropriate balance between forested and non-forested land, support for climate change mitigation and adaptation.	The TWSEL should support this Policy by seeking suitable sites for replacement planting where woodland is removed for good planning reasons. The TWSEL should recognise the aim of minimising permanent woodland removal.	Policy 1: Retention of woodland, trees and hedges refers to the Control of Woodland Policy. The TWSEL aims to retain existing woodland as far as possible.	✓
	<u>The Right Tree in the Right Place – Planning for Forestry and Woodlands (Forestry Commission 2010)</u>	Provides advice to planning authorities on planning for forestry and woodlands. It supports a significant expansion in woodland cover.	The TWSEL should aim to significantly expand woodland cover, in the right places.	The TWSEL followed the advice of this document in producing the constraints mapping which will inform grant funding decisions. Target 1, which reflects an existing Council ambition, aims to significantly expand woodland cover, and the remaining guidance and policy of the TWSEL aims to steer it to the right place.	✓
	<u>East Lothian Council Plan 2022-27</u>	The East Lothian Council Plan 2017-2022 sets a vision for “an even more prosperous, safe and sustainable East Lothian, with a dynamic and thriving economy, that enables our people and communities to flourish” The objectives are: recovery and renewal from Covid; reduce poverty and inequality; respond to the climate emergency; grow our economy; grow	The TWSEL should contribute to delivering the vision and objectives of the Council Plan.	The TWSEL contains a section on Economy which will support a more prosperous East Lothian. The Climate Mitigation and Biodiversity Themes contribute to a more sustainable East Lothian, while the Resilience and Community Themes contain policy and action to help our communities flourish.	✓

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
		our people; grow our communities; grow our capacity.			
	East Lothian Local Development Plan 2018	Sets out the spatial strategy for the use and development of land within the area and includes an associated developer contributions framework for infrastructure delivery.	The TWSEL should take account of the provision for development and policy towards trees contained in the development plan.	The TWSEL seeks to increase protection of trees in relation to development; however it is not the development plan and it is for the decision maker to determine if it is a material consideration for any planning application.	✓
	East Lothian Green Network Strategy SPG	The Strategy supports the aims of the Economic Development Strategy by aiming to provide a high-quality landscape and recreational setting. It proposes action within lower SIMD areas and projects in the Western Area to improve active travel links and promotion of heritage (subject to impacts on the Firth of Forth SPA).	The TWSEL should implement the Green Network Strategy by providing a high-quality landscape setting for development and improving connectivity.	The TWSEL sets out issues and opportunities for each settlement which will help provide a high-quality landscape setting for development. Appendix E provides advice for developers which also supports this aim.	✓
	East Lothian Plan 2017-27 (Local Outcome Improvement Plan)	The Plan: is intended to tackle inequalities of outcome, particularly for groups of people who do less well than others because of socio-economic inequality; is focused on what partner organisations can achieve by working together, over and above what they already do as single organisations. It is	The TWSEL should contribute to achieving the environmental outcomes set out, including helping people to find jobs, growing local business, strong resilient communities with a high quality environment; tackling poverty and health inequality.	The TWSEL should increase the number of green jobs related to woodland, and support farming incomes. Increasing tree canopy coverage should improve the urban environment, while creation of the climate forest will improve the rural landscapes. These improvements support a healthy	✓

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
		based on the following themes: prosperous; community minded; fair.		environment and should increase active travel.	
	Fa'side Area Partnership Plan (working document)	<p>The themes are Sustainable Economy, Resilient People and Safe and Vibrant Communities. Within this, the priority areas for action are:</p> <ol style="list-style-type: none"> 1. Improving our Town and Villages 2. Supporting a thriving local economy 3. Improve travel options and reduce traffic congestion throughout the Area 4. Increasing opportunities for physical activity in day-to-day life 5. Supporting families to create healthy environments for children 6. Making it easier to choose healthy and locally grown food 7. Improving Community information, facilities and resources 8. Ensuring all Residents of Fa'side feel Safe and Secure in their Community 9. Becoming a more supportive and inclusive community 	The TWSEL should have regard to the environmental objectives and priority areas for action.	<p>Increasing tree canopy coverage should improve towns and villages, and this is particularly so in the Fa'side area where canopy cover is low. Improving the accessibility of woodland (Target 4B) will give more opportunity for physical activity in daily life. Action 23 encourages local fruit and nut growing.</p> <p>At project level, the potential for trees to reduce feelings of safety in the environment must be considered.</p>	✓
	Preston Seton Gosford Area Partnership Plan	<p>This plan shares the common themes of all East Lothian Community Partnership Plans of Prosperous, Community Minded and Fair.</p> <ol style="list-style-type: none"> 1: Encourage social enterprise and small business development in the area. 5: Capitalise on the area's rich cultural and industrial heritage to increase 	The TWSEL should have regard to the environmental objectives and priority areas for action of this plan.	The TWSEL economy section includes Action 25, promoting woodland based tourism, and Action 26, small scale low impact tourism business. Action 24 is to encourage and enable smaller producers to work together in joint marketing. There should be some	✓

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
		<p>visitors and increase employability skills.</p> <p>6: Promote the sense of a village identity and cultural heritage in the communities of Prestonpans, Longniddry, Cockenzie & Port Seton and develop the understanding that the area is made up of a variety of local neighbourhoods, each with their distinct needs and identities.</p> <p>7: Protect green spaces and connect people with their natural environment within and between communities to increase health and wellbeing.</p> <p>12. Our communities are better able to make healthy choices, reduce isolation and access the services they need in order to maintain a positive level of physical and mental health.</p> <p>14. Improve access to the places, spaces and facilities for everyone.</p> <p>18. Help ensure roads and pavements are safe and accessible.</p> <p>19. Actively encourage people to walk and cycle and use the path networks within and between our communities.</p>		<p>job creation in association with trees and woodland management.</p> <p>The Cultural Heritage theme includes actions supporting cultural heritage. Guidance on each settlement has consider their individual character. Improving tree canopy coverage will help connect people to their natural environment. A better urban environment is likely to reduce isolation by encouraging use of public space. The Strategy encourages fruit and nut growing, which can help with both physical and mental health. Tree planting and management at project level should consider the effect on roads and pavements.</p>	
	Dunbar and East Linton Area Partnership Plan	<p>This plan shares the common themes of all East Lothian Community Partnership</p>	<p>The TWSEL should have regard to the environmental objectives and priority areas for action of this plan.</p>	<p>The TWSEL Economy section includes actions which support rural employment. Increasing</p>	<p>✓</p>

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
		<p>Plans of Prosperous, Community Minded and Fair.</p> <p>4. The work, social and recreational needs of village residents will be met locally</p> <p>1. Ward Communities are places encouraging a Low Carbon Lifestyle and are prepared for the effects of Climate Change.</p> <p>6. Encourage increased use of public transport and active modes of travel and ensure our roads are safe.</p> <p>8. Our communities are supported to enable people to make health choices and maintain a healthy lifestyle and vulnerable / isolated people are supported</p>		<p>accessible woodland helps support use of active travel to recreational destinations. The Climate Mitigation and Resilience sections aim to use woodland to mitigate and adapt to climate change.</p>	
	<p>Haddington and Lammermuir Area Partnership Plan</p>	<p>This plan shares the common themes of all East Lothian Community Partnership Plans of Prosperous, Community Minded and Fair.</p> <p>2: Promote the HAL area's heritage and culture</p> <p>3: The town centre looks appealing, vibrant and safe for everyone who visits or works there</p>	<p>The TWSEL should have regard to the environmental objectives and priority areas for action of this plan.</p>	<p>The TWSEL in its Cultural Heritage chapter encourages promotion of woodland heritage as well as protection of heritage assets from tree planting and woodland creation. While canopy coverage targets are included, the TWSEL includes recognition that some Conservation Areas which may included parts of Haddington Town</p>	<p>✓</p>

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
		<p>5: Encourage increased use of active modes of travel</p> <p>7: People are enabled to live at home and access opportunities in their communities for as long as possible</p> <p>8: Our communities are better able to make healthy choices, reduce isolation and access the services they need in order to maintain a positive level of physical and mental Health</p>		<p>Centre, do not have trees as part of their character and that they may not be appropriate there. The target for accessible woodland will help people access opportunities within their communities. This, and increased urban canopy coverage, supports mental health and active travel, <i>which is a healthy choice.</i></p>	
	<p>Musselburgh Area Partnership Plan</p>	<p>This plan shares the common themes of all East Lothian Community Partnership Plans of Prosperous, Community Minded and Fair.</p> <p>1. Support town centre regeneration in Musselburgh by encouraging the implementation of the Musselburgh Town Centre Strategy (MTCS) and other initiatives.</p> <p>2. Fisherrow Harbour and waterfront area is restored and enhanced as a local asset and opportunity for economic development.</p> <p>5. Increased use of active modes of travel (i.e. walking and cycling) for trips</p>	<p>The TWSEL should have regard to the environmental objectives and priority areas for action of this plan.</p>	<p>The TWSEL supports increased urban tree canopy coverage, but also recognises there are places such as some Conservation Areas where the character of the area does not include trees. This is in line with town centre regeneration and enhancement of Fisherrow Harbour and waterfront.</p> <p>Increased tree canopy coverage targets should improve the urban environment which helps encourage use of active travel modes. Canopy coverage targets also support tree planting in green spaces, which is generally seen as enhancement, and improves them</p>	<p>✓</p>

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
		<p>within the Musselburgh area and cross boundary connections.</p> <p>6: Green spaces are protected and enhanced for community recreation.</p> <p>9. Free and fun fitness opportunities are available and existing green spaces (parks and the natural landscape) are accessible and used by families and people</p> <p>11. Encourage measures that will lead to improved air quality in Musselburgh High Street to help reduce health inequalities</p>		<p>as a free opportunity for fun and fitness.</p> <p>The TWSEL supports use of tree planting to support air quality, and provides design advice on how this can be achieved.</p>	
	<p>North Berwick and Coastal Area Partnership Plan</p>	<p>This plan shares the common themes of all East Lothian Community Partnership Plans of Prosperous, Community Minded and Fair.</p> <p>2. We want to make it easier for everyone to get around the area. We want to make sure our streets and pavements are safe and fully accessible.</p> <p>3: We believe each of our communities has a unique sense of place and identity to be valued and protected.</p> <p>This derives from two assets:</p>	<p>The TWSEL should have regard to the environmental objectives and priority areas for action of this plan.</p>	<p>Increased tree canopy coverage targets should improve the urban environment which helps encourage use of active travel modes. Trees can sometimes bring issues of damage to pavements, or the dropping of leaves on them. While care with location and species choice can reduce this, some effect remains likely.</p> <p>The TWSEL aims to increase woodland and improve accessibility of woodland. The TWSEL recognises the importance of retaining the</p>	//

	Name of Plan	Environmental Requirements of Plan	Implications for TWSEL	Comments	Complies?
		<p>Firstly, our diverse high quality, attractive natural environment including coastal, countryside and woodland, and secondly our historic built areas. These are enjoyed by both locals and visitors alike. We wish to support initiatives which protect and enhance these.</p>		<p>character of areas of cultural heritage value such as Conservation Areas, including where trees are not part of this historic character.</p>	

17 OVERALL CONCLUSION

17.1 The TWSEL contains Themes specifically aimed at Biodiversity, Landscape and Climate Change, Cultural Heritage, and Landscape, and significant benefits in these areas are expected. Woodland biodiversity will benefit from increased protection of woodland, expansion of woodland and more connections between woodland areas. Increased woodland planting will mitigate climate change and help us adapt to inevitable climate changes. Cultural heritage will benefit from recognition of notable trees. Landscape will be enhanced by woodland creation.

17.2 The main potential for adverse effects is:

- For biodiversity, there is likely to be an increase in invasive species that live in woodland, due to the expansion of woodland.
- The TWSEL aims to increase access to woodland, and to focus this on those woodlands that can best cope with more visitors. However, there could be some increase in damage to woodland biodiversity from increased recreational access
- An increase in tree canopy coverage generally makes an area more pleasant to be in. However, there for some people or in some places this increase in tree cover may reduce their enjoyment of their home or area.
- Increasing woodland cover, and encouraging people to use woodland, could lead to an increase in vector borne disease, mainly from ticks. There could also be an increase in tree pollen allergy
- TWSEL encourages woodland on agricultural land where it will support agricultural production. This will lead to the loss of some of this land.
- More trees especially in towns will bring more fallen leaves and seeds which can grow in unwanted places. This could potentially lead to an increase in damage to or maintenance needs of structures and roads.
- An increase in trees and woodland will bring landscape change. This will generally make the landscape more diverse and interesting. However, at the time when most cultural heritage assets were created, there were fewer trees. Sometimes, therefore, tree planting may affect cultural heritage assets or their setting, and impact on how people understand them.

17.3 The TWSEL complies with most of the environmental objective of relevant Plans, Policies and Strategies. In particular it complies with the Scottish Forestry Strategy, National Planning Framework 4 and the Scottish Climate Change Policy and Update and will help implement their main environmental objectives. The main policy that it does not comply with is Scotland's Energy Efficiency Programme and Biomass Strategy, as it does not seek any increase in wood fuel. This is in support of air quality objectives.

18 MONITORING

18.1 The environmental impacts of larger proposals coming forward under the strategy will be examined by Scottish Forestry through applications for grants or permission, and where necessary, for planning permission from the Council. Where relevant applications will be accompanied by Environmental Impact Assessment, Transport Assessment, Habitat Regulation Appraisal, Landscape and Visual Impact Assessment, Flood Risk Assessment and others.

18.2 The overall landscape impacts will be monitored along with the effects of the East Lothian Local Development Plan 2018.

18.3 East Lothian Council is currently considering how to collect data on climate change emissions. The amount of tree planting coming forward may be included as part of this work.

18.4 Proposals for monitoring are:

Topic	Monitoring measures
Biodiversity	NatureScot site condition reports for woodland features of SSSIs Collate information from Countryside Rangers/others on damage to woodland arising from access Collation of outcomes of planning applications on ancient woodland sites
Population	% of properties in lowest 30% SIMD that meet Woodland Trust accessibility standard
Human Health	Number of deaths and serious injuries caused by trees – NHS statistics Number of road accidents involving deer
Soil	Area of prime and sub-prime agricultural land which has changed to woodland
Water	SEPA water quality data Area of woodland in the riparian zone (30m from the river)
Air	Numbers of people suffering tree pollen allergy (check with Public Health Scotland)
Climatic Factors	Change in area of woodland Collation of outcomes of planning applications involving change of use of woodland Area of woodland retained in use as such? Avoidance of peat/saltmarsh?
Material assets	ELC Reports of damage to assets attributable to trees Road accidents related to trees
Cultural Heritage	Number of notable, veteran and ancient trees recorded through citizen science
Landscape	Are landscape masterplans in place

18.5 SEPA continue to monitor various aspects of air, water and soil quality, but not the impact of the TWSEL.

- 18.6 NatureScot monitor the condition of SSSIs and European sites. The British Trust for Ornithology coordinate the Wetland Bird Survey along the coastline. This survey monitors the numbers of birds at the coast. This will show the overall condition of the sites but not any impact of the TWSEL specifically. East Lothian Countryside Rangers work extensively along the coast and will informally monitor changes arising from recreational pressure or otherwise. Changes arising from projects coming forward under the TWSEL may be picked up informally through this mechanism. East Lothian Council is open to reports from members of the public or organisations, some of whom take an interest in the birdlife of the coast and the quality of the coastal experience generally. East Lothian Council respond to any issues raised.
- 18.7 A monitoring report will be prepared after 3, 7 and 9 years, and either reported to Cabinet or placed into the Members Library Service.

19 REFERENCES

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APPENDIX ONE – Condition of SSSIs

A1 The following table shows the status, trend and pressures for qualifying interests of the SSSIs. This information is available at NatureScots Sitelink website: <https://sitelink.nature.scot/home> .

Feature	Status (updated)	Trend	Pressures within SSSI
BANGLEY QUARRY			
Mineralogy of Scotland	Unfavourable (2015)	Declining	Invasive Species – Scots pine, scrub
BARNS NESS COAST			
Lower Carboniferous [Dinantian - Namurian (part)]	Favourable (2002)	Maintained	None
Coast - saltmarsh	Favourable (2015)	Declining	Natural event
Coast – sand dunes	Unfavourable (2016)	Recovering	Invasive species – Nettles, Senecio jacobaea, Thistles
Coast – Shingle	Favourable (2016)	Recovered	Infrastructure
BASS ROCK			
Gannet (<i>Morus bassanus</i>), breeding	Favourable (2014)	Maintained	None
Seabird colony, breeding	Favourable (2016)	Declining	Climate Change Game/ fisheries management
DANSKINE LOCH			
Fen woodland	Unfavourable (2009)	Declining	Invasive species No proactive management Water management
FORTH ISLANDS			
Cormorant (<i>Phalacrocorax carbo</i>), breeding	Unfavourable (2016)	Declining	None
Puffin (<i>Fratercula arctica</i>), breeding	Unfavourable (2016)	Declining	Climate Change Game/ fisheries management Invasive species
Seabird colony, breeding	Favourable (2017)	Declining	Game/ fisheries management
FIRTH OF FORTH			
Arthropoda (excluding insects and trilobites)	Favourable (2016)	Maintained	None

Feature	Status (updated)	Trend	Pressures within SSSI
Beetle assemblage	Unfavourable (2000)	Declining – to be denotified	Invasive species, Over grazing, Recreation/disturbance Under grazing
Bar-tailed godwit (<i>Limosa lapponica</i>), non-breeding	Favourable (2015)	Maintained	Recreation/disturbance – dog walking, walking
Carboniferous - Permian Igneous	Unfavourable (2008)	No change Management measures are in place that should, in time, improve the feature	Recreation/disturbance
Coastal Geomorphology of Scotland	Favourable (2017)	Maintained	Natural event – tidal erosion
Cormorant (<i>Phalacrocorax carbo</i>), non-breeding	Favourable (2015)	Maintained	Game/ fisheries management
Common scoter (<i>Melanitta nigra</i>), non-breeding	Unfavourable (2015)	Declining	None
Curlew (<i>Numenius arquata</i>), non-breeding	Favourable (2015)	Maintained	Climate Change Recreation/disturbance - Dog walking, Walking
Dunlin (<i>Calidris alpina alpina</i>), non-breeding	Favourable (2015)	Declining	None
Eider (<i>Somateria mollissima</i>), breeding	Favourable (2013)	Recovered	No proactive management Recreation/disturbance - Dog walking/Walking
Eider (<i>Somateria mollissima</i>), non-breeding	Favourable (2015)	Declining	Recreation/disturbance Dog walking
Golden plover (<i>Pluvialis apricaria</i>), non-breeding	Unfavourable (2015)	Declining	None
Goldeneye (<i>Bucephala clangula</i>), non-breeding	Unfavourable (2015)	Declining	Climate change
Great crested grebe (<i>Podiceps cristatus</i>), non-breeding	Unfavourable (2015)	Declining	Natural event
Grey plover (<i>Pluvialis squatarola</i>), non-breeding	Favourable (2015)	Declining	Climate Change Recreation/disturbance - Dog walking, Walking
Knot (<i>Calidris canutus</i>), non-breeding	Unfavourable (2015)	Declining	Climate Change Recreation/disturbance
Lapwing (<i>Vanellus vanellus</i>), non-breeding	Favourable (2015)	Declining	None

Feature	Status (updated)	Trend	Pressures within SSSI
Long-tailed duck (Clangula hyemalis), non-breeding	Unfavourable (2015)	Declining	None
Lower Carboniferous [Dinantian - Namurian (part)]	Unfavourable (2008)	No change	Dumping/ storage of materials Water quality
Lowland neutral grassland	Unfavourable (2009)	Declining	Invasive species Other
Mallard (Anas platyrhynchos), non-breeding	Favourable (2005)	Declining	Climate Change Recreation/disturbance
Maritime cliff	Unfavourable (2002)	Declining	Agricultural operations Invasive species No proactive management Under grazing
Mineralogy of Scotland	Favourable (2002)	Maintained	None
Mudflats	Condition Not Assessed		None
Northern brown argus (Aricia artaxerxes)	Favourable (2014)	Maintained	Invasive species Recreation/disturbance
Oystercatcher (Haematopus ostralegus), non-breeding	Favourable (2015)	Maintained	None
Palaeozoic Palaeobotany	Favourable (2008)	Maintained	None
Permian - Carboniferous Fish/Amphibia	Favourable (2008)	Maintained	None
Pink-footed goose (Anser brachyrhynchus), non-breeding	Favourable (2015)	Maintained	None
Quaternary of Scotland	Favourable	Maintained	Natural event Tidal erosion
Red-breasted merganser (Mergus serrator), non-breeding	Unfavourable (2015)	Declining	None
Red-throated diver (Gavia stellata), non-breeding	Favourable (2015)	Maintained	None
Redshank (Tringa totanus), non-breeding	Favourable (2015)	Maintained	Recreation/disturbance
Ringed plover (Charadrius hiaticula), breeding	Unfavourable (2013)	No change	Invasive species Natural event Other

Feature	Status (updated)	Trend	Pressures within SSSI
			Recreation/disturbance
Ringed plover (Charadrius hiaticula), non-breeding	Favourable (2015)	Maintained	None
Saline lagoon	Favourable (2008)	Declining	Agricultural operations Ploughing No proactive management Over grazing Cattle Trampling Water management
Saltmarsh	Unfavourable (2015)	Recovering	Infrastructure Invasive species Over grazing Trampling Water management
Sand dunes	Unfavourable (2012)	No change	Invasive species - Sea buckhorn Recreation/disturbance Under grazing
Sandwich tern (Sterna sandvicensis), passage	Favourable (2015)	Maintained	None
Scaup (Aythya marila), non-breeding	Unfavourable (2015)	declining	None
Shelduck (Tadorna tadorna), breeding	Favourable (2013)	Maintained	Agricultural operations Flood defence/coastal defence works Other Recreation/disturbance
Shelduck (Tadorna tadorna), non-breeding	Favourable (2015)	Maintained	None
Slavonian grebe (Podiceps auritus), non-breeding	Unfavourable (2015)	declining	None
Transition grassland	Favourable (2004)	Maintained	Agricultural operations – drainage ditches, ploughing, spreading Invasive species - common reed No proactive management Over grazing - cattle

Feature	Status (updated)	Trend	Pressures within SSSI
Turnstone (Arenaria interpres), non-breeding	Favourable (2015)	Maintained	None
Upper Carboniferous [Namurian (part) - Westphalian]	Favourable (2002)	Maintained	None
Vascular plant assemblage	Favourable (2015)	Recovered	Invasive species - sea buckthorn
Velvet scoter (Melanitta fusca), non-breeding	Favourable (2015)	Maintained	None
Wigeon (Anas penelope), non-breeding	Favourable (2015)	Maintained	None
GARLETON HILLS			
Carboniferous - Permian Igneous	Favourable (2012)	Maintained	None
KEITH WATER			
Quaternary of Scotland	Unfavourable (2012)	Declining	None
LAMMER LAW			
Blanket Bog	Unfavourable (2014)	No change	Burning Over grazing Water management
Juniper scrub	Unfavourable (2015)	Declining	Burning Over grazing
Upland habitat - Subalpine dry heath	Unfavourable (2005)	Declining (management measures in place should improve the feature)	Burning Over grazing
Upland assemblage – upland habitat	Favourable (2005)	Maintained	None
LAMMERMUIR DEANS			
Fluvial Geomorphology of Scotland	Favourable (2016)	Maintained	None
Subalpine calcareous grassland	Favourable (2012)	Declining	None
Upland mixed ash woodland	Unfavourable (2014)	Recovering	Over grazing - Deer, Sheep
Valley Fen (wetlands)	Favourable (2004)	Maintained	None
NORTH BERWICK LAW			

Feature	Status (updated)	Trend	Pressures within SSSI
Lowland calcareous grassland	Unfavourable (2014)	No Change	Undergrazing Overgrazing
PAPANA WATER			
Upland Mixed Ash Woodland	Favourable (2008)	Maintained	Invasive Species Under grazing
RAMMER CLEUGH			
Quaternary of Scotland	Favourable (2008)	Maintained	Forestry operations Invasive species
Upland Oak Woodland	Unfavourable (2003)	Recovering	None
TRAPRAIN LAW			
Carboniferous - Permian Igneous	Unfavourable (2012)	Declining (management measures in place should improve the feature)	Natural event
Lichen Assemblage	Favourable (2017)	Maintained	None
WOODHALL DEAN			
Upland Oak Woodland	Unfavourable (2006)	Declining	Over grazing - Deer

APPENDIX TWO: BASELINE DATA SOURCES

A2.1 This table shows main background baseline information and trends, similar to the approach taken in the Scottish Forestry and Woodland Strategy SEA.

Topic	Baseline Information	Key Data	Trends	Source
Biodiversity	Native Woodland of East Lothian (2013)	The area of native woodland in 2013 was 1405 ha, 19.3% of the total woodland area or 2.1% of the total land area of East Lothian. The main types are lowland mixed deciduous woodland, wet woodland and upland birchwoods. The most common native tree species in the upper canopy are ash and pedunculate oak; sycamore is the most common non-native species. Woodland canopy averages 77% across all native woods, with native species making up 81% of the canopy. INNS occupy 1.9% of native woodland areas, with rhododendron the chief threat. Native woods have 90% of the total area in the lowest two categories of herbivore impact assessment; just over a third is in good health for biodiversity.	There were 2266 ha of broadleaved woodland in 2011, rising to 2445 ha by 2020 (National Forest Inventory). Not all of this will be native as it includes e.g. sycamore.	Forestry Commission Scotland and NatureScot “Native Woodland Survey of Scotland – East Lothian”
Biodiversity	Ancient Woodland	There are 893 ha of woodland now present on ancient woodland sites, of which 34% is native woodland, and another 8% nearly native. Some 22% of PAWS are native; Scots Pine, sycamore and Sitka spruce are the main components (43%) of the PAWS canopy.		As above
Biodiversity	Forestry and Woodland Cover in Scotland and the UK	Woodland in the UK is estimated to be 13% of the total land area in the UK, 10% in England, 15% in Wales, 19% in Scotland and 9% in Northern Ireland. Conifers account for around half of the woodland area of the UK, and three quarters in Scotland.	13.3 thousand hectares of new woodland were created in the UK in 2020-2021, with conifers accounting for 55% of this area.	Scottish Forestry Open data at https://open-data-scottishforestry.hub.arcgis.com/ Forest Research statistics at https://www.forestresearch.gov.uk/tools-and-resources/statistics/forestry-statistics/

Biodiversity	UK Biodiversity Priority Habitat types	Lowland mixed deciduous, native pine woodlands, upland birchwoods, upland mixed ashwoods, upland oakwood, wet woodland, wood pasture and parkland		NatureScot Habitat definitions
	HabMoS – EUNIS land cover	Coastal habitats; constructed, industrial, and other artificial habitats; grasslands and lands dominated by forbs, mosses, or lichens; habitat complexes; heathland, scrub, and tundra; inland surface waters; inland unvegetated or sparsely vegetated habitats; marine habitats; mires, bogs, and fens; montane habitats; regularly or recently cultivated agricultural, horticultural, and domestic habitats; woodland, forest, and other wooded land		Map Scotland's environment web (Add EUNIS land cover Layer and NVC to Annex 1 and EUNIS)
Biodiversity	Designated protected areas	3 SPAs, 15 SSSIs, 1 Ramsar site	Trend data for Scotland shows the proportion of features in favourable condition has increased from 71.4 to 76.4 between 2005 and 2023	NatureScot Sitelink https://sitelink.nature.scot/home
Biodiversity	Deer population in woodland habitats (2016)	Species Red deer: between 85 000 and 105 000 Roe, Sika, and fallow deer: between 125 000 and 145 000	Trend data is uncertain (2019 from SFS SEA); across private woodlands, estimates indicate the population could be stable or falling slightly; on National Forest Estate land, figures suggested the population for all deer species combined dropped by 24% between June 2001 and June 2016	SNH (now NatureScot) Deer Management in Scotland: Report to the Scottish Government from Scottish Natural Heritage 2016

Biodiversity	Pressures on Biodiversity	<p>IPBES: Climate Change, Pollution, INNS, direct exploitation of organisms, changing use of sea and land (planet pressures); and People's disconnect with nature, and lack of value and importance of nature (people pressures).</p> <p>These global drivers also affect Scotland's nature and its most special natural features.</p>		<p>Key pressures on biodiversity (NatureScot)</p> <p>IPBES (2021) Global Assessment Report on Biodiversity and Ecosystem Services</p> <p>NatureScot State of Nature Scotland Report 2019</p>
Population	Overall numbers (2020)	<p>On 30 June 2019, the population of East Lothian was 107,090. This is an increase of 1.2% from 105,790 in 2018. Over the same period, the population of Scotland increased by 0.5%.</p>	<p>Between 2018 and 2028, the population of East Lothian is projected to increase from 105,790 to 113,403. This is an increase of 7.2%, which compares to a projected increase of 1.8% for Scotland as a whole.</p>	<p>East Lothian Council Area Profile at East Lothian Council Area Profile (nrscotland.gov.uk)</p>
Population	Population change	<p>Between 1998 and 2019, the population of East Lothian has increased by 21.2%. This is the highest percentage change out of the 32 council areas in Scotland. Over the same period, Scotland's population rose by 7.6%.</p>	<p>Between 2018 and 2028, the population of East Lothian is projected to increase from 105,790 to 113,403. This is an increase of 7.2%, which compares to a projected increase of 1.8% for Scotland as a whole.</p>	<p>East Lothian Council Area Profile at East Lothian Council Area Profile (nrscotland.gov.uk)</p>

Population	Age structure	In terms of overall size, the 45 to 64 age group was the largest in 2019, with a population of 31,333. In contrast, the 16 to 24 age group was the smallest, with a population of 9,729. In 2019, more females than males lived in East Lothian in 4 out of 6 age groups. Between 1998 and 2019, the 25 to 44 age group saw the largest percentage decrease (-5.4%). The 45 to 64 age group saw the largest percentage increase (+45.6%).	<p>The average age of the population of East Lothian is projected to increase as the baby boomer generation ages and more people are expected to live longer.</p> <p>Between 2018 and 2028, the 45 to 64 age group is projected to see the largest percentage decrease (-2.8%) and the 75 and over age group is projected to see the largest percentage increase (+32.6%). In terms of size, however, 45 to 64 is projected to remain the largest age group.</p>	East Lothian Council Area Profile at East Lothian Council Area Profile (nrscotland.gov.uk)
Population	Deprivation	In 2020 8 out of East Lothian's 132 datazones fell within the 20% most deprived. This is 0.65% of the national share; and 6.06% of datazones.	In 2016 6 of East Lothian's datazones were in the most deprived 20%, however the geographical distribution was similar with the lowest areas being in the west of the area (Tranent, Prestonpans, Elphinstone).	Scottish Government Index of Multiple Deprivation website
Population	Labour market	In the year to September 2022 78% of the working age population of East Lothian was economically active; with just over the Scottish average for women and just under for men. The difference between male and female rates of pay is higher in East Lothian than in Scotland as a whole.	Employment in Scotland dropped from around 74% in 2008 to around 70%, rose gradually back to that level before dipping again during the pandemic. East Lothian rates have mostly followed this pattern though from a higher base, and with a steep drop in 2017.	Nomis - Official Labour Market Statistics (nomisweb.co.uk)
Human Health	Physical activity	Almost 70% of adults in East Lothian reported they had participated in walking for at least 30 minutes in the last four weeks. This percentage is in line with Scottish figures.	The numbers of adults reporting they had participated in walking for at least 30 minutes has not changed significantly over the last 10 years, though this is a rise of around 10% on earlier years.	Scottish Household Survey data at: https://scotland.shinyapps.io/sg-scottish-household-survey-data-explorer/

Human Health	Physical Activity by protected characteristics	<p>Recreational walking is quite popular across different age groups. Only in the age group 75+ is there a significant drop-in activity. In 2014, among 16-24-year-olds about 68% had walked for at least 30 minutes for recreational purposes in the last four weeks. This increased to 71% for those aged between 35 and 44, 69% for people aged between 45 and 59 and 60% for 60–74. The age group of people above 75 scored only 34%. Retirement and primary to secondary transitions are key moments to influence physical activity behaviours.</p>	<p>Key at risk groups across all Active Scotland outcomes include the elderly, those within limiting conditions or disabilities, those with lower socio-economic status, teenage girls and women of Asian origin.</p> <p>Inequality between teenage boys and girls in physical activity has narrowed since 2008, driven by girls becoming more active; but only when school activity is included.</p>	<p>Active Scotland Outcomes: Indicator Equality Analysis</p>
Human Health	Life Expectancy	<p>In East Lothian, life expectancy at birth for females was 82.6 years in 2019-21, and 78.9 years for males. This compared to the Scottish figure of 80.8 years for females, and 76.5 years for males.</p>	<p>The trend until 2017-9 was increasing, from 80.1years for females and 75.6 years for males in 2001-3 (Scottish comparison figures 78.9 years and 73.5 years). The rise for females/males was 3.1%/4.3% over the period, the 9th/11th highest percentage change of all 32 Scottish Council areas. There was a downturn starting 2017-19 for both females and males, which may be Covid. Female/male life expectancy at age 65-69 has risen by 12.1%/14.5%, the third/15th highest increase of all Scottish Council areas.</p>	<p>National Records of Scotland, East Lothian Profile https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/east-lothian-council-profile.html#:~:text=In%20East%20Lothian%2C%20life%20expectancy,%2D03%20and%202019%2D21.</p>

Human Health	Cause of Death – males	In East Lothian, the leading cause of death for males in 2021 was Ischaemic heart diseases (13.8% of all male deaths), followed by dementia and Alzheimer’s disease (7.9%), Lung cancer (6.9%), Cerebrovascular disease (6.0%) and Chronic lower respiratory diseases (5.2%).	Dementia is on the rise and projected to increase substantially in the next 20 years	East Lothian Area profile at National Records of Scotland East Lothian Council Area Profile (nrscotland.gov.uk) And East Lothian By Numbers – Health and Social care
Human Health	Cause of death – females	In East Lothian, the leading cause of death for females in 2021 was dementia and Alzheimer’s disease (14.5% of all female deaths), followed by lung cancer (7.3%), Cerebrovascular disease (6.8%) and Ischaemic heart diseases (6.4%). In Scotland overall, the leading cause of death for females was also dementia and Alzheimer’s disease (14.2%), followed by ischaemic heart diseases (8.6%).		
Soil	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. East Lothian’s soils are richer than the average for Scotland, and there is a greater percentage of prime agricultural land	There has been some loss of prime agricultural land, mainly to built development, with further development on such soils planned through allocated sites within the East Lothian Local Development Plan 2018.	Making the case for the environment: Soil
Water	Water quality	Water quality is now in good or better condition in 87% of Scotland’s water environment.	This is up from 82% when SEPA published the second RBMPs. The upgrade in water quality reflects improvements made through Scottish Water’s investment programme and the sustained hard work by all stakeholders to improve rural land management practices and reduce diffuse pollution. (SEPA, 2021)	A wide range of information on water quality is available from SEPA. Water Scottish Environment Protection Agency (SEPA)

Air	Air quality	Air quality is affected by releases from human activities such as energy generation, transport and industry, as well as some natural sources such as volcanic activity and tree transpiration.	Both concentrations and emissions of the main air pollutants in Scotland have declined significantly over the last three decades ¹²⁰ . This is due to tighter regulation, improved fuel quality, cleaner vehicles and a focus on sustainable transport. Between 2005 and 2020, NO _x have decreased by 61%, PM by 52% and SO ₂ by 92%.	SEPA https://www.environment.gov.scot/our-environment/air/air-quality/ Air Quality in Scotland website https://www.scottishairquality.scot/
	Air quality	Poor air quality affects biodiversity. Many pollutants have had long term impacts so despite air quality improvements the influence on sensitive habitats remains substantial; the impacts of nutrient enrichment and acidification remain ¹²¹ .	There has	The UK Air Pollution Information System (APIS) provides a searchable database and information on pollutants and their impacts on habitats and species. https://www.apis.ac.uk/
Climatic Factors	Climate emissions of the local authority area	In 2019 emissions according to BEIS for East Lothian were 1.6 kt CO ₂ emissions per km ² , or 10.5 tonnes per capita. This compared to figures of 0.4 kt per km ² and 5.7 tonnes per capita for Scotland as a whole.	Figures for 2005 for East Lothian (Scotland) 2.0 (0.6) tonnes per km ² and 15.5 (9.3) t per capita for Scotland as a whole. Per capita emissions in 2021 were 68% of those in 2005 (Scotland 62%).	BEIS statistics on emissions under the control of local authorities https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2019
Material assets	Location of main transport infrastructure	The A1 trunk road crosses East Lothian east to west, with a network of local and minor roads concentrated in the north of the area. The East Coast mainline railway runs in a similar route to the A1, between Edinburgh and the boundary with Scottish Borders. A branch line to North Berwick leaves this route at Drem.	A further section of the A1 was dualled early in the century. There are no current plans to dual the remainder as far as we are aware. With regards to the railway, a new station is being built at East Linton. A safeguard for upgrading part of the track west of Longniddry is included in the Local Development Plan.	OS mapping https://explore.osmaps.com/?lat=55.956988&lon=-2.900695&zoom=8.6864&style=Standard&type=2d

¹²⁰ Scottish Government 2023, [Environmental Standards Scotland Air Quality Investigation – Scottish Government Improvement Plan](#)

¹²¹ Nature Scot Experimental Indicators commentary, website <https://www.nature.scot/doc/official-statistics-marine-and-terrestrial-species-indicators-experimental-statistic> accessed 18-05-2023

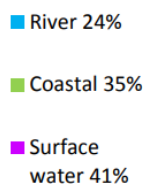





Material assets	Water infrastructure	East Lothian has high drinking water quality. Drinking water should meet parameters for turbidity, aluminium, iron, manganese, E. coli (faecal coliforms) and total trihalomethanes. All Scottish Water supplies met this other than the area served by Castle Moffat, which fell short of compliance by just under 3% for iron (2022).	Across Scotland, aging assets and climate change mean a doubling of investment will be required over the next 20 years ¹²² .	Current projects and issues can be seen on Scottish Waters website here: https://www.scottishwater.co.uk/In-Your-Area/Latest-In-Your-Area Drinking water quality information is available here: https://www.nature.scot/doc/official-statistics-marine-and-terrestrial-species-indicators-experimental-statistic
Cultural Heritage	All assets			Further information on all nationally designated assets is available from Historic Environment Scotland. Searchable database of nationally designated assets: HES Portal at http://portal.historicenvironment.scot/search . This database can be searched using the name or asset numbers as shown in the table below.
Cultural Heritage	Listed Buildings	There are 2661 Listed Buildings in East Lothian.		General information from HES: https://www.historicenvironment.scot/advice-and-support/listing-scheduling-and-designations/listed-buildings/
Cultural Heritage	Scheduled Monuments	There are 288 Scheduled Monuments in East Lothian.		HES website https://www.historicenvironment.scot/advice-and-support/listing-scheduling-and-designations/scheduled-monuments/

¹²² Scottish Water Annual Report 2021-22. Annual Reports available from Scottish Waters website at <https://www.scottishwater.co.uk/Help-and-Resources/Document-Hub/Key-Publications/Annual-Reports>

Cultural Heritage	Battlefields	There are four Inventory Battlefields within East Lothian, Dunbar I and II, Pinkie and Prestonpans.		HES website https://www.historicenvironment.scot/advice-and-support/listing-scheduling-and-designations/battlefields/
Cultural Heritage	Inventory Gardens and Designed Landscapes	There are 25 Inventory Gardens and Designed Landscapes.	Archerfield has been removed from the Inventory.	HES website https://www.historicenvironment.scot/advice-and-support/listing-scheduling-and-designations/gardens-and-designed-landscapes/
Cultural Heritage	Conservation Areas	Conservation Areas are designated by East Lothian Council. There are 30 Conservation Areas in East Lothian.	The Council continues to receive requests for tree removal and tree work in Conservation Areas. The Council does not monitor trees in Conservation Areas nor trends for number of enquiries or outcomes of requests for tree work.	Further information on Conservation Areas can be found in the East Lothian Local Development Plan 2018 at https://www.eastlothian.gov.uk/downloads/file/27791/local-development-plan-2018-adopted-270918 . Character Statements for each Conservation Area, as well as further information about the operation of plan policies within them, are to be found in the Cultural Heritage Supplementary Planning Guidance at https://www.eastlothian.gov.uk/downloads/file/27907/cultural-heritage-and-the-built-environment_spg
	Historic Environment Record	The HER contains over 25,000 records, including sites of all periods.		The HER can be searched here: https://www.johngraycentre.org/map

Landscape	Special Landscape Areas and East Lothian Landscape Character Areas	Information and Supplementary Planning Guidance can be found here: https://www.eastlothian.gov.uk/info/210547/planning_and_building_standards/12284/natural_environment_and_planning/2	Special Landscape Areas were designated through the East Lothian Local Development Plan 2018, replacing Areas of Great Landscape Value as the local landscape designation. There are currently no plans to revise these areas.	
Landscape	National Landscape Character Types	Maps and descriptions can be found at NatureScots website https://www.nature.scot/professional-advice/landscape/landscape-character-assessment/scottish-landscape-character-types-map-and-descriptions	The national landscape type map and descriptions were published in 2020 and standardise the descriptions and types over the country, updating previous landscape work which was carried out on a regional basis.	

APPENDIX THREE – Flooding in Potentially vulnerable areas

PVA Summary of flooding impacts	Summary	No. of Properties at risk / approximate cost of annual damage (£)	Flooding source 
Dunbar and West Barns (10/25)	The greatest risk of river flooding is from the Biel Water and the Hedderwick Burn to Dunbar and West Barns. The greatest risk of coastal flooding is from the North Sea to Dunbar and West Barns.	40 – residential 20 – non – residential £220,000	
Haddington (10/24)	The highest risk of river flooding is from the River Tyne to Haddington and the highest risk of surface water flooding is also in Haddington.	230 – residential 140 – non residential £700,000	
Cockenzie, Port Seton, Longniddry and Prestonpans (10/23)	The highest risk of surface water flooding is in Tranent.	120 – residential 60 – non-residential £740,000	
Musselburgh (10/21)	The highest risk of river flooding is from the River Esk to Musselburgh. The highest risk of surface water flooding is in Wallyford and Pinkie Brae in Musselburgh and the highest risk of coastal flooding is from the Firth of Forth to Musselburgh and Inveresk.	1300 – residential 280 – non-residential £3.3 million	
Lasswade, Penicuik, Dalkeith and Musselburgh	Parts of Musselburgh are within this area and area at risk from river flooding from the River Esk, the River South Esk, the River North Esk and the Loan Burn as well as from coastal flooding from the Firth of Forth.	– residential – non- residential £1.8 million	

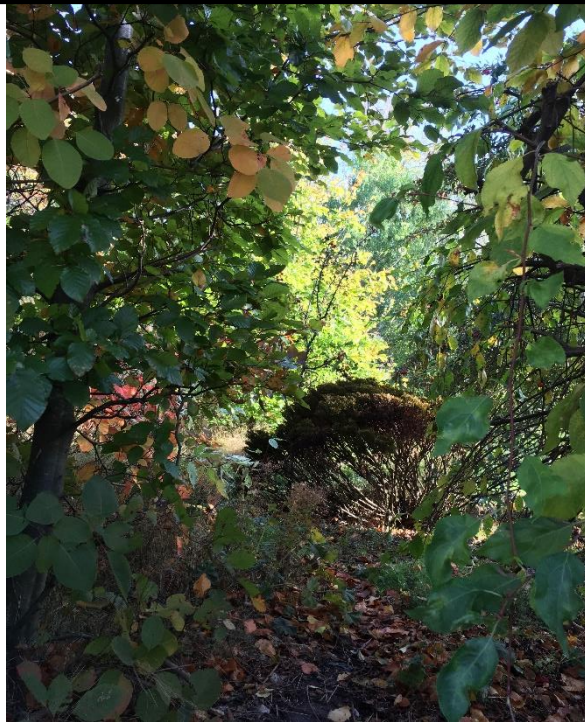
- Website: www.eastlothian.gov.uk/ldp
- Phone: East Lothian Council Environment 01620 827025
- Email: ldp@eastlothian.gov.uk
- Write: East Lothian Council Planning Service
John Muir House
Brewery Park
HADDINGTON
East Lothian
EH41 3HA
- To make a comment, suggestion or complaint about a council service, download a feedback form online at www.eastlothian.gov.uk or pick one up at your local office



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2023

Draft Environment Report – Tree and Woodland Strategy for East Lothian Non-Technical Summary



Planning Service

East Lothian Council

6/13/2023



Tree and Woodland Strategy for East Lothian

Strategic Environmental Assessment

Draft Environment Report

Non-Technical Summary

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KEY FACTS: Tree and Woodland Strategy for East Lothian

Name of Responsible Authority: East Lothian Council (The Council)

Title of Strategy: Tree and Woodland Strategy for East Lothian

What prompted the Strategy: Legislative provision of the Planning (Scotland) Act 2019 amending Section A159 to the Town and Country Planning (Scotland) Act 1997, to require the Council as planning authority to prepare a Forestry and Woodland Strategy for East Lothian. This Tree and Woodland Strategy for East Lothian (TWSEL) will replace the Lothian Forestry and Woodland Strategy 2013-2017, which is now out of date, in East Lothian. The TWSEL should consider the East Lothian Green Network Strategy however is not bound by it.

Area covered by Strategy: East Lothian Council area, however the strategy should integrate with the Forestry and Woodland Strategies of neighbouring administrative areas

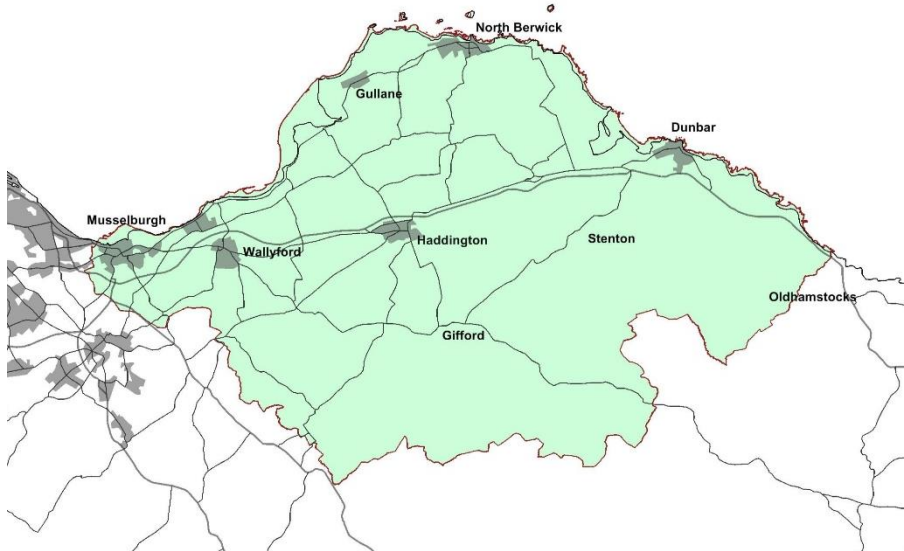


Figure 1: East Lothian

Subject: Forestry.

Period covered by Strategy: The Strategy does not have an end date but is intended to provide direction for the next ten years.

Frequency of updates: it is likely the Council will consider review of the Tree and Woodland Strategy in roughly the same timescales as the Local Development Plan.

Purpose of Strategy: To set framework for the expansion and management of tree, forestry and woodland cover across East Lothian including, as laid down by legislation:

- (a) the identification of woodlands of high nature conservation value in the planning authority's area, and
 - (b) the planning authority's policies and proposals in their area, as to—
 - (i) the development of forestry and woodlands,
 - (ii) the protection and enhancement of woodlands, in particular those mentioned in paragraph (a),
 - (iii) the resilience to climate change of woodlands, in particular those mentioned in paragraph (a),
 - (iv) the expansion of woodlands of a range of types to provide multiple benefits to the physical, cultural, economic, social and environmental characteristics of the area.

SEA Contact point:

TWSEL

Planning Service

East Lothian Council

John Muir House

Brewery Park

Haddington

EH41 3HA

Email: ldp@eastlothian.gov.uk

Introduction

Tree and Woodland Strategy for East Lothian

1. The draft Tree and Woodland Strategy for East Lothian (TWSEL) sets out a long-term plan and policy for trees and woodland in East Lothian. The Vision of the TWSEL is:

Expanded and sustainably managed networks of woodland and trees across East Lothian contribute to addressing climate change, and provide healthy and resilient environment, nature recovery, a strong sustainable economy and enhanced quality of life for local communities

2. If the Strategy achieves its aims, at the end of 10 years, there will be 2 million new trees in East Lothian. Total woodland cover will increase by between 1% and 3%. Native woodland cover will double. Woodland will be better connected, improving habitat for woodland species and allowing them to migrate as our climate changes. More people will have woodlands they can visit close to where they live. There will be more recognition of trees as part of our heritage.

Role of the Environment Report

3. An Environment Report must be produced by law for this Strategy. Its purpose is to identify the potential significant effects of the Strategy. It should help you, the public, to understand what we think will happen to the environment if the Council adopts the Strategy. This can help you decide if you support the Strategy or if you wish to see it changed or even dropped. When Councillors decide whether to adopt the Strategy, they will understand the likely effects on the environment of their decision.
4. This draft Environment Report is now out for consultation. We are seeking views on this document at the same time as the draft Strategy. Where changes are needed to the draft TWSEL and the Environment Report we will make them. Councillors will then decide whether to adopt the Strategy, having read the Environment Report and understood the impacts.
5. We encourage you to read any sections you are interested in. If you think there is anything missing, unclear, out-of-date or wrong, we very much encourage you to comment and let us know. We will read and consider every comment you make. This will help us make better policy and better decisions. This will help make East Lothian a better place!

How was the draft Environment Report composed?

6. The two main Council officers working on the TWSEL drew up the Environment Report with advice from specialist colleagues. The first thing they did was to identify which issues were relevant. To help with this they sent a report to NatureScot, SEPA and Historic Environment

Scotland (the 'Consultation Authorities') as well as Scottish Forestry in a process called 'Scoping'. All of these bodies gave advice which helped the officers decide what the most significant issues were. The 'Scoping Tables' through the Environment Report show these issues.

7. The next stage was to seek baseline information on the topics that were relevant, and describe existing issues. Then the officers considered what the effect of the TWSEL on each issue would be. To help focus the assessment, they chose indicators with agreement from the Consultation Authorities. These are in the form of questions. For example, an indicator for climate change is: 'Does the plan support climate change adaptation?' The officers checked these indicators against every policy, target and action of the TWSEL.
8. Once officers knew the likely main effects of the TWSEL, they looked at mitigation. Mitigation is things that can be done to avoid or limit bad effects that might otherwise happen. Some of this mitigation comes from existing law or policy. For example, there are laws protecting otters. So, if otter use an area, people carrying out tree planting there have to make sure otter are not harmed. The TWSEL encourages woodland creation along rivers, where otter live. But the law means that otter will be taken into account at project level. This means the TWSEL will not harm otter. Other mitigation is contained within the strategy. For example the TWSEL has a policy that protects Designed Landscapes. This means the TWSEL would not support woodland creation that harmed a designed landscape, even though it supports woodland creation in general.
9. Some mitigation will have to take place at project level because it is not possible to identify all the possible effects at a local level. For example, TWSEL support more tree planting in urban areas. In some places this could harm the setting of a listed building. It is not possible to look at all of these in the Environment Report, but the TWSEL includes a policy saying that the settings of listed buildings should not be harmed. People planning planting should therefore consider this. So, it is clear that it is not in line with the TWSEL to harm the setting of listed buildings.
10. In the sections below, a summary of the baseline information and impact of the TWSEL on each of the assessment topics is given. This is followed by a summary of the effect on each indicator. There follows the main conclusions of the Environment Report. If you disagree with the conclusions, or think anything important has been missed, we encourage you to tell us by filling in the survey or sending your comments to the address given above.



11. Globally, nature is in crisis. According to the UN Environment Programme, one million of the world's estimated 8 million species of plants and animals are under threat of extinction. Human action has significantly altered three quarters of the Earth's land surface¹. The UK is one of the most nature-depleted countries in the world. Scotland, and East Lothian, are no exception. The main reasons for this loss of wildlife globally are:
 - changes in land and sea use;
 - direct exploitation of organisms;
 - climate change;
 - pollution; and
 - invasion of alien species.
12. It is likely that the reasons are the similar in East Lothian.
13. However, some areas rich in wildlife remain. The coast, and the birds that live there, are internationally important. NatureScot has designated much of the coast as a Special Protection Area (SPA) to protect its bird life. The Forth Islands with their puffins and gannets were also designated for this reason, as has the seas around East Lothian. This marine area is known as the Outer Firth of Forth and St Andrews Bay Complex SPA. Threats to the wildlife of the Firth of Forth includes disturbance, habitat loss, climate change, lack of proactive management and others. A formal assessment known as Habitat Regulations Appraisal and Appropriate Assessment have been carried out to check the impact of this plan on these sites. This assessment concludes that [to be completed].
14. There are also 15 Sites of Special Scientific Interest in East Lothian. Some of these include woodland as part of the reason for their designation. Information on SPAs, SSSIs and other sites can be found on NatureScot's website [SiteLink \(nature.scot\)](https://www.nature.scot)

¹ See UN Environment Programme website <https://www.unep.org/facts-about-nature-crisis> (accessed 18-05-2023)

15. East Lothian Council has also designated Local Biodiversity sites in its area. The main issue affecting their wildlife is lack of connectivity and potentially pressure from population increase.
16. The Central Scotland Green Network focusses on addressing climate change, biodiversity loss and environmental inequality by connecting people to greenspace. East Lothian's Green Network is part of the Central Scotland Green Network. One of the aims for the green network here is to support nature recovery.

17. There are some protected species in the area, including bats, great crested newts, otter and badgers.



18. The assessment objectives for biodiversity were:
- to contribute to addressing national and international issues,
 - to conserve existing biodiversity and
 - to support the Central Scotland Green Network.

19. The overall effects of the TWSEL on biodiversity are expected to be positive. The Strategy will help address national and international issues and conserve existing biodiversity. Woodland biodiversity will improve overall through protection of existing woodland (Policy 1), sustainable management of woodland (Policy 7) and improved woodland connectivity (Policy 10). The TWSEL aims to protect valued non-woodland habitat from the impact of woodland creation (Policy 13 Protection of European Sites, Policy 14 Protection of the Natural Environment). An increase in the urban tree canopy will be positive for urban biodiversity. The TWSEL will support the Central Scotland Green Network through improving habitat connectivity.

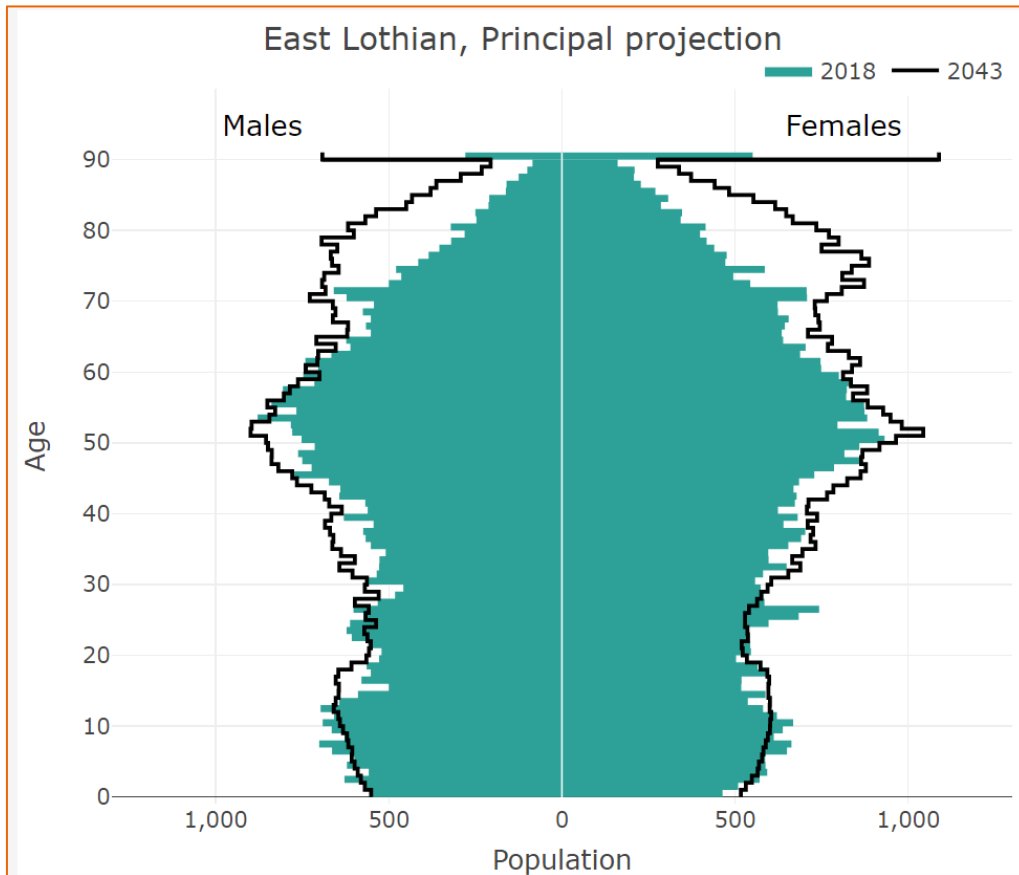
20. There are some residual adverse effects. There is the potential for adverse impact from an increase in recreational access. This comes from the TWSEL itself but also other plans and strategies. It is likely that there will be an increase in invasive non-native species associated with woodland such as rhododendron. It is likely that deer numbers will increase as there will be more suitable habitat. The deer are out of balance as adult deer now have no natural predators. There is likely to be some loss of habitat for northern brown argus, a butterfly. This is due to increasing woodland in the cleughs, which will affect the rockrose their caterpillars feed on.

Indicator: Does the plan....?	Overall effect of TWSEL	Comment
Biodiversity		
Contribute to addressing national/international biodiversity issues	Positive/mixed	The TWSEL will increase protection of woodland, encourage creation of new woodland in particular native woodland, and increased connections between woodlands. It is likely that there will be some increase of invasive species as it is hard to create new woodland habitat without encouraging unwanted species that live there. The CSGN aims to increase biodiversity and access to the natural world, which the TWSEL aims to do.
Conserve existing biodiversity	Positive	
Support the Central Scotland Green Network	Positive	

Population



21. East Lothian is one of the fastest growing areas in Scotland. The population has increased by a fifth over the last 20 years with many new houses being built, and further growth is planned. The population as a whole is ageing, meaning there will be more older people as a proportion of the population than now. The graph below shows how the population of East Lothian is expected to change. The figures come from the [National Records of Scotland](#).



22. Although in general East Lothian is a prosperous area, some areas fall into the lowest 20% on Scotland's Index of Multiple Deprivation. This means people in these areas have lower incomes, poorer health outcomes, poorer access to services and less education than do people in Scotland as a whole. The figure below shows that most of these areas are in the west of the county, in Musselburgh, Prestonpans, Tranent and Wallyford. You can explore these areas on the [Scottish Index of Multiple Deprivation website](#) (extract below).



23. Many people also leave the area during the day to get to their jobs. The number of jobs in East Lothian per working age person is low.
24. The assessment objectives are:
- Mitigate the effects of population growth
 - Reduce the impact of inequality
 - Support rural employment
25. There is visitor pressure on some of our coastal and countryside sites. This has recently increased, partly due to Covid. Pressure may increase further with population growth. The TWSEL will ease this by increasing the accessibility of woodland and supporting creation of new woodland. This may draw visitors from existing sites, spreading the load.
26. The TWSEL also sets a target of 30% tree canopy cover in towns and villages, and in lower Scottish Index of Multiple Deprivation Areas. More deprived areas are often lower in tree canopy cover. Increasing this will make these areas more attractive. The amount of accessible woodland will also be increased. These both reduce the impact of inequality.
27. People commuting in the daytime affects the local economy, vibrancy of place and can weaken community links. TWSEL Section 9, Economy, aims to increase rural employment opportunities. This can help reducing commuting out.
28. There is a potential risk that trees could be planted in areas where some people do not want them. The TWSEL seeks community consultation to avoid this (Policy 18), though there is still some risk it could happen. Overall, however, the effects on population are expected to be positive.

Indicator: Does the plan....?	Overall effect of TWSEL	Comment
Population		
Mitigate the effects of population growth	Positive	Increasing the amount of trees and woodland will improve the appearance of new housing by softening it in the landscape. More woodland will be available for recreation, reducing the pressures from more people on existing recreational areas. The TWSEL will reduce the impact of inequality by increasing tree canopy in towns, especially in more deprived areas, and improving access to woodland. There is a risk that woodland and tree planting may happen in areas
Reduce the impact of inequality - older people, protected characteristics, lower SIMD areas	Positive/ mixed	
Support rural employment	Positive/ mixed	

Indicator: Does the plan....?	Overall effect of TWSEL	Comment
		people do not want it, especially more deprived areas. The TWSEL seeks to guard against this by encouraging those planting trees to talk to communities. There may be some additional jobs from increased woodland cover, though there may be fewer rural jobs opportunities that are not related to woodland.

Human Health



29. The World Health Organisation has a very broad definition of health. This is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". Health means a lot more than just not being ill. Health services such as doctors are important for our health. But they are only a small part of what shapes our overall health. Economic and social factors are the most important, followed by health behaviours including leading an active life. The physical environment also has an effect, such as the quality of our air or water and the appearance of the areas we live in. We should aim to reduce the effects on health that come from living in a poorer environment, and make the most of the benefits of living in a good one.
30. Life expectancy in East Lothian is generally above average for Scotland but not for all groups in all places. The Preston-Seton-Gosford area has worse health and wellbeing than East Lothian as a whole on many measures. Obesity is a significant problem, and is highest among those who live in deprived areas.
31. The assessment objectives for Human Health are:

- Creation of vibrant, healthy and safe places and communities, support good mental wellbeing, a healthy weight and physical activity
 - Flourishing in early years
 - Reduce the direct health impact from woodland, and forestry operations
 - Reduce the impact of noise
32. Increasing how active people are can improve their physical and mental health. East Lothian has a network of Core Paths. However, provision for active travel here, as in much of Scotland, lags behind some other European countries in terms of both availability and quality of routes. Improving the attractiveness of urban areas and green space is likely to increase walking and cycling in the local area. TWSEL targets for increasing tree canopy cover will also help keep urban areas cool when it is too hot. It will also reduce exposure to UV light from the sun, which will have both good and bad effects.
33. Woodland and trees should be part of the play experience for children and teenagers. Increasing the amount of accessible woodland and access to woodland will help more children have this experience (Target 4B, Policy 16: Design for All, Action 15, and Action 16).
34. Trees can cause health issues. There are accidents every year involving trees including fallen leaves, a small number of which are serious. More woodland and trees could lead to more such accidents; however, the numbers are low.
35. An increase in the amount of woodland, and more connected woodland, could lead to more tick borne disease. The TWSEL aims to increase woodland cover, and the number of people visiting woodland (Targets 1 and 4, numerous actions and policy). This is likely to increase numbers of woodland mammals including deer, which in turn is likely to increase tick numbers.
36. Tree pollen allergies affect a lot of people. Birch pollen allergy is a particular problem as it can cause people to become allergic to some foods. The TWSEL advises against planting birch trees near places with vulnerable people such as schools and care homes. However, some increase in suffering from pollen allergy is likely due to increased tree cover.
37. Noise can harm both mental and physical health. Some parts of East Lothian experience noise from the A1 road and East Coast mainline railway. The TWSEL encourages planting along transport corridors and this could help buffer noise. Having trees in the view also makes people think an area is quieter than it is, which reduces the adverse effect of noise.
38. The Environment Report considers Air quality issues under 'Air' though there are clear links to health. TWSEL supports tree planting and woodland creation, and this

is expected to improve air quality. The TWSEL contains design guidance to avoid poor air being trapped by trees along busy pedestrian routes where it could harm people's health.

39. The experience of being flooded can also have significant mental and emotional effects, as well as the obvious physical ones. Flooding is considered in the 'Water' section.
40. The overall effect on health is expected to be positive. The TWSEL will support more active lives, improve living environments and reduce the perception of noise. There is likely to be some increase in tick borne illness and tree pollen allergies.

Indicator: Does the plan....?	Overall effect of TWSEL	Comment
Human Health		
Help create vibrant, healthy and safe places and community, support good mental well-being and maintaining a healthy weight through physical activity	Positive/ Mixed	The TWSEL will generally support good physical and mental health. An increase in trees in the landscape and townscape helps create vibrant, healthy places where people are encouraged to spend time outdoors. There is however a risk that some people may feel less safe if trees in towns are poorly planned. Being able to spend time within woodland and even to see trees from a window has been shown to lower stress. This reduces the risk of a range of illness. Being able to see trees has also been shown to reduce how bad people perceive noise to be. .
Flourishing in early years: increase opportunities for young people to experience play in woodland	Positive	Trees add value to children's outdoor play. This is in line with the UN Convention of the Rights of the Child, which gives a right to play in nature.
Reduce health impact from woodland and forestry operations	Positive	However, increasing tree and woodland cover may also increase tree pollen allergies and increase the risk of tick borne illness.
Reduce the impact of noise	Positive	

Soil



41. Soil is essential for growing food, storing carbon, filtering pollutants and managing water flow. They also provide habitat and minerals. Soils must be managed properly so they can do this.
42. Climate change and changes in land use and land management practices are the most significant pressures on Scottish soils overall. Contamination is also an issue. Poor land management can harm soil through loss of organic matter and erosion. Development can lead to soil sealing or loss. Some land in East Lothian is at high risk of soil run off. As well as the loss of the soil itself, this can also transfer pollutants. More information on Soils is available at [Scotland's Environment](#) website.
43. The assessment objectives for soil are:
 - Conserve the food production capability of land
 - Maintain soil quantity and quality
44. East Lothian contains some of Scotland's best agricultural land, and there is a lot of it here compared to Scotland as whole. Some of this prime agricultural land is still in agricultural use, while other parts have been developed or are used for recreation or something else. Once agricultural land is lost it is very difficult to replace. The UK imports a little under half of its food. The ability to grow food could become more important if for any reason this becomes more difficult.

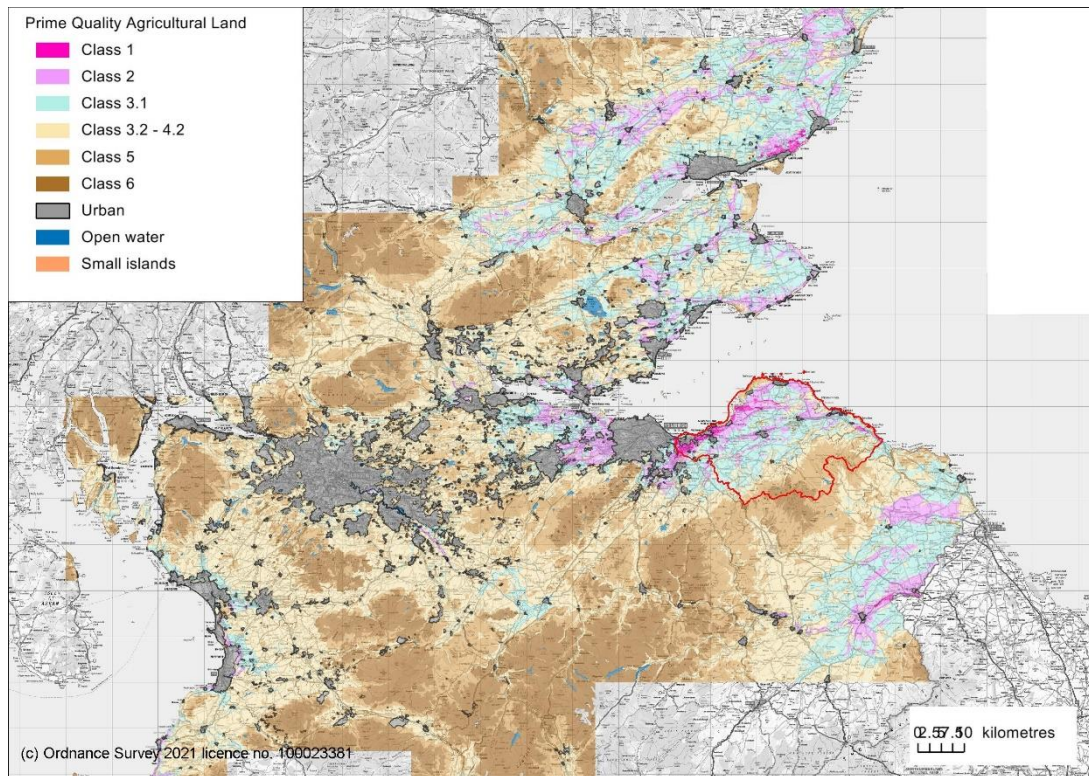


Figure 2 Agricultural Land, Central Scotland

45. Growing trees on land means that specific piece of land cannot be used for agriculture. However, trees in the right place can support crop and livestock production by providing shelter and helping to manage water. The TWSEL supports woodland creation on good agricultural land where it supports agricultural production, improves water quality or reduces flood risk. Although the TWSEL tries to balance woodland creation with maintaining food and drink production, there will be some loss of prime and sub-prime agricultural land. This will add to losses from other strategies, notably the East Lothian Local Development Plan 2018.
46. Wind and water can erode soil. Woodland creation could help prevent soil erosion and landslides. The TWSEL 'Resilience' section supports use of trees to protect the soil resource. Target 2B encourages woodland creation along rivers which will help avoid soil being washed away.
47. Peatland in good condition stores a lot of carbon, but when it degrades it emits carbon. In places where peat can be restored, TWSEL Policy 15 supports this rather than woodland creation.
48. There are some areas of contaminated land here, including former quarrying and mining and previous military activity. Some types of planting can be used to remediate contamination. This has not been included in the TWSEL. Preparation for tree planting may disturb contaminants. The potential for this should be considered at project level.

- 49. Changes to the water environment could spread contamination. This must be investigated the project level as woodland creation proposals to help manage water flow take shape.
- 50. The impact of the strategy overall is likely to be mixed. There is likely to be some loss of agricultural land to woodland. Creation of small farm woodlands and hedgerows, as well as woodland creation along rivers, should reduce soil erosion.

Indicator: Does the plan....?	Overall effect of TWSEL	Comment
Soil		
Conserve the food production capability of land	Mixed	It will be difficult to find land for the climate forest without some loss of agricultural land, though the aim of the strategy is for woodland creation where it will support food production.
Maintain soil quantity and quality	Positive	The creation of new woodland is likely to have positive effects on maintaining soil quantity and quality, as trees tend to stabilise soil and reduce erosion.

Water



- 51. Water is essential for human life and environmental quality. The quality of the water environment in Scotland is generally good, though there are problems such as diffuse pollution, discharge of waste water, abstraction of water and historic physical alterations to water courses. Other issues relevant to water include quantity of water (flooding and drought); drinking water quality; and the sustainability of natural ecosystems.
- 52. Trees can benefit the water environment in many ways. They can help stop soil entering rivers, protecting water quality. They reduce flood risk by slowing the

movement of water. However, badly managed or planned tree operations contribute to flood risk or water quality issues.

53. The assessment objectives were:
- Reduce flood risk
 - Protect or enhance water quality
 - Maintain availability of water
54. Flooding happens when too much water arrives at once. Recognised river flood risk exists in Haddington and Musselburgh. SEPA has identified Potentially Vulnerable Areas. These are areas where there is significant flood risk now or likely to be so in the future. Climate change predictions are for increased total rainfall in winter, as well as for heavier rain. Risks of flooding from all sources is likely to increase.
55. Woodland creation in a water catchment can help reduce flood risk downstream. However, it is also possible for trees to block the flow of watercourses and worsen flooding. The TWSEL in Policy 6 encourages the use of woodland and trees to reduce flood risk. The effect is likely to be positive, though the risk of worsening flood risk will need to be considered at project level.
56. Water quality be improved or at least not worsened. River water quality is monitored by SEPA and can be seen on their website at <https://www.environment.gov.scot/our-environment/water/> East Lothian is in the Edinburgh, East Lothian and Borders Nitrate Vulnerable Zone. This is due to agricultural diffuse pollution.



Figure 3 Water quality status

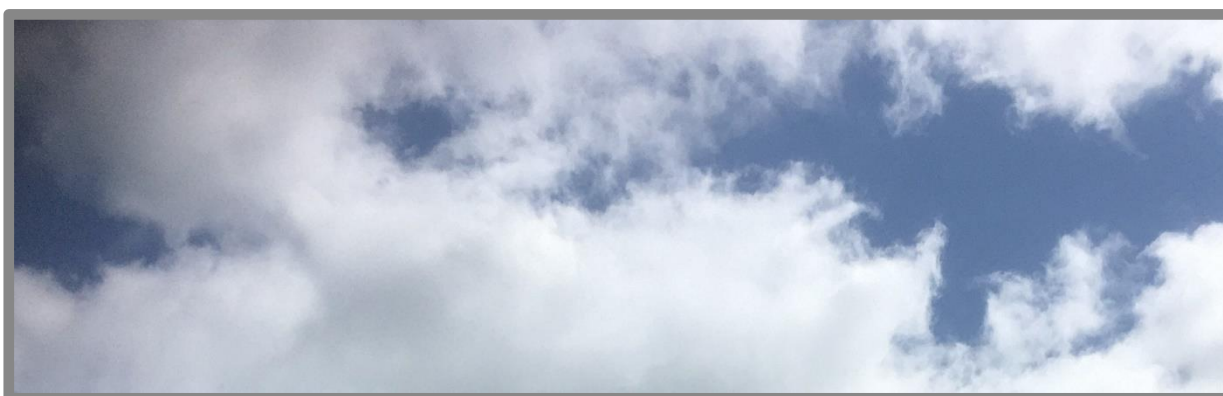
57. Forestry can harm water quality through sediment run off when the ground is prepared for planting, or by use of chemicals and pesticides. Too much shade can also harm water ecology. Trees can also support good water quality by reducing run off of sediment and nitrates into watercourses. TWSEL includes a section on Resilience and Climate Adaptation which aims to use trees to improve the water environment. Target 2B encourages woodland creation along rivers. The effect on water quality is likely to be positive.
58. Scottish waters drainage assets must face the impact of climate change, aging assets, reducing climate emissions. The water infrastructure was built for a smaller population than it will be expected to serve. Flooding and drought can both affect the operation of the drains and climate change will increase both. Scottish water aim to collect, treat and recycle water in ways that add value to the environment.
59. The traditional sewage system collects both waste-water and surface water in a combined sewer. If too much surface water enters the system at one time the sewer is overwhelmed, leading to unplanned discharge of water including foul water. This ends up in the sea, where it can affect coastal and bathing water quality. Woodland creation can help address this by planting trees where they can slow surface water runoff, reducing pressure on the sewer.
60. With no action, discharge from the sewer system is likely to happen more often due to increased heavy rainfall, predicted under climate change. The Council has been working with other agencies, including SEPA and Scottish Water, and has drawn up

a vision for structural planting around Cockenzie/Blindwells which would help reduce surface water entering the sewer. The TWSEL supports this structural planting, as well as increasing tree cover in urban areas which will reduce surface water entering the sewer. This will support water quality by reducing unplanned sewer discharge into the Forth. The effect of the TWSEL is likely to be positive.

61. The effect of the TWSEL overall is likely to be positive.

Indicator: Does the plan....?	Overall effect of TWSEL	Comment
WATER		
Reduce flood risk	Positive	The TWSEL aims to help reduce flood risk through nature-based solutions including woodland creation alongside rivers and in river catchments. Riparian woodland will also support good water quality by reducing river temperatures and helping trap silt before it reaches the watercourse. There could be some adverse effect on water quantity from encouraging woodland tourism. This may increase water use as tourist needs will require to be serviced. The Strategy also encourages tree fruit and nut growing which could need water.
Protect or enhance water quality	Positive	
Maintain quantity of water	Mixed	

Air



62. Good air quality is essential to maintain human health, the climate and ecosystems.
63. A range of substances from a variety of sources affects air quality. The main sources are industrial and transport emissions, along with some agricultural processes. Air quality in Scotland is generally good, though there are some areas

that exceed objectives. Information on air quality can be found at www.scottishairquality.co.uk/.

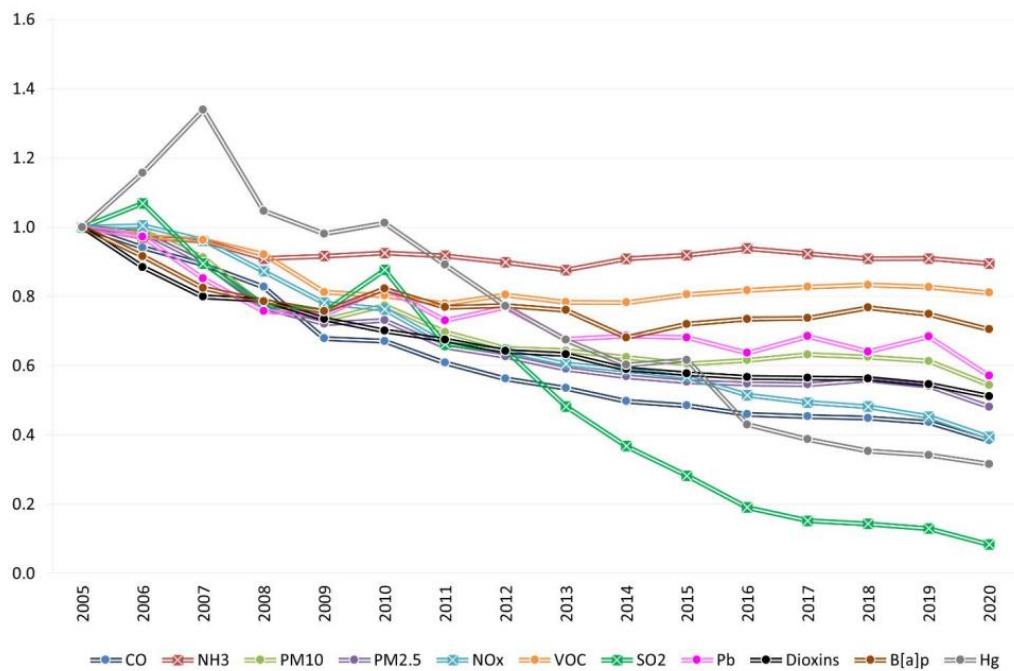
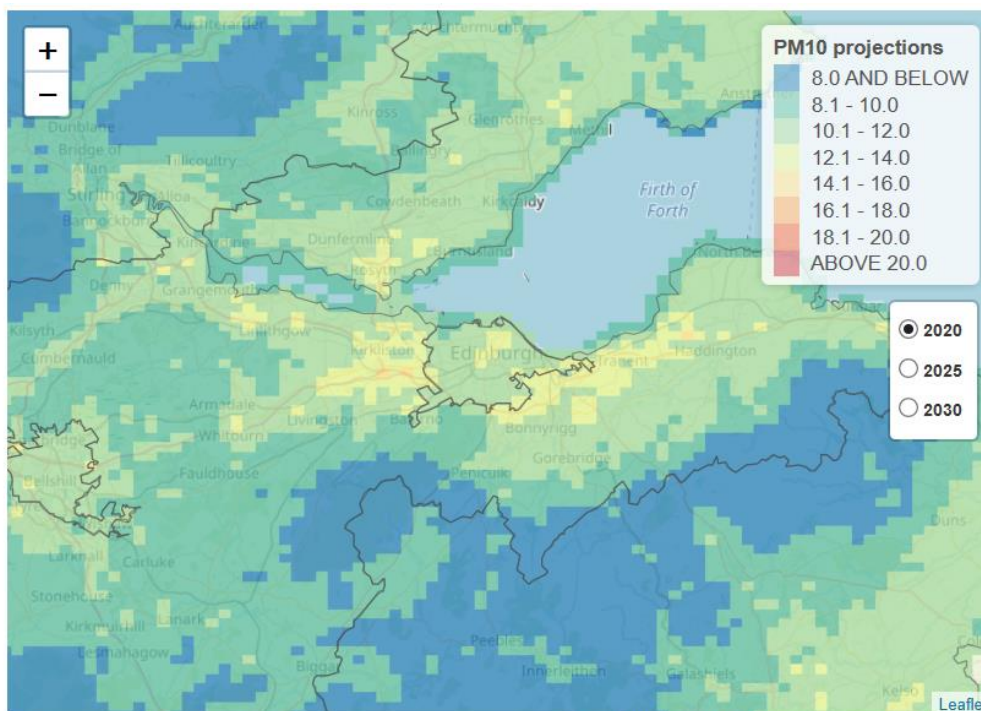


Figure 4 Trends in the main Scottish air pollutants

64. Although air quality is better now than at any time since the Industrial Revolution, it is estimated that across the UK poor air quality reduces life expectancy of every person by 7-8 months. Evidence of harm from traffic is building. Poor air quality can also affect the natural environment.
65. Trees can improve air quality, and also help block air pollution away from people, reducing harm.
66. The assessment objectives were:
 - Protect air quality
 - Improve air quality
67. Background levels of some pollutants, notably particulates for which there is no safe level, are higher in parts of East Lothian than in Scotland as a whole.



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Figure 5 Estimate annual mean background PM10 maps 2020

68. The Council designated Musselburgh High Street as a Local Air Quality Management Area, mostly due to traffic impacts. It produced a strategy to improve the situation and air quality there is getting better. Tranent High Street is also monitored though is currently below the levels that would require an air quality management area to be declared.
69. The TWSEL aims to increase the amount and accessibility of woodland. This is likely to generate more car trips, although it is not the intention of the strategy. While cars are using petrol or diesel, this would lead to an increase in air pollution. Compared to the overall amount of travel in East Lothian, any increase would be small.
70. More woodland is likely to lead to an increase in fires, both planned and wildfires. Fires can impact air quality. The TWSEL encourages sustainable woodland management which reduces risk of wildfire. However, a small increase in domestic burning is likely. The TWSEL does not promote use of wood burning stoves, which can have an adverse impact on air quality.
71. The effect of trees and hedges on urban air quality is complicated. They can trap polluted air, which is good when it stops it reaching people, but bad when it traps pollution where they are. Trees can also give off chemicals which allow ozone to form. This gas can cause health problems. Some species emit less than others, and the TWSEL recommends these. Tree planting can also reduce ozone formation by reducing exposure of pollutants to sunlight, so the effect overall on ozone production is uncertain.

72. The overall impact of the TWSEL on air is likely to be positive. The positive effects come from increased hedge and tree planting which absorb air pollutants. Planting in urban areas can also separate people from polluted air. However, there are likely to be some adverse impacts. There is increased potential for severe short lasting impact to air from wildfire. There could be more pollutions from increased car travel to woodland. There could be an increase in formation of ozone though this is uncertain.

Indicator: Does the plan....?	Overall effect of TWSEL	Comment
Air		
Help improve local air quality, particular in areas of elevated air pollution	Positive	<p>Tree and woodland creation overall are generally expected to have positive impacts on local air quality. This is because trees catch particles, a form of air pollution. They also remove some other air pollutants, though trees effect on ozone formation is complicated and may in some cases be adverse.</p> <p>Trees and hedges in urban areas can separate the source of pollution, namely vehicles, from sensitive receptors (people). The Strategy includes encouragement of planting along roadsides for this reason. It also includes design guidance showing how to avoid trapping air pollutants within urban areas.</p>

Climatic Factors



73. It is now widely recognised that the climate is in crisis. The emission of greenhouse gases from both human and natural sources affects the climate. Overall, the UK and the planet as a whole is warming. Countries agreed at the 2015

UN Climate Conference in Paris that they should try to limit temperature increase to 1.5 degrees above pre-industrial levels. Crossing this threshold risks unleashing more severe climate impacts. These include more frequent droughts, heatwaves and rainfall. The Intergovernmental Panel on Climate Change (IPCC) set up by the UN warn the [situation is now serious](#).

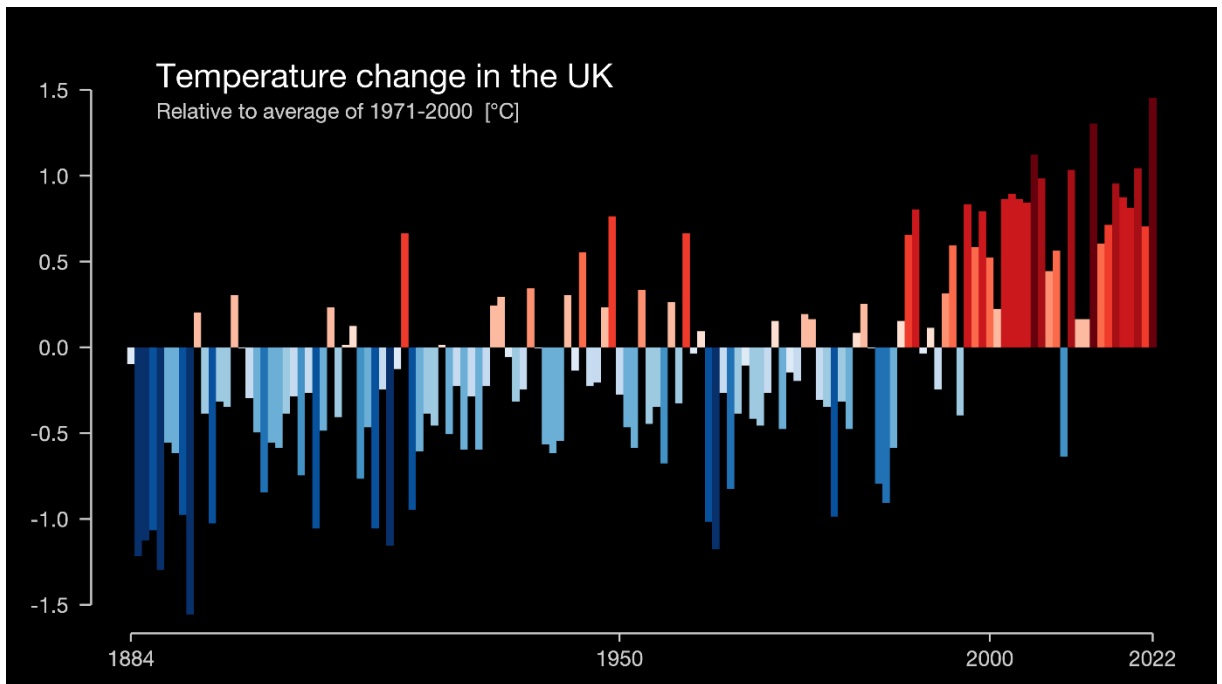


Figure 6: Temperature change in the UK, from www.showyourstripes.info

74. Scotland has targets of reducing emissions to net zero by 2045. This is likely to lead to a step change in how society is organised. The Climate Change Committee reports on progress of the Scottish and UK Governments against key targets. This Committee considers targets for new woodland and peatland are not on track. The TWSEL will help this through encouragement of woodland creation.
75. The main sources of climate emissions in East Lothian are from energy use, personal sources and transport, and less so from land use and waste management. Although emissions in East Lothian have fallen since 2005, more recently they have risen faster than population. There is a small amount of renewable energy generation in East Lothian. Some trees were felled to make way for some of these developments. Land use, land use change and forestry is a category of greenhouse gas emissions accounting that covers emissions and removals of greenhouse gas from direct human land use activity. This sector has the potential not only to avoid emissions but to remove carbon dioxide from the atmosphere. There is relatively little woodland, grassland or wetland in this area to sequester emissions.
76. The assessment objectives are:
 - Mitigate climate change

- Adapt to climate change

Mitigation

77. The main driver for the Council in promoting the Climate Forest was the ability of trees to absorb carbon dioxide. This is one of the main climate forcing gases. If successful, woodland creation under TWSEL will lead to around 1-3% more woodland. Although this increase appears low, it is in line with Scottish Government targets. The way that woodland is created can also affect carbon emissions. TWSEL promotes natural regeneration over intrusive planting practices, which is the low carbon approach. Other habitat including peatland, grassland and saltmarsh also sequester carbon, and the TWSEL seeks to protect these through Policy 14. The strategy is likely to have an overall positive effect on emissions from land use and land use change through promotion of woodland creation, promotion of climate sensitive planting methods and protection of other habitats that sequester carbon.
78. Use of timber and wood products locks up carbon, some for a long time. The TWSEL supports softwood (coniferous) production on existing sites, and hardwoods elsewhere. However, its multifunctional approach means that timber production is not the only priority. It is difficult to judge the effect of this on carbon emissions as woodlands where timber is not removed also sequester carbon.
79. People travelling to recreate in the countryside often go by car. The TWSEL aims to increase accessible woodland, to which most people could walk or cycle. However, they may choose to go by car. This will increase carbon emissions, though by less than if woodland further away was a focus for recreation.
80. The TWSEL does not encourage the use of wood fuel due to the effect on local air quality and short-term release of carbon. There is some use of wood fuel including in domestic stoves. The Council does not know if wood is imported to meet this demand, which would lead to carbon emissions from transport. It is not clear what the overall effect on climate is from not promoting wood as fuel.
81. Overall, it is likely the strategy will be positive for climate change mitigation through woodland creation and carbon stored in wood products. There may be a small increase in car travel for recreation.

Adaptation

82. Some climate change is inevitable no matter what we do to mitigate it now. We therefore need to adapt. Predictions for East Lothian are for a warmer, wetter winters with periods of more intense rainfall and warmer, drier summers. There is likely to be a longer growing season, linked to warmer weather. Extreme weather events are more likely. There will also be sea level rise with consequent coastal habitat squeeze and increased coastal flood risk. Outdoor spaces within towns are

expected to have to cope with increasing heat and sudden downpours. There could be global effects on food production.

83. Trees can help us adapt to climate change but they also need to adapt.
84. Heat stress can make people ill and can even kill. Trees can help keep urban areas cooler in summer. The TWSEL sets targets for tree canopy in our urban areas, which will help reduce heat there. Farm animals can also suffer from heat. The TWSEL Target 5 aims to increase woodland on farms, which will help them stay cool.
85. The trees that are in East Lothian now grew in conditions different from those that are coming. Some species may cope better than others. Different conditions mean we may see new tree pests and diseases. Having a range of different tree species gives the best chance that some will thrive. Planning for connected woodland (Policy 10, addressing fragmentation, and Target 2A on resilience) will help trees and other woodland plants and animals move elsewhere if the climate gets too difficult for them here, and allow new species to come here.
86. TWSEL Policy 7 supports sustainable woodland management. This includes encouraging different species. The Council will also actively manage key tree species and woodlands to improve their resilience to climate change, and encourage others to do so.
87. Overall the effect on adaptation for both human interests and the woodland itself is expected to be positive.

Indicator: Does the plan....?	Overall effect of TWSEL	Comment
Climatic Factors		
Mitigate Climate Change	Positive/ mixed	<p>Mitigation of climate change was the main driver behind the Council's original commitment to the 2 million trees of the Climate Forest. It is also a main aim of the TWSEL. The impacts of the Strategy are generally positive. This arises from many actions and policies. These include stronger policy on retention of existing woodland, and the delivery of the Climate Forest as the trees will absorb carbon dioxide from the atmosphere. Support for the use of timber products also means the carbon in trees will be locked up for longer.</p> <p>A possible increase in climate forcing emissions comes from encouragement of tourism. Creating more woodland is also likely to lead to more car</p>

Indicator: Does the plan....?	Overall effect of TWSEL	Comment
		borne visitors. Both could lead to more emissions from car borne visitors.
Support climate change adaptation	Positive	The TWSEL contains a section on 'Resilience' which includes adaptation to climatic change as part of creating a resilient place. This section encourages use of trees to combat flooding, poor water quality, soil erosion, and to regulate urban temperatures. The Strategy also provides encouragement and guidance on helping East Lothian's trees and woodlands adapt to climate change through good management and species choice.

Material Assets



88. The 'Material assets' category includes impacts on infrastructure such as roads, railways, paths and electricity systems, the land itself and minerals. Woodland as a source of timber is also a material assets. Assets in this area include transport infrastructure; roads, railways, cycle ways and paths, and the electricity and gas supply and distribution system, and water supply and management systems.
89. The assessment objectives were:
- Promote the effective and sustainable use of forests and woodland
 - Safeguard and enhance existing natural and built resources
 - Promote the circular economy
90. East Lothian contains commercial softwood plantation and hardwood production. The Scottish Forestry Map viewer shows commercial forestry at [Scottish Forestry](#)

[Map Viewer \(arcgis.com\)](https://arcgis.com). The TWSEL supports existing commercial timber production, but does not seek an expansion of primarily commercial forestry. The effect on timber as a material asset is therefore considered neutral.

91. The TWSEL supports an increase in trees and woodland overall (Target 1, Action 2 and others) and an increase in urban tree canopy cover. It also supports tree planting along road corridors to improve air quality and reduce noise. Transport operators have statutory powers to remove trees that pose a safety issue, regardless of the strategy. However, operation of roads and railways can be affected by trees from issues such as leaves and sightlines. If badly planned or maintained, an increase in urban tree cover could make some pedestrian routes appear dark or unsafe. This will reduce their function. This is not the intention of the strategy and this issue should be considered at project level. The TWSEL also contains an action to work with landowners to reduce water run off onto local roads. This will help improve their condition and safety. Increased tree cover will improve the appearance of roads. Overall, the effects on transport assets are mixed.
92. Much of the land in East Lothian is suitable for a number of purposes. The constraints mapping aims to guide woodland creation to suitable areas. This supports efficient use of land. An increase in woodland cover may make it less acceptable to extract minerals if woodland is created on ground with minerals.
93. The circular economy is one where we make, use, then remake. This is more sustainable than the linear economy where we make, use, then dispose. The TWSEL encourages the waste hierarchy in tree work and forestry, seeing disposal as a last resort. The effect on the circular economy is expected to be positive.
94. The effect of the TWSEL on material assets are varied. The effect on woodland and timber as a resource is positive. Mostly the effect on the transport network are neutral, as the operators have statutory powers to remove problem trees. There could be local issues arising from more leaves or self-seeded trees though. The planned increase in the urban tree canopy will generally make pedestrian routes more pleasant to use but some people may see some routes as less attractive or unsafe.

Indicator: Does the plan....?	Overall effect of TWSEL	Comment
Material assets		
Help to ensure forests and woodlands are sustainably managed	Positive	Policy 7 of the TWSEL explicitly encourages sustainable woodland management in line with the UK Forestry Standard. The TWSEL supports

Indicator: Does the plan....?	Overall effect of TWSEL	Comment
Promote the circular economy	Positive	<p>continuous cover management, which avoids clear felling and is a more sustainable method of managing woodland.</p> <p>The circular economy is one where materials are not wasted but are constantly reused or recycled. The TWSEL is likely to be positive for this as it looks for ways to increase use of wood and wood products. This avoids use of non-renewable materials.</p>

Cultural Heritage



95. Cultural heritage is everything created by people over time. It includes physical evidence of this, such as designed landscapes, listed building or scheduled monuments, but also songs, stories and artwork.
96. Information on sites, finds and designations is available on East Lothian's [Historic Environment Record](#). Historic Environment Scotland's [website](#) has further information about nationally important heritage assets. The map below shows some of these historic assets.

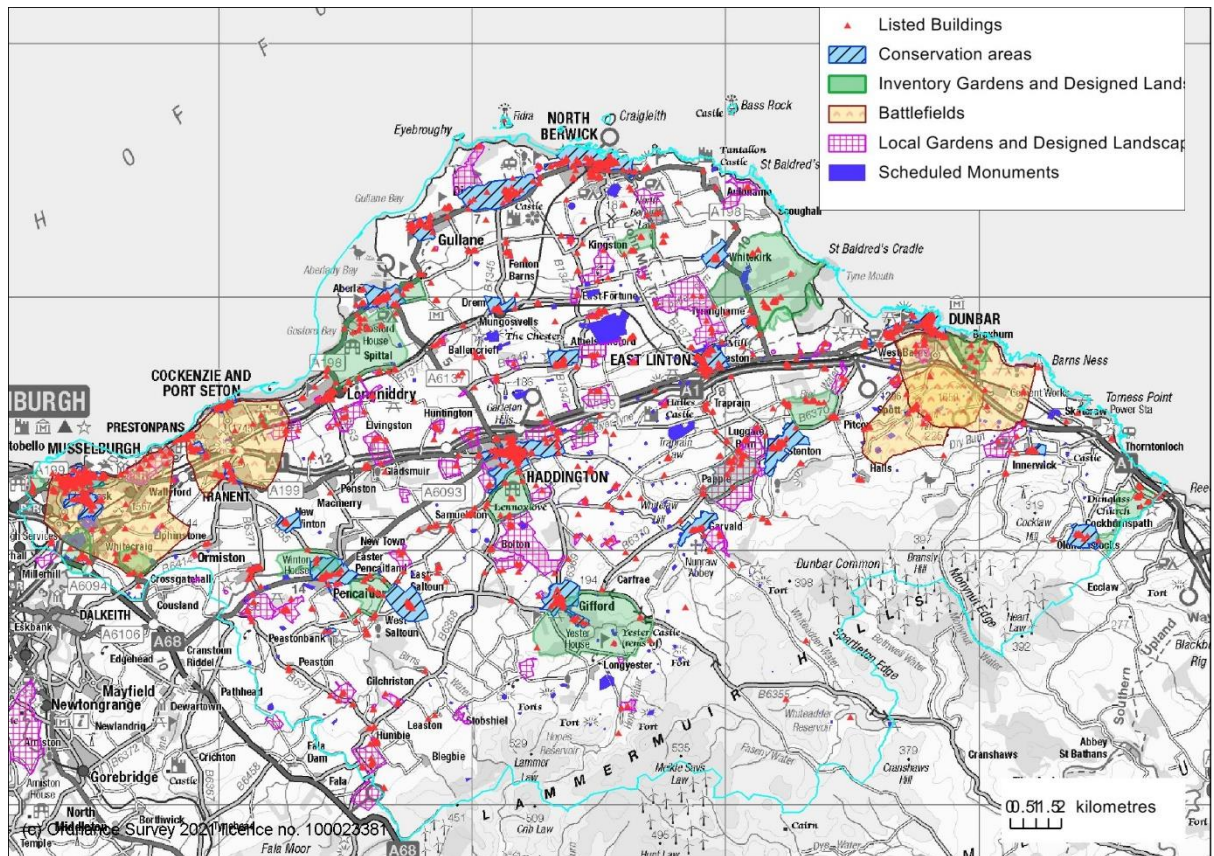


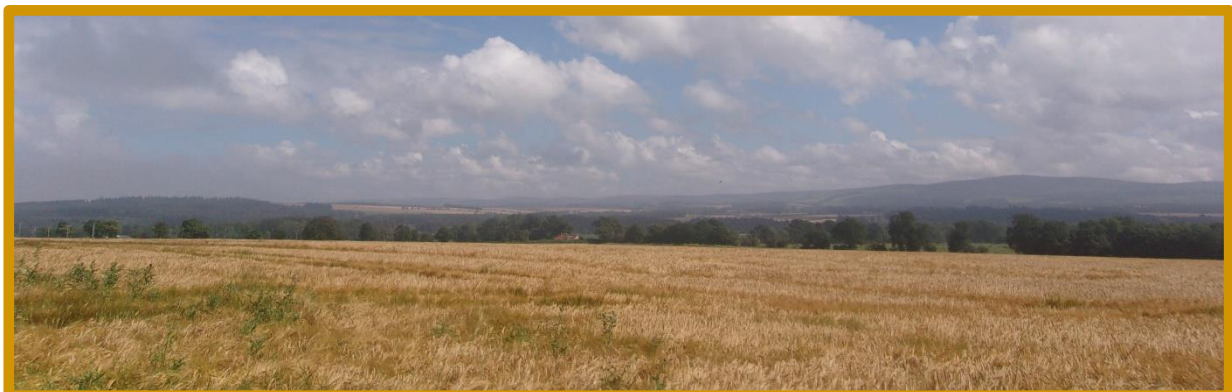
Figure 7 Designated Historic Environment assets

97. Pressures on the historic environment include development pressures, land use, maintenance, climate change (both mitigation and adaptation), sustainability, sea level rise and coastal change, pollution and visitors.
98. East Lothian contains a large number of designated heritage assets. There is also high potential for further unrecorded remains of all periods. Evidence and remains of prehistoric farming; medieval industry; conflict; industrial innovation and expansion as well as settlement from all periods survive. Towns and villages also have historic origins and strong identities; individual trees and areas of woodland are part of this heritage.
99. The assessment objectives were:
 - Avoid land use change and tree planting harming the cultural heritage
 - Avoid physical damage
100. Economic and population changes have led to development pressure and change in East Lothian. This has altered the traditional setting of some towns and villages. Increased tree canopy coverage should help new areas integrate into the landscape, so reducing the impact of new development on the traditional setting. Woodland creation could also affect key elements of the historic setting or obscure traditional views of towns and villages. The impact will depend on what comes forward at project level and is difficult to predict overall.

101. Some of East Lothian's trees are visitor attractions, and visitors also come to see Designed Landscapes. The TWSEL is cautious about promoting individual trees as attractions due to the potential for harm. The overall impact of the TWSEL on historic trees is considered neutral.
102. Heritage assets are shown on the map above. An increase in tree cover has the potential for both direct and indirect effects. The TWSEL encourages restoration of woodland and tree planting of Designed Landscapes, though poorly considered woodland creation could affect their interest. There are four major battlefield sites in East Lothian, and woodland creation in some parts could affect the understanding of the battle. Policy 25 aims to protect these assets from harm. Designed Landscapes and Battlefields are shown on the constraints mapping as 'potential' recognising that some planting could be beneficial there but their interest needs to be considered. Planting in Scheduled Monuments needs consent from Historic Environment Scotland so they will not be directly affected by the TWSEL. Scheduled Monuments are shown on the constraints mapping as 'Sensitive'.
103. Archaeological remains can be harmed by poorly planned and sub-standard tree planting, drying out (which trees can cause) root damage and disturbance. Archaeology is taken account of in grant schemes, but small scale planting may not consider this so some loss may occur.
104. The TWSEL supports the passing on of traditional skills and knowledge. It seeks to protect notable trees, which includes those with heritage interest (Policy 22). The strategy overall will help maintain intangible heritage.
105. The Cultural Heritage section of the strategy aims to 'celebrate the role of trees and woodland as part of our cultural heritage and protect our cultural heritage assets from harm from trees'. The TWSEL has policy on notable trees, protection of the historic environment and archaeology. It also supports the passing on of traditional skills and knowledge. Detailed advice at settlement level and the production of Conservation Area appraisals will help make sure the traditional setting and valued historic elements of towns and villages are not harmed by trees. The Strategy has mapped as 'sensitive' or 'potential' historic assets where tree planting and woodland creation could cause most harm. Increasing tree cover in a place which historically did not have many trees inevitably changes the historic appearance of the place, including specific historic features and their settings. Mostly this will not be harmful, but there may be occasions when it is.
106. Overall the effect on cultural heritage is likely to be positive.

Indicator: Does the plan....?	Overall effect of TWSEL	Comment
Cultural Heritage		
Avoid adverse impacts on heritage assets, including archaeological sites and monuments?	Positive Mixed Negative	The TWSEL includes policy aimed at protecting heritage assets, which will help avoid harm. However, when most of the heritage assets (listed buildings, Conservation Areas, Designed Landscapes, Battlefields and Scheduled Monuments) were created, East Lothian was a lot less treed than now. More trees and woodland is likely to change the setting of these assets, which could affect appreciation and understanding of them. Increased woodland cover and a greater number of trees in urban areas makes damage to some historic assets from self seeded trees more likely.
Protect and deepen the appreciation of East Lothian's historic woodlands and notable trees	Positive	The Cultural heritage theme aims to celebrate the role of trees and woodland as part of our heritage. Proposed actions including the development of tree trails, recording of important historic trees and promotion of positive management of Designed Landscapes support this. Protecting historic types of woodland such as ancient woodland, parkland and orchards mean they are there to be enjoyed.

Landscape



107. Landscapes play a large part in forming identity and distinctiveness of place. Good landscapes support quality of life and encourage us outdoors. Poor and degraded landscapes restrict social and economic opportunity, and adversely affect quality of

life. The European Landscape Charter values all landscapes. East Lothian has a reputation for attractive countryside and coast and everyone should benefit from having good landscape around them.

108. There are almost no areas in East Lothian which are not managed by and for human beings, whether as farmland, grouse moor, or for urban or recreational use. New woodland should aim to conserve landscape overall. Small-scale incremental change can eventually lead to irreversible landscape damage; woodland planting may mitigate existing harmful change, and help avoid future change by providing a landscape framework for new development.
109. The assessment objectives for landscape were:
 - Protect and enhance the quality of landscapes and townscapes
 - Conserve geological heritage
110. This area does not contain any National Scenic areas, but does include several locally designated Special Landscape Areas. East Lothian includes an area of the Edinburgh Green Belt and some Countryside Around Town areas. Some areas of woodland and trees here are subject of Tree Preservation Orders.
111. The TWSEL included relevant advice from the Special Landscape Areas from their Statements of Importance. This should help to avoid harm to them. Woodland creation is generally in line with Green Belt objectives especially supporting nature networks and the natural setting of settlement. The Council designated Countryside Around Town areas in response to strong pressure for development here. The purpose of designation is to avoid development which would potentially harm the landscape setting of towns. Countryside Around Town areas should also ideally provide opportunities for access to the countryside for recreation. In most of these areas, woodland creation would help meet their landscape and recreational objectives. Policy 26 provides for the protection and enhancement of landscape, including avoiding harm to these areas. The effect on these areas overall is likely to be at least neutral if not positive.
112. The main threat to trees covered by Tree Preservation Order is development, however lack of appropriate management is also an issue. The threat of diseases such as ash dieback disease is also important.
113. Maintaining distinctiveness of different areas of Scotland in relation to each other and the rest of the UK is important. As part of Eastern Coastal Central Scotland, keeping the features that help make the area distinctive is important, even if - or perhaps because - they are common here. This includes policy woodland and shelterbelts. Woodland creation could alter the landscape character of some areas. This could either weaken or strengthen landscape character overall and has the

potential to be a significant effect. Native woodland creation is generally seen as good for the landscape as it adds interest and diversity. Reinstatement of hedges, roadside planting and woodland planting in scale with landscape character are also good.

114. The TWSEL will help by woodland creation to help integrate transport corridors into the landscape. Target 5 supports creation of farmland woodland, which adds features (shelterbelts) to the landscape increasing its distinctiveness. Action 7 is to plan for landscape scale replacement of Ash trees, which will help address the effects of their expected loss to disease.
115. There is considerable existing development here, some of which is poorly integrated into its surroundings. Further development is planned, some of which is in fairly open locations. Woodland can help integrate urban development into its landscape setting and provide for multifunctional green networks. Some other existing development detracts from landscape quality, such as the high voltage power lines. These require wayleaves, however planting in appropriate places could help screen them in important views. The TWSEL provides guidance on character and tree planting in each settlement and village. The TWSEL also has an Action (32) to create a managed programme of replacement of street trees important to townscape character. Together these have the potential to guide and improve townscape.
116. East Lothian contains both geological SSSIs and locally designated geodiversity sites. TWSEL identifies these sites as Sensitive on its constraints mapping, which will guide tree planting away from them. In SSSIs, this would need consent from NatureScot in any case. Woodland near these sites could increase self-seeding which could damage or obscure the geological interest. There is therefore a slightly increased risk of damage to these sites.
117. Landscape is a Theme of the TWSEL, with the aim to "use trees to help retain and enhance the distinctiveness of landscape and settlement character within East Lothian". The TWSEL is expected to have a positive effect on Landscape.

Indicator: Does the plan....?	Overall effect of TWSEL	Comment
Landscape		
Protect the diversity and value of East Lothian's Landscapes	Positive/ Mixed	Positive effects are expected on the diversity and value of East Lothian's landscapes from woodland creation and tree planting, which usually make landscapes better. Policy is included to

Indicator: Does the plan....?	Overall effect of TWSEL	Comment
		<p>avoid harm to landscape character, especially in areas designated for their landscape value.</p> <p>Coniferous plantation has been criticised in the past for its impact on landscape. The TWSEL supports existing coniferous plantation, and continued softwood production on these sites. Although the plantation will be restructured in line with the UK Forestry Standard when it is time to fell it, there is likely to be some adverse landscape impact.</p>
Improve and reinforce townscape character and sense of place	Positive/ Mixed	Increasing urban canopy coverage will improve townscape character and sense of place. Helping protect Notable Trees also will help reinforce townscape character, as will some other actions with more local effects.

Overall Conclusion

118. The TWSEL contains Themes specifically aimed at Biodiversity, Landscape and Climate Change, Cultural Heritage, and Landscape, and significant benefits for these topics are expected. Woodland biodiversity will benefit from increased protection of woodland, expansion of woodland and more connections between woodland areas. Increased woodland planting will mitigate climate change and help us adapt to inevitable climate changes. Cultural heritage will benefit from recognition of notable trees. Landscape will be enhanced by woodland creation.

119. The main potential adverse impacts are:

- For biodiversity, there is likely to be an increase in invasive species that live in woodland, due to the expansion of woodland.
- The TWSEL aims to increase access to woodland, and to focus this on those woodlands that can best cope with more visitors. However, there could be some increase in damage to woodland biodiversity from increased recreational access
- An increase in tree canopy coverage generally makes an area more pleasant to be in. However, there for some people or in some places this increase in tree cover may reduce their enjoyment of their home or area.

- Increasing woodland cover, and encouraging people to use woodland, could lead to an increase in vector borne disease, mainly from ticks. There could also be an increase in tree pollen allergy
- TWSEL encourages woodland on agricultural land where it will support agricultural production. This will lead to the loss of some of this land.
- More trees especially in towns will bring more fallen leaves and seeds which can grow in unwanted places. This could potentially lead to an increase in damage to or maintenance needs of structures and roads.
- An increase in trees and woodland will bring landscape change. This will generally make the landscape more diverse. However, when most cultural heritage assets were created, there were fewer trees. Sometimes, therefore, tree planting may affect them or their setting, and impact on how people understand them.

East Lothian Council

Draft Habitat Regulations Appraisal

Tree and Woodland Strategy

East Lothian Council Planning Service
01/12/2023

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1. Introduction

Overview

The Tree and Woodland Strategy for East Lothian (TWSEL) has been developed by East Lothian Council to fulfil the legislative requirement under the Planning (Scotland) Act 2019. The TWSEL will replace the Lothian Forestry and Woodland Strategy 2013 – 2017. The strategy is intended to set out a long-term spatial and policy framework to guide the creation of woodland across East Lothian and support the sustainable management of existing and new woodlands. The Strategy has no end date but is intended to provide a framework for the next ten years, with the intention to review in line with Local Development Plan timescales.

This document is the Habitats Regulations Appraisal (HRA) of the Tree and Woodland Strategy for East Lothian.

Legislation and Guidance

The European Union Council Directive 92/43/EEC, also known as the ‘Habitats Directive’, in addition to the Birds Directive (2009/147/EC) aimed to protect natural habitats and wild flora and fauna through the establishment of European Sites including Special Areas of Conservation (SAC) and Special Protection Areas (SPA).

The Habitats Directive was translated into legal obligations in Scotland under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). Under this legislation, the effect of proposals on European sites must be considered through a process commonly known as ‘Habitats Regulations Appraisal’.

Article 6(3) of the EC Habitats Directive required that any plan (or project) which is not directly connected with or necessary to the management of the European Site, but would be likely to have a significant effect on said site, either individually or in combination with other plans or projects, shall be subject to an Appropriate Assessment of its implications for the European Site with regards to the site’s conservation objectives.

Following a European Court ruling in 2018 on the People Over Wind case (CECJ case C-323/17), mitigation measures to reduce the impact of a proposed development may no longer be taken into account at the screening stage. This is particularly concerned with proposals where mitigating measures may be applied at the screening stage in order to avoid or reduce likely significant effects on the European site, and therefore avoid the need for appropriate assessment; however, where mitigation is an intrinsic part of the development being assessed, these measures can be included at the likely significant effect stage.

HRA is a statutory requirement, and a plan making body may not adopt the plan unless it can be shown that the plan will not affect the integrity of the site. NatureScot must also be consulted as part of this process.

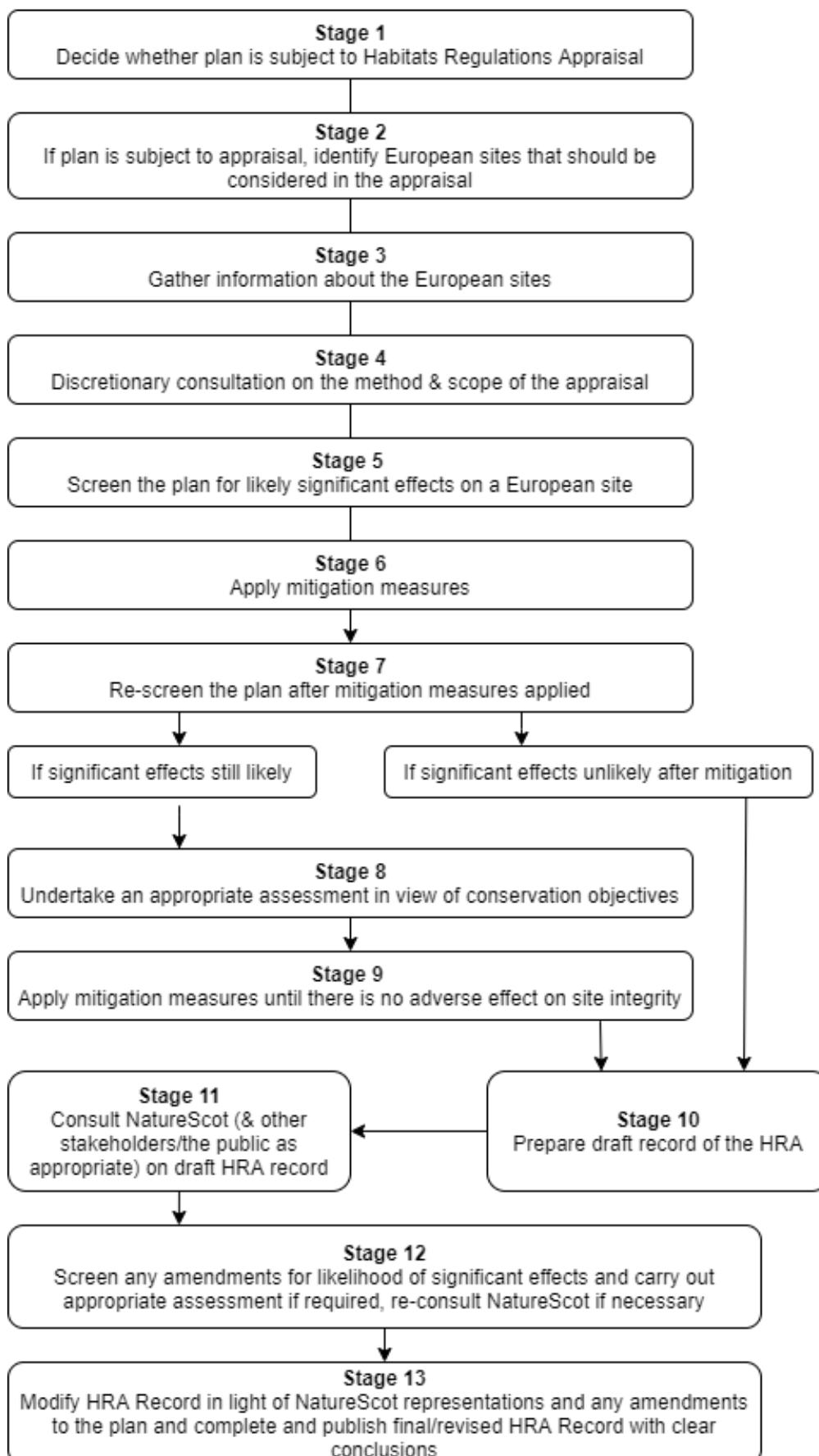
Habitats Regulations Appraisal Process

A Habitats Regulations Appraisal is a multi-stage assessment that considers whether any plan or project that is not directly connected to the conservation of a European site will have a likely significant effect upon that site. This process includes identification of European sites, screening to determine if appropriate assessment is required, and where likely significant effects are identified the appropriate assessment itself. The plan should only be approved where it can be determined that it will not have, either alone or in combination with other plans or projects, an adverse effect upon the integrity of a European site.

Guidance on methods for undertaking plan-level has been prepared by David Tyldesley Associates on behalf of NatureScot (2015). This outlined a sequential approach for undertaking HRA in accordance with the Habitat Regulations, sub-dividing the process into 13 stages (Figure 1); these stages must be followed in the correct order. Before a conclusion can be reached, the competent authority should consult with NatureScot, the statutory nature conservation organisation.

This HRA has been prepared following the above guidance, and further informed by consultation with NatureScot. This report addresses each of the recommended 13 stages of the HRA process, including the Appropriate Assessment.

Stages in Habitats Regulations Appraisal Process



2. Tree & Woodland Strategy

East Lothian's Tree and Woodland Strategy will help the Council address the climate and nature crises and guide the delivery of the East Lothian Climate Forest. It will promote sustainable woodland management and identify opportunities for woodland creation. The strategy covers all forms of tree and woodland, from small-scale tree planting to hedgerows and productive forestry.

The strategy:

- Sets out our long-term vision and our policies and proposals for trees and woodland
- Identifies woodlands of high nature conservation value.
- Shows how we will protect and enhance our trees and woodlands.
- Provides guidance to landowners and others seeking to manage woodland and plant trees and hedgerows.
- Provides guidance to developers for trees in and around their sites
- Provides advice for our people and communities who want to get involved with protecting trees or creating woodland

The Tree and Woodland Strategy has the overarching strategic vision that *“expanded and sustainably managed networks of woodland and trees across East Lothian contribute to addressing climate change, and provide healthy and resilient environment, nature recovery, a strong sustainable economy and enhanced quality of life for local communities”*

To support the delivery of this vision, seven strategic themes have been identified. Each theme has an aim and targets, and are supported by actions demonstrating how we intend to achieve these targets. The seven strategic themes and aims are:

1. **Climate Change mitigation** – to increase the contribution that East Lothian's existing and future woodlands make to achieving net zero carbon in line with East Lothian Council and Scottish Government targets
2. **Resilience and climate adaptation** – to increase resilience of East Lothian's environment and its woodland, including using trees and woodland to adapt to climate change
3. **Biodiversity** – to work towards a more natural tree and woodland cover with thriving native flora and fauna, protecting, maintaining and connecting our distinctive native woodland types, and enhancing and connecting nature in our urban areas
4. **Community** – to maximise the benefits for all people of trees and woodland for recreation, health, wellbeing and community including through placemaking
5. **Economy** – trees and woodland contribute towards a sustainable and inclusive economy
6. **Cultural Heritage** – to celebrate the role of trees and woodland as part of our cultural heritage and protect cultural heritage assets from harm from trees
7. **Landscape Character** – to use trees to help retain and enhance the distinctiveness of landscape and settlement character within East Lothian

The Strategy is not directly related to the management of European Sites for their conservation interest. Therefore, it requires Habitat Regulation Appraisal.

3. Identification of European Sites

Habitats Regulations Appraisal needs to consider all European Sites that may be affected by a plan or project, including those that may be within other local authority areas. An initial sieve was carried out to determine if there is any connectivity between the site and the potential activity of tree and woodland strategy.

The main *potential* pathways – for an effect arising from the policies and actions of the TWSEL are considered to be:

- Direct effects on sites from habitat loss or changes to activity levels
- Loss of supporting habitat arising from woodland creation
- Changes to patterns of recreation and consequent disturbance
- Localised changes to water quality arising from woodland creation or forestry activity (silt or accidental spillage of pollutants)
- Changes to land cover altering distribution of invasive species, pathogens or wildfire
- Climate change mitigation (positive effect)

Bearing this in mind, European sites were identified to see if they needed further consideration of whether or not there is a likely significant effect. Sites were considered where:

1. Any part of their area within East Lothian
2. Any part of their area was within 20km of East Lothian
3. They contain mobile qualifying interest species that may use areas in East Lothian while at the site

The first two categories of site are considered in Table 1 below, the third in Table 2. No other sites were thought to be potentially affected there is no pathway for impact.

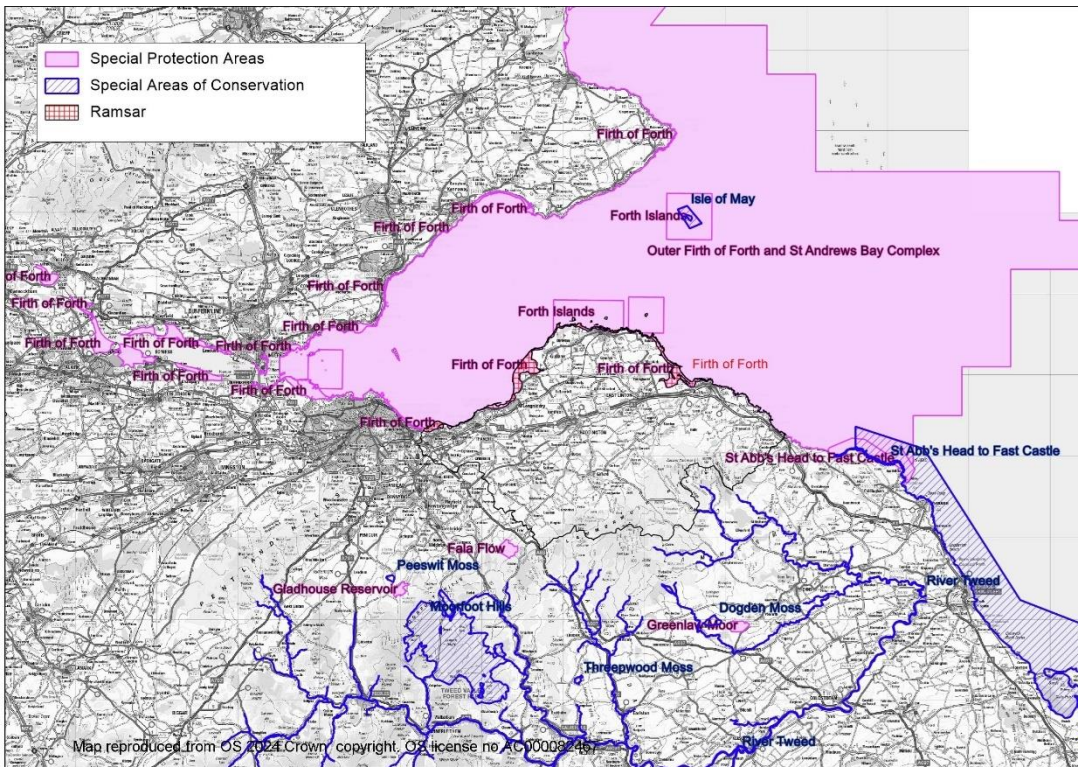
Sieving Exercise: Sites in or within 20km of East Lothian

European sites within 20km of the Tree & Woodland strategy area are:

Designation	Site Name
Special Protection Area (SPA)	Forth Islands
	Imperial Dock Lock, Leith
	Outer Firth of Forth and St Andrews Bay Complex
	St Abb's Head to Fast Castle
SPA and Ramsar	Fala Flow
	Firth of Forth
	Gladhouse Reservoir
	Greenlaw Moor
Special Area of Conservation	Berwickshire and North Northumberland Coast

Dogden Moss
Isle of May
Moorfoot Hills
Peeswit Moss
River Tweed
St Abb's Head to Fast Castle
Threepwood Moss

The locations of these sites in relation to East Lothian are shown on the map below. More detailed site location mapping is also available NatureScot's [Sitelink](#).



Sieving Exercise Results: Sites in or within 20km of East Lothian

TABLE 1: Sieving exercise results for sites in or within 20km of East Lothian			
Site name/Reason for consideration	Interest	Negative pressures	Result, with reason
Firth of Forth SPA/ Ramsar	See Appendix 3	Recreation/ Disturbance – Goldeneye, Knot, Mallard, Redshank; Waterfowl assemblage, Wigeon Recreation/ Disturbance – dog walking, walking Bar tailed Godwit, curlew, Eider, Grey Plover	Examine for LSE. This SPA covers the intertidal area around the Firth of Forth, so partly falls within East Lothian. Some qualifying interest species use supporting habitat inland in East Lothian. Some are affected by changes to water quality.

		<p>Game/fisheries management - Cormorant, Waterfowl assemblage</p> <p>Climate Change - curlew, Goldeneye, Grey Plover, Knot, Mallard, Waterfowl assemblage</p> <p>Water Quality - Goldeneye,</p> <p>Natural event - Great crested grebe</p>	
Forth Islands SPA	See Appendix 3	<p>Inter-specific competition – Arctic Tern, Seabird assemblage</p> <p>Climate change – Guillemot, Kittiwake, Puffin, Razorbill, Seabird assemblage, Shag</p> <p>Game/fisheries management – Guillemot, Kittiwake, Puffin, Razorbill, Seabird assemblage</p> <p>Pro-active onsite management – Herring Gull</p> <p>Invasive species – Puffin, Seabird assemblage</p>	<p>Examine for LSE. Parts of this site lie within East Lothian. There may be some use of supporting habitat of areas affected by the TWSEL by Herring Gull, Lesser Black Backed Gull, and Cormorant.</p>
Outer Firth of Forth and St Andrews Bay Complex SPA	See Appendix 3	<p>None</p> <p>Relevant sensitivities include: sensitivity to visual disturbance; prey availability; water clarity; oil pollution; chemical and oil pollution including small scale incidents; sudden loud noise; introduction of microbial pathogens; organochlorine pollution; disease (including avian flu); increase in turbidity of water; attraction to artificial light (Manx shearwater)</p>	<p>Examine for LSE. This site very marginally overlaps with East Lothian in the intertidal zone. Black-headed gull, common gull, Herring Gull are likely to forage in inland areas. Cormorant and some of the duck species may also use nearby inland waters.</p>

Berwickshire and North Northumberland Coast SAC	Grey seal - Favourable Maintained	None	No further consideration. This site is around 8.5 km east of East Lothian. The site is considered too far for activities related to the strategy to affect the habitat qualifying interests. Grey Seal are mobile and do visit East Lothian's shores. The offshore area is a Seal Conservation Area, though for Common Seal rather than Grey. Scottish Grey seal east coast populations are increasing. Pressures include pathogens, toxins and contaminants, inter-species competition, changes in prey availability, underwater noise, disturbance and fisheries and aquaculture interactions. The pathway for the Strategy to affect these would be via water quality or changes to recreational patterns. Changes to water quality would be unintended, and likely to be localised and of short duration. The strategy is unlikely to change patterns of recreation such that it would affect the site due to the distance.
	Intertidal mudflats and sandflats Reefs Sea caves Shallow inlets and bays - Condition not assessed		
Dogden Moss SAC	Active Raised Bog - Favourable Maintained	None	No further consideration. Dogden moss lies around 10.5 km south of East Lothian, not far from Greenlaw Moor SPA. The site is considered too distant from East Lothian for any activities related to the Strategy to affect the qualifying interest.
Fala Flow SPA Ramsar	Pink-footed Goose - Favourable Maintained	Water management	Examine for LSE. The SPA lies around 2km from East Lothian at its closest point. Pink footed goose from this site are known to visit East Lothian to forage (Mitchell, 2012).
Gladhouse Reservoir SPA Ramsar 186.58	Pink-footed Goose - Unfavourable Declining	No proactive management Water management	Examine for LSE. The SPA lies around 14km west of East Lothian. Pink footed goose from this site are known to visit East Lothian to forage (Mitchell, 2012). T
Greenlaw Moor SPA 245.81	Pink-footed Goose - Favourable maintained	None	No further consideration. Greenlaw Moor lies around 12.5 km to the south of East Lothian. The qualifying interest Pink Footed goose associated with this site are not thought to use areas within East Lothian (Mitchell, 2012) and suitable habitat here is at the edge of daily foraging range.

Imperial Dock Lock, Leith SPA	Common Tern - Favourable Maintained	'Other'	No further consideration. Potential pathways would be proposals that affect feeding habitat/availability of prey e.g through changes to sediment. Tern feeding areas are close to the SPA. Any changes to water quality would be unintended, short term and localised arising from woodland management or planting activity.
Isle of May SAC	Grey seal Reefs Both Favourable Maintained	Invasive Species – Reefs Water management – Reefs	No further consideration. The SAC lies offshore between East Lothian and Fife. There is no pathway for an effect on the reefs. Grey seals feed within the Firth of Forth and can haul out on land on our shores. The Strategy supports woodland creation, including around the coast. There is a small chance that activity related to this could lead to the release of sediment or pollutants into the sea. Any effect would be localised and short term. This is not the intention of the strategy, and if good practice is followed, it will not occur. Other regimes including grant funders and EIA regulations, would provide for assessment at project level that would include measures to ensure normal good practice is followed. The Strategy does not promote recreation on areas that might be used as seal haul outs as these are areas where woodland creation is unlikely to be possible.
Moorfoot Hills SAC	Blanket Bog - Unfavourable Recovering Dry heaths - Unfavourable No change	None Burning Invasive species: Bracken Over grazing: Deer	No further consideration. This site is around 12 km southwest of East Lothian. Potential pathways include an increase in grazing from displacement of deer (potentially arising if land is fenced off to protect new planting), spread of invasive species, pathogens or from an increased risk of wildfire. There is considered to be too much intervening land for this to occur as a result of actions arising from the Strategy.

Peeswit Moss SAC	Active raised bog Degraded raised bog Both Unfavourable Recovering	No proactive management – Active and Degraded raised bog	No further consideration. This site is around 16km west of East Lothian and no part of East Lothian drains into the site. The strategy cannot affect the management of the site. No other pathways for an effect were identified given the distance from East Lothian.
River Tweed SAC	Atlantic Salmon Brook Lamprey Otter River Laprey - Favourable Maintained Rivers with floating vegetation often dominated by water-crowfoot - Unfavourable no change Sea Lamprey - Unfavourable declining	Agricultural operations - Atlantic salmon Climate Change - Atlantic salmon Forestry operations Atlantic salmon, Otter Invasive species - Atlantic salmon, Rivers with floating vegetation often	Examine for LSE. Some parts of upland East Lothian drain into the River Tweed SAC. Deterioration of water quality could affect all of the qualifying interests. Otter from the site may use supporting habitat in East Lothian.
St Abb's Head to Fast Castle SAC	Vegetated sea cliffs - Favourable Maintained	Over grazing - Rabbits, Sheep Under grazing	No further consideration. This site is around 6.5km broadly to the east of Dunglass at the East Lothian/ Scottish Borders boundary. The site is considered too distant for any potential effect arising from displacement of deer, or changes to land management that could potentially affect invasive species or pathogen spread, or fire risk.
St Abb's Head to Fast Castle SPA	Guillemot Razorbill - Favourable Maintained Herring Gull Kittiwake Seabird Assemblage Shag - Unfavourable Declining	Recreation/ Disturbance (Razorbill)	Examine for LSE. This site lies around 8.5 km east of Dunglass at the East Lothian/Scottish Borders boundary. Herring Gull from this site may use supporting habitat in East Lothian. The site is considered too distant from East Lothian for other pathways to affect the population or distribution of qualifying interest species on the site.
Threepwood Moss SAC	Active raised bog - Unfavourable, no change	Invasive species Undergrazing; Cattle, Sheep	No further consideration. The site lies approximately 15 km to the south of the site, and no part of East Lothian drains into the site. The site is considered too distant for any potential effect arising

	Degraded raised bog - Unfavourable, no change	Invasive species; birch Under grazing	from displacement of deer, or changes to land management that could potentially affect invasive species or pathogen spread, or fire risk. There are no mobile qualifying features and therefore no pathway for an effect.
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Those sites that have been sieved out will not be considered any further within this assessment.

Sieving Exercise: Sites Further than 20km from East Lothian

This section considers whether there are any sites further than 20km from East Lothian which need to be checked for LSE due to the mobile species. This was done by considering the species qualifying for protection with a European Site, and examining if there were any pathways for an effect at a distance of greater than 20km from East Lothian. There are considered to be no effects from the strategy that could affect land at more than 20km distance. Therefore remaining pathway is where there is an effect on mobile species associated with more distant sites visiting East Lothian or the immediately surrounding area.

The species that are qualifying interests for a European site in the UK were considered to see if there was a potential pathway. If so, sites include that species that are within the distance that could be affected were considered for LSE.

Birds

The Birds Directive protects both particularly threatened bird species, and regularly occurring migratory bird species. Some birds fall into both categories. The definition of 'migratory' was taken as being one that had a greater than 20km seasonal movement, so by definition these birds are capable of moving that far. These birds were examined to see if there were any potential pathways for an impact to a site where they are a qualifying interest.

Birds which do not currently occur in East Lothian

Some land-based birds have a range and series of sites is too far from East Lothian to be affected by any activity arising from the strategy. Such birds either do not occur in East Lothian or do so only rarely. There is therefore no pathway for an effect and no search has been made for SPAs that include these birds. These birds are:

Avocet *Recurvirostra avosetta*
 Aquatic Warbler *Acrocephalus paludicola*
 Bittern *Botaurus stellaris*
 Capercaillie *Tetrao urogallus*
 Dartford Warbler *Sylvia undata*
 Chough *Pyrrhocorax pyrrhocorax*
 Canadian Light-bellied Brent Goose *Branta bernicla hrota*
 Svalbard Light-bellied Brent Goose *Branta bernicla hrota*
 Corncrake *Crex crex*
 Dark-bellied Brent Goose *Branta bernicla bernicla*
 Dotterel *Charadrius morinellus*
 Fair Isle Wren *Troglodytes troglodytes fridariensis*
 Greenland Barnacle Goose *Branta leucopsis*
 Greenland White-fronted Goose *Anser albifrons flavirostris*

Nightjar *Caprimulgus europaeus*
Spotted Crake *Porzana porzana*
Stone Curlew *Burhinus oedicephalus*

Seabirds

Seabirds spend most of their time at sea, other than when breeding.

There are 52 marine birds (including gulls) that qualify for protection, though only 44 of those occur in large enough numbers to be included in sites designated as SPA. A review was carried out by C Thaxter et al published 2012, to investigate maximum and mean foraging distances for seabirds. Birds shown in **bold** are also a qualifying interest of a site within 20km of East Lothian.

Arctic Skua *Stercorarius parasiticus* (75km max, 6 km mean)
Arctic Tern *Sterna paradisaea* (30km max, 7km mean)
Balearic Shearwater *Puffinus mauretanicus*
Black-necked Grebe *Podiceps nigricollis*
Black-throated Diver *Gavia arctica*
Common Scoter *Melanitta nigra*
Common tern *Sterna hirundo* (30km max, 4.5km mean)
Cory's shearwater *Calonectris diomedea*
Surf scoter *Melanitta perspicillata*
Common Tern *Sterna hirundo*
Eider *Somateria mollissima* (80km max, 2.4km mean)
Fulmar *Fulmarus glacialis* (580km max, c.47km mean)
Gannet *Morus bassanus* (590km, 92km mean)
Goldeneye *Bucephala clangula*
Goosander *Mergus merganser*
Great Black-backed Gull *Larus marinus*
Great Crested Grebe *Podiceps cristatus*
Great Northern Diver *Gavia immer*
Great Shearwater *Puffinus gravis*
Great Skua *Catharacta skua* (13km from colony, 219km other)
Guillemot *Uria aalge* (135km max, 38km mean)
Kittiwake *Rissa tridactyla* (120km max, 25km mean)
Leach's Petrel *Oceanodroma leucorhoa* (<120km)
Little Auk *Alle alle*
Little Tern *Sterna albifrons* (11km max, 2.1km mean)
Long-Tailed Duck *Clangula hyemalis*
Long-Tailed skua *Stercorarius longicaudus*
Manx Shearwater *Puffinus puffinus* (near colony rafting birds 32km max, 2.3 mean)
Pomarine Skua *Stercorarius pomarinus*
Puffin *Fratercula arctica* (200km max, 4km mean)
Razorbill *Alca torda* (95km max, 24km mean)
Red-breasted Merganser *Mergus serrator*
Red-necked Grebe *Podiceps grisena*
Red-necked Phalarope *Phalaropus lobatus*
Red-throated Diver *Gavia stellata* (9km max, 4.5km mean)
Roseate Tern *Sterna dougallii* (30km max, 12km mean)
Sandwich Tern *Sterna sandvicensis* (54km max, 11.5km mean)
Scaup *Aythya marila*
Shag *Phalacrocorax aristotelis* (17km)
Slavonian Grebe *Podiceps auritus*
Storm Petrel *Hydrobates pelagicus* (>65km)
Velvet Scoter *Melanitta fusca*
Sooty Shearwater *Puffinus griseus*
Wigeon *Anas penelope*

Birds which are also a QI of a closer site were considered in relation to that site. Taking an iterative approach, if that study had identified an LSE on any of those species, the SPA series would have then examined to see if the effect on that bird could also lead to an effect on any other SPA of which it was a qualifying interest. However, no such LSE was so identified.

For the seabirds, the only potential pathway to an effect on birds that are associated with sites more than 20km distant is an impact occurring when they are visiting the marine or intertidal area around East Lothian. The only potential such impact is through a change to water quality. The Strategy supports woodland creation, including around the coast. There is a small chance that activity related to this could lead to the release of sediment or pollutants into the sea. Any effect would be unintentional localised and short term. Following good practice will avoid this. The legal duty to follow SEPA General Binding Rules during track construction, harvesting and other forestry operations will apply to prevent pollution of coastal sites by run-off. Other regimes including grant funders and EIA regulations, would provide for assessment at project level that would include measures to ensure normal good practice is followed.

Given this, there would be no likely significant effect on any site on account of these birds being a QI, and no sites have been scoped in on account of impact on seabirds.

Gulls and cormorant (Seabirds using inland areas)

Most gulls come inland to feed, and some cover large distances to do so. Maximum and mean foraging distances from Thaxter, et al (2012) are in parenthesis. Those shown in **bold** are also qualifying interests of a site within 20km of East Lothian.

Black-headed Gull *Larus ridibundus* (40km max, 11km mean)

Common Gull *Larus canus* (50km max, 25km mean)

Herring Gull *Larus argentatus* (92km max, 10km mean)

Lesser Black-backed Gull *Larus fuscus* (181km max, 71km mean)

Mediterranean Gull *Larus melanocephalus* (20km max, 11 mean)

Little gull *Larus minutus*

Sabine's gull *Larus sabini*

Iceland gull *Larus glaucooides*

Glaucous gull *Larus hyperboreus*

Cormorant *Phalacrocorax carbo carbo* (35km max, 1.5 mean)

Birds that are also a qualifying interest of a site within 20 km

Where the species is a qualifying interest of a site in or within 20km of East Lothian, it is assumed that if the bird is here, it is in association with the nearer rather than further site. Therefore sites further than 20km afield which have these birds as QI have not been sieved on account of hosting these birds.

The birds which fall into this category (excluding sea birds listed above) are:

Bar-tailed Godwit *Limosa lapponica*

Curlew *Numenius arquata*

Dunlin *Calidris alpina schinzii* (core range 500m, max range 3km, [NatureScot](#))

Golden Plover *Pluvialis apricaria* (core range 3km, max range 11km, [NatureScot](#))

Grey Plover *Pluvialis squatarola*

Knot *Calidris canutus*

Lapwing *Vanellus vanellus*

Mallard *Anas platyrhynchos*

Oystercatcher *Haematopus ostralegus*

Pink-footed Goose *Anser brachyrhynchus*

Redshank *Tringa totanus*

Shelduck *Tadorna tadorna*

Waterbirds/ ducks/waders not also a QI of a site within 20km

The potential pathway for impact on these birds would be through changes to water quality from the strategy as noted under 'seabirds. As with seabirds, there is no pathway for LSE on any site on account of impact on these birds.

These birds are:

Black-tailed Godwit *Limosa limosa islandica*

Little Grebe *Tachybaptus ruficollis*

Pintail *Anas acuta*

Pochard *Aythya farina*

Coot *Fulica atra*

Gadwall *Anas strepera*

Greenshank *Tringa nebularia* (core foraging range of 2km from the nest site in the breeding season, with maximum range of 3km – NatureScot)

Sanderling *Calidris alba*

Shoveler *Anas clypeata*

Snipe *Gallinago gallinago*

Teal *Anas crecca*

Tufted Duck *Aythya fuligula*

Whimbrel *Numenius phaeopus*

Woodland birds

Some birds would benefit from increased woodland, so would be positively impacted from the implementation of the strategy, were they to occur or arrive in East Lothian. No pathway.

Honey Buzzard *Pernis apivorus*

Scottish Crossbill *Loxia scotica*

Woodlark *Lullula arborea*

Geese and swans

Bean Goose *Anser fabalis*

This goose forages on grass, grain from stubble, potatoes and winter wheat. It is no longer a common wintering species and there are only two regularly used sites, Slammannan Plateau in central Scotland and the Yare Valley in Norfolk. It is a rare visitor to East Lothian so impact on these individuals would not affect the conservation objectives of the SPA.

Greenland Barnacle Goose *Branta leucopsis*

Barnacle geese arrive en masse in Islay before dispersing to wintering grounds, almost exclusively in islands along the west and northern coast of Scotland. There are records of the goose in East Lothian at the wader scrapes and Aberlady Bay in particular. NatureScot [advise](#) there is a core foraging range of 15km, with maximum recorded distance of up to 25km. No pathway.

Svalbard Barnacle Goose *Branta leucopsis*

NatureScot advise there is a core foraging range of 15km, with maximum recorded distance of up to 25km. There are two SPAs, one in the Solway Firth and the other in Aberdeenshire. No pathway.

Icelandic Greylag Goose *Anser anser*

Greylag geese were traditionally associated with estuaries but have adapted to using agricultural areas near nest sites. SPA sites in Tayside and Fife were selected to provide population and range coverage. NatureScot [advise](#) that Greylag geese have a core foraging range from night roost during the winter season of 15 – 20 km. No pathway.

Russian White-fronted Goose *Anser albifrons albifrons*

There are records of this bird in East Lothian. NatureScot have not provided advice on its core range, however the most important wintering sites are in South Wales and along the southern, south-east and eastern English coasts, where SPAs are designated. Due to distance no pathway.

Bewick's Swan *Cygnus columbianus bewickii*

Bewick's Swan overwinters in lowland areas of northern Europe. They are found in marine and intertidal areas as well as on farmland and wetland. In Britain the largest concentrations are in Eastern England, at the Nene and Ouse Washes. Bewick's swan is occasionally seen in East Lothian, usually in with Whooper swans. SPAs are south of Yorkshire/Lancashire. Due to the low numbers of birds here any impact would not affect the conservation objectives of the designated sites, which are south of Yorkshire/Lancashire.

Whooper Swan *Cygnus cygnus* 69

Whooper Swan winter on fresh waterbodies and marshes, and on low lying coastal agricultural land. These birds are very mobile, though they also show a high degree of winter site loyalty. Whooper Swan is a qualifying interest at the Loch Leven SAC site, and this site is considered in Table 2 below. [NatureScot advise](#) that the core foraging range from night roost during the winter season is less than 5km.

Raptors

Golden Eagle *Aquila chrysaetos*

Golden Eagles occur principally in mountainous regions, occupying most areas where woodland cover is not continuous. The majority of the population is found in the Highlands, though there are records in East Lothian. The nearest site is Caenlochan, which is 90 km distant. Golden eagles are capable of flying over 200 km a day however [NatureScot advise](#) that their core range is 6km with a maximum range of up to 9km during the breeding season. No pathway.

Hen Harrier *Circus cyaneus*

Hen harrier preferentially breed on moorland but may colonise young plantations. The species was formerly widespread but suffered serious declines from persecution. There are records of hen harrier in East Lothian. NatureScot advise that there is a core foraging range of 2km in the breeding season, with maximum range of 10km. The nearest SPA at Langholm is at about 60km distance. No pathway.

Peregrine Falcon *peregrinus*

There are records of this bird in East Lothian. NatureScot advise that core foraging range is 2km from the nest site during breeding season, with maximum recorded distance in Britain being 18km. Muirkirk and North Lowther Uplands is the closest SPA for peregrine and is well beyond this distance. No pathway.

Merlin *Falco columbarius*

NatureScot advise the core range of this bird is within 5km; all SPAs for which this bird is a QI are well beyond this distance. No pathway.

Osprey *Pandion haliaetus*

NatureScot advise that the core foraging range from the nest site during breeding season is 10km, with some regular and a maximum recorded distance of 28km. The nearest SPA which has this bird as a QI is Forest of Clunie, which is about 70km north of East Lothian. No pathway.

Red Kite *Milvus milvus*

NatureScot advise that the core foraging range from the nest site during breeding season is 4km, with a maximum range up to 6km. The nearest SPA for this species is in Wales. No pathway.

Short-eared Owl *Asio flammeus*

NatureScot advise that the core range of this species is 2km, with a maximum range of 5km. The nearest SPA which has this bird as a QI is Forest of Clunie, at 70km distance. No pathway.

Others

Little Egret *Egretta garzetta* – this primarily estuarine species is still rare in Scotland, though a few individuals have been seen in East Lothian. It roosts in trees or saltmarsh. The effects of the Strategy (creating woodland and avoiding impact on saltmarsh) mean that the effects on this species would be likely to be positive. The SPAs for this species are all on the south coast of England. No pathway.

Plants and invertebrates

There is no pathway for the strategy to affect plant or invertebrate species at more than 20km.

Amphibians

The only amphibian Annex II species is the great crested newt. This species has a small range and activity in East Lothian could not affect it at a distance greater than 20km.

Mammals

Lesser horseshoe bat *Rhinolophus hipposideros*

This bat lives in sheltered valleys with woods or dense scrub, close to roost sites in Wales and southwest England. Activity in East Lothian could not affect this species due to distance and location. No pathway.

Greater horseshoe bat *Rhinolophus ferrumequinum*

In the UK the bat is close to its climatic limit. It is found in south Wales and southwest England. Activity in East Lothian could not affect this species due to distance and location. No pathway.

Barbastelle *Barbastella barbastellus*

In Europe this bat is thought to be mainly an upland and forest species, in the UK it prefers wooded river valleys. This bat does not occur in Scotland and activity in East Lothian could not affect the species. No pathway.

Bechstein's bat *Myotis bechsteinii*

This species is associated with mature deciduous woodland. There are populations in southern England and Wales. Activity in East Lothian could not affect the species. No pathway.

Bottlenose dolphin *Tursiops truncatus*

This species is widely distributed in North Atlantic, West African, Mediterranean and UK coastal waters. There are two resident populations, one in the Moray Firth and the other at Cardigan Bay, as well as small groups off Cornwall and Dorset (not designated SAC sites). Dolphins from these areas are primarily and inshore species but can range widely. The dolphins of the Moray Firth have increasingly made extended movements eastwards and southwards and have been recorded in the inshore area off East Lothian's coast. Considered for LSE as a QI of Moray Firth SAC.

Harbour porpoise *Phocoena phocoena*

Harbour porpoise are a marine species appearing to favour the continental shelf, but may make seasonal movement to the coast. They are widespread in the cold and temperate seas of Europe, including the North Sea. There is only one site on the east coast, which is to the east of The Wash. Due to the amount of intervening habitat, and that this is a sea going species, activity in East Lothian will not have an effect on this species at any SAC. No pathway.

Otter *Lutra Lutra*

Historically, otter occurred across most of the UK, however declined due to persecution, habitat loss and the impact of toxic organochlorine insecticides, but now appear to be recovering. Otter occur in a wide range of conditions. In coastal areas they use shallow inshore areas to feed but also need fresh water for bathing, and land for resting and breeding holts. Inland, otter occur around a range of running and standing water. SAC Sites were selected to reflect the discontinuous distribution of otter, with areas of known high densities and good quality habitat features selected.

The otter population is widespread and individuals wide ranging. Otter from the River Tweed SAC are likely to use land in East Lothian. It is not expected that otter from any SAC other than the River Tweed (and the Berwickshire and North Northumberland Coast, where it is noted by the JNCC but not included as a qualifying interest) would use land in East Lothian.

The Strategy contains policy, actions and targets aimed at increasing riparian woodland to improve water quality. This would improve supporting habitat for otter so if there is any usage of land in East Lothian by otter from other sites any effect would be positive. Considered for LSE as a QI of River Tweed SAC.

Grey seal *Halichoerus grypus*

The UK holds around half of the world population of grey seal, and almost all of the European population. The UK therefore has responsibility to protect this species. A Seal Conservation Area has been designated in the offshore area from Stonehaven to Torness for both grey and harbour seals. The SAC sites were chosen as the largest breeding colonies, based on pup production. The SAC series will contribute to securing favourable conservation status, but wider measures are also essential.

Grey Seal spend most of the year at sea and may range widely in search of prey. Grey Seal from SACs other than the Isle of May and Berwickshire and North Northumberland Coast SAC may visit East Lothian's coast. Considered for LSE as a QI of Isle of May and Berwickshire and North Northumberland Coast SAC.

Harbour Seal *Phoca vitulina*

Harbour Seal are widely distributed, and so sites with a relatively small proportion of the population were selected to ensure conservation and representation of the range. Site selection focussed on sites that are important for haul out and breeding. Harbour Seals are mostly found on sandflats and estuaries, but also use rocky shores. Seals may range widely in search of prey. There are records of them around the coast of East Lothian.

The closest site is the Firth of Tay and Eden Estuary SAC. While the SAC series contributes to securing favourable conservation status for this species wider conservation measures will also be needed.

Fish

Sea lamprey *Petromyzon marinus*

The sea lamprey occurs in estuaries and easily accessible rivers. Sea Lamprey are bad at ascending obstacles to migration, and so are often restricted to lower reaches of river. The sea lamprey is reasonably widespread in UK river but has decline in parts of its range. Sites were selected with habitat requirements for spawning and survival of juveniles, and for a geographical range of species with high quality river types.

The River Teith SAC is part of the east coast range; it is the most significant tributary of the River Forth. This site is further considered below.

Brook lamprey *Lampetra planeri*

Brook Lamprey is a widespread non-migratory freshwater species. It needs clean gravel beds to spawn, and soft marginal silt or sand for the larvae. The Brook Lamprey has declined in the UK, but it is still widespread. SAC sites were designated which are extensive river systems that provide conservation of the range of habitat features required.

The River Teith SAC is the closest site and is considered in Table 2.

River Lamprey *Lampetra fluviatilis*

River Lamprey are found only in western Europe. The species is widespread in the UK, with strong populations. The fish are found in coastal waters, estuaries and accessible rivers. It normally spawns in freshwater but spends part of its life cycle in the sea. Pollution or obstacles can impede migration.

The River Teith SAC is the closest site and is considered in Table 2.

Allis shad *Alosa alosa*

Allis shad are a coastal species recorded from many areas around the British Isles. The species is not a primary reason for site selection on any site. The sites where it is a qualifying feature are off Wales and Cornwall. Population declines in many parts of Europe have been attributed to the effects of pollution, overfishing and river obstructions to migration. There does not appear to be any link between the conservation of the species on the designated sites and potential impacts from the TWSEL.

Twaite shad *Alosa fallax*

Twaite shad are similar to Allis shad. They are found along the western coastline of Europe. Declines in the species have been attributed to pollution, overfishing and obstacles to migratory routes. Spawning is known to take place in a few Welsh Rivers, and on the England/Wales border, flowing into the Severn. The SAC series have selected areas in the southwest of the UK suitable for spawning with good prospects of habitat conservation, as well as marine areas that are considered important for migration or feeding, and are in/off the southwest of the UK.

As with allis chad there have been population declines, attributed to the same reasons. There does not appear to be any link between the conservation of the species on the designated sites and potential impacts from the TWSEL.

Atlantic salmon *Salmo salar*

Salmon migrate to freshwater to breed but otherwise spend their lives at sea. Spawning occurs in shallow, gravelled areas in clean rivers and streams. The young fish remain in the river for between 1-6 years, then spend the next 1-3 years at sea, before returning to their natal river to spawn and, usually, die. This means that there is genetic differences between rivers. Pressures on the species include pollution, introduction of non-native stock, physical barriers to migration, direct exploitation from fishing, degradation of spawning and nursery habitat and increased mortality.

Atlantic Salmon is a primary reason for selection of the River Tweed SAC, and is also a qualifying interest of the River Teith. The River Tweed was considered as a site within 20km and the River Teith in Table 2.

Spined loach *Cobitis taenia*

The spined loach has a very wide distribution across Europe and Asia but is regarded as threatened. This is a river fish apparently occurring in five east-flowing rivers in Eastern England. There is no pathway for an impact on this species from the activity in East Lothian due to its location.

Bullhead *Cottus gobio*

The bullhead lives in a variety of rivers, streams and stony lacks. It is widespread and often common across Europe. It occurs in the Forth, thought to be from an introduction. The SAC sites were chosen to encompass the natural geographical range of the species, which is in England and Wales. Due to

the distance between the rivers where sites have been designated and as no land in East Lothian drains to them, there is no pathway for an effect.

Sieving Exercise Results: Sites further than 20km from East Lothian

TABLE 2 Results of Sieving Exercise – Mobile Species from sites over 20km from East Lothian.			
Site	Mobile species	Pressures	Verdict
Firth of Tay and Eden Estuary SAC	Harbour seal <i>Phoca vitulina</i> - Unfavourable declining	Other Recreation/ disturbance To be identified	No further consideration. Harbour Seal are known to occur around the shores of East Lothian and may be from this site. Activities arising from the tree and woodland strategy will not affect the marine/intertidal zone or foreshore where seals might haul out. Any effect on water quality would be short term and localised, and given the large amount of alternative habitat, and distance from the site, would not affect the population numbers or distribution over the site.
Firth of Tay and Eden Estuary SPA	Bar-tailed godwit Goosander Cormorant Grey plover Icelandic Black-tailed godwit Marsh harrier Oystercatcher Pink-footed goose Sanderling Waterfowl assemblage - Favourable Maintained	Natural event (eider, Little tern, Pink-footed goose, Recreation/ Disturbance (eider, Icelandic Black-tailed godwit, Marsh harrier, waterfowl assemblage) Recreation/disturbance: Dog walking (Pink-footed goose) Water management (Icelandic Black-tailed godwit Invasive species (Redshank) Climate change (waterfowl assemblage)	No further consideration. The QI which are also within sites within 20km of East Lothian will be considered there. The remaining species do not have a pathway for LSE for the reasons given in the site sieving exercise, though some individuals from the site may pass through East Lothian.
	Eider Favourable Recovered		
	Bar-tailed godwit Dunlin Redshank Favourable declining		
	Common scoter Goldeneye Greylag goose Long-tailed duck Red-breasted merganser		

	<p>Shelduck Velvet scoter</p> <p>Unfavourable Declining</p> <p>Little tern Unfavourable No change</p>		
Loch Leven SPA and Ramsar	<p>Cormorant <i>Phalacrocorax carbo</i> Gadwall <i>Anas strepera</i> Goldeneye <i>Bucephala clangula</i> Pink-footed goose <i>Anser brachyrhynchus</i> Pochard <i>Aythya farina</i> Shoveler <i>Anas clypeata</i> Teal <i>Anas crecca</i> Tufted duck <i>Aythya fuligula</i> Waterfowl assemblage Whooper swan <i>Cygnus cygnus</i></p>		<p>No further consideration. Pink footed goose from this site are unlikely to forage in East Lothian (Mitchell 2012). Whooper swan are beyond the daily foraging distance. Golden eye and cormorant are also QI of the Firth of Forth SPA and would be attributed to that site while here.</p>
Moray Firth SAC	<p>Bottlenose dolphin <i>Tursiops truncatus</i> - Favourable Maintained</p>	None	<p>No further consideration. Bottlenose dolphin are occasional visitors to waters off East Lothian, however generally do not come close to the shore. They could in theory be affected by changes to water quality however this, if it were to occur as a result of the Strategy, would be unintentional, localised and short term. The legal duty to follow SEPA General Binding Rules during track construction, harvesting and other forestry operations will apply to prevent pollution of coastal sites by run-off. Given the large amount of alternative habitat this would not significantly affect the qualifying interest even were it to occur.</p>
River Teith SAC	<p>River lamprey <i>Lampetra fluviatilis</i> Brook lamprey <i>Lampetra planeri</i> - Favourable Maintained</p>	<p>Forestry operations Invasive species Water quality</p>	<p>No further consideration. The migratory fish that are a qualifying interest of this site (river lamprey, sea lamprey, salmon) pass the shores of East Lothian on their way to the site. They could be affected by changes to water</p>

	Atlantic salmon - Unfavourable recovering		quality however this is unlikely to occur and if it did, would be unintentional, localised and short term. The legal duty to follow SEPA General Binding Rules during track construction, harvesting and other forestry operations will apply to prevent pollution of coastal sites by run-off. Given the large amount of alternative habitat this would not significantly affect the species even were it to occur.
	Sea lamprey <i>Petromyzon marinus</i> - Unfavourable declining		

Appendix 3 shows the Qualifying Interests and Conservation Objectives of sites to be examined for LSE.

4. Strategy Screening

Likely significant effects (LSE) are identified using the source-pathway-receptor model, where there would need to be a source of potential impact and a pathway to the European site or qualifying feature to enable an impact to occur. Effects can be both positive and negative.

It must be noted that the Tree and Woodland Strategy contains policy aimed at protecting European Sites, and notes that any project or plan that could adversely affect the integrity of these sites cannot normally be approved. The Strategy proposes to enhance biodiversity within the area, and there may be projects which emerge that will have a positive impact on the sites.

A screening exercise was undertaken to ascertain which aspects of the plan need to be considered further for appropriate assessment. This screening method followed the approach recommended by the NatureScot Guidance (2015)⁷, whereby policies and proposals are assigned one of the following seven categories:

1. General Policy Statements
2. Projects referred to in, but not proposed by, the plan
- 3a. Elements of the plan with no LSE on the European Site as they are intended to protect the natural or built environment
- 3b. Elements of the plan with no LSE on the European Site as they do not in themselves lead to development or other change.
- 3c. Elements of the plan that make provision for change, but there is no link or pathway between them and the qualifying interests of a European Site.
- 3d. Elements of the plan that make provision for change, but there is not likely to be a significant effect, but may give rise to Minor Residual Effects.
- 3e. Elements of the plan for which effects cannot be determined as the nature and location of any effects is unknown owing to the general nature of the plan.

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Targets, Policies & Actions

Table 3 below shows the screening results for the Targets, Policies and Actions which need to be considered.

TABLE 3: Screening of Strategy Targets, Policies and Actions				
Proposal	Brief Descriptions	Likely Significant Effect	Screen In/Out	Reason
		Minor Residual		
		No likely significant effect		
Targets				
Target 1	Creation of the East Lothian Climate Forest of at least 80-125 ha of new woodland annually across East Lothian to provide 2 million trees in 10 years to achieve increased woodland coverage of 13.45% by 2031	No likely significant effect	Out	2. Projects referred to in, but not proposed by, the plan The Climate Forest proposal and target was introduced as part of East Lothian's Climate Strategy Update. This strategy does not set the target but aims to show how and where it can be delivered.
Target 2	Improve resilience of East Lothian's environment including by increasing riparian woodland and securing functional native woodland connections	Likely Significant Effect	In	This target specifically guides woodland creation to riparian areas to improve water quality.
Target 3	Improve biodiversity value of East Lothian's woodland habitats in line with the Green Network Strategy SPG	No likely significant effect	Out	2. Projects referred to in, but not proposed by, the plan. This approach was proposed by the Council's Green Network Strategy, in line with the CSGN
Target 4	Increase access to trees and woodland for all	Likely Significant Effect	In	This target could have the effect of more people recreating in woodlands, which could increase potential for disturbance.

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Target 5	Create 300 hectares of new small farm woodlands, shelterbelts, orchards and other agroforestry which align with and support agricultural production	Likely Significant Effect	In	This target steers some woodland towards farmland, which is supporting habitat used by some qualifying interest species.
Target 6	Improve recognition and protection of trees with cultural heritage value	No likely significant effect	Out	3b. Elements of the plan with no LSE on the European Site as they do not in themselves lead to development or other change.
Target 7	Improve landscapes through woodland creation	Likely Significant Effect	In	The Target steers woodland to particular locations at landscape scale.
Theme 1: Climate Change Mitigation				
Policy 1	Retention of woodland, trees and hedges/hedgerows		Out	1. General Policy Statements
Policy 2	Change of Use of woodland to garden ground	No likely significant effect	Out	1. General Policy Statements
Policy 3	Woodland creation	Likely Significant Effect	In	The Strategy has proposed general locations for woodland creation, including preferred and potential areas. The assessment of the spatial elements of the strategy are assessed in relation to European Sites is detailed in Section 5 .
Policy 4	Reducing climate forcing emissions from tree planting and forestry operations	No likely significant effect	Out	1. General Policy Statements
Policy 5	Wood Products	No likely significant effect	Out	1. General Policy Statements

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Action 1	The Council will investigate opportunities for offsetting its own unavoidable carbon emission through creation of new multifunctional woodland locally	Likely Significant Effect	In	This action is very general, however makes provision for change to support woodland expansion. There may therefore be a likely significant effect on a European Site
Action 2	Deliver the East Lothian Climate Forest	Likely Significant Effect	In	This action is very general, however makes provision for change to support woodland expansion. There may therefore be a likely significant effect on a European Site. The overall tree planting target was set in the Council's Climate Change Update approved 19 January 2021. No HRA was carried out at that time.
Action 3	The Council will explore ways of increasing use of wood and wood products, particularly locally sourced timber	No likely significant effect	Out	1. General Policy Statements
Theme 2: Resilience and Climate Adaptation				
Policy 6	Water Management and Slope Stability	Likely Significant Effect	In	
Policy 7	Sustainable Woodland Management	No likely significant effect	Out	3a. Elements of the plan with no LSE on the European Site as they are intended to protect the natural or built environment
Action 4	Work with farmers and landowners to encourage hedgerow and tree planting and woodland creation where appropriate, to help reduce water run-off onto our roads	Likely Significant Effect	In	The Strategy has proposed general locations for woodland creation, including preferred and potential areas. The assessment of the spatial

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				elements of the strategy are assessed in relation to European Sites is detailed in Section 5 .
Action 5	Work with SEPA, neighbouring authorities and stakeholders to identify where woodland retention, creation and management could most improve water quality, support reduction in flood risk and help increase slope stability	Likely Significant Effect	In	The Strategy has proposed general locations for woodland creation, including preferred and potential areas. The assessment of the spatial elements of the strategy are assessed in relation to European Sites is detailed in Section 5 .
Action 6	Adopt the draft Ash Dieback Action Plan and manage ash trees in accordance with this.	No likely significant effect	Out	1. General Policy Statements
Action 7	Develop and implement a plan for the landscape scale replacement of ash trees lost to Ash Dieback disease.	No likely significant effect	Out	3e. Elements of the plan for which effects cannot be determined as the nature and location of any effects is unknown owing to the general nature of the plan.
Theme 3: Biodiversity				
Policy 8	Protecting the Biodiversity Value of East Lothian's Woodland	No likely significant effect	Out	3a. Elements of the plan with no LSE on the European Site as they are intended to protect the natural or built environment
Policy 9	Seed and Tree Stock Sourcing	No likely significant effect	Out	1. General Policy Statements

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Policy 10	Addressing fragmentation	No likely significant effect	Out	3e. Elements of the plan for which effects cannot be determined as the nature and location of any effects is unknown owing to the general nature of the plan.
Policy 11	Invasive Species	No likely significant effect	Out	3a. Elements of the plan with no LSE on the European Site as they are intended to protect the natural or built environment
Policy 12	Deer management	No likely significant effect	Out	3a. Elements of the plan with no LSE on the European Site as they are intended to protect the natural or built environment
Policy 13	Protection of European Sites	No likely significant effect	Out	3a. Elements of the plan with no LSE on the European Site as they are intended to protect the natural or built environment
Policy 14	Protection of the natural environment	No likely significant effect	out	3a. Elements of the plan with no LSE on the European Site as they are intended to protect the natural or built environment
Policy 15	Peatland	No likely significant effect	Out	3a. Elements of the plan with no LSE on the European Site as they are intended to protect the natural or built environment

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Action 8	Complete the Ancient Woodland Survey for East Lothian including the mapping of wood pasture, parkland and orchards	No likely significant effect	Out	3a. Elements of the plan with no LSE on the European Site as they are intended to protect the natural or built environment
Action 9	Map locations, species and condition of all hedgerows and hedgerow trees in East Lothian	No likely significant effect	Out	3b. Elements of the plan with no LSE on the European Site as they do not in themselves lead to development or other change.
Action 10		No likely significant effect	Out	3a. Elements of the plan with no LSE on the European Site as they are intended to protect the natural or built environment
Action 11	Create and expand native woodlands where there are suitable opportunities, in particular where this will have most benefit for connectivity	Likely Significant Effect	In	The Strategy has proposed general locations for woodland creation, including preferred and potential areas. The assessment of the spatial elements of the strategy are assessed in relation to European Sites is detailed in Section 5 .
Action 12	The Council will work with others including neighbouring authorities to identify the best areas for connectivity of woodland habitat networks.	No likely significant effect	Out	3a. Elements of the plan with no LSE on the European Site as they are intended to protect the natural or built environment
Action 13	Develop a Hedgerow Plan for retention, replacement, increase and management of hedgerows and hedgerow trees	No likely significant effect	Out	3e. Elements of the plan for which effects cannot be determined as the nature and location of any effects is

				unknown owing to the general nature of the plan.
Action 14	Create and retain a balanced coastal mosaic habitat including reverting plantation woodland to more natural coastal habitat should the opportunity arise, subject to public engagement	No likely significant effect	Out	3a. Elements of the plan with no LSE on the European Site as they are intended to protect the natural or built environment
Action 33	Coordinate local seed collection and tree growing projects and identification of sites for planting	No likely significant effect	Out	3b Elements of the plan with no LSE on the European Site as they themselves do not lead to development or other change. This action is about coordination
Theme 4: Community				
Policy 16	Design for all	No likely significant effect	Out	3e. Elements of the plan for which effects cannot be determined as the nature and location of any effects is unknown owing to the general nature of the plan.
Policy 17	Hutting	No likely significant effect	Out	1. General Policy Statements
Policy 18	Community Collaboration	No likely significant effect	Out	3c. Elements of the plan that make provision for change, but there is no link or pathway between them and the qualifying interests of a European Site.

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Policy 19	Management of Council trees	No likely significant effect	Out	3a. Elements of the plan with no LSE on the European Site as they are intended to protect the natural or built environment
Action 15	Work with landowners and Scottish Forestry to investigate opportunities for creating woodland where required to meet the Woodland Trust's Accessible Woodland Standard	Minor Residual	Out	3d. Elements of the plan that make provision for change, but there is not likely to be a significant effect, but may give rise to Minor Residual Effects.
Action 16	Map existing woodland provision for people with reduced mobility and work with disability groups to identify where this could be increased.	No likely significant effect	Out	3e. Elements of the plan for which effects cannot be determined as the nature and location of any effects is unknown owing to the general nature of the plan.
Action 17	The Council will promote access to and enjoyment of woodland for all, particularly with respect to underrepresented groups, where this can be done in a manner that does not harm the woodland.	No likely significant effect	Out	Some qualifying interests of the Firth of Forth SPA are vulnerable to disturbance from recreation, including walking and dog walking. Promotion of alternatives recreational areas to the beach is however unlikely to alter recreational use of the beach area due to its inherent attractiveness.
Action 18	Encourage those preparing Area Partnership Plans and Local Place Plans to include appropriate proposals for trees and woodlands in their area	No likely significant effect	Out	1. General Policy Statements

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Action 19	Produce a Tree Management Strategy for trees on our own land	No likely significant effect	Out	3b. Elements of the plan with no LSE on the European Site as they do not in themselves lead to development or other change.
Action 34	Map canopy coverage for all settlements not yet mapped	No likely significant effect	Out	3b. Elements of the plan with no LSE on the European Site as they do not in themselves lead to development or other change.
Action 20	Identify funding to carry out an audit/survey of our current tree estate including tree condition etc; management requirements for these trees, including need for selective felling where needed	No likely significant effect	Out	3b. Elements of the plan with no LSE on the European Site as they do not in themselves lead to development or other change.
Action 35	Involve communities in tree planting and maintenance of new trees	No likely significant effect	Out	3b. Elements of the plan with no LSE on the European Site as they do not in themselves lead to development or other change.
Action 21	Where appropriate, plant street trees and hedges in urban areas, including in Air Quality Management Areas and around sensitive sites including hospitals, schools, care homes and play areas and sports fields; woodland expansion along strategic road corridors and adjacent to industrial sites; and hedges along roadside edges	No likely significant effect	Out	3c. Elements of the plan that make provision for change, but there is no link or pathway between them and the qualifying interests of a European Site.
Action 22	Maintain and where appropriate publicise a list of community orchards	No likely significant effect	Out	3b. Elements of the plan with no LSE on the European Site as they do not in themselves lead to development or other change.

Action 23	Work with communities to develop and manage community orchards and fruit growing including promotion of heritage varieties.	No likely significant effect	Out	1. General Policy Statements
Theme 5: Economy				
Policy 20	Productive woodland	Likely Significant effect	In	
Policy 21	Woodland creation within farmland	No likely significant effect	Out	3e. Elements of the plan for which effects cannot be determined as the nature and location of any effects is unknown owing to the general nature of the plan.
Action 24	Encourage and enable smaller producers to work together in joint marketing, promotion and equipment sourcing through a local timber forum	No likely significant effect	Out	1. General Policy Statements
Action 25	Promote woodland based tourism and recreation, where appropriate, including joint marketing campaigns with other visitor attractions, tourism operators and accommodation providers.	No likely significant effect	Out	1. General Policy Statements
Action 26	Encourage the development of small-scale low impact tourism enterprises (excluding accommodation) linked to appropriate woodlands	No likely significant effect	Out	1. General Policy Statements
Theme 6: Cultural Heritage				

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Policy 22	Notable Trees	No likely significant effect	Out	3a. Elements of the plan with no LSE on the European Site as they are intended to protect the natural or built environment
Policy 23	Plaques and memorial trees	No likely significant effect	Out	1. General Policy Statements
Policy 24	Scheduled Monuments and Archaeological sites	No likely significant effect	Out	3a. Elements of the plan with no LSE on the European Site as they are intended to protect the natural or built environment
Policy 25	Protection of the historic environment	No likely significant effect	Out	3a. Elements of the plan with no LSE on the European Site as they are intended to protect the natural or built environment
Action 27	Develop an interpretation plan highlighting planting for the climate forest, existing woodlands, notable trees, paths within the woodlands and develop a series of tree trails for our town and villages. Badge using logo to link together.	No likely significant effect	Out	3e. Elements of the plan for which effects cannot be determined as the nature and location of any effects is unknown owing to the general nature of the plan.
Action 28	Encourage identification and recording of important individual historic, ancient veteran and champion trees and where appropriate begin succession planting.	No likely significant effect	Out	3a. Elements of the plan with no LSE on the European Site as they are intended to protect the natural or built environment
Action 29	Promote positive management of historic gardens and designed landscapes and heritage trees to maintain their historic and cultural significance	No likely significant effect	Out	3a. Elements of the plan with no LSE on the European Site as they are intended to protect the natural or built environment

Theme 7: Landscape Character				
Policy 26	Protection and Enhancement of Landscape	No likely significant effect	Out	3a. Elements of the plan with no LSE on the European Site as they are intended to protect the natural or built environment
Action 30	Develop and implement a landscape masterplan for the Innerwick Coastal Margin and adjacent Upland Fringe area	No likely significant effect	Out	3e. Elements of the plan for which effects cannot be determined as the nature and location of any effects is unknown owing to the general nature of the plan.
Action 31	Develop and implement a landscape framework and planting programme for the Cockenzie/Blindwells area.	No likely significant effect	Out	3e. Elements of the plan for which effects cannot be determined as the nature and location of any effects is unknown owing to the general nature of the plan.
Action 32	Support managed programme of replacement of trees important to townscape character	No likely significant effect	Out	3a. Elements of the plan with no LSE on the European Site as they are intended to protect the natural or built environment

Spatial Maps Screening

The Tree and Woodland Strategy categorises land with differing potential to support woodland creation according to existing sensitivities. This method follows Scottish Government Guidance “The Right Tree in the Right Place”. The mapping identifies areas that are ‘Preferred’ and ‘Potential’ for woodland creation (not necessarily native woodland). These are areas where woodland creation is supported by the Strategy and is likely to result in increased possibility of grant funding being available for woodland creation. Special Protection Areas were shown on this mapping as ‘Sensitive’ as maintenance of appropriate habitat is required for protection of their internationally recognised bird interest.

The Tree and Woodland Strategy includes maps to indicate tree planting opportunities in East Lothian. The Strategy explicitly states that the maps are indicative of where native woodland planting would be most beneficial, but that not all areas mapped may be suitable for woodland planting.

Inland areas may be used by waders from the Firth of Forth SPA as feeding or roosting habitat. This usage is focussed on areas no more than 5km from the coast. This area is shown overlaid on the ‘Constraints to Woodland Expansion Map’, Figure 1 below, which shows which areas are identified as ‘Preferred’ or ‘Potential’ in the strategy. Some of the areas drain into the River Tweed SAC. This area is also shown on the map at Figure 1. All areas of East Lothian containing agricultural land could be used by Pink footed geese for foraging. All areas could be used by Herring Gull, Blackheaded or Common gull, with a focus on coastal areas and inland water.

KEY TO CONSTRAINTS TO WOODLAND EXPANSION MAP	
Land Category	Description of information mapped
Existing Woodland	Areas already wooded Mapped: CSGN Woodland Network 2021 (Habitat areas only); National Forest Inventory 2020 (not including areas identified as felled).
Unsuitable	Areas where the land is unlikely to be physically suitable for trees. Mapped: John Hutton Institute map “Land Suitability for Forestry” category “Land unsuitable for trees”
Water bodies	Based on OS mapping
Urban	Settlements with 50 or more addressable properties. The settlement boundaries include areas allocated for development in the Local Development Plan (ELC, 2018(1)). (Note, the settlement boundaries are drawn solely for this Strategy, and have no other planning status).

Sensitive	Mapped: Special Protection Areas; Scheduled Monuments; SSSIs; Local Geodiversity Sites; CSGN Grassland, Bog Heath and Wetland Habitat; Non-woodland East Lothian Priority Habitat
Potential – designations	Mapped: Geological Conservation Review; Inventory and Local Gardens and Designed Landscapes; Inventory Battlefields; Local Biodiversity Sites; Conservation Areas, Golf Courses.
Potential – Prime Farmland	Mapped: from James Hutton Institute Land capability for agriculture: Class 1-3.1
Potential – Mixed Farmland	Mapped: from James Hutton Institute Land capability for agriculture: Class 3.2-4.2
Preferred	Land with no strategic constraints that offers the greatest flexibility for woodland expansion, and vacant and derelict land.

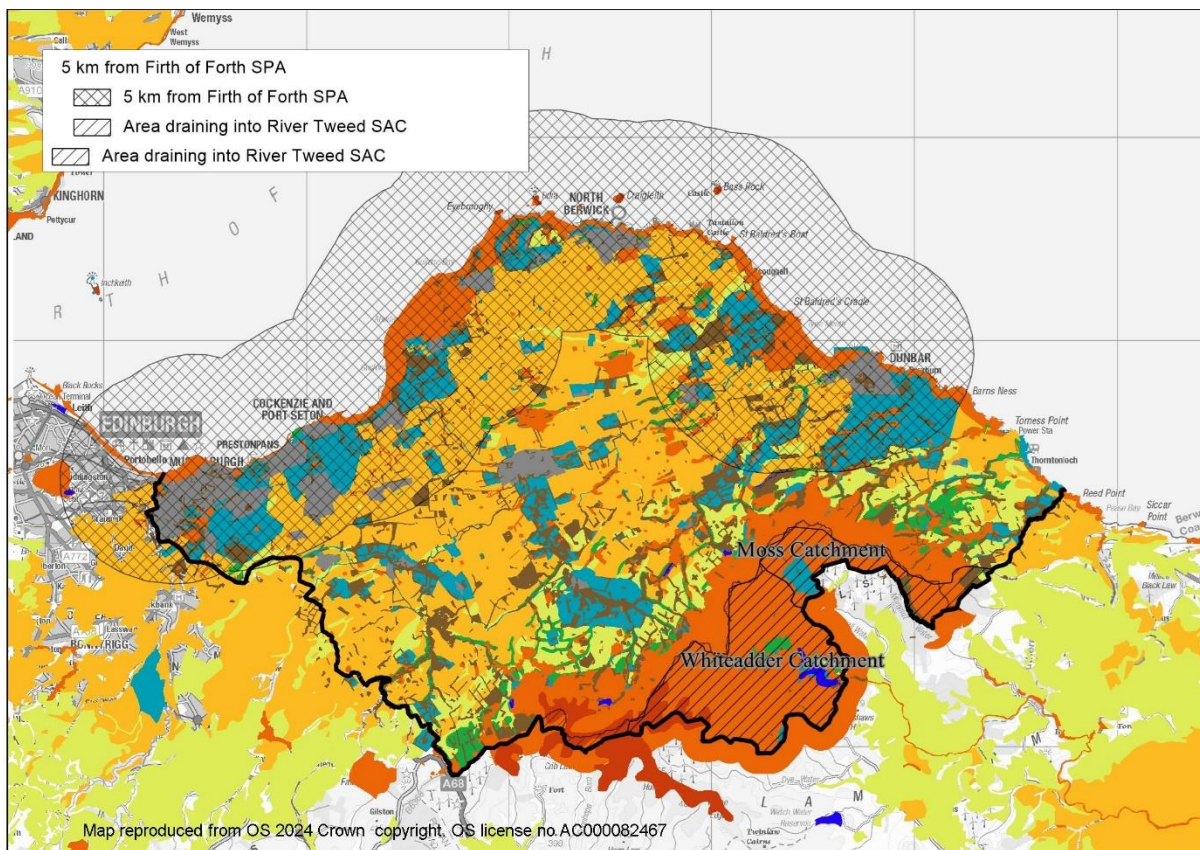


Figure 1 Constraints for Woodland Expansion mapping, with overlay

The Tree and Woodland Strategy also includes maps to indicate native woodland tree planting opportunities in East Lothian, and tree planting opportunities within or adjacent to urban areas. The Strategy explicitly states that the maps are indicative of where native woodland planting would be most beneficial, but that not all areas mapped may be suitable for woodland planting.

KEY TO NATIVE WOODLAND EXPANSION OPPORTUNITIES MAP	
Woodland Type	Description of information mapped
Existing native woodland	Native woodland identified in the Native Woodland Survey of Scotland
Nearly Native Woodland	Woodland of 40-50% native species identified in the Native Woodland Survey of Scotland
Other Existing mainly broadleaved woodland	CSGN 2021 woodland, which is based on broadleaf and yew habitat (native and non-native species) National Forestry Inventory 2020 woodland areas excluding those identified as felled and coniferous woodland.
Existing Coniferous Woodland	Woodland described as solely coniferous on the National Forestry Inventory 2020
ELC CAWS	East Lothian Conifers on Ancient Woodland. Areas of ancient woodland identified as planted with conifer or mainly conifer on the National Forestry Inventory 2020
Riparian zone	60m wide riparian zone, 30m from OS watercourses.
Priority riparian areas	Priority areas identified by Scottish Forestry for riparian woodland creation with Forestry Grant Scheme funding
Primary Native Woodland Expansion	Primary areas for native woodland expansion identified by Scottish Forestry with Forestry Grant Scheme funding
Native Woodland Expansion Areas – Secondary Zone	Secondary areas for native woodland expansion identified by Scottish Forestry for Forestry Grant Scheme funding
CSGN primary connection opportunities	Priority areas for woodland connectivity identified by Central Scotland Green Network Primary Opportunities
CSGN secondary connections opportunities	Secondary areas for woodland connectivity identified by Central Scotland Green Network
Strategic ELC connections	A flexible migration corridor where connections can best achieve functional connectivity across East Lothian
Native Woodland Model areas	
Upland Oak	Areas where this will grow based on the Native Woodland Model.
Peatland with scattered birch/pine/scrub trees	Areas where this will grow based on the Native Woodland Model. This would be compatible with peatland restoration.
Birch with moor grass and open land	Areas where this will grow based on the Native Woodland Model.
Lowland mixed broadleaf	Areas where this will grow based on the Native Woodland Model.
Scots pine with heather	Areas where this will grow based on the Native Woodland Model.
Alder-ash	Areas where this will grow based on the Native Woodland Model.

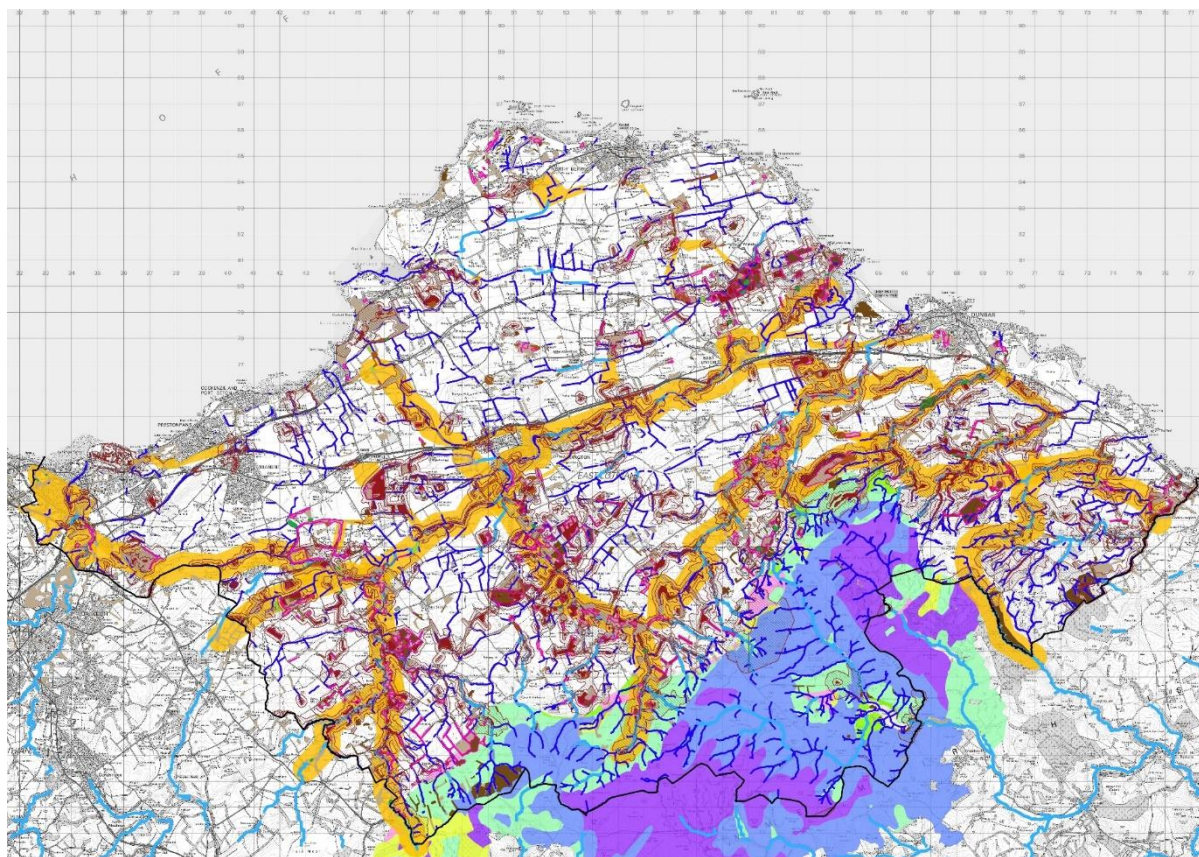


Figure 2 Native Woodland Expansion Opportunities map

Identification of potential LSE on QI birds from sieved sites

The following species occur in one or more of the SPAs identified as potentially having LSE. Table 4 below shows the results of whether LSE were considered possible for that species. This was used to inform the consideration of LSE for the sieved sites identified (shown in Tables 5 – 11 below).

TABLE 4 Pathway for LSE on different bird qualifying interest species					
Species	LSE?	Reason			
		Direct habitat loss?	Supporting habitat loss	Impact from changes to water quality	Changes to risk of fire, spread of invasive species or pathogens
Seabirds Arctic Tern <i>Sterna paradisaea</i> , Common Tern <i>Sterna hirundo</i> , Gannet <i>Morus bassanus</i> , Guillemot <i>Uria aalge</i> , Kittiwake <i>Rissa tridactyla</i> , Manx Shearwater	No	No	No	No	No

<p><i>Puffinus puffinus</i>, Puffin <i>Fratercula arctica</i>, Razorbill <i>Alca torda</i>, Roseate Tern <i>Sterna dougallii</i> Sandwich Tern <i>Thalasseus sandvicensis</i>, Shag <i>Gulosos aristotelis</i></p>					
<p>Comment:</p>		<p>Changes to water quality would be unintentional, localised and short term. As noted previously, duty to follow SEPA General Binding Rules will prevent pollution of coastal sites by run-off. If it did occur, it would have negligible effect on the marine habitat overall. Risk of spread of pathogens already exists via birds that flock together and would not significantly increase. Neither fire nor change to invasive species distribution are concerns due intervening sea. ncreased risk of pathogens is unlikely to occur as woodland birds and seabirds have different ecological niche so little interaction.</p>			
<p>Seaducks and waterbirds not using inland habitat Common Scoter <i>Melanitta nigra</i>, Eider <i>Somateria mollissima</i>, Long-tailed Duck <i>Clangula hyemalis</i>, Scaup <i>Aythya marila</i>, Velvet Scoter <i>Melanitta fusca</i></p>	<p>No</p>	<p>No</p>	<p>No</p>	<p>No</p>	<p>No</p>
<p>Ducks using inland sites Mallard <i>Anas platyrhynchos</i> Great crested grebe <i>Podiceps cristatus</i>, Red-breasted Merganser <i>Mergus serrator</i> Red-throated Diver <i>Gavia stellata</i>, Shelduck <i>Tadorna tadorna</i>, Slavonian Grebe <i>Podiceps auritus</i>, Wigeon <i>Anas penelope</i></p>	<p>No</p>	<p>No</p>	<p>No</p>	<p>No</p>	<p>No</p>
	<p>Yes</p>	<p>No</p>	<p>Yes</p>	<p>No</p>	<p>Yes</p>

<p>Wading birds using inland habitat of potential value as high tide roosting/feeding sites Bar tailed godwit <i>Limosa lapponica</i> Curlew <i>Numenius arquata</i>, Golden Plover <i>Pluvialis apricaria</i> Grey Plover <i>Pluvialis squatarola</i>, Lapwing <i>Vanellus vanellus</i> Oystercatcher <i>Haematopus ostralegus</i>, Redshank <i>Tringa totanus</i></p>		<p>These birds use inland areas for roosting, almost entirely within 5km of the coast, some more locally (see mapping in Appropriate Assessment). Creation of woodland, especially around the coastal area, could reduce the amount of habitat available for this. There could also be increased cover for predators, which would risk either loss of some birds or their reduced ability to use the habitat that is left.</p> <p>A reduced amount of habitat may mean that more birds come together in a smaller area. This could increase the risk of transmission of disease.</p> <p>Any increase in woodland birds due to increase woodland coverage will not increase risk of transmission of disease as these birds are in different ecological niches.</p>			
<p>Wading birds not using inland sites for foraging/roosting Dunlin <i>Calidris alpina</i>, Knot <i>Calidris canutus</i>, Turnstone <i>Arenaria interpres</i></p>	No	No	No	No	No
<p>Gulls using inland sites for feeding Black-headed Gull <i>Chroicocephalus ridibundus</i>, Common Gull <i>Larus canus</i>, Herring Gull, Lesser black-backed gull <i>Larus fuscus</i></p>	No	No	No	No	No
<p>Gulls not using inland sites for feeding Little Gull <i>Hydrocoloeus minutus</i></p>	No	No	No	No	No
<p>Waterbird Cormorant <i>Phalacrocorax carbo</i></p>	No	No	No	No	No
	No	No	No	No	No

Sea duck: Goldeneye		Goldeneye nest in holes in old trees, so there may be some eventual benefit for this species. Otherwise as 'Seaducks'			
Goose Pink footed goose Anser brachyrhynchus	Yes	No	Yes	No	Yes
		There is potential for loss of supporting habitat if woodland or hedgerow is created in agricultural fields. If more birds come together in reduced habitat areas, there may be more risk of disease.			
Seabird assemblage	No	No	Yes	No	No
		Herring Gull is part of the seabird assemblage.			
Waterfowl assemblage	No	No	No	Yes	No
		Pink footed goose and wading birds are part of the waterfowl assemblage.			

Likely Significant Effects: Conclusions

The following tables indicate whether there are considered to be LSE, with reference to potential pathways and the Conservation Objectives of the site. The sites to be examined are:

- Fala Flow SPA
- Firth of Forth SPA
- Forth Islands SPA
- Gladhouse Reservoir SPA
- Outer Firth of Forth and St Andrews Bay Complex
- River Tweed SAC
- St Abb's Head to Fast Castle SPA

The following tables, one for each site, show the conclusions of whether there are LSE and the qualifying interest involved.

Fala Flow SPA

TABLE 5: LSE CONCLUSION, FALA FLOW SPA	
Conservation Objective	Appraisal
To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained;	<p>Direct effect: None, the site is in Midlothian.</p> <p>Indirect: disturbance: the Strategy supports an increase in access to woodland however this will not increase disturbance at the site as it is outwith the area and proposals to increase access to the adjacent area are not included. Indirect: landcover change: The habitats on site will not suffer deterioration due to an increase in invasive species, changes to water quality or increase fire risk as there is 2km of intervening land including the A68 and a wayleave for high voltage pylons between this site and East Lothian.</p> <p>Indirect effect: there will be no risk of deterioration of water quality from tree or woodland planting activity as and no part of East Lothian drains into the site.</p>

<p>To ensure for the qualifying species that the following are maintained in the long term:</p> <ul style="list-style-type: none"> • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species <ul style="list-style-type: none"> • No significant disturbance of the species 	<p>The qualifying interest of this site is pink footed goose, which use supporting habitat on farmland in East Lothian. There could be reduction in the amount and quality (for the geese) of this habitat which could affect the population of the qualifying interest at this site. There may be an increase in recreational disturbance to the species when using supporting habitat through promotion of increased access to woodland. The species may also be disturbed by an increase in predators due to increased woodland and reduction in size of farm fields.</p>
<p>Conclusion</p>	<p>Likely Significant Effect Loss of supporting habitat: Pink Footed goose</p>

Firth of Forth SPA

TABLE 6: LSE CONCLUSION, FIRTH OF FORTH

Conservation Objective	Appraisal
<p>To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained;</p>	<p>Direct effects: There will be no direct effect on the habitats on site from the Strategy, as the site is intertidal and trees will not grow there.</p> <p>Direct: recreation: The Strategy aims to increase access to woodland. There may be a marginal decrease as some people choose to recreate in woods rather than the beach, however this (positive) effect will be limited by the inherent attractiveness of the coast as a destination.</p> <p>Indirect: invasive species: the type of invasive species which an increase in woodland cover may encourage (deer, rhododendron &c) will not affect this site as it is in the intertidal zone with different ecology.</p> <p>There is a small chance that activity related to this could lead to the release of sediment or pollutants into the sea. Any effect would be localised and short term. This is not the intention of the strategy, and if good practice is followed, it will not occur. Other regimes including grant funders and EIA regulations, would provide for assessment at project level that would include measures to ensure normal good practice is followed.</p> <p>There is no LSE from these pathways.</p>
<p>To ensure for the qualifying species that the following are maintained in the long term:</p> <ul style="list-style-type: none"> • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species <ul style="list-style-type: none"> • significant disturbance of the species 	<p>Qualifying interest: Pink footed goose. Pink footed goose from this site use inland habitat in East Lothian. See 'Fala Flow'.</p> <p>Qualifying interests: waders. Waders from the site namely Bar tailed Godwit, curlew, redshank, oystercatcher, grey plover, golden plover and lapwing use supporting habitat inland, namely open land and agricultural land. See Appendix 2. There will be some loss of this to woodland creation and tree planting under the strategy. The TWSEL may lead to increased recreation in woodland. This could also lead to loss of supporting habitat through</p>

	<p>increased disturbance. This is a likely significant effect.</p> <p>Indirect effect: pathogens: the Strategy may lead to an increase in the number of woodland birds; however, it is unlikely that there will be an increase in transmission of pathogens because of this as the birds have different ecological niches. Reducing the amount of habitat might push the birds pushed into smaller remaining areas of habitat. However, these birds are generally gregarious in any case, so this is unlikely to increase transmission of pathogens.</p> <p>Qualifying interest: duck and grebe species. Some of the ducks (Mallard, Goldeneye, Red-breasted Merganser, Great crested and Slavonian Grebe) may also use areas of inland water while at the site. The Strategy aims to increase riparian woodland to improve water quality, and this would benefit these species using inland water sites.</p>
<p>Conclusion</p>	<p>LSE: Loss of Supporting habitat:</p> <p>(a) Pink footed goose</p> <p>(b) Waders: bar tailed godwit, curlew, oystercatcher, redshank, lapwing, golden plover, grey plover</p>

Forth Islands SPA

TABLE 7 LSE CONCLUSION FORTH ISLANDS SPA	
Conservation Objective	Appraisal
<p>To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained;</p>	<p>Direct: None. There will be no change to the habitats on site from the implementation of the TWSEL. Woodland creation is not supported on this site, and for many parts is impossible due to the characteristics of the site. Policy 13 provides that proposals cannot go forward unless they meet the Habitat Regulations test.</p> <p>Indirect: disturbance. The Strategy promotes increase access to woodland, however there is no woodland on the site. As Forth Islands SPA comprises islands and the marine area, any general increase in recreational visitors to the area would not increase recreational disturbance here as the site cannot be accessed other than by air or water. There is no pathway for disturbance from any other source.</p> <p>Indirect: increase in invasive species: he main invasive species which has caused issues is mallow which prevents puffins from forming burrows. Though seeds of invasive species or pathogens could be spread from the mainland by mobile species however increased woodland or change in its distribution would not alter risk of this.</p> <p>There is no additional fire risk as the site is separated by the sea.</p>

	<p>Direct: water quality Sea birds can be affected by changes to prey availability, water quality including pollution by oil, organochlorides, or microbial pathogens. No activity on the site is promoted so there will be no change to water quality from activities there. The intervening sea between the site and the activity would mean there is no effect on the QI of the site.</p>
<p>To ensure for the qualifying species that the following are maintained in the long term:</p> <ul style="list-style-type: none"> • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species • No significant disturbance of the species 	<p>Indirect: water quality: there is a small chance that activity related to woodland creation on the mainland could lead to the release of sediment or pollutants into the sea. Any effect would be localised and short term. This is not the intention of the strategy, and if good practice is followed, it will not occur. Other regimes including grant funders and EIA regulations, would provide for assessment at project level that would include measures to ensure normal good practice is followed. As there is intervening sea between any incident and the site this is not a likely significant effect.</p> <p>Qualifying interests: Herring Gull. Herring Gull is in Favourable Maintained condition at this site. For Herring Gull see 'St Abb's to Fast Castle'. There will not be an effect on the conservation objectives as regards this bird.</p> <p>Qualifying interest: Cormorant. Cormorant increasing use inland areas in winter. The Strategy contains proposals on riparian planting which aims to improve water quality of rivers, which will improve the habitat for fish, which cormorant feed on. This bird is Green listed in Birds of Conservation Concern.</p> <p>The remaining qualifying interest birds are seabird. There is no other pathway for impact on those birds.</p>
<p>Conclusion</p>	<p>No LSE</p>

Gladhouse Reservoir SPA

TABLE 8 LSE CONCLUSION GLADHOUSE RESERVOIR	
Conservation Objective	Appraisal
<p>To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained;</p>	<p>Direct effects: none, the site some 14 km west of East Lothian.</p> <p>Indirect effect: disturbance: the Strategy supports an increase in access to woodland however this will not increase disturbance at the site as it is outwith the area and proposals to increase access to the adjacent area are not included. Indirect: landcover change: The habitats on site will not suffer deterioration due to an increase in invasive species, changes to water quality or increase fire risk as there is 2km of intervening land including the A68</p>

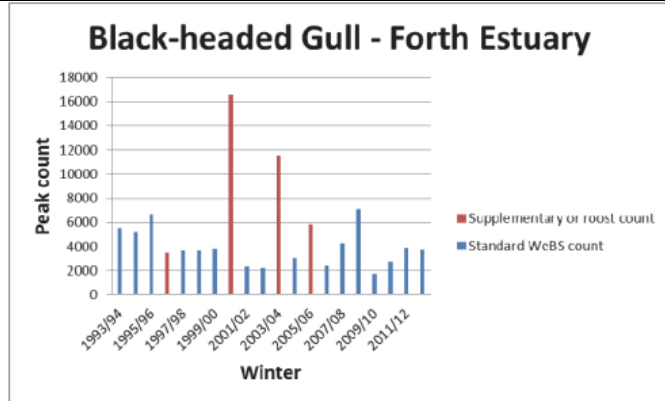
	<p>and a wayleave for high voltage pylons between this site and East Lothian.</p> <p>Indirect effect: there will be no risk of deterioration of water quality from tree or woodland planting activity as and no part of East Lothian drains into the site.</p>
<p>To ensure for the qualifying species that the following are maintained in the long term:</p> <ul style="list-style-type: none"> • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species <p>No significant disturbance of the species</p>	As 'Fala Flow' above.
Conclusion	<p>Likely Significant Effect</p> <p>Loss of supporting habitat: Pink Footed goose</p>

Outer Firth of Forth and St Andrews Bay Complex SPA

TABLE 9 OUTER FIRTH OF FORTH AND ST ANDREWS BAY COMPLEX SPA

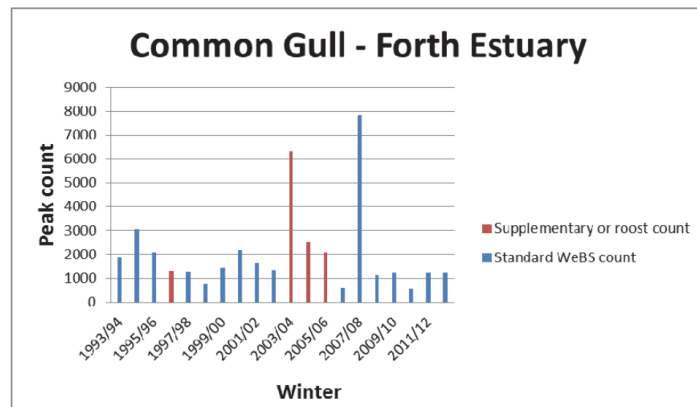
Conservation Objective	Appraisal
<p>1. To ensure that the qualifying features of the Outer Firth of Forth and St Andrews Bay Complex SPA are in favourable condition and make an appropriate contribution to achieving Favourable Conservation Status.</p>	<p>There will be no direct effects on the site. The parts that overlap East Lothian are at the edge of the intertidal zone or rocks and sandbanks submerged at low tide, where trees cannot grow.</p> <p>Indirect effect: water quality. There is a small chance that woodland creation activity related to the Strategy could lead to the release of sediment or pollutants into the sea. Any effect would be localised and short term. This is not the intention of the strategy, and if good practice is followed, it will not occur. Other regimes including grant funders and EIA regulations, would provide for assessment at project level that would include measures to ensure normal good practice is followed. There will be no impact on favourable conservation status through impacts at the site.</p>
<p>2. To ensure that the integrity of the Outer Firth of Forth and St Andrews Bay Complex SPA is restored in the context of environmental changes by meeting objectives 2a, 2b and 2c for each qualifying feature:</p> <p>2a. The populations of qualifying features are viable components of the site.</p> <p>2b. The distributions of the qualifying features throughout the site are maintained by avoiding significant disturbance of the species.</p> <p>2c. The supporting habitats and processes relevant to the qualifying</p>	<p>Qualifying interests: Herring Gull: as St Abbs to Fast Castle SPA. The gull is 'Favourable Maintained' at this site.</p> <p>Qualifying interest: Black-headed gull; this species is Amber listed in Birds of Conservation Concern. It is 'Favourable Maintained' at this site. The following extract from NatureScot (2015b) Commissioned Report 804 shows the winter peak counts are relatively stable, though, breeding numbers have declined in Britain, for unclear reasons.</p>

features and their prey/food resources are maintained, or where appropriate restored, at the Outer Firth of Forth and St Andrews Bay Complex SPA.



Black-Headed Gull is omnivorous but eat mainly aquatic and terrestrial invertebrates, and human food sources. Black headed gulls do sometimes feed on farmland and open ground, and some of this habitat will be lost to woodland or tree planting. The strategy has a target for 300 ha of woodland in support of agricultural production, which is likely to be on farmland. There will also be some planting in urban areas to increase canopy coverage.

Given the large amount of farmland habitat available, and the availability of other food sources, this loss is negligible. No LSE. Qualifying Interest: Common Gull. The common gull is Amber listed in Birds of Conservation Concern, and Favourable Maintained at this site. The extract from NatureScot Commissioned Report 804 below suggests relative stability of peak winter numbers. The bird is described as widespread and numerous in both the inner and outer areas of the Forth.



Common Gull is omnivorous, and eats mainly earthworms, insects, aquatic and terrestrial invertebrates and small fish. As with Black headed gull, the bird is likely to forage on farmland and open ground inland. As noted above for Black Headed gull, the loss of farmland will be minor, and the effect on the species negligible. No LSE.

Little Gull: this bird feeds by picking food items off the surface of water, so does not use farmland as the other gulls might.

Conclusion

No LSE

St Abbs Head to Fast Castle SPA

TABLE 10 LSE CONCLUSION ST ABB'S HEAD TO FAST CASTLE SPA	
Conservation Objective	Appraisal
To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained	<p>Direct effects: none, the site is outwith East Lothian. Indirect effects; the TWSEL will not increase disturbance from recreation at the site. There may be a marginal decrease as some people choose to recreate in woods rather than the beach, however this effect (which would be positive) will be limited by the inherent attractiveness of the coast as a destination.</p> <p>The habitats will not suffer deterioration due to invasive species or changes to water quality as they are separated from areas of change by intervening land.</p>
<p>To ensure for the qualifying species that the following are maintained in the long term:</p> <ol style="list-style-type: none"> 3. Population of the species as a viable component of the site 4. Distribution of the species within site 5. Distribution and extent of habitats supporting the species 6. Structure, function and supporting processes of habitats supporting the species 7. No significant disturbance of the species 	<p>Kittiwake and guillemot are seabirds that do not use areas of supporting habitat within East Lothian. There is no pathway for an effect on these birds. Herring gull are red listed in Birds of Conservation Concern. This bird uses inland sites for foraging. With mean range of 10km to forage, and a maximum of 92km, East Lothian is within daily reach. The policies and actions of the Strategy identified as having a potential effect were because they promote woodland creation. There is a target of planting 2 million trees, which does not arise from this strategy but is endorsed by it, along with mapping setting out where new woodland should and should not occur. Woodland creation is not in itself a threat to the gulls however this could lead to loss of farmland habitat, on which they may feed. Herring gull is an opportunistic, feeder (JNCC), being a predator and a scavenger. It primarily feeds at the coast, but takes waste from the fishing industry and landfill sites also.</p> <p>The Strategy recognises the food production value of agricultural land and seeks woodland creation on agricultural land only in support of this. It proposes that 300ha of farm woodland would be created. In the context of the amount of agricultural land in East Lothian, the effect on food supply for Herring Gull is negligible.</p> <p>There are no other pathways that could affect this conservation objective.</p>
Conclusion	No LSE

TABLE 11 LSE CONCLUSION RIVER TWEED SAC	
Conservation objective	Appraisal
<p>To avoid deterioration of the qualifying habitat (listed above) thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features</p>	<p>Direct effects: None, the site as it is not in East Lothian.</p> <p>Indirect effects, Water Quality: the Strategy has a target for increasing riparian woodland. This would help avoid deterioration of habitat by improving water quality, both of the watercourse themselves and by trapping pollutants from further afield which might otherwise enter the watercourse.</p> <p>The area which is shown as draining into the River Tweed is an area which is marked 'Sensitive' on the Constraints map. Much of this area contains potentially contains peaty or potential peat soil. Policy 15 of the Strategy prefers peatland restoration to woodland creation in such areas so large-scale tree planting which might lead to silt run off or polluting incidents is not supported there.</p> <p>The Native Woodland Opportunities shows it as mostly an area suitable for Scots Pine with Heather, or Peatland with scattered birch/pine/scrub trees, and for riparian woodland around watercourses. A small part of the area, which drains in to the Whiteadder Reservoir is shown as suitable for upland oak. The area around this is controlled by Scottish Water to protect drinking water supply, so pollution here is unlikely, and if it did occur, the reservoir forms a barrier between the incident and discharge into waters draining into the Tweed.</p> <p>In addition, Policy 13 and supporting text requires that proposals consider the effect on European sites, specifically mentioning drainage into this site.</p> <p>Policy 4 requires that tree planting should aim to reduce soil disturbance. Policy 9 Seed and Tree Stock Sourcing prefers natural regeneration from seed in the soil.</p> <p>There is a small chance that activity related to woodland creation could lead to the release of sediment or pollutants into water environment. Any effect would be localised and short term. This is not the intention of the strategy, and if good practice is followed, it will not occur. Other regimes including grant funders and EIA regulations, would provide for assessment at project level that would include measures to ensure normal good practice is followed. For tree planting that is not controlled through other regimes or grant schemes, the TWSEL will increase publicity of good practice.</p> <p>Therefore, the effects of the Strategy will be positive.</p> <p>Indirect effect; fire risk. Increased woodland cover, and woodland connectivity in combination with climate change, could change risk of wildfire. It is not the intention of the strategy that it should increase, and how the risk will change is not obvious. At the moment land in the Lammermuirs is managed for grouse moor and wind farm development. Grouse moor requires muirburn, which carries a risk of fire becoming out of control</p>

	(though this is balanced against risk of accidental fire on land which has not been burnt, and hence has a higher load). Woodland creation or forestry may reduce fire risk as there is not the risk of a controlled fire spreading. It could also increase it through greater availability of flammable material, and increased connectivity.
<p>To ensure for the qualifying habitat that the following are maintained in the long term:</p> <ul style="list-style-type: none"> • Extent of the habitat on site • Distribution of the habitat within site • Structure and function of the habitat • Processes supporting the habitat • Distribution of typical species of the habitat • Viability of typical species as components of the habitat <ul style="list-style-type: none"> • No significant disturbance of typical species of the habitat 	<p>Other than via the water environment noted above, there is no pathway for an impact on extent, distribution or structure and function of habitat on site.</p> <p>As noted above, the TWSEL will improve water quality through Riparian woodland creation. This would help the processes supporting the habitat by improving water quality. It would support the viability of typical species as components of the habitat. It would help avoid disturbance of typical species by expanding the amount of habitat for cover from predators.</p>
<p>To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and</p>	<p>The main route for adverse impact on habitat is via water quality. The TWSEL contains policy and actions aimed at improving water quality, and this is reflected in the spatial mapping. This will help avoid deterioration of the habitat.</p> <p>The TWSEL does support recreation in woodland however this is a remote location with limited car access, so it is unlikely that recreation would increase as a result.</p>
<p>To ensure for the qualifying species that the following are maintained in the long term:</p> <ul style="list-style-type: none"> • Population of the species, including range of genetic types for salmon, as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species <p>No significant disturbance of the species</p>	<p>As above, the TWSEL should lead to an improvement in water quality which would support the population of species including salmon. It will not affect the distribution of species within the site. The Strategy will increase the distribution and extent of habitats supporting the species outwith the site, as well as the structure and function of supporting process.</p>
Conclusion	No LSE

In combination effects

Other Relevant Plans & Projects

TABLE 12 RELEVANT PLANS AND PROJECTS	
National Plans & Projects	
National Planning Framework 4	HRA undertaken. This guides the Local Development Plan. No policies or proposals identified that would have 'in combination' effects with proposals in this strategy
River Basin Management Plans	HRA undertaken. Will improve river SACs. No minor residual effects identified.

UK Biodiversity Action Plan	Guides habitat and species management, benefits European Sites
Scottish Forestry Strategy	No HRA undertaken. High level strategy that encourages sustainable management of woodland and resilience in woodlands
Local Plans & Projects	
East Lothian Local Development Plan 2018	HRA undertaken and concluded no adverse impacts on site integrity. No parts of the plan are considered to have in combination effects with the policies within this document
Core Paths Plan	No HRA undertaken. This details all the core paths across East Lothian and provides protection for them
Climate Evolution Vision	HRA undertaken. No likely significant effects found.

5. Appropriate Assessment

The proposals identified as having LSE, either alone or in combination with other plans and policies, require an Appropriate Assessment. The test which the appropriate assessment must answer is whether or not the plan will have an adverse effect upon the integrity of a European site. No method is proscribed for how to determine this. Scottish Government circular 6/95 Habitats and Birds directives states that integrity of a site is “the coherence of its ecological structure and function across its whole area which enables it to sustain the habitat, complex of habitat and/or the levels of populations of the species for which it was classified”. This assessment must be made in terms of the conservation objectives set out for each site.

Background information has been collected on the conservation status of each qualifying interest that might be affected. Survey information has been collected in the form of WeBS counts and information given to the council by nature Scott on the distribution of pink footed goose and waders across East Lothian. This has been supplemented by survey information collected by the Council on pink footed goose.

Loss of Supporting habitat – pink footed geese – Firth of Forth, Fala Flow, Gladhouse Reservoir

Pink footed goose was identified as potentially being impacted by the Strategy.

Pink footed goose characteristics and requirements

Pink footed goose is a medium sized goose. The geese breed in Greenland, Iceland, from where they arrive in autumn, moving southward making use of sites down the coast and on inland waters as they go, before returning in Spring. The strong seasonal movements within Britain mean there is a connection between the forage available on agricultural land in East Lothian and series of SPA designated for pink footed goose as a whole. The pink footed goose is a qualifying interest for Firth

of Forth, Fala Flow and Gladhouse Reservoir SPAs, as well as ones further distant. The assessment has considered only sites within 20km, based on the information from Mitchell (2012) which suggests that the birds using fields in East Lothian are associated with those sites.

The geese are herbivorous, feeding on improved grassland, cereal stubble and vegetables. Use of fields by pink footed goose is influenced by what is grown in the field and it will change through the winter in response to the availability of food. Bell (2018) reports research showing there is a preference for stubble fields in autumn and early winter and grassland later on. In East Lothian the peak numbers of pink feet are recorded in autumn where the preferred food is spilt grain in stubble fields. Unharvested potatoes are an important secondary source especially around Aberlady. Pink feet tend to feed first in the fields closest to their roost site, moving further afield as they eat up the food supply or are disturbed. Disturbance plays a big role in the choice of feeding sites with the geese preferring to use fields away from roads. Many birds including geese will tolerate predictable movements along roads and paths but are less tolerant of pedestrians, or dogs, walking through fields.

A key issue is whether the distribution and extent of foraging areas in East Lothian are currently, or could become, a limiting factor for the goose populations. Pink footed geese usually feed close to their roost site. Roost sites are generally in estuaries or waterbodies. The geese roost at Fala Flow, Gladhouse Reservoir, and usually in large numbers at Aberlady Bay in East Lothian. There is some roosting at Tynninghame Bay. The geese are highly gregarious, feeding and roosting in large flocks. NatureScot advise that the core range is 15 – 20 km. They may occasionally fly more than 20km to find suitable forage.

The range of foraging sites is suitable agricultural fields potentially across East Lothian, most of which is outwith the SPA boundaries. The whole of the area is within the foraging range from one or more sites. Broadly, the core foraging area is concentrated north of the A1 extending roughly northeast from Longniddry. High concentrations have been recorded between Longniddry and Aberlady in the area north of Coates farm and inland from Gullane, Dirleton and North Berwick. However they have also been recorded in significant number elsewhere. This is shown in the mapping below, based on information supplied to the Council by NatureScot around 2015 and survey information collected by the Council between 2011 and 2016 by means of survey and collection of ad hoc records.

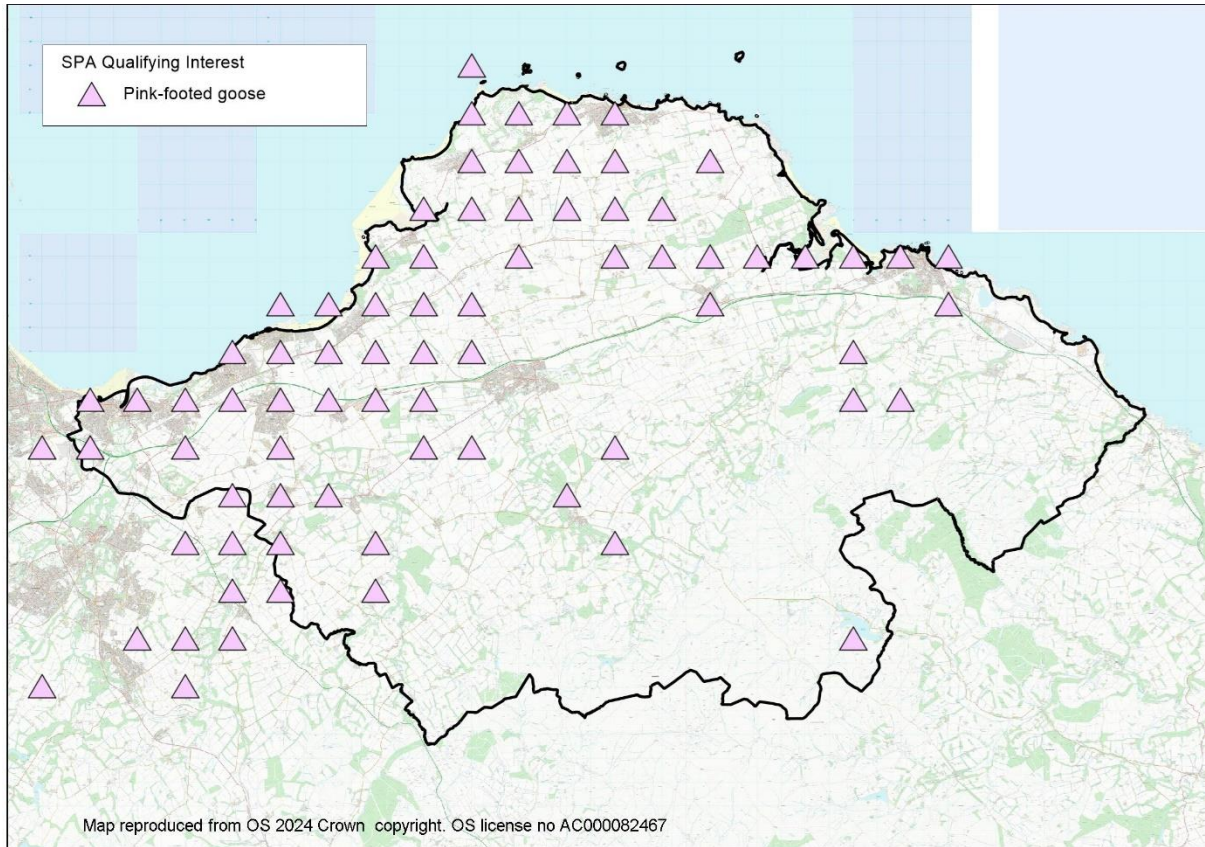


Figure 3 Pink foot records by tetrad, based on information from NatureScot

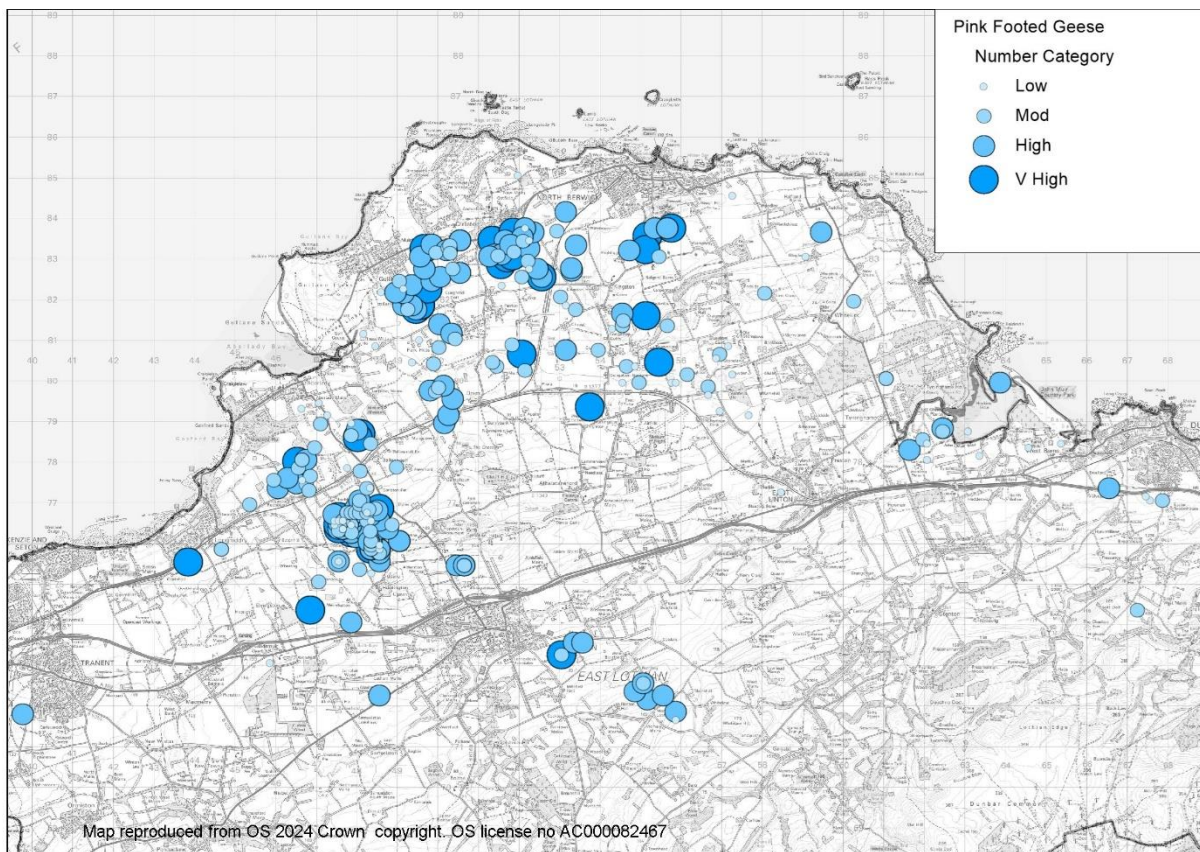


Figure 4 East Lothian Council pink footed goose records

The maps below show the distribution of feeding records of Pink Footed Goose from Mitchell, 2012. This shows the wide distribution of potential forage. Although the geese appear to prefer to forage closer to the roosting site, they can range further afield, and there are a range of areas close to the sites they could use.

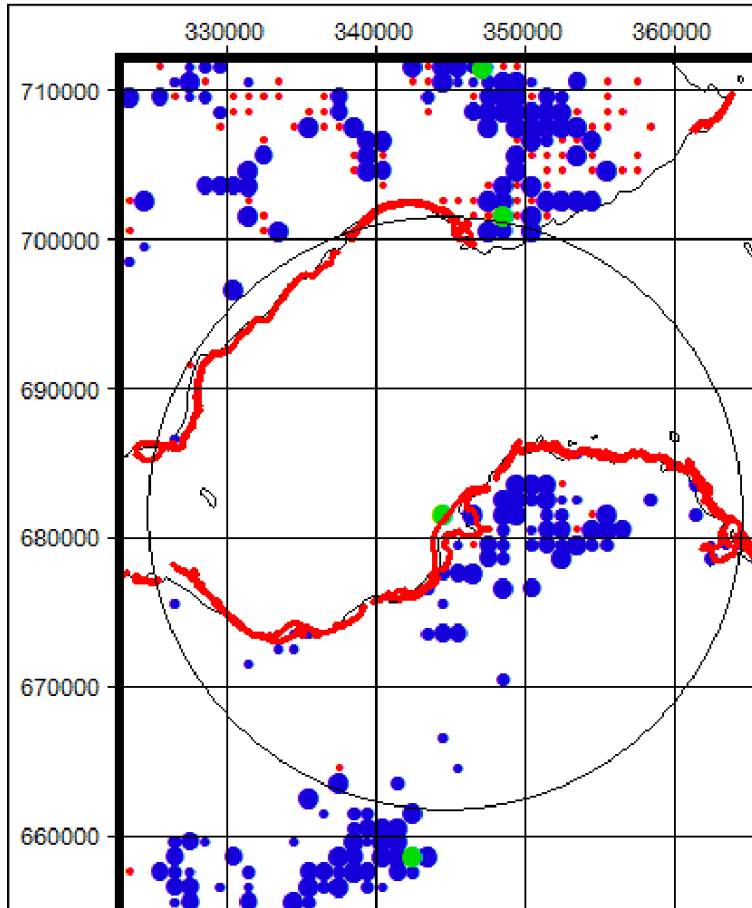
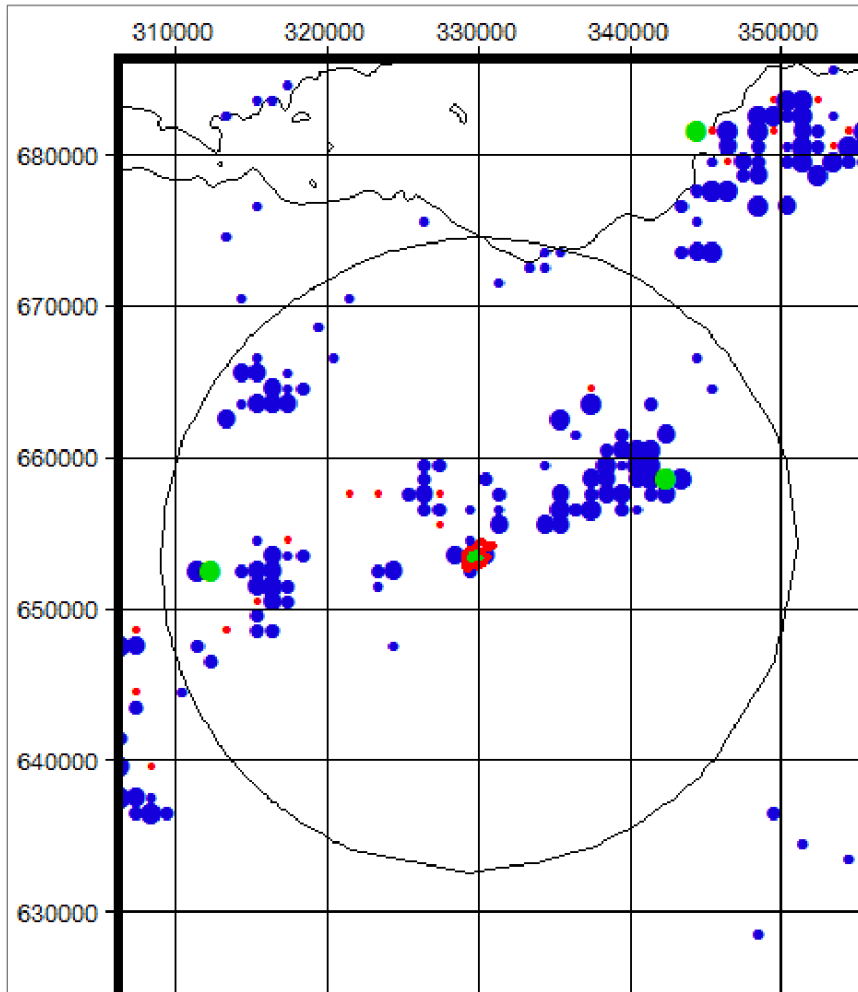


Figure 5 Feeding distribution (1986/87 to 2011/12 – all records) of Pink-footed Geese in relation to the Firth of Forth (Aberlady Bay roost) SPA, Mitchell 2012



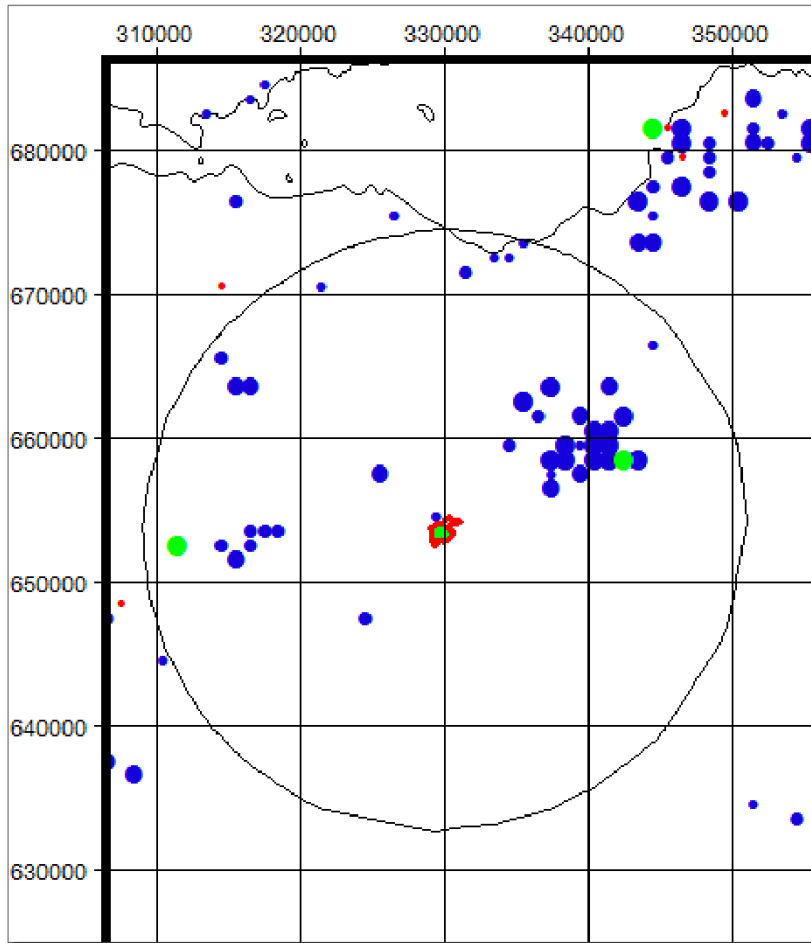


Figure 6 Feeding distribution (2007/08 to 2011/12 – all records) of Pink-footed Geese in relation to the Gladhouse Reservoir SPA Mitchell 2012

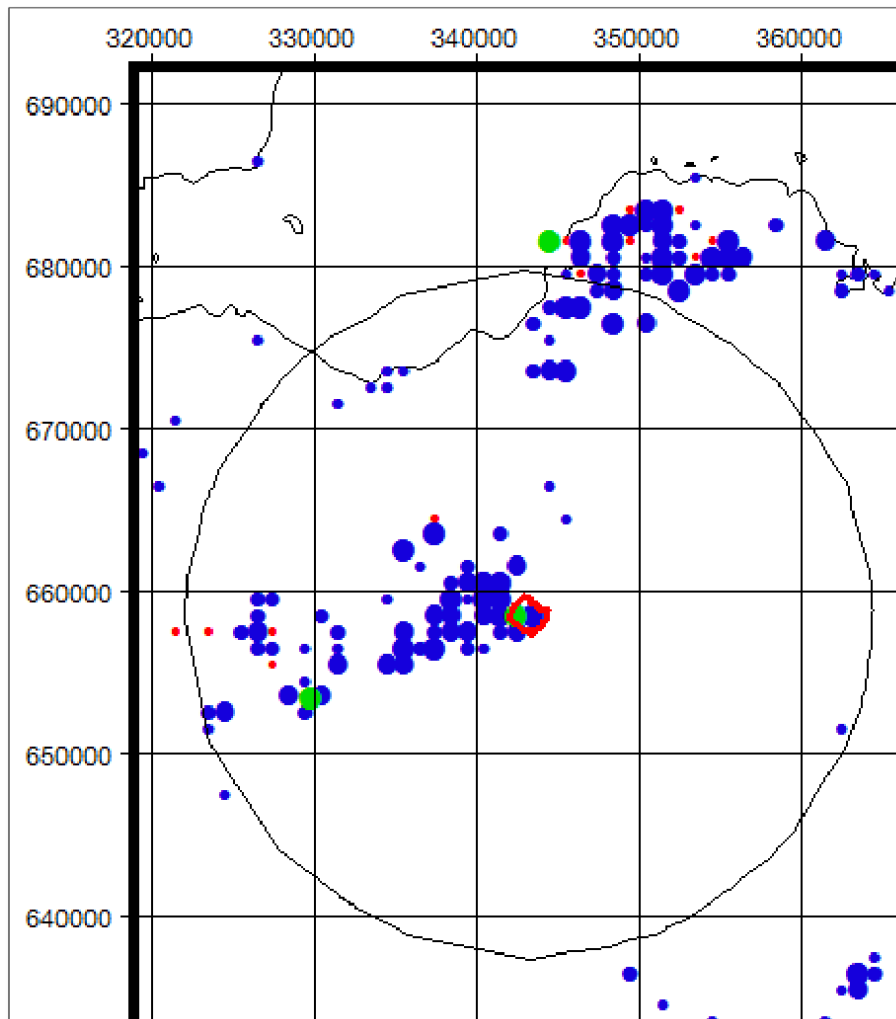
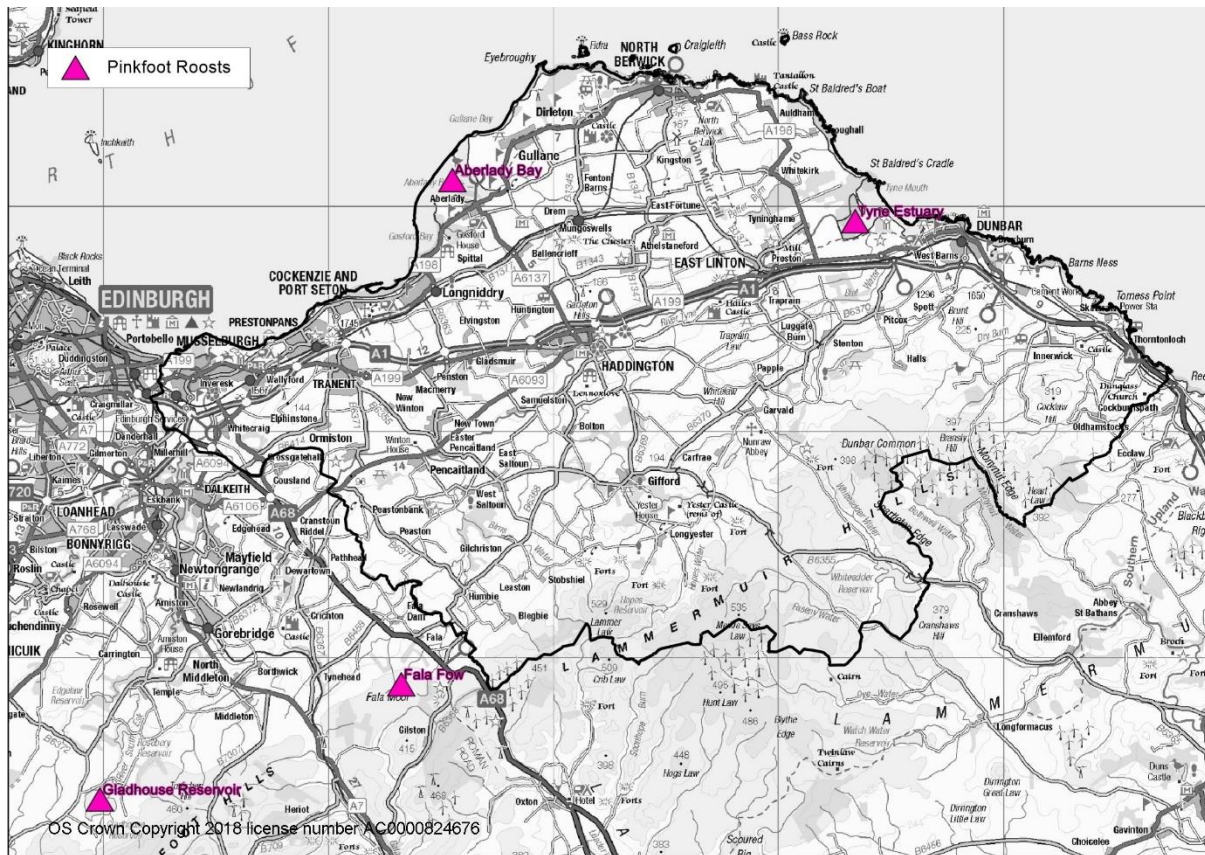


Figure 7 Feeding distribution (1986/87 to 2011/12 – all records) of Pink-footed Geese in relation to the Fala Flow SPA, Mitchell 2012.

The main pinkfooted goose roost in East Lothian is in Aberlady Bay within the Firth of Forth SPA, but some birds also roost in the Tyne Estuary. Fala Flow and Gladhouse Reservoir are also roost sites from which geese may forage within East Lothian (see map below). The Tree and Woodland Strategy will not directly affect the availability of roost sites in East Lothian as trees cannot be planted within intertidal areas. There are some watercourses through and near the main roost sites. The riparian area around watercourses is shown on the Native Woodland Opportunities mapping as areas where woodland expansion is supported subject to project level assessment. However, the riparian areas of watercourses in or near the SPA have been excluded from this mapping. This is to avoid change close to the roost site and also avoid impact on the most important high tide roost sites for inland waders.

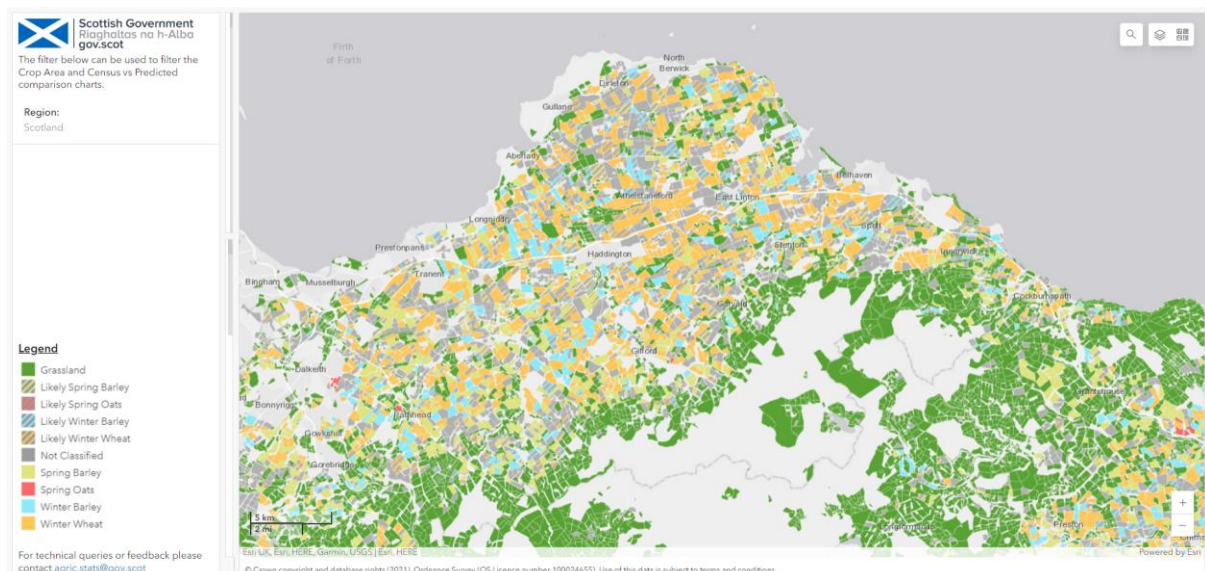
The Tree and Woodland Strategy will not increase levels of disturbance at roost sites. This would be likely to be to reduce it rather than increase it through provision of alternative areas for outdoor recreation including dog walking. Although due to the intrinsic attractiveness of the coastal area any effect is likely to be marginal, the strategy would if anything reduce disturbance through provision of alternative areas for recreation including dog walking. This could also make management measures in such areas more acceptable.



The Scottish Crop Map

<https://scotgov.maps.arcgis.com/apps/dashboards/f9216efc72e44b7e9093cfae08f6f861> shows the extent of land down to specific crops in 2019, which were mainly grassland, oats, barley and wheat.

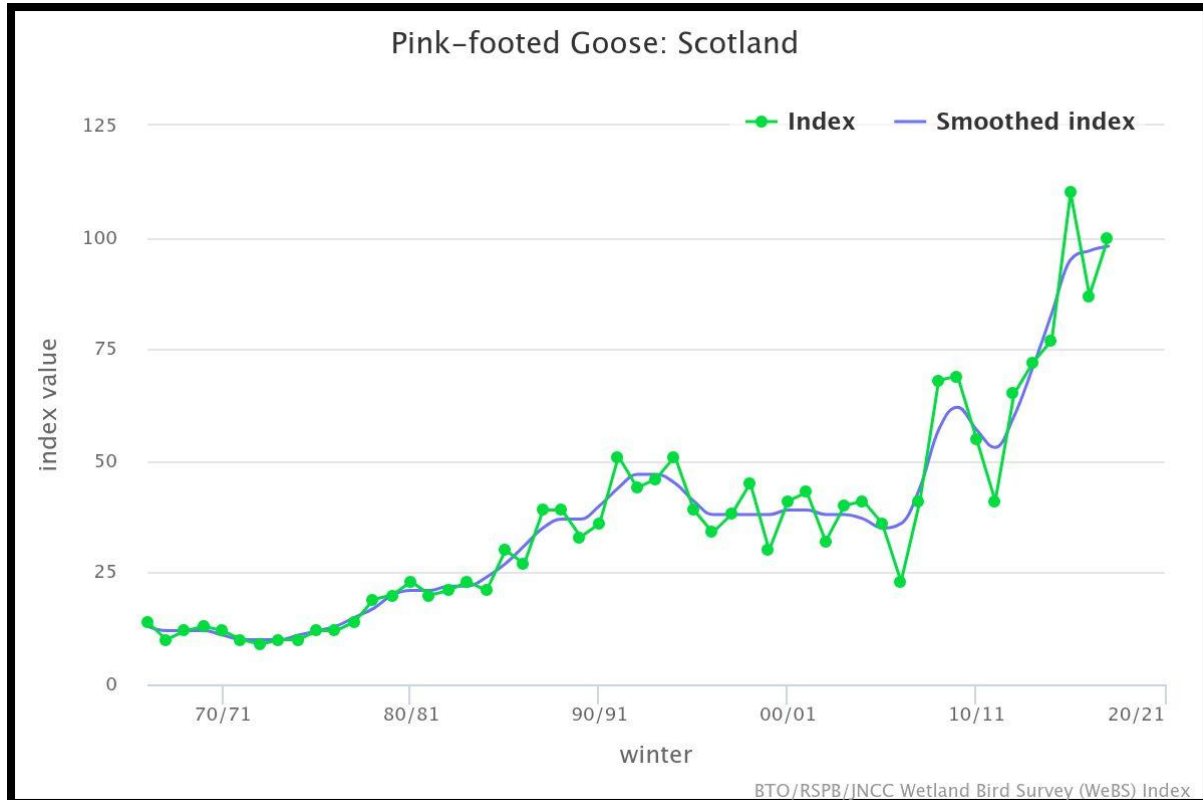
The following is an extract of this map:



The exact crops grown from year to year vary with agricultural rotation. However, there is a wide availability of potentially suitable fields including close to the roost sites. There is relatively little woodland around the Firth of Forth SPA, other than to the north, so there are likely to be few restrictions on goose movement in this area.

Conservation Status

The conservation status of the species is of Least Concern. Population in the site at Gladhouse Reservoir at designation 1990 was 10,500, at Fala Flow the population was 2400, and at Firth of Forth 10,852. Data for the Forth Estuary show that goose numbers fluctuate considerably from year to year. The current 5 year mean for the Forth Estuary is 17392. Population numbers are based on winter roost counts.



Outcomes of the Tree and Woodland Strategy

The policies, actions and sections of the Spatial Mapping that have been identified as having Likely Significant Effect are all so identified because the intended outcome is that woodland is increased. There is an overall target of 2 million trees. Although this target was set in the Climate Change Strategy Update, it is endorsed by the Tree and Woodland Strategy. There are also targets for woodland connectivity which could result in woodland creation in areas used by geese. Much of this woodland creation is expected to occur in areas not used by the geese for forage, such as cleughs.

The Strategy contains a target of 300 ha of farm woodland. There is a wide choice of locations where this could come forward, including on land that may be suitable for forage in terms of land cover but that is subject to disturbance so is not used. However, the Strategy seeks to retain most farmland in agricultural use because of its value to food and drink production. The Strategy identifies arable farmland which is not covered by another designation that would make it 'Sensitive' as 'Potential'. This potential refers to woodland that will come forward to support agricultural production, rather than instead of it.

The Tree and Woodland Strategy also aims to increase hedgerow planting by 10% through a Hedgerow Strategy. Pink footed geese require large open areas with clear sight lines for foraging and roosting. Hedgerow planting can affect pink footed goose habitat by reducing sightlines and the size of fields, even though the actual physical area of farmland habitat removed is not great. The Hedgerow Strategy would also require to be subject to Habitat Regulation Appraisal. The Tree and Woodland Strategy itself is not proscriptive about where hedgerow planting would come forward.

Native woodland expansion within/adjacent to feeding areas could also impact sightlines and reduce suitability of feeding sites. Both could increase cover for predators, making the geese wary of using fields as they prefer large fields with good visibility. The Tree and Woodland Strategy promotes riparian planting of native woodland, and planting of native woodland to allow for climate migration. Some of this planting is in areas used by pink footed geese, in particular some areas south of Dirleton and to the east of the Longniddry/Haddington railway walk which contain watercourses which are currently unwooded where increased native tree cover is promoted.

The Strategy will increase woodland on farmland to a small degree, if successful, against the current position. It is not clear that the Strategy will increase woodland creation in farmland over and above what would occur without it. There is considerable public enthusiasm for tree planting linked to concern about climate change. There have been concerns that, welcome though this is, some of the planting may be taking place in less than optimum places, including on prime agricultural land. The Strategy only supports woodland creation on agricultural land where it aids agricultural production, in recognition of the importance of this function of land. The Strategy may therefore have the effect of reducing the amount of planting carried out on agricultural land. Provision for a Hedgerow Strategy could coordinate the planting of new hedgerows to avoid areas where there could be an impact on supporting habitat for pink footed geese.

Overall, if the Tree and Woodland Strategy is implemented as set out, there will be some loss of supporting habitat for pink footed goose. Increased cover for predators could potentially lead to some losses of individual birds.

In-built Mitigation

The TWSEL identifies Special Protection Areas and SSSIs themselves, as 'Sensitive' on mapping. This means tree planting and woodland creation is not encouraged there. Policy 13 Protection of European Sites of the Tree and Woodland Strategy specifically reiterates that projects that are likely to have a significant effect on a European Site must undergo assessment. It further provides projects that have an adverse impact on the integrity of the site can only go ahead in the circumstances set out by statute.

Conclusion

Pink footed geese are in very good condition overall, and have occurred at far greater numbers than at the designation of the site. They use a wide range of sites across much of arable East Lothian. There is a large amount of agricultural land which is potentially suitable for forage, and the amount that will be lost is small. It would seem logical then that there is sufficient forage to sustain a larger population at the sites than at designation. Pink footed geese have a large daily foraging range and are used to changing where they go due to changes in availability of forage according to crops grown

from time to time. This means they will be able to find alternatives within the area, should a small part of the supporting habitat not be available. A minor loss of supporting habitat, were that to occur, would displace geese to different fields but not affect the Conservation Objectives of the relevant sites. It would not result in a change to the distribution of geese across the SPA, or the population of the species as a viable component of the site.

There will be no

Given

- the pink footed goose is not of conservation concern overall and is listed at the Firth of Forth and Fala Flow as 'Favourable Maintained': lack of supporting habitat is not mentioned as a site pressure on any of the SPAs
- Although the feature is assessed as 'Unfavourable Declining' at Gladhouse Reservoir SPA the Tree and Woodland Strategy cannot influence the site pressures listed of water management or lack of proactive management there or at Fala Flow
- numbers fluctuate significantly at the sites from year to year and availability of forage is also influenced by crops grown
- there is enough suitable foraging habitat to support a larger population than was there at designation
- the loss of supporting habitat is minor in comparison to the overall availability of suitable foraging habitat and may actually be less than what would occur without the Strategy
- Policy 13 of the TWSEL requires project level assessment of impact on European Sites through project level assessment
- The roost sites for pink footed geese will not be affected

In terms of the Conservation Objectives for the site:

There will be no deterioration of the habitat or increase of disturbance to the species within the site boundary any of the relevant SPAs themselves. The population of the species as a viable component of the sites will not be affected by the strategy as the current overall population is strong and does not appear to be limited by lack of forage outwith the site. Daily foraging distances of the geese are up to 20km, and mapping shows that the geese do forage over a fairly wide area within East Lothian. The Strategy will not affect roost sites, and sufficient foraging habitat will remain over a wide area. Therefore the distribution of the species within the site will not be affected. There will be minor loss of distribution and extent of habitat supporting the species outwith the site, but the species will remain supported. There could be an increase in disturbance arising from recreational use of woodland created however due to the amount of suitable habitat remaining this is not anticipated to affect the species within the sites.

It can be concluded there is no adverse integrity on the Pink-footed Goose qualifying interest of the Fala Flow SPA, Gladhouse Reservoir SPA or Firth of Forth SPA. However, at project level the competent authority should satisfy themselves that sufficient unfragmented fields suitable for forage for pink footed goose remain if a proposal were to go ahead.

Impact on wading birds is considered below.

LSE – Loss of Supporting Habitat for Inland Waders

Seven qualifying interest species of the Firth of Forth SPA were identified as potentially using inland areas for either roosting, feeding or both. Activity is almost all within around 5km of the coast, and for some species (Bar tailed godwit, Grey Plover, Redshank) there are few if any records of use of areas other than the intertidal, foreshore and immediate hinterland. This does not mean they are not used however.

The map below shows the Constraints map (which identifies ‘Potential’ and ‘Preferred’ areas for woodland creation) overlaid with a) the land 5km from Firth of Forth SPA and b) areas that drain into the River Tweed SPA. The area within 5 km of the Firth of Forth is shown as this area, where there is suitable habitat, has potential to be used by wading birds.

Mapping of records is shown for each species from both The Wildlife Information Centre and NatureScot (other than bar-tailed godwit, for which only TWIC information is shown). The NatureScot data was based on limited survey visits, potentially on only a single date. It is now almost a decade out of date. It is more useful for showing where birds are, or have been, than where they are not. There were no known inland roost sites for wader species. Although this does not mean there are none, given amount of bird recording, formal and informal in East Lothian, it is reasonable to assume that if there were areas that were used often by large numbers of birds, this would be known.

Pressures and trends were identified from NatureScot’s Site Condition Monitoring, with reference to their Commissioned Report 804, 2015, “A Review of Literature on the Qualifying Interest Species of Special Protection Areas (SPAs) in The Firth of Forth and Development Related Influences.” British Trust for Ornithology’s website contains reports on WeBS counts, and this was referred to with regard to overall trends and whether site specific factors were affecting the species.

For all qualifying interests, the targets, policies and actions, as well as spatial mapping, identified as having Likely Significant Effect are those that lead to creation of woodland and tree planting, including potentially at the coast. This could lead to direct loss of supporting habitat to woodland creation. The strategy supports 300ha of new farm woodlands. It also supports riparian planting, some of which would be in farmland. Open farmland and grassland and wetland are the main inland habitat types used by the qualifying interests.

There could also be indirect functional loss if species are deterred from using remaining habitat e.g. by loss of sightlines or increase in predators. The Strategy encourages improving access to woodland (partly by woodland creation). Increased disturbance arising from an increase in use of woodland adjacent to supporting habitat by people and potentially dogs could also cause loss of function. Improving access to woodlands would provide alternative areas for recreation to the coast. In theory this could reduce disturbance there. However, given the intrinsic attractiveness of the coast this is unlikely to be significant.

A coastal mosaic of habitat is encouraged by the strategy, which respects other coastal habitat including saltmarsh and coastal grassland. This does not necessary include more woodland planting, as the strategy recognises the value of other habitats, including for qualifying interest species of the

SPA. The aim of the strategy is therefore that at least some of this habitat remains. Council management of important sites at Musselburgh Lagoons, Aberlady Local Nature Reserve and John Muir Country will also help to secure this. Proposal MH16 in the East Lothian Local Development Plan promotes habitat creation to the east of Lagoon 6 at Musselburgh. This area is outwith the SPA boundary and is being managed for the benefit of qualifying interest species of the SPA. This will act to offset any loss of wader arising from development proposed in the LDP and will ensure that suitable habitat for them remains.

The Strategy should be considered relatively low risk in terms of European sites as there will be a second round of consultation and consideration when individual proposals are looked at. If a planting or woodland regeneration proposal impacted an important wader area, it could be re-designed or re-considered at that point. Policy 13 of the Strategy provides for assessment under the Habitat Regulations at project level and reflects the statutory position as to whether they can go ahead. The competent authority for individual woodland creation/regeneration proposals will need to consider cumulative losses of wader habitat (and consider whether it is necessary to refuse proposals on specific roost sites) to prevent this limiting qualifying wader populations.

Bar tailed godwit

Bar-tailed Godwit are large wading birds, which overwinter in the UK, or pass through to sites further south after breeding in the Arctic. They mainly eat marine worms, but also shellfish, marine snails, and shrimp. Naturescot (2015) describe them as highly gregarious in winter, forming large flocks, and relatively sensitive to disturbance compared to other waders. They therefore mostly feed on mudflats, preferring the outer part of estuaries, and join mixed wader roosts at high tide.

The following map is of records of Bar Tailed Godwit © The Wildlife Information Centre, produced by the Council under licence. This shows Bar Tailed Godwit have been recorded mainly tight to the coast, at Aberlady Bay and the Musselburgh wader scrapes, as well as at North Berwick, John Muir Country Park and sporadically down the southeastern part of our coast. The records are in the intertidal or foreshore area, or immediately inland from there.

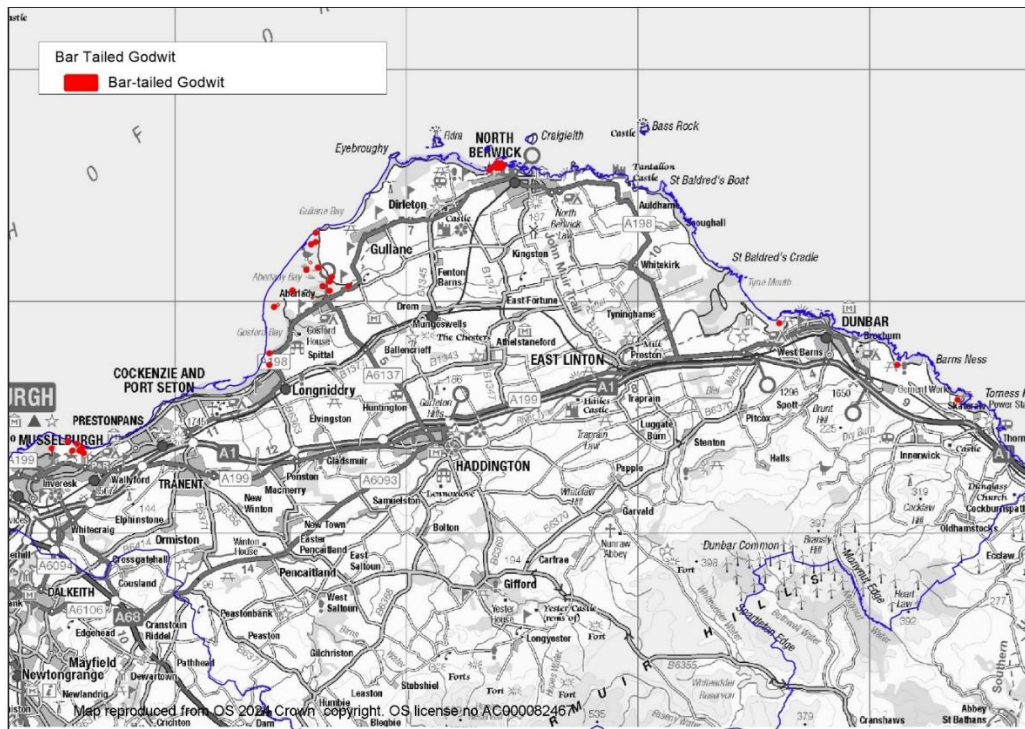
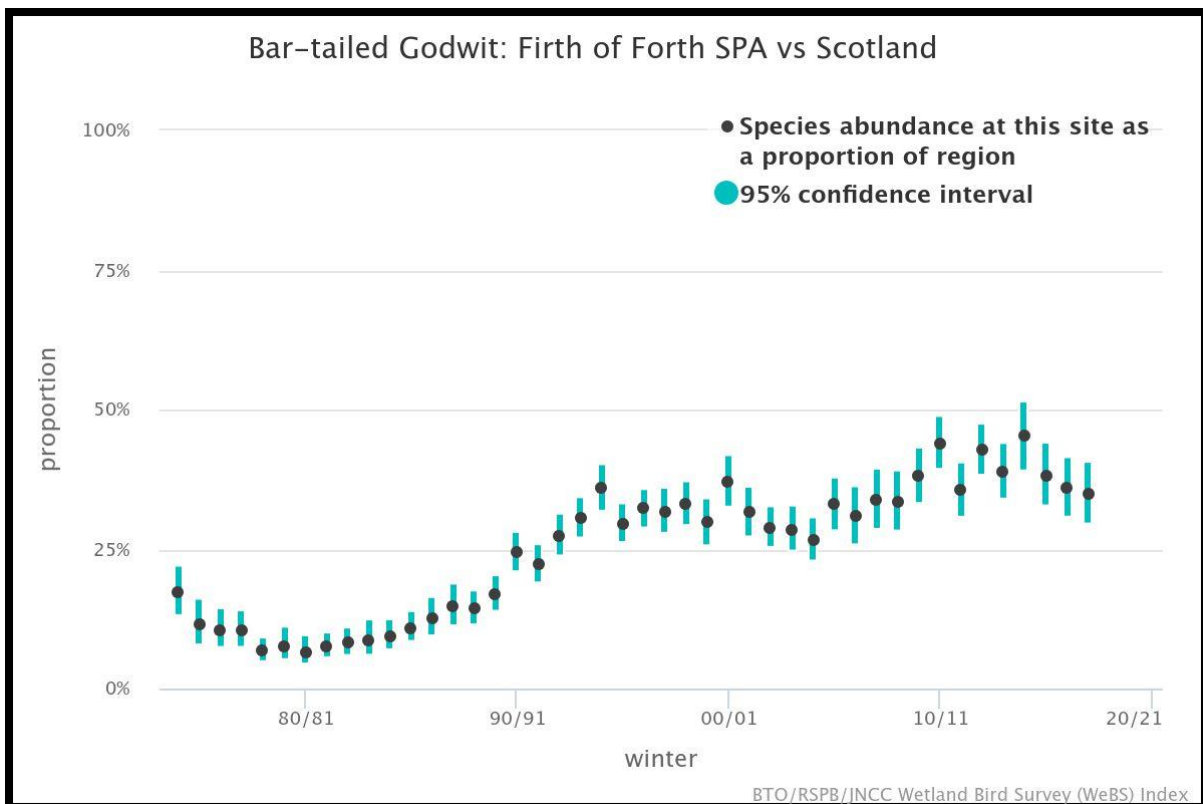
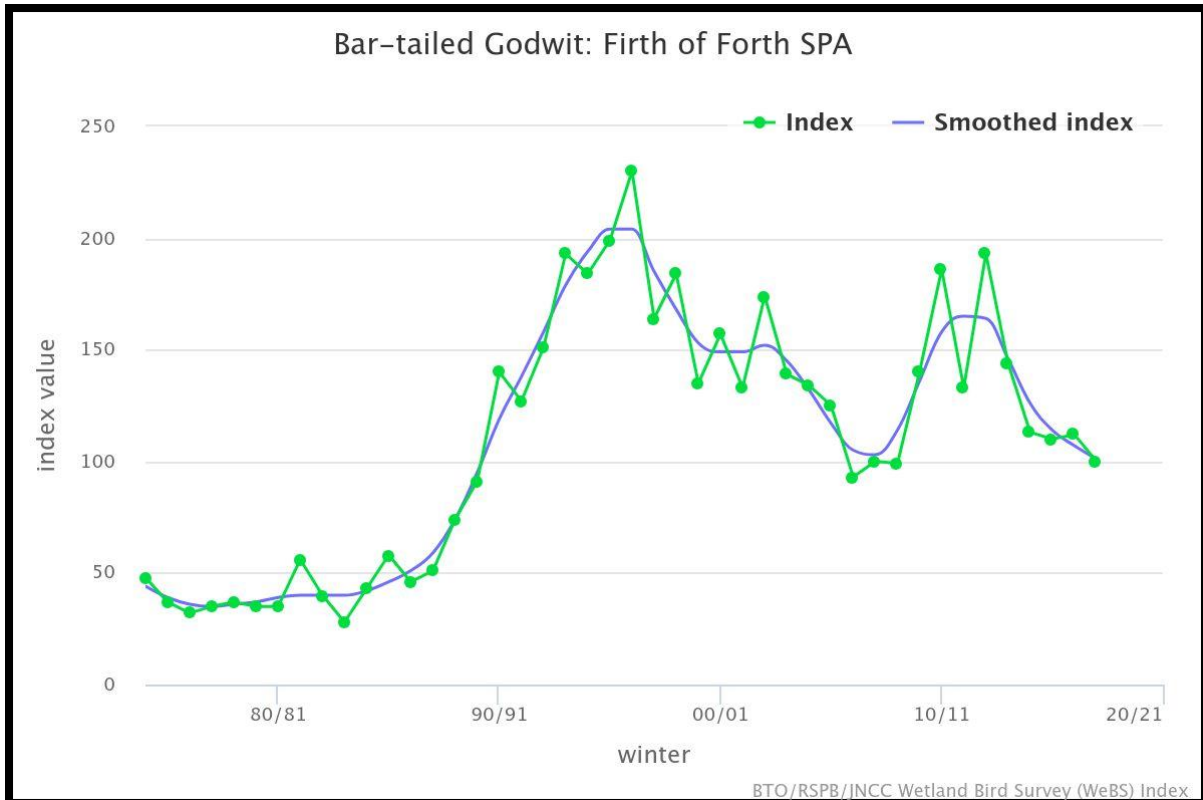


Figure 8 Bar-tailed Godwit records, (c) The Wildlife Information Centre

NatureScot site condition monitoring shows Bar-tailed Godwit as Favourable Maintained. Noted pressures on the site were recreation/disturbance from walking and dog walking.

The population at designation was 1974, the current rolling 5-year average from BTO WeBs counts is 996. Numbers of this species over-wintering within Scotland have been decreasing long term. The site trend is for increasing numbers compared to Scotland as a whole, suggesting environmental conditions remain relatively favourable and the site is becoming increasingly important on a regional basis. Although an Amber Alert has been issued for Bar-tailed Godwit due to a 48% decline, this should be treated with caution as numbers fluctuate over the long term, and changes in numbers underpinning this are within the range typical for this site.



NatureScot (2015) note that pressures on the site are disturbance of feeding flocks and especially roosts by walkers and dogs.

As noted above the main source of LSE is through woodland creation and encouragement of access to woodland. Where woodland is next to sites used as high tide roost, this could increase disturbance both from walkers and dogs.

The council takes measures through management of its coastal sites to avoid conflict, for example discouraging public access at Levenhall wader scrapes so birds are not disturbed, and restricting availability of parking at Aberlady Bay as well as reminding visitors of the need to control dogs.

Records of Bar-tailed Godwit shows that the distribution of this species is predominantly coastal. Woodland creation cannot take place in the foreshore or intertidal. Records of use of terrestrial areas are focussed on the Musselburgh lagoons, Aberlady Bay, John Muir country Park and the golf course at North Berwick. The first three of these are sites managed by the Council, while the last is one that will retain open space as it this is needed for its golfing use. As the Bar-tailed Godwits diet is from intertidal rather than land-based sources, any loss of supporting habitat would not affect its supply of food. The strategy will not increase disturbance of feeding flocks.

By improving outdoor access to woodland, there may be a drop of visitors to the Firth of Forth SPA, including those with dogs, though given the intrinsic attractiveness of the coast this is unlikely to be significant. Musselburgh lagoons are well used by walkers and dog walkers. At Aberlady Bay management measures by the Council include reduced parking spaces and requests to keep to paths and control dogs.

Given:

- the background of the species being in favourable maintained condition at this site and BTO view that Amber alert may reflect long term fluctuations
- the species is increasing here as a proportion of regional trends
- the species uses sites mainly very close to the coast, mainly managed by the Council; the Council will take into account impact on the species in its management
- the strategy may marginally reduce recreational disturbance at the coast
- Policy 13 seeks to protect European Sites through project level assessment
- The council will continue to manage important coastal sites at Musselburgh, Aberlady Bay Local Nature Reserve and John Muir Country Park, Dunbar

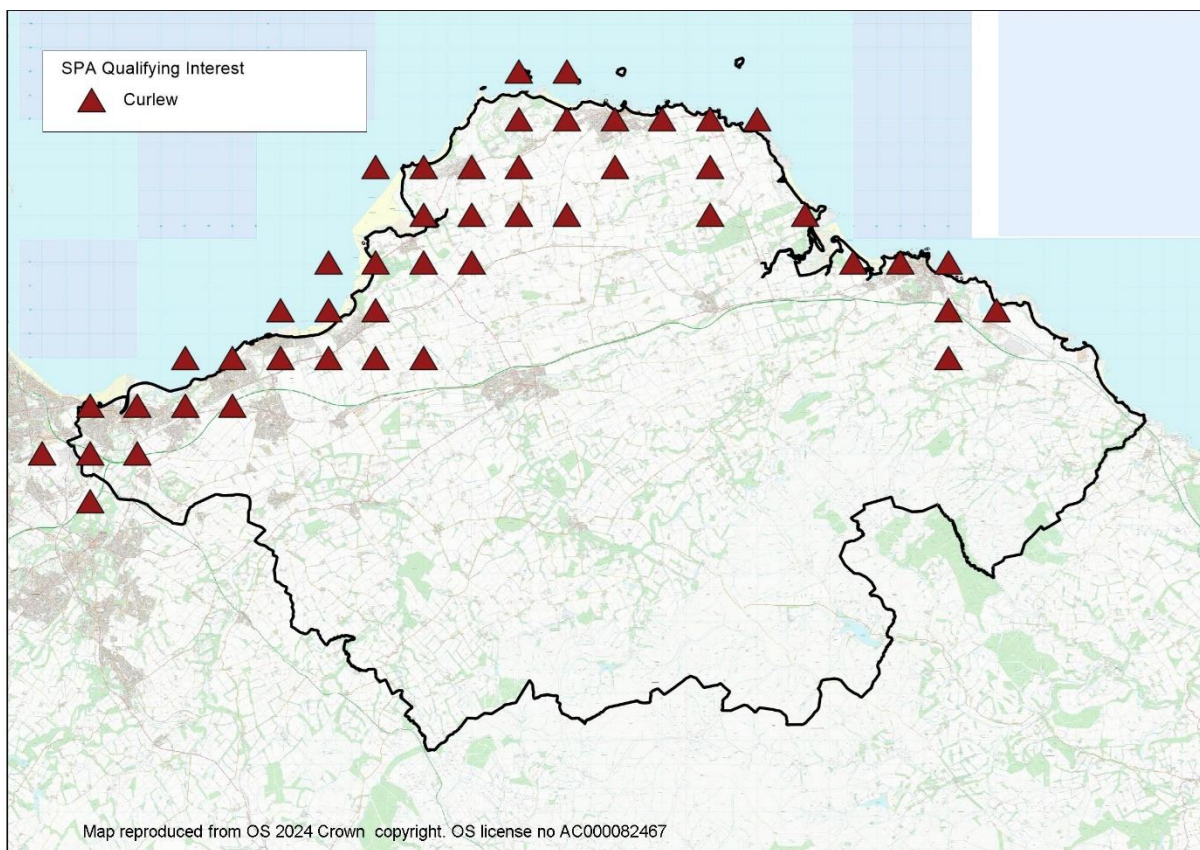
The Strategy will not affect habitats or disturbance levels within the Firth of Forth SPA itself. The maintenance of the population of the species as a viable component of the site or distribution within the site will not be affected as the areas of supporting habitat used are very close to the coast; around the coast in general 'coastal mosaic' is proposed to allow for supporting habitat to be retained. The riparian area of the Peffer Burn at Aberlady Bay, which is a high tide roost, is excluded from the Native Woodland Opportunities mapping so the Strategy does not support woodland expansion there. The distribution and extent of habitat supporting the species is not affected.

It can be concluded there is no adverse integrity on the Bar-tailed Godwit qualifying interest of the Firth of Forth SPA. As the areas used as supporting habitat are very close to the coast, and woodland expansion is not proposed there, there are no minor residual effects.

Curlew

Curlew is Europe’s largest wading bird. It is found in estuaries in winter, migrating to breeding grounds on upland moorland, wetlands and rough pasture both here and in Scandinavia, in the summer. NatureScot (2015) describe them as gregarious in winter, and sensitive to disturbance. They eat invertebrates, including intertidal worms, crustaceans, and molluscs, but also molluscs and earthworms. Although they feed mainly in the muddy shores of estuaries, some birds also forage in fields inland. They roost at high tide in mixed wader flocks.

Mapping from NatureScot and TWIC records show that the species is concentrated around the coast, but does use some inland sites. Bell (2018) in the Habitat Regulation Appraisal of East Lothian Local Development Plan 2018 noted that Curlew are widely distributed both around the shores of the Firth of Forth and around the East Lothian coastline, and this is reflected in mapping of records from The Wildlife Information Centre and Naturescot below. Curlew have been recorded some distance inland, though not more than around 5km from the coast, as well as on upland sites in the Lammermuirs. The records in the Lammermuirs are likely breeding rather than over-wintering.



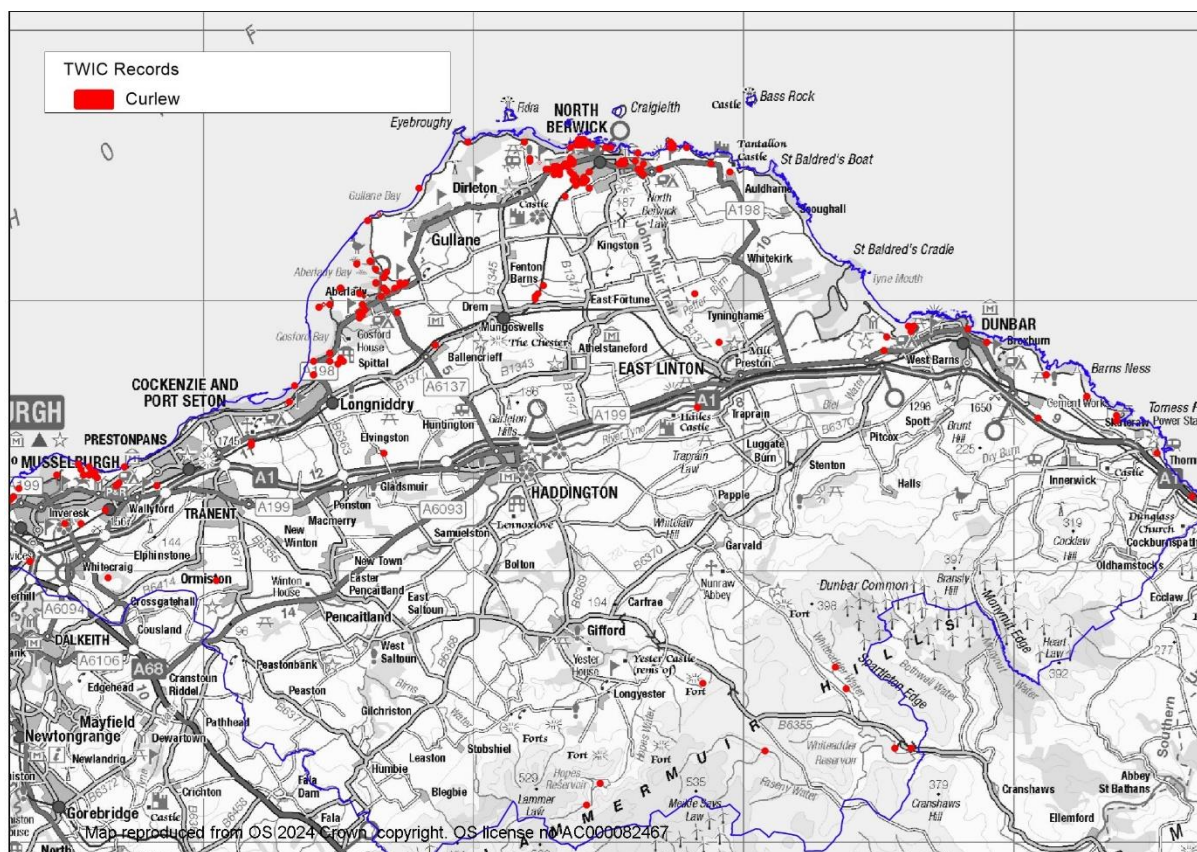


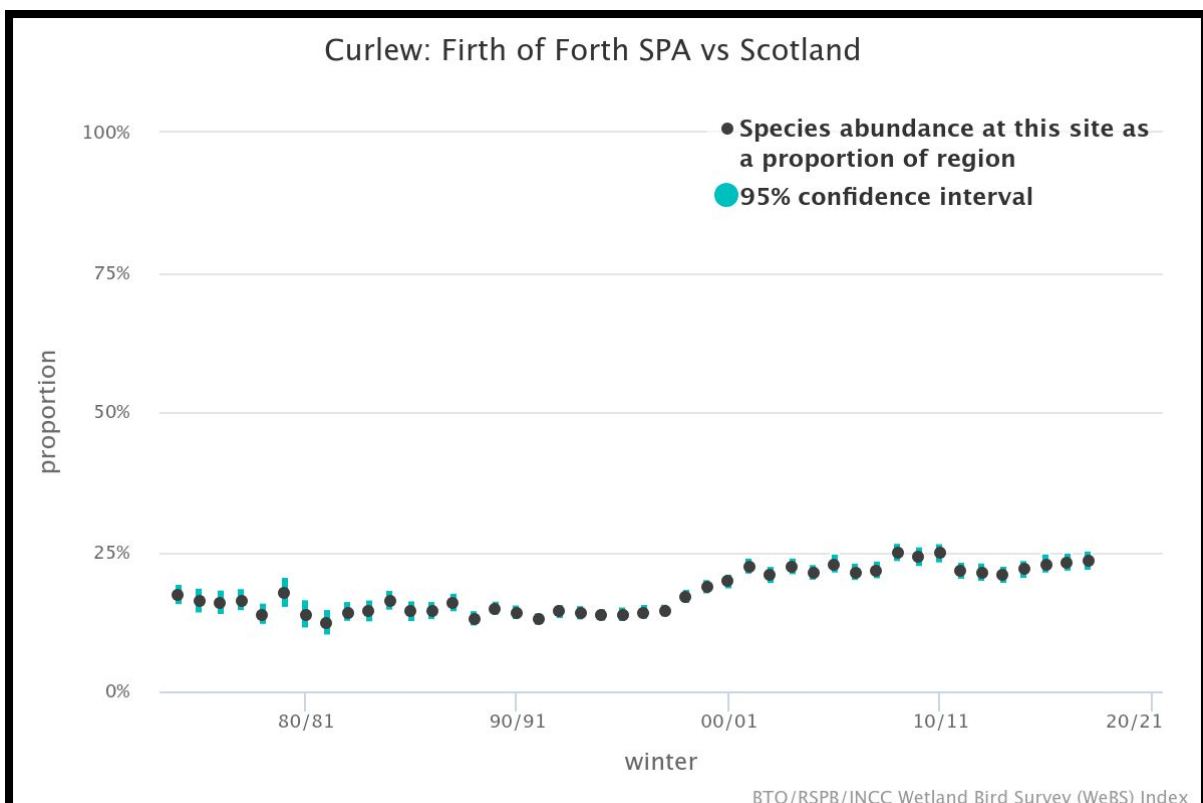
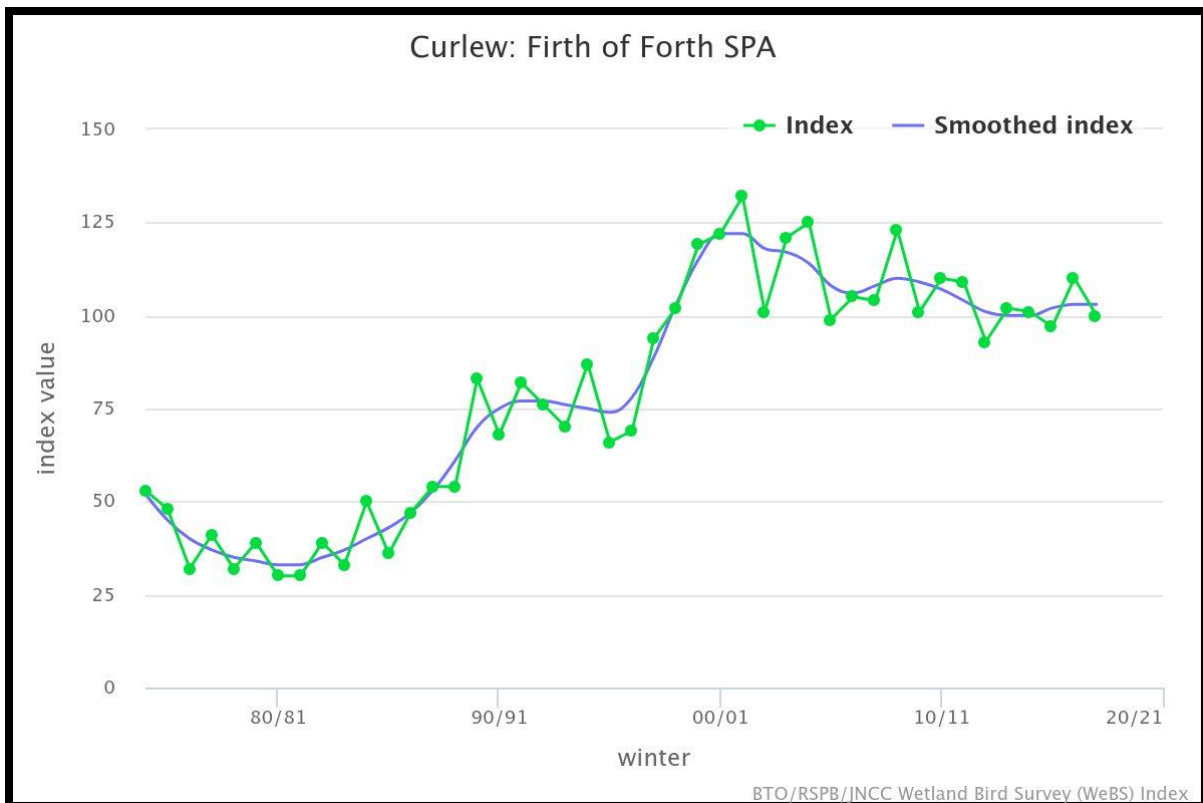
Figure 5 Curlew records (c) The Wildlife Information Centre

NatureScots site condition monitoring shows Curlew as Favourable Maintained. The population at designation was 1928, against a current 5 year mean of 3040. The pressures on this species are noted as recreational disturbance from walkers and dog walking, and climate change.

BTO note that estuaries support internationally important wintering communities of wading birds, and that these ecosystems are under pressure from development and agricultural intensification. Curlew do not breed at this site, so pressures affecting breeding sites only will not be affected by the Strategy.

Curlew are listed included as Red on the List of Birds of Conservation Concern, due to significant declines. It has recently been listed as globally near-threatened, one of the few British species on this list, and is one of our most rapidly declining breeding bird species. Possible reasons for this decline are thought be (BTO, 2024) increases in predators reducing breeding success, afforestation of marginal hill land, changes in farming practices reducing habitat quality, and climate change.

However, numbers of curlew overwintering at the Firth of Forth SPA have been stable in the medium term following a previous increase. No Alerts have been issued for this species at this site. The trend on site does not appear to be tracking that of the region or Britain as a whole, leading to an increasing proportion of the regional and British population being supported by this site. This suggests environmental conditions remain favourable here.



NatureScot (SNH) noted in Commissioned Report 804 that pressures on the site are agricultural intensification, afforestation and predation threatening breeding birds. Disturbance at feeding and especially roost sites by walkers and dogs was also noted. In general, the species prefers to use high tide roost sites that are on fields or open areas just above high tide mark and close to major feeding

areas. Sue Bell continues that research has shown a preference for use of improved grassland on farms in winter, and permanent pasture. Curlew also use playing fields in urban areas.

There are records of curlew in areas shown as 'Potential' or 'Potential farmland' in the Strategy. There are a lot of records around North Berwick, including at playing fields there. There are also some records at Newhailes, Gosford and Carberry Designed Landscapes. There are also large numbers of records at Aberlady Nature Reserve and Musselburgh Lagoons, as well as John Muir Country Park.

As noted above the main source of LSE is through woodland creation and encouragement of access to woodland. In addition, the strategy encourages increasing access to woodland. Where woodland is next to sites used as high tide roost or for foraging, this could increase disturbance both from walkers and dogs.

The Strategy supports a small amount of woodland creation in farmland. It does not support woodland creation on other priority habitats such as grassland. However, the agricultural land used by curlew is not in general priority habitat. Therefore, woodland creation could take place there.

The Hedgerow Strategy would increase hedgerow planting. Although hedgerows do not take much land, they can reduce sightlines and provide cover for predators, making use of adjacent fields less attractive to curlew. The target of increasing canopy cover in settlement could also lead to areas within parks having trees planted, though this may already occur through the Council's Nature Network programme of biodiversity improvement in our green spaces.

It is possible there is a connection between Curlew in the Firth of Forth and the breeding population in the Lammermuirs. The moorland itself is shown on mapping as 'Sensitive' while in areas which are, or could be restored to peatland, this landcover is preferred under Policy 15: Peatland. Native woodland planting within cleughs and in the riparian area is supported in such areas, however this would be of type supported by NatureScots Native Woodland Model, such as scattered birch.

Increasing tree and woodland cover in supporting habitat would have three main potential impacts. Firstly, loss of supporting habitat directly, by replacement of agricultural land, parkland or moorland in particular in cleughs with woodland and trees. Secondly this could lead to an increase in cover for predators which could lead to curlew not choosing to use adjacent areas. Thirdly, the strategy supports increased access to woodland for all. This may mean that in time people use the new woodland recreationally, or recreate more in existing woodland, increasing disturbance of the curlew in any adjacent non-woodland habitat, including from walkers and dog walkers. There may also be some displacement of walkers and dog walkers from the coast, if an attractive, accessible offer of woodland is available. However, given the intrinsic attractiveness of the coast, this is likely to be limited.

The Strategy includes targets, policies and actions aimed at mitigating climate change, which is noted as a pressure on the site. This will support East Lothian and Scotland's contribution to meeting global climate mitigation targets.

Given

- the background of Favourable Maintained status at Firth of Forth SPA and apparently favourable conditions there
- Small area of loss of supporting habitat compared to the overall habitat available as the strategy seeks to retain most farmland in use as such as well as retaining and restoring peatland
- there is flexibility about where woodland creation and tree planting can come forward for targets to be met
- the strategy aims to mitigate climate change which is noted as a pressure on the site
- Policy 13 seeks to protect European Sites through project level assessment
- The council will continue to manage important coastal sites at Musselburgh, Aberlady Bay Local Nature Reserve and John Muir Country Park, Dunbar

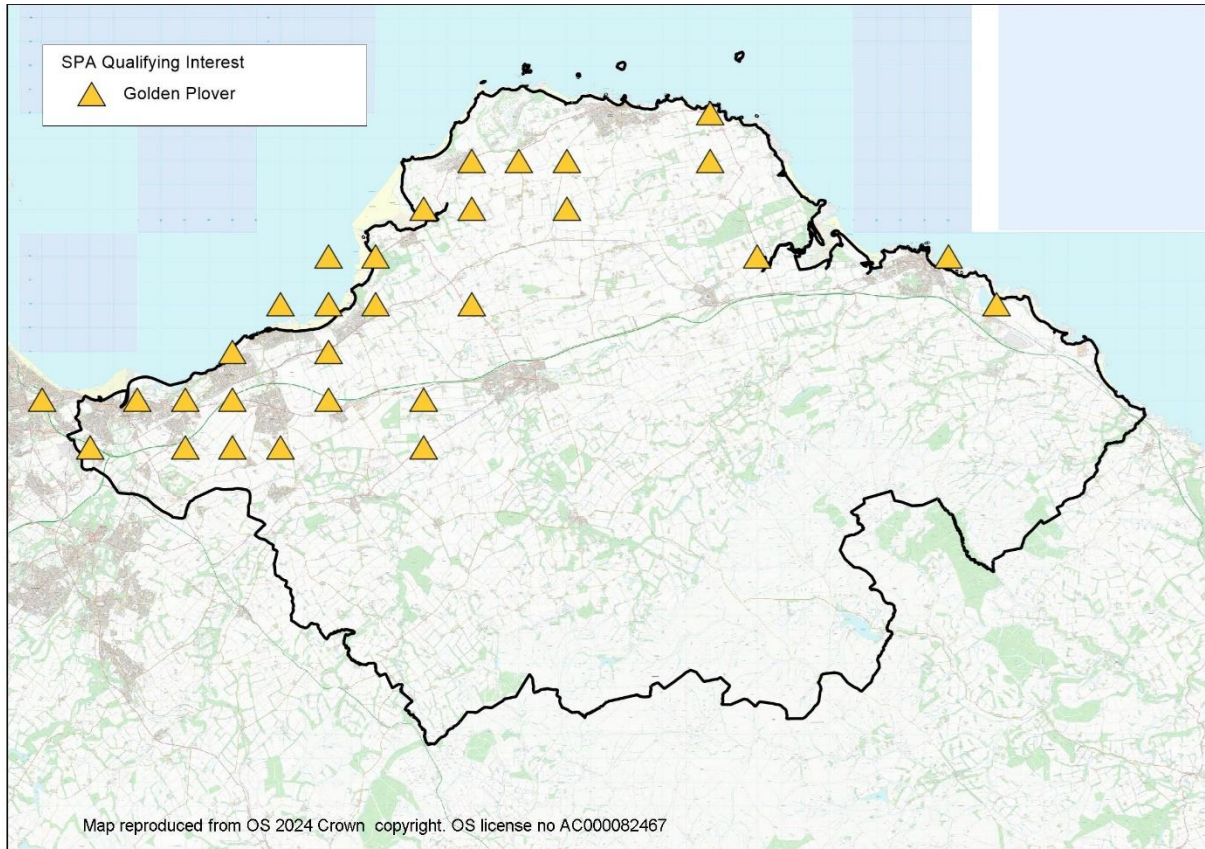
The Strategy will not affect habitats or disturbance levels within the Firth of Forth SPA itself. The maintenance of the population of the species as a viable component of the site or distribution within the site will not be affected. There is wide availability of potentially suitable supporting habitat for roosting and forage. The main areas used are at Aberlady Bay, Musselburgh Lagoons and around North Berwick. Aberlady Bay and the Lagoons are managed by the Council, while the area around North Berwick is not promoted for woodland expansion.

It can be concluded there is no adverse integrity on the Curlew qualifying interest of the Firth of Forth SPA. There will be minor residual effects from reduction in extent of habitat supporting the species and potential from increased disturbance of the species using supporting habitat.

Golden Plover

This bird is a medium sized wader. They forage both by day and night, eating insects, especially beetles, and some plants. They feed on pasture and arable farmland with mudflats and saltmarsh mainly used for roosting. They prefer grassland, especially permanent arable land, though plough land is often preferred for roosting. Golden Plover show a greater preference for cereals than lapwing. NatureScot (2015) describe them as more tolerant of disturbance than other waders (compare a flight distance of 50m with almost 100m for Redshank or Curlew).

TWIC records of Golden Plover are focussed on Aberlady Bay and Musselburgh lagoons, where there is a known roosting site. There are also records inland. Golden Plover often associate with Lapwing, and there is a large overlap in the habitat used by these species.



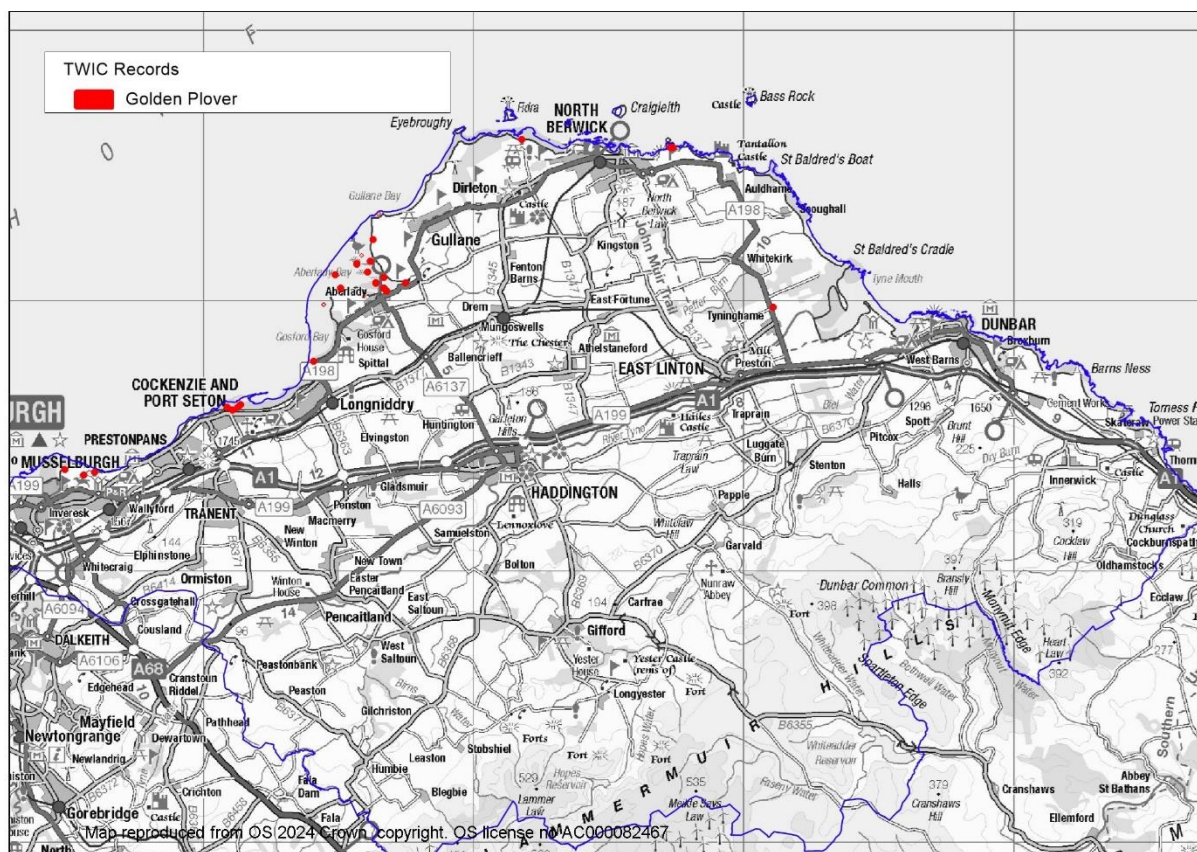


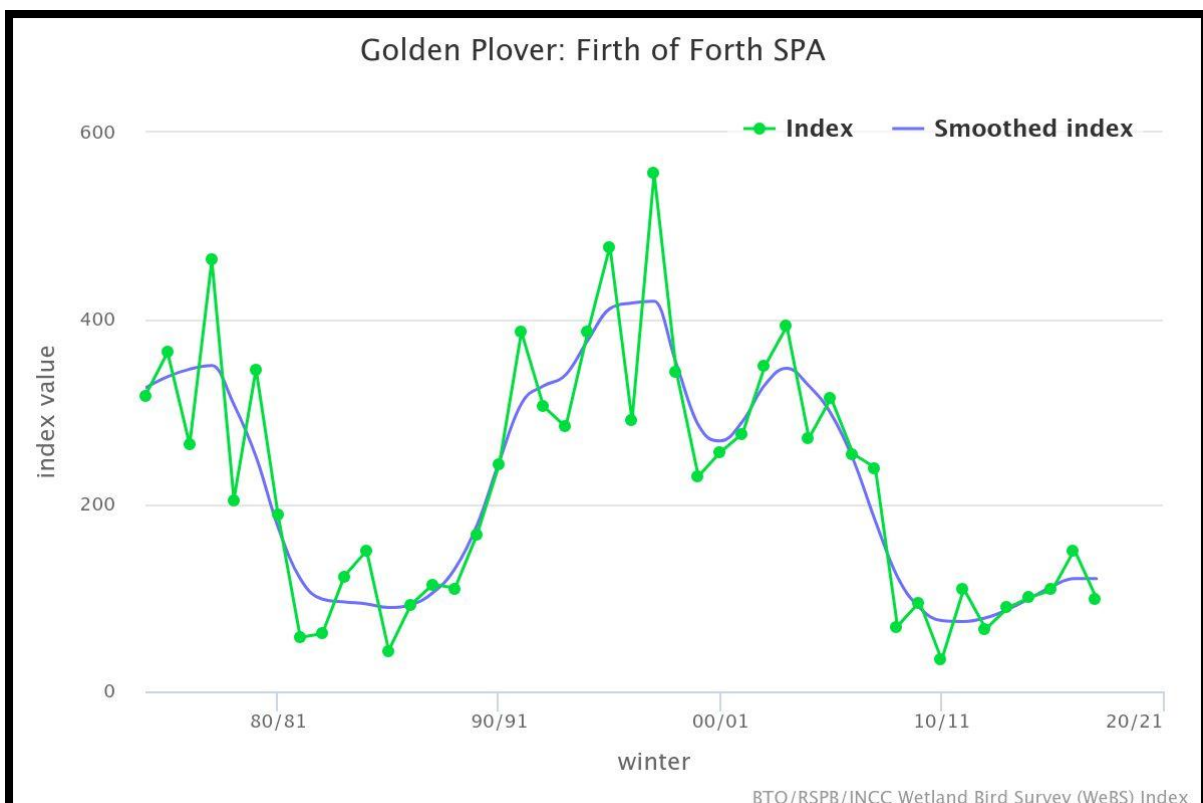
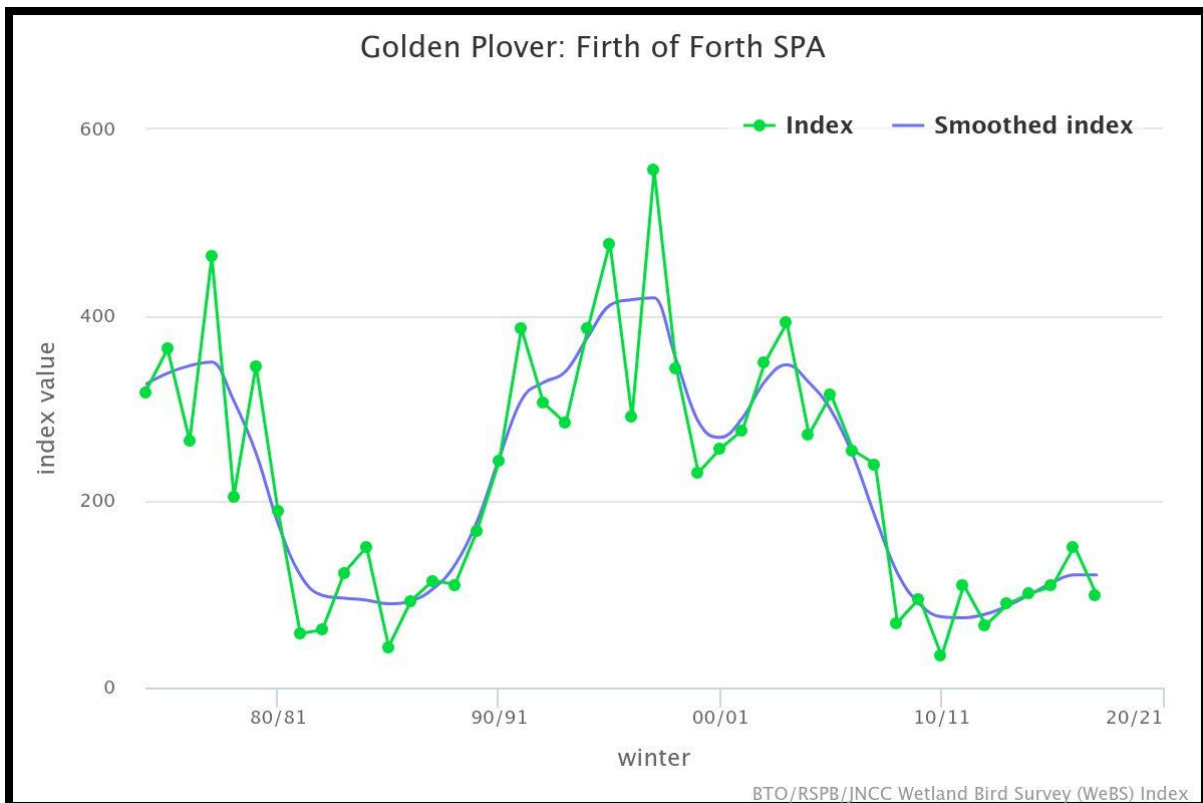
Figure 9 Golden Plover records (c) The Wildlife Information Centre

NatureScots site monitoring information shows this species as Unfavourable Declining. No site pressures are noted. Their Commissioned Report 804 notes that long term declines may be associated with conditions in breeding areas.

Numbers at designation were 2949, while the current 5-year mean is at 1174. The BTO note that numbers of over-wintering Golden Plover have been stable in the short-term following a previous peak.

A BTO Red alert has been issued for this bird following a decline of 71% here. However, this should be treated with caution as this species is not well monitored by WeBS counts. Numbers have fluctuated in Scotland and markedly so in Great Britain since the counts began, making it impossible to interpret underlying trends. However declining proportion of regional numbers supported by this site suggest site specific pressures may be at play.

NatureScot (2015) do not identify any pressures though note that long term declines may be associated with conditions in breeding areas. They note the declining proportion of wintering birds being supported by the site, which suggests conditions are deteriorating for this species.



As noted above, Targets, policies and actions, as well as spatial mapping, identified as having Likely Significant Effect are those that lead to creation of woodland and tree planting, including potentially at the coast. A coastal mosaic of habitat is encouraged by the strategy. In addition, the strategy encourages increasing access to woodland. Where woodland is next to sites used for foraging, this

could increase disturbance of the species both from walkers and dogs. Roost sites at the coast are less likely to be affected as less suitable for growing trees.

The Strategy aims to deliver 300 ha of farm woodland, as well as riparian planting which could also be on farmland. The riparian areas immediately next to the coast at Aberlady Bay and the Tyne estuary were excluded from the Native Woodland Opportunities mapping to avoid encouragement of woodland creation there. There is likely to be some loss of habitat, although this target applies to land across East Lothian and not just the more coastal areas used by this species. As noted for Curlew, the strategy may lead to *less* woodland being created in areas of suitable habitat for Golden Plover than would otherwise have occurred, as woodland creation is more coordinated and awareness of this constraint is raised.

The Strategy contains Policy 13 which reflects the statutory position that HRA must be considered at project level.

Given:

- that long term declines may be associated with changing conditions in breeding areas and no site-specific pressures are identified by NatureScot
- Small area of loss of habitat compared to the overall habitat available as the strategy seeks to retain most farmland in use as such
- the flexibility in the strategy over where woodland creation takes place
- the requirement for project level assessment
- concentration of the species at council managed sites
- Policy 13 seeks to protect European Sites through project level assessment
- The council will continue to manage important coastal sites at Musselburgh, Aberlady Bay Local Nature Reserve and John Muir Country Park, Dunbar

The Strategy will not affect habitats or disturbance levels within the Firth of Forth SPA itself. The maintenance of the population of the species as a viable component of the site or distribution within the site will not be affected as the main areas of supporting habitat used are very close to the coast in areas managed by the Council. There is likely to be minor loss of farmland used as supporting habitat inland however there is wide availability of such land including around the coast.

It can be concluded there is no adverse integrity on the Golden Plover qualifying interest of the Firth of Forth SPA. There will be minor residual effects from reduction in extent of habitat supporting the species and potential from increased disturbance of the species using supporting habitat

Grey Plover

The Grey Plover is a medium sized wading bird, usually seen in small numbers as they defend their own feeding territories, though they can flock together at high tide. NatureScot (2015) describes them as sensitive to disturbance by walkers and dogs. They eat mainly marine worms, molluscs and crustaceans, so use inland habitat for roosting rather than foraging.

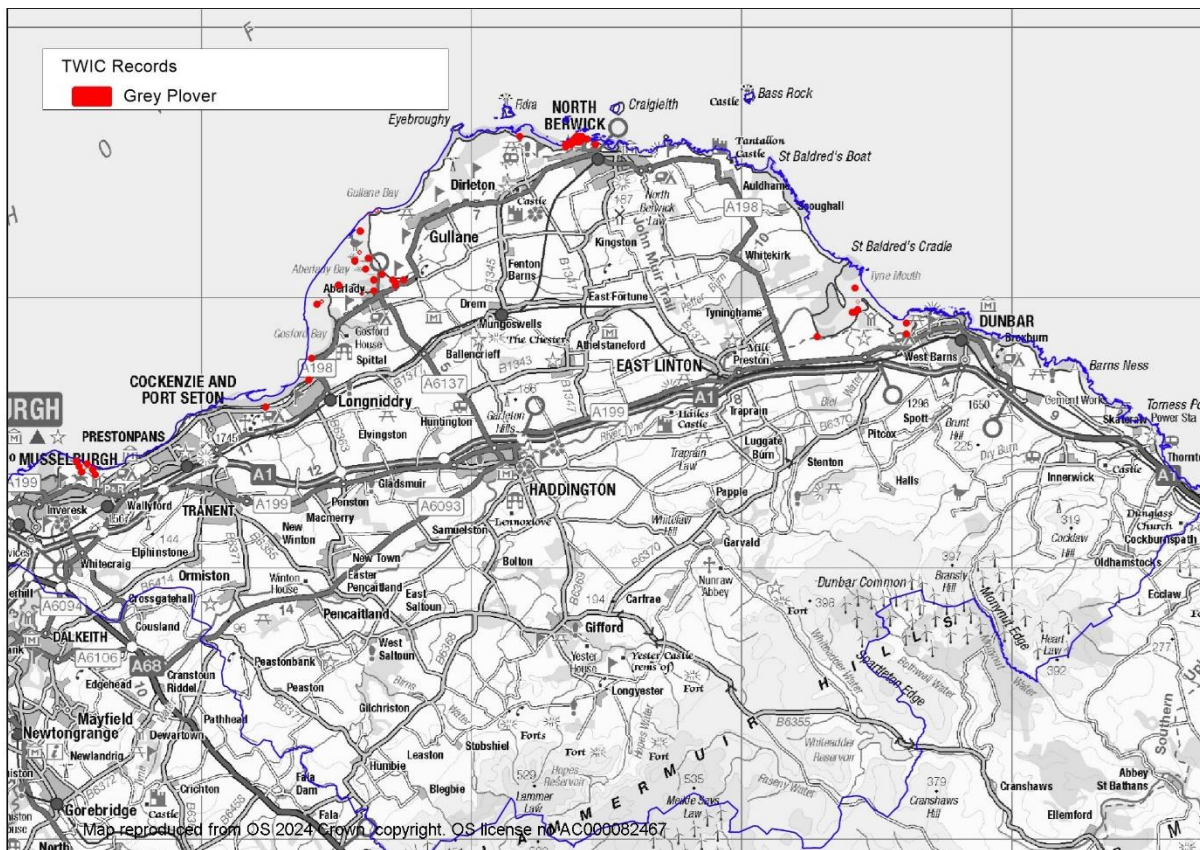
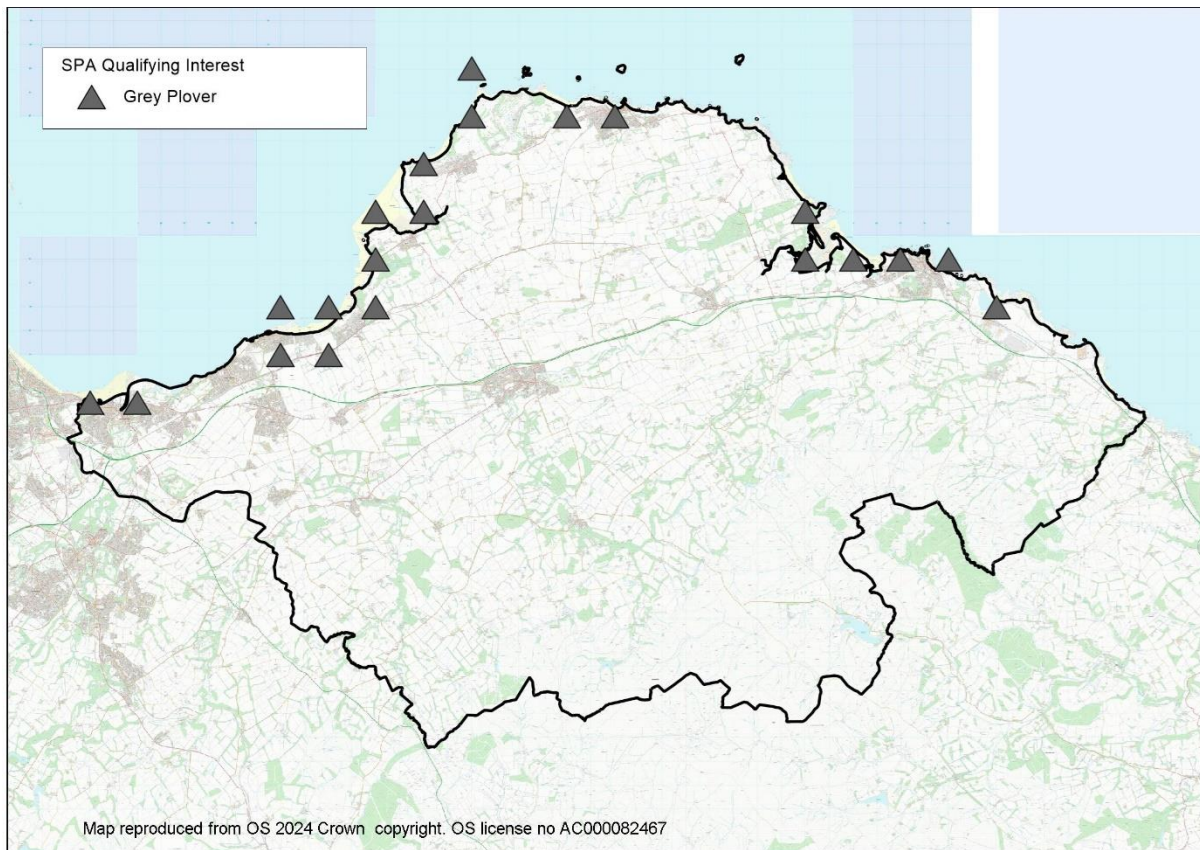
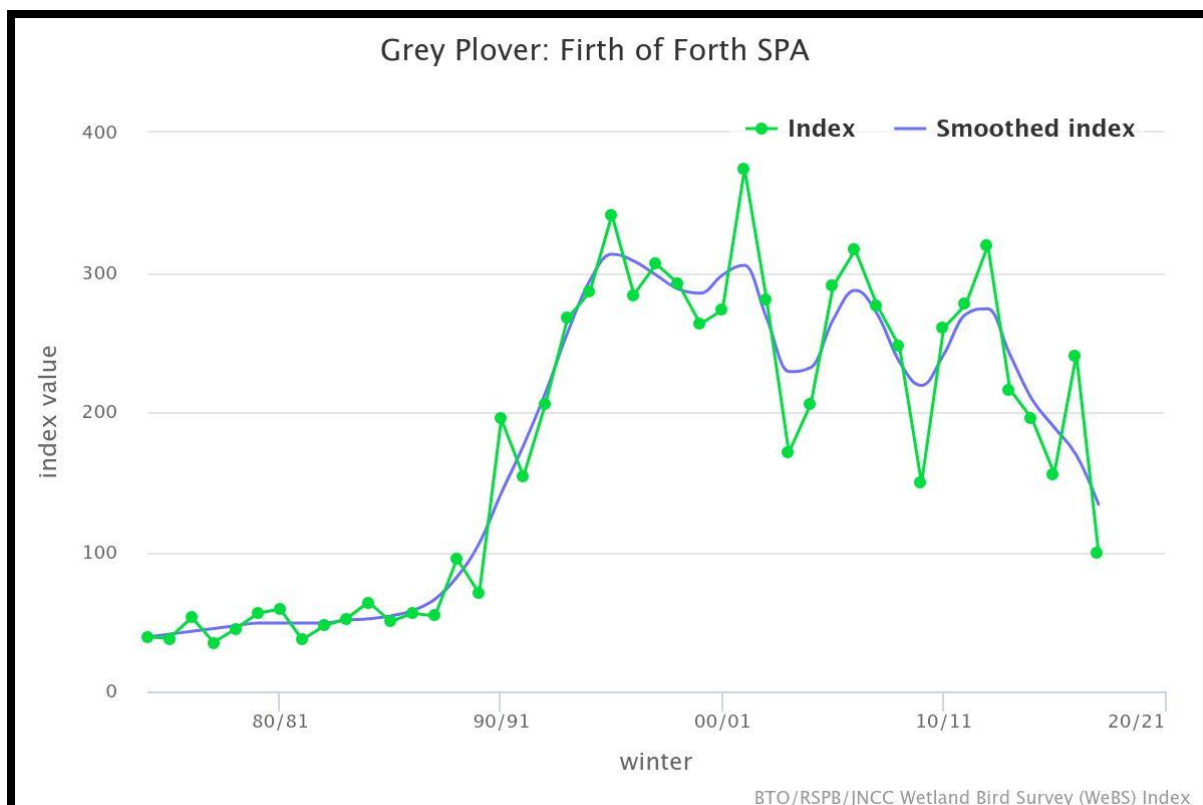


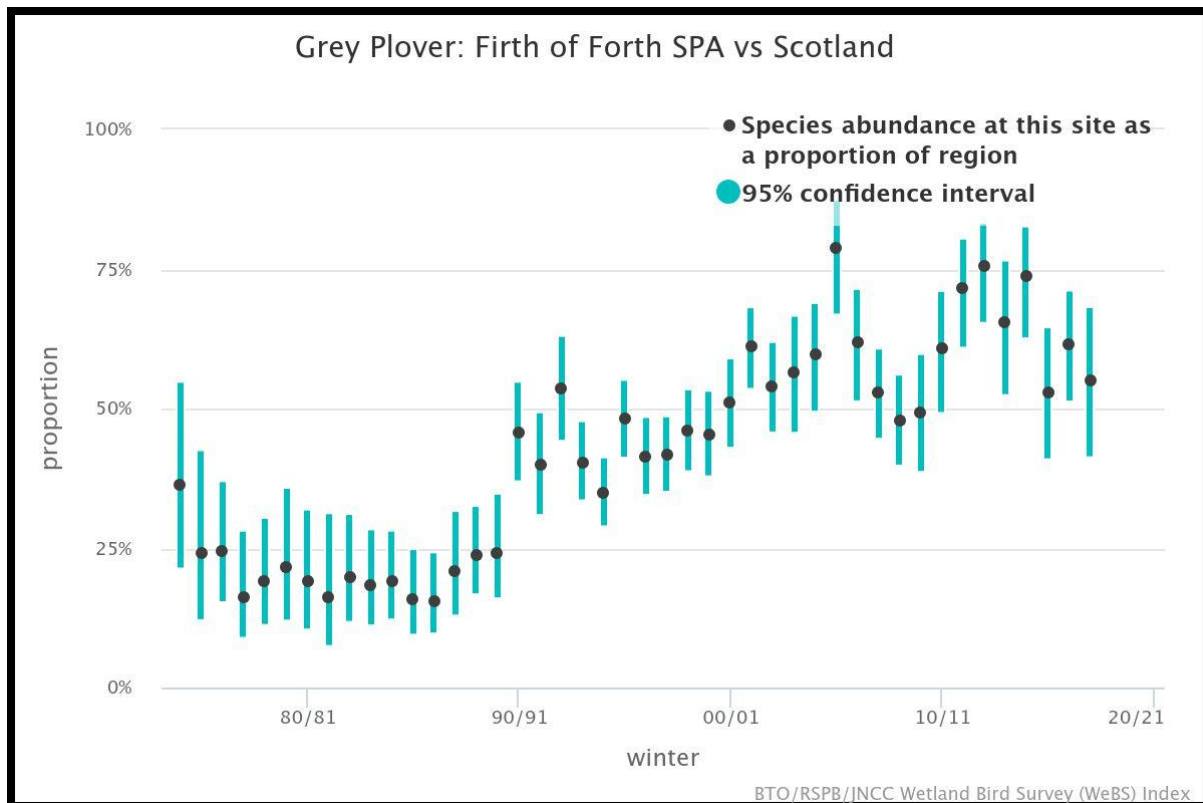
Figure 10 Grey Plover records (c) The Wildlife Information Centre

Nature Scots Site Condition Monitoring gave the status of this species as Favourable Declining. Pressures on this species at this site were noted as recreational disturbance including from dog walking, and climate change. Their Commissioned Report 804 noted that there is some evidence the distribution of this species is moving north-eastwards in response to climate change.

Numbers were 724 at designation, against a current 5 year mean of 178. A WeBs Amber alert has been issued following a decline of 46%.

[BTO note](#) that as with Golden Plover numbers have fluctuated since the WeBS counts began, making interpretation of trends difficult, so the Alert issued should be treated with caution. Numbers over wintering within Scotland have been decreasing having previously peaked. The increasing proportion of regional numbers supported by this site that the overall decline is due to broadscale population trends. This suggests environmental conditions remain favourable here and the site is becoming increasingly important on a regional scale for grey plover.





As noted above, woodland creation was identified as having Likely Significant Effect. The distribution of Grey Plover in East Lothian is almost entirely at the intertidal/foreshore and the immediate hinterland. The intertidal/foreshore will not be affected by woodland creation. There may be a small reduction in habitat from woodland planting inland, however the species stays close to the coast where coastal mosaic is encouraged. This, along with council management of coastal sites, means supporting habitat for roosting will remain available.

In addition, the strategy encourages increasing access to woodland. Recreational disturbance is noted as a site pressure. The Strategy will not increase disturbance at the site and may marginally reduce it. However increasing activity in woodland including dog walking could increase disturbance in supporting habitat. Many of the hinterland areas are managed by the Council, which will take the needs of the species into account in line with its Biodiversity Duty.

Climate change is identified as a pressure on this species. The strategy contains targets, policy and actions aimed at mitigating this as part of East Lothian and Scotland’s contribution to global targets.

Given

- overall declines in the species appear not to be attributable to site specific pressures
- the coastal distribution of this species meaning it is mostly found in places where woodland creation cannot occur
- the Strategy may marginally reduce recreational disturbance at the coast, a noted pressure
- the Strategy aims to mitigate climate change, a noted pressure
- Policy 13 seeks to protect European Sites through project level assessment
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Appropriate Assessment

Application Name: Tree and Woodland Strategy

This species is similar to Bar Tailed Godwit in that it is closely associated with the immediate coastal area. The Strategy will not affect habitats or disturbance levels within the Firth of Forth SPA itself. The maintenance of the population of the species as a viable component of the site or distribution within the site will not be affected as the areas of supporting habitat used are very close to the coast. The distribution and extent of habitat supporting the species is therefore not affected.

To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and

It can be concluded there is no adverse integrity on the Grey Plover qualifying interest of the Firth of Forth SPA. There are no minor residual effects.

Lapwing

Lapwing are a familiar bird of wetlands and farmland and are mainly a bird of passage though some birds do overwinter, with some breeding around the estuary. They can gather in large flocks, often in association with curlew. They are widespread in lowland areas, feeding mainly on pasture, wet meadows and arable farmland in winter. Lapwing eat a wide range of invertebrates, including beetles and earthworms, and can feed by night as well as by day. They roost in fields or on saltmarshes. NatureScot (2015) notes that estuarine sites can become important in cold weather when other sites freeze.

Mapping shows records of these birds at some distance from the coast, but also have been found at a range of sites along the coast.

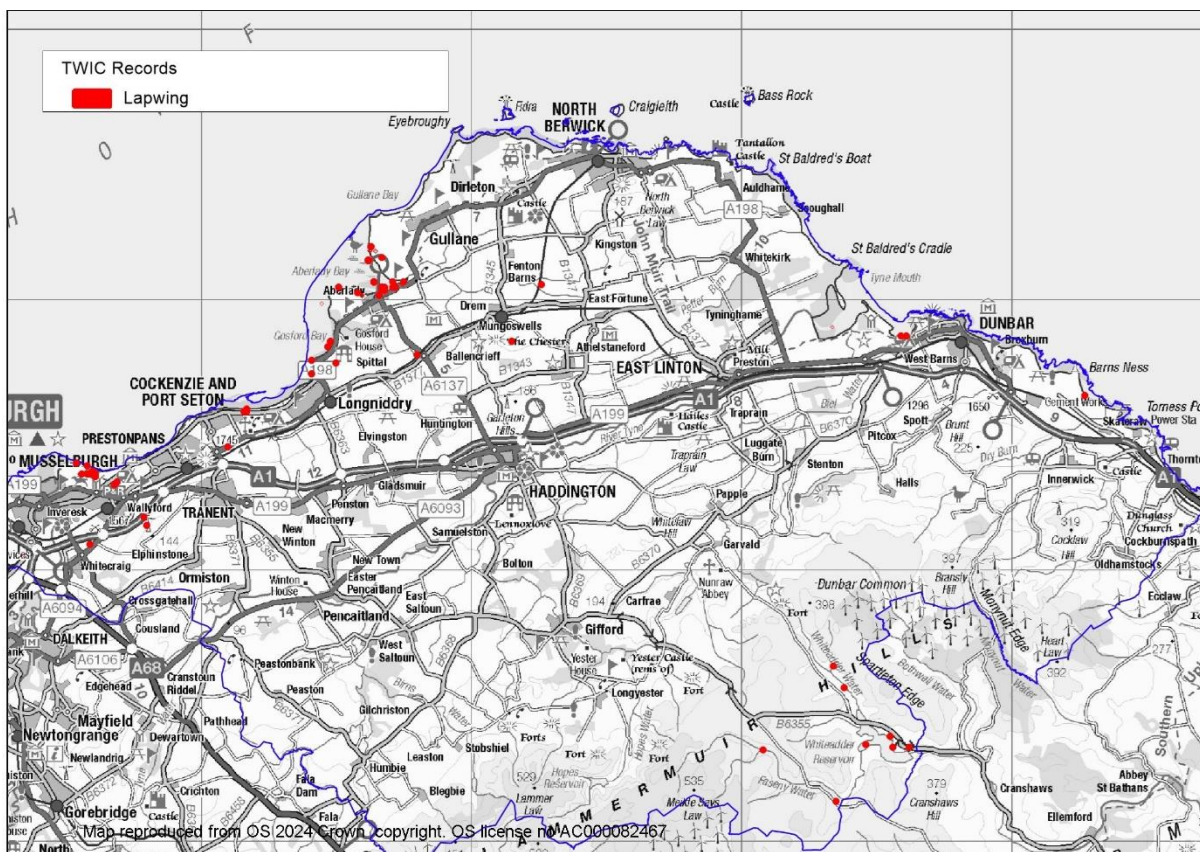
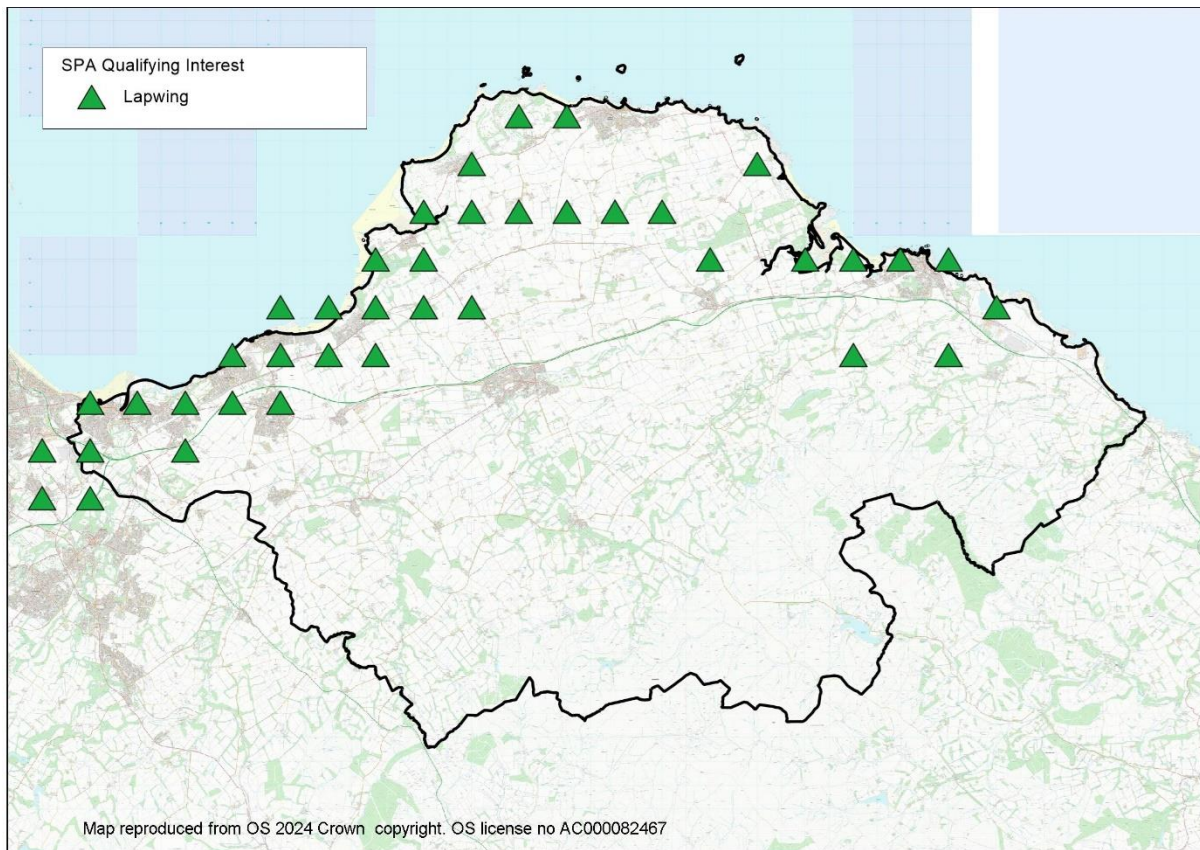
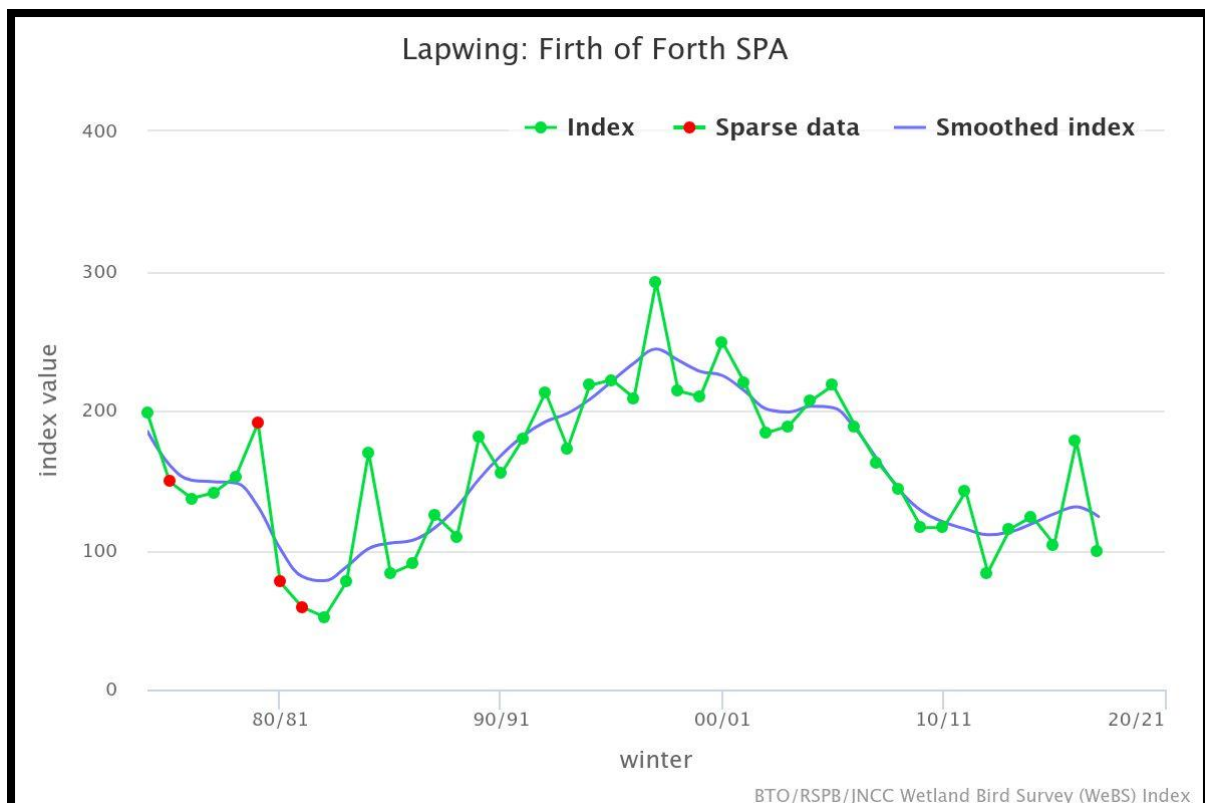
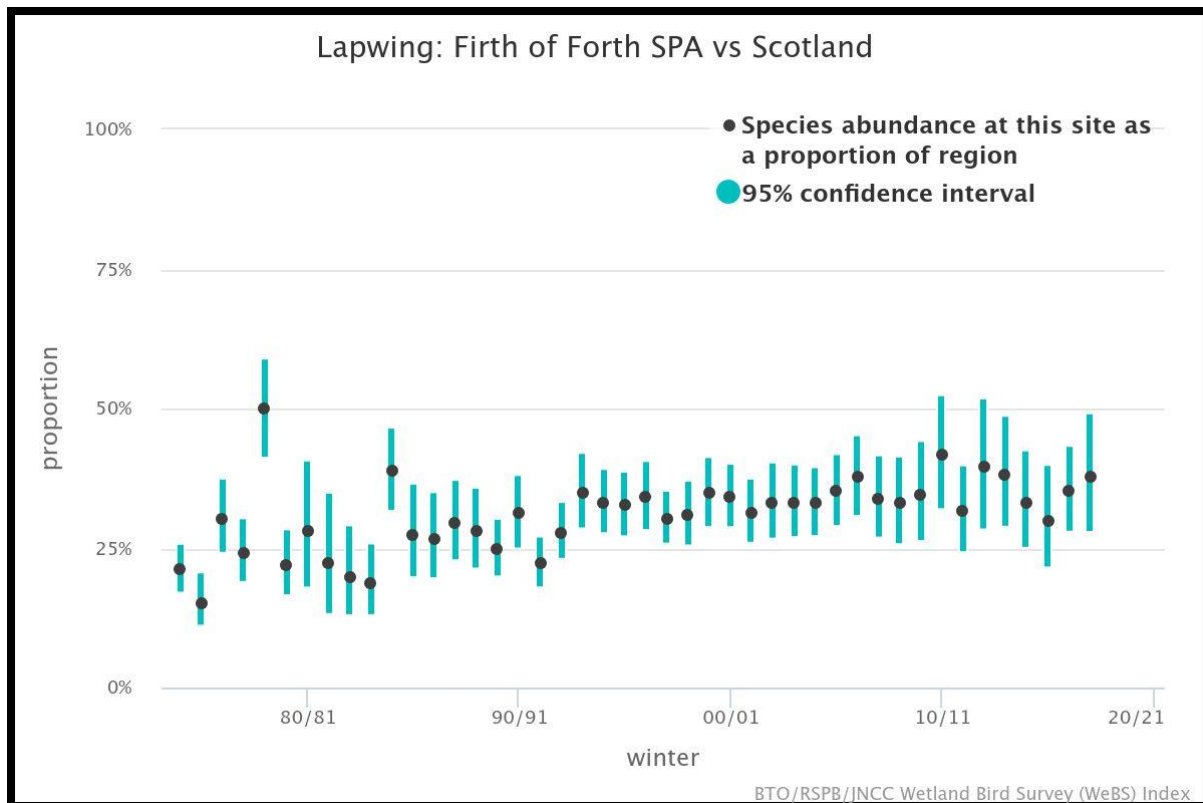


Figure 11 Lapwing records (c) The Wildlife Information Centre

NatureScot Site condition monitoring shows this species as Favourable Declining. No site-specific pressures were noted in the report. Their commissioned report 804 notes that steep declines in western Europe have been linked to agricultural intensification and the climate change may further reduce the value of Scottish sites as a winter destination.

The [BTO note](#) numbers of lapwing overwintering on Firth of Forth SPA have been stable in the short term following a previous peak. An Amber alert has been issued following a 41% decline on the baseline. However, numbers on this site seem to be tracking those for Scotland, though not of Great Britain. The stable numbers on this site suggest that conditions remain relatively favourable here, suggesting that the decline in numbers which triggered the Alert result from broad scale population trends and not specific issues here.





As noted above, Targets, policies and actions, as well as spatial mapping, identified as having Likely Significant Effect are those that lead to creation of woodland and tree planting, including potentially at the coast. Change of farmland habitat to woodland could reduce the amount of forage available, though the amount of habitat that would be lost is small compared to what is available. The Strategy does not encourage woodland creation in general across farmland, recognising its value for food production. The Strategy may reduce the amount lost by guiding current enthusiasm for tree planting to different sites.

A coastal mosaic of habitat is encouraged by the strategy. This and council management of important sites will help ensure some suitable coastal habitat remains.

In addition, the strategy encourages increasing access to woodland. As this species feeds in farmland disturbance arising from increased recreation could potentially affect their ability to forage. However, they can feed by night when recreational disturbance is less of an issue (though predators may be more of a risk). By increasing accessibility of woodland, the strategy may lead to a marginal reduction of recreational pressure at coastal sites.

Given

- that numbers on the site appear to be tracking regional trends suggesting environmental conditions at the site are favourable
- the Strategy aims to mitigate climate change, which is noted as potentially reducing the value of Scottish sites for this species
- there is a large amount of suitable habitat available compared to what will be lost

Appropriate Assessment

Application Name: Tree and Woodland Strategy

- the strategy will not affect coastal roosting sites
- Policy 13 seeks to protect European Sites through project level assessment
- The council will continue to manage important coastal sites at Musselburgh, Aberlady Bay
- Local Nature Reserve and John Muir Country Park, Dunbar

As with Golden Plover with which this species often associates, the Strategy will not affect habitats or disturbance levels within the Firth of Forth SPA itself. The maintenance of the population of the species as a viable component of the site or distribution within the site will not be affected as the main areas of supporting habitat used are very close to the coast in areas managed by the Council. There is likely to be minor loss of farmland used as supporting habitat inland however there is wide availability of such land including around the coast.

It can be concluded there is no adverse integrity on the Lapwing qualifying interest of the Firth of Forth SPA. There is likely to be minor residual effects from loss of extent of supporting habitat and potentially disturbance.

Redshank

Redshank are a small wader, with striking red orange legs. Large numbers of them arrive from Iceland in winter, while those birds breeding in Scotland head south. They are mainly coastal birds, but gather in mixed flocks at high tide, and can also use coastal fields. They are not tolerant of disturbance, with flight distances on disturbance of almost 100m. Disturbance particularly affects them in cold weather. They eat invertebrates, including insects, spiders, annelid worms, molluscs and crustaceans.

Both TWIC and NatureScot mapping shows that they are closely associated with the coast, and are widely distributed along it, though there are some records at sites further inland also. There are large numbers of records at Musselburgh, Aberlady Nature Reserve and North Berwick.

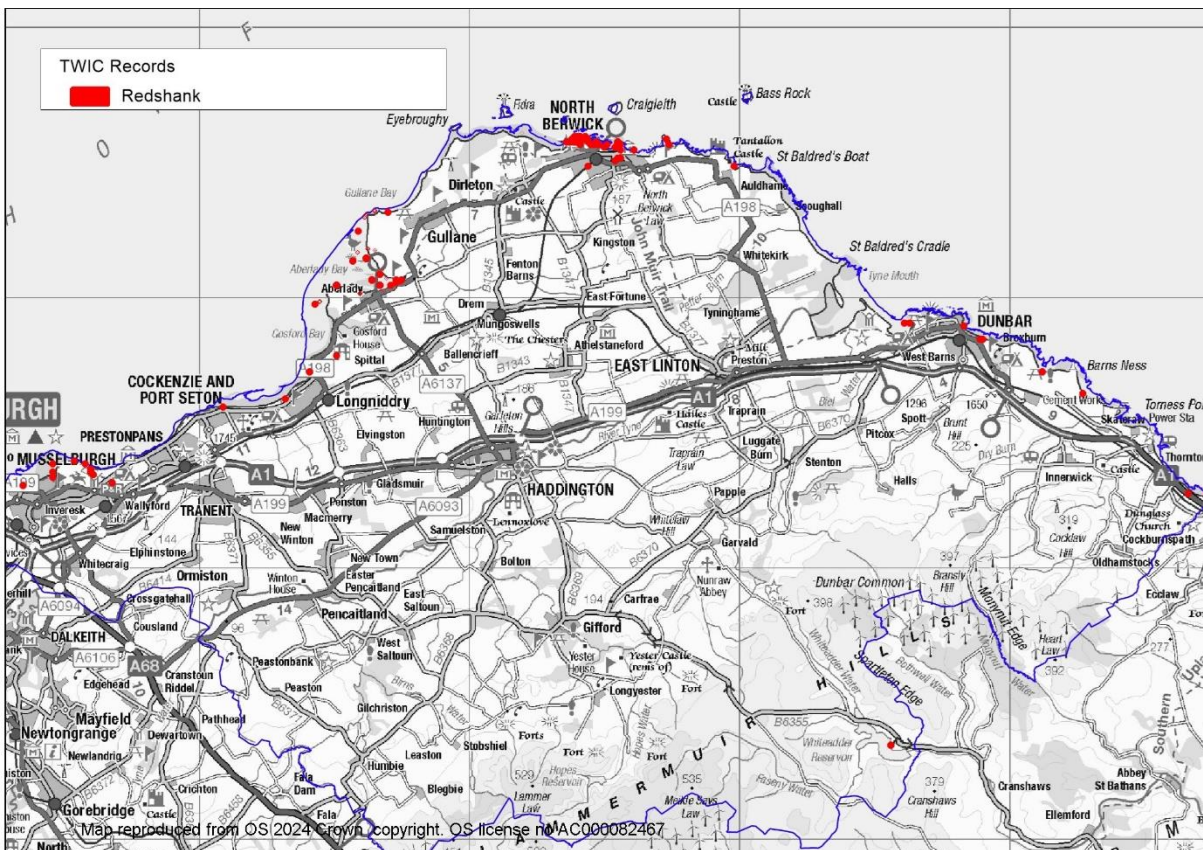
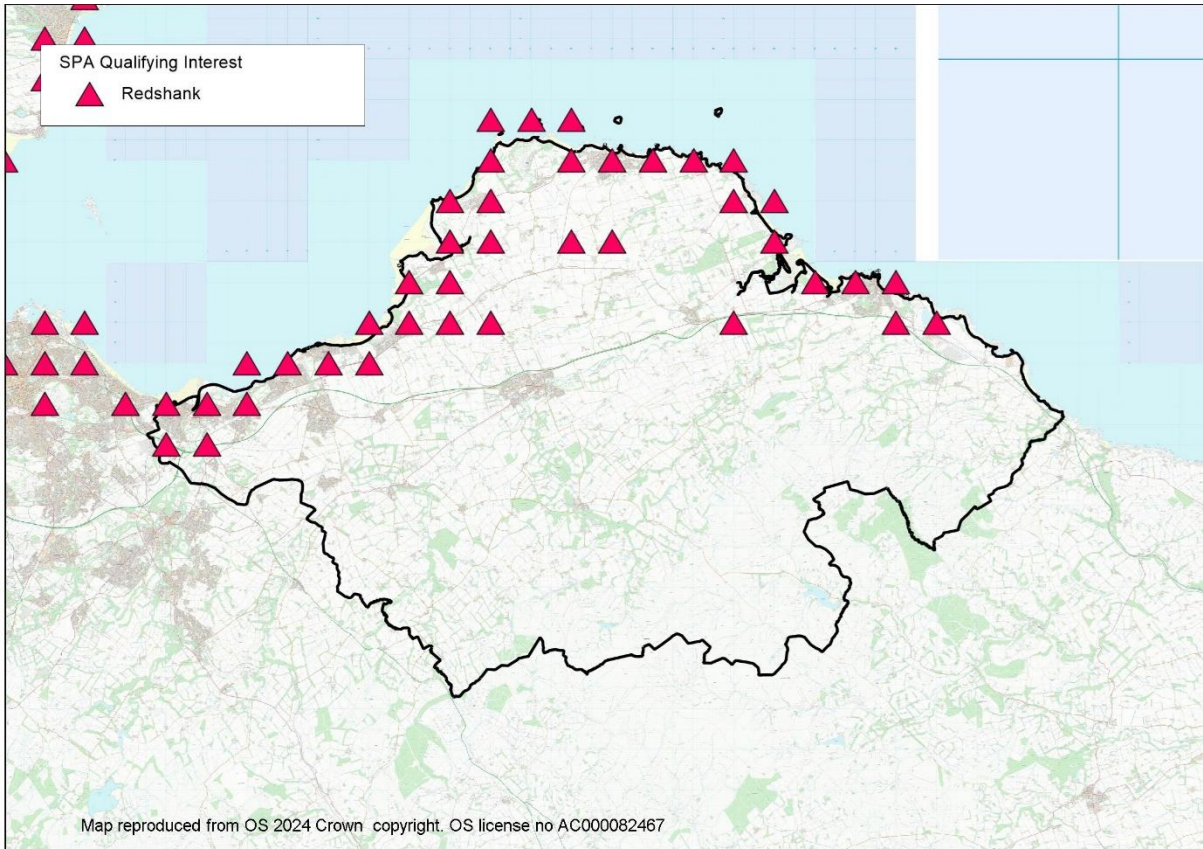
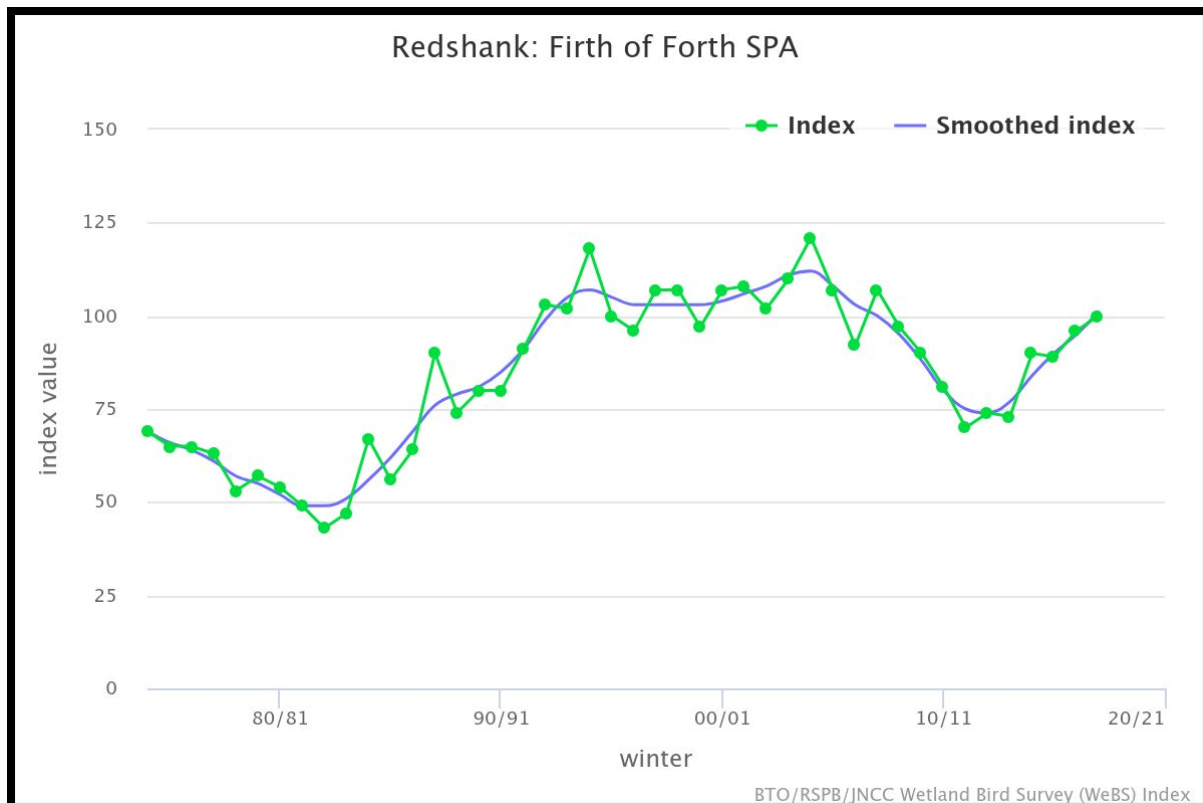


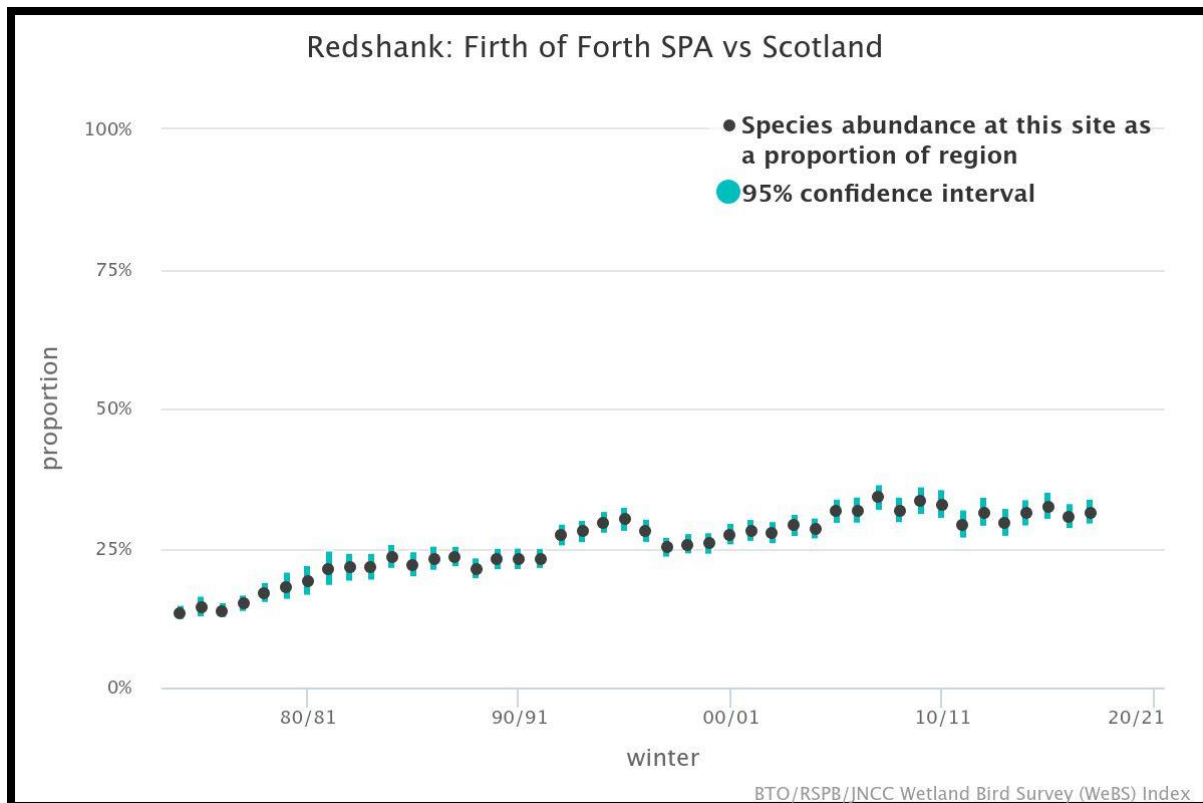
Figure 12 Redshank (c) The Wildlife Information Centre

NatureScot site condition monitoring information shows this species as Favourable Maintained. Recreational disturbance is noted as a site pressure. Their Commissioned Report 804 considers that long term declines may be associated with changing conditions in breeding areas.

No Alert has been issued for Redshank. Numbers at designation were 4341, compared to a 5 year mean of 4704.

The [BTO notes](#) that numbers of redshank overwintering at this site have been stable recently following a previous increase. This seems to track Scottish and British trends. The increasing proportion of regional numbers suggest this site is becoming more important for this species.





As noted above Targets, policies and actions, as well as spatial mapping, identified as having Likely Significant Effect are those that lead to creation of woodland and tree planting, including potentially at the coast. The strategy also encourages access to woodland for recreation, which could increase recreational disturbance in supporting habitat, though may marginally reduce it at coastal sites.

A coastal mosaic of habitat is encouraged by the strategy, which respects other coastal habitat including saltmarsh and coastal grassland. The aim of the strategy is therefore that at least some of this habitat remains.

- The background of Favourable Maintained status for this species and 5-year mean numbers above that at designation
- Small area of loss of habitat compared to the overall habitat available as the strategy seeks to retain most farmland in use as such
- Policy 13 seeks to protect European Sites through project level assessment
- The council will continue to manage important coastal sites at Musselburgh, Aberlady Bay Local Nature Reserve and John Muir Country Park, Dunbar

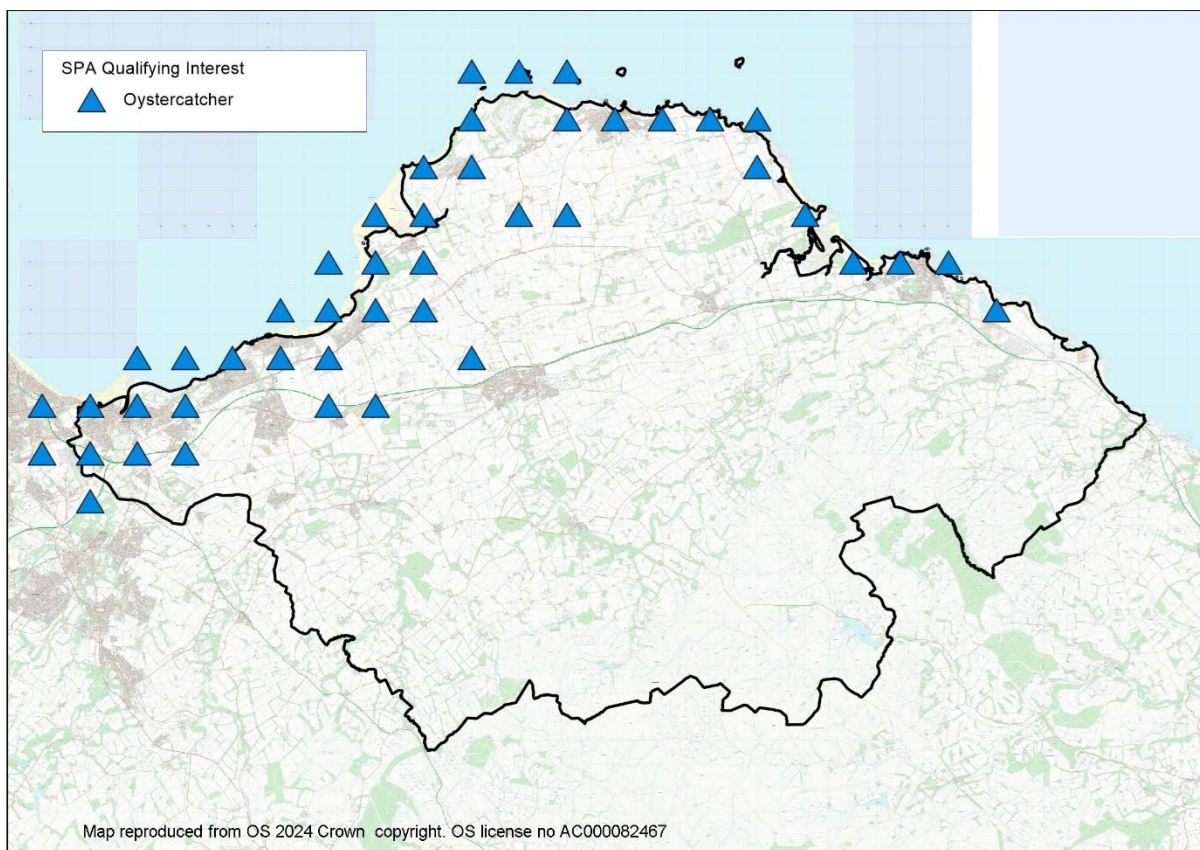
The Strategy will not affect habitats or disturbance levels within the Firth of Forth SPA itself. The maintenance of the population of the species as a viable component of the site or distribution within the site will not be affected as the main areas of supporting habitat used are mostly close to the coast in areas managed by the Council. There is a wide distribution of other suitable farmland habitat including close to the coast, though there is likely to be some minor loss of this supporting habitat.

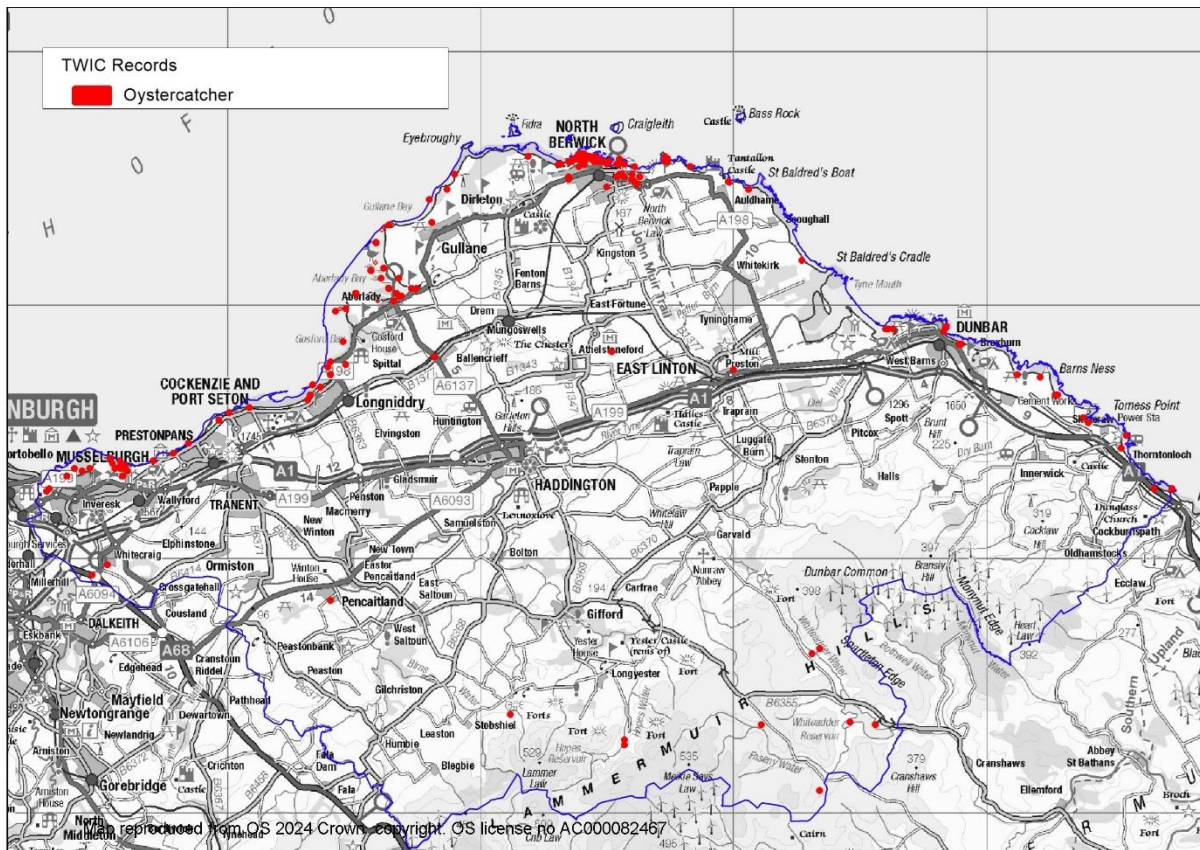
It can be concluded there is no adverse integrity on the Redshank qualifying interest of the Firth of Forth SPA. There are minor residual effects from loss of supporting habitat and potentially disturbance outwith the site.

Oystercatcher

Oystercatcher are a large, striking black and white wader. Some wintering birds breed in Scotland, but large numbers also come in from Iceland, Norway and the Faroes. They mainly eat large shellfish, including cockles and mussels, but also worms from mudflats and earthworms. Their habitat is mostly on intertidal mudflats, but also roost in mixed flocks at wader roost sites at high tide. There is also some use of adjacent wet fields for foraging earthworms.

NatureScot (2015) describe them as less sensitive to disturbance than other species.

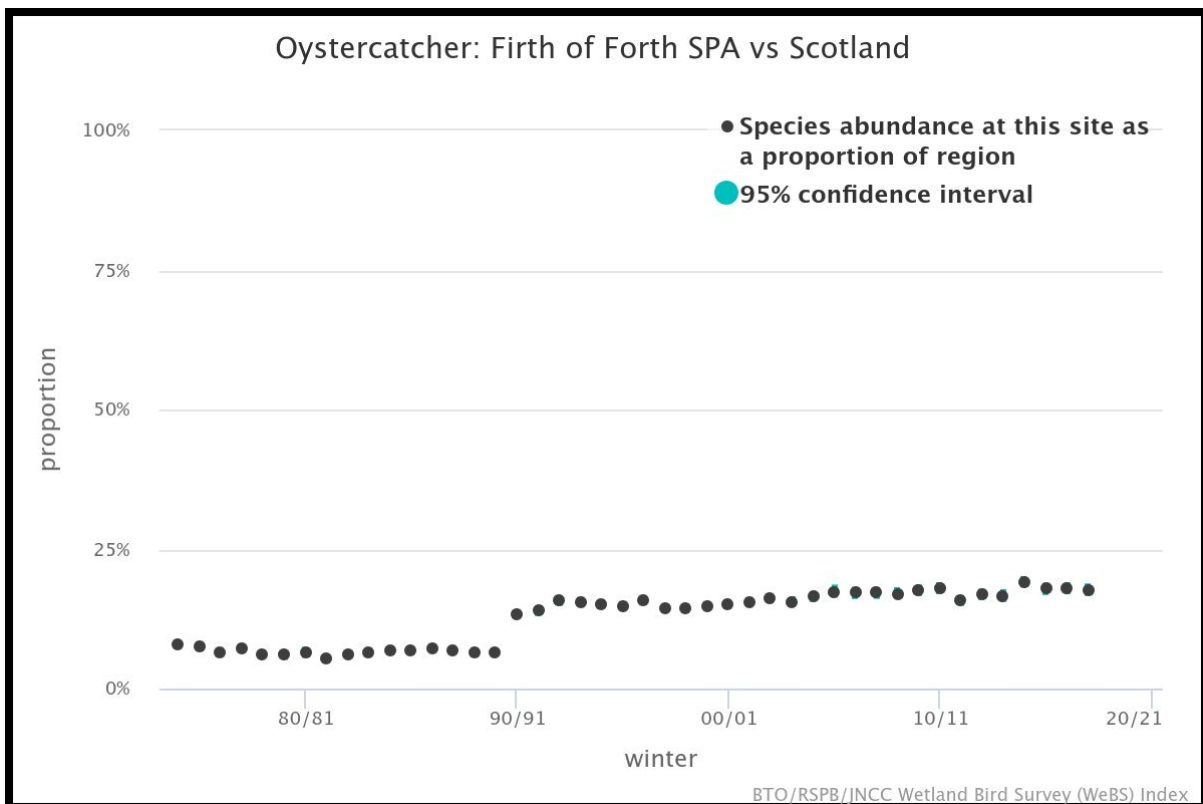
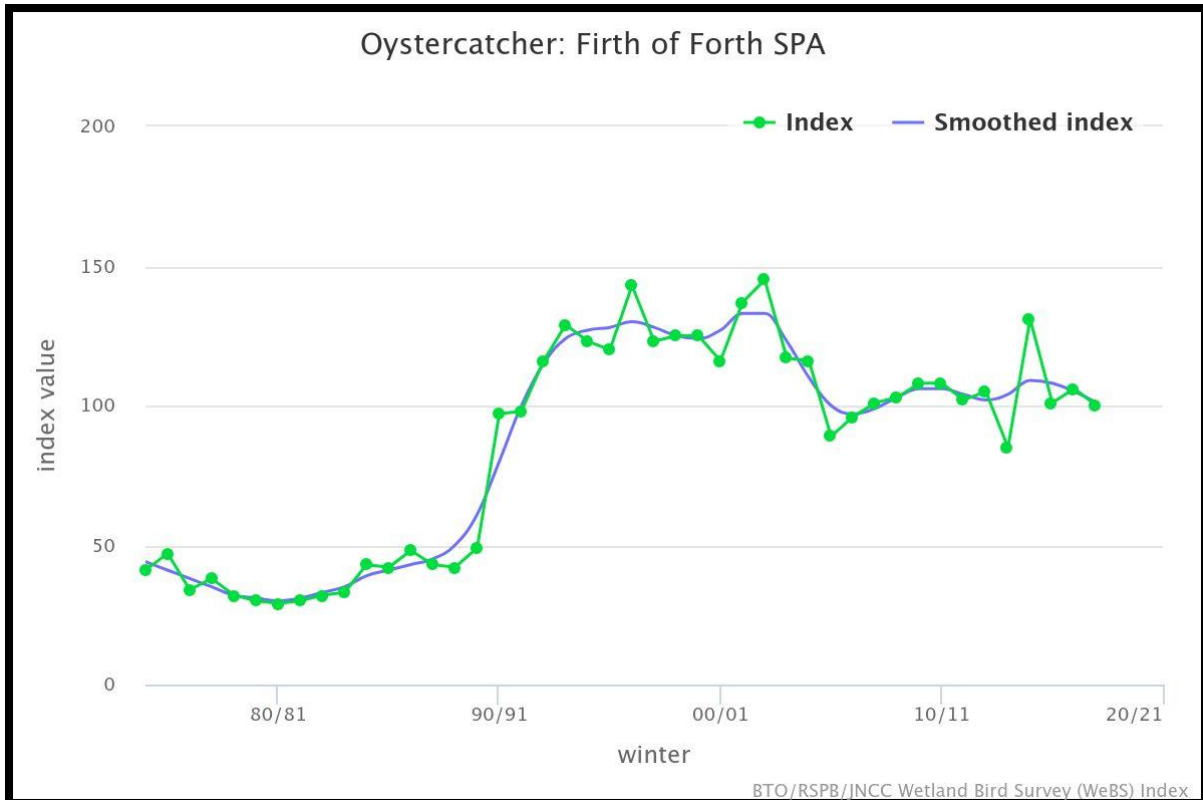




NatureScot site condition monitoring information notes this species as Favourable Maintained. No site-specific pressures were noted. Commissioned report notes dredging for shellfish as a pressure.

Numbers at designation were 7846, compared to a current 5 year mean of 6929. No WeBS Alert has been issued.

The [BTO notes](#) that the number of Oystercatcher over-wintering at this site has been stable in the medium term, following a previous peak, following Scottish trends. The increasing proportion of the overall regional numbers at this site suggest environmental conditions remain favourable and that the site is becoming increasingly important for this species.



As noted above, woodland creation was identified as having Likely Significant Effect. Change of farmland habitat to woodland could reduce the amount of roost sites and forage available in wet field. As the strategy encourages coastal mosaic habitat, which is secured through Council

management of coastal sites, some open land habitat would remain. The Strategy does not encourage woodland creation in general across farmland, recognising its value for food production. The Strategy may reduce the amount of woodland creation on farmland by guiding current enthusiasm for tree planting to different sites.

In addition, the strategy encourages increasing access to woodland. As this species feeds in farmland disturbance arising from increased recreation could potentially affect their ability to forage. However the species is not as sensitive to disturbance as others.

Given:

- The background that status of the species is Favourable Maintained and BTO consider conditions at the site remain favourable
- The Strategy will not influence dredging for shellfish, which is noted as a pressure.
- The strategy seeks to retain most farmland in use as such
- Policy 13 seeks to protect European Sites through project level assessment
- The council will continue to manage important coastal sites at Musselburgh, Aberlady Bay Local Nature Reserve and John Muir Country Park, Dunbar

The Strategy will not affect habitats or disturbance levels within the Firth of Forth SPA itself. The maintenance of the population of the species as a viable component of the site or distribution within the site will not be affected due lack of direct impact on the site and the wide availability of suitable supporting habitat.

It can be concluded there is no adverse integrity on the Oystercatcher qualifying interest of the Firth of Forth SPA. There are minor residual effects on distribution and extent of habitat supporting the species, and potentially disturbance of the species while using supporting habitat, though this is not expected to be significant.

It can be concluded there is no adverse integrity on the Oystercatcher qualifying interest of the Firth of Forth SPA.

6. Outcome of Appropriate Assessment

This test of effects on site integrity referenced the Conservation Objectives for each site and considered potential impacts both alone and in combination with other projects and plans.

With the inclusion of mitigation measures included in the Strategy the proposals within the Tree and Woodland Strategy for East Lothian will have no adverse effect on site integrity for the following European sites either alone or in combination:

- Firth of Forth SPA
- Gladhouse SPA
- Fala Flow SPA

At project level, the competent authority for individual woodland creation/regeneration proposals will need to consider:

1. cumulative losses of wader habitat (and consider whether it is necessary to refuse proposals on specific roost sites) to prevent this limiting qualifying wader populations.
2. Whether suitable, unfragmented areas of open, agricultural areas remain suitable for foraging pink footed geese.

Minor Residual Effects

There are minor residual effects on Pink Footed Geese, Curlew, Golden Plover, Lapwing, Redshank and Oystercatcher. These are

- Reduction in the extent of supporting habitat for foraging and/or roosting due to change of use from arable (and in the case of Curlew, moorland) to woodland
- Potential for increase of disturbance while using supporting habitat arising from recreation in woodland
- Indirect effects of loss of supporting habitat due to fear of predation and/or increase in predation

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Appendix 1 Targets, Policies and Actions identified as Likely Significant Effect

The following are the Targets, Policies and Actions identified as having LSE. The context of planting 2 million trees in a Climate Forest and included in Target 1, was endorsed by but not originated in this Strategy.

TARGET 2 Improve resilience of East Lothian's environment including by:

- Securing functional native woodland connections through East Lothian to support migration of species under climate change through:
 - A lowland corridor between the eastern boundary with Scottish Borders to the east and Midlothian to the west
 - Corridors between lowland woodland and montane scrub/heathland in the Lammermuirs
- Increasing native riparian woodland by 18%; from 42% of the riparian zone to 60%

This target is linked to Native Woodland Opportunities mapping, which identifies the riparian zone as 30m from every water course, and also identifies corridors for climate migration and connectivity.

TARGET 4: Increase access to trees and woodland for all by:

- Retaining or increasing tree canopy coverage to a working target of 30% in settlements and in the most deprived 30% of SIMD areas.
- Improving and increasing access to woodlands to meet the Woodland Trust's Accessible Woodland Standard so that 99% of properties meet at least one of the Standard's (currently 96%) and increase the number of properties with access to a 2ha wood within 500m from 67% to 80%.
- Developing a Tree Warden Scheme in East Lothian and recruit volunteers from each of our main settlements
- Helping set up and ensure management for a community orchard in each of our main settlements

TARGET 5: Farmland Woodland - Create 300 hectares of new small farm woodlands, shelterbelts, orchards and other agroforestry which align with and support agricultural production

POLICY 3 Woodland creation

Tree planting and woodland creation should comply with the Spatial Guidance Section of this Strategy and the UK Forestry Standard.

Land managers creating new woodland should seek to reduce carbon impacts associated with its creation by using methods of tree planting to reduce soil disturbance or by allowing natural regeneration.

Woodland should be designed to achieve multi-functional benefits

POLICY 6 Water Management and Slope Stability

Use of woodland and trees to improve water quality, reduce flood risk and improve slope stability is encouraged. Planting of new trees and woodland must avoid increasing flood risk.

POLICY 20 Productive woodland

Creation of woodlands for production of wood is generally supported in line with the Strategy

mapping. Management and registration of these with UKWAS is supported. However:

- Plantation on ancient semi-natural woodland sites (PAWS) should be restored to native woodland
- New productive woodland should not be solely softwood
- Restructuring of softwood woodland to improve landscape and biodiversity value is encouraged
- Improving the recreational value of commercial woodland is encouraged

ACTION 1

Promote the restoration to native woodland of Plantation on Ancient Woodland Sites (PAWS)

ACTION 2

Develop a Hedgerow Plan for retention, replacement, increase and management of hedgerows and hedgerow trees

ACTION 4

Work with farmers and landowners to encourage hedgerow and tree planting and woodland creation where appropriate, to help reduce water run-off onto our roads

ACTION 5

Work with SEPA, neighbouring authorities and stakeholders to identify where woodland retention, creation and management could most improve water quality, support reduction in flood risk and help increase slope stability

ACTION 11

Create and expand native woodlands where there are suitable opportunities, in particular where this will have most benefit for connectivity.

Embedded Mitigation

The following mitigation is included in the Strategy.

Note after paragraph 10.5 of the Landscape Character section:

“Note: tree planting in some areas may have a significant negative effect on the qualifying bird interest of a European site. Habitat Regulation Appraisal for woodland creation on these sites will be required at project level and may limit what is possible.”

Mapping: the area mapped as ‘Potential - Prime And Mixed Farmland’ notes the following “This is land which has potential to accommodate some woodland expansion respecting agricultural production and the qualifying interests of European sites”.

There is a section starting 6.95 specifically on European sites this contains policy 13 set out below and explains what the European sites are. The text explains that the interest of these sites must be taken into account, specifically mentioning the use of inland areas of East Lothian for foraging and roosting by birds, and the need to avoid accidental spillage of pollutants reaching the water environment

POLICY 13 Protection of European Sites

Proposals that are likely to have a significant effect on a European Site must undergo assessment under The Conservation (Natural Habitats, &c.) Regulations 1994 (‘Habitats Regulations’).

Sufficient information must be provided to allow the relevant authority to carry out this assessment, or failing which, provide sufficient funding to enable the authority to obtain this information. Where an adverse impact on the integrity of such a site is found, the proposal can only go ahead where:

a) there are imperative reasons of over-riding public interest and there are no alternative solutions; and

b) compensatory measures are provided to ensure that the overall coherence of the European Site network is protected.

Appendix 2 Qualifying Interest of SPA within 20km

	Outer Firth of Forth and St Andrews Bay complex	Forth Islands	Firth of Forth	St Abb's Head to Fast Castle	Gladhouse Reservoir, Fala Flow,
Arctic Tern	✓	✓	x	x	x
Bar tailed godwit	x	x	✓	x	x
Black-headed Gull	✓	x	x	x	x
Common Gull	✓	x	x	x	x
Common Scoter	✓	x	✓	x	x
Common Tern	✓	✓	x	x	x
Cormorant	x	✓	✓	x	x
Curlew	x	x	✓	x	x
Dunlin	x	x	✓	x	x
Eider	✓	x	✓	x	x
Gannet	✓	✓	x	x	x
Goldeneye	✓	x	✓	x	x
Golden Plover	x	x	✓	x	x
Great crested grebe	x	x	✓	x	x
Grey Plover	x	x	✓	x	x
Guillemot	✓	✓	x	✓	x
Herring Gull	✓	✓	x	✓	x
Kittiwake	✓	✓	x	✓	x
Knot	x	x	✓	x	x
Lapwing	x	x	✓	x	x
Little Gull	✓	x	x	x	x
Lesser black-backed gull	x	✓	x	x	x
Long-tailed Duck	✓	x	✓	x	x
Manx Shearwater	✓	x	x	x	x
Mallard	x	x	✓	x	x
Oystercatcher	x	x	✓	x	x
Pink footed goose	x	x	✓	x	✓
Puffin	✓	✓	x	x	x
Razorbill	✓	✓	x	✓	x
Red-breasted Merganser	✓	x	✓	x	x
Redshank	x	x	✓	x	x
Red-throated Diver	✓	x	✓	x	x
Roseate tern	x	✓	x	x	x
Sandwich tern	x	✓	✓	x	x
Scaup	x	x	✓	x	x
Seabird assemblage	✓	✓	x	✓	x
Shag	✓	✓	x	x	x
Shelduck	x	x	✓	x	x
Slavonian Grebe	✓	x	✓	x	x

Turnstone	x	x	✓	x	x
Velvet Scoter	✓	x	✓	x	x
Waterfowl Assemblage (non-breeding)	✓	x	✓	x	x
Wigeon	x	x	✓	x	x

Appendix 3: Conservation Objectives of Sites

TABLE 3: Conservation Objectives of Sites			
Site Name/ Designation/ Site Area (ha)	Qualifying Interests	Condition	Conservation Objectives
	Firth of Forth WeBS Alert		
	Amber 25% - 50% decline		
	Red 50% decline		
	(n/a) not available		
Forth Islands SPA 979.01	Gannet	Favourable	To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and
	Guillemot	Maintained	
	Herring gull		
	Lesser black-backed gull		
	Razorbill		
	Arctic tern	Favourable	To ensure for the qualifying species that the following are maintained in the long term:
	Puffin	Declining	
	Seabird assemblage		
	Common tern	Unfavourable	
	Cormorant	Declining	
	Kittiwake		
	Roseate tern		
Sandwich tern			
Shag			
Outer Firth of Forth and St Andrews Bay Complex SPA 272068.1	Arctic Tern	Favourable	<p>No significant disturbance of the species</p> <ol style="list-style-type: none"> To ensure that the qualifying features of the Outer Firth of Forth and St Andrews Bay Complex SPA are in favourable condition and make an appropriate contribution to achieving Favourable Conservation Status. To ensure that the integrity of the Outer Firth of Forth and St Andrews Bay Complex SPA is restored in the context of environmental changes by meeting objectives 2a, 2b and 2c for each qualifying feature:
	Black-headed Gull	Maintained	
	Common Gull		
	Common Scoter		
	Common Tern		
	Eider		
	Gannet		
	Goldeneye		
	Guillemot		
	Herring Gull		
	Kittiwake		
	Little Gull		
	Long-tailed Duck		

	Manx Shearwater Puffin Razorbill Red-breasted Merganser Red-throated Diver Seabird assemblage Shag Slavonian Grebe Velvet Scoter Waterfowl Assemblage		2a. The populations of qualifying features are viable components of the site. 2b. The distributions of the qualifying features throughout the site are maintained by avoiding significant disturbance of the species. 2c. The supporting habitats and processes relevant to the qualifying features and their prey/food resources are maintained, or where appropriate restored, at the Outer Firth of Forth and St Andrews Bay Complex SPA.
Firth of Forth SPA Ramsar 6313.72	Dunlin	Favourable Declining	To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and To ensure for the qualifying species that the following are maintained in the long term: <ul style="list-style-type: none"> • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species • No significant disturbance of the species
	Eider		
	Grey Plover		
	Lapwing		
	Mallard		
	Bar-tailed Godwit	Favourable Maintained	
	Cormorant		
	Curlew		
	Oystercatcher		
	Pink-footed goose (n/a)		
	Red-throated Diver (n/a)		
	Redshank		
	Ringed plover		
	Sandwich tern (n/a)		
	Shelduck		
	Turnstone	Unfavourable Declining	
	Velvet scoter		
	Waterfowl assemblage, non-breeding		
	Wigeon		
	Common scoter		
Golden Plover			
Goldeneye			
Great crested grebe			
Knot			
Long-tailed duck			
Red-breasted merganser			
Scaup			
Slavonian grebe (n/a)			
Fala Flow SPA Ramsar 317.75	Pink-footed goose	Favourable Maintained	To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species,

			<p>thus ensuring that the integrity of the site is maintained; and</p> <p>To ensure for the qualifying species that the following are maintained in the long term:</p> <ul style="list-style-type: none"> • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species • No significant disturbance of the species
Gladhouse Reservoir SPA Ramsar 186.58	Pink-footed Goose	Unfavourable Declining	<p>To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and</p> <p>To ensure for the qualifying species that the following are maintained in the long term:</p> <ul style="list-style-type: none"> • Population of the species as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species • No significant disturbance of the species
River Tweed SAC 3742.65	Atlantic salmon	Favourable	<p>To avoid deterioration of the qualifying habitat (listed above) thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and</p> <p>To ensure for the qualifying habitat that the following are maintained in the long term:</p> <ul style="list-style-type: none"> • Extent of the habitat on site • Distribution of the habitat within site • Structure and function of the habitat • Processes supporting the habitat
	Brook Lamprey	Maintained	
	Otter		
	River Lamprey		
	Rivers with floating vegetation often dominated by water-crowfoot	Unfavourable No Change	
Sea Lamprey	Unfavourable Declining		

			<ul style="list-style-type: none"> • Distribution of typical species of the habitat • Viability of typical species as components of the habitat • No significant disturbance of typical species of the habitat <p>To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and</p> <p>To ensure for the qualifying species that the following are maintained in the long term:</p> <ul style="list-style-type: none"> • Population of the species, including range of genetic types for salmon, as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species • No significant disturbance of the species
St Abb's Head to Fast Castle SPA	Guillemot Razorbill	Favourable maintained	<p>To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and</p> <p>To ensure for the qualifying species that the following are maintained in the long term:</p> <ul style="list-style-type: none"> • Population of the species as a viable component of the sit • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species • No significant disturbance of the species
	Herring gull	Unfavourable Declining	
	Kittiwake		
	Shag		
Seabird assemblage			



NatureScot
NàdarAlba

Scotland's Nature Agency
Buidheann Nàdair na h-Alba

Jean Squires
Planning Service
East Lothian Council
John Muir House
Haddington
EH41 3HA

29th April 2024

Dear Jean

Habitats Regulations Appraisal for East Lothian Tree and Woodland Strategy

The East Lothian Tree and Woodland Strategy could affect Gladhouse, Fala Flow and Firth of Forth SPAs, protected for their breeding and non-breeding birds, among other interests.

The site's status means that the requirements of the Conservation (Natural Habitats, &c.) Regulations 1994 as amended (the 'Habitats Regulations') apply or, for reserved matters, The Conservation of Habitats and Species Regulations 2017. Consequently, East Lothian Council is required to consider the effect of the proposal on the SPAs before it can be consented (commonly known as Habitats Regulations Appraisal). The NatureScot website has a summary of the legislative requirements (**The Habitats Directive and Habitats Regulations**).

There are natural heritage interests of international importance on the site, but we agree with the conclusions of East Lothian Council's HRA, that these interests will not be adversely affected by the proposal.

Our advice is that this proposal is likely to have a significant effect on bird interests of the three named SPAs. Consequently, East Lothian Council, as competent authority, has carried out an appropriate assessment in view of the site's conservation objectives for its qualifying interests. An HRA has been supplied by East Lothian Council and NatureScot commented in emails dated 03/04/2024, 04/04/2024 and 29/02/2024. We gave comments on the strategy itself in 2023.

Yours sincerely,

[by email]

Estelle Gill

Operations Officer – Southern Scotland

Estelle.Gill@Nature.Scot

NatureScot, Meadowbank House, 6th Floor South, 153 London Road, Edinburgh, EH8 7AU
Correspondence address: NatureScot, Battleby House, Redgorton, Perth PH1 3EW
NàdarAlba, Taigh Bruach an Àilein, 6mh Làr a Deas, 153 Rathad Lunnainn, Dùn Èideann, EH8 7AU
Seòladh puist: NàdarAlba, Taigh Battleby, Ràth a' Ghoirtein, Peairt, PH1 3EW

0131 316 2600 [nature.scot](https://www.nature.scot)

NatureScot is the operating name of Scottish Natural Heritage

Report on Consultation responses/findings – TWSEL 2023

1. Introduction

- 1.1. Consultation on the draft Tree and Woodland Strategy took place between June and September 2023. The consultation was publicised via a mailout, posters in libraries, community centres and some shops in East Lothian. An advertisement was placed in the East Lothian Courier. Publicity, including a short video, was put out across the Council's social media. A series of seven public events were held, two in Musselburgh and one in Haddington, Prestonpans, Dunbar, North Berwick and Tranent.
- 1.2. Responses could be made via online survey, in writing or via email. Officers noted the views of those attending the events.
- 1.3. The consultation agencies for Strategic Environmental Assessment (NatureScot, SEPA and Historic Environment Scotland) were consulted via the Strategic Environmental Assessment Gateway.
- 1.4. This report sets out the representations and comments received from respondents who took part in the consultation process on the TWS. Responses to these comments are also provided by the Council, including whether/how these comments were incorporated into / influenced the final strategy.

2. Written Representations

- 2.1. Written responses were received from NatureScot and Historic Environment Scotland. SEPA did not comment. Written responses were also received from the Forth District Salmon Fisheries Board and a joint response from Gifford Community Council/Gifford Community Woodland.

Nature Scot

- 2.2. NatureScot responded saying that the language of the strategy should reflect the need for urgent, transformative action. They question whether the Strategy goes far enough and fast enough. **Response:** Changes have been made to the tone of the document to reflect this urgency. Policy 1 was strengthened to make it clear that woodland removal should only occur in exceptional cases. Annual woodland creation targets were added to Target 1 to address the speed of delivery.

- 2.3. Nature Scot noted that with East Lothian having such little woodland, each and every woodland fragment, each and every tree, is valuable socially as greenspace, as the building blocks of future Nature Networks and contributes to our actions combatting the twin crises of climate change and biodiversity loss. **Response:** this wording has been included in the Introduction to the Strategy.
- 2.4. NatureScot ask if the council could make a commitment to retaining all local authority owned woodlands. **Response:** While it is our intention not to lose any of our woodland, in exceptional cases works are required for other beneficial reasons, including adaptation to climate change and safety reasons.
- 2.5. NatureScot request reference to the mitigation hierarchy of avoid – minimise – restore – offset in Policy 1 and a reference to their Developing with Nature Guidance. **Response:** reference to the mitigation hierarchy has been added to Appendix E, where there is also a reference to the Developing with Nature Guidance in appendix E. This has not been added to Policy which is just about retention of woodland and the approach underlies the strategy as a whole.
- 2.6. NatureScot commented that the strategy did not convey the importance of reducing deer numbers to a sustainable level. This is important for the establishment of woodland as deer grazing can prevent this if there are too many. **Response:** Text explaining this, and with guidance for landowners and managers, has been included.
- 2.7. Nature Scot has had long-standing concerns about pressure on coastal habitats from ‘coastal squeeze’ from development and recreation on one side and erosion on the other. They note that the intention of the Strategy to encourage a ‘Coastal Mosaic’ of habitats will tie in well with the anticipated Nature Network/30 x 30 frameworks. These are a Scottish Government commitment and will be a key component in increasing ecological connectivity and restoration of nature across Scotland. NatureScot seek a reference to this policy. **Response:** We have added reference to Nature Network. 30 by 30 is about designations which this Strategy does not cover.
- 2.8. NatureScot made some specific suggestions including that
- the Lammermuirs are not high enough to have a natural treeline. The lower stopes are more suitable for hazel and elm, with oak more appropriate further up. **Response:** We have adjusted mapping and wording to reflect this.
 - roe deer population is too high to allow natural regeneration and management of them should be a priority. **Response:** We have included information on deer management
 - There should be a buffer of 100m from SSSI designated woodland for non-native woodland to prevent self seeding. **Response:** NatureScot asked for a map of this. This has been included in words as some of the SSSIs where woodland is an interest do not entirely consist of such woodland. This means mapping a buffer around the SSSI boundary would not be useful to achieve the aim. The Council does not have mapping for the woodland interest so cannot map a buffer of this.
 - the impact of visitors on woodland species should be further considered. **Response** The right of responsible access means visitors cannot normally be excluded from woodland. The Strategy notes that there is a need to manage visitor pressures.

- Consider species that are best adapted to climate change in urban areas as trees are already under stress due to roots often being under paved areas. **Response:** The Strategy already refers to advice on species from TDAG.
 - The importance of agricultural land is only going to increase as other parts become less productive with climate change; planting woodland on any of this is questionable; reference to low value uses such as dog exercise areas is a low priority use of agricultural land in a climate emergency. **Response:** Reference to uses such as growing Christmas trees and dog exercise has been removed from the Strategy
- 2.9. Lastly NatureScot note the need for the Strategy to align with the Scottish Biodiversity Strategy Delivery Plan and the Natural Environment Bill as well. The Scottish Biodiversity Strategy is now referenced in the Strategy.

Historic Environment Scotland

- 2.10. HES welcome the recognition of the role of trees and woodland as part of the cultural heritage and the need to protect cultural heritage assets from trees. The specific policy protecting Scheduled Monuments, battlefields, Gardens and Designed Landscape, listed buildings and Conservation Areas is welcomed. HES recognise that while tree planting and woodland creation can have adverse impacts on heritage assets, there is also the potential to enhance the historic environment through improvement of setting, and public access and appreciation of them. Action 29, which promotes positive management of Gardens and Designed Landscapes, including creating Conservation Management Plans, is welcomed. HES consider that with sensitive planning and siting of woodland, the historic environment would not be a barrier to the role of trees and woodland in addressing the biodiversity and climate crises.

Forth District Salmon Fisheries Board

- 2.11. The Board noted that East Lothian has a small but significant population of salmon and migratory sea trout, and efforts are being made to improve numbers under the Scottish Wild Salmon Strategy. They note the role played by trees in the riparian zone in reducing summer water temperatures by shading the river (young salmon prefer cool temperatures); providing food for aquatic invertebrates in the form of leaves and twigs, as well as insects that fall into the river from them; filtering agricultural runoff, and forming diverse pools and riffles in the river through fallen branches or whole trees.
- 2.12. The Board encourages the Strategy to provide for planting riparian trees (which it does). They also seek more explicit links between trees, river habitat quality and fish diversity. The Board also shared a link to data collected by NatureScot on riparian woodland, which shows existing gaps and where planting could be prioritised.

Response: We have added wording on the link between trees, habitat quality and fish diversity. We have defined the riparian zone as 30m based on information from SEPA and Marine Scotland, rather than the NatureScot information which is based on 20m. .

Gifford Community Council and Gifford Community Woodland

- 2.13. The Community Council and Community Woodland submitted a joint response in writing. Overall, they commented that the Strategy appeared to be sound, but considered some of the actions and policies contradictory, and targets either unrealistic or out of line with current planning decisions.

2.14. Their main concerns were, firstly, that the Council have not identified any funds for achieving the goals of the Strategy. In terms of the target for 2000ha of woodland comprising 2 million trees, they note the Strategy does not suggest that the Council will plant any of these and is therefore reliant on third parties. They then set out the costs for tree planting, which to meet the target they calculate would cost £6.5 million for the trees, plus labour, and the effort required, namely 550 trees per day. To get funding, the UK Forestry Standard would require to be followed, which has a minimum stocking rate. They calculate that at this stocking rate, 3.2 million trees would be needed.

Response: The Delivery Plan notes the council will plant trees on land it owns, including through the Nature Networks project, though at present dealing with ash dieback is limiting capacity within Amenity Services. The overall target for planting in the TWSEL derives from that set for the Climate Forest by the Council in its Climate Change Strategy. The 2000 ha noted in the strategy was intended to show roughly how much land would be needed for these trees. The figures used by the Gifford Community Council/Community Woodland derive from the requirements of the Forestry Grant Scheme funding rather than the UK Forestry Standard. This requires stocking at 1600 stems per ha for native woods and 2500 stems per ha for conifer. We have adjusted the area in the TWSEL to reflect the Forestry Grant Scheme figures as suggested, and so account for 1600 stems per ha which gives a size of 1250 hectares. We have also adjusted the annual total to between 80 and 125 hectares.

2.15. Gifford Community Council/Community Woodland questions whether this level of planting would do any more than compensate for the number of ash trees expected to be lost through Ash Dieback, which they estimate at likely to be in excess of 2 million.

Response: We estimate the figure about 220,000 of ash trees across East Lothian. The 2 million tree target is over and above what needs to be planted to compensate for ash dieback loss. However the wording of the TWSEL has been amended to make clear that the climate forest planting is in addition to the replacement planting required for ash dieback.

2.16. Gifford Community Council/Community Woodland stress the need to keep deer from preventing regeneration.

Response: The TWSEL has been revised in response to comments on deer, including from NatureScot, and will include a section on the need for control.

2.17. Gifford Community Council/Community Woodland comment that some grant schemes mentioned in the TWSEL have a scoring system for projects which are difficult to meet. To achieve funding, a 'supplementary point' has to be given, which is either that the project must either return an SSSI to favourable condition or contribute to a landscape scale project. The Council would have to provide a formal framework where applications could be identified as contributing to landscape scale project.

Response: We have added text identifying the three 'Spotlight Landscape Structure' planting projects and riparian planting as Landscape Scale projects.

2.18. Their second main issue is that the Strategy aims to increase use of wood and wood products but prefers broadleaf trees. Yet, most timber used for construction is from fast growing softwoods (conifers). Gifford Community Council/Community Woodland considers broadleaves are appropriate for woodland managed for recreation and biodiversity, but that productive forest needs to be managed for that, which wood being thinned, harvested and extracted by machine to be economically viable.

- 2.19. **Response:** Following this and similar comments from industry, we have amended the TWSEL to be less restrictive about commercial softwood planting, in recognition of its important role in providing sustainably sourced wood. Woodland creation should be split between commercial softwood and native woodlands. Commercial softwood woodlands could be considered in preferred or potential areas on the Constraints map, where not identified as suitable for native woodland creation on the Native Woodland Expansion Opportunities map.
- 2.20. Gifford Community Council/Community Woodland further note that there are no biodegradable tubes big enough to protect trees up to 3m high, as is needed.
Response: this has been left in the Strategy as aspirational, as the availability of product can change
- 2.21. The Strategy is also contradictory as regards biofuel. It says this is not supported, however refers to poorer quality timber (such as thinnings, crowns) being sold for wood fuel.
Response: Growing woody biomass specifically for fuel is not supported in line with the Scottish Forestry Strategy. However, use of by-product wood for this purpose can make use of what would otherwise be waste, and we have amended the text to make clear this use is acceptable.
- 2.22. Gifford Community Council/Community Woodland note that under the current Woodland Creation scheme 100ha of sitka spruce for timber would attract around £330,000 over 5 years, whereas broadleaved woodland would attract around £45,000. This gives a clear incentive for landowners to opt for sitka.
Response: Noted. However the TWSEL is required to seek multifunctional benefits and in our view these derive more from broadleaved woodland.
- 2.23. Gifford Community Council/Community Woodland point to a recent planning and tree management decision which they consider contradict some of the policies being put forward.
Response: Decisions on planning applications are made on their merits in accordance with the development plan for the area unless material considerations indicate otherwise. The TWSEL was not in place at the time of the planning application so could not have been taken into account. The Council's Sport, Countryside and Leisure service can help with queries about the reason for any works carried out on our trees. Tree management work will going forward be carried out in line with the strategy.
- 2.24. Gifford Community Council/Community Woodland note that trees have an obligate mutualistic partnership with mycorrhizal fungi which means that no tree can ever be considered as an isolated organism but must always be acknowledged as one half of a symbiosis. The mycorrhizal fungi, their biological requirements and ecological niches must be considered.
Response: Officers sought further information from the groups on the mycorrhiza, which they kindly supplied. This information noted that all trees require mycorrhizal fungi to uptake enough nutrients. If new woodland is created in an area where these fungi are not available to the newly planted trees, such as agricultural land or amenity grassland, they are unlikely to survive, or if they do, their growth will be extremely poor and weedy plants such as bramble and wild raspberry will supersede them and shade them out.
- 2.25. The relevant fungi can be introduced to the new woodland site in a number of ways. Different trees associate with different types of fungi. Commercial mycorrhizal powder mixes tend to be made up of non-native fungal spores, if they contain any fungi at all. A simpler option is to slowly expand an existing woodland, as the fungal associates will already be available to any trees planted.

Response: The TWSEL supports connectivity, which is likely to be achieved mainly by expanding existing woodland. The additional information on mycorrhiza has been included as suggested.

Member of the Public 1

- 2.26. The respondent was concerned with anti-social behaviour in woodland including damage to trees, including activities such as installing rope swings. They considered describing woodland near housing as 'recreational woodland' would encourage such behaviour.
- 2.27. They note that the draft TWSEL encourages woodland owners to increase accessibility where woodland is ecologically robust and otherwise suitable for increased access. WIAT funding does not provide adequate funding for suitable infrastructure, such as paths, which could avoid damage to the woodland. The respondent considers that where development brings people closer to woodland, woodland access plans should be fully funded by the developer. The developer should be required to fund a full impact survey on all aspects of increased access to woodland and subsequent maintenance.
- 2.28. The respondent also included a suggestion for planting within a particular Local Designed Landscape.

Response: The reference to recreational woodland has been removed as there is a right of responsible access to all woodland. Under the section on 'recreation in woodland' text on the Scottish Outdoor Access Code and responsible behaviour in woodland. Requirements for Access Plans would be taken forward through the Development Management process where appropriate.

Member of the Public 2

- 2.29. The respondent considered trees like beech and Scots pine are suitable for planting in a native species mix. Although they don't fit into the narrow definition of native they have been around for a long time and are suited to the area – for example Binning Wood; such trees do well in East Lothian.

Response The Strategy supports planting of other British and European Native trees, such as Beech and Scots pine, alongside East Lothian native trees to improve diversity. In native woodlands the native component however should be at least 50% of East Lothian native trees.

Member of the Public 3

- 2.30. The presentation of so many facts and policy suggestions risks trying to please everyone but pleasing no-one. The ultimate goal of the strategy is claimed to be for the expansion and management of tree, forestry and woodland cover. However, other organisations – Nature Scot, SEPA, Scottish Forestry – are better placed in terms of expertise and much of the strategy duplicates advice held elsewhere. The respondent is concerned the council may seek to charge for advice on trees and woodlands as they do for planning advice. Apart from council owned properties, the strategy is trying to control third party projects. We need governance by consent not diktat. Over complicated and long-winded official documents can put off community involvement.

Response: Advice has been taken from SEPA, NatureScot, Scottish Forestry and Historic Environment Scotland. We recognise that much of the action will take place on third party land. The Strategy seeks to coordinate this to obtain multifunctional benefits from woodland.

Member of the public 4

2.31. The respondent was keen to ensure that policy wording securing retention of woodland, trees and hedges, and protecting landscape character, had due strength. They suggested alterations to the wording of Policy 1 and Policy 26 to achieve this.

Response: the suggested wording strengthens the policy and has been included.

Member of the public 5

2.32. The respondent noted a location where an area of garden ground was identified as existing woodland, considering this an error, as it is not woodland.

Response: The approach to mapping woodland for Woodland Trust Access Standard purposes has been changed following consultation in response to comment was that the right of responsible access applies to most woodland. New mapping has been produced based on the National Forest Inventory, however we have removed garden ground. The methodology is set out in Appendix D.

Member of the public 6

2.33. Trees need to be carefully managed in an urban setting such as the centre of East Linton, where there are quite a few old trees which are far too large for gardens and have not been managed. This is detrimental to the growing of food crops in these very fertile gardens. The trees which will be planted round the car park at our new station could end up doing this to the gardens there.

2.34. **Response:** the ability to grow food in garden ground is important for resilience. A section has been added on food security. The Strategy notes the potential for causing nuisance when choosing what to plant. Policy 19 Management of Council Trees notes that the council will consider removing trees where shade is oppressive.

Member of the public 7

2.35. Notes the interest in identifying Veteran Trees and gave the location of 6 veteran trees.

Response: noted

Member of the Public 8

2.36. The respondent stated they struggle to understand how one section of the Council is working to protect trees while another section is allowing contractors to cut down hundreds of healthy mature trees in Musselburgh under the auspices of flood protection, and not considering any natural flood defence measures.

Response: Musselburgh Flood Protection Project Team are aware of and have considered the draft TWSEL. The most recent outline design of the scheme has incorporated public feedback and reduced the number of trees required for removal. In January 2024, the Council approved the Outline Design to move to the Statutory Approval Phase. An Environmental Impact Assessment (EIA) has been undertaken and will be published in March 2024; this has identified and outlined a re-planting requirement and identifies potential areas of re-planting. Sustainable flood risk management in the upper catchment has been considered and incorporated into the

scheme. In October 2023, a motion was passed by East Lothian Council which approved the two outcomes below – both of which are advancing;

“That further investigation of the potential for Natural Flood Management is advanced through the processes of the Local Risk Flood Management Plan (for the Forth Estuary);

“That East Lothian Council works to establish a new independent body for the river Esk catchment that will be capable of advancing both natural Flood Management and Nature-Based Solutions.”

3. Responses to the online survey

- 3.1. The online survey received 85 responses, 75 from individuals, and 10 from organisations. Of the organisations, two responses were received from Community Councils, namely North Berwick and Dunpender. A response was received from Scottish Green Party East Lothian, two responses from Gullane Eco-group, and one from Sustaining North Berwick and Tranent Wombles. Two businesses, Alba Trees Ltd and Tillhill Forestry, responded.

Responses from Community Councils and community organisations

Dunpender Community Council

- 3.2. Dunpender Community Council (DCC) responded via the survey and in general were positive about the Strategy. DCC noted the value of woodland as habitat for biodiversity, beauty, carbon sequestration, shelter and for biofuel. They consider the planting of native trees, protection of ancient woodland and restoration of hedgerows as aspects of East Lothian’s woodland that is going well. Issues they raised were removal of hedges to form larger fields; lack of green corridors for wildlife, removal of brash and branches rather than allowing natural decay, too many coniferous plantations; not enough trees in agricultural areas. **Response:** The TWSEL contains measures to address these concerns.
- 3.3. DCC thought the most important thing for the TWSEL to achieve was to establish more native trees and manage them to provide high quality timber for furniture and manufacturing to allow them to sequester carbon for as long as possible. The TWSEL aims to achieve this but also supports softwood production. DCC further comment that carbon sequestration and boosting biodiversity should take precedence over economic returns. **Response:** The TWSEL aims to do what it can to address climate and biodiversity crisis however an economic return is important in landowner decisions.
- 3.4. DCC saw a role for the Strategy in persuading landowners and farmers not to burn brash and branches but to leave them to decay. **Response:** A sentence has been added to the effect that waste brash from tree operation should be chipped and recycled to form green compost, not burnt.
- 3.5. DCC supported increased access to woodland but noted this should come with education on how to respect woodland. **Response:** a section has been added on environmental education.
- 3.6. DCC supported canopy cover targets including reducing the class gradient by focussing new planting in more deprived areas.

- 3.7. DCC suggested that the Council could provide financial incentives by raising overall charges through business rates or council tax, but then offering subsidies for those that implement the strategy. **Response:** Non-domestic rates are set nationally, so there is no scope for the Council to raise these to offset a subsidy. The council also has to consider the effect on its block grant of raising council tax. This suggestion is not practical due to the cost and difficulty of checking compliance, and unintended consequences.
- 3.8. DCC further suggest a publicly available league table showing the extent to which landowners implement the strategy. **Response:** This would be extremely difficult to do as the Council does not have a map of land holdings. It would also be challenging to rank landowners and could divert from the collaborative spirit. The council agrees it would be useful to have a way of celebrating success stories though and will consider how to do this.
- 3.9. DDC also note that an Executive Summary for the document would be useful. **Response:** this has now been included.

North Berwick Community Council

- 3.10. North Berwick Community Council (NBCC) were broadly supportive of the TWSEL. Their main concern is that the TWSEL be integrated with planning and policy decision making. In particular they considered that Policy 1 on retention of trees and woodland to be followed immediately.
- 3.11. **Response:** Decisions on planning applications are made on their merits in accordance with the development plan for the area unless material considerations indicate otherwise. The TWSEL will be integrated with the development plan, as National Planning Framework 4, which is now part of the development plan, includes references to it. Once the Strategy is adopted this will be a material consideration for planning.

Dirleton Village Association

- 3.12. The Dirleton Village Association (DVA) value everything about trees and support the strategy. However they consider woodland in East Lothian has been neglected and under-valued, exploited and lost due to human development, which needs to be reversed. The DVA note recent housing development has incrementally damaged the rural character of the countryside, as most LDP sites are on the edge of settlements with limited or no tree cover to screen them and no structural planting has been required to buffer them. They call for good screening to all new edge of settlement development.
- 3.13. The DVA question why only Cockenzie/Blindwells and the Innerwick Coast are included for structural planting, and request adding to Target 7: ALL developments on the edges of settlements should provide a compensatory structural buffer woodland strip which is a minimum of 30 meters in width.' The DVA notes that building development is in a way unsustainable, and that boundary tree belts a minimum 30m thick would help ameliorate this. They would provide corridors for wildlife and be useful for recreation and play.
- 3.14. **Response:** Boundary tree planting may not be in character with the settlement. New development on settlement edges should be designed to fit with the location, not always hidden behind woodland belts. Tree planting and woodland should be incorporated into development in a way that meets the needs of the residents and nature, by bringing nature into and through the urban area.

- 3.15. For Delivery, the DVA suggested working with golf course operators. **Response:** the 'Delivery' section includes working with landowner; 'land managers' has been added and this would include golf course operators.

Gullane Eco Group

- 3.16. Gullane Eco Group noted that survey should identify areas of concern and suitable species. This is a main purpose of the TWSEL, though site specific consideration will still be needed. They saw a benefit of the strategy as being better air quality and a network of jobs. They suggested working in partnership with the Scottish Communities Climate Action Network (SCCAN). **Response:** SCCAN was consulted on the Strategy and a reference to working with SCCAN has been added to the 'Delivery' section.
- 3.17. Gullane Eco Group called for the Council to reduce glyphosate. **Response:** We continue to take opportunities across the county to reduce the use of glyphosate. While glyphosate is used in certain locations where necessary to enable us to continue to meet our duties to keep specified areas including public footways and other hard surfacing free of weeds, and to ensure we meet equalities and outdoor access duties and responsibilities, it is only one aspect of our integrated weed control programme around East Lothian, which also includes hand-pulling weeds and encouraging communities to participate in weed control, where communities are engaged with this and supportive, actively participating in weed control. We are trialling mulching around bases of trees in some areas.

Sustaining North Berwick

- 3.18. Sustaining North Berwick (SNB) most valued trees for their biodiversity, amenity greenspaces, health and wellbeing benefits, carbon sequestration and provision of shade. Good things about our woodlands include that local communities are creating small woodlands and orchards and are keen to help enhance our trees and woodlands. They also appreciated local woodland-based businesses, and that Tree Preservation Orders had been successful in saving specific trees. Another good thing was free access to woodland.
- 3.19. Issues included low coverage of woodland, and loss of woodlands and trees to development. Agricultural practices were seen as needing to change in the face of climate change, with the potential of orchards being missed. **Response:** More on orchards has been added to the Strategy.
- 3.20. The overall target of the draft TWSEL for woodland and native woodland was seen as too low. They comment more resources will be needed, as well as expert advice on matters such as agroforestry, coppicing, and others.
- 3.21. SNB consider there should be an almost complete moratorium on felling trees, and a presumption against their loss in new development. They considered agroforestry, coppicing and commercial orchards should be mentioned as a means of integrating trees and woodlands with agricultural business. **Response:** Specific reference to Agroforestry opportunities added to economic section
- 3.22. Hedgerows should be included now and not put into a future strategy. **Response:** We have included a target for 10% increase in hedgerows in the Strategy. To develop a proper hedgerow plan we need to know what we have firstly.
- 3.23. SNB make the point (noted in the draft TWSEL) that newly planted trees do not absorb as much carbon as mature trees, so new planting is not a good alternative to tree loss. Improving access

is agreed to be important, especially in deprived areas. The SNB support the canopy coverage targets, and seek up to 30% of green space in new housing developments to be planted with trees, including 'play trees and copses'. **Response:** The Council does not encourage play such as tree climbing or rope swings as it can be dangerous. Additional text has been added to Appendix E Guidance for development – "Trees should be provided within open spaces throughout the site. The mature canopies should be shown to indicate sufficient space for future growth and ensure a 30% ultimate canopy coverage."

3.24. SNB also mention a tree belt which is proposed to be removed through a planning application at North Berwick High School. **Response:** This application was determined on its merits. Although retention of hedges is supported through the TWSEL in specific cases this may not always be possible.

3.25. Sustaining North Berwick also agreed that increasing access was a very important part of the overall strategy, especially in deprived areas, and that accessibility should reach the Woodland Trust's Standard.

Tranent Wombles

3.26. Tranent Wombles completed the survey and also wrote in.

3.27. What the Wombles most valued about trees and woodlands in East Lothian was pockets of woodland accessible under "right to roam" legislation, including patches of ancient woodland. An aspect that is going well is that communities are recognising the value of their trees and starting to take action to protect and expand it.

3.28. The Wombles saw the main problems as lack of tree cover and relative lack of native trees compared to commercial plantations. Lack of protection for existing mature trees was seen as an issue. The Wombles stated local environmental groups are asking the Council to protect existing mature trees and hedges at several sites, including Herdmanflatt and the Esk. The council could provide better support for this and protect other mature trees and hedges affected by planning conditions. The maintenance of paths and roads should value these assets more, through use of more sympathetic cutting methods.

Response: Planning applications are decided on their merits. Sometimes that involves the loss of trees or hedges. The Strategy aims to increase tree cover and mitigate for losses.

3.29. The Wombles considered the main thing to achieve is to increase tree cover and the relative proportion of native trees.

3.30. The Strategy should include the positive impact on individual property and house prices, stating that international research showed a 10-20% increase in net value.

3.31. Selective logging of native hardwood is preferred over clearcutting conifer plantation.

3.32. The Wombles considered there is clearly a need to improve tree canopy coverage in specific communities, particularly ex-mining urban pockets such as Tranent. The target of a minimum 30% lacks ambition when compared to the current European average of 44%.

Response: the strategy intends to increase native woodland coverage. The strategy doesn't include the effect on house prices as there is no citation for this. The strategy supports continuous cover forestry rather than clear felling. The canopy coverage target is a starting point and the strategy encourages communities can set their own targets if preparing Local Place Plans. The target is ambitious for some settlements compared to where we are now.

Scottish Green Party of East Lothian

- 3.33. The Scottish Green Party of East Lothian (SGPEL) considered conserving biodiversity, sequestering carbon and increasing resilience were the most important objectives to achieve. They saw the TWSEL as a step forward but cautioned that this will need to be backed up with action, including prioritising its aims in planning decisions. Failure to take the climate emergency and biodiversity crisis seriously was seen as the main problem we have to tackle for trees and woodland. Interim targets were suggested as a means of monitoring progress.
- 3.34. **Response:** This has been included in the final TWSEL.
- 3.35. The SGPEL considered a specific target for using trees and woodland for resilience and flood protection would be useful focussing on the value of tree planting to mitigate soil sealing within large developments **Response:** Within large developments, current planning policy already requires that no more water leaves the site than before development, with SUDS systems to be used to achieve this.
- 3.36. The draft TWSEL had a target of increasing hedgerows by 10%; the SGPEL considered this too low and that it should be doubled to 20% given their importance for carbon sequestration. **Response:** The target chosen for the draft TWSEL was chosen as it was thought likely to be stretching but achievable, though there is limited information to base it on until survey work is carried out.
- 3.37. The SGPEL highlighted the role of behavioural change in retaining trees, woodland and hedgerows, and suggested provision of clear information to households on the benefits of trees in their gardens and ground. **Response:** This suggestion has been included as an action.
- 3.38. They also suggested more use of Tree Preservation Orders and better enforcement. **Response:** The strategy notes (in the 'Notable Trees' section) that the Council will consider additional Tree Preservation Orders to protect those trees. The Council does follow up on all complaints received on this matter.
- 3.39. SGPEL also suggested providing information on active travel, creating public transport links and providing incentives to access woodland recreation without using an internal combustion engine vehicle. **Response:** The Council does provide information on Core Paths on its website. Creating public transport links is beyond the remit of this strategy.
- 3.40. SGPEL note that access to woodland should be encouraged as valuing and enjoying nature leads to greater understanding of the need for its protection. The SGPEL support the canopy coverage target and encourage this to be achieved through community engagement in tree planting. **Response:** noted
- On Delivery, the SGPEL made several suggestions:
- landowners creating an offsetting scheme for trees planted on their land
 - reporting progress by ward
 - tree planting done in partnership with community groups to fill funding gaps
 - deer management is needed
- 3.41. **Response:** The TWSEL encourages landowners to sign up to existing, certified offsetting schemes. 'Tree time' is an existing initiative which although not carbon certified does allow the public to support tree planting locally. The council works with Tree Time to plant trees as part of the Nature Network Project on council land. The Council's Amenity Services has limited capacity at the moment due to the need to deal with tree safety issues arising from ash dieback and

storms. As noted in response to NatureScot, the section on deer management has been revised to include greater control.

Characteristics of those responding as individuals

3.42. Those responding as individuals were asked for some information about their characteristics.

Most did give this information. We asked for this so we could understand if the consultation had reached all sectors of the community. This will help us plan consultations in the future. This will also help us understand whether or not the views given might reflect some parts of our community more than others. Further information is in the IIA which accompanies this document. The main points were:

Respondents tended to be female rather than male; by around two thirds to one third

Most respondents (three quarters) did not have a disability

Responses were received from people with sensory, mobility, mental health, stamina or breathing difficulties and social or behavioural difficulties.

Very few responses were received from ethnic groups other than white

Almost two thirds of respondents were between 51 and 75 years old, with lower numbers of responses compared to population from both under 25s and over 75s;

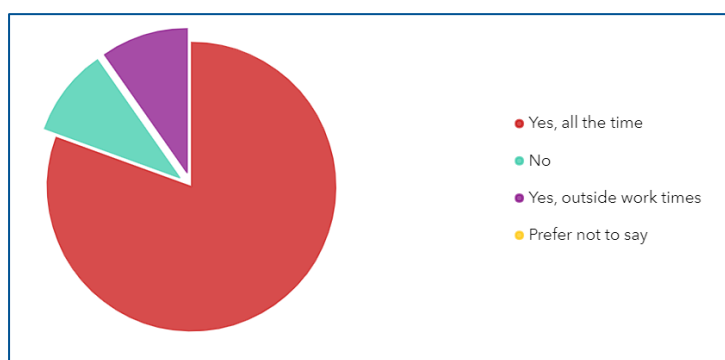
Over 90% of respondents had access to a car for recreational trips either all the time or outside work times

3.43. When reading the responses it should be born in mind that they are more likely to come from middle aged people; from women, and from people with access to a car.

People's use of woodland

3.44. The survey asked about how people used woodland. The purpose of this was to see the main ways that people were using woodland now, including if there was anything not previously considered. The survey also asked about access to a car for recreational journeys, and how people accessed woodland. This was to see if the response were different depending on car access, or how people usually accessed woodland.

Does your household have access to a car for recreational journeys? (3/75 respondents skipped this question)

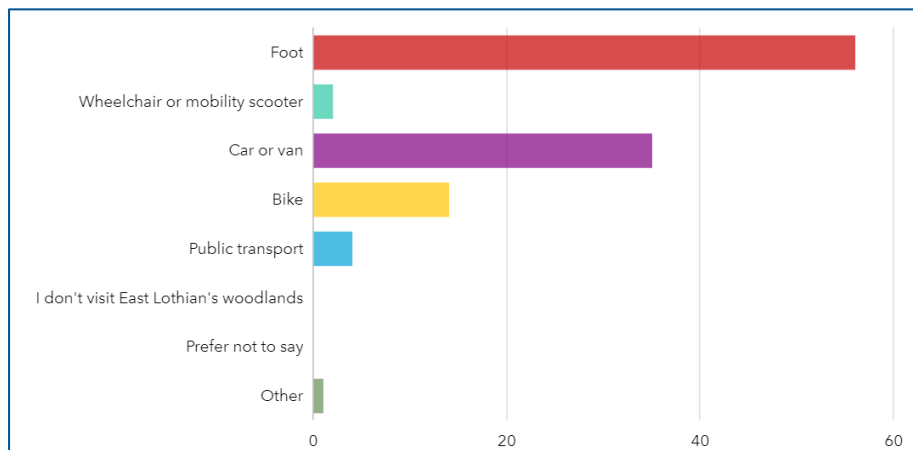


3.45. Most respondents said their household had access to a car for recreational journeys all the time; for East Lothian as a whole, around a quarter of households do not have this¹. Responses to the question about access from those *without* access to a car included that the access target is

¹ East Lothian by Numbers

not ambitions enough, that 'it would be great if we all had access to a woodland within walking distance of our house' and that foot access needs to be linked up. However, one respondent without access to a car considered that access should not be increased in order to protect wildlife. This was the only respondent of this group who raised issues of harm caused by increasing access. Those with access to a car were much more likely to raise issues of harms arising from increasing access.

When you visit woodland, do you usually go by:



3.46. Some respondents gave more than one option. The intention of this question was to examine how people *travelled* to woodland, but looking at the results, it appears that people have filled it in considering their whole visit. Otherwise, they would only have chosen one mode of transport as their 'usual' method. So for example if they drive *to* a woodland, then walk *within* it, they may have chosen both 'Car and van' and 'Foot'. On reflection, this question could have been phrased differently and if taken as the usual method of travel *to* a woodland, is likely to over-estimate those travelling by foot.

When did you last visit a woodland in East Lothian?

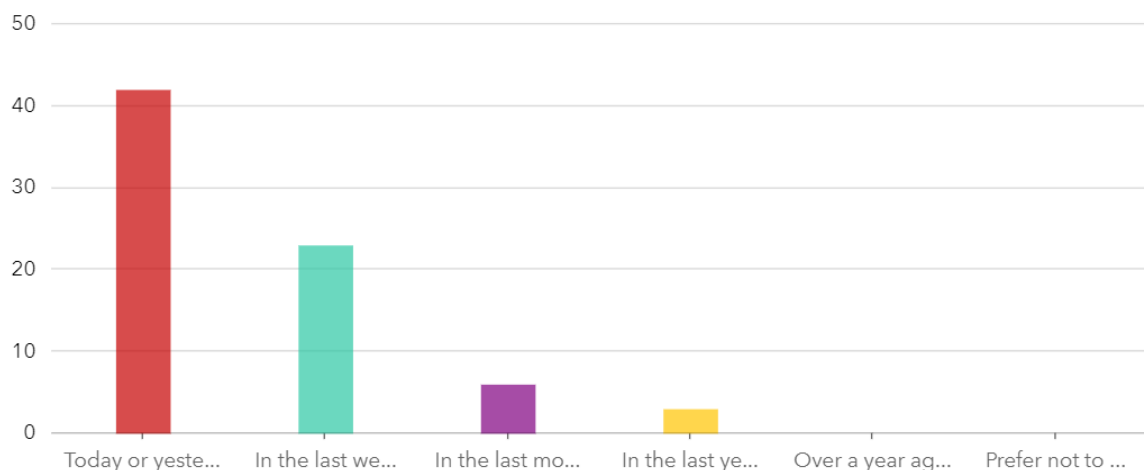


FIGURE 1 WHEN DID RESPONDENTS LAST VISIT A WOODLAND IN EAST Lothian?

3.47. As might be expected, few respondents that have not recently visited a woodland recently responded. The [Scottish People and Nature survey](#) asks about visits to the outdoors. This reported data from 2019/20 which found 63% of people had visited the outdoors for leisure and recreation 'frequently' (once a week or more), 12% occasionally (once or twice a month) and 11% seldom or never (less than this). Visits to woodland made up around a fifth of the total. So,

it is likely that those responding to the consultation visit woodlands more than the average person.

3.48. This does mean however that views from people who have difficulty accessing woodland for whatever reason, or who do not seek to visit woodland, are not well represented.

What is the main reason you visit woodland?

3.49. The following chart shows the main reasons respondents gave for visiting woodland. Respondents could choose more than one option. 'For a walk' or 'to be in nature' were the most often chosen options.

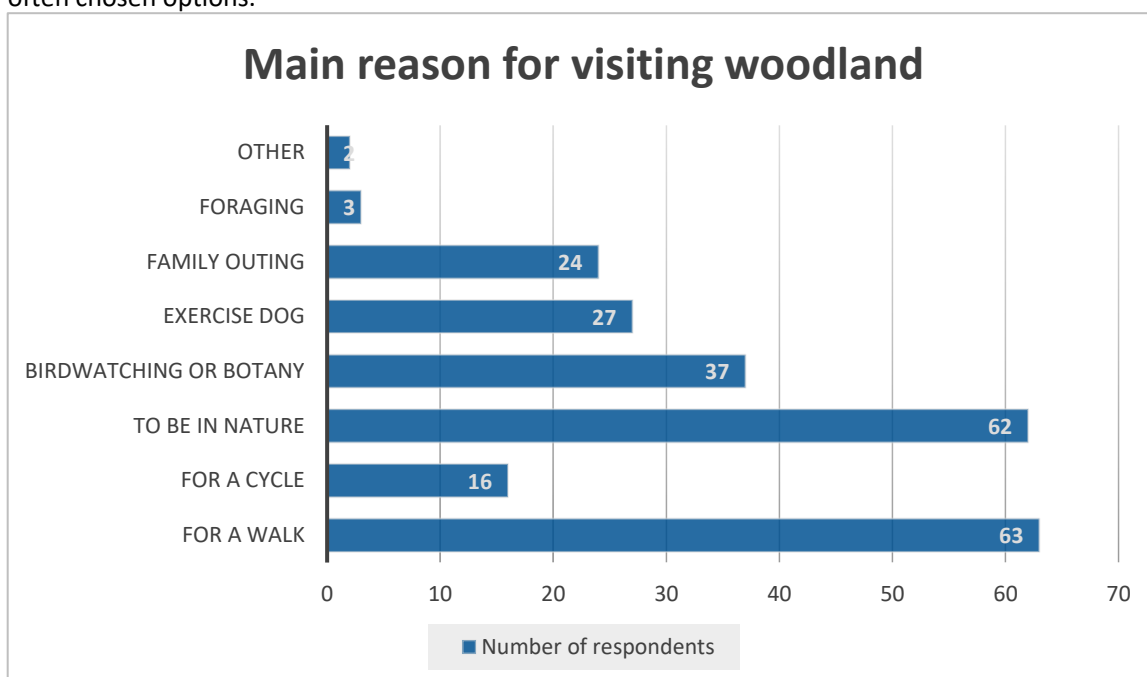


FIGURE 2 WHAT WERE RESPONDENTS'S MAIN REASONS FOR VISITING WOODLAND?

Survey question responses from individuals and business

Q1 What do you most value about trees and/or woodland in East Lothian

3.50. This question was asked to get a feeling for what people most valued about our trees and woodland. This would help consider what aspects of trees and woodland are most important to protect and celebrate. Almost all (71/78) respondents to the survey answered this question. People gave a wide variety of answers, some of which were very moving to read. We thank all our respondents for the time and thought they have put into this question.

3.51. The value of trees for wildlife, biodiversity or nature was the specific quality most often mentioned. Some people mentioned the trees or woodland themselves, in particular native and ancient woodland, or those in river corridors. Others appreciated them as part of a healthy ecosystem, for connectivity, as wildlife corridors or habitat for birds, insects, plants, lichens and mammals. Their value as the most important plants for pollinators was also noted.

3.52. Biodiversity was closely followed by various aspects of wellbeing – trees and woodland being experienced as relaxing, peaceful, sanctuary. Their beauty was another frequently mentioned quality, whether as part of the landscape character of the countryside or softening the urban environment. Their crucial role in combatting climate change was mentioned by many, as was

the provision of shade, and shelter for people, buildings, fields and gardens.

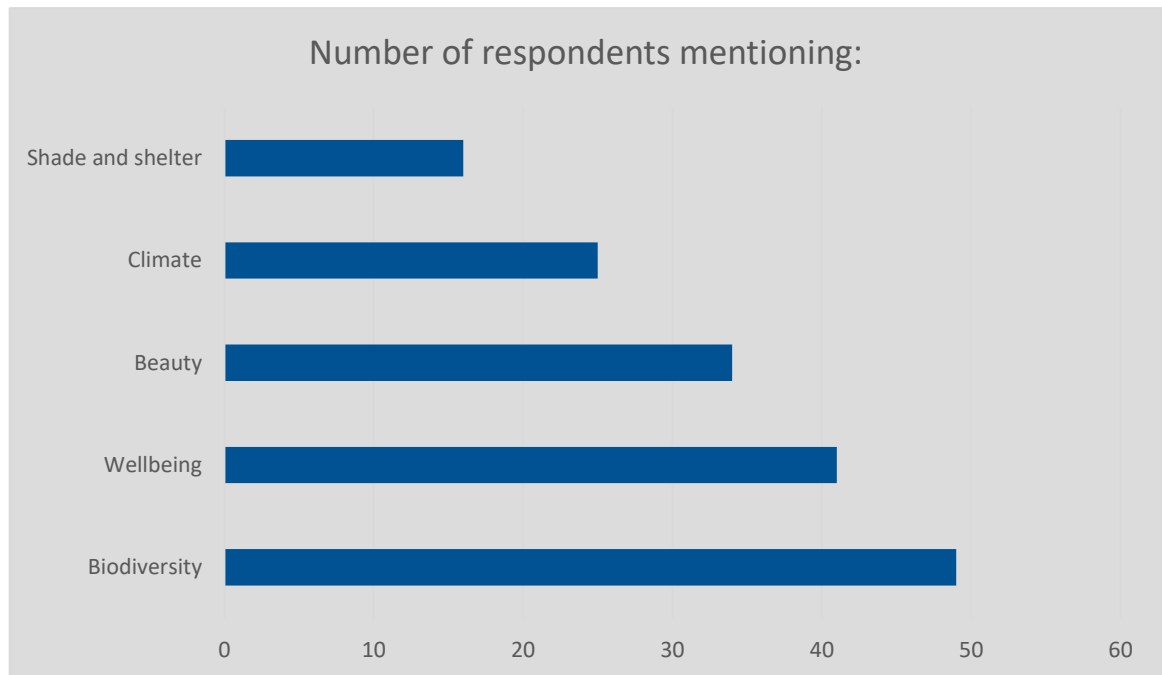


FIGURE 3 WHAT DID RESPONDENTS MOST VALUE ABOUT TREES AND/OR WOODLAND IN EAST Lothian?

- 3.53. Other aspects of trees that respondents mentioned as of value to them range from the physical function of the trees and woodlands themselves to social and spiritual value of woodland. Social and community aspects include the recreational value of trees and woodland for relaxing family time, providing an environment for play, learning, and helping children develop, and providing amenity green space. The value of woodland for communities and as a community asset was mentioned. One respondent noted that woodland is crucial to an area being desirable. The value of access to woodland was noted by several respondents.
- 3.54. Environmental benefits that were valued included their role in providing clean air; absorbing pollutants; managing water and reducing flood risk; protecting soils and reducing erosion.
- 3.55. Provisioning aspects valued were that they can be used for sustainable building material and furniture making, as well as biofuel. In terms of food, fruit growing and mushroom foraging were specifically noted.
- 3.56. Health benefits include their importance for mental health benefits such as stress reduction, reduction in road noise, and a place to walk, cycle or take the dog. Privacy was also mentioned as a benefit of trees. Spiritual value is hard to measure but clearly valued, with delight and inspiration being qualities that were explicitly mentioned or implied within many responses. Trees and woodland were recognised as part of the culture and character of East Lothian. The sound of birdsong coming from trees, hedgerows and shrub was another valued quality.
- 3.57. Some respondents mentioned a particular tree or woodland – an old pine in New Winton woodlands, a very tall, beautiful copper beech in North Berwick. The oaks in Pencaitland, Humbie and Gifford Woodlands, Woodhall and remnants of ancient woodland at Pressmennan, old growth forests. Mature trees in civic spaces.
- 3.58. The following quotes give a flavour of some of the responses:

"I think trees and woodland is crucial to our wellbeing. They offer an important habitat to our wildlife and they help to create areas for walking and learning. They give East Lothian an important green landscape as well as helping to absorb CO2."

"Their uplifting beauty, their necessity to help avert climate catastrophe and the 6th great biodiversity extinction (69% loss in UK since 1970). Also as shelter belts and shade."

"I think that for most humans, seeing trees and being in woodland is just instinctively good for the soul. On a more practical level, trees ability to provide shade, manage water and capture CO2 mean that they are really useful as well as being beautiful."

"It is so hard to put into words, what I value about trees in East Lothian. They have such an impact on my life and have done so since I moved here. The woods near Musselburgh Old Golf Course were my sanctuary during the first Covid lockdown. I can't put into words how special that place is to me. I go to New Winton woods on a regular basis, not to sound like a lunatic but I have a favourite tree there. A very tall and wide pine tree that always makes me smile."

"I have witnessed the effect of trees and woods on many of my pupils. The change of seasons is reflected in the changes to trees and children and young people feel anchored in the world by their presence."

"Trees keep our rivers clean, absorb pollution and excess rainwater, provide us with cooler areas in towns by providing shade and are beautiful. Trees are by far the most important plants for pollinators. Trees effectively are the guardians of biodiversity and ensure that our soils don't wash away into rivers"

"I love trees: in each season. They are beautiful, so beneficial for people's well-being. They provide homes and roosts for birds and animals, insects and fungi. They benefit air condition (absorb carbon), oxygenate and even make music in winds. They hold together riverbanks and absorb water. I love trees."

Response: the responses identified many aspects of trees and woodland that were valued. The importance of biodiversity, wellbeing, beauty and climate and shade and shelter are reflected in the strategy. No significant gaps in what has been included were identified from these responses.

Q2: What is going well with East Lothian's trees and woodland

3.59. We asked this question to see what people thought was currently positive so we can build on that. Understandably some respondents used this question to say what they thought was not going well. The aspects considered to be going well were things that the Strategy would support and/or continue with or improve. Most of the concerns raised were issues that are addressed in the Strategy, though concerns raised about development proposals fall to be considered through the decision-making processes on those schemes.

Things going well

3.60. Things people thought were going well included the trees and woodlands themselves, including 'beautiful old trees', ancient woodland and woodland near towns. Specific woodlands or woodland areas were mentioned, such as within the river valleys and golf courses, the bird reserve at Musselburgh Lagoons, Pressmennan, Binning Woods. Some mentioned qualities of trees such as their beauty, their diverse wildlife and making towns more attractive. One

respondent appreciated the towns not having an over-abundance of concrete, which would prevent trees from flourishing.

- 3.61. Respondents noted the rate of new planting, including through the Queen's Green Canopy and Climate Forest, by farmers, commercial forestry, community groups and private owners. Several noted that there was a greater emphasis on native woodland in planting than previously. Protection of ancient woodland and restoration of hedgerows was also noted as going well.
- 3.62. Aspects of tree management appreciated by respondents included replacement of commercial conifer woodland by native trees at Pressmennan and regeneration of native species at Butterdean. The care taken of existing trees was seen as going well, with one noting that most areas of woodland and hedges appear to be well maintained. Work on the nature reserves to diversify existing woodland was noted. The Scottish Wildlife Trust woodlands were noted as among the better examples of combining access, nature recovery and management for biodiversity. One respondent appreciated the measures taken to limit the damage of ash dieback, and clear communication about the scheme.
- 3.63. Many respondents thought access to woodland was an aspect that is going well, with a range of trees or woodlands that are easy to access compared to built up areas across Scotland. The fact that access was free, and had car parking, was welcomed. The ease of access was particularly noted in relation to primary school children in Dunbar. Woodland Trust woodlands used by the public were also a positive, as were trees in the urban realm, which help engage the next generation.
- 3.64. One respondent noted that trees are being added within the new housing developments while another was impressed by the quality of tree and shrubbery planting at Blindwells in particular.
- 3.65. Some respondents noted social or organisational issues in relation to trees and woodland which they considered to be working well. One was the general ambition to make improvements or commitments to increase woodland with the value of trees being increasingly recognised. Trees are valued by the community – as evidenced by the outcry when some are proposed to be felled. Tree Preservation Orders were seen as successful in preventing loss of specific trees.

Things not going well

- 3.66. Some respondents were very pessimistic about trees and woodlands in East Lothian, commenting that very little was going well, for example one saw woodland as getting smaller and overused, and another they are not doing as well as they look like they are. The most frequently mentioned concerns were in relation to development (in particular Archerfield, Herdmanflatt in Haddington, and the proposed flood protection scheme in Musselburgh); trees lost to natural or semi-natural events such as storms, and people's lack of connection and care for trees and woodland.
- 3.67. Planting of saplings to replace mature trees was considered inadequate, especially where they lack the maintenance needed to establish. Lack of trees in new housing development was also cited as something that is not going well.
- 3.68. Concerns were raised about the condition of woodland in SSSIs and the stretched resources of community woodland groups.
- 3.69. A number of respondents commented on what should be done. This included the need to look after woodlands and trees, protect them from being felled for house building, encouragement for tree growing within garden ground, and not removing trees unless they really are diseased.

A number of respondents commented that mature trees in Musselburgh should be retained rather than removed for flood protection.

Q3: What are the main problems we need to tackle in the future for trees and woodland in East Lothian?

3.70. A wide variety of problems and potential solutions were identified. Mostly, these were issues addressed in the Tree and Woodland Strategy.

Problems identified by respondents:

Lack of trees

3.71. Issues identified to do with lack of trees:

- Low percentage tree cover in some towns
- Very low coverage of woodlands - one of the lowest in Scotland
- Inequality of tree provision between and within communities
- Too many trees felled, loss of hedgerows and garden hedges
- Piecemeal and gradual removal of small and urban woods
- Ageing tree population and not enough planning for the future – specimen trees, avenues, trees in urban areas relative lack of native trees compared to commercial conifer plantations
- Lack of land for natural regeneration/planting
- ‘Nature deficit disorder’ is already evident – many people have lost a sense of connection to the natural environment. It has become normal to live in ‘barren, paved suburban wastelands’
- Planting trees in areas better suited for other habitat (grassland, peatland, wetland)

3.72. The public suggested the following solutions to lack of trees:

- Trees and woodlands must be protected and valued.
- A block should be placed on further destruction
- Mature trees should be treated as much more valuable they are for the wildlife the mature trees harbour and also the carbon they can sequester
- Enact a programme of urban native tree planting.
- Increase tree cover and better planting in developed areas
- Potential for commercial orchards or alternative crops

Response: the Strategy aims to protect tree and woodlands, and replace those removed, though recognising current issues with ash dieback (which is causing some trees to need to be removed). The Strategy recognises the value of mature trees is greater than younger ones. The Strategy aims to create new woodland, and plant more trees, and to increase woodland coverage in general and canopy coverage in towns in particular. The Strategy focusses on canopy coverage in more deprived areas.

Creating more woodland especially in or near settlement should help people connect to nature; a section on environmental education has been included to help people make connections. Urban tree planting is promoted however trees other than native trees are also supported in urban areas. This is because non-native trees they can have valuable decorative functions and increase variety. Also native trees, which have evolved in the countryside, do not always grow well in the more stressed urban environment.

The Strategy aims to avoid tree planting on areas of other valuable habitat. Lack of land is recognised as an issue, due to the value of land for other uses.

Climate/air quality issues raised

3.73. Climate/air quality issues relevant to trees and woodland identified by respondents:

- The UK has one of the highest risk scores in relation to extreme heat as our climate changes very quickly. Tranent suffers from extreme heat due to the significant amount of concrete and buildings. It is usually 2 degrees hotter than surrounding areas. More planting is needed to reduce temperatures and provide shade for what is a good walking network.
- Flooding on the Tyne – would like to see planting around the upper reaches of the Brin, Humbie and Keith waters (and North Middleton and Crichton in Midlothian)
- Climate change will lead to storms which will cause more damage
- Changes in temperature, flooding and drought
- Impact of climate on native species
- Air pollution is getting worse due to the number of wood burners in houses

3.74. The public suggested the following solutions:

- Tranent – tree planting to reduce the surrounding temperatures and provide shade for people walking across Tranent
- Planting in the upper reaches of the Brin, Humbie and Keith and in Midlothian would reduce flooding of the Tyne
- Planting needs to allow for more frequent storms
- More could be done to educate residents about the benefits of trees

Response: the strategy recognises that climate change will impact woodland. The strategy supports diversity in age structure and species which helps avoid wholesale loss in storms. The Strategy also recognises that trees and woodland can help mitigate climate change. The strategy cannot prevent the installation of wood burners in private homes, though it does not encourage production of wood as fuel other than as a by-product of tree work.

The Strategy includes a section on adaptation to the effects of climate change, which include flooding and provision of shade. The Council has undertaken a Natural Flood Management Study in Haddington and modelling of the Coulston Water. The Strategy supports woodland creation in appropriate upland areas.

A section has been added on environmental education.

Countryside/Biodiversity issues raised

3.75. Countryside/Biodiversity issues identified by respondents

- Lack of hedges which have been sacrificed for large fields
- Lack of green corridors/connectivity
- Not enough trees within agricultural areas, i.e. Shelter belts running north-south and trees along east-west roads on north sides of fields where not shading crops

3.76. The public suggested the following solutions:

- Create extensive new native species upland woodlands to increase biodiversity and assist flood water run off management.
- Planned replacement of non-native species with native trees and flora (clearly this would need to be committed to as a long term project).

Response: the strategy aims to increase the amount of hedges, and woodland connectivity generally. It also encourages agro-forestry and small farm woodlands and shelter belts, and upland planting in appropriate areas. The Strategy supports the replacement of non-native species with native species on ancient woodland sites. However, the role of commercial softwood forestry is also recognised in suitable locations.

Woodland/Tree Management issues raised

3.77. Poor or complete lack of management in general was raised. Specific issues raised about woodland management were:

- Removal of brash and branches rather than allowing natural decay
- Clear felling operations done with little consideration
- Woodlands should not be drained
- Existing hedgerows around fields are typically cut hard back and still often at the wrong time of year
- Vandalism of new trees
- Managing ash dieback
- Plant health pathogens (including from climate change) and monitoring potential disease
- Trees need protection, they need assistance to re-generate, they need adequate space and water.
- Use of plastic tree tubes/not removing these once trees are grown
- Use of “harmful” chemicals in areas such as glyphosate,
- Not having the resilience or funding to tidy up/redevelop areas
- Grazing by deer and sheep
- Woodlands should not be parcelled like allotments and dotted with sheds &c
- Urban trees can be too large, conflicting with vegetable growing

3.78. The public suggested the following solutions to woodland and tree management issues:

- Plant the right tree in the right place
- Trees and woodland must be properly managed and maintained; long term management needs to be planned and budgeted
- Stop using chemicals such as glyphosate
- More sympathetic hedge maintenance and cutting
- Replanting where trees are lost to ash dieback with resistant trees
- Conservation and replacement of lost trees is essential
- Mixed woodlands, including mixed woodland types give the most wide-ranging benefits
- Convert old growth coniferous woodland

- Protect areas to allow trees to self-generate
- Avoid monoculture hedges especially beech.
- Variety to protect against disease

Response: the Strategy aims to improve woodland and hedgerow management. The strategy discourages use of plastic tree tubes. The issue of plant pathogens is recognised and guidance on biosecurity included. Grazing by deer is recognised as an issue and further text has been added on this. The strategy includes a section on hutting however there is no control over the sale of woodland while fencing can mostly be erected under permitted development rights. See response to Gullane Eco Group on glyphosate use. The Strategy provides guidance about choice and siting of trees to avoid them becoming a nuisance.

The strategy aims to convert coniferous woodland on ancient woodland sites to native woodland. The strategy promotes variety to protect against losses to disease, and losses to storms.

Other land uses issues raised

3.79. Issues for trees and woodland related to other land uses identified by respondents were:

- Grouse moor management in the Lammermuirs
- Pheasant shoots – leading to unsympathetic management and reduced understorey
- Many agricultural practices e.g. Removing hedgerows and small plantations has resulted in reduced woodland
- The extent of land used for agriculture, with lack of space for hedges and lone trees as well as poor distribution of trees across such land
- Lack of stability in agricultural incomes mean more land is sold for development
- Golf courses

Response: the strategy aims to work collaboratively with landowners and managers to improve woodland coverage and condition.

Development issues raised

3.80. Issues with development identified by respondents

- Excessive housebuilding especially in the west
- Housebuilding leading to loss of wild places, woodland and trees and biodiversity connectivity
- Planning still puts development ahead of care for natural habitats
- Poor planning of trees within new housing areas: one respondent described efforts to include trees as half hearted, another describes such areas a desert with no meaningful greenery which has a negative impact on wildlife as well as peoples' well-being, another was concerned that native trees may not be planted; another that there is limited space for large trees in new development
- Too many "lolly pop" plantings rather than small woodland plots in developed areas
- Very few native hedges in new development compared to previously
- Trees planted in association with development are not looked after properly; lack of enforcement
- Individual large trees replaced with small trees which have little positive environmental impact.
- Lack of protection of mature trees in Musselburgh Flood Protection scheme and in planning decisions

3.81. The public suggested the following solutions to development issues:

- Development should take account of wildlife in line with legislation; planning permission should include a practical demonstration of safeguards and designs to support wildlife
- Any woodlands or trees which are removed should be replaced like for like
- Stop building generic new build developments without any thought to green space
- The housing crisis should be solved in tandem with reforestation not instead of it
- Development and increase in population must be matched by an increase in the biodiversity,
- Planning system needs to be bolder and insist that new developments include tree planting and room for allotments

Response: Scotland has a plan-led system and planning decisions are made in accordance with the development plan unless material considerations indicate otherwise. The development plan for the area is National Planning Framework 4, and the East Lothian Local Development Plan 2018. National Planning Framework 4 has introduced significantly improved protection for biodiversity, as well as woodland. It has also introduced requirement for biodiversity conservation, restoration and enhancement. In line with this, the Strategy aims to minimise loss of trees and woodland to development, and seeks compensatory planting where this cannot be avoided. Planning decisions are made on their merits and individual trees cannot always be retained or replaced.

The housing land requirement is set through the development planning process. Requirements for the amount of open/green space required from development is decided and set out in the East Lothian Local Development plan (currently under review).

The Strategy refers to advice on how trees can be used in development, and identifies locations where woodland planting would be most beneficial. This will help achieve the biodiversity improvements sought through National Planning Framework 4.

Requiring hedges in new development has problems as they can be removed by residents, resulting in loss of stock. The council recognises the issue of trees planted in association with new development failing more often than previously. This is partly due to climate change as trees which previously did not need much attention to establish, now do. An action has been added on considering enforcement of landscaping required through planning applications. Musselburgh Flood Protection Scheme: see response to Member of the Public 8, above.

Access Issues raised

3.82. Respondents identified the following issues

- Poor access to woodland/maintenance of paths/some woodland owners unsympathetic to access
- The core path network could aim to link up areas of wood. For example walking between Duncrawhill, Keith and Humble.
- Transport links to woodlands are often in favour of car drivers
- There are not that many green spaces in Tranent and it is common to drive elsewhere to access green space, planting more trees may be a solution to this.
- Woodlands are overused
- Issues related to access including litter and fly tipping, dog fouling, path erosion, trampling, wheeled vehicles, river edge erosion, dogs in rivers and threat to nesting birds, loss of birds and insects

3.83. The public suggested the following solutions to access issues:

- The core path network could aim to link up areas of wood. For example walking between Duncrahill, Keith and Humbie
- Create walking / cycling paths that link the main woodland sites so that people can travel between sites without having to travel on roads.
- 'neglected' urban open area sites where nature has managed to take back should be protected and managed for public access

Response: There is a right of responsible access to almost all woodland and core paths provide access to some woodlands. Changes to the Core Path Plan will be decided through the core path planning process. The Strategy aims to increase tree canopy coverage in towns. This may also help prevent anti-social behaviour in and over-use of woodland. Increasing overall woodland coverage may also assist with this.

Organisation issues raised

3.84. Organisational issues identified by respondents

- Handfuls of tree enthusiasts running around like headless chickens sticking the wrong trees in the wrong habitat and then leaving them to make the best of it.
- Unsympathetic ownership and development
- Continued lack of prioritisation of declared ELC objectives to preserve trees, woodland and hedgerows. Failure to take the climate emergency and the biodiversity crisis seriously. Danger that the strategy becomes a "paper tiger".
- Lack of funding/resource

3.85. The public suggested the following to tackle organisational issues:

- working with different community groups that can access funding for both tree planting and subsequent management

Response: the Strategy includes partnership working including with community groups in the Community section. See Action 35 and Policy 18. The Strategy aims to guide tree planting towards suitable areas. Lack of funding is also recognised as an issue.

Behavioural change issues raised

3.86. The public suggested the following:

- Encourage/teach people to treat trees and woodland with respect
- Stop burning wood in urban areas

Response: a section on environmental education has been included. The council's countryside ranger service will continue to promote respect for the outdoors. The strategy cannot prevent wood burning but does not encourage growth of wood for fuel.

Issues raised that are beyond the remit of the TWSEL

3.87. The public noted the following:

- There are a lot of unused old football pitches that could be great for allotments etc (Tranent)

Q4 What is the most important thing for the Tree and Woodland Strategy to achieve?

3.88. The following word cloud shows the wide variety of responses to this question.

respondents saw native woodland as important, while others cautioned against ignoring non-native species such as beech, sycamore and hornbeam.

Response: Retention of existing trees and woodland and tree planting and woodland creation is an important part of the strategy. Other than in towns where decorative or more unusual species are considered appropriate, the Strategy does prefer native species for new woodland planting.

- 3.95. Maintaining newly planted trees, including in new housing development, was a priority for several. Bringing more woodland into good management was also mentioned.
- 3.96. Educating, motivating and enthusing people on the value of trees, including through schools was mentioned. Community involvement was also considered important as much of the strategy relies on the actions of private landowners. Community involvement is a theme of the Strategy. Inclusion of education was considered in the development of the draft of the Strategy, but was not included in the final draft for consultation.
- 3.97. **Response:** a section on environmental education has been included within the Heritage section.
- 3.98. One respondent considered the resilience theme should be expanded to include food security and more emphasis should be given to orchards. The revival of Scottish heritage apples should be amongst the aims of the strategy. The strategy does support retaining the productive value of agricultural land and supports community orchards.
- 3.99. **Response:** Food security is important. A paragraph explaining how the strategy addresses this has been included. Further text on heritage apples has been included.
- 3.100. Less commonly mentioned priorities were creating spaces for outdoor education and exercise, heritage, and future proofing for all our health, as well as planting and managing more native trees to provide high quality timber for furniture and manufacturing in order to sequester carbon for as long as possible.
- 3.101. More and improved green space was mentioned by two respondents.
- 3.102. Some respondents focussed on implementation and delivery, including in decisions on planning applications. The need to have a strategy that will not be ignored was seen as crucial by several. The need to work with farmers and landowners, and alongside agricultural reviews, was also expressed. Partnership working was also recognised as important.
- 3.103. Tillhill Forestry responded that the strategy (rightly) is very hard on climate change and climate woodlands. However it is important not to lose sight that productive planting should be a significant part of that conversation – it is notably and (almost entirely) omitted from the strategy. The strategy could be interpreted as actually bias against productive planting.
- 3.104. Tillhill continued that in their view productive planting is far more effective at continually removing large quantities of carbon from the atmosphere. Upon harvesting it then provides sustainable raw materials to continue to lock up the carbon. The 10,000+ new homes being constructed in East Lothian are in part utilising homegrown timber from sustainable forests in Scotland. The report states that 34% of existing woodland in East Lothian is coniferous woodland – this is a significant quantity to largely ignore. In addition, the county supports two local commercial sawmills which provide jobs and supports the local economy. These activities are part of the Scottish Government Green Recovery post-COP26 pledges in Glasgow.
- 3.105. **Response:** The final draft of the Tree and Woodland Strategy has taken these comments on board and is more supportive of softwood forestry.

Q5 Do you have any comments on the Vision, Aims or Targets of the Strategy?

- 3.106. Some respondents commented that they agreed with it. Others that they agreed, but were concerned about delivery, some commenting that it was contrary to what was actually happening (in particular the Musselburgh Flood Protection scheme, development at Herdmanflatt). Enforcement of schemes agreed through planning consent was also mentioned as an issue. Doubt was also expressed that land would be available.
- 3.107. Tillhill Forestry commented that the Vision should recognise that commercially sustainable and biodiversity-managed woodland is part of the strategy as part of an integrated and multi-partner approach using the “right tree in the right place”. They considered the Strategy should recognise that to meet Scottish Government targets we must plant at landscape scale, and this will necessitate balancing many competing issues, concerns and opinions. However, they consider that carbon capture will become the first objective, while other benefits are considered within the revised Scottish Government guidance. Forestry and Land Scotland are the authority on planning and planting grant procedures and guidance. Clearly the Lammermuir Hills are important, whilst most of the land in EL will be too good for commercial planting (and of course should remain as farmland) there may well be opportunities to the south of the area. They are concerned that East Lothian considers this area “unsuitable for trees”.
- 3.108. **Response:** the area mapped as ‘unsuitable for trees’ reflects strategic level information from the John Hutton Institute and is not a policy consideration. As above, the strategy has been amended to be more positive towards softwood production.
- 3.109. The various comments made on the targets are shown against the most relevant target or issue.

Comments applying to all targets

- 3.110. A timeframe should be included. **Response:** interim targets have been included where relevant
- 3.111. Targets should be split into short/medium/long term. **Response:** Interim targets have been included.
- 3.112. The targets are very low and not very aspirational, especially for the timescales and threats. **Response:** the Targets aimed to be achievable. They are not a cap. Interim targets have been added.
- 3.113. Too many targets, needs streamlined. **Response:** the strategy is intended to provide multifunctional benefits. The number of targets reflects this.
- 3.114. Aims and objectives look good however there needs to be something that this will work in partnership with other areas of ELC (eg poverty work), and also third sector, NHS, local business etc. **Response:** this is included in the Delivery section.
- 3.115. numerical targets all seem to be fairly sensible – achievable, and not unrealistic. As East Lothian is one of the least treed areas of the country, the targets should be a benchmark not an end in themselves. **Response:** Agree, though East Lothian has significant areas of settlement, productive farmland and natural and built heritage which will always constrain tree planting opportunities.
- 3.116. Can local regulations be brought in to penalise anyone found damaging trees or are current laws / regulations adequate? **Response:** damaging property of another is generally already a criminal act. If people are caught doing so it would be up to the Procurator Fiscal whether or not to prosecute.

Target 1, Climate Mitigation

- 3.117. Mature trees should not be replaced by young ones. **Response:** this is included in the strategy, but is too detailed for the Vision, Aims and Targets.

- 3.118. There's a lot of focus there on creating new woodland. This should be done in addition to protecting existing woodland which should be a priority (which I see is mentioned in target 3d).
Response: this in line with what the strategy seeks to achieve.
- 3.119. Explain what is lost if woodlands are expanded – land may have value for other uses such as food production, wildflower meadows etc. **Response:** this has been done in policy and in the mapping of preferred and constrained areas.
- 3.120. mention of grouse moors and replanting these with trees. **Response:** The Native Woodland map shows areas for appropriate woodland planting including on moorland.
- 3.121. Grouse moor should be replaced with Montane/replanted wit trees **Response:** The Native Woodland map shows areas for appropriate woodland planting including on moorland. The council does not own grouse moor. The strategy prefers restoration of peatland in areas where it is possible, which includes some grouse moor.

Target 2 Resilience and climate adaptation

- 3.122. Food security should be added to the resilience section and more emphasis be given to growing fruit and nuts. **Response:** A paragraph has been added to the Resilience section on this. The value of food production is recognised through prioritising the retention of the food growing capacity of agricultural land. A section and Target on Orchards has been added to Target 4
- 3.123. Riparian woods should be the norm not the exception. **Response:** the strategy supports increased riparian woodland.

Target 3 Biodiveristy

- 3.124. Target 3 D: retention of ancient woodland: unsure why this is a target – although they need protection, retention doesn't imply any improvement to the current situation. **Response:** ancient woodland has been lost in the past, so setting a target of retaining it is reasonable. Avoiding loss would be an improvement on historic patterns.
- 3.125. If increasing hedgerows then they should also be managed properly with no cutting during bird breeding season. **Response:** avoiding harm to breeding birds is covered by separate legislation
- 3.126. Hedgerows and hedgerow tree should be a priority along with sympathetic hedgerow management. **Response:** a Target for hedgerows is included.
- 3.127. The coniferous reduction/PAWS target should be higher. **Response:** most of this woodland is on areas outwith the Councils direct control. The target is not a cap.
- 3.128. The target for corridors is important. **Response:** agreed.

Target 4 Community

- 3.129. Target 4 [increase access to trees and woodland for all] could be quickly implemented and have a big effect, helping to deliver Target 6 [improve recognition of trees with cultural heritage value].
- 3.130. Add target to create areas of orchards that can be accessed by the public. **Response:** added a Target for community orchards.
- 3.131. Include a specific target for planting native trees in new urban developments. **Response:** The Strategy has a target for 30% canopy coverage in urban areas. This does not have to be native trees. Trees within urban areas should be the right species for the conditions and a wider range of species other than native may be more suitable.
- 3.132. Include communities in local projects. **Response:** working with communities is included in the strategy.

- 3.133. Incentives could be given to local people to plant trees in their gardens. Residents developing proposals could be supported via their local community development trust e.g. for Avenue trees. **Response:** The strategy highlights where trees can be obtained.
- 3.134. All settlements should be included not just more than 500. **Response:** The strategy aimed to cover the main settlements
- 3.135. Increased access to woodlands needs to be a key vision for the strategy and is not addressed adequately. **Response:** the strategy aims to increase woodland near where people live. Core Paths and transport issues are addressed in other council strategies.

Target 5 Economy

- 3.136. On the 'Small Farm Woodlands and Shelterbelts'. Would be useful to have an East Lothian council policy that would enable people to start permaculture food gardens and community farms, possibly linked to tiny house communities (note comment above about solutions that would come from the synergy of need for housing and reforestation). **Response:** there is nothing to stop people starting either permaculture food gardens or community farms in appropriate locations. Seeking to enable this is beyond the remit of the strategy. Tiny house communities are a matter for the Local Development Plan.
- 3.137. incentives and opportunities (both financial and otherwise) for the farming community | agro-forestry should be maximized. **Response:** agreed, the strategy aims to work with farmers and landowners and managers who have the best knowledge of their own land. Target 5 has been amended to include agro-forestry.
- 3.138. It is really important to try to get the farming community on board. **Response:** Agreed. Working with farmers and landowners is in the Delivery section.

Target 6 Cultural Heritage

- 3.139. Target 6 should also specifically focus on improving understanding of biodiversity and the aims of the Tree and Woodland Project, through awareness raising and environmental education. **Response:** a section has been added on environmental education

Target 7 Landscape Character

- 3.140. Comments that were made under other questions but which are more relevant here included that townscapes should be improved, especially new developments like Blindwells. Outdoor learning was also called for. **Response:** The Strategy aims to improve canopy coverage. A section has been added on environmental education.
- 3.141. A request was made for consideration of to link woodland areas and travel between them. **Response:** the strategy aims to increase the connectivity of woodland, which would help this.
- 3.142. A possible need to regulate access by dog walkers, including professional dog walkers was mentioned. **Response:** the Council does license professional dog walkers. Land Reform Act access rights mean dog walkers cannot be excluded, though they must act responsibly in using access rights.
- 3.143. A comment was made that Interpretation should be kept to a minimum. Facilities should be low key, befitting wild places not formal picnic spaces. **Response:** interpretation can help manage access, lessening damage to sensitive woodlands.

- 3.144. “It’s crucial not only to have healthy woodlands but for these to be connected across the region to provide safe wildlife corridors for many mammals.” **Response:** Improving connectivity of woodlands is a target of the strategy
- 3.145. “Trees keep our rivers clean, absorb pollution and excess rainwater, provide us with cooler areas in towns by providing shade and are beautiful. Trees are by far the most important plants for pollinators. Trees effectively are the guardians of biodiversity and ensure that our soils don’t wash away into rivers” **Response:** The Strategy supports riparian planting where it will have most benefit for river quality and protection of soils.
- 3.146. “I would appreciate a concerted effort to create a much healthier network of mature hedging and standing trees around arable land and wider spaces given to lone standing trees away from farm machinery.” **Response:** Increasing the quantity of hedgerows is a target of the Strategy
- 3.147. Also from ‘values’ “The few native woodlands that are in SWT reserves, which are reasonably accessible and managed for wildlife are what we should be aiming for for many of the riverine valleys. Many policies (in designed landscapes) and shelterbelts add character to the often monotonous and anaemic agricultural landscape, but need better management for a broad range of purposes. Some interesting remnants within riverine corridors, glacial outwash channels, most of which are designated as wildlife sites - often scrub dominated, but important ‘connective corridor’ habitat nonetheless. Enormous potential if more incentives are in place and certain practices discouraged.” **Response:** The Strategy supports good management of woodlands and has a targets for increasing woodland coverage and improving connectivity
- 3.148. “More green space to enjoy and to provide some counter to the environmental impact of new developments. A good space to re-wood would be around the new developments at Letham and on the other side of the river from the maltings in the conservation area.” **Response:** Both these areas are defined within the mapping in the Strategy as riparian zones where additional tree planting is supported by the Strategy
- 3.149. “Plant more trees, encourage local people to plant trees in their gardens. Plant trees strategically so they can be part of nature-based solutions against the risk of flooding. Trees help create biodiversity and lower temperatures with microclimates they also add to the character of the town.” **Response:** The Strategy encourages more trees to be planted in people’s gardens. The strategy notes the importance of trees as part of nature-based solutions to flooding as well as the benefits of trees to the urban environment.

Q6: Is there anything else the Strategy could do to combat climate change?

- 3.150. Respondents made suggestions on both mitigation and adaptation (resilience) issues. Many respondents made links between the climate and nature crisis: *“The Strategy won’t achieve anything unless it works WITH what nature provides and respects and protects what grows here and gives it space and cleaner air.”*

Suggestions to mitigate climate change

- 3.151. Many comments were made to the effect that trees, woodlands and hedges should be retained, better managed, and more trees planted and woodland created for carbon mitigation. Specific ways of doing this included encouraging householders to plant and care for trees; ensuring trees and orchards are planted in new development; encouraging woodland and pet burial sites, tree food

production areas in town centres; Using nature based solutions (in particular in relation to Musselburgh Flood Protection Scheme) was also a strong theme of responses.

- 3.152. **Response:** retaining and increasing woodland is an overall aim of the strategy. Some of the specific suggestions are supported while others (such as burial sites) have issues that would need detailed consideration.
- 3.153. Education on the importance of woodland was suggested. **Response:** we have added a section to the strategy on this.
- 3.154. Reducing the amount of waste from tree planting and avoiding wasted stock through making sure planted trees survive was also suggested, as well as enforcement of tree protection by the planning authority. **Response:** waste is considered in the strategy. A sentence has been added to the Delivery section on monitoring and enforcement of relevant conditions on planning consent. The Strategy also notes that the right conditions must be given to tree planting and stresses the importance of maintenance to ensure successful establishment.
- 3.155. Buying local stock was suggested. **Response:** the strategy supports this through policy on seed and stock sourcing. It also encourages work with local suppliers.
- 3.156. One respondent noted that production of wood fuel is a big part of the business model for the large commercial owners of woodland and could not see how this model could be changed. Others suggested banning installation of wood burners, wood burning and wood being sold for burning. Another supported wood burning as a heat source, especially in rural areas. **Response:** wood fuel is a renewable source and can replace fossil fuel as an energy source. However, it does release carbon which could remain locked up in the wood, and also causes air pollution. The strategy does not support wood burning other than as a by-product to other uses.
- 3.157. A suggestion was made that the council should actively monitor every licence application made to Forestry Scotland in East Lothian, comment on its suitability in relation to the strategy, and work with local wildlife groups and communities to publicise the aims of the strategy to Forestry Scotland and landowners. **Response:** the council aims to work with Forestry Scotland and landowners.
- 3.158. Ensure timber or tree products used locally are produced locally. **Response:** the strategy is supportive of productive woodland however there are constraints on this which are also recognised in the strategy. The strategy cannot control where wood people purchase comes from.
- 3.159. Maintaining greenways (Tranent area noted) as if they are overgrown, they will not be used [increasing vehicle emissions].
- 3.160. One suggestions was to make roadsides woodsides. **Response:** the strategy does encourage field boundary tree planting but also recognises there can be road safety issues with planting along roads.
- 3.161. One respondent noted that *not* planting trees on other carbon sequestering habitat was important. **Response:** the strategy recognises this.
- 3.162. Both Tillhill and Alba Trees considered that commercial forestry is not a bad thing in terms of climate. Alba Trees noted that Scotland is a significant timber importer and more trees for forestry are needed to combat that and considered this message needs to be promoted to the general public. Tillhill considered East Lothian needs to be more intentional in optimising the areas for commercial woodlands to meet biodiversity and climate challenges.
- 3.163. **Response:** Reworded section on commercial forestry and changed emphasis to support commercial woodland in areas which are not identified as areas suitable for native woodland.

Suggestions to improve resilience to climate change (adaptation)

3.164. One respondent noted the lack of shaded areas, especially important during heatwaves. Another considered creating cooler areas and shade important. Planting trees along roadsides was suggested to reduce weathering effects from heat and cold on both roads and travellers. Trees were also suggested as useful for creating urban areas people like to hang out in and this would reduce car use. **Response:** the strategy supports increased canopy cover in urban areas which is likely to be near roads/pavements. There are road safety issues with trees next to roads, and they can also cause physical damage, and leaf fall can block gullies

3.165. One respondent called for forest fire prevention strategies, stressing that with raising temperatures and dropping rainfall, there is a need to plan and act now. **Response:** this was considered in drawing up the strategy. Policy 7 seeks sustainable woodland management and consideration of fire risk in woodland creation proposals. At the moment we considered the benefits of increasing tree cover including in urban areas outweigh fire risk. The SEA considers wildfire risk.

Suggestions beyond the remit of the strategy

3.166. Some suggestions were made by respondents that are beyond the remit of the strategy. These have been passed on to other relevant council sections for consideration where relevant.

Suggestions where the council has some influence included:

- Ban artificial grass.
- Reduce concrete paths in new areas
- Oppose housebuilding in East Lothian
- Not building in flood plains which again triggers run off and further environmental problems
- Stop cutting verges and green spaces as often and leave grass grow longer at all times of year
- Wildlife supported by a thriving woodland ecosystem will not just stay to forage in the woods, and so surrounding habitat should also support biodiversity in the same way
- Spacing houses out more in new development so they can have gardens and green spaces in between

3.167. Suggestions where the council has little influence were:

- Discourage industrial practices
- Avoid deep ploughing
- Plant more cover crops on agricultural land

Q7 Has the Strategy got the right balance between coniferous timber production and native woodland?

3.168. The proportion of responses is shown in the pie chart below.

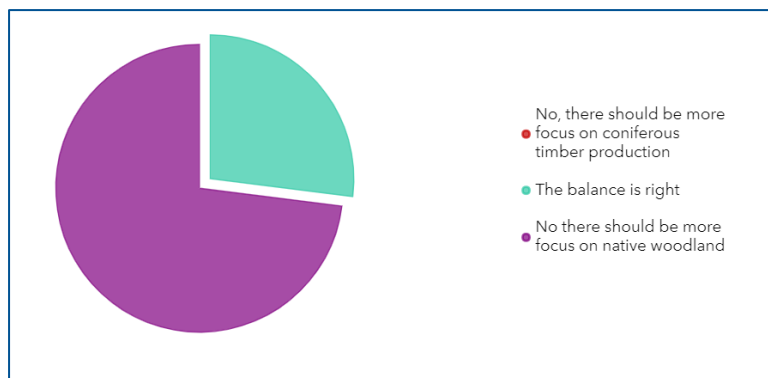


FIGURE 5 RESPONSES TO Q7: BALANCE BETWEEN CONIFEROUS TIMBER PRODUCTION AND NATIVE WOODLAND

- 3.169. No respondent said there should be more focus on coniferous woodland. Over half of respondents thought that there should be more focus on native woodland, while around a quarter thought the balance was about right. The remainder did not answer.
- 3.170. Tillhill Forestry commented that whilst commercial conifers are recognised as not native they provide both effective carbon capture and an important timber source. Timber imports are the fourth biggest commodity to the UK - this is not sustainable for the future and with such a major house-building programme in East Lothian the need for replenishing our timber with homegrown softwood for our future generations has never been greater. We must guard against the premise that broadleaved woodland is the best to walk our dog but then drive to B&Q in the car to buy timber that has been imported from Eastern Europe and Russia with the carbon footprint along the entire production and logistics train. Tillhill note we have sawmills in the UK including one at Petersmuir that takes and processes timber directly from East Lothian's forests. This is more sustainable and environmentally sustainable and a product and demand that focusing on promoting broadleaved woodland over commercial conifers which will fail to meet societal and economic needs.
- 3.171. Tillhill continue that East Lothian needs to be bold and ambitious in the percentage of tree cover to align with Scottish Government policy to tackle climate change. The strategy should recognise commercial need and champion this aspect of future strategic woodland creation and management. The classification will severely limit Woodland Creation and farm diversification opportunities in this area (broadleaf or productive/commercial). Although there will be sensitive habitats within the constrained areas, the blanket approach – will lead to tree planting and carbon sequestration opportunities being missed.
- 3.172. Opportunities to maximise productive use of marginal land will also be lost to landowners and farmers looking to diversify their landholding and income streams.
- 3.173. Alba Trees considered the balance was right but that we need to get the message out that commercial forestry is not a bad thing.
- 3.174. **Response:** the draft strategy focussed on native woodland, including preferring replanting of areas of softwood productive forest with native woodland or restoring peatland, where relevant. Having considered the response from Tillhill and Alba Trees however, we agree that the strategy should be more positive towards commercial production and have re-worded the section on commercial forestry as noted above. The mapping of constrained areas is based on habitats, soil types and designations. The aim is to steer woodland creation away from other important

designated habitats. Project level survey may reveal small scale opportunities in some of these areas.

Q8 The Strategy supports increased access to woodland. Do you have any comments or concerns about this?

3.175. Mostly respondents were positive about access, though many also stressed that access must be exercised responsibly. A small number of respondents considered that the potential for damage to woodland in general and biodiversity in particular meant access should not be encouraged, one saying *“put woodlands first or mourn their unique contributions to global health”*. Another agreed, saying *“I do not agree with 'increased access' for people. This may sound extreme, but what is happening to nature, to the massive decline in species caused by human beings, is extreme”*.

Issues raised concerning harm to woodland from increased access

3.176. Concerns raised included damage to woodland in general and wildlife in particular through disturbance and trampling of plants. Noise, litter and vandalism were given as problems. Issues with dogs including conflict with wildlife, out of control dogs, dog fouling, and professional dog walkers were identified. Erosion of paths was raised. There were concerns that increased access could lead to damage from emissions from cars, an increase in traffic and anti-social parking and erosion on small country roads. Fire was also raised as an issue. One respondent consider there has to be a balance which protects landowners and the environment from irresponsible use.

3.177. Suggested solutions made by the public were:

3.178. **Public Education.** Respondents saw public education focussing on responsible use as a solution to some of the issues arising from increased access. The countryside ranger service was identified as well placed to deliver public education. Several specific suggestions for groups to be targeted were made. These included education specially aimed at children, to teach how to respect and protect the forest, but also how to responsibly use it (i.e. foraging). Dog owners were another group suggested. Another called for an overall strategy on education about protection of the environment. Education on how rare “Right to Roam” [right of responsible access] is and what we can do to protect it was also called for. Alba Trees Limited noted that we need access but also to educate the public regarding commercial forestry. **Response:** additional information has been added to the strategy on environmental education.

3.179. **Paths.** Several respondents suggested well maintained paths including for wheelchairs, buggies and bikes would help to manage access, protecting the remainder of the wood.

3.180. **Physical measures.**

3.181. Signage reminding people of their responsibilities, which is also a form of education, was suggested. Provision of litter bins/dog waste disposal, biodegradable dog bag dispensers. **Response:** not all woodland is under council control. Litter bins can sometimes worsen the problem as rubbish is left regardless of how full the container is. There is also a considerable cost to the council in servicing bins.

3.182. Protection of young trees from vandalism was suggested. **Response:** Young trees are unfortunately vulnerable and it is not always possible or desirable to fence off the area.

3.183. One respondent noted that not all woodland needs to be accessible, and another that access to woodlands for professional dog walkers should be restricted. **Response:** The ‘accessible woodland’

section is being revised to reflect comments that all woodland must be considered 'accessible' under the right of responsible access, not just that on Core Paths routes.

3.184. Another called for a ban on tents. **Response:** Wild camping is permitted under the Land Reform Act so tents cannot be banned.

Other measures:

3.185. Other measures suggested to avoid harms to woodland from access were:

- Monitoring was suggested. **Response:** Monitoring in council woodlands is carried out by countryside rangers. Text has been added to the Strategy noting the planning authority will consider how it can better monitor establishment of trees related to planning consent.
- No grants should be given without a biodiversity positive management plan. **Response:** this a matter for funders.

Availability of access to woodland

3.186. Concerns raised about provision of access included:

3.187. That it needs to be accessible to everyone including those with mobility issues. Lack of access to woods other than by car was seen as an issue, as was the lack of pedestrian links between woods. The actions of some landowners in removing parking and erecting fencing was raised as a barrier to access. One respondent considered that provision for off-road biking could be better in all woods (the Keith and Humble valleys specifically mentioned as difficult to visit). Encouragement of access for children through Forest Schools was suggested. Concerns about changes to access to woodland related to proposed development at the Esk and Herdmanflatt were raised. Some thought the access target could be more ambitious.

3.188. Solutions suggested were:

3.189. An advisory group of disabled people should be consulted to ensure that access is for all and not just the able bodied. People should be at the heart of reforestation plans to create jobs and recreation should be prioritised. Grants should be linked to reasonable public access. There should be tie in with an Active Travel Plan. ELC's Core and Aspiration Path Strategy needs to be implemented using compulsory purchase powers if necessary.

3.190. Protection or expansion of woodland was also suggested to improve access. One suggestion was that small local woods should be part of any development, not just large ones, in recognition of the mental health benefits this provides. Another was ensuring ensure there are trees on school grounds and woodland accessible by foot from all schools. A third was that woodland cover in upland areas should be expanded to allow for multi-day hiking in natural habitat, or a full days walk in lowland areas. There were also calls for the protection of specific woodland areas including Herdmanflat in Haddington.

3.191. Physical works suggested included development of a network of offroad trails linking woodland areas; with a call for a bridge over the Brin to reinstate to extend the railway walk to Gilchriston (to open up Keith and Humble valleys). Car parking for community access was also suggested.

3.192. **Response:** the strategy promotes inclusive access to woodland. The Core Path Plan is the vehicle for improving access by foot. Landowners cannot be forced to provide parking, and most fencing can be erected under permitted development rights. Though, where Core Paths or rights of way are blocked the council can act. Off-road biking is not encouraged in all woods as some are sensitive for biodiversity reasons and this activity can be damaging. The strategy encourages creation of woodland, though not necessarily in all areas suggested.

Q9: The Strategy has a target of a minimum 30% tree canopy coverage in towns and larger villages. Do you have any comments or concerns about this?

- 3.193. Almost all comments were explicitly supportive, with 23 respondents calling for higher targets. This included some who called for higher targets for areas that already had 30% or more. One respondent noted that in areas with lower canopy coverage even an increase to 20% would be a great result. No respondents explicitly stated that the target should be lower, however a few reservations were raised. These were risk of fire and danger to urban areas, shading gardens. One respondent considered that residential areas make up a tiny fraction of East Lothian and should not be the focus.
- 3.194. Doubts were also expressed about delivery due to planning allowing mature trees to be felled, and tree planting having been neglected in new housing developments. One respondent considered that the target should not be for the locality as a whole, as that can obscure some areas which have very low tree canopy.
- 3.195. Reasons given for support of the target – or a higher target - were that greater canopy coverage would improve wellbeing and mental health, and that trees enhance an area, improving biodiversity and microclimate. Trees are needed in some parts as refuge from the sun when it is hot. They can also shield from wind, noise and dust and reduce pollution. Calls were made for more trees and hedges, and retention of existing trees.
- 3.196. Specific towns noted as being bare of trees by different respondents were Macmerry, Prestonpans and the Tranent area as well as Musselburgh, Dunbar and East Linton. One respondent noted it was very obvious that Tranent has a tree canopy of only 16% which directly effects residents compared to Longniddry. This also highlights how deprived areas lose out on access to green space.
- 3.197. Some respondents noted specific areas that would benefit from more trees. In East Linton the ‘Stewart Milne development’; new paths to the railway station and along the railway; and the new road to replace Markle Crossing. One respondent noted their small village (unidentified) would benefit from tree planting within the village and at the entries which could slow traffic speed. North of the railway at Dunbar was also noted as having few trees.
- 3.198. A few respondents commented on Blindwells, one noting it was shocking that Blindwells has only 3%, and thought this should have been addressed through the planning consent. One considered tree plantings in the plan for Blindwells used trees to define areas rather than as blocks for their own value.
- 3.199. Difficulties with achieving increased canopy coverage included social pressure on people to not plant trees in the small gardens of modern houses because people want sunlight and believe trees damage property values. Planning conditions for large scale housing developments should include more green space and tree planting. One respondent considered landscaping on these sites was basic and an after thought. Another though it would be difficult to achieve the target on new build sites due to the layout. Ash dieback would also present challenges.
- 3.200. Issues included looking at the age and mix of trees in different locations, as if all the trees are of similar maturity or species they risk all being lost at the same time. A plan for ongoing renewal is needed. Securing genepool diversity was also flagged as this is needed to build a resilient tree population. Self-seeded trees are the ‘successes’ and should be protected as they can survive today’s conditions. The need to care for trees until they are established was raised.

3.201. Development sites on previously agricultural land were seen as an opportunity through creation of new community woodland or parks, or street trees, as well as prescribing tree planting in private gardens.

Comments on specific woodlands or tree?

3.202. The survey gave respondents an opportunity to comment on specific woodlands or trees. Comments were received woodland and trees at the following locations.

The Grove, Musselburgh	Trees here contribute to mental health, wellbeing and are valued for biodiversity and beauty.	
Whitehill Avenue, Musselburgh	Trees here have ash dieback and are too large for the area.	The Council's Amenity Services team are addressing ash dieback of council owned trees. Advice from TDAG on species choice has been included in the strategy.
Links Avenue, Musselburgh	There needs to be more trees planted here to combat climate change and reduce risk of flooding.	See response to Member of the public 8.
The Esk, Musselburgh:	Mature trees along the Esk should be preserved.	See response to member of the Public 8.
Musselburgh Bird Reserve	Trees here are appreciated.	noted.
Delta Drive, Musselburgh	An old tree here is valued. More trees here would enhance the area.	canopy coverage targets of 30% have been set for areas within settlement.
Church Street, Tranent	Garden ground has erroneously been included as existing woodland.	See response to Member of the public 5.
Cedar Drive, Prestonpans	Trees were planted here which do not have space to grow properly. Too many trees have been built in this area and have not had the space to grow therefore have grown tall and skinny - many children play in these woods and these tall trees overlook residential houses. The trees move a lot and many have fallen over as a result of poor development and high winds - it is a danger to life!!!	
Wood to south of Links Road at by NW corner of Seton Sands Holiday Village	Its a small wood and a Woodland Trust reserve that needs some work and some trees have been illegally feld in the past.	
New Winton (woodland SSE of village)	A particular pine tree here is appreciated.	

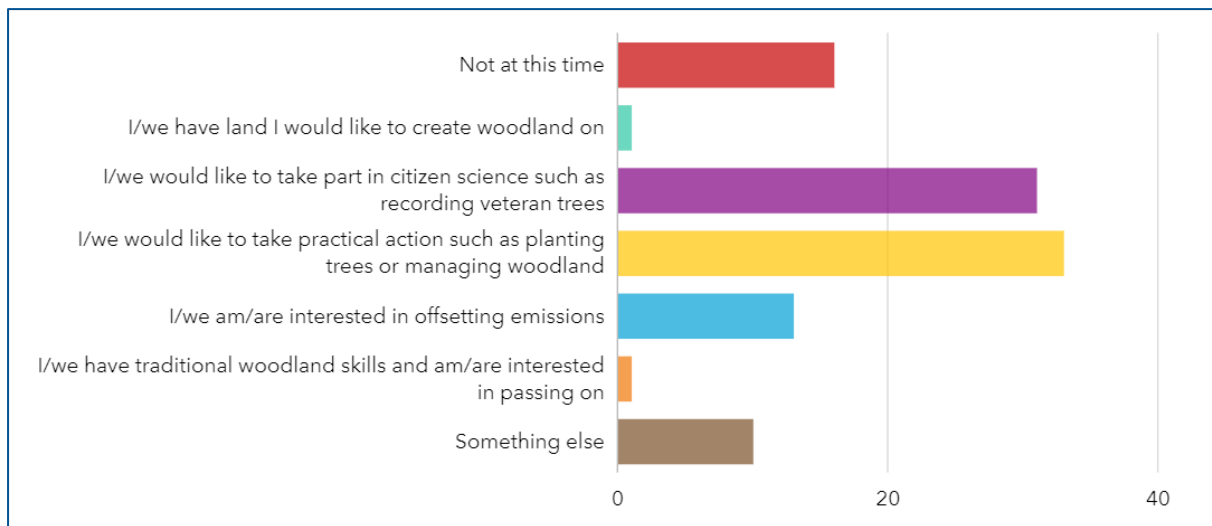
Dean Woods, Longniddry	Dean woods is valued for its beauty, biodiversity and recreation.	noted. This area has protection as ancient woodland.
South Border of Polson Park, Tranent	The conifers here are appreciated.	noted.
Morrison Avenue Tranent,	Replanting trees felled by a storm would be desirable.	noted. Increasing canopy coverage in this area is supported.
Waggonway east of Tranent	Tranent Wombles comment on scrub woodland bordering the North-East of Tranent, noting that this should be considered as existing woodland on the mapping.	This area has now been included that area as existing woodland.
Butterdean	Butterdean was noted as a great place to visit however increasingly busy. Issues with parking and commercial dog walking here were mentioned. A comment was made that this wood could be extended to the A199.	Butterdean is managed by the Woodland Trust. The management plan is reviewed every 5 years. The land to the north, between the wood and the A199 is prime agricultural land, where tree planting would not be supported unless it improves agricultural production.
Land south of the Maltings, Haddington	the trees here are nice and more could be planted between Haddington and East Saltoun	these trees are shown as existing woodland, woodland creation around the Tyne is promoted by the strategy.
Herdmanflatt Hospital site, Haddington	This area is valued as greenspace and for its trees, seen as important for health and wellbeing	This site is subject to a planning application which will be decided on its merits.
River Tyne, by Abbeymill Farm	There is an old and beautiful sycamore tree here. Such trees should be protected.	The strategy encourages recording of ancient and veteran trees, which are protected by National Planning Framework 4.
East Fortune	The woodland at East Fortune is under threat from development.	This site is subject to a planning application which will be decided on its merits.
North Berwick High School grounds	Concerns about a hedge/tree belt to be removed to extend school playing fields.	This site is subject to a planning application which are decided on their merits.
North Berwick, east of The Lodge grounds	Mature trees in North Berwick should be retained and if necessary replaced with large specimen trees.	Improving canopy coverage is an aim for all settlements.
John Muir Country Park	Following storm damage there is the chance to created a better balance of native woodland and other habitat.	The Strategy supports coastal mosaic habitat.
West Barns	Query on plans for replacing trees felled due to ash dieback here.	The strategy proposes landscape scale replanting to replace ash trees, which will be worked on as resources permit.
Dunbar High Street	Trees in private ground in Dunbar Conservation Area have an important public function and owners should be discourage from removing them.	Legislation requires owners to inform the council about tree work in Conservation Areas. The council can serve a Tree Preservation Area if necessary.
Lochend House, Dunbar	The grounds of the garden, the curling pond and other features would benefit from sensitive restoration.	
Lochend Woods, Dunbar	The woods have health benefits including parkrun, as well as blackberries and elderberries.	Noted

Delivery

- 3.203. On Delivery, the need for partnership working was a strong theme. Respondents advised collaboration with: communities, community groups and residents including teenagers; government bodies; neighbouring councils; community councils; landowners and managers; golf course owners; farmers organisations; schools, nursing homes; third sector (East Lothian Climate Action Network, Woodland Trust and TCV, wildlife groups), commercial forestry companies; developers; community centres; residents; factors on new housing estates; commercial and retail operators with areas of unused ground. Support from central government was called for, and one respondent noted that the strategy must work with agricultural reviews.
- 3.204. Setting up a Woodland Forum or 'Friends of' groups was suggested as a way to do this, and consultation of communities on forest and woodland plans was called for. The Tranent Wombles noted that working with communities was seen as important to source saplings, identify space for planting, involve local people in the care of trees and to review progress.
- 3.205. Several noted that collaboration with landowners should be in a supportive way, including encouraging them to apply for grants. One respondent specifically called for partnership working with Midlothian Council on flood prevention.
- 3.206. Respondents considered engagement with developers, especially of housing, was needed from the start. Suggestions included making planting trees a condition of planning permission and making sure areas are set aside for woodland. Training for planners in biodiversity issues was suggested.
- 3.207. Other actions suggested included:
- offer some incentives e.g. to landowners to plant hedges round fields,
 - offer council tax or business rate reduction
 - provide free trees
 - support community buy-outs
 - promote new woodland burial locations
 - encourage people to plant trees in their own gardens
 - public education
 - getting people into the presence of trees
 - 'stalled spaces' initiative
- 3.208. The council was encouraged to plant trees on land under its control including in council house areas. Purchase of farmland for this purpose was also suggested, including through compulsory purchase powers.
- 3.209. **Response:** the council is planting trees on council land as part of its Nature Network projects, in collaboration with Tree Time. However the need to urgently deal with safety issues arising from ash dieback and storms are limiting capacity at the moment. The costs associated with purchase of land for woodland means that this is not something the council is considering at this time.
- 3.210. One respondent made a call for regulations on stewardship for landowners, including obligating upland landowners to provide car parking for access. **Response;** this is beyond the remit of this strategy.

Q10: If there was the opportunity, would you be interested in helping to deliver the Strategy?

3.211. The survey asked if respondents could help deliver the Strategy. The chart above shows the ways people offered to help, and a mailing list has been created to keep in touch with everyone who gave their details. Other ways that people offered to help were in promotion and education. Both Alba Trees and Tillhill offered to advise and help.



Strategic Environment Assessment comments

Could there be any significant environmental effects from the Tree and Woodland Strategy?

3.212. The draft Tree and Woodland Strategy was accompanied by a draft Environment Report.

We asked for comments on this, and for comments on the potential environmental effects of the strategy.

3.213. Most respondents mentioned only positive effects one thinking the targets in particular would have a positive effect. One respondent said there would be negative effects but did not specify what they considered these to be..

3.214. One respondent noted that the effects would occur only 'if you do what you say you're going to do', indicating doubt about delivery rather than the strategy as set out.

3.215. **Climate:** two respondents noted the positive effect on climate from offsetting or mitigating atmospheric CO2. One considered that the strategy does not go far enough and the climate crisis will worsen. One respondent drew attention to work on Costa Rica's regeneration of rainforest. This found that planting woodland near the coast can generate more rainfall, which they considered would be a good thing for East Lothian.

3.216. **Biodiversity:** Seven respondents thought there would be positive effects for **biodiversity**, including from native woodland. One respondent noted that planting monoculture will have devastating results.

3.217. **Human Health:** Three respondents identified benefits for health and wellbeing. One considered if the strategy was not implemented carefully there could be impacts from dog walkers could harm and upset others.

3.218. **Air quality:** Two respondents identified benefit for air quality.

- 3.219. **Water/Material assets:** Two respondents noted benefits arising from flood protection. One noted flood protection benefits for communities and agricultural land arising from the integration of trees into farming, creating shelter belts, hedges and more diverse woodlands. The other considered benefits would arise from optimising land drainage especially with regard to vulnerable areas.
- 3.220. Landscape: there could be harm from interpretation with a need for facilities to be low key, befitting wild places not formal picnic spaces
- 3.221. Helping to achieve the Scottish Government's tree planting targets was also noted as an environmental benefit. Plastic pollution was mentioned, we assume as having potential for negative effect as this is a common material for tree guards. Sustainable purchasing was also mentioned but it was not entirely clear what the respondent intended by this.
- 3.222. New opportunities for **eco-tourism and jobs** were also mentioned.
- 3.223. Impacts from the Flood Protection Scheme in Musselburgh were raised. **Response:** the impacts of this scheme will be identified through the EIA for that project.

Comments on the Environment Report, including the Non-Technical Summary?

- 3.224. The survey asked for comments specifically on the Environment Report itself. Seven respondents commented, three of which on the presentation rather than the content.
- 3.225. In terms of style, one respondent considered that schematic presentation of diagrams should not be used, and several thought it too long and/or complicated. Another thought an Executive Summary would be helpful.
- 3.226. Some respondents also commented that it was good.
- 3.227. Specific comments were:
- 3.228. **Invasive species:** designing woodland to make sure it support a wide variety of wildlife will help, avoiding monocultures (an example of this could be similar to the conifer forests in highlands which red squirrels are not doing great because the habitat does not support their ecological needs, the leaves do not provide hiding place away from predators like pine martins which are thriving in the borders currently. Ensuring local and sustainable sources of trees will help reduce introduction of invasive species as well, and ensuring you are planting native.
- 3.229. **Pollen count:** Ensuring a mix of male and female plants are planted will help with any increase of pollen counts. In some areas, though not sure about East Lothian, urban planners planted predominantly male plants because they do not produce fruits and they didn't want to clean up seeds etc. But this increased pollen counts and bad hay fever spells. May not be the case for East Lothian, but something to maybe consider.

Integrated Impact Assessment comments

- 3.230. A draft Integrated Impact Assessment was completed and included for consultation as good practice. Only two comments were received on this. Some respondents said they hadn't had time to read it, which suggests the overall number of documents may have been too long. The comments are reported in the Integrated Impact Assessment itself. In summary, comments said that more community consultation needs to be done.

- 3.231. We also asked respondents if the TWSEL could have any impacts which are unfair, and what these were. Comments are reported in the IIA, but included the need to make sure spaces are safe and unfairness arising from lack of travel access for all.
- 3.232. Suggestions to combat unfairness included
- Planting trees to give products to forage
 - Planning travel access for all
 - Aiming for equitable planting across the area/focus on areas with low canopy coverage
- 3.233. **Response:** the strategy encourages fruit growing but has not promoted foraging as this will be a natural outcome of increasing woodland coverage. There are restrictions on planting non-native trees in the wild which limits what can be planted for forage. Travel access is an issue for other strategies. The strategy aims to improve canopy coverage in settlements where this is low.

Comments on the consultation process

- 3.234. At the end of the online survey we asked a question on whether there was anything we could improve about the consultation process.
- 3.235. Comments included that the survey was too long, and also that participants should not have to read very long documents. The survey questions were designed so they could be answered without reference to the documents, however, some respondents felt the survey was too long in itself. We had considered that it was important to make the Strategy and supporting documents available, though were aware that both the length and the language in some of these documents might discourage people from reading them. The Strategic Environmental Assessment had a Non-Technical Summary. The Strategy itself would have benefitted from an Executive Summary, as one respondent commented, and this has now been included in the final version.
- 3.236. Several respondents considered that we should not have asked personal questions. These fall into two categories, firstly asking questions such as what they value about woodland, and secondly, for personal information on gender, race and others. The first type of question was asked to allow respondents to express their views on woodland and trees without having read the Strategy documents. We considered this to be important for inclusion and recognising that the time commitment needed to read this document was considerable. The second type of question was included to help the Council meet its equality duty. It is important that we understand if the consultation has reached all sections of the community, or if not, what sectors of the community the responses come from. Some groups (as identified in the IIA) may also experience trees and woodlands differently, and we felt that it was important that we could understand responses in this context. For this reason we consider it was right to include these questions. It does highlight the need to make sure that the reasons for seeking this information is clearly explained however. For this second type of question, there was an option for 'prefer not to say' which allowed respondents to submit their views on woodland and the strategy without providing this information, should they so wish
- 3.237. One respondent noted that a relative may not have been able to participate at the events due to caring responsibilities, which was not a question that was included in the equalities information. This is a learning point for the future.
- 3.238. A series of 7 public events was held, one in each main community, with publicity through posters, the council's social media, and through a mailout to the Local Development Plan mailing list. Some called for improved promotion. One respondent queried whether people who were not digital natives had been considered, with specific suggestions including printed notices in public areas

including buses, libraries and shops and attending fetes and galas (posters were placed in shops and libraries, the suggestion of using buses is one that could be looked into). Another suggestion was to invite people to local discussion and voting groups. One respondent said they would like to have had something emailed to them directly.

- 3.239. Several suggestions were made about how to take the Strategy forward, including having discussions that would include councillors and local communities and/or using the Area Partnerships or local community bodies to hold a series of conversations with partners. One respondent noted that commercial companies should be brought on board to integrate in the next stage of the consultation process as they can bring valuable insight into this process which will give the consultation credibility in its breadth and depth of engagement. Another respondent considered there needs to be a way of contributing to the implementation plans without reference to community councils.
- 3.240. This consultation was carried out at the same time as consultation on a number of other council strategies. Information from these consultations has also been used to feed into this strategy. From the consultation of children and young people for the LDP it does appear that children were interested in trees and some of their comments were used to improve the strategy. With more resource it would have been useful to have had more targeted consultation of children and young people.
- 3.241. Lastly the timing of the consultation in relation to the Musselburgh Flood Protection Scheme, which was seen as removing trees, was noted.
- 3.242. Learning points for future consultations include:
- 3.243. For future consultations it is again likely that equalities questions should be included. Some are needed to check responses to survey questions are not different for different groups, others to check we have reached everybody. The questions should be necessary for this, and also include barriers some may have such as caring responsibilities. Consider very carefully which equalities questions are needed to keep this to a minimum.
- 3.244. The length of documents is acknowledged as an issue. It was possible to fill in the survey without having read the documents, which was made clear at the start. There was a Non-Technical Summary for the Environment Report, but an Executive Summary of the Strategy itself might also have been useful for the draft.
- 3.245. The need for wide publicity for the consultation is recognised. In addition to the publicity undertaken, it may have been useful to go to where people already go (galas and fetes as mentioned, but also shops).
- 3.246. A suggestion was made for local discussion groups. This could be considered, resources permitting.
- 3.247. Involving commercial companies in the sector is a good suggestion, and perhaps could have been done earlier in the process of creating the strategy.
- 3.248. Children and young people cannot be expected to engage in a similar way to adults, and ways of getting their views should be considered.

4. Comments made at events

Musselburgh Brunton Hall Event - approx. 6 attendees

4.1. Between 5 and 10 attendees came to this event.

Comment	TWSEL response
Nature shouldn't be in 'corridors' but should be wherever it would naturally be.	Connectivity is needed to allow for functional habitat, there are many demands on land and nature would naturally be everywhere. The areas of remaining natural habitat are where nature would have originally been and the aim is to connect them.
Save the trees, don't cut them down for houses.	the aim of the strategy is to achieve this other than in exceptional cases.
There is a lack of large trees in newer housing areas. This affects the overall appearance of these areas and the towns they are in. These should be planned for at the outset.	Agree, however high housing density is also important for transport and energy efficiency. This can lead to conflict with residential amenity through shading &c. The trees that have been planted will grow over time so the situation will improve. The TWSEL contains advice from the Trees and Development Group which aims to support good choice of species.
Connectivity is important, there is no point in having a lot of little isolated bits of woodland.	The strategy aims to increase connectivity.
Why are you not working with the Musselburgh flood protection scheme designers? The Council should join up what this Tree and Woodland Strategy is trying to achieve with that.	The Musselburgh Flood Protection Scheme has considered the TWSEL. The amended outline design has reduced the amount of trees to be removed and is looking at the best places for mitigation planting in line with the TWSEL.
Woodlands are good places to go and be in nature they are calming for grief.	Noted. The strategy aims to improve access to woodland.

Musselburgh – MECA

4.2. Around 10 people came to this event.

Comment	Response
People make a lot of fuss about each tree felled but it's the overall impact trees have that's important.	TWSEL allows for tree removal where necessary.
Pinkie estate is good, but new estates are very stark – token tree planting and lack of really big trees. In the new builds at Pinkie a very large mature tree was felled for no particular reason, they could have built round it.	See response on similar at Musselburgh Brunton Hall. Some of the big trees at Pinkie were removed as in potentially dangerous condition. Replacement planting will take time to mature.
Could we have a ratio of new trees to new houses in new development?	This is a good idea and we will look into that.
Musselburgh flood protection scheme should consider natural solutions first/ The flood protection scheme and the rest of the council should be more joined up./Landscape character! What are you doing to Musselburgh through the Flood Protection Scheme?	Sustainable flood management is part of the solution but cannot entirely address the issue. Those working on the Flood Protection Scheme are aware of the emerging Tree and Woodland Strategy and will take this into consideration. See response to Member of the Public 8, above.
It's important to provide for the other creatures like birds.	noted and agreed.
Council should not be planning more trees when it can't maintain the ones it has. Ivy up trees will kill them, those dead from ash dieback need dealt with. What is happening to the fallen ash? Is it burned?	Ivy does not kill trees. The Council's Amenity Services Forestry squad are concentrating on Ash dieback on council land. The council does not burn the ash.
Pleased to see the strategy. Avoid monoculture. Scottish Forestry grant fund woodland which is practically that, very little variation in species. 15% broad leaves to [conifers?]. Aspen in Musselburgh Lagoons are the biggest stand of that in Scotland, a very underappreciated tree. Good to see that there are targets in the Strategy.	The UK Forestry Standard does allow up to 90% of a single species. The strategy tries to address this however it is difficult to address this while it is in the UK Forestry Standard. There is a need for commercial softwood.
Mall Avenue – the trees in front of the new flats will obscure views leading to pressure for their removal.	Amendment made to 'Community' section under the design and siting of trees to include that planning of new houses should include consideration of amenity issues that may arise from existing trees as well as vice versa.
Genetic variety is important to maintain woodland cover overall, please work with Edinburgh Botanic Gardens which are doing a project on this. This will be important for climate change.	The TWSEL does include this but we will contact ERBG for their input.

North Berwick – about 15 individuals or small groups

4.3. Around 15 individuals or small groups attended.

Comment	Response
Several comments from people concerned about the proposed removal of a mature hedge at North Berwick High school. Comments included that this decision will set a precedent, and concern about loss of the biodiversity and carbon of a mature hedge. The council should 'speak to itself and make sure this sort of thing doesn't happen'.	The strategy aims to increase hedgerows overall but sometimes it is determined through the planning application process that individual trees or hedges do need to be removed to support the good planning of the area. Each such case will be determined through the planning process on its merits.
Connectivity is good.	Noted, this is a key focus of the strategy.
Plant trees so the nutrients can go into the soil and support agricultural production.	noted, woodland planting to support agriculture and agroforestry and included in the strategy,
Fly tipping is an issue at The Glen, North Berwick. People tip over the top of the Glen and then the item falls down, and it is very difficult to remove from there due to steep sides and trees	Agree that fly tipping is an issue especially in woodland which is by its nature enclosed, however it is largely beyond the remit of this strategy. A note has been added on how to report fly tipping. The Council collects fly tipped material on its own land if reported, resources permitting.
An informal group of walkers go on a circuit around the Law and the Whisky Bottle. The paths round the Whisky Bottle have been good as some of the members have developed mobility issues.	Noted
It is important to avoid tree planting on other valuable habitat – botanical, wetlands. The right tree in the right place is hugely important (I am not sure if they were referring to the guidance or the concept. Possibly both).	Agreed, avoiding other valued habitat is included in the TWSEL
Does this strategy link with the Council's Climate Change Strategy?	Yes. The Climate Forest target comes from the Climate Change Strategy
Interested to note that some trees are worse for allergies than others and wonders which to plant to avoid allergies?	Wind pollinated trees tend to be the worst, birch being the worst. Other ones (Allergy UK) are alder, hazel and horse chestnut. Some further information on this has been added to the strategy.
Tree Preservation Orders (TPO) – should be more explicit about what the public is expected to contribute to the process, how the process works, why the TPO is made and what would happen next.	The process is set out through legislation and there is also information on the Council's website .

Interested in wood for crafts.	Noted. The Strategy encourages an increase in hardwood production.
Is there a list of notable trees, I would like to visit them and contribute to recording them.	This is included in the TWSEL under the Notable Trees section.
Starting point with mature trees is that they should not be chopped down unless there is a very good reason, a building or a house is not one of them.	The TWSEL supports retention of mature trees however recognises in exceptional cases these need to be lost. Decisions on this will be made on their merits through the planning process. Most trees in garden ground can be removed without the need for consent, other than in Conservation Areas or subject to a TPO.
It is important to retain hedges for biodiversity and climate change.	Noted, the Strategy encourages this.
Do you have a species list of which trees are best for sequestration?	All trees are good for sequestration, the strategy aims for the right tree in the right place for multifunctional benefits. The TWSEL discusses the benefits of different trees in broad terms. It refers to background reading called 'Top Trunks Guide' by Barcham Nursery which gives information on this. We have added a link in the strategy.
The Council must move to a different form of decision making that prioritises climate.	Agreed. The council has a duty under the Climate Change (Scotland) Act 2009 in exercising its functions, to act in the way best calculated to contribute to the delivery of emissions reduction targets (known as 'mitigation'), in the way best calculated to help deliver any statutory climate change adaptation programme, and in a way that it considers is most sustainable.
Why isn't the Hedgerow Plan included with this strategy? This is not good enough.	Collecting sufficient information as a base to do this will take time and no resource has currently been identified to carry this out. The Council did not want to hold up the rest of the Strategy pending this being done.

Prestonpans

4.4. Around 10 people came to this event

Comment	Response
Insurance is a barrier for people to plant trees in their gardens, due to questions about distance of the trees from the house. The system plays against them.	Noted. The strategy cannot influence the actuarial decisions of insurance companies.

Canopy cover is much more valued in parts of the United States, there's a culture of not standing on tree roots and building around trees (showed a picture of a house where they had lived in the States where the attic floor was literally built to accommodate a branch of a huge tree next to the house). There are downsides of trees – they can and do blow over as they were in hurricane country – but people accepted the risk due to the benefits of having tree canopy in towns.	Noted. The TWSEL includes canopy targets. Following consultation it has introduced a target to promote the benefits of trees to residents.
Planning conditions should be enforced re landscaping, and there should be conditions on individual trees.	The Planning Service responds to issues raised by members of the public regarding the non-adherence to planning conditions.
The new houses at Longniddry must be very exposed due to wind, which comes unbroken across the field to the west. A tree windbreak on the west side of the Coal Road should have been included in the planning consent. This should be done generally. Allocated sites should include enough space for this.	Urban design has to balance many factors including energy efficiency, which trees planted in the right place can increase.
Make information easily available on good trees people could plant in the area e.g. not a forest tree on a plot boundary.	The TWSEL includes a link to the RHS website which helps people choose suitable trees.
Hedges are important for connectivity.	Noted. The TWSEL includes provision for a Hedgerow Strategy to support hedgerows.
In Australia if people take down tree to get a sea view the council put up a billboard to block their view until something grows back. This lessens the temptation to do this. We could do something similar here. We need to watch out for our coastal properties removing trees.	The Council has existing powers through Tree Preservation Order legislation to protect trees with public benefit. Boards are unsightly for other users, have other environmental impacts and would have additional expense for the Council so this is not something we would pursue at this time
Woodland planting along rivers is good.	Noted. The TWSEL supports this.
Haddington – there is a thin strip at Letham where ploughing is taking place right up to the water courses. This leads to pollution. The soil is degrading and farmers are selling for development. The treed strip at Letham should be wider.	The TWSEL seeks riparian planting up to 60% on a strip 30m wide. This would be considered in future development briefs.
Woodland access is important as it is a free resource. People don't like trees – for example	The TWSEL recognises that people do have legitimate concerns about trees within urban

some people are concerned about slipping on leaves. Trees should be in nature and not in towns.	areas. The strategy recognises there are some groups that may be adversely affected by an increase, as well as some specific locations or trees that are not appropriate. An increase in urban canopy coverage overall is however considered to be beneficial and is supported.
There is a possible medium distance woodland walk starting at Broxburn by Dunbar, going along the valley to Spott then to Woodhall Dean and in at the back of Pressmennan (one section is through a field). Exiting Pressmennan via the car park, there's a valley with no trees in it in leading to Stoneypath Tower. There is then a section less easy to walk around the road, but then onto Garvald, Gifford then Haddington via Bolton. This takes in some of the best woods we have here. The bit with nothing before Stoneypath is stunning, good area of trees in the valley there.	Noted.
Supports the aim of the climate forest for climate reasons. However uPVC is more energy efficient than wood for windows.	Timber is naturally insulating material and properly looked after will last many years. Use of wood for windows locks up carbon emissions. Taking lifecycle costs into account uPVC is not necessarily more energy efficient.

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Dunbar

4.5. Around 20 people came to this event.

Comment	Response
Secretary of Winterfield Park: Developing the park for climate change. Expanding biodiversity => planting hedges. Increase the hedgehog population. March, planted 200 hedge along main tree line. Sep => 400 trees from Woodland Trust to double the width of a rosa rugosa hedge. Wildlife garden fruiting trees. Hedgerows being cut by ELC.	Noted
Support for trees	Noted
Discussion about resilience and native woodlands. Question about what are original trees in East Lothian.	Native woodlands are identified on the Native Woodland Survey of Scotland maps, which is used in the TWSEL.
Where is the strategy on water preservation? Thinks water butts and trees should be compulsory in new builds.	Water preservation as a whole is beyond the remit of the strategy, though riparian planting is supported by the Strategy and can help regulate water levels in rivers loss. Trees are sought in association with development where appropriate.

	The TWSEL includes Appendix E on Guidance for Development.
Interest in nature networks. Hedges are important. What is tree coverage in East Lothian? What is strategic corridor for? Support improving hedgerow coverage – best way to go in farmland.	Tree coverage is set out in the TWSEL. The TWSEL includes a target for hedgerows.
Ash dieback – do we have it still?	Yes. The Council has an ash dieback strategy for trees it is responsible for and this is noted in the TWSEL.
What about conflict between carbon sequestration and biodiversity? Can we focus on good quality hardwood manage woodlands to harvest hardwoods? Also conflict between biodiversity and recreation. How can you get land owners to plant? Is there money from ELC?	Legislation requires the TWSEL to provide for woodland with multifunctional benefit. Coniferous planting is important for sustainable timber production and the TWSEL seeks a balance between this and hardwood planting. The council has limited resources at present.
Set aside land for planting in agricultural land?	TWSEL supports tree planting on prime/sub prime agricultural land only where it will support the agricultural function of this land.
What's going on with Lochend woods? What trees would you plant?	Lochend Woods are managed by the community.
Pledgehog project. www.sustainingdunbar.org Belhaven Community Garden – planted small woodland of 100 apple trees. Already filled in survey. Hedgerows important.	Noted. This is an interesting project.
Linear forest. Guerilla planting. Along A1. Long acre. We already own this. Grasscrete for drives and car parks to reduce water run-off. Need local sawmills to encourage people to grow trees. Pulp factory. Wood pellets. Kiln. 'Wood village' => put all these together in one area to keep wood in East Lothian	The TWSEL supports the idea of a linear forest however planting along the A1 needs to be carefully considered due to road safety hazard of wildlife on the road. Guerilla planting is illegal in that it is a form of fly tipping. This can also waste tree stock as the landowner may remove trees or they may fail due to lack of maintenance. The TWSEL supports forestry related businesses including sawmills. Growing trees for biomass is not supported at this time in line with the Scottish Forestry Strategy.
Dunbar Woodland. A1 barrier – why do we not have under/over passes for animals?	The A1 is recognised as a significant barrier to movement of wildlife. A connection either over or under this road would be expensive and would have to be carefully considered in terms of its environmental effects.

Do we have info on deer control? Supports strategy.	An additional section on deer control has now been included (see NatureScots comments)
Hallhill woods is surrounded by development. Taylor Wimpey changed development to face back gardens to track to improve connectivity/biodiversity. Concerned about the number of dead deer/badgers.	There are pros and cons of back gardens facing onto woodland, as this can also lead to tipping of garden waste into the woodland and the consequent introduction of non-native species
Need connectivity to north side of A1 between Dunbar and East Linton to avoid requirement to cross A1 and then links to underpass at East Linton. SSE volunteering in the woods as part of community windfarm works. Dunbar Community Wood has been in place since 2000. Have access to volunteers knowledge. Useful contacts for getting advice on tree works/volunteers.	As above, the A1 is recognised as a significant barrier.
Dunbar Woodland. Need woodland to prevent landslips. Need to be radical.	Noted. TWSEL recognises the role of trees in preventing erosion.
Recent Woodland Grant Scheme near Hailes Castle.	Noted
Winterfield Park – 400 trees from the Woodland Trust to be planted by primary pupils in November. Increase habitat for birds and hedgehogs.	Noted
Keen to see and retain trees in urban areas.	The TWSEL contains canopy coverage targets.

Tranent

5. Around xx people attended this event.

Comment	Response
Bare to west of Tranent around Fa'side. Supports opportunities to increase planting in these areas	This area is prime agricultural land, and also part of the Prestonpans battlefield. An increase in planting is supported where it can support these interests.
Hedgerows in new development within Wallyford to bring wildlife in. Loss of woodland at the Bing, much smaller than promised. Important community resource. Worried about the loss of trees at Levenhall as part of the flood scheme. Covid has improved peoples appreciation of woodland. Nature and wildlife is important. Work with Wallyford Community Council to develop community woodland. Would also be a good resource for the school.	Wallyford Bing is recognised through designation as a Local Biodiversity Site. Wallyford is noted to have low canopy coverage and an increase is supported. No trees are being lost at Levenhall through the Musselburgh Flood Protection Scheme.

Can't be done. Won't get people to plant trees. they are grown as a business and will be cut down as required. Not much around Tranent.	Noted.
Tranent Wombles: 2 pocket pollinator parks. Frog life – ponds. Joint funding – looking for match funding to deliver a potential orchard, mix of small species native trees they have some funding from the Mushroom Trust. Using gardens as connectivity with ponds. Back of Lindores Drive – east of Forester's Park. Community garden in the Heugh where the gasometers used to be given support from this group. How can we map the strips along farmland? Important that we don't lose these. (Presentation to Tranent Wombles Wed 26 July 7 pm. Community Hub on High Street).	The council does not have the resources at the moment to offer match funding. However, the TWSEL supports setting up a Tree Warden scheme in East Lothian, and it might be possible for volunteers to seek help with funding. Mapping of existing woodland was based on information from Scottish Forestry. It is recognised there are some areas of woodland which are not included on this due to their small size.
Lack of trees on mapping in Tranent and area around. Important to listen to people (really listen) and carry out proper engagement and consultation, early enough to enable opinions to be take on board and changes made.	TWSEL encourages effective engagement with communities.
Opportunity at Blindwells, but developers prefer to sling houses up.	Development at Blindwells is coming forward in accordance with a masterplan which includes areas of tree planting. These will take time to mature.
Will the FWS be part of the LDP and control what developers can do? Supports more control over development. Concern over lack of trees in new development particularly at Blindwells. Concern over ash dieback and infection of old pollarded ash in garden. Healthy at present.	the LDP will take the TWSEL into account.
Many field boundaries missing and supports replacing with hedging. Will we create new field boundaries (i.e. make fields smaller)?	the TWSEL includes an action to produce a Hedgerow Strategy and has a target for increasing the amount of hedgerows. Some of this may take place along existing Response: field boundaries but there could also be creation of new field boundaries where this does not interfere with agricultural production.
Memory wood – example in the Lake District where a landowner has given an area of land to created a woodland. People can buy a tree from the Woodland Trust, dedicate it to someone and the landowner will get it planted.	Noted.
20m wide green strip alongside the old railway walk, Macmerry to Ormiston. Planted trees from	Noted. Paths are difficult to negotiate and although tree planting alongside would support

<p>the Woodland Trust. 2017, 20% growing well, 20% not so well. 2019: stolen. Supports greening of path networks. Disappointed about decision to prevent public access to Saltoun Big Wood. Disappointed about decision not to grant bunding which would have provided tree planting by Balfour Beatty site west of Macmerry. Supports planting along drainage ditches but says we may face resistance from farmers, who chop down regeneration at present.</p>	<p>their recreational appeal, requiring this could discourage landowners from agreeing to paths at all, and also reduce the agricultural capacity of land. The TWSEL therefore does not seek this.</p>
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Haddington

5.1. Around 20 people came to this event.

<p>SEPA need a coordinated approach to address lack of water in burns (Depute Chair of Pencaitland Community Council).</p>	<p>The TWSEL contains policy and actions on riparian planting, which can help retain water. However, water management in general is beyond the remit of the TWSEL.</p>
<p>Artisan Timber sourcing timber from Tynninghame. Lack of local timber processing: resource unused in East Lothian.</p>	<p>The TWSEL encourages management of appropriate woodlands for hardwood production and the circular economy.</p>
<p>Commenter from a new business. There is no sawmill registered with the Association of Scottish Hardwoods (ASHS) in East Lothian. The strategy should plan for sawmills</p>	<p>A reference to ASHS has been added to the Strategy.</p>
<p>Haddington Community Council Planning Liaison Officer. Likes the idea of woodland corridors. Haddington is surrounded by countryside so people can go and walk their dogs there.</p>	<p>Noted. Better woodland connectivity is included as a target in the TWSEL.</p>
<p>Member of Macmerry Community Council. Lime trees planted between village and industrial estate as part of the Queens Green Canopy. Looking to extend up to the roundabout. Also extend to Gladsmuir. Good for shelter from the wind. Trees from Woodland Trust planted by school children with community council. Previous mention to open culverted burns and plant trees from Penston to school and Adniston burn. Planting around burns and de-culverting burns</p>	<p>Noted. The Queen's Green Canopy project led to the introduction of TreeTime, which is being continued by the council. TWSEL supports riparian planting. Increasing risk of fire is noted in the TWSEL.</p>

<p>could help with flooding off the hill (surface water mainly).</p> <p>Anti-social behaviour in woods: children play in the Winton Walks woodland, built some great dens but there was a fire up there (suspected arson). There will be fire risk with hotter, drier weather, this could affect housing if woodlands connect in to it.</p>	
<p>Aberlady: what are the opportunities? Gosford has good for access from Aberlady.</p>	<p>Noted.</p>
<p>30 ash trees felled at Gilmerton, close to the museum site</p>	<p>This is likely to be in response to ash dieback. Concerns can be raised with Scottish Forestry.</p>
<p>Wording of policy 'retain <i>where possible</i>' not strong enough, use 'normally be required'. Offered to send in further comments on this [further comments received]. There should be more of a focus on like for like biodiversity replacement. Can't really replace ancient woodland so you shouldn't take it out. Policy 26 needs to be stronger than 'taken into account' more like 'given great weight'. Any assessment of landscape change should consider landscape and trees. Really wants to keep the trees.</p>	<p>Policies have been changed to reflect this, using the wording 'other than in exceptional circumstances'. National Planning Framework Policy 3 seeks biodiversity enhancement which will strengthen the position in terms of seeking more than 'like for like' replacement of lost habitat, though this would not necessarily have to be woodland habitat.</p>
<p>Bolton Muir plot has a good understorey of ancient woodland. Wanted to keep trees at the Hawthorns. Supported the strategic corridor. PAWS restructuring to ancient woodland is good.</p>	<p>Noted</p>

6. LDP consultation of Children and Young People

- 6.1. Early engagement on the Evidence Report for the East Lothian Local Development Plan took place alongside consultation on the draft Tree and Woodland Strategy. East Lothian Play Association SCIO (ELPA) was commissioned by East Lothian Council (ELC) to engage primary-school-aged children in the Local Development Plan consultation. Some of the comments made are relevant to the TWSEL and have been taken from the report of the consultations carried out. Full details of the consultation undertaken with children and young people will be published along with the Evidence Report of the East Lothian Local Development Plan.
- 6.2. Children's thoughts were presented in a summary by adults, as well as direct quotes and in pictures. The issues raised were divided into topics in line with the engagement for the Evidence Report. Issues relevant to the Tree and Woodland Strategy are shown below, with the response.

7. Primary schools report

7.1. Relevant Key Findings:

- Concern for nature was an overarching theme across all locations. Children showed knowledge and passion for natural areas and presented thoughtful ideas about the future to protect and create diverse habitats for wildlife.
 - Ease and frequency of access to natural areas such as beaches and woods, green spaces and parks is highly important to children.
 - Health is mentioned most frequently in relation to staying active. Parks for older children, sports facilities, safe roads and cycle paths are frequently mentioned in relation to this.
 - Health, being active and having access to green space are closely linked for children.
 - Children’s responses show that the themes of places we live, health and nature crisis are closely linked.
 - Children’s care for woodland, green spaces, trees and habitats shows they should be involved in decisions about their local area.
- 7.2. When asked “why is it important to ask children about the LDP?” children showed concern for their local area as well as understanding of their rights and responsibilities. Two examples given were: “so trees you’ve seen your whole life don’t get cut down” and “so woods you walk in don’t get destroyed”.
- 7.3. The Word Cloud showing the frequency of responses to the question ‘What’s special to you about where you live’ shows woods are one of the most frequent responses. Natural areas in general are the most frequent responses. Small pockets of nature are as important to children as the bigger, more scenic places. Being able to go to natural areas easily and frequently seems to be the most important factor. Children gave many reasons for enjoying natural areas including the importance for wildlife, fun and relaxation.



Nature

- 7.4. Wildlife is frequently mentioned by children in relation to places that are special to them. Flowers and trees give pleasure and are understood by children to be important for the environment. Many children are very knowledgeable about wildlife; they enjoy seeing different animals and looking after them in their gardens. This level of knowledge is important for their aspirations to protect areas and their practical ideas to create more diverse habitats.
- 7.5. Woods, parks and green spaces are places children have fun with friends, family and dogs.

"There are trees and bushes near my house that I can climb in." Child at Cockenzie Primary School

- 7.6. Specific bushes and trees are mentioned as local landmarks and important places children play near and pass regularly on their way to school. These bushes and trees feature in children's drawings and stories of the area and seem to help children feel connected to nature and their surroundings. These landmarks are also things children want to protect.

"I like the route to school. There's a big bush I always run into." Child at Stoneyhill Primary School.



FIGURE 6 ROUTE TO SCHOOL, SHOWING KEY LANDMARKS BY CHILD AT STONEYHILL PRIMARY SCHOOL:

- 7.7. Children also link natural spaces with relaxation. Many children talked about the beautiful scenery in East Lothian and that they enjoy hill walks, the views, sunsets and having space around them.

Climate change

- 7.8. Children recognise the role of trees, flowers and bees in looking after the planet. There is a lot of concern for this and a crossover with the theme of nature crisis.

7.9. In several areas, children are very animated when talking about areas such as paths, tracks and old railways lines. These are significant spaces to play. These places are often on the edge of towns and villages and tend to be free from cars, close to housing but not used frequently by adults. They are spaces children can play freely, creating their own games using the landscape and what they can find. Examples of these spaces can be found in different parts of the county, both rural and urban. Children talk about creating tree swings, playing on bikes on steep banking and building dens. These are also mentioned as important places for wildlife.

Housing:

8. Many children were concerned about loss of natural areas to provide housing, and had different opinions about whether more housing itself was good or bad.



FIGURE 7 "THINGS I WANT TO PROTECT" BY CHILD AT ABERLADY PRIMARY SCHOOL

Nature Crisis.

8.1. Nature is very important to children across East Lothian. For children this means protecting existing wildlife, creating new habitats and appreciating nature. Children want to protect

"Look after woods and more habitats for wildlife such as ponds." Child at Dirleton Primary School

"Plant more trees and flowers." Child at Whitecraig primary School

"Hedges and bushes with berries that give food for the birds." Child at St Mary's RC Primary School

"Better nutritious food by planting fruit trees." Child at St Mary's Primary School

the wildlife we have in East Lothian and feel strongly that this should be considered when building new houses and roads. For the future of East Lothian children would like to see more trees, ponds, flowers and animals.

RESPONSE: TWSEL seeks to expand woodland habitat while avoiding adverse impact on other habitats, as well as encouraging more fruit and nut trees.

- 8.2. Trees are often mentioned as children are concerned that trees are being cut down, and there is a desire from children to plant more trees, ensure they are looked after and protected. Children describe this as important for wildlife, for us and to help climate change.



FIGURE 8 “HELP TREES” BY CHILD AT WEST BARNES PRIMARY SCHOOL

“More trees, you should plant the seeds now.” Child at Longniddry Primary School

“Help trees so don’t cut them down try to help them grow. The other reason you shouldn’t cut them down is you’re destroying animals’ homes. You need to help other people look after trees. You should plant more trees around Scotland as lots of them are getting knocked down.” Child at Dirleton Primary School

Response: the TWSEL does aim to plant seeds now (or at least, soon). The TWSEL aims to increase habitat for animals, and the law protects trees as homes for some animals (for example trees cannot be removed where birds are nesting).

- 8.3. Children also describe links between nature, health and wellbeing with practical ideas to benefit people and the environment.

“I think there should be less deforestation because no one will have calm places and more bike places as you want to feel safe when you go on your bike.” Child at Cockenzie Primary School

Response: Noted. The strategy aims to retain trees and woodland where possible. Legislation protects the burrows or nests of some individual creatures.

Health

- 8.4. Active travel was also frequently mentioned, reducing traffic, creating more cycle paths and safer paths would help with this.

"Look after woods and beaches make safe ways to get there." Child at Longniddry primary School

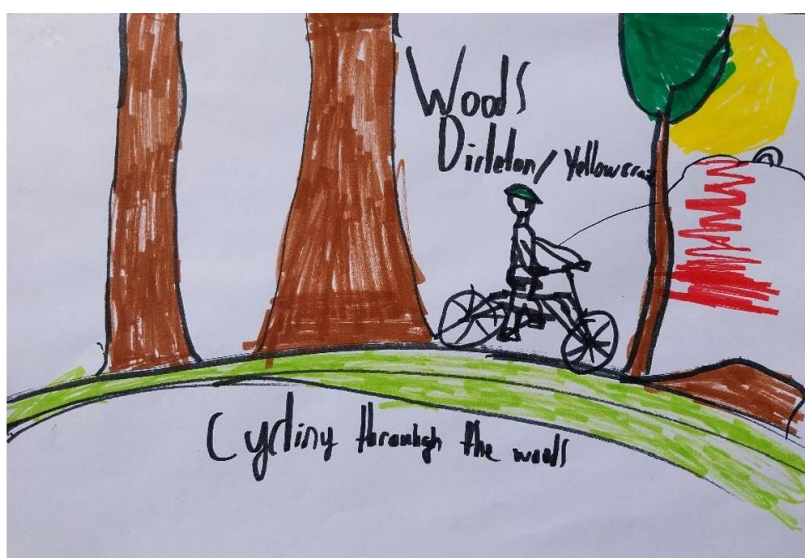


FIGURE 9 1. "CYCLING THROUGH THE WOODS" BY CHILD AT DIRLETON PRIMARY SCHOOL

Response: Noted. TWSEL aims to increase accessible woodland though safe routes to woodland is a matter for the Active Travel Improvement Plan.

Climate change

- 8.5. Nature crisis and climate change are closely connected for children. Many of the children's drawings of the future they'd like in East Lothian show trees, flowers, ponds, a clean environment.

"Trees, because if we have trees we can breathe, we should plant more woodland" Child at Aberlady Primary School

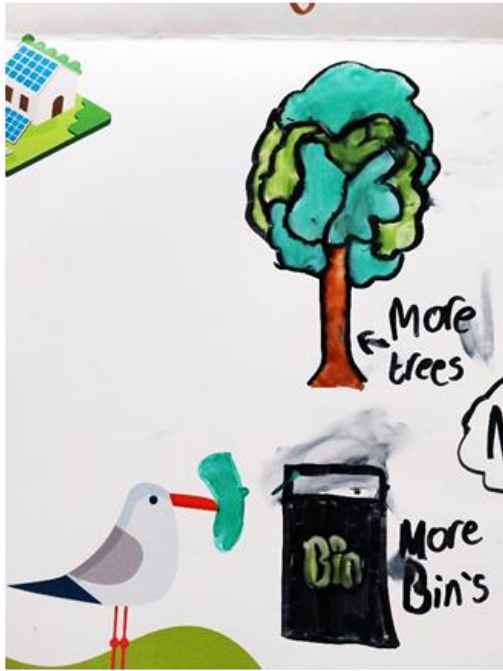


FIGURE 10.1. "MORE TREES, MORE BINS." CHILD AT SANDERSON'S WYND PRIMARY SCHOOL

Response: the TWSEL also notes the links between climate and nature crisis. It seeks more tree planting.

Summary

8.6. What is important to children about where they live?

What's important to children about where they live?

Nature

Playing out with friends

Sports and being active

Local facilities and community

The important issues are:

Litter

Housing

Traffic

Nature crisis

8.7. What was important to children for the next LDP in terms of nature was:

- Protect natural areas, parks and green spaces
- Create diverse habitats, including ponds
- Plant more trees and flowers
- Develop safe access to beaches, woods, parks and green spaces so children have frequent access to natural areas.

Response: Noted. The TWSEL aims to give more protection to most natural woodland areas, to help create diverse habitat, and to plant more trees.

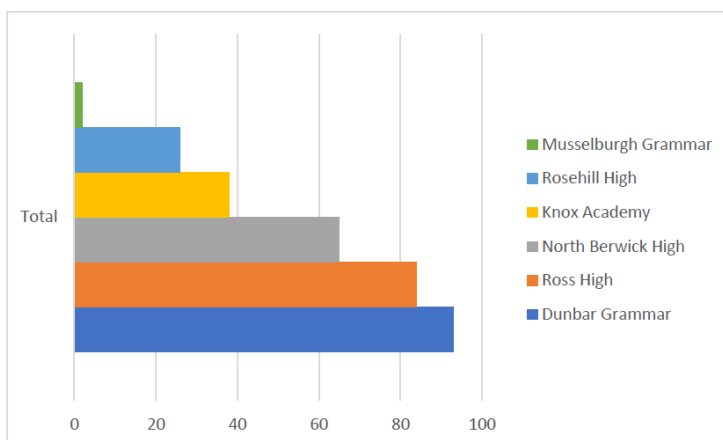
- 8.8. Significant points: Engagement with children highlights the connections between the LDP themes of places we live, nature crisis, health and climate change.
- 8.9. The need to stay active and healthy is highlighted by children along with the significant impact cars have on their daily lives.
- 8.10. Safer areas to walk and cycle could keep us healthy and be better for the environment.
- 8.11. A more natural environment could improve our health and wellbeing.
- 8.12. Areas with more trees, flowers and wildlife also helps climate change.

Response: We note that children are concerned for nature and seek to protect it. They recognise the links between the climate and nature crisis. The Strategy aims to address both the nature and climate crisis. It aims to retain woodland especially that of high biodiversity value and create more woodland.

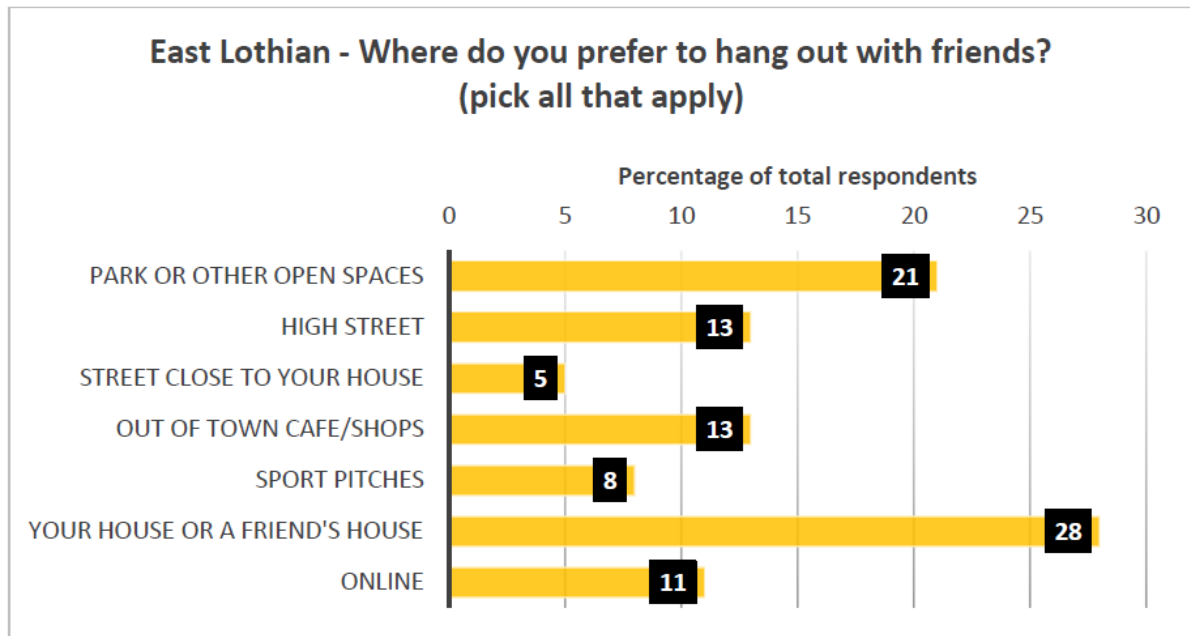
- 8.13. The children also appreciated easy and frequent access to natural areas including woodland. Children made the link between health, staying active and access to green space. Some mentioned climbing trees, or tree swings. The Strategy recognises the well being benefits of access to woodland, and aims to improve access to it. However it does not encourage climbing trees or tree swings for safety reasons. The findings noted that small natural areas can be as important to children as larger areas. Increasing canopy coverage is likely to introduce more local trees. However, Woodland Trust access standard does not consider these very local areas.
- 8.14. Children were concerned about nature (and places that were special to them) being removed to make way for housing. TWSEL seeks to protect existing woodland and to incorporate trees into new housing areas.
- 8.15. One of the findings of the LDP engagement with primary school children was that children’s care for woodland, green spaces, trees and habitat shows they should be involved in decisions about their local area. Legislation incorporating the UN Convention on the Rights of the Child supports this, and the council will consider how children’s voices can be heard in implementing the strategy.

9. Secondary School Consultation

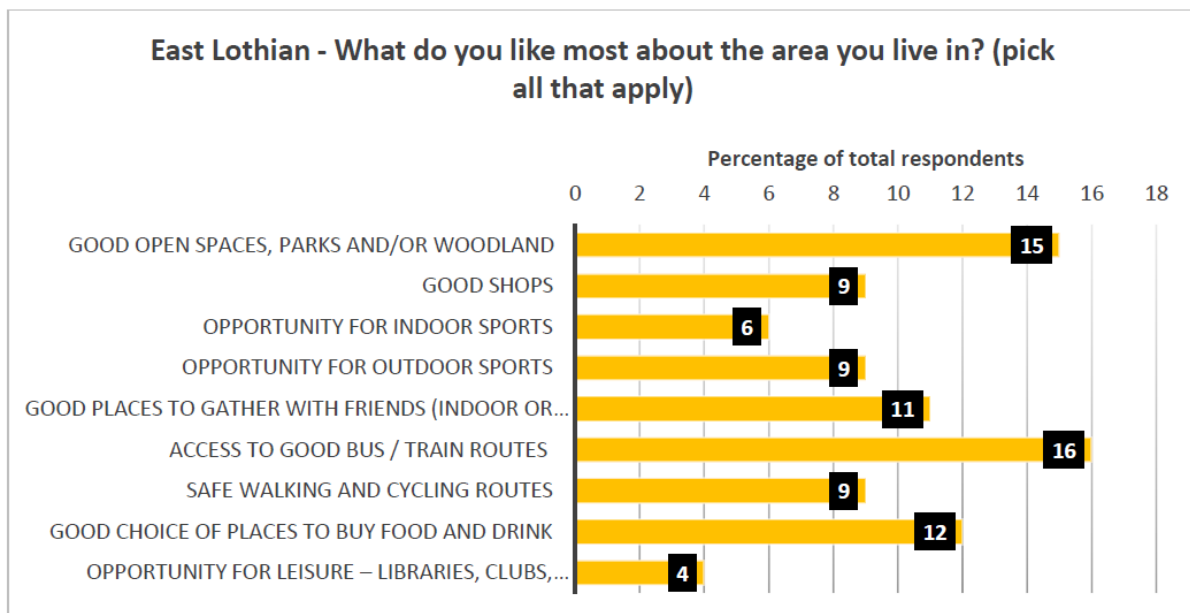
- 9.1. All of East Lothian’s state schools were issued with a questionnaire, and 6/7 of these schools circulated it to pupils. A total of 308 responses with valid data were received. Most respondents were from S3-S6 age groups. Respondents were from the following schools:



9.2. Secondary school pupils were asked ‘Where do you prefer to hang out with friends?’ and could pick all that applied. ‘Parks or other open spaces’, which was the second most popular choice. Woodland was not a specific option; as woodlands have very different characteristics from parks, it is not possible to tell how popular existing woodland is as a place to hang out.



9.3. The young people were also asked ‘what do you like most about the area you live in?’ and again could pick all that apply.



9.4. Woodland was included in the ‘Good open spaces, parks and/or woodland’ category however as noted above it is difficult to tell how much it is valued due to the different characteristics of parks. Some respondees may not have woodland in their area also.

9.5. Respondents were asked ‘Climate change is a big issue affecting us all, what would you like to see done to tackle climate change?’. Many suggestions were made, including planting

trees and protecting nature and green areas, and more green areas. One comment was ‘stop cutting down the woods and wild areas to build houses’.

9.6. **Response:** climate change is major theme in the TWSEL and the Strategy supports Scottish Government policy on Control of Woodland Removal

10. Place Standard engagement with Young People

10.1. Play Scotland, in partnership with Planning Aid Scotland, facilitated five engagements with Secondary Schools throughout East Lothian in September 2023. The tool used to engage at the sessions was [The Place Standard tool, A Version for Young People](#). Participants were selected by the schools. As the sessions had limited time, it was not possible to discuss all of the themes at length, so young people were given an opportunity to discuss the four themes that most interested them. Rosehill (Wallyford) pupils were the only ones to look at Nature – Parks, Woods, Hills, Beaches, with Knox Academy, Dunbar Grammar, North Berwick and Ross High choosing Play, Hang Out, Games and Hobbies.

10.2. Overall, ‘Natural Spaces’ scored highly on the Place Standard (more is better)



Walking, wheeling, cycling	5
Public Transport	5
Traffic and Parking	4
Streets, squares & buildings	4
Nature - parks, woods, hills, beaches	6
Play, hang out, games and hobbies	4
Schools, libraries, shops, services	5
Jobs and places to work	5
Homes, friends and neighbours	6
Meeting and talking with people	5
Feeling proud and part of a place	4
Feeling Safe	4
Fixed, clean and managed	4
Having our say and being listened to	4

11. FIGURE 11 PLOTTED PLACE STANDARD SCORES FOR EAST LoTHIAN

11.1. Overall, the three themes young people most wanted to talk about were Public transport, Play, hangout, games and hobbies and Feeling safe.

11.2. Young people appreciated the **access to nature** they had in much of East Lothian. They were able to identify lots of places that they could go to hang out.

11.3. Among the recommendations for improvement from young people in East Lothian included improvements to recreation options for young people that are free.

11.4. Knox Academy discussed places to hang out, none of which included woods, though some are along the Tyne which is wooded. The following is an example of the record of the brainstorming sessions.



12. FIGURE 12 BRAINSTORMING ACTIVITY - PLACES TO HANG OUT KNOX ACADEMY, HADDINGTON

12.1. The following table shows the scores given on the Place Standard by pupils in different schools.

School	Score, Nature, parks, woods, hills, beaches
Knox	5
Dunbar	6
North Berwick	7
Rosehill	6
Ross High	5

13. FIGURE 13 SCORE, NATURE - PARKS, WOODS, HILLS AND BEACHES

13.1. Young people in Dunbar recognised and appreciated their ready access to nature. The report noted as a highlight the high score given to North Berwick under the Nature – parks, woods, hills and beaches element. The access to natural resources was seen as an advantage of living in the area in a discussion under ‘Play, hang out, games and hobbies’ in North Berwick.

13.2. Rosehill School was the only one to choose to discuss the Nature - parks, woods, hills and beaches theme in detail. 91% of young people who responded on this theme were able to identify a wide range of natural environments that they could access regularly. These included North Berwick beach, and parks within the local authority area. At the end of the session, some expressed concern about the number of new houses that were getting built on what they thought were forest or green areas, where they liked to hang out.

13.3. **Response:** Young people valued access to natural spaces and rated this highly as a feature of their places. The TWSEL aims to protect woodland, in particular native woodland.

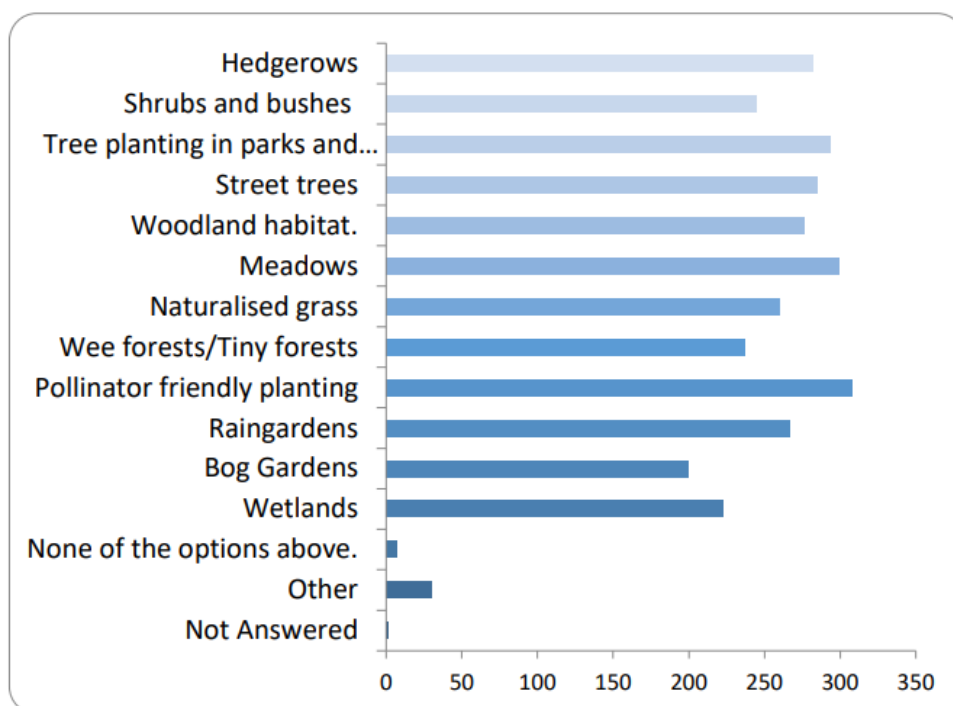
The young people also appreciated access to natural spaces, which the TWSEL also aims to improve.

14. Nature Networks Consultation Responses

14.1. 'Nature Networks East Lothian' is a project developed by East Lothian Council to identify, explore, provide advice on and deliver nature network opportunities supported by our communities, in suitable areas of Council owned and managed parks and greenspaces across East Lothian's towns and villages. Trees and woodlands are an important existing component of parks and greenspaces. The Nature Network project will create an Action Plan based on Create: Enhance: Connect: Restore. This is in line with the Tree and Woodland Strategy target of increasing canopy coverage and connected woodland.

14.2. Consultation on the Nature Network project was also carried out in summer of 2023. 370 survey responses and 455 additional comments and suggestions were received. The report of consultation has been checked for information relevant to the Tree and Woodland Strategy. Findings included that 81% of respondents strongly agreed that they wanted to see more nature and biodiversity enhancement across East Lothian's parks and greenspaces, and 77% of respondents wanted to see more woodland.

14.3. The chart below shows what type of biodiversity features respondents would like to see more of across East Lothian's parks/greenspaces. The options given included tree and woodland features. Hedgerows, shrubs, woodland, wee forests and trees and street trees were popular choices. Orchards and fruit trees were not listed as an option but were also mentioned by a number of respondents.



14.4. The top 5 existing habitats/nature areas that respondents like to see in parks and greenspaces were:

- Tree planting
- Hedgerows
- Pollinator friendly planting
- Naturalised grassland
- Woodland habitat

14.5. Respondents were also asked about what they would like to see in individual parks. A significant amount of feedback was received on hedgerows, including support for enhancing and extending them across parks and green spaces. Respondents also strongly supported more tree planting in parks and greenspaces. There was also support for orchards and fruit tree planting.

14.6. Concerns were raised which are potentially relevant to increasing tree, hedge and woodland planting were an increase in ticks and vegetation trapping litter.

Response: the findings of the Nature Network consultation show that trees and hedgerows are a popular addition to our parks. The findings support the actions of the Tree and Woodland Strategy in particular increasing canopy coverage in urban areas.