

The Environment Assessment (Scotland) Act 2005

ENVIRONMENTAL REPORT

Proposed Modification to ***Planning Guidance for the Location and Design of Wind Turbines in the Lowland Areas of East Lothian, East Lothian Council, December 2010***

Executive Director (Services for Communities)
East Lothian Council
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20th March 2013

SEA ENVIRONMENTAL REPORT – COVER NOTE

PART 1

To:

SEA.gateway@scotland.gsi.gov.uk

or

SEA Gateway
Scottish Executive
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Victoria Quay
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PART 2

An Environmental Report is attached for:

Proposed Modification to *Planning Guidance for the Location and Design of Wind Turbines in the Lowland Areas of East Lothian*, East Lothian Council, December 2010

The Responsible Authority is:

East Lothian Council

PART 3

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PART 4

Signature

(electronic
signature
is acceptable)



Date

20th March 2013

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1 NON-TECHNICAL SUMMARY

- 1.1 There has been increasing interest in smaller wind turbines in the more lowland areas of East Lothian over the last two years or so. This has resulted in a significant number of planning applications for wind turbines being submitted to the Council as planning authority. While wind turbines support the generation of electricity by renewable means, and help towards the Scottish Government's zero carbon strategy, they can raise environmental issues. These include landscape and visual impact and direct and indirect effects on sites considered important for their nature conservation or cultural heritage interests.
- 1.2 The Council's first response was to publish, in December 2010, *Planning Guidance for the Location and Design of Wind Turbines in the Lowland Areas of East Lothian (PGLDWT)*. This was a restatement of development plan policy and how it would be applied to applications for wind turbines.
- 1.3 Subsequently, the Council decided that further broad locational guidance for wind turbines was required. Consultants were therefore appointed to prepare an assessment of the capacity of the East Lothian landscape, particularly its more lowland areas, to accommodate smaller wind turbines. The consultant's study, the *East Lothian Supplementary Landscape Capacity Study for Smaller Wind Turbines*, was submitted in August 2011 and the Council consulted on its recommendations in the autumn of 2011.
- 1.4 In December 2011 the Council considered the consultation responses, agreed to some minor amendments to the study and agreed to include the consultant's recommendations as a modification to its PGLDWT. The Council also accepted that including these recommendations, particularly the ones relating to the broad locations where turbines might be suitable, would mean that the PGLDWT would have to go through a process known as *Strategic Environmental Assessment (SEA)*.
- 1.5 Public bodies like the Council have to assess, consult and monitor the likely impacts of their plans, programmes and strategies on the environment. This process, known as SEA, is a way of making sure that the environmental effects of this modification to the PGLDWT have been properly assessed and, where necessary, amended to ensure this.
- 1.6 The Council is treating this new guidance as a **Proposed Modification** to its existing PGLDWT guidance. Accordingly, it is only the changes being made to this guidance that are being assessed under SEA procedures.
- 1.7 The effects of the Proposed Modification are assessed against three topic areas, namely biodiversity and fauna, cultural heritage and landscape. Other potential assessment factors (such as soil, air quality and water) were ruled out at an earlier stage in the process (scoping) after consultation with the Consultation Authorities (Scottish Natural Heritage, Historic Scotland and the Scottish Environmental Protection Agency).

- 1.8 The assessment has concluded that the Proposed Modification will have a neutral impact on biodiversity and fauna and on cultural heritage and that it will have a significantly positive impact on landscape. This was compared against the alternative of a 'do nothing' approach, that is, continuing to determine planning applications for smaller wind turbines without additional locational guidance. While this alternative was found to have a similarly neutral effect on biodiversity and fauna and on cultural heritage, it was considered to have a negative impact on landscape when compared with the Proposed Modification.
- 1.9 In conclusion, the environmental effects of the Proposed Modification to the Council's PGLDWT have been assessed and found to be positive in respect of landscape. No negative effects have been identified that would require any amendment to the Proposed Modification.
- 1.10 The Council must now make this Environmental Report available for public consultation. As noted in paras 1.3 and 1.4 above, the Council has previously consulted on the recommendations of the *Supplementary Landscape Capacity* study, and considered and agreed its position in the light of that consultation response. The terms of the Proposed Modification to the PGLDWT reflect this agreement. The focus of this current consultation is therefore on the Strategic Environmental Assessment of the Proposed Modification, not on the terms of the Proposed Modification itself. However, if any new issues are raised on the content of the Proposed Modification, or if the response to the SEA process raises a relevant environmental issue that has implications for the Proposed Modification itself, then the Council will consider if any change should be made to the Proposed Modification.

Consultation period for this Environmental Report

The consultation period for this Environmental Report will run from **Tuesday 2nd April to Friday 17th May 2013**. All comments on the Report must be received by East Lothian Council no later than **4.00pm on Friday 17th May 2013**.

All comments should be sent to:

The Policy & Projects Team
East Lothian Council
Housing & Environment
Services for Communities
John Muir House
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2 INTRODUCTION

Purpose of this Environmental Report and key facts

2.1 As part of the preparation of a Proposed Modification to ***Planning Guidance for the Location and Design of Wind Turbines in the Lowland Areas of East Lothian***, East Lothian Council is carrying out a Strategic Environmental Assessment (SEA). SEA is a systematic method for considering the likely environmental effects of certain plans, programmes and strategies (PPS). SEA aims to:

- integrate environmental factors into PPS preparation and decision-making;
- improve PPS and enhance environmental protection;
- increase public participation in decision making; and
- facilitate openness and transparency of decision-making.

2.2 SEA is required by the Environmental Assessment (Scotland) Act 2005. The key SEA stages are:

Screening	determining whether the PPS is likely to have significant environmental effects and whether an SEA is required
Scoping	deciding on the scope and level of detail of the Environmental Report, and the consultation period for the report – this is done in consultation with Scottish Natural Heritage, The Scottish Ministers (Historic Scotland) and the Scottish Environment Protection Agency
Environmental Report	publishing an Environmental Report on the PPS and its environmental effects, and consulting on that report
Adoption	providing information on: the adopted PPS; how consultation comments have been taken into account; and methods for monitoring the significant environmental effects of the implementation of the PPS
Monitoring	monitoring significant environmental effects in such a manner so as to also enable the Responsible Authority to identify any unforeseen adverse effects at an early stage and undertake appropriate remedial action.

2.3 The purpose of this Environmental Report is to:

provide information on the Proposed Modification to the ***Planning Guidance for the Location and Design of Wind Turbines in the Lowland Areas of East Lothian (PGLDWT)***;

identify, describe and evaluate the likely significant effects of the Proposed Modification and its reasonable alternatives;

provide an early and effective opportunity for the Consultation Authorities and the public to offer views on any aspect of this Environmental Report.

- 2.4 The key facts relating to the Proposed Modification to the ***Planning Guidance for the Location and Design of Wind Turbines in the Lowland Areas of East Lothian*** are set out in Table 1 below.

Table 1 Key facts relating to Proposed Modification to *Planning Guidance for the Location and Design of Wind Turbines in the Lowland Areas of East Lothian*

Name of Responsible Authority	East Lothian Council
Title of PPS	Proposed Modification to <i>Planning Guidance for the Location and Design of Wind Turbines in the Lowland Areas of East Lothian</i> , East Lothian Council, December 2010. The revised guidance will be titled as <i>Planning Guidance for Lowland Wind Turbines</i> .
What prompted the PPS	The preparation of further guidance on the capacity of the East Lothian landscape to accommodate smaller wind turbines and a wish to incorporate this into existing planning guidance. The further guidance was in response to the growing number of planning applications for such developments and a view that their contribution to renewable energy generation requires to be balanced with landscape and visual impact considerations.
Subject	Land use planning of smaller wind turbines
Period covered by PPS	The PPS will remain in force until replaced as Supplementary Planning Guidance supporting the East Lothian Local Development Plan.
Frequency of updates	Updates will be every five years in association with the local development plan review cycle, unless particular circumstances require an earlier review.

Area covered by PPS

The Proposed Modification incorporating the landscape capacity assessment focuses on the settled lowland areas and within those parts of the Lammermuir Hills and their fringes where current interest for smaller wind turbines is concentrated. The sparsely settled upland landscape character area of the 'Central Lammermuir Plateau' is not included.

Purpose of the PPS

To support existing planning guidance on the location and design of wind turbines in lowland East Lothian by incorporating broad spatial and design guidance based on the landscape and visual impacts of a range of turbine scales.

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SEA activities to date

- 2.5 Table 2 overleaf summarises the SEA activities to date in relation to the Proposed Modification to *Planning Guidance for the Location and Design of Wind Turbines in the Lowland Areas of East Lothian*.

Table 2 SEA activities to date

SEA Action/Activity	When carried out	Notes (e.g. comment on data availability, particular issues or any advice from the Consultation Authorities that has now been taken into account)
Pre-screening to determine whether the PPS is likely to have significant environmental effects	October 2012	East Lothian Council considered that the PPS could have significant environmental effects and that a strategic environmental assessment was required.
Scoping the consultation periods and the level of detail to be included in the Environmental Report	Nov/Dec 2012	Advice and comment was received from the Consultation Authorities in December 2012, in response to the Council's Scoping Report dated 23 November 2012. The Consultation Authorities were generally content with the scoping report, the topics to be scoped out, the level of detail of the assessment and the proposed six week consultation period. Their comments included a wish to have the impact on Historic Battlefields considered and further clarification on the reasons for soil and material assets (particularly waste) being scoped out.
Outline and objectives of the PPS	2011/12	Established as part of the original consultant's commission to determine the capacity of the East Lothian lowland landscapes and Lammermuir fringe to accommodate smaller wind turbines. Set out in the SEA Scoping Opinion.
Relationship with other PPS and environmental objectives	Nov/Dec 2012	Established as part of the Scoping Opinion and amended as a result of the Consultation Authority responses.
Environmental baseline established	Jan/Feb 2013	
Environmental problems identified	2010 - ongoing	The general environmental issues associated with smaller wind turbines were identified in the Council's <i>Planning Guidance for the Location and Design of Wind Turbines in the Lowland Areas of East Lothian</i> , December 2010. The consultant's report <i>East Lothian Supplementary Landscape capacity Study for Smaller Wind Turbines</i> , Carol Anderson and

		Alison Grant, 2011, identified the environmental issues associated with landscape capacity and visual impact within specific parts of East Lothian. Further considered in ELC Scoping Opinion, November 2012.
Assessment of future of area without the PPS		In the absence of the Proposed Modification the environmental baseline would still be influenced and guided by the land use policies of the Development Plan: it is unlikely that it would change in any significant way. However, the Proposed Modification that is the subject of this PPS allows for a more rigorous and spatially-based scrutiny of landscape capacity and visual sensitivity to the assessment of planning applications for smaller wind turbines. Without it, there would be less certainty that planning decisions were being made with full regard to these considerations and that the impacts of such development were fully identified, prevented, reduced or offset.
Alternatives considered		The only realistic alternative would have been a 'business as usual' approach without the benefit of a landscape and visual impact assessment to inform planning decisions.
Environmental assessment methods established		Established at scoping stage
Selection of PPS alternatives to be included in the environmental assessment		Proposed Modification and a 'business as usual' alternative
Identification of environmental problems that may persist after implementation and measures envisaged to prevent, reduce and offset any significant adverse effects	Post planning permission and construction	The PPS does not of itself give rise to environmental problems. However, its effectiveness in informing subsequent applications for planning permission, their determination and any subsequent environmental effects will be monitored.
Monitoring methods proposed	At planning application consideration and determination stage, and subsequent post-construction	The focus will be on monitoring the effects of consented wind turbines on biodiversity and fauna, cultural heritage and landscape designations, and how the PPS has influenced the decision-making process.

<p>Consultation timescales</p> <ul style="list-style-type: none"> • Timescale for Consultation Authorities • Timescale for public consultation 		<ul style="list-style-type: none"> • Agreed with Consultation Authorities at scoping stage • The consultation period for this Environmental Report will run from Tuesday 2nd April to Friday 17th May 2013.
Notification/publicity action		<p>Advertisement in local press indicating availability of Environmental Report/Proposed Modification and consultation period published 22nd March 2013. Community councils, local amenity groups and wind turbine industry representatives advised of publication and how reports can be viewed or obtained. Links/text to be put on Council web site.</p>

Outline and objectives of Proposed Modification to *Planning Guidance for the Location and Design of Wind Turbines in the Lowland Areas of East Lothian*

- 3.1 East Lothian Council has previously prepared planning guidance to assist applicants in preparing applications for planning permission for smaller wind turbines in the more lowland areas of East Lothian and to make clear what the Council, as planning authority, expects of these. This guidance, published in December 2010, is called *Planning Guidance for the Location and Design of Wind Turbines in the Lowland Areas of East Lothian*¹. For brevity, it will be referred to in this report as the PGLDWT. The PGLDWT was prompted by a relatively sudden and not inconsiderable interest in proposals for smaller-scale wind turbines, either single or in groups of two to three turbines, in the lowland areas of East Lothian.
- 3.2 Essentially, the purpose of this guidance is:
1. To expand on how East Lothian Council, as planning authority, applies the relevant land use planning policies of the development plan, and the requirements of Scottish Planning Policy, to its consideration and determination of applications for planning permission for single and small groups of wind turbines, predominantly within the lowland areas of East Lothian;
 2. To provide landowners and agents intending to submit such planning applications with the matters that they should consider and address prior to making their submission.
- 3.3 The 2010 PGLDWT is currently no more than a restatement of existing land use planning policy (as contained within SPP, the Edinburgh & the Lothians Structure Plan 2015 and the East Lothian Local Plan 2008), and how it would be interpreted. Consequently, it was not subject to SEA.
- 3.4 While existing development plan policy provides a robust framework against which wind turbine applications can be assessed, the Council took the view that further spatial guidance beyond that contained in the development plan and reflected in its PGLDWT guidance would be helpful. Increasing public concern about the potentially harmful effects of wind turbine development on the character of the East Lothian landscape was a further driver. This would extend the scope of this guidance to include a spatial framework which would be a material consideration in the determination of relevant wind turbine applications.
- 3.5 Consequently, in 2011 the Council commissioned consultant landscape architects experienced in this field to undertake a landscape capacity study for smaller wind turbines. The objective of the study was to determine the capacity of the East Lothian landscape to accommodate the smaller turbines for which there was growing interest in the lowland areas, as opposed to the larger, more commercial wind farms that were already a feature of

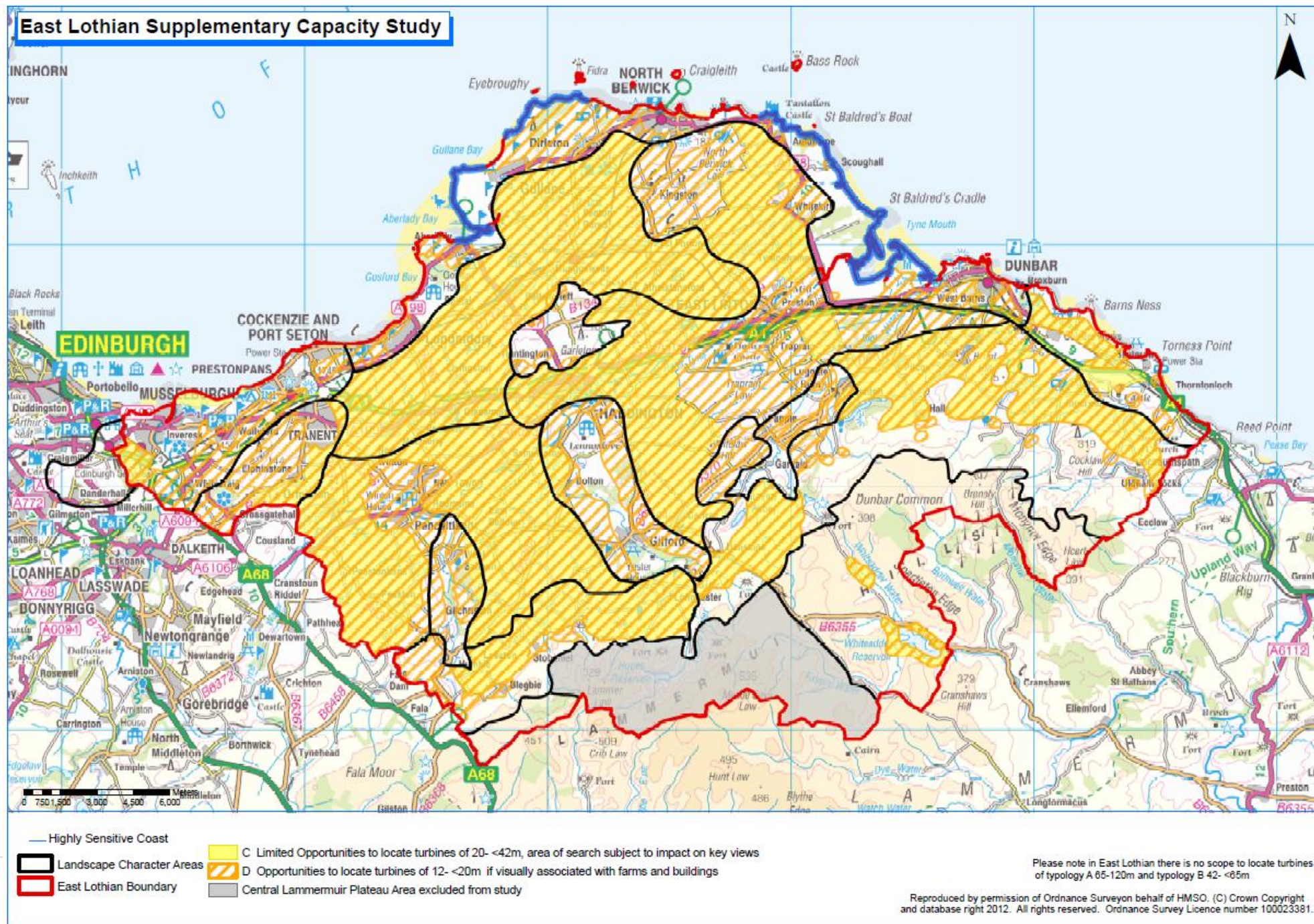
¹ This can be viewed/downloaded at

http://www.eastlothian.gov.uk/downloads/file/3760/planning_guidance_for_the_location_and_design_of_wind_turbines_in_the_lowland_areas_of_east_lothian

the upland landscapes, for example, Crystal Rig. A consultative draft report was submitted to East Lothian Council in August 2011 (the *East Lothian Supplementary Landscape Capacity Study for Smaller Wind Turbines, Consultative Draft, Carol Anderson and Alison Grant, August 2011*).² The draft report and its recommendations were considered by East Lothian Council on 23 August 2011 and approved for public consultation.

- 3.6 The consultation was undertaken in September/October 2011. Details were advertised in the local press, the study was available for viewing/downloading on the Council's web site and hard copies were placed in all Council libraries. Industry bodies, agents and landowners active in wind turbine development in East Lothian, community councils and amenity bodies were advised of its preparation and how to view/obtain a copy. A total of 62 submissions were received in response to the consultation invite.
- 3.7 East Lothian Council considered the consultation response at its meeting on 13 December 2011. The Council agreed to make amendments to the draft report arising from its consideration of the consultation response and to incorporate the consultants' recommendations into its PGLDWT guidance. The Council also noted that the inclusion of these recommendations (specifically their spatial planning component) would now require that the existing PGLDWT guidance be subject to Strategic Environmental Assessment. As the SLC study was prepared by independent consultants rather than a public body its preparation had not been subject to SEA.
- 3.8 **For the avoidance of doubt, the Council is treating this new spatial guidance as a Proposed Modification to its existing PGLDWT guidance. Consequently, it is only those modifications being made to the PGLDWT guidance (Dec 2010) as a consequence of incorporating the recommendations of the East Lothian Supplementary Landscape Capacity Study, as approved, that are being subject to SEA. Essentially, this is a new section 6.0 and a new Appendix 4. The revised section 6.0 incorporates a landscape and visual sensitivity assessment, accompanied by maps indicating where opportunities exist for turbines of particular heights. It replaces the previous section 6.0 that summarised the findings of the *Landscape Capacity Study for Wind Turbine Development in East Lothian (May 2005)*. This related more to larger scale turbines associated with upland wind farms. Appendix 4 incorporates general principles about the siting of smaller turbines in the landscape.**
- 3.9 The geographical coverage of the Proposed Modification to the PGLDWT guidance focuses on the more settled lowland areas and within those parts of the Lammermuir Hills and their fringes where current interest for smaller wind turbines is concentrated. The sparsely settled upland landscape character area of the 'Central Lammermuir Plateau' is not included.
- 3.10 Based on considerations of landscape and visual sensitivity, the Proposed Modification provides broad spatial guidance indicating the capacity of East Lothian lowland landscapes and the Lammermuir fringe to accommodate a range of wind turbine typologies without having a detrimental impact on landscape character and key views. The Proposed Modification contains detailed maps of each of the 13 landscape character areas assessed and the opportunities for turbine development within them. These opportunities are summarised in the map overleaf.

² This report can be viewed/downloaded at http://www.eastlothian.gov.uk/info/206/planning-advice_and_guidance/1130/renewable_energy/4



- 3.11 The Proposed Modification advises that there is no capacity for turbines above 42 metres in height to blade tip within any of the landscape character areas considered in the sensitivity assessment. However, the Proposed Modification recognises that there are variable opportunities for smaller turbine typology in these character areas, albeit dependent on local circumstances.
- 3.12 The Proposed Modification to the PGLDWT guidance, and the revised guidance itself, is expected to cover the period at least until the adoption of the first East Lothian Local Development Plan, although it may be amended in the light of experience through use. At that point the intention would be to approve the PGLDWT as Supplementary Planning Guidance. It should be noted that the guidance does not replace or modify current land use planning policy in the adopted East Lothian Local Plan 2008 or the approved Edinburgh and the Lothians Structure Plan 2015.
- 3.13 The Council is making this Environmental Report available for public consultation. As noted in paras 3.5 and 3.6 above, the Council has previously consulted on the recommendations of the above Supplementary Landscape Capacity study, and considered and agreed its position in the light of that consultation response. The terms of the Proposed Modification to the PGLDWT reflect this agreement. The focus of this current consultation is therefore on the Strategic Environmental Assessment of the Proposed Modification, not on the terms of the Proposed Modification itself. However, if the response to the SEA process raises a relevant environmental issue that has implications for the Proposed Modification itself, or if any new issues are raised on the content of the Proposed Modification, then the Council must consider if any change should be made to the Proposed Modification.

Environmental factors excluded from the Environmental Report

- 3.14 The scoping stage allowed a number of matters to be ‘scoped out’ for the reason that no significant environmental effects were anticipated on them as a consequence of the Proposed Modification to the PGLDWT guidance. With the agreement of the Consultation Authorities, the matters scoped out were:

Flora

Due to the small land take and individual numbers of turbines in any single proposal, it is unlikely that there would be significant impacts that could not be avoided through micro-siting of individual turbines.

Population

The development of wind turbines will not affect the distribution or structure of population.

Human health

The main pathway to health effects from wind turbine development is via noise. However, any individual development would have to meet current noise guidelines, so any impact is unlikely to be significant. In addition, the lowland wind turbines are of a smaller scale and number when compared with wind farms.

Soil

While there might be site-specific effects on soils there is unlikely to be any strategic effects due to the low level of land take. There are very few areas of sensitive soils such as peat in East Lothian that might be affected by smaller scale wind turbine development.

Water

There can be some risk to water quality from run-off of dust from construction of wind turbines, and potential risk from other pollutants such as oil. However, the smaller scale nature/number of lowland wind turbines should mean that by following good practice in construction there is unlikely to be an effect. Were there to be an effect, it is likely to be short term, and therefore the effects on water quality are not considered to be significant.

Air

There may be very local, short term effects on air quality during construction. However, since this would not impact on any Air Quality Management areas in or near East Lothian, it would not result in critical thresholds being exceeded. The relatively small-scale nature of lowland wind turbines is a further factor. It is not considered that there would be any significant effects on air quality. Increased wind turbine development may bring an improvement in air quality by displacing generation from more polluting sources, especially coal, but the effect from the Proposed Modification to the PGLDWT would not be significant.

Climatic factors

The impact of lowland wind turbine development within East Lothian is a very small proportion of the total of greenhouse gases saved or emitted, globally or nationally, and is therefore not significant.

Material Assets

Proposals for lowland wind turbines have a limited footprint, are almost exclusively located on-farm and only a small number of turbines are involved in any individual proposal. This, and the ability to micro-site, suggests that it is unlikely that they would directly affect material assets such as the quality of housing stock, infrastructure, rights of way, existing land uses or minerals. Waste arisings and disposal have not been issues with any lowland wind farm proposal in East Lothian: if any such effects were to arise with any particular turbine proposal then this can be considered and dealt with at the planning application stage.

Environmental factors included within the Environmental Report

- 3.15 The following matters were considered likely to have significant environmental effects and, with the agreement of the Consultation Authorities, were scoped in:

Biodiversity

Biodiversity is scoped in because of the potential effects on Annex 1 birds, and birds that form the qualifying interest of the Special Protection Area (SPA). Biodiversity could be affected by the Proposed Modification to the PGLDWT guidance.

Such impact could arise if the Proposed Modification was to support wind turbine development within or affecting a sensitive area, and landscape and visual impact were the only determining factors. In reality, landscape and visual impact are only two of a number of planning policy considerations that will inform decisions on planning applications for wind

turbines. For example, existing development plan policy seeks to minimise development that would harm an important local biodiversity site while international, national, strategic and local development plan policy are all strongly protective of the conservation interest of SPAs.

Fauna

Flora is scoped in because of the potential effects on Annex 1 birds, and birds that form the qualifying interest of the SPA. Due to the small land take and individual numbers of turbines in any single proposal, it is unlikely that there would be significant impacts on other fauna that could not be avoided through micro-siting of individual turbines.

Such impact could arise if the Proposed Modification was to support wind turbine development within or affecting a sensitive area, and landscape and visual impact were the only determining factors. In reality, landscape and visual impact are only two of a number of planning policy considerations that will inform decisions on planning applications for wind turbines. International, national, strategic and local development plan policy are all strongly protective of the conservation interest of SPAs.

Cultural Heritage (including architectural and archaeological heritage)

Cultural heritage is scoped in. Wind turbine development does have the potential to affect key views to, or the setting of, a listed building or, directly or indirectly, the archaeological heritage.

Such impact could arise if the Proposed Modification was to support wind turbine development within or affecting a designated area, and landscape and visual impact were the only determining factors. In reality, landscape and visual impact are only two of a number of planning policy considerations that will inform decisions on planning applications for wind turbines. Existing development plan policy provides levels of protection of international, national, regional and local historic or built heritage designations and interests from development that would harm their integrity, character, appearance and setting.

Landscape

Landscape is scoped in. The potential effect on Gardens and Designed Landscapes and Historic Battlefields will be assessed as these have a recognised national interest. The effect on local landscapes will also be considered: although this is not significant in terms of Schedule 2 of the SEA regulations, it is important locally.

Landscape and visual impact considerations are central to the Proposed Modification to the PGLDWT guidance. These will be supplemented by national and development plan policy that seeks to protect significant landscape features such as Historic Battlefields and Gardens and Designed Landscapes.

Relationship with other PPS and environmental protection objectives

- 3.16 Schedule 3 of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes an outline of the PPS relationships with other relevant PPS, and how environmental protection objectives have been taken into account in the PPS

preparation. This section covers these issues and describes the policy context within which the PPS operates, and the constraints and targets that this context imposes on the PPS.

- 3.17 Table 3 summarises how the Proposed Modification to the PGLDWT guidance affects, and is affected by, other relevant PPS and environmental objectives.

Table 3 Relevant plans, programmes and strategies (PPS) and environmental protective objectives, and their relationship with the Proposed Modification to the PGLDWT

Name of PPS / Environmental protection objective	Title of legislation and main requirements of PPS / Environmental protection objective	How it affects, or is affected by the Proposed Modification to the PGLDWT guidance in terms of SEA issues* at Schedule 3 of the Environmental Assessment (Scotland) Act 2005
Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora		<p>Requires Member States to sustain populations of naturally occurring flora and fauna by sustaining areas of habitats to maintain ecologically and scientifically sound levels.</p> <p><i>Wind Turbine development in some areas of East Lothian would have the potential to impact on the River Tweed SAC resulting from discharges to watercourses during construction. It is unlikely that lowland wind turbines will have such an effect. However, the Proposed Modification to the PGLDWT guidance should recognise situations where it might be supporting turbines on landscape and visual grounds that could have such an impact. It should therefore ensure that any such impacts are considered through other policy and assessment frameworks (such as development plan policy and inter-authority consultation) and at planning application stage.</i></p>

Name of PPS / Environmental protection objective	Title of legislation and main requirements of PPS / Environmental protection objective	How it affects, or is affected by the Proposed Modification to the PGLDWT guidance in terms of SEA issues* at Schedule 3 of the Environmental Assessment (Scotland) Act 2005
Directive 79/409/EEC on the conservation of wild birds		<p>Requires Member States to sustain populations of naturally occurring wild birds by sustaining areas of habitats to maintain ecologically and scientifically sound levels.</p> <p><i>By identifying, on landscape and visual grounds, certain broad areas and scales of wind turbines within East Lothian, the Proposed Modification would have the potential to impact on the conservation interest of the qualifying interest of the Firth of Forth SPA, Gladhouse Reservoir SPA, Greenlaw Moor SPA and Fala Flow SPA due to a potential effect on the pinkfooted goose (including their foraging areas). The Proposed Modification to the PGLDWT should ensure that any such impacts are considered and addressed through the application of, for example, development plan policy and at planning application stage.</i></p>
Directive 2001/77/EC Promotion of Energy from Renewable Sources		<p>Requires member states to set targets for the production of renewable energy</p> <p><i>The Proposed Modification should be seen in the context of a need to achieve national targets in the production of energy from renewable sources.</i></p>
Climate Change Act (Scotland) 2009		<p>Requires all public bodies to act:</p> <ul style="list-style-type: none"> • in the way best calculated to contribute to the delivery of the emissions targets in the Act, • in the way best calculated to help deliver the Government's climate change adaptation programme, and • in a way that it considers is most sustainable. <p><i>The Proposed Modification needs to take this into account in planning for wind energy.</i></p>

Name of PPS / Environmental protection objective	Title of legislation and main requirements of PPS / Environmental protection objective	How it affects, or is affected by the Proposed Modification to the PGLDWT guidance in terms of SEA issues* at Schedule 3 of the Environmental Assessment (Scotland) Act 2005
Climate Change; the UK Programme		<p>Aims to cut the UK's carbon emissions by 80% by 2050. The UK Government have set a number of strategies and measures to achieve these objectives in six different sectors; energy supply, business, transport, domestic, agriculture, forestry and land management, and public and local government.</p> <p><i>The Proposed Modification needs to take this into account in planning for wind energy.</i></p>
2020 Routemap for Renewable Energy in Scotland (2011), and October 2012 Update		<p>Reflects new Scottish Government targets for the delivery of renewable energy, including:</p> <ul style="list-style-type: none"> • meeting an equivalent of 100% demand for electricity from renewable energy by 2020, as part of a wider electricity mix • as an interim target, meeting an equivalent of 50% of Scottish electricity demand by 2015 from renewable energy • having at least 30% of overall energy demand from renewable by 2020 • having 500MW of community and locally-owned renewable energy generation by 2020 <p><i>The Proposed Modification needs to take this into account in planning for wind energy.</i></p>

Name of PPS / Environmental protection objective	Title of legislation and main requirements of PPS / Environmental protection objective	How it affects, or is affected by the Proposed Modification to the PGLDWT guidance in terms of SEA issues* at Schedule 3 of the Environmental Assessment (Scotland) Act 2005
National Planning Framework 2	Town and Country Planning (Scotland) Act 1997 (as amended)	<p>The National Planning Framework (NPF) sets out the spatial development strategy for Scotland till 2025.</p> <p>The NPF sets out a vision of Scotland in which other plans and programmes can share and to which they can contribute. The NPF complements the Scottish Government's Framework for Economic Development in Scotland, highlighting the importance of place and identifying priorities for investment in strategic infrastructure to enable each part of the country to play to its strengths in building a Scotland that is competitive, fair and sustainable.</p> <p>The main relevant elements of the spatial strategy to 2030 are:</p> <ul style="list-style-type: none"> • To permit development which helps reduce Scotland's carbon footprint • Support sustainable growth in the rural economy • conserve and enhance Scotland's distinctive natural and cultural heritage, and continue to safeguard internationally protected sites, habitats and species; • realise the potential of Scotland's renewable energy resources and facilitate <p>the generation of power and heat from all clean, low carbon sources;</p> <p><i>The Proposed Modification needs to take this higher tier plan into account and ensure that it is consistent with its broad strategy.</i></p>

Name of PPS / Environmental protection objective	Title of legislation and main requirements of PPS / Environmental protection objective	How it affects, or is affected by the Proposed Modification to the PGLDWT guidance in terms of SEA issues* at Schedule 3 of the Environmental Assessment (Scotland) Act 2005
Scottish Planning Policy	Town and Country Planning (Scotland) Act 1997 (as amended)	<ul style="list-style-type: none"> • Requirement to promote sustainable development Requirement to tackle climate change • Requirement to safeguard historic assets • Requirement to consider the potential effects of development on landscapes and natural heritage • Requirement to support the development of a range of renewable energy technologies, guide development to appropriate locations and provide clarity on issues to take account of when assessing specific proposals • Requirement to support wind farms in locations where technology can operate efficiently and environmental and cumulative impacts can be satisfactorily addressed. <p><i>The Proposed Modification needs to ensure that it is consistent with Scottish Planning Policy</i></p>
Scottish Historic Environment Policy (2011)		<p>Sets out Scottish Ministers policies for historic environment, provides greater policy direction for Historic Scotland and provides a framework which informs the work of a range of organisations that have a role and interest in managing the historic environment.</p> <p><i>The Proposed Modification needs to ensure that it is consistent with Scottish Government policy for the historic environment.</i></p>

Name of PPS / Environmental protection objective	Title of legislation and main requirements of PPS / Environmental protection objective	How it affects, or is affected by the Proposed Modification to the PGLDWT guidance in terms of SEA issues* at Schedule 3 of the Environmental Assessment (Scotland) Act 2005
Edinburgh and the Lothians Structure Plan 2015	Town and Country Planning (Scotland) Act 1997	<p>The Structure Plan sets the strategic land use planning context for Edinburgh and the Lothians. Its main objectives are:</p> <ul style="list-style-type: none"> • To protect and enhance important landscape settings of settlements and areas of green space • To protect the natural environment from inappropriate or damaging development • To protect the built and historic environment from over-development • To support renewable energy resources where achievable in an environmentally acceptable manner <p><i>The Proposed Modification needs to take this higher tier plan into account and be consistent with its provisions.</i></p>
East Lothian Local Plan 2008	Town and Country Planning (Scotland) Act 1997	<p>The East Lothian Local Plan 2008 must conform to the structure plan and set a detailed land use policy framework for East Lothian. Its main objectives are:</p> <ul style="list-style-type: none"> • To manage proposals for new development within the countryside and coast • To give a high level of protection to designated international and national natural heritage sites • To protect landscape character and appearance • To protect the built and historic environment from damaging development • To support individual wind turbines or wind farms subject to considerations including landscape and visual impact, noise, hydrogeology and hydrology, and cumulative impacts. <p><i>The Proposed Modification must be consistent with the policies of this higher tier plan.</i></p>

Name of PPS / Environmental protection objective	Title of legislation and main requirements of PPS / Environmental protection objective	How it affects, or is affected by the Proposed Modification to the PGLDWT guidance in terms of SEA issues* at Schedule 3 of the Environmental Assessment (Scotland) Act 2005
SESplan Proposed Plan	Planning etc (Scotland) Act 2006	<p>When approved, SESplan will supersede the Edinburgh and the Lothians Structure Plan as the strategic planning context for East Lothian. Its main objectives are:</p> <ul style="list-style-type: none"> • To provide a spatial planning strategy for Edinburgh and SE Scotland • In so doing, to have regard to the protection of international, national and local natural and built heritage designations and to contribute to the response to climate change • To promote sustainable energy sources and to require local development plans to set a framework for the encouragement of renewable energy proposals <p><i>The Proposed Modification must have regard to the emerging strategic planning policies of this higher tier plan.</i></p>

* Biodiversity, flora, fauna, population, human health, soil, water, air, climatic factors, material assets, cultural heritage (including architectural and archaeological heritage), landscape, inter-relationship between these issues; secondary and cumulative effects.

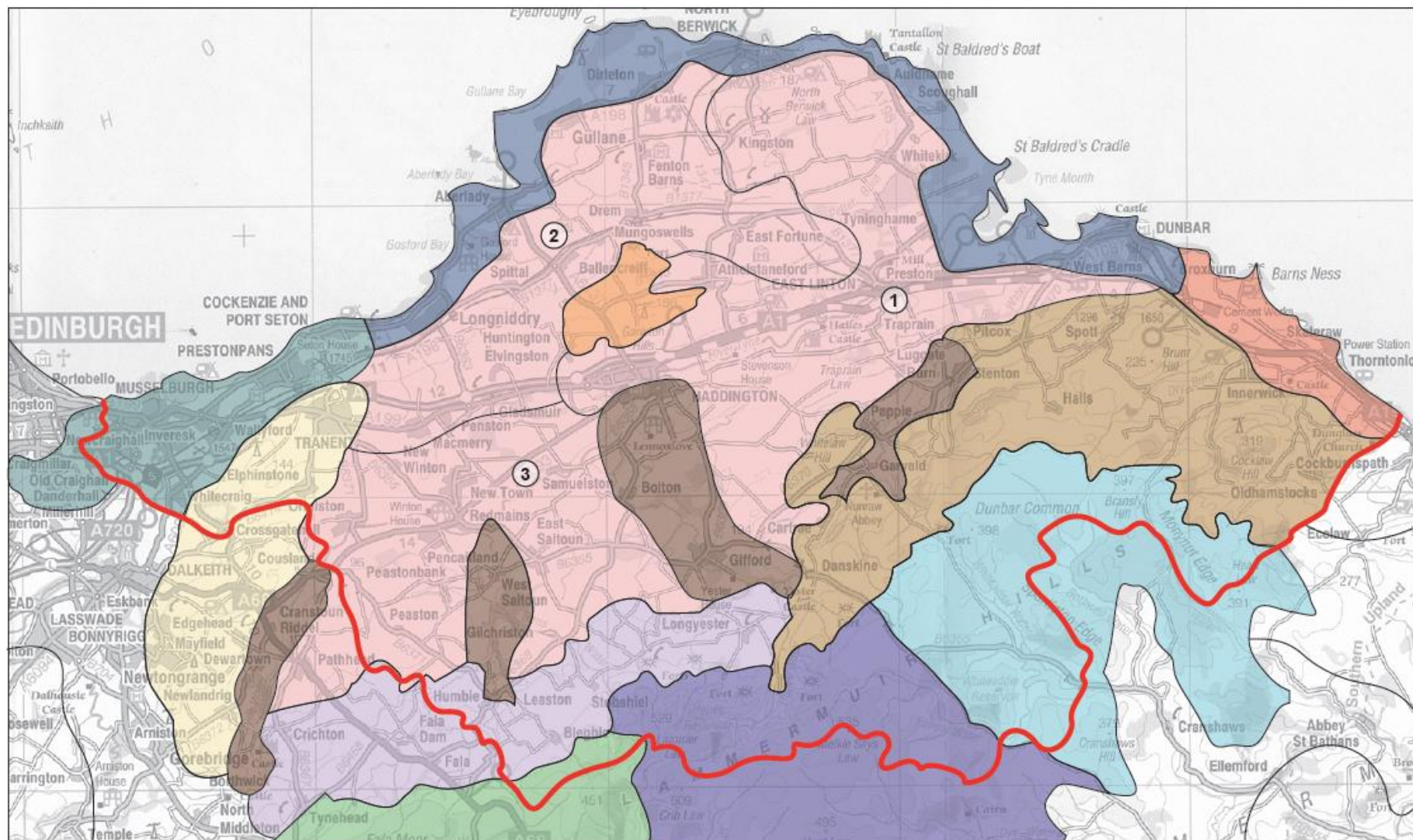
Relevant aspects of the current state of the environment

- 3.18 Schedule 3 of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes a description of “the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme”, and “the environmental characteristics of areas likely to be significantly affected”. This section describes the environmental context within which the Proposed Modification to the PGLDWT operates and the constraints and targets that this context imposes on it.

Landscape

- 3.19 The quality of the East Lothian landscape and coast is widely recognised. In broad terms, attractive coastal landscapes give way inland to an extensive agricultural plain that is then framed by the Lammermuirs and its foothills. This landscape is interspersed with historic towns and villages as well as prominent physical features such as the Garleton Hills, North Berwick and Traprain Laws, gardens and designed landscapes and other historical sites, buildings, landmarks and monuments.

- 3.20 East Lothian's history, based on its strategic location and its agriculture, fishing and mining interests, is widely reflected in its present-day landscape. Its settlements have grown and evolved in this context, with many developing organically around harbours, market squares, former coal mines and river crossings with some including historic mills and lades. Often, smaller settlements developed around farmsteads, fortifications, parish churches and manses, while some were planned by estate managers to house workers during agricultural improvement. Roads and railways were introduced to connect the area to market, although many railways have since been removed. The diversity of settlements developed in harmony with their surroundings and in response to the area's economic activities and connections to its surroundings. This is reflected in the layout of the settlements, their architectural styles and in the materials and colours used for building.
- 3.21 The Edinburgh Green Belt has an important role in managing and maintaining landscape character and identity in the western part of East Lothian. There are also 10 Areas of Great Landscape Value designations, including the coast, the Lammermuir and Garleton Hills and Traprain Law.
- 3.22 The Lothians Landscape Character Assessment, published by SNH in 1998, and further refined for the purposes of the East Lothian wind turbine capacity studies, is a useful baseline to consider East Lothian's landscape character in more detail. The landscape of East Lothian is subdivided into a number of landscape character types/areas: these are detailed in the map overleaf and described more fully in the following sections.



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Landscape Character Areas Assessed in Capacity Study



0 2 4 6 km
1:125,000

Supplementary Landscape Capacity Study
for Wind Turbine Development 2011

Landscape Character Areas Used in Study



Fig No: 1

Musselburgh/Prestonpans Fringe

- 3.23 This comprises a narrow, densely developed coastal fringe at the western extremity of East Lothian. This character is tightly contained by the Mayfield/ Tranent Ridge to the south and tends to be perceived as an extension of development around the wider basin of the Firth of Forth and Edinburgh. Much of this character area lies within the Edinburgh Green Belt which, together with extensive areas of open space, provides a landscape setting for its settlements, which include Musselburgh, Inveresk, Wallyford, Whitecraig, Prestonpans, Cockenzie and Port Seton. There are key views from the A1 to Edinburgh (with Arthur's Seat forming a key focus), the Firth of Forth and to the historic Inveresk Church.
- 3.24 This character area includes the Gardens and Designed Landscapes of Newhailes, Pinkie House, Inveresk Lodge Gardens, Seton House and part of Dalkeith House. It also contains two battlefields included in Historic Scotland's Inventory of Historic Battlefields³. These are the Battle of Pinkie Mains and the Battle of Prestonpans

Northern Coastal Margin

- 3.25 Moving east, the Northern Coastal Margin extends west of Seton Mains to the east of Dunbar. It features the least modified and most scenic seascapes within East Lothian and is a richly diverse coastal landscape with a distinctive pattern of policy woodlands and designed landscapes. It is a well-settled area, popular for recreation, and contains distinctive coastal settlements, many of which are popular tourist destinations, such as Longniddry, Aberlady, Gullane, Dirleton, North Berwick and Dunbar. The Firth of Forth and its islands are a key focus of views both from within this character area and from more elevated views.
- 3.26 This character area includes the Gardens and Designed Landscapes of Gosford House, Archerfield, Tynninghame, Luffness, Grey Walls, Belhaven House, Dirleton Castle and Broxmouth Park (part). It also contains part of the battle of Dunbar II included in Historic Scotland's Inventory of Historic Battlefields. Much of the coastline is designated as an AGLV, with inland extensions into the Tynninghame and Whitekirk areas.

Eastern Coastal Margin

- 3.27 Extending eastwards from Dunbar to the border, the Eastern Coastal Margin comprises a gently undulating narrow strip of land abutting the North Sea and contained by the foothills of the Lammermuir Hills to the south. The landscape has been significantly man-modified and is characterised by large scale industrial, energy, landfill and extractive development, crossed by major transport routes in the form of the A1 and the east coast main line. The large scale turbines of the Aikengall windfarm are highly visible from this area. In the south-east part of this character area there are less modified stretches of coastline, with more complex landform including small scale valleys and headlands: this area is highly visible from the major transport routes. Settlement is small scale, primarily in the south-east at Bilsdean and Dunglass.

³ The Inventory boundary defines an area which is considered to encompass the landscape within which the main events of the battle took place (landscape context) and where associated physical remains and archaeological evidence occur or may be expected (specific qualities)

- 3.28 This character area includes the Gardens and Designed Landscapes of Broxmouth Park and part of Dunglass. It also contains part of the Battle of Dunbar II which is included in Historic Scotland's Inventory of Historic Battlefields. Most of the immediate coastal strip here is designated as an Area of Great landscape value (AGLV).

The Agricultural Plain

- 3.29 The Agricultural Plain extends over much of the lowlands of East Lothian. In landscape character terms it comprises three broad sub-areas. To the **east**, it is characterised by a more rolling landform with pronounced ridges and occasional landscape features. Here, the landscape has a relatively high proportion of woodland which increases containment and reduces scale. Haddington and East Linton are the main settlements in an area where these are typified by their small scale and architectural integrity. The area is characterised by the presence of the landmark features of North Berwick and Traprain Laws and their landscape setting, extensive designed landscapes and wooded policies and a high visibility from the A1 and east coast main line. The Gardens and Designed Landscapes included within this sub-area are Lennoxlove, Stevenson House, Leuchie, Balgone House and St Mary's Pleasance. The areas around Traprain Law and Berwick Law are AGLVs as is the area associated with Balgone House.
- 3.30 To the **north**, the landscape is open, very gently undulating to flat with a relatively expansive scale. There is relatively little woodland and dispersed industrial development and infrastructure is a feature. There are key views to the Garlton Hills and parts of this landscape are highly visible from the A1 and the East Coast Main Line. Settlements are generally small-scale, Macmerry in the extreme west being the largest. Elvingston is included in the Inventory of Gardens and Designed Landscapes.
- 3.31 To the **south**, the landscape is gently undulating with long broad ridges and shallow valleys. Woodlands are often a key feature and are especially associated with adjacent valley landscapes. There is relatively little large scale built development, Ormiston and Pencaitland being the two largest settlements. This rural landscape has a simple, uncluttered character. Winton and Pilmuir are included in the Inventory of Gardens and Designed Landscapes.

The Garlton Hills

- 3.32 The Garlton Hills are a prominent landmark within East Lothian, particularly their rugged north face and diverse, craggy hill tops and ridges. They are highly visible from key transport routes and from settlements. The area is designated as an AGLV.

Mayfield/Tranent Ridge

- 3.33 Located on the north-eastern edge of East Lothian, this character area comprises an elongated north-east/south-west orientated low, undulating ridge forming a backdrop to the well-settled Esk valley. Its steep north-west facing slopes and ridge top are highly visible from parts of Edinburgh, other settlements and major transport routes. Tranent is by far the area's largest settlement. Carberry Tower is included in the Inventory of Gardens and Designed Landscapes.

Humbie, Gifford and Whittingehame River Valleys

- 3.34 These river valleys cut in a generally north/south alignment through the Agricultural Plain. They lie within consistently incised valleys characterised by dense woodland cover and policy landscapes. They have a general complex, rolling and incised landform with a richly intricate pattern of woodlands. These features provide an often highly scenic setting to the small historic settlements and mansion houses that are a key characteristic of these valleys. Gifford is the area's largest settlement.
- 3.35 Saltoun Hall, Lennoxlove, Yester and Whittingehame are included in the Inventory of Gardens and Designed Landscapes. The Whittingehame area is also part of an AGLV.

Eastern Lammermuir Fringe

- 3.36 This character area comprises rolling foothills edging the Lammermuir Plateau and sweeps round to the east to form the backdrop to the Eastern Coastal Margin. It has a diverse land cover pattern and a distinctly rural character. The landform is complex and rolling, with intimate narrow valleys and the dramatic landform of the steep-sided Lothian Edge and a pattern of distinctive knolly hills against the scarp of the Lammermuir Hills. Settlements, which include Humbie, are very small in scale.
- 3.37 Biel and Dunglass (part) are included in the Inventory of Gardens and Designed Landscapes. The area also contains part of the battle of Dunbar II which is included in Historic Scotland's Inventory of Historic Battlefields. The southern and western parts of this character area are included within the Lammermuirs AGLV.

North Lammermuir Platform

- 3.38 This character area forms a long band of undulating farmland and small foothills fringing the northern edge of the Lammermuir Hills. This character area, which extends west into Midlothian, provides the foreground to extensive views to and from the Lammermuir Plateau. Distinctive landform features include the dramatically steep and rugged scarp slopes of the Lammermuir Hills which form the backdrop to character area and also the pronounced small hills lying at the foot of this scarp, which feature hill forts of archaeological interest. Characteristic of the western part of this character area is the strong and distinctive pattern of policy woodlands, field trees and hedgerows. Settlements, which include Oldhamstocks and Spott are small in scale.
- 3.39 Yester is included in the Inventory of Gardens and Designed Landscapes. Small parts of this character area around Stobsheil and Kidlaw lie within the Lammermuirs AGLV.

East Lammermuir Plateau

- 3.40 The eastern part of the Lammermuir Hills comprises an undulating plateau cut by the Whiteadder Valley. This upland area forms a backdrop to the eastern coastal plain and foothills of East Lothian and to the sparsely populated farmed valleys of the Scottish Borders to the south. The sheer-sided dramatic landform features of the Spartleton and Monynut Edges are now dominated by wind farm development and the remaining open and distinct hill tops, such as Spartleton, Penshiel and Priestlaw Hills, and the contained Whiteadder

valley and reservoir are important features providing visual relief. The area is very sparsely populated.

- 3.41 This character area is wholly contained within the Lammermuirs AGLV.

Plateau Grassland

- 3.42 This character area covers the western part of the Lammermuir Hills and comprises an upland plateau of smooth, gently undulating hills covered by coarse grassland. Only a small part of this are falls within East Lothian, the majority of this character type being found in the Scottish Borders. Existing and consented windfarm development is a key characteristic of the wider character area. That part within East Lothian comprises the steep scarp slopes of the Lammermuir Hills, forming a highly visible backdrop to the adjacent North Lammermuir Platform and the western part of the Agricultural Plain. Blegbie Hill and West Hill are important in forming a rim of higher ground which visually contains the expansive upland basin of the plateau to the south, limiting close views of the Dun Law wind turbines from the North Lammermuir Platform.
- 3.43 This character area is almost wholly contained within the Lammermuirs AGLV.

Biodiversity and Fauna

- 3.44 Biodiversity describes the entire range of species and habitats that occur in a particular area. Fauna is all of the animal life of any particular region or time. Globally, biodiversity covers wildlife in habitats as diverse as rainforests and deserts, mountains and oceans. East Lothian's Biodiversity Action Plan 2008-2013 describes in some detail the status of biodiversity in East Lothian⁴. The action plan provides a list of habitats and species that are at particular risk of local extinction. These are known as Priority Habitats and Species. Most of these are also on the Scottish Biodiversity List and are at risk nationally. Other priorities have been added because they occur in very few places in the Lothians, or because they have a particular relevance to the East Lothian landscape. Many priorities have suffered substantial declines in recent years.
- 3.45 Areas designated for, or partly for, their biodiversity interest within East Lothian are:

Table 4 Areas designated for Biodiversity interest

Designation of site/Importance	Number
Ramsar Sites (International)	1
Special Protection Areas (International)	2
Sites of Special Scientific Interest (National)	15
Local Biodiversity Sites (Local)	Under review
Local Nature Reserves (Local)	1 (1 under consultation)
Country Parks	1

⁴ http://www.eastlothian.gov.uk/downloads/file/1321/east_lothian_biodiversity_action_plan

Ramsar and Natura 2000 Sites

- 3.46 Special Protection Areas and Special Areas of Conservation together make up the Natura 2000 series, which is intended to protect the best of European biodiversity. SPA's are designated under Directive 2009/147/EC on the conservation of wild birds (the 'Birds Directive'), while SAC's are designated under Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive').
- 3.47 Ramsar sites are wetlands of international importance designated under the Ramsar Convention. The original emphasis was on selecting sites of importance to waterbirds, and consequently many of the Ramsar Sites in the UK are also Special Protection Areas (SPA). The Firth of Forth, also an SPA (as are the Forth islands), covers much of the shoreline of the Forth Estuary and is the only Ramsar site in East Lothian. The sites which could potentially be harmed by wind turbine development are those which include the pink footed goose as a qualifying interest, as these birds can fly some distance for daily foraging. The sites within daily foraging distance are Firth of Forth, Fala Flow, Gladhouse Reservoir, Greenlaw Moor and Westwater.
- 3.48 There are no SAC's in East Lothian, however some parts of the south-eastern Lammermuirs (mainly the Monynut Water) drain into the River Tweed SAC. There is potential for development in this area to affect the SAC through the release of pollutants, including silt, into the catchment of this watercourse. Appendix One shows Natura 2000/Ramsar sites along with their features and conservation status.

Sites of Special Scientific Interest (SSSI)

- 3.49 Within the UK sites that are nationally important for plants, animals or geological or physiographical features are protected by law as SSSI's. There are 15 SSSI's in East Lothian covering the Forth Estuary and Islands, parts of the Lammermuir Hills, quarries and coastal areas where geological features are visible, and areas of woodland and unimproved grassland of significant botanical interest. Appendix Two shows the site condition of features of East Lothian's SSSI's.

Local Biodiversity Sites.

- 3.50 Local Biodiversity Sites are designated by local authorities to protect biodiversity locally. Previously, Local Wildlife Sites were assessed by the Scottish Wildlife Trust. More recently, local authorities have taken over the role of designating what will become Local Biodiversity Sites. A review of the sites is ongoing at present. Appendix Three includes the original Scottish Wildlife Trust sites: however, there is likely to be some amendment to this list once the Local Biodiversity Site selection process is complete.

Local Nature Reserve

- 3.51 Aberlady Bay was the first Local Nature Reserve to be designated in Scotland, in 1952. It covers an area of 575.23 hectares, about 2/3 of which is below the high tide mark, consisting of tidal sand, salt marsh and mud flats. The reserve is within the Firth of Forth SSSI, and is managed to improve the area for wildfowl, waders and the wide variety of plants found there.

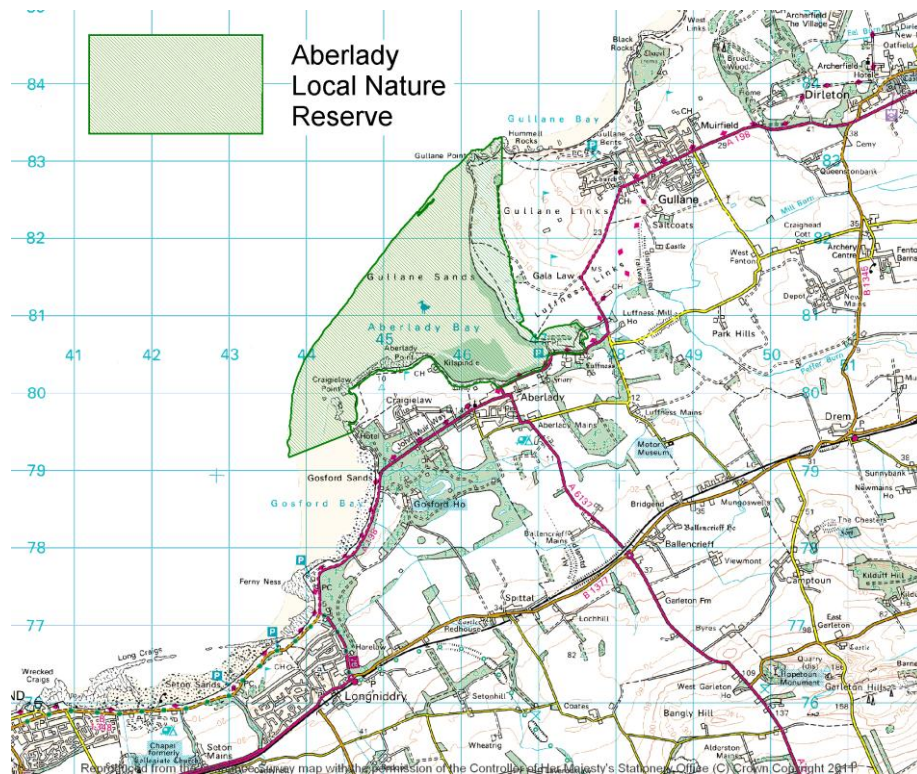


Figure 1 Aberlady Bay Nature Reserve

John Muir Country Park

- 3.52 John Muir Country Park was designated for its landscape, recreational and biodiversity interest. It is named after John Muir, the explorer, naturalist and conservationist born in nearby Dunbar. John Muir Country park covers some of the most spectacular East Lothian scenery, and is a haven for wildlife and people too.

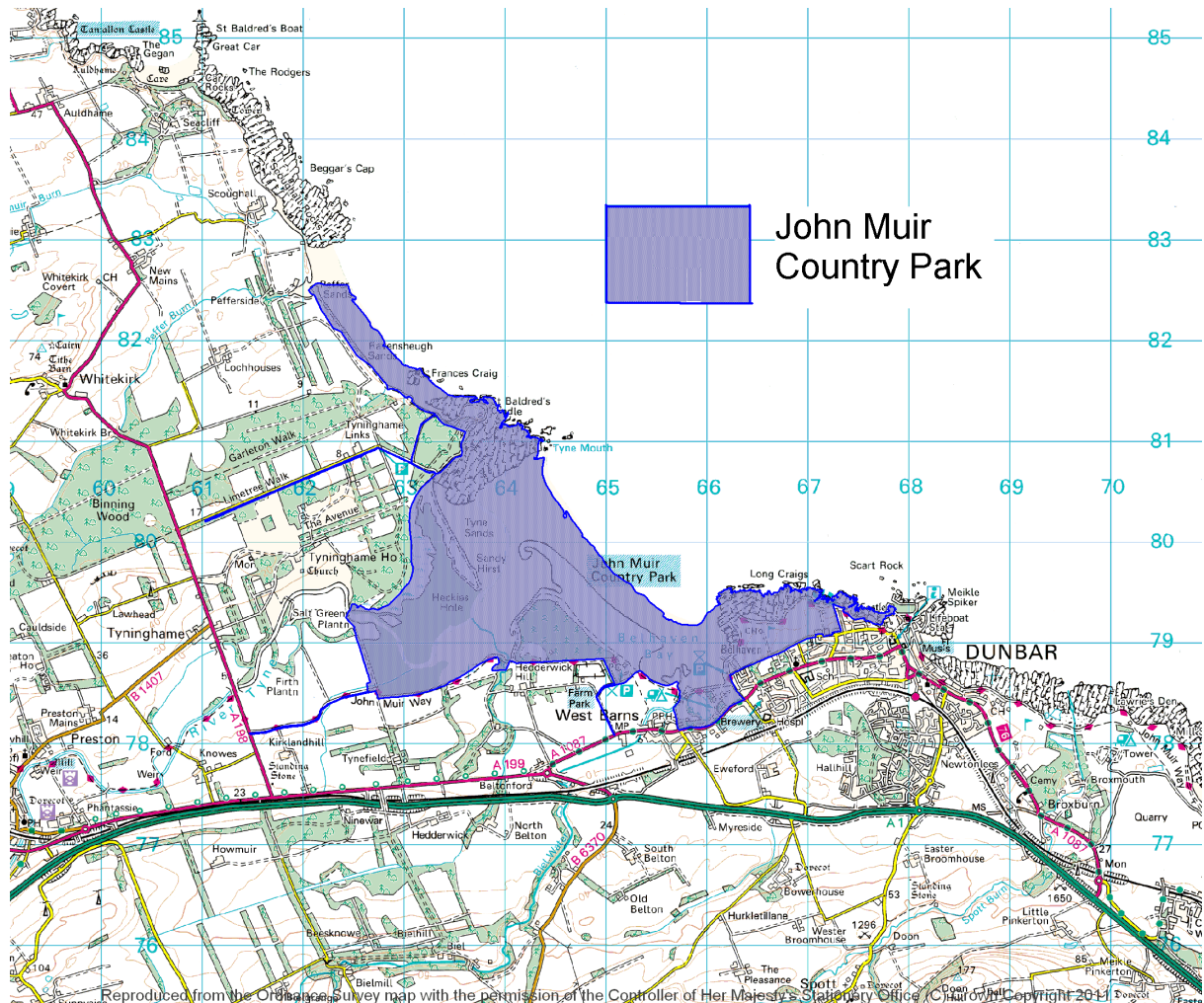


Figure 2 John Muir Country Park

Priority Habitat

- 3.53 The East Lothian Biodiversity Action Plan identifies priority habitats. These are habitats that are the most important for the conservation of biodiversity in East Lothian. The Priority Habitats are based on a Phase 1 survey carried out in 1997, which is the most up to date data available. The full list of Priority Habitats is:

Coastal habitats

Coastal habitats are under pressure from development and from increased sea levels. This coastal squeeze reduces the area of a habitat and can prevent habitats functioning effectively, e.g. sand dune movement. The coastal habitats are:

Maritime cliffs

Sand dunes

Estuarine habitats, saltmarsh, mudflats habitats

Sub tidal habitats are just as important as seashore habitats, but are far less well understood. These comprise:

Tidal rocks
Marine caves, muds and sediments
Seaweed beds
Seabed rich in invertebrates

Woodland habitats

Different types of wood, depending on soil conditions, management and dominant species. The woodland habitats are:

Upland oak / ash woodland
Wet woodland
Scrub

Parkland is characteristic of 19th century grazed estates. Veteran trees and dead wood are habitats in themselves. Parkland comprises:

Lowland wood pasture and parklands
Veteran trees
Dead wood

Farmland

Hedgerows – have significant associated wildlife
Cereal field margins - key habitat of arable farms, especially when associated with hedgerows and burns

The following are all traditional or historic pastures which are very rare now. Calcareous grasslands are generally too poor to farm. Grazing can be beneficial.

Calcareous grasslands
Neutral grasslands
Acid grasslands
Heathland mosaics - maintained by appropriate burning or grazing

Rivers and Wetlands

Burns and River - s flowing water, from ditches to estuaries
Springs, swamps, mires, flushes and bogs - all different types of wetland

Rocky Habitats

Natural rock faces
Specific buildings

The East Lothian BAP details the specific locations of important rocky habitats

Urban Habitats

Urban woodland - of great value to people close to towns
Greenspace Networks - areas of towns where people and wildlife can flourish
Orchard - once very common, with a lot of associated wildlife

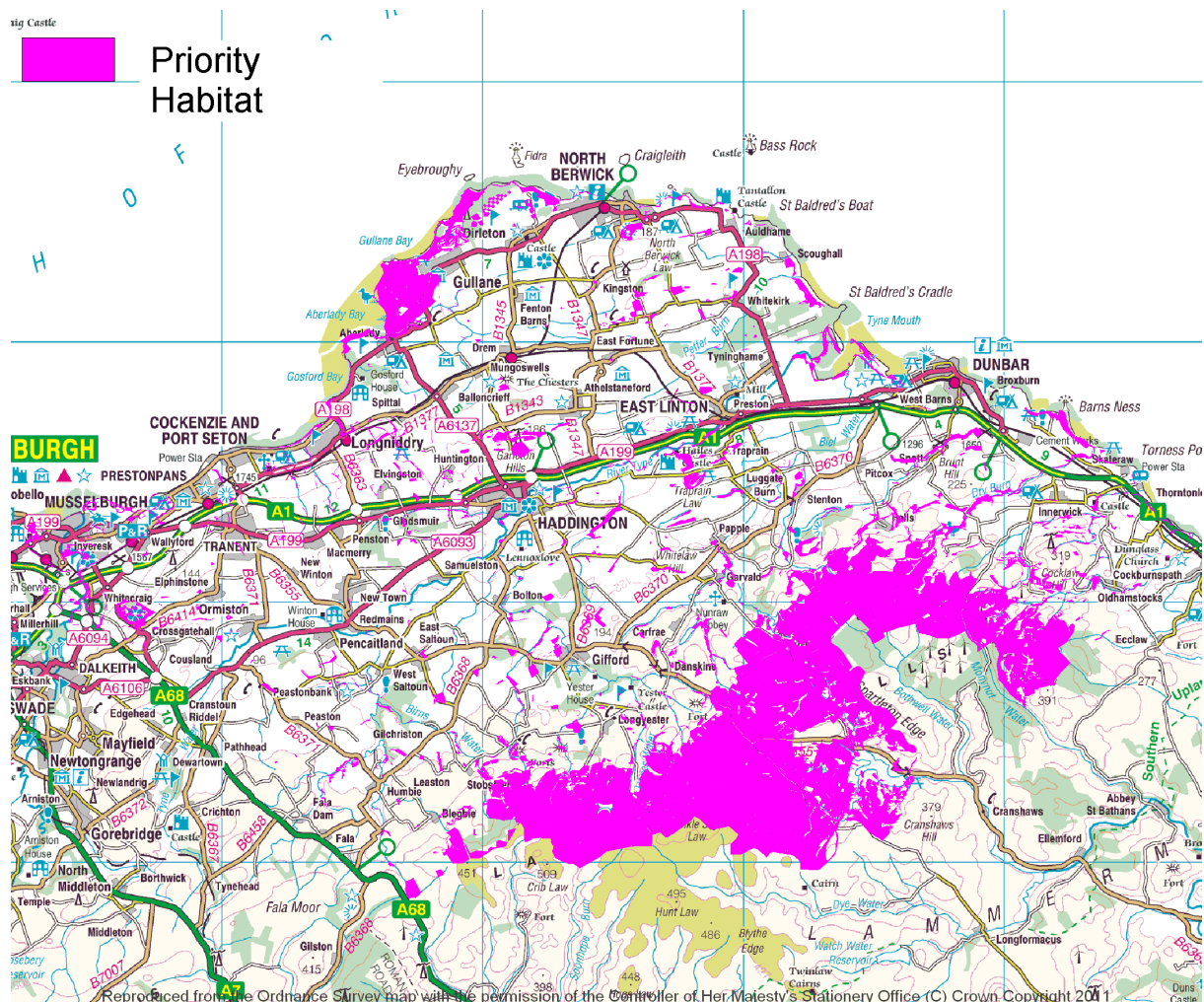


Figure 3 Priority Habitat in East Lothian

Priority Species

3.54 The list of East Lothian's Priority Species is summarised below and the full list is available in an appendix to the Biodiversity Action Plan.

Birds

About 70 species of bird are included in the list, including species that are nationally rare and others that occur in internationally significant numbers:

Waders, *e.g. dunlin, lapwing, redshank*

Seabirds, *e.g. eider, gannet, scoter, terns, common tern and sandwich tern*

Farmland birds, *e.g. grey partridge, tree sparrow*

Migrants, *e.g. brambling, ring ouzel*

Upland birds, *e.g. ring ouzel, black grouse*

Raptors, *e.g. barn owl, peregrine falcon*

Plants

About 40 species of plant are included in the list, covering habitats from estuaries, farmland, woodland, wetland and upland.

Orchids, *e.g. pyramidal orchid*
Flowering plants, *e.g. bluebell, wild pansy*
Ferns, *e.g. moonwort*
Grasses, sedges and rushes, *e.g. soft brome, flat sedge, round fruited rush*
Shrubs and climbers, *e.g. juniper, betony*

Mammals

About 10 species of mammal are included in the list:

Bats, *e.g. Daubenton's bat, Natterer's bat*
Seals, *e.g. grey seal, common seal*
Rodents, *e.g. red squirrel, water vole*
Others, *e.g. badger, otter*

Invertebrates

About 90 species of invertebrate are included in the list:

Butterflies and moths, *e.g. northern brown argus, lunar horned moth*
Flies, spiders, bugs and beetles, *e.g. moss flea beetle, money spider, plant-hopper.*
Mollusc, *e.g. lagoon sea slug*

Lichens, Mosses, Liverworts and Fungi

There are about 40 species of lichen, 35 species of moss, 1 species of liverwort and about 20 species of fungi included in the list. These species occur across the range of Priority Habitats in this Plan.

Lichens, *e.g. Gyalecta ulmi, Ramalina polymorpha*
Mosses, *e.g. Bryum calophyllum, Grimmia ovalis, Racomitrium elongatum* Liverwort, *Porella obtusata*
Fungi, *e.g. Geastrum elegans*

Amphibians and Reptiles

3 species of amphibian and reptile are included in the list:

Amphibians, *great crested newt*
Reptiles, *common lizard, adder*

Fish

5 species of fish included in the list are included in the list:

Salmonids
Lamprey

- 3.55 Black Grouse, a species which is the focus of an SNH Action Plan, are present in East Lothian. Habitat found in the Lammermuirs is suitable for Black Grouse although numbers have declined in the upland plateaux of East Lothian which has historically been suitable for them.

Woodland

The area of native woodland in East Lothian is 1,405ha, which is 20.3% of the total woodland area of East Lothian, or 2.1% of the total land area of East Lothian⁵. There are 895ha of woodland on ancient woodland sites, of which 34% is native woodland. Another 8% is nearly-native in composition (ie 40-50% native species in canopy). For more information see:

<http://www.forestry.gov.uk/forestry/inf-d-7ybbtu>

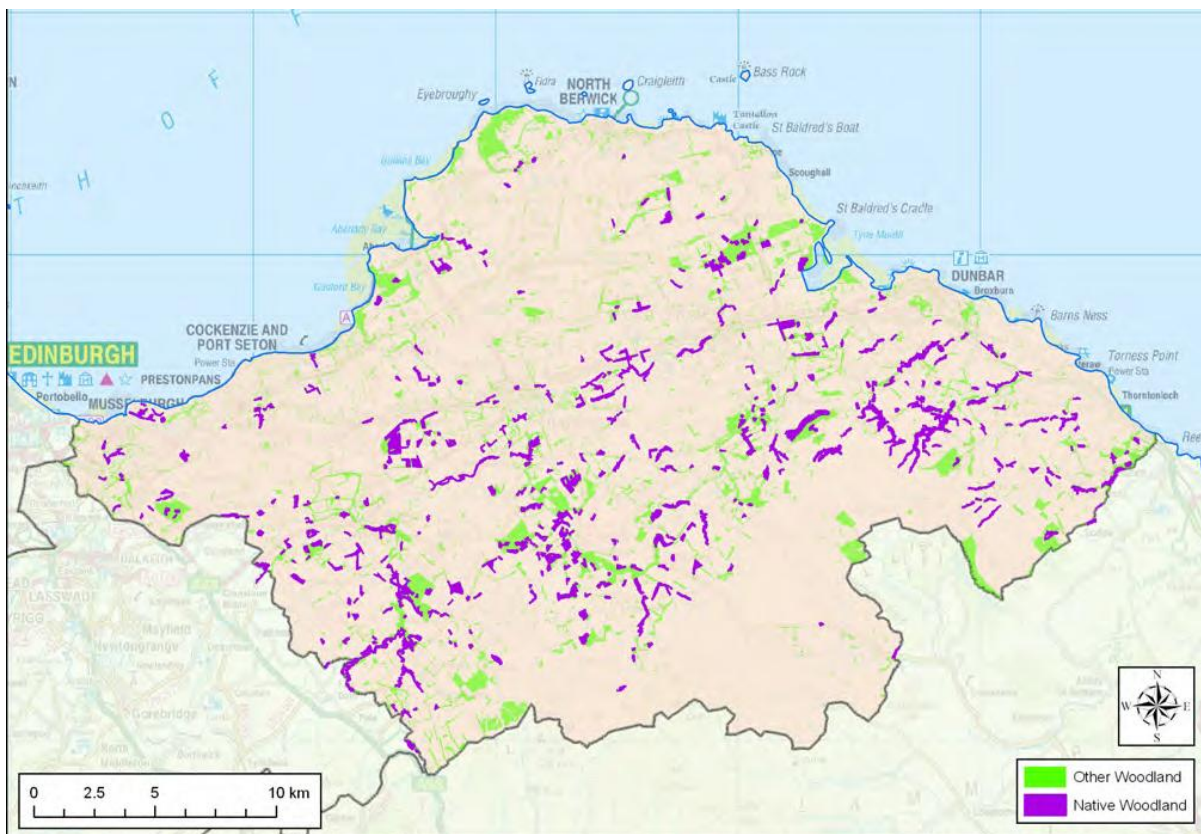


Figure 4 Distribution of Native and other woodland in East Lothian (From Forestry Commission Scotland Native Woodland Survey of Scotland)

Cultural Heritage

- 3.56 East Lothian is known to have been settled since the earliest human occupation in Scotland, c.10,000 years ago, and as such there are very few areas that do not have potential to contain archaeological sites. While many sites are known and a number are scheduled monuments, there are more which as yet are unidentified in areas of archaeological potential. Potential remains range from Mesolithic structures and tools to items associated with the Second World War.

⁵ Forestry Commission Scotland Native Woodland Survey of Scotland

- 3.57 Situated along an historic invasion route from the north of England, East Lothian has numerous historic battle sites, encampments, castles and other fortifications throughout its area. Some of these reflect significant periods in European and Scottish history as well as phases of advancement in military technology. Numerous archaeological sites are found in the rural landscape of East Lothian from cropmark sites to earthworks and castles.
- 3.58 East Lothian also contains many listed buildings and conservation areas which reflect not only its historic status as a country retreat from Edinburgh but also the historic nature of the towns and villages. Many historic structures and buildings owe their origins to medieval market towns, 18th and 19th century farm steadings, and 20th century seaside resorts. In summary numbers, East Lothian has 291 Scheduled Monuments, 2700 listed buildings, 30 conservation areas, 28 Gardens and Designed Landscapes and 4 of its historic battlefields are currently included on the national inventories. The Historic Environment Record records a further 7500 known archaeological and historic sites.
- 3.59 Most listed buildings and scheduled monuments have settings which should also be protected. These include monuments such as hillforts or castles, where the outlook is an important part of their interest, or listed buildings which were intended to dominate their surroundings and show power and influence, such as churches or buildings such as Haddington Town House.
- 3.60 All the archaeological remains along with the historic nature of many of the towns and villages are integral elements of East Lothian's cultural heritage, its sense of place and identity, and also its desirability as a high quality place to live, do business, work and visit.
- 3.61 The map below shows East Lothians historic environment (other than listed buildings).

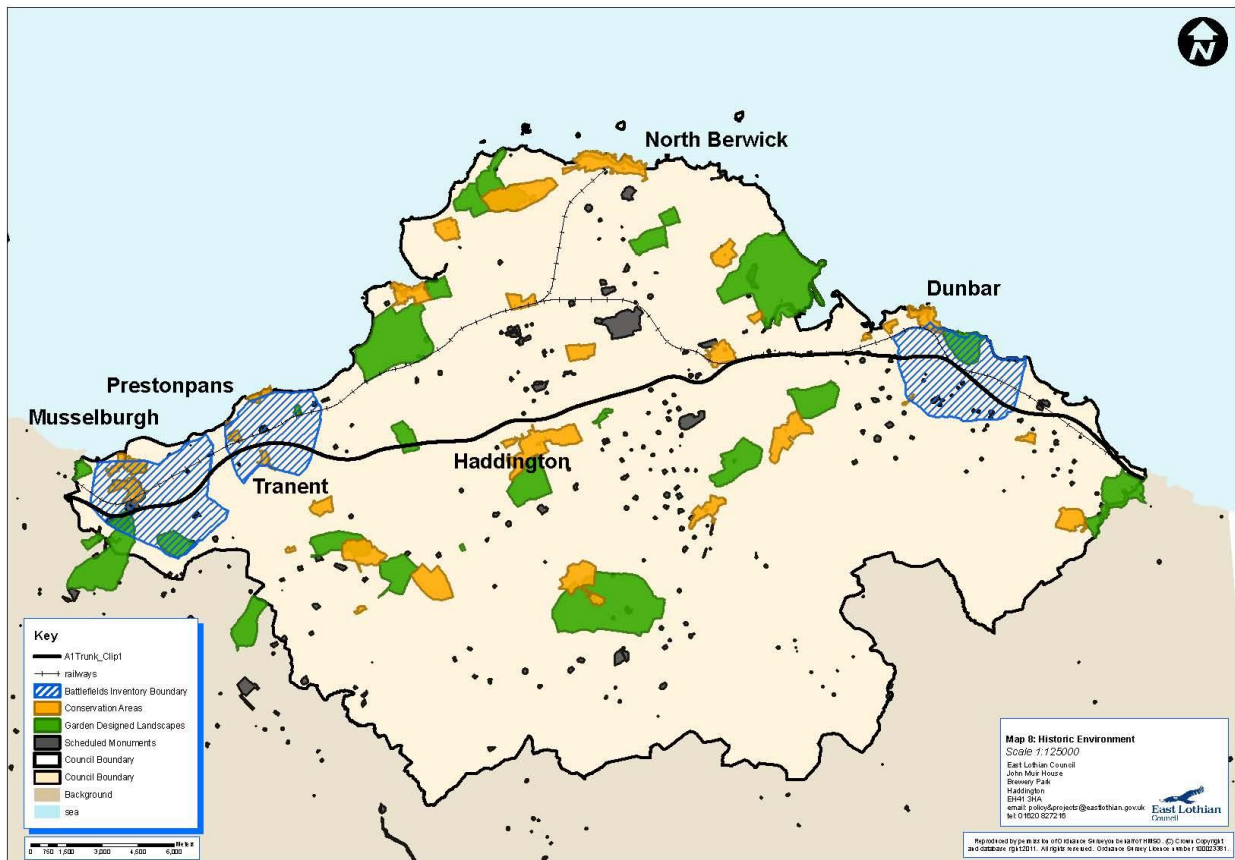


Figure 5 East Lothian's Historic Environment (not including listed buildings)

Air Quality

- 3.62 There are no declared Air Quality Management Areas in East Lothian. The 2011 Air Quality Progress Report for East Lothian Council (June 2011) assesses the air quality in East Lothian against Local Air Quality Management (LAQM) objectives set out in the Air Quality (Scotland) Regulations. The report shows that both the annual and 1-hour objectives continue to be met for Nitrogen dioxide (from results of automatic and passive monitoring). However, passive monitoring of Nitrogen dioxide in Musselburgh High Street has indicated exceedences at 2 locations (near 147 and 183 High Street) and a Detailed Assessment of NO₂ at these locations is required. The results of automatic monitoring of PM₁₀ confirm that both the annual and 24-hour mean objectives continue to be met and that there is no need to proceed to a detailed assessment. There are no new or newly identified developments that are likely to lead to the objectives for any pollutant being exceeded.

Waste

- 3.63 The first SEPA waste digest (1998) noted that with a population of 88,140 (around 38,900 households) that the total waste arisings were 52,515 tonnes, with 49,060 tonnes of household and commercial waste and 3,455 tonnes collected at civic amenity sites. Around 1.26 tonnes of waste was generated per household. By 2009 / 2010, the estimated 42,950 households generated 59,732 tonnes of household waste, while 5,924 tonnes of commercial waste and 296 tonnes of other waste were collected, and 40.9% of all waste was recycled or composted. Total waste arisings were 65,953 tonnes. Around 1.39 tonnes of waste was generated per household. If the GRO 2008 base population forecast of 128,300 by 2033 is accurate, the projection of the above trends would equate to around 56,520 households generating around 84,780 tonnes of household waste (+33%), at around 1.5 tonnes of waste per household.
- 3.64 To date, waste arisings from the construction of lowland wind turbines within East Lothian has not been an issue.

Water Quality

- 3.65 In total East Lothian has 53 water bodies including rivers, lochs, estuaries, coastal waters and ground water bodies. The Tyne and Esk rivers and smaller water courses generally flow north to drain the area and discharge into the Firth of Forth, where a range of Natura 2000 designations and SSSI's exist. In the Monymut / Mayshiel area of the Lammermuirs, there are also streams which flow south to join the River Tweed. Most of this flow accumulates in the Whiteadder Reservoir before passing into the River Tweed Special Area of Conservation.
- 3.66 SEPA reported in 2009 that 18 (34%) of water bodies in or partially within East Lothian were at good status. The remaining 35 (66%) were classified as being at moderate, poor or bad ecological status. Water bodies at good status are generally situated in the south eastern areas of East Lothian, whilst those of moderate, poor or bad quality are in the northern, central and western area where most agricultural activity takes place. Key pressures associated with this agricultural activity include diffuse source pollution, water abstraction, flow regulation and morphological changes. Urban diffuse pollution is not identified as a pressure currently affecting any water body in East Lothian.

- 3.67 Point source pollution from sewage disposal is a particular issue within the East Lothian Coastal, River Esk and River Tyne Catchments. SEPA is working alongside Scottish Water to bring about a managed improvement in this situation. East Lothian has 12 designated bathing waters that are monitored by SEPA. In 2010 it was reported that eight of East Lothian's bathing waters were guideline quality and four were of mandatory quality, importantly, none were classed as failing.
- 3.68 Many water bodies in East Lothian are also part of water dependant protected areas. As well as being required to meet good ecological status / potential, these water bodies must also achieve objectives for which the protected area was established, which is to prevent them from deterioration. All protected areas in East Lothian are currently achieving the goals for which they were established.

Flooding

- 3.69 The Tyne and Esk rivers and the Biel Water have a history of flooding of agricultural and non-agricultural land. Several towns and communities in East Lothian, including Musselburgh, Haddington and West Barns have a history of and continue to be at risk from flooding. The River Tyne in particular is prone to flooding with floods in 1931, 1948, 1956 and 1984 causing considerable damage to land and properties in Haddington. Property alongside water courses elsewhere is also liable to flooding during periods of high rainfall and property at East Linton, Pencaitland and Ormiston have all suffered flood damage.
- 3.70 Approximately 3.2% of East Lothian is at medium to high risk from fluvial (river / stream etc) flooding, with around 1,191 (2.2%) of properties at medium to high risk of such flooding; of these properties 92% lie within settlements identified in the local plan. Of the 290 flooding related incidents the Council's Transportation Department attended between 1998 and 2007, only 3% were due to fluvial flooding events.
- 3.71 At the River Esk training walls exist along the banks of the river but when high river flows are combined with a high tide this causes localised flooding where the height of the training walls is inadequate. The Beil Water has a history of flooding in West Barns and a flood prevention plan is being developed which involves cutting a new channel for flood water to divert it to the River Tyne at Hedderwick. Land has been allocated for this purpose in the East Lothian Local Plan 2008.
- 3.72 Approximately 1.1% of East Lothian is at risk from coastal flooding, and around 2,946 (5.2%) properties are at medium to high risk of such flooding. Of those properties at risk of coastal flooding, approximately 97% lie within settlements identified in the local plan. Of the 290 flooding related incidents the Council's Transportation Department attended between 1998 and 2007, none were due to coastal flooding. Flood defences do exist along the coast at Prestonpans, yet this is limited to a short section of sea wall of concrete and brick construction with wave deflector. Other stretches of the coast comprise masonry walls in poor condition.

Soil

- 3.73 Much of East Lothian is classified as prime quality agricultural land by the Macaulay Institute for Soil Research (Class 1 – 3i), this being the land which is capable of producing a very wide to moderate range of crops. East Lothian contains a significant proportion of the Scottish resource. Prime quality agricultural land is found mostly to the north of the area, on the raised beach of the Firth of Forth, now the agricultural plain, and along the coastal strip. This is with the exception of some patches of rough grassland associated with dune habitats around Aberlady and Gullane Bays.
- 3.74 The majority of prime quality agricultural land is to be found around those areas where settlement has already occurred, and where pressure for further development is likely to be strongest in future. It is important to protect prime land as far as possible and since development has the potential to irreversibly affect this resource any potential impacts should be minimised. Whilst much of East Lothian benefits from soils that fall within the prime category, most of it is located in the west of the county since to the east the foothills of the Lammermuir hills encroach on the coastal plain. To the south, soils in the foothills of the Lammermuir tend to be capable of producing a narrow range of crops, while in the Lammermuirs soils are usually suitable for only improved grassland and / or rough grazing.
- 3.75 Soil also functions as a carbon store, with some soils, such as peat, being particularly high in organic matter. East Lothian does contain areas of peat soils predominantly in the Lammermuir Hills and around Dunbar. In more general terms the organic carbon content of topsoil in East Lothian is also understood to be in the region of 2 – 5%. Development has the potential to result in the disturbance of carbon rich soils, particularly peat, and the loss of their integrity and stability, resulting in erosion and degradation. This is likely to lead to the release of stored carbon, contributing to greenhouse gas emissions and to pollution / siltation of watercourses with potential significant adverse effects on their ecological status, yet there are gaps in knowledge on the effect of land use change on soils.

Material Assets

The Strategic Transport Network

- 3.76 While East Lothian is relatively well served by the strategic transport network, particularly east/west, by means of the A1 and East Coast Main Line, there is an underlying problem of lack of capacity and in local services. This is particularly true in view of population growth and travel demand that is expected to increase in the coming years, issues that will exist even without factoring the impacts of planned growth that is yet to be delivered. Commuting from the area is a particular issue, with 47% of working age residents commuting to work outside East Lothian and 63%26 of these trips being made by private car.

Minerals & Aggregates

- 3.77 The British Geological Survey Minerals Plan for East Lothian notes a wide range of mineral deposits within the area, including sand and gravel deposits as well as building stone, rock aggregates (hardrock), limestone and shallow coal seams. Bangley and Markel Mains quarries are for hard rock, Longyester is for sand and gravel and Dunbar for limestone which

is used for cement manufacture. In relation Longyester sand and gravel quarry, reserves there are estimated to be sufficient for one year, although there is an application for its expansion with the Planning Authority. Although Bangley hard rock quarry is currently inactive, it has a reserve of around 14 years remaining. Markel Mains hard rock quarry is active and it too has a reserve of around 14 years.

- 3.78 There are currently no operational coal mines of any kind in the area, although previous pen cast operations have ceased at Blindwells, with BGS plans illustrating that site as a 'worked area'. The remaining areas underlain by coal deposits are in close proximity to existing settlements with attractive landscape settings.

Environmental Problems

- 3.79 Table 5 provides an overview of the environmental problems associated with the development of wind turbines in lowland East Lothian and their implications for the Proposed Modification to the Council's PGLDWT:

Table 5 Environmental problems relevant to Proposed Modification to PGLDWT Guidance

Problem	Supporting data (where available at this stage)	Implications for Proposed Modification to PGLDWT Guidance
Impact of the Proposed Modification to PGLDWT guidance on East Lothian's contribution to national renewable energy targets	<p>The Climate Change Act (Scotland) 2009 requires all public bodies to act:</p> <ul style="list-style-type: none"> • in the way best calculated to contribute to the delivery of the emissions targets in the Act, • in the way best calculated to help deliver the Government's climate change adaptation programme, and • in a way that it considers is most sustainable <p>Scottish Planning Policy is supportive of the principle of wind turbines. East Lothian already has a significant amount of installed renewable energy capacity, particularly by virtue of wind farms in the Lammermuirs.</p>	<p>Given the terms of Government planning and energy policy the Proposed Modification to PGLDWT guidance cannot oppose the principle of wind turbine development, of whatever scale, in East Lothian. The guidance must therefore seek to balance the needs of the renewable industry and individual landowners with the need to ensure that East Lothian's landscape and built and natural heritage designations are given appropriate protection. In seeking to impose planning control on the scale and location of wind turbines throughout East Lothian, thereby potentially reducing their numbers, the Proposed Modification does constrain potential renewable energy capacity in East Lothian (albeit where there is already a significant amount of installed capacity).</p>

<p>Impact of Proposed Modification to PGLDWT guidance on biodiversity and fauna</p>	<p>East Lothian's lowland areas have many international and national nature conservation designations, including the Firth of Forth/Forth Islands SPAs, SSSI's etc.</p> <p>There are general concerns about the impact of wind turbines on this biodiversity and natural heritage. Particular concerns have been expressed about the effect of wind turbine development on the Pink Footed Geese, which are a qualifying interest for the SPA.</p>	<p>The Proposed Modification is restricted to a consideration of the landscape and visual impacts of a range of turbine scales. It does not consider its impact on biodiversity and fauna. However, the existing PGLDWT guidance, of which the modification is a part, restates higher tier national, strategic and local planning policy with respect to the protection of biodiversity and fauna. The PGLDWT guidance, and its Proposed Modification, is therefore read in conjunction with Development Plan policy that considers the direct and indirect effects of impacts on East Lothian's biodiversity and fauna. The Proposed Modification's identification of an area as being suitable in principle for a specific range of turbine sizes does not take precedence over such other considerations, including the assessment of planning applications for such development. Consequently, the Proposed Modification will not result in any significant harm to the integrity and qualifying interests of East Lothian's biodiversity and fauna.</p>
<p>Impact of Proposed Modification to PGLDWT guidance on landscape character and key views</p>	<p>The quality of the East Lothian landscape and coast is widely recognised. Tourism is a significant contributor to the East Lothian economy and these issues are regarded as related.</p> <p>Views within the lowlands of East Lothian are often expansive, taking in key views of landscape and built heritage features of interest. There is some concern that keys views to, and the settings of, such features could be harmed by inappropriately sited wind turbines.</p> <p>EIA statements/supporting planning statements accompanying applications for planning permission have tended to conclude that landscape impacts, including cumulative, are not significant. This has not</p>	<p>The Proposed Modification to the PGLDWT considers the sensitivity of key landscape and visual characteristics of different landscape character areas within East Lothian to a range of wind turbine development typologies. The Proposed Modification assesses the capacity of the lowland East Lothian landscape to accommodate a range of smaller scale wind turbine development without significant harm to landscape character, also having regard to cumulative impact. This includes a consideration of key views and potential impacts on the integrity and setting of Gardens and Designed Landscapes and Historic Battlefields. The Proposed Modification also considers the general principles of the siting of turbines in the landscape and how this might reduce their visual impact. It is the specific intention of the Proposed Modification to ensure that considerations of landscape and visual impact are central to the determination of applications for wind turbines and that wind turbines are only supported where such impacts are deemed</p>

	<p>always been accepted by the planning authority in its assessment of these applications. There remain significant levels of public concern about the impact of lowland wind turbines on the character and quality of the East Lothian landscape.</p>	<p>acceptable. This does not mean that the Proposed Modification only supports turbines where they have no landscape or visual impact: turbines are sizeable structures and cannot be 'hidden' in the landscape: it is a matter of balance while ensuring that significant and harmful impacts on key characteristics are avoided. Such matters will be addressed at the planning application stage. Consequently, the Proposed Modification will not in itself result in any significant harm to the integrity and qualifying interests of East Lothian's landscape character and key views.</p>
<p>Impact of Proposed Modification to PGLDWT guidance on the cultural heritage</p>	<p>Lowland East Lothian has a rich and diverse cultural heritage. There are concerns that wind turbine development could cause direct or indirect harm to this heritage by directly disturbing archaeology or by intruding into the setting of, or key views to, a SAM, Listed Building, Conservation Area or Historic Battlefield.</p>	<p>The Proposed Modification is restricted to a consideration of the landscape and visual impacts of a range of turbine scales. It does not consider its impact on the cultural heritage. However, the existing PGLDWT guidance, of which the modification will be a part, restates higher tier national, strategic and local planning policy with respect to the protection of the cultural heritage. The PGLDWT guidance, and its Proposed Modification, is therefore to be read in conjunction with Development Plan policy that considers the direct and indirect effects of impacts on East Lothian's cultural heritage. The Proposed Modification's Identification of an area as being suitable in principle for a specific range of turbine sizes does not take precedence over such other considerations. Consequently, the Proposed Modification will not result in any significant harm to the integrity and qualifying interests of East Lothian's cultural heritage.</p>

Likely future of the area without the Proposed Modification to the PGLDWT

3.80 In the absence of the Proposed Modification to the existing PGLDWT guidance, the environmental baseline would still be influenced and guided by Scottish planning policy and the land use policies of the Development Plan. However, without the PM to the PGLDWT, the whole of lowland East Lothian would be open to consideration of any scale of wind turbine. It would be solely up to the application and interpretation of development plan policy to determine if any specific development proposal was acceptable or not. In particular, decisions on individual planning applications for wind turbines would be taken in the absence of a wider spatial framework that considered in some detail landscape capacity and visual impact. In such circumstances, and in the absence of the Proposed Modification, it is possible that this could result in sub-optimal decisions being taken on planning applications for wind turbines, leading to greater landscape and visual impact than might otherwise be the case.

SEA Objectives

3.81 These provide a yardstick against which the environmental effects of the Proposed Modification can be assessed. The following objectives were devised at the scoping stage of this PPS.

Table 6 **SEA Objectives**

SEA topic	SEA Objective	SEA indicators
Biodiversity and fauna	<p>1. Will the Proposed Modification to the LDTW prevent or minimise the likelihood of wind turbine development within an area designated for its</p> <ul style="list-style-type: none">▪ International▪ National, or▪ Local nature conservation interest? <p>2. Will the Proposed Modification to the LDTW prevent or minimise the likelihood of wind turbine development that could have a harmful effect on the qualifying interest of such a site?</p> <p>3. Will the Proposed Modification to the LDTW prevent or minimise the likelihood of a harmful effect on European protected species or other protected species?</p>	<p>East Lothian Council, as planning authority, has extensive records of the location, extent and qualifying interests of sites designated for their biodiversity and nature conservation interest.</p> <p>The spatial component of the Proposed Modification, specifically those broad locations where wind turbine proposals are supported on landscape and visual impact grounds, can be matched against the presence of designated sites within them. Any potential impact on these designations and their qualifying interests can be assessed.</p> <p>This process can be monitored through the assessment of decisions on wind turbine planning applications within or potentially affecting designated sites, how this has been influenced by the application of the Proposed Modification's spatial planning framework, and what, if any, have been the direct impacts on the designated site.</p>

		<p>The identification in the Proposed Modification of an area suitable in landscape and visual impact terms for wind turbines does not override national and development plan policy considerations in relation to the protection of the qualifying interests of designated sites. The Proposed Modification's spatial framework does not take precedence over established policy in the consideration of planning applications.</p>
Cultural heritage	<p>1. Will the Proposed Modification to the LDTW harm the character or appearance of any Conservation Area?</p> <p>2. Will the Proposed Modification to the LDTW harm the special architectural or historic interest of any Listed Buildings and their settings?</p> <p>3. Will the Proposed Modification to the LDTW harm any site of archaeological importance or its setting?</p> <p>4. Will the Proposed Modification to the LDTW harm any site that is included in the Inventory of Gardens and Designed Landscapes?</p> <p>5. Will the Proposed Modification to the LDTW harm any site that is included in the interim local survey by the Garden History Society?</p> <p>6. Will the Proposed Modification to the LDTW harm any site that is included in the Inventory of Historic Battlefields?</p>	<p>East Lothian Council, as planning authority, has extensive records of the location and extent of land and buildings designated for their cultural heritage importance.</p> <p>The spatial component of the Proposed Modification, specifically those broad locations where wind turbine proposals are supported on landscape and visual impact grounds, can be matched against the presence of conservation areas, listed buildings and sites of archaeological interest within them. Any potential impact on these designations can be assessed.</p> <p>This process can be monitored through the assessment of decisions on wind turbine planning applications within or potentially affecting designated sites, how this has been influenced by the application of the Proposed Modification's spatial planning framework, and what, if any, have been the direct impacts on these designations.</p> <p>Such assessment will include the extent of and reason for any de-listings/ removal from inventory /de-scheduling of listed buildings/gardens & designed landscapes/SAMS consequent upon application of spatial planning framework of Proposed Modification.</p> <p>It will also include an assessment of decisions on wind turbines which might affect any designated historic battlefield</p>

		<p>The identification in the Proposed Modification of an area suitable in landscape and visual impact terms for wind turbines does not override national and development plan policy considerations in relation to the protection of land and buildings identified for their cultural heritage value. The Proposed Modification's spatial framework does not take precedence over established policy in the consideration of planning applications.</p>
Landscape	<p>1. Will the Proposed Modification to the LDTW harm any area designated for its landscape quality?</p> <p>2. Will the Proposed Modification to the LDTW harm the character and appearance of the East Lothian countryside?</p> <p>3. Will the Proposed Modification to the LDTW harm the character and appearance of settlements, including their setting?</p>	<p>East Lothian Council, as planning authority, has records of the location and extent of areas designated for their landscape interest, including AGLVs, gardens and historic landscapes and historic battlefields.</p> <p>The spatial component of the Proposed Modification, specifically those broad locations where wind turbine proposals are supported on landscape and visual impact grounds, can be matched against the presence of these designated sites and areas within them. Any potential impact on these designations and their qualifying interests can be assessed.</p> <p><i>The Lothians Landscape Character Assessment</i> (Ash for SNH, 1998) provides a reference point for the assessment of landscape character. This relates to both the physical attributes of the land (landform, woodland patter, etc) and to the perceptions of those within it.</p> <p>This process can be monitored through the assessment of decisions on wind turbine planning applications within or potentially affecting designated sites and areas, how this has been influenced by the application of the Proposed Modification's spatial planning framework, and what, if any, have been the direct impacts on these designated sites and areas and their key attributes.</p>

		<p>The identification in the Proposed Modification of an area suitable in landscape and visual impact terms for wind turbines does not override national and development plan policy considerations in relation to the protection of areas identified for their landscape value. The Proposed Modification's spatial framework does not take precedence over established policy in the consideration of planning applications.</p>
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4 ASSESSMENT OF ENVIRONMENTAL EFFECTS AND MEASURES ENVISAGED FOR PREVENTION, REDUCTION AND OFFSET OF ANY SIGNIFICANT ADVERSE EFFECTS

- 4.1 The purpose of this section is to predict and evaluate as far as possible the environmental effects of this Proposed Modification and its reasonable alternatives and to set out measures envisaged to prevent, reduce, and as fully as possible offset any significant adverse effects on the environment.

Alternatives considered

- 4.2 Alternatives to the Proposed Modification have been considered but these are effectively restricted to a situation where no such spatial guidance is prepared and therefore no modification made to the Council's existing PGLDWT guidance. In the absence of the Proposed Modification the environmental baseline would still be influenced and guided by the land use policies of the Development Plan: it is unlikely that it would change in any significant way. However, a more detailed assessment of the capacity of the East Lothian landscape to accommodate smaller scale wind turbines is considered both reasonable and beneficial. In the absence of any reasonable alternative, the assessment this will be compared against a baseline position of 'business as usual', that is, no change to current practice.

Assessment of PPS and alternative

- 4.3 The reasonable alternatives described above have been assessed against the range of environmental issues that have been agreed with the Consultation Authorities at the scoping stage of the PM.

Table 7 Option Comparison against SEA Indicators

SEA Objective	Proposed Modification	'Business as usual' [ie no Proposed Modification]
<p>Biodiversity and Fauna</p> <p>1a. Will the Proposed Modification to the LDTW prevent or minimise the likelihood of wind turbine development within an area designated for its</p> <ul style="list-style-type: none"> ▪ International ▪ National, or ▪ Local nature conservation interest? <p>1b. Will the Proposed Modification to the LDTW prevent or minimise the likelihood of wind turbine development that could have a harmful effect on the qualifying interest of such a site?</p> <p>1c. Will the Proposed Modification to the LDTW prevent or minimise the likelihood of a harmful effect on European protected species or other protected species?</p>	<p>The Proposed Modification (PM) does not in itself prevent or minimise the likelihood of this. This is because the PM is based only on considerations of landscape and visual impact and generally does not take account of biodiversity and fauna designations. However, the PM does not supersede existing national and development plan policy requiring the protection of such designations.</p> <p>None of the potential areas of search for smaller wind turbines supported by the PM lie within the coastal SPA. However, some potential areas of search do lie in close proximity. In addition, significant foraging areas extending north and westwards of Haddington to the coast are identified as having some potential for turbines up to 42 metres in height.</p> <p>SSSI's do not generally coincide with potential areas of search. One exception is within the Musselburgh Lagoons where some limited landscape potential has been identified for turbines of less than 20 metres in height. There is more evidence of the inclusion of sites designated for their local wildlife interest to be included within potential areas of search.</p> <p>The areas identified by the PM as having potential for wind turbines do not imply that any proposal for the relevant turbine typology will be supported within them, even on landscape and visual grounds. Proposals must satisfy site specific landscape/visual impact considerations and other planning policies.</p> <p>The PM will have a neutral effect on biodiversity and fauna</p>	<p>Without the PM there would be no spatial framework based on landscape and visual impact within which planning applications for smaller wind turbines could be considered. In effect, no part of East Lothian would be any more or any less suitable for smaller wind turbines based on landscape and visual impact considerations alone.</p> <p>Existing national and development plan policy would be the sole basis for considering whether or not proposals for smaller wind turbines harmed such designations.</p> <p>The 'business as usual' option has a neutral effect on biodiversity and fauna</p>

Cultural Heritage		
<p>1. Will the Proposed Modification to the LDTW harm the character or appearance of any Conservation Area?</p>	<p>Many of East Lothian's conservation areas are included within areas identified by the PM as having potential for smaller wind turbines. The study did not consider impacts on the cultural heritage but any risk to the character and appearance of these conservation areas is minimised since the PM must be read in conjunction with national and development plan policy. This requires that development must protect the character and appearance of conservation areas. The PM does not supersede this existing planning policy context.</p>	<p>Without the PM there would be no spatial framework based on landscape and visual impact within which planning applications for smaller wind turbines could be considered. In effect, no part of East Lothian would be any more or any less suitable for smaller wind turbines based on landscape and visual impact considerations alone.</p>
<p>2. Will the Proposed Modification to the LDTW harm the special architectural or historic interest of any Listed Buildings and their settings?</p>	<p>East Lothian's rich built and agricultural heritage has contributed to an extensive quantity and distribution of listed buildings throughout its area. Consequently, none of the areas identified by the PM as having potential for smaller wind turbines are free of listed buildings. However, as with biodiversity and fauna above, this was not part of the PM's remit. In addition, the PM must be read in conjunction with national and development plan policy that seeks to protect listed buildings and their settings. The PM does not supersede this existing planning policy context.</p>	<p>Existing national and development plan policy would be the sole basis for considering whether or not proposals for smaller wind turbines harmed such designations.</p> <p>The 'business as usual' option has a neutral effect on cultural heritage</p>
<p>3. Will the Proposed Modification to the LDTW harm any site of archaeological importance or its setting?</p>	<p>East Lothian is rich in sites of archaeological importance and almost all the proposed areas of search include such sites. As with biodiversity, fauna and listed buildings (above), impact on these sites this was not part of the PM's remit. In addition, the PM must be read in conjunction with national and development plan policy that seeks to protect sites of archaeological interest and their settings. The PM does not supersede this existing planning policy context.</p>	

<p>4a. Will the Proposed Modification to the LDTW harm any site that is included in the Inventory of Gardens and Designed Landscapes?</p> <p>4b. Will the Proposed Modification to the LDTW harm any site that is included in the interim local survey by the Garden History Society?</p>	<p>Almost all East Lothian Gardens and Designed Landscapes, and those identified in the interim local survey, lie within a potential area of search. The PM recognises the wind turbine development should avoid intrusion on the integrity and setting of Gardens and Designed Landscapes. In addition, the PM must be read in conjunction with national and development plan policy that seeks to protect their conservation objectives. The PM does not supersede this existing planning policy context.</p>	
<p>5. Will the Proposed Modification to the LDTW harm any site that is included in the Inventory of Historic Battlefields?</p>	<p>The battlefield landscapes of the battles of Dunbar I and II, included in Historic Scotland's Inventory of Historic Battlefields, are almost wholly included within potential areas of search for wind turbines. Very substantial parts of the Battles of Pinkie and of Prestonpans are similarly included.</p> <p>Inventory sites are a material consideration in the planning process. They are an important part of the historic environment and local landscape. Planning authorities are required to identify Inventory sites within local development plans, establish appropriate policies and development management guidance for the areas defined, and develop appropriate conditions and agreements to protect and enhance sites on the Inventory.</p> <p>The PM must be read in conjunction with national policy that seeks to protect their conservation objectives. In addition, appropriate land use planning policy will be contained within the East Lothian Local Development Plan. The PM does not supersede this existing planning policy context.</p> <p>The PM will have a neutral effect on cultural heritage</p>	

<p>Landscape</p> <p>1a. Will the Proposed Modification to the LDTW harm any area designated for its landscape quality?</p> <p>1b. Will the Proposed Modification to the LDTW harm the character and appearance of the East Lothian countryside?</p> <p>1c. Will the Proposed Modification to the LDTW harm the character and appearance of settlements, including their setting?</p>	<p>The fundamental principles behind the PM are to assess the capacity of the East Lothian landscape to accommodate smaller wind turbines. Landscape considerations are therefore central to the PM.</p> <p>The PM is the result of an assessment of the quality, character and appearance of East Lothian's landscape. The PM, and the study on which it is based⁶, recognise these attributes and judge the potential for smaller scale wind turbines against them. Regard is also had to potential cumulative impact.</p> <p>Guidance is set out for each landscape character area confirming the appropriate scale of turbines that could be accommodated and the constraints and opportunities in relation to siting and design. Where a high landscape sensitivity is recorded then there is judged to be no opportunities to accommodate development.</p> <p>As a general principle, turbines higher than 42 metres are not supported on landscape and visual grounds anywhere within the study area (East Lothian, excluding the Central Lammermuir Plateau landscape character area).</p> <p>While greater opportunities to accommodate smaller turbines of between 20 metres and 42 metres in height are identified (largely at the lower end of this height band), the PM still recognises sensitivity in certain character areas to this scale of turbine.</p> <p>The PM advises that there are more opportunities to accommodate smaller turbines of less than 20 metres in height, particularly since these can relate more to the scale of woodlands and buildings.</p>	<p>In the absence of the Proposed Modification to the existing PGLDWT guidance, the environmental baseline would still be influenced and guided by Scottish planning policy and the land use policies of the Development Plan. However, decisions on individual planning applications for wind turbines would be taken in the absence of a wider spatial framework that considered in some detail landscape capacity and visual impact. It is possible that in the absence of this spatial framework decisions could be taken on individual development proposals that lacked a degree of consistency with respect to these matters. In such circumstances, and in the absence of the Proposed Modification, it is possible that this could result in sub-optimal decisions being taken on planning applications for wind turbines, leading to greater landscape and visual impact than might otherwise be the case.</p> <p>The 'business as usual' option has a slightly negative effect on landscape</p>
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⁶ East Lothian Supplementary Landscape Capacity Study for Smaller Wind Turbines, 2011

	<p>In that the PM proposes a spatial framework within which decisions on planning applications can be taken having due regard to landscape and visual impact it is considered that</p> <p>The PM will have a significantly positive effect on landscape</p>	
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Summary of effects

- 4.4 The PPS and its alternatives were assessed using the above framework. A summary of the assessment findings is shown in **Table 8** below. The anticipated effects would be permanent and would not change over the short, medium and long term (at least until the PM was reviewed). On the evidence from this assessment there are no identifiable, significant secondary, cumulative or synergistic effects.

Table 8 Summary of assessment findings

SEA Topic	Alternatives		Comments
	Proposed Modification	Business as Usual	
Biodiversity and Fauna	0	0	Both neutral
Cultural heritage	0	0	Both neutral
Landscape	++	-	PM has clear positive effect over alternative

Mitigation

- 4.5 The PM does not set a direct framework for the determination of planning applications for smaller wind turbines. All such planning applications will continue to be assessed against a range of material considerations, of which this PM is one. If a proposed wind turbine could have an effect on a sensitive site or location then the fact that it lies within an area of search for wind turbines does not take precedence over these other considerations. Depending on the specific circumstances, these could include the findings of an EIA and/or Appropriate Assessment. Consequently, having regard to the particulars of this PM, mitigation measures are best addressed at the planning application stage, and in any required EIA. This could involve micro-siting to avoid sensitive sites, implementation of measures considered appropriate following EIA or, where necessary, the refusal of planning permission if it could not be satisfactorily demonstrated that a wind turbine proposal would not harm a sensitive site or location.

Changes to the PM as a consequence of this Environment Report

- 4.6 The Proposed Modification provides a basis against which to assess the landscape and visual impact of proposals for smaller wind turbines, and provides guidance on potential areas of search for different turbine scales. It is not in itself a direct decision-making framework as with any wind turbine proposal there are a range of factors to be taken account of, of which landscape and visual impacts are two. Ultimately, it will be a matter for the development management process, having regard to all material considerations, to come to a decision on individual planning applications for wind turbines.
- 4.7 Having regard to the findings of this Environment Report, and to the fact that the PM does not take precedence over established policy in respect to biodiversity and fauna, cultural heritage and landscape, the Council is of the view that no change to the Proposed Modification as originally approved is required.

Monitoring

- 4.8 The effectiveness of the Proposed Modification to the Council's Planning Guidance for the Location and Design of Wind Turbines in the Lowland Areas of East Lothian will be monitored.
- 4.9 In terms of Biodiversity and Fauna, the Council will assess the determination of planning applications for small wind turbines in or near / potentially affecting designated sites in terms of how this has been influenced by application of spatial planning framework of Proposed Modification. With any necessary assistance/input from SNH, the Council will consider any evidence that suggests consented wind turbines have had an effect on the qualifying interest of a designated site and consider the implications of this for its decision-making processes.
- 4.10 In terms of Cultural Heritage, the Council will assess the determination of planning applications for smaller wind turbines in or affecting designated sites and how this has been influenced by the application of spatial planning framework of Proposed Modification. This will include an assessment of the extent of and reason for any de-listings/ removal from inventory/ de-scheduling of conservation areas/listed buildings/SAMS consequent upon the application of spatial planning framework of Proposed Modification and consider the implications of this for its decision-making processes.
- 4.11 In terms of Landscape, the Council will assess planning applications/decisions on wind turbines against their impact on designated areas, including gardens and designed landscapes and historic battlefields, and key attributes identified in the SNH landscape character study for the Lothians and consider the implications of this for its decision-making processes.

5.0 Next Steps

- 5.1 This Environmental Report and the Proposed Modification to which it relates will be made available for public consultation from **Tuesday 2nd April to Friday 17th May**. All comments should be submitted to East Lothian Council by 4.00pm on **Friday 17th May 2013**.
- 5.2 The Council will then consider the comments received on this Environmental Report. It will decide if there is any requirement to make changes to the Proposed Modification to its *Planning Guidance for the Location and Design of Wind Turbines in the Lowland Areas of East Lothian*, December 2010, (PGLDWT). It will do this should the consultation response to the Environmental Report raise any relevant environmental issues that have implications for the terms of the Proposed Modification.
- 5.3 The *East Lothian Supplementary Landscape Capacity Study for Smaller Wind Turbines*, August 2011, forms the basis for the Proposed Modification to the PGLDWT. The Council has previously consulted on the recommendations of this landscape capacity study and considered and agreed its position in the light of that consultation response (December 2011). Consequently, the terms of the Proposed Modification to the PGLDWT reflect this previous consideration and agreement. However, if as a consequence of undertaking this strategic environmental assessment process and publishing this Environmental Report, any new issues are raised on the content of the Proposed Modification, then the Council will consider if any change should be made to the Proposed Modification.

Appendices

Natura 2000/Ramsar sites and Conservation Status of features

(source; SNH Sitelink accessed 23 January 2013)⁷

Site	Feature Category	SPA Feature (* also Ramsar feature)	Status
Forth (Ramsar and SPA)	Birds - aggregations of non-breeding birds	Bar-tailed Godwit (<i>Limosa lapponica</i>), non-breeding	Favourable Declining
		Common scoter (<i>Melanitta nigra</i>), non-breeding	Unfavourable Declining
		Cormorant (<i>Phalacrocorax carbo</i>), non-breeding	Favourable Maintained
		Curlew (<i>Numenius arquata</i>), non-breeding	Favourable Maintained
		Dunlin (<i>Calidris alpina alpina</i>), non-breeding	Favourable Declining
		Eider (<i>Somateria mollissima</i>), non-breeding	Favourable Declining
		Golden plover (<i>Pluvialis apricaria</i>), non-breeding	Favourable Maintained
		Goldeneye (<i>Bucephala clangula</i>), non-breeding *	Unfavourable Declining
		Great crested grebe (<i>Podiceps cristatus</i>), non-breeding	Unfavourable Declining
		Grey plover (<i>Pluvialis squatarola</i>), non-breeding	Favourable Declining
		Knot (<i>Calidris canutus</i>), non-breeding *	Unfavourable Declining
		Lapwing (<i>Vanellus vanellus</i>), non-breeding	Favourable Maintained
		Long-tailed duck (<i>Clangula hyemalis</i>), non-breeding	Unfavourable Declining
		Mallard (<i>Anas platyrhynchos</i>), non-breeding	Unfavourable Declining
		Oystercatcher (<i>Haematopus ostralegus</i>), non-breeding	Favourable Maintained
		Pink-footed goose (<i>Anser brachyrhynchus</i>), non-breeding *	Favourable Maintained
		Red-throated diver (<i>Gavia stellata</i>), non-breeding	Favourable Maintained
		Red-breasted merganser (<i>Mergus serrator</i>), non-breeding	Favourable Declining
		Redshank (<i>Tringa totanus</i>), non-	Favourable

⁷ SNHi Sitelink at <http://gateway.snh.gov.uk/sitelink/>

Site	Feature Category	SPA Feature (* also Ramsar feature)	Status
		breeding *	Maintained
		Ringed plover (<i>Charadrius hiaticula</i>), non-breeding	Favourable Maintained
		Scaup (<i>Aythya marila</i>), non-breeding	Unfavourable Declining
		Shelduck (<i>Tadorna tadorna</i>), non-breeding *	Favourable Declining
		Slavonian grebe (<i>Podiceps auritus</i>), non-breeding *	Favourable Declining
		Turnstone (<i>Arenaria interpres</i>), non-breeding *	Favourable Maintained
		Velvet scoter (<i>Melanitta fusca</i>), non-breeding	Favourable Maintained
		Wigeon (<i>Anas penelope</i>), non-breeding	Favourable Recovered
		Waterfowl assemblage, non-breeding *	Favourable Declining
Forth Islands (SPA)	Birds - aggregations of breeding birds	Arctic tern (<i>Sterna paradisaea</i>), breeding	
		Cormorant (<i>Phalacrocorax carbo</i>), breeding	Favourable Declining
		Fulmar (<i>Fulmarus glacialis</i>), breeding	Favourable Maintained
		Gannet (<i>Morus bassanus</i>), breeding	Favourable Maintained
		Guillemot (<i>Uria aalge</i>), breeding	Favourable Maintained
		Kittiwake (<i>Rissa tridactyla</i>), breeding	Unfavourable Declining
		Lesser black-backed gull (<i>Larus fuscus</i>), breeding	Favourable Maintained
		Razorbill (<i>Alca torda</i>), breeding	Favourable Maintained
		Roseate tern (<i>Sterna dougallii</i>), breeding	Unfavourable Declining
		Sandwich tern (<i>Sterna sandvicensis</i>), passage *	Favourable Declining
		Seabird assemblage, breeding	Unfavourable Declining
Fala Flow (Ramsar and SPA)	Birds - aggregations of non-breeding birds	Pink-footed goose (<i>Anser brachyrhynchus</i>), non-breeding *	Favourable Maintained
Gladhouse Reservoir (Ramsar and SPA)	Birds - aggregations of non-breeding birds	Pink-footed goose (<i>Anser brachyrhynchus</i>), non-breeding *	Favourable Maintained

Site	Feature Category	SPA Feature (* also Ramsar feature)	Status
Westwater (Ramsar and SPA)	Birds - aggregations of non-breeding birds	Pink-footed goose (Anser brachyrhynchus), non-breeding *	Unfavourable Declining
		Pink-footed goose (Anser brachyrhynchus), non-breeding *	Favourable Maintained
Greenlaw Moor (Ramsar and SPA)	Birds - aggregations of non-breeding birds	Pink-footed goose (Anser brachyrhynchus), non-breeding *	Favourable Maintained
St Abbs Head to Fastcastle (SPA)	Birds – aggregations of breeding birds	Shag (Phalacrocorax aristotelis), breeding	Unfavourable Declining
		Kittiwake (Rissa tridactyla), breeding	Unfavourable Declining
		Herring gull (Larus argentatus), breeding	Unfavourable Declining
		Seabird assemblage, breeding	Favourable Maintained
		Guillemot (Uria aalge), breeding	Favourable Maintained
		Razorbill (Alca torda), breeding	Favourable Maintained
River Tweed (SAC)	Fish	Atlantic salmon (Salmo salar)	Unfavourable Recovering
	Fish	Sea lamprey (Petromyzon marinus)	Unfavourable No change
	Rivers and streams	Rivers with floating vegetation often dominated by water-crowfoot	Unfavourable No change
	Fish	Brook lamprey (Lampetra planeri)	Unfavourable No change
	Fish	River lamprey (Lampetra fluviatilis)	Unfavourable No change
	Mammals	Otter (Lutra lutra)	Favourable Maintained

Appendix Two

SSSI sites condition (source; SNH Sitelink accessed 23 January 2013)⁸

Site	Area	Site Condition			
		Date of Visit	Feature Category	Feature	Last Assessed condition
Bangley Quarry	3.92	04/02/2009	Mineralogy	Mineralogy of Scotland	Favourable Maintained
Barns Ness Coast	258.68	13/05/2009	Supralittoral sediment (Coast)	Shingle	Unfavourable No change
		13/05/2009	Supralittoral sediment (Coast)	Sand dunes	Unfavourable No change
		25/09/2002	Stratigraphy	Lower Carboniferous [Dinantian - Namurian (part)]	Favourable Maintained
		12/10/2000	Littoral sediment (Coast)	Saltmarsh	Favourable Maintained
Bass Rock	7.61	17/07/2004	Birds - aggregations of breeding birds	Gannet (<i>Morus bassanus</i>), breeding	Favourable Maintained
		30/06/2002	Birds - aggregations of breeding birds	Seabird colony, breeding	Favourable Maintained
Danskine Loch	29.79	25/08/2009	Fen, marsh and swamp (Wetland)	Fen woodland	Unfavourable Declining
Firth of Forth	7423.19 (whole area)	19/10/2010	Aggregations of non-breeding birds	Cormorant (<i>Phalacrocorax carbo</i>), non-breeding	Favourable Maintained
		19/10/2010	Birds - aggregations of non-breeding birds	Common scoter (<i>Melanitta nigra</i>), non-breeding	Unfavourable Declining
		19/10/2010	Birds - aggregations of non-breeding birds	Bar-tailed godwit (<i>Limosa lapponica</i>), non-breeding	Favourable Declining
		20/10/2010	Birds - aggregations of non-breeding birds	Curlew (<i>Numenius arquata</i>), non-breeding	Favourable Maintained
		26/10/2010	Birds - aggregations of non-breeding birds	Goldeneye (<i>Bucephala clangula</i>), non-breeding	Unfavourable Declining
		26/10/2010	Birds - aggregations of non-breeding birds	Great crested grebe (<i>Podiceps cristatus</i>), non-breeding	Unfavourable Declining
		26/10/2010	Birds - aggregations of non-breeding birds	Eider (<i>Somateria mollissima</i>), non-breeding	Favourable Declining
		26/10/2010	Birds - aggregations of non-breeding birds	Dunlin (<i>Calidris alpina alpina</i>), non-breeding	Favourable Declining
		27/10/2010	Birds - aggregations of non-breeding birds	Long-tailed duck (<i>Clangula hyemalis</i>), non-breeding	Unfavourable Declining

⁸ SNHi Sitelink at <http://gateway.snh.gov.uk/sitelink/>

Site	Area	Site Condition			
		Date of Visit	Feature Category	Feature	Last Assessed condition
Firth of Forth		27/10/2010	Birds - aggregations of non-breeding birds	Oystercatcher (<i>Haematopus ostralegus</i>), non-breeding	Favourable Maintained
		27/10/2010	Birds - aggregations of non-breeding birds	Red-breasted merganser (<i>Mergus serrator</i>), non-breeding	Favourable Declining
		27/10/2010	Birds - aggregations of non-breeding birds	Grey plover (<i>Pluvialis squatarola</i>), non-breeding	Favourable Declining
		27/10/2010	Birds - aggregations of non-breeding birds	Pink-footed goose (<i>Anser brachyrhynchus</i>), non-breeding	Favourable Maintained
		27/10/2010	Birds - aggregations of non-breeding birds	Redshank (<i>Tringa totanus</i>), non-breeding	Favourable Maintained
		27/10/2010	Birds - aggregations of non-breeding birds	Knot (<i>Calidris canutus</i>), non-breeding	Unfavourable Declining
		27/10/2010	Birds - aggregations of non-breeding birds	Ringed plover (<i>Charadrius hiaticula</i>), non-breeding	Favourable Maintained
		01/11/2010	Birds - aggregations of non-breeding birds	Shelduck (<i>Tadorna tadorna</i>), non-breeding	Favourable Declining
		01/11/2010	Birds - aggregations of non-breeding birds	Velvet scoter (<i>Melanitta fusca</i>), non-breeding	Favourable Maintained
		01/11/2010	Birds - aggregations of non-breeding birds	Scaup (<i>Aythya marila</i>), non-breeding	Unfavourable Declining
		01/11/2010	Birds - aggregations of non-breeding birds	Turnstone (<i>Arenaria interpres</i>), non-breeding	Favourable Maintained
		16/01/2009	Palaeontology	Arthropoda (excluding insects and trilobites)	Unfavourable No change
		29/03/2009	Birds - aggregations of non-breeding birds	Red-throated diver (<i>Gavia stellata</i>), non-breeding	Favourable Maintained
		29/03/2009	Birds - aggregations of non-breeding birds	Golden plover (<i>Pluvialis apricaria</i>), non-breeding	Favourable Maintained
		29/03/2009	Birds - aggregations of non-breeding birds	Slavonian grebe (<i>Podiceps auritus</i>), non-breeding	Favourable Maintained
		17/08/2009	Neutral grassland	Lowland neutral grassland	Unfavourable Declining
		26/03/2008	Stratigraphy	Lower Carboniferous [Dinantian - Namurian	Unfavourable No change

Site	Area	Site Condition			
		Date of Visit	Feature Category	Feature	Last Assessed condition
Firth of Forth				(part)]	
		26/03/2008	Palaeontology	Permian - Carboniferous Fish/Amphibia	Favourable Maintained
		17/11/2008	Igneous petrology	Carboniferous - Permian Igneous	Unfavourable No change
		18/11/2008	Palaeontology	Palaeozoic Palaeobotany	Favourable Maintained
		30/06/2007	Birds - aggregations of breeding birds	Ringed plover (Charadrius hiaticula), breeding	Unfavourable Declining
		22/10/2007	Butterflies	Northern brown argus (Aricia artaxerxes)	Favourable Maintained
		22/05/2006	Birds - aggregations of breeding birds	Eider (Somateria mollissima), breeding	Unfavourable No change
		26/08/2004	Vascular plants	Vascular plant assemblage	Unfavourable Declining
		21/09/2004	Fen, marsh and swamp (Wetland)	Transition grassland	Favourable Maintained
		08/07/2003	Littoral sediment (Coast)	Saltmarsh	Unfavourable Declining
		26/07/2003	Birds - aggregations of breeding birds	Shelduck (Tadorna tadorna), breeding	Favourable Maintained
		15/08/2002	Geomorphology	Coastal Geomorphology of Scotland	Favourable Maintained
		09/10/2002	Supralittoral rock (Coast)	Maritime cliff	Unfavourable Declining
		11/10/2002	Stratigraphy	Upper Carboniferous [Namurian (part) - Westphalian]	Favourable Maintained
		28/10/2002	Quaternary geology and geomorphology	Quaternary of Scotland	Favourable Maintained
		29/10/2002	Mineralogy	Mineralogy of Scotland	Favourable Maintained
		09/10/2000	Supralittoral sediment (Coast)	Sand dunes	Unfavourable Declining
		09/10/2000	Other invertebrates	Beetle assemblage	Unfavourable Declining
Forth Islands	20.85	30/06/2009	Birds - aggregations of breeding birds	Cormorant (Phalacrocorax carbo), breeding	Favourable Declining
		31/05/2003	Birds - aggregations of breeding birds	Puffin (Fratricula arctica), breeding	Unfavourable Declining
		30/06/2003	Birds - aggregations of breeding birds	Seabird colony, breeding	Unfavourable Declining
Garleton Hills	132.68	09/10/2002	Igneous petrology	Carboniferous - Permian Igneous	Favourable Maintained
Keith Water	2.01	20/03/2003	Quaternary geology and geomorphology	Quaternary of Scotland	Favourable Maintained

Site	Area	Site Condition			
		Date of Visit	Feature Category	Feature	Last Assessed condition
Lammer Law	952.87	02/02/2005	Broad-leaved, mixed and yew woodland (Upland)	Juniper scrub	Favourable Maintained
		06/11/2005	Mosaic	Upland assemblage	Favourable Maintained
		06/11/2005	Dwarf shrub heath (Upland)	Subalpine dry heath	Unfavourable Declining
		28/09/2004	Bogs (Upland)	Blanket bog	Unfavourable Declining
Lammermuir Deans	49.89	21/07/2008	Broad-leaved, mixed and yew woodland	Upland mixed ash woodland	Unfavourable Declining
		24/09/2004	Fen, marsh and swamp (Wetland)	Valley fen	Favourable Maintained
		10/09/2003	Calcareous grassland (Upland)	Subalpine calcareous grassland	Favourable Maintained
North Berwick Law	38.44	07/09/2007	Calcareous grassland	Lowland calcareous grassland	Unfavourable Declining
Papana Water	18.14	04/09/2008	Broad-leaved, mixed and yew woodland	Upland mixed ash woodland	Unfavourable No change
Rammer Cleugh	481.99	28/02/2008	Quaternary geology and geomorphology	Quaternary of Scotland	Favourable Maintained
		13/08/2003	Broad-leaved, mixed and yew woodland	Upland oak woodland	Unfavourable Recovering
Traprain Law	41.51	27/06/2007	Acid grassland	Lowland acid grassland	Unfavourable Declining
		27/06/2007	Calcareous grassland	Lowland calcareous grassland	Unfavourable Declining
		25/07/2001	Igneous petrology	Carboniferous - Permian Igneous	Favourable Maintained
		Not given	Lichen	Lichen assemblage	unknown
Woodhall Dean	57.2	4/08/2002	Broad-leaved, mixed and yew woodland	Upland oak woodland	Favourable Maintained

Local Biodiversity Sites

Site name	Site description - summary
Aikengall Glen	Valley adjacent to the Cauld Burn wildlife site and in close proximity to the Lammermuir Deans SSSI. The site holds the largest population of dark green fritillary in the Lothians.
Archerfield Estate	Large coastal estate
Backburn to Monynut	Riverbank, rich flushes, remnant woodland.
Balgone Loch & Sheriff Hall Grassland	Variety of habitats rich in wildlife, base rich grassland with rare flora
Bara Wood	Variety of habitats, rich flora and fauna
Bellyford Burn East	Wide variety of habitats with a rich flora & fauna
Biel Water	River with variety of habitats on banks
Biel Estate and Biel Wood	
Bilsdean Cliffs and Foreshore	
Bilsdean Gorge	Gorge woodland, rich associated flora
Birns Water - Milton Bridge	River with variety of habitats on banks
Birns Water - Saltoun Bridge to Tyne Water	River with variety of habitats on banks
Bolton Muir Wood	Pine wood with rare flora and roadside verge with local grassland plants
Bothwell Water	River with variety of habitats on banks
Brock Wood	This SWT reserve lies along the Lammermuir fault, has complex geology and contains areas of mature woodland (some of which are of ancient semi-natural origin)
Broxmouth Estate	Sizeable area of woodland
Brunt Valley	Variety of habitats, rich flora & fauna
Burnhead Valley	Valley woodland & scrub, rich ground flora
Burnt Wood Strips	A narrow broadleaved plantation tree belt enclosing three sides of a block of 3 fields in a flat intensely farmed landscape
Butterdean Wood	Varied woodland rich in wildlife
Carberry Estate	Large estate with mixed woodlands
Cat Craig	Emerging wildlife from recently completed limestone quarry
Cauld Burn	Small remnant woodland in cleuch
Colstoun Water - Bolton to Coulston	River with variety of habitats on banks
Colstoun Water - Colstoun Old Mill to Bolton	River with variety of habitats on banks
Colstoun Water - Gifford to Colstoun Old Mill	River with variety of habitats on banks
Colstoun Wood	Varied policy woodland
Costerton and Fala Woods East	Varied woodland and scrub with rich ground flora
Cowpits Wood	Varied policy woodland, rich ground flora
Disused Railway - Haddington	

Site name	Site description - summary
Disused Railway - Longniddry	
Disused Railway - Longniddry to Haddington	
Donolly Reservoir	Important for a variety of birds
Drem Pools	
Dry Burn - the A1 to Barns Ness	River with variety of habitats on banks
Dry Burn - Woodhall Dean to the A1	River with variety of habitats on banks
Dunglass Gorge (North)	Woodland with rich flora in small gorge
Elmscleugh Water & Thornton Burn	River with variety of habitats on banks
Faseny Water - Craig Knowe to Whiteadder Reservoir	River with variety of habitats on banks
Faseny Water - Dunside	River with variety of habitats on banks
Faseny Water - Marlion Grain	River with variety of habitats on banks
Faseny Water - Redstone Rig to Southern Law	River with variety of habitats on banks
Faseny Water - Wanside Rig	River with variety of habitats on banks
Glen Wood	Wood with rich ground flora
Gosford Estate	Coastal estate with broadleaved plantation & ponds
Gullane Bents & beach	Bleaching Rocks to Jaimies Neuk includes coastal grassland, scrub and woodland
Hailes and Howkins Wood	Wide variety of habitats with a rich flora & fauna
Hopes Water - East Hopes to Quarryford	River with variety of habitats on banks
Humbie Wood (North)	Varied woodland beside burn with rich ground flora
Humbie Wood (South)	Varied woodland beside burn with rich ground flora
Johnstounburn Water	River with variety of habitats on banks
Kates Cauldron	River with variety of habitats on banks
Kidlaw Dam Pond	
Knockhill Wood and Hopes Wood	River with variety of habitats on banks
Lennoxlove Estate	Estate with mixture of agricultural land and woodland
Letham Burn	Contains one of the very few populations of water voles in East Lothian
Linn Dean East	Wooded gorge with rare flora
Lochend Woods	Not the best woodland but reasonable and a reasonable size with large immediate population
Longniddry Bents	Site is a coastal area of generally consolidated dunes with small areas of fen and broad-leaved woodland. Several rare plant species occur on the site.
Markle Quarry Pond	
Monynut Water - north	River with variety of habitats on banks
Monynut Water - south	River with variety of habitats on banks
Musselburgh Shore and Lagoons	Feeding & roosting area for wintering birds
Myles Hedgerows	

Site name	Site description - summary
Nunraw Glen	Varied woodland, rich ground flora
Oldhamstocks Burn - Haystall Knowe & Oldhamstocks	River with variety of habitats on banks
Oldhamstocks Burn - Lammermuir to Stottencleugh	River with variety of habitats on banks
Papana Water	River with variety of habitats on banks
Pentcaitland Railway Walk - Gifford	Wide variety of habitats with a rich flora & fauna
Pentcaitland Railway Walk - Milton	Wide variety of habitats with a rich flora & fauna
Pentcaitland Railway Walk - Ormiston	Wide variety of habitats with a rich flora & fauna
Petersmuir Wood	Birchwood with rich ground flora
Pressmennan Wood	Woodland & loch with associated flowers & fauna
Puddle Wood	Varied woodland, rich bird community
Redhouse Dean	Varied woodland, rich ground flora
River Esk - Musselburgh	River with variety of habitats on banks
River Esk at Smeaton Bridge	River with variety of habitats on banks
River Tyne - Abbey Mill to Crow Island	River with variety of habitats on banks
River Tyne - Crow Island to Hailes Castle	River with variety of habitats on banks
River Tyne - Brae Head to East Linton	River with variety of habitats on banks
River Tyne - East Linton	River with variety of habitats on banks
River Tyne - East Linton to Tyninghame Estate	River with variety of habitats on banks
River Tyne - Haddington	River with variety of habitats on banks
River Tyne - Samuelstoun to Haddington	River with variety of habitats on banks
River Tyne - Spilmersford to Samuelston	River with variety of habitats on banks
Saltoun Big Wood	Varied plantation rich in wildlife
Smeaton Pond	May be significant for epiphytes
Spittal to Gullane Railway	Wide variety of habitats with a rich flora & fauna
Spott Burn	River with variety of habitats on banks
Thornton Glen & Burn	Varied woodland, rich ground flora
Thurston Glen	Extending the boundaries of Thurston Burn to include wooded banks etc.
Traprain Meadows	A series of unimproved meadows
Tyne Water - Easter Pentcaitland	River with variety of habitats on banks
Tyne Water - Ormiston to Pirnie Braes	River with variety of habitats on banks
Tyne Water - West Byres to Ormiston	River with variety of habitats on banks
Tyninghame Estate	Large coastal estate with wide biodiversity interest
Waughton Crossroads Roadside Verge	Rich grassland with rare flora
Whiteadder Reservoir	Reservoir, important for wintering wildfowl
Whittingehame Water - Papple Bridge to Redcliffe	River with variety of habitats on banks
Yester Estate	Estate with ancient valley woodland and rich flora

