



Strategic Environmental Assessment
Environmental Report

Supplementary Guidance

Renewable Energy

2015 to 2019

17 September 2015

PART 1	
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PART 2	
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Contents

Non-Technical Summary	4
1. Introduction	7
Background	
Purpose of the Environmental Report	
Consultation process	
2. Background to the Draft Supplementary Guidance	9
Plan context and overview	
Relationship with other key PPPS and environmental objectives and assessment	
High level policy assessment	
Local policy assessment	
3. SEA Methodology	14
Overview of the SEA for the draft Supplementary Guidance	
Scoping the SEA	
4. Environmental Baseline and Key Issues	16
Introduction to the local environment	
Introduction to South Lanarkshire	
Collecting environmental data	
Environmental baseline	
Key issues relating to the Supplementary Guidance	
Likely evolution of the environment without the SG	
5. Development of the Assessment Criteria	20
Considering hierarchy of key environmental issues	
Development of the SEA objectives	
6. Assessment of Alternatives	23
Assessing alternatives	
Identified key issues within the alternatives	
7. Assessment of the Draft Supplementary Guidance	25
Compatibility assessment criteria	
Compatibility assessment of the SG Renewable Energy	
Evaluating the potential environmental effects	
Assessment of potential environmental effects	
Assessment of cumulative and synergistic impacts	
8. Proposed Mitigation and Enhancement Measures	31
9. Monitoring the Supplementary Guidance	34
10. Next Steps	35

Appendices

1. Scoping report comments and response	36
2. Policy screening for the SG Renewable Energy	39
3. State of the Environment baseline	44
4. Prediction and evaluation of the effects of the SG	54

Tables

1. Assessment of Council PPS in relation to delivery of the SG	11
2. SEA methodology	14
3. Scoping of environmental issues associated with the SEA of the draft SG	14
4. Key environmental issues within South Lanarkshire associated with the draft SG	17
5. Key environmental issues with SEA objectives and assessment criteria	21
6. Summary of the assessment of alternatives to implementing the SG	23
7. Summary of key environmental effects and receptors	26
8. Cumulative impacts across the SEA objectives associated with the SG	29
9. Potential mitigation measures identified through SEA	31
10. Potential enhancement measures identified through SEA	32
11. Future milestones in the development and adoption of the SG	35

Figures

1. Spatial Framework for Onshore Wind	10
2. Hierarchical relationship between the SG and other PPS	12
3. The connectivity of key local environmental issues	20

Non-Technical Summary

Introduction

This is a non-technical summary of the Environmental Report (ER) which documents the Strategic Environment Assessment (SEA) of the draft Supplementary Guidance (SG), Renewable Energy, published by South Lanarkshire Council. A SEA is required under the Environmental Assessment (Scotland) Act 2005 in order to determine the potential environmental effects of implementing the Strategy.

The Planning etc. (Scotland) Act 2006 requires South Lanarkshire Council to prepare a Local Development Plan for its area. This is known as the South Lanarkshire Local Development Plan (SLLDP). The Supplementary Guidance Renewable Energy is a statutory document which provides guidance to planning officers, developers and communities in relation to Policy 19, Renewable Energy. It will be adopted through the development plan process as statutory SG and will be a material consideration in the assessment of planning applications.

SEA methodology

The SEA enables environmental considerations to be integrated into the preparation of the SG, and, at the same time, allows the public and other interested organisations the opportunity to comment on both the draft SG and the SEA. The SEA process follows an established and systematic method of testing the development of the Guidance, predicting the environmental effects, and also considering potential mitigation and enhancement measures to ensure a well balanced and sustainable SG is developed. The conclusions from each stage of the SEA are summarised in the sections below.

In undertaking the assessment, there is a need to understand the local environment and to identify key issues which affect the local area. In South Lanarkshire these include:

- **Population (population and human health)** – South Lanarkshire is environmentally and socially diverse, with heavily populated areas in the north and extensive rural areas in the south and west. Although parts of South Lanarkshire experience an excellent quality of life, there are pockets of deprivation where some people experience higher than average poor health. Life expectancy is lower in deprived areas.
- **Biodiversity, (fauna and flora)** – Many designated areas are in favourable condition, although most areas of ancient woodland and other semi-natural habitats are extensively fragmented. There are levels of poor species richness within urbanised area, along with limited pockets of rich habitats. Key environmental pressures which have a poor effect on biodiversity in South Lanarkshire include climate change and the inappropriate location of urban development or development which is insensitive to the local natural environment.
- **Soil and water** - Soil quality and function in the area is generally good. Water quality is also relatively good and continues to improve. The River Clyde and tributaries are essential to the character of the area, with the good water environment an important resource across South Lanarkshire. Rainfall and water flow rates in rivers have increased as has the number of flooding incidents. This is associated with climatic change.
- **Material Assets** - On a population basis there are areas with greater levels of vacant land and areas with reduced recreational provision. The quantity and quality of greenspace varies considerably across South Lanarkshire. Public access to the wider environment is supported by a wide range of initiatives, including a network of core paths.

- **Air** – Air quality in South Lanarkshire is generally good but there are some areas where poor air quality exceeds limits to protect health. There has been an increase in biomass installations in the area, some of which fall below the threshold for SEPA regulation.
- **Climatic Factors** – There have been significant changes to our climate at a global and local scale. There is an overall trend towards a warmer climate and more extreme weather events. Climate change is expected to have significant impacts on our environment and our people.
- **Landscape** - Our landscape is diverse and is valued as an important asset which provides a distinctive character, promotes community wellbeing, supports biodiversity and contributes to the local economy. It is important that the greenbelt, local recreational and greenspace networks are maintained and that development is not harmful to the overall landscape characteristics of the area.
- **Historical and Cultural Heritage** – South Lanarkshire has a rich historic and cultural heritage which is a valued asset for the area. The main pressure on the built and historic heritage comes from development, particularly in terms of the potential damage or loss of historical and archaeological assets.

Developing strategic alternatives

The assessment concluded that the best approach for achieving the greatest potential environmental benefits would be to optimise renewable energy opportunities at the same time as ensuring that communities and the environment were protected and enhanced. This would be achieved through reducing the area's reliance on fossil fuels and contributing to the Scottish Government's renewable energy targets. This would be balanced by ensuring that local environmental considerations are addressed within the framework of Scottish Planning Policy.

Testing draft SG against environmental objectives

The draft SG was initially assessed against environmental objectives (SEA objectives) to determine its environmental impact. The proposed SEA objectives identified in the Scoping Report were retained following consultation and used to test the proposed policies in the draft SG.

Predicting and evaluating the effects of the draft SG

The draft SG was assessed to determine the impact it would have on the local community and environment. Overall, it is considered that the draft SG will have significant benefits for the environment by providing a strategic context for renewable energy developments which will benefit the people of South Lanarkshire. The SEA process has added value to the SG through its various stages by identifying key links to the SLLDP and its policies and to other strategies and plans and the prediction of environmental impacts relative to SEA objectives. The process has led to a number of improvements, including changes to SG criteria and has helped to identify opportunities to enhance environmental outcomes.

Proposed measures to monitor the SG

A monitoring plan is being developed to assist in the early identification of environmental issues (either positive or negative) associated with the implementation of the SG. This will be linked to and enhanced by the monitoring of the Council's State of the Environment Report. In addition, consideration will be given to appropriate suggestions on monitoring received through the consultation process when finalising the monitoring plan.

Conclusions

The SEA process has been used to assist in the drafting of the SG with the result showing that when implemented the SG should promote a positive environment and local community.

Consultation process

The following table provides timescales in the development and consultation of the SG and its SEA:

Milestone	Expected date
Environmental Report consultation period commences	17 September 2015
Consultation deadline	30 October 2015
Supplementary Guidance implemented from	February 2016
Post adoption SEA statement	April 2016

In accordance with the SEA legislation, the Environmental Report will be made available for public consultation alongside the draft Supplementary Guidance for a period of six weeks, and will close on Friday, 30 October 2015.

Comments on the Environmental Report should be made in writing to:

Ruth Findlay
Planning Officer
Planning and Building Standards
Community and Enterprise Resources
South Lanarkshire Council
Montrose House
154 Montrose Crescent
Hamilton ML3 6LB

By email to: ruth.findlay@southlanarkshire.gov.uk

1. Introduction

Background

1.1 Preparation of the South Lanarkshire Local Development Plan (SLLDP) is a requirement of Part 2 of the Planning etc. (Scotland) Act 2006. The Supplementary Guidance Renewable Energy is a statutory document which provides guidance to planning officers, developers and communities in relation to SLLDP Policy 19, Renewable Energy. This SG is being prepared in this context and in accordance with Scottish Planning Policy which was updated in 2014. The development of the draft SG has been informed by a Strategic Environmental Assessment (SEA).

1.2 This report constitutes an Environmental Report in accordance with the requirements of the European Community (EC) SEA Directive (2001/42/EC) and the Environmental Assessment (Scotland) Act 2005 (the SEA Act). The Environmental Report illustrates the SEA process and the identification of all potentially significant environmental effects (both positive and negative) associated with the implementation of the draft SG, with the overall process aiming to:

- Identify relevant environmental issues associated with the SG, providing a high level of environmental protection and the integration of environmental decision making into the preparation of the draft Guidance;
- Evaluate the likely significant environmental effects of the SG to ensure appropriate environment issues are identified, described, evaluated and taken account of before the Guidance is adopted and implemented; and
- Provide an early opportunity for public participation in environmental decision making through consultation on the SG and the associated Environmental Report.

Purpose of the Environmental Report

1.3 The purpose of an ER is to support consultation of the draft SG by:

- Providing a summary of the SEA process and a description of the consultation that has been undertaken as part of the SEA to date; and
- Identifying, describing and providing an evaluation of the likely significant effects on the environment through the implementation of the SG.

1.4 The Environmental Report is intended to assist decision-makers, the Consultation Authorities (CAs), the public and other stakeholders to understand the likely significant impacts associated with the draft SG before it is finalised and to identify the measures taken to prevent, reduce and offset such effects. The draft SG and the Environmental Report have been made available to the public and the CAs as part of a public consultation exercise as statutorily required.

The Consultation Authorities are defined within the SEA Act as:

- Historic Scotland (HS), acting on behalf of the Scottish Ministers;
- Scottish Environment Protection Agency (SEPA); and
- Scottish Natural Heritage (SNH).

1.5 The SEA Act defines the key stages of SEA as:

Screening	Determination of whether the SG is likely to have significant environmental effects and whether a SEA is required.
Scoping	Identification of the scope and level of detail of the Environmental Report and the consultation period for the report. This stage involves consultation with the Consultation Authorities.
Environmental Report	Publication of an Environmental Report on the SG which includes a summary of SEA and consultation processes. It provides an evaluation of the likely significant effects on the environment of implementing the SG.
Post-Adoption	Provides information on the adopted SG and how consultation comments have been taken account of.
Monitoring	Sets out detailed methods for monitoring the significant environmental effects of implementing the SG.

1.6 The Environmental Report describes both the assessment and evolutionary drafting of the SG, the proposed policies and guidance, identifying recommended measures to prevent, reduce and mitigate any potentially significant negative environmental effects, whilst providing measures to improve or enhance the positive environmental effects of the implemented SG. The Environmental Report also begins to set out a proposed framework for monitoring the SG for the early identification of any future effects.

Consultation process

1.7 In accordance with the SEA legislation, the Environmental Report will be made available for public consultation along with the draft SG for a period of six weeks. Early engagement with the CAs (**Appendix 1**) has already taken place and these representations have helped to inform the content of the draft SG and the SEA process.

1.8 To assist in the consultation process, the Council seeks responses to specific questions within the Environmental Report. General or specific comments on other aspects are also welcome. Comments should be made in writing to:

Ruth Findlay
Planning Officer
Planning and Building Standards
Community and Enterprise Resources
South Lanarkshire Council
Montrose House
154 Montrose Crescent
Hamilton ML3 6LB

By email to: ruth.findlay@southlanarkshire.gov.uk

2. Background to the Draft Supplementary Guidance

Plan context and overview

2.1 South Lanarkshire Council is under a statutory obligation by the Planning etc. (Scotland) Act, 2006 to prepare a Local Development Plan. The Supplementary Guidance Renewable Energy is one of a series of statutory guidance documents which supports the SLLDP and its policies, particularly, Policy 19, Renewable Energy. The SG will set out the context for renewable energy developments in South Lanarkshire. It sits under the hierarchy of the SLLDP and the Glasgow and the Clyde Valley Strategic Development Plan (SDP) and does not seek to change or amend policies contained within these Plans, both of which have been subject to SEA. The SG has been developed through the development plan process as statutory SG and will be a material consideration in the assessment of planning applications.

2.2 The SG takes cognisance of and aspires to the Council Plan's vision to 'work together to improve the quality of life for everyone in South Lanarkshire'. This will be achieved by working towards relevant strategic objectives in the Council Plan, including:

- Developing a sustainable Council and communities (Priority)
- Improve the quality of the physical environment
- Achieve efficient and effective use of resources
- Support the local economy.

2.3 The proposed structure and content of the draft SG is:

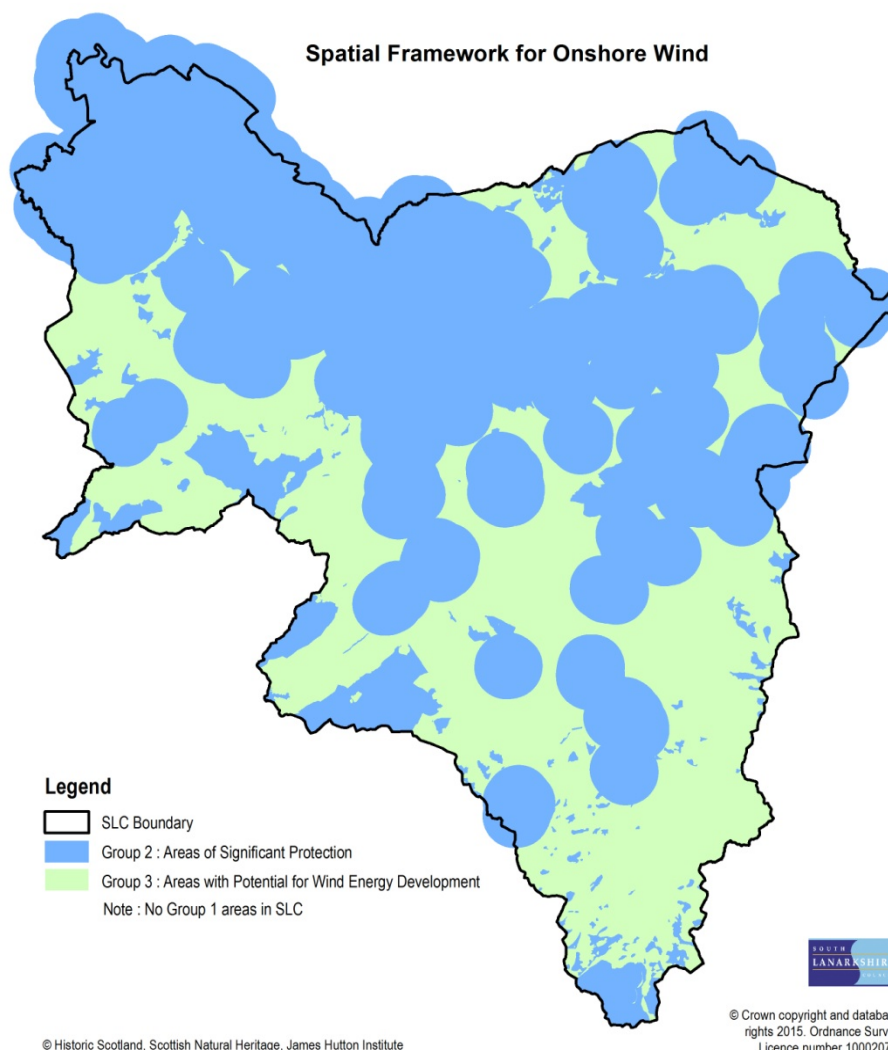
- Consultation process
- Introduction and context
- Policy context
- Wind energy context
- Spatial Framework for wind energy developments
- Renewable energy developments
- Development management considerations for the assessment of renewable energy proposals
- Assessment checklist for renewable energy proposals
- Monitoring and review.

2.4 The approach to the preparation of the Spatial Framework as set out in SPP 2014 has been followed. **Figure 1** illustrates the South Lanarkshire Spatial Framework for onshore wind development.

2.5 Alongside the Spatial Framework and other renewable energy proposals, there are 19 development management considerations. The merits of individual proposals are assessed against the considerations which include a full range of environmental, community and cumulative impacts.

2.6 The Council has also undertaken a Habitats Regulations Appraisal (HRA) on the SLLDP, including land use policies. The HRA concluded that there will be no adverse effect on the integrity of any Natura 2000 site. A separate HRA has been conducted on the SG Renewable Energy.

Figure 1: Spatial Framework for Onshore Wind



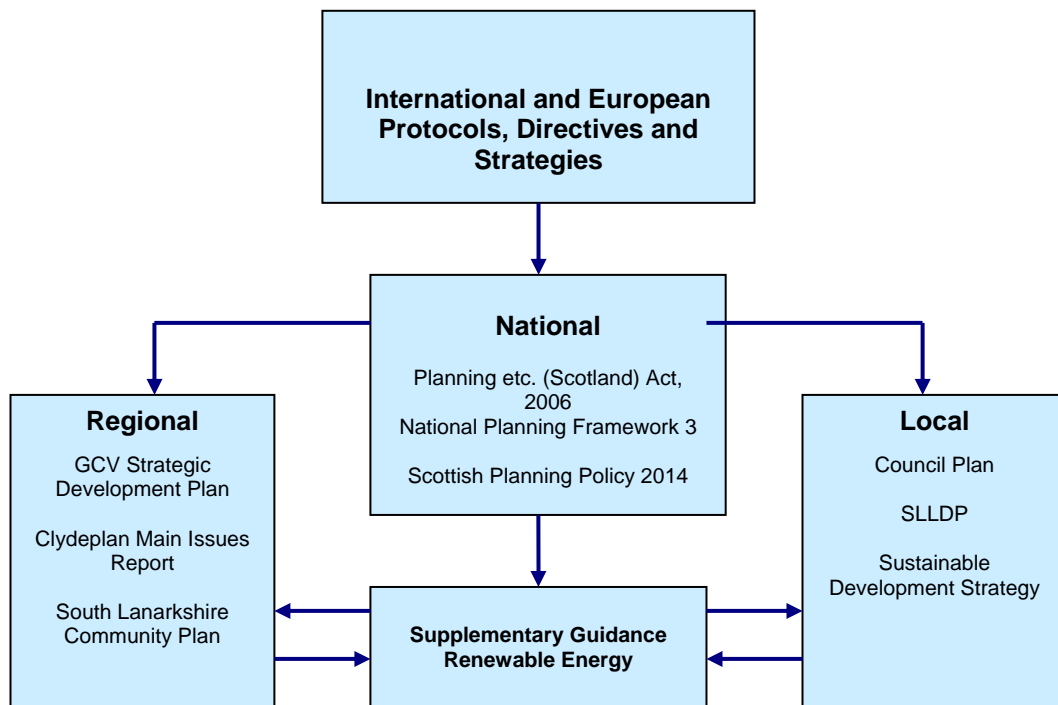
Relationship with other key PPS and environmental objectives and assessment

2.7 The SG will link into other existing plans, policies and strategies (PPS). It is influenced by other PPS, particularly the Council Plan, 'Connect', the SDP and the SLLDP. At the same time, it is intended to have a strong influence on the future strategic planning within the Council in terms of delivering the Council's environmental commitments and sustainable development priorities.

High level policy assessment

2.8 The SG is directly and indirectly influenced by a number of international, national, regional and local PPS (see **Figure 2**). The relationships between the SG and other PPS of significance have been assessed as part of the SEA process. Consideration has been given to how they may affect or be affected by the SG and how they relate to relevant SEA issues (see **Appendix 2** for the full policy assessment).

Figure 2: Hierarchical relationship between the SG and other PPS



Local policy assessment

2.9 A detailed assessment was undertaken on those local level PPS which relate to the SG. The assessment highlighted that although individual Council PPS take control of delivering specific environmental areas identified in the SG there is a considerable level of cross-over (**Table 1**). This illustrates the fact that most environmental objectives within the SG are not deliverable in silos either through individual PPS, or by individual Council Resources (departments), or external agencies and that their delivery requires considerable partnership working. Therefore, the SG is important in promoting both the delivery and the broad aim of enhancing the environment and community wellbeing within South Lanarkshire and in emphasising the importance the Council plays in delivering a sustainable and rich environment.

Table 1: Assessment of Council PPS in relation to delivery of the SG

Council PPS	Score	Cross delivery					Comments on key delivery areas
		South Lanarkshire Council	SEPA	SNH	Historic Scotland	Community Planning	
Council Plan, 'Connect', 2012 - 2017	++	X					The SG will contribute to the delivery of relevant Connect objectives. The Council Plan has undergone SEA.
South Lanarkshire Local Plan (SLLP) – Adopted Plan, 2009	++	X	X	X	X	X	The SG is an integral part of the Local Plan suite of policies and statutory SG. The SG provides further guidance related to Policy 16 – Renewable Energy. The SLLP has undergone SEA.

Council PPS	Score	Cross delivery					Comments on key delivery areas
		South Lanarkshire Council	SEPA	SNH	Historic Scotland	Community Planning	
South Lanarkshire Local Development Plan (SLLDP) and associated SG, 2015 - 2019	++	X	X	X	X	X	The SG is an integral part of the Local Plan suite of policies and statutory SG. The SG provides further guidance related to Policy 19 – Renewable Energy. The SLLDP has undergone SEA.
Minerals Development Plan (MDP), 2012	+	X					Where possible, the SG will promote the aims of the MDP. The MDP has undergone SEA.
Sustainable Development Strategy (SDS), 2012 - 2017	++	X	X	X	X	X	The SG will help in the delivery of the SDS, particularly within the theme Sustainable Environment. The SDS has undergone SEA.
Biodiversity Duty Implementation Plan, 2012 - 2015	+	X	X	X		X	The SG will accord with the Plan's commitment to the ongoing protection of the area's natural environment and wildlife.
Local Biodiversity Action Plan (LBAP) 2010 - 2015	+	X	X	X			The SG will promote where possible the key principles of the LBAP to improve the biodiversity and ecological function of the local environment.
Core Paths Plan (CPP), 2012 - 2022	++	X	X	X	X	X	The SG will ensure that the Core Path Network is protected and potentially extended. The CPP has undergone SEA.
South Lanarkshire Landscape Character Assessment 2010	++	X		X			The SG will take cognisance of this Assessment.
South Lanarkshire Validating Local Landscape Designations, 2010	++	X		X			The SG will take cognisance of Special Landscape Areas.
Air Quality Strategy (AQS), 2015 - 2020	+	X	X		X	X	The SG will help in the delivery of the AQS through its promotion of renewable energy in favour of fossil fuels. The AQS has undergone SEA.
Economic Strategy 2013 - 2023	+	X				X	The SG will help in the delivery of the Strategy though its promotion of development opportunities for renewable energy.
Lanarkshire Tourism Action Plan (LTAP) 2009 -2015	+	X				X	The SG will take cognisance of the Plan's aims to deliver growth within the tourism sector. The LTAP has undergone SEA.

Question 1

Relationship with other key PPS and environmental objectives and assessment

Has the assessment fully listed existing PPS which may affect or be affected by the Supplementary Guidance in Figure 2 and Appendix 2?

Do you agree with the assessment results identified in Table 1?

2.10 The main policy principles relevant to the SG and the environmental issues within the SEA have been identified from common themes arising in the objectives of the PPS listed in Table 1. These are:

- Promote improvements in human health and reduce inequality across South Lanarkshire.
- Promote sustainable economic growth and sustainable communities.
- Promote the benefits of greenspace and biodiversity across urban and rural areas of South Lanarkshire.
- Promote the benefits of sustainable development and infrastructure and encourage sustainable living.
- Promote opportunities to support climate change mitigation.
- Promote the importance of effective corporate and partnership working to achieve better outcomes for South Lanarkshire.

Question 2

Screening policies of the PPS against the themes and outcomes of the SG Renewable Energy

Do you agree that the common themes arising from the objectives of the PPS listed in Table 1 are noted above in section 2.10?

3. SEA Methodology

Overview of the SEA for the draft Supplementary Guidance

3.1 The SEA process involves testing the policies of the draft SG against environmentally-based SEA objectives, in order to predict the potential environmental effects and consider appropriate mitigation or enhancement measures. The assessment is then followed by the preparation and undertaking of a monitoring programme once the SG is adopted. The key areas of the SEA methodology are summarised in **Table 2**.

Table 2: SEA methodology

SEA Stage	Assessment Requirements	ER Section
Developing strategic alternatives	To assist in the development and refinement of the alternatives for achieving the overall purpose of the draft SG.	6
Testing the SG against SEA objectives.	To ensure the draft SG accords with environmental principles. To predict and evaluate the effects of the draft SG and assist in its refinement.	7
Considering ways to enhance environmental benefits and/or mitigate against adverse effects of the draft SG	To ensure all potential mitigation measures and indicators for maximising beneficial effects are considered and, as a result, residual effects identified.	8
Proposed measures to monitor the environmental effects of draft SG once implemented	To propose a monitoring framework to assess the environmental performance of the draft SG.	9

Scoping the SEA

3.2 Following a consultative workshop, a Scoping Report was prepared and submitted to the SEA Gateway in April 2015. It provided information on the draft SG and set out the level and method proposed for undertaking the SEA. Consultation on the Scoping Report allowed the CAs to provide comment on their views regarding the proposed assessment process, with the CAs in agreement with the level in which the SEA issues were presented (**Appendix 1**).

3.3 The environmental issues set out in Schedule 3 of the SEA Act were scoped against their potential for significance of impact associated with the SG (**Table 3**). Following consultation, it was determined that all environmental issues would be scoped in as a precautionary measure. These formed the basis for developing the SEA objectives used within the assessment process.

Table 3: Scoping of environmental issues associated with the SEA of the draft SG

SEA Issue	Scoped		Rationale
	In	Out	
Population and human health	X		<ul style="list-style-type: none"> • Potential positive effects through reduced reliance on fossil fuels and associated emissions which can impact on air quality and human health. • Potential community benefits arising from development which can contribute to local health and wellbeing projects. • Potential for development and enhancement of recreational opportunities.
Biodiversity, fauna and flora	X		<ul style="list-style-type: none"> • Potential impacts on some species, habitats and ecosystems. • Potential opportunities for habitat enforcement. • Potential negative effects from hydro power systems on the water environment and fish.

SEA Issue	Scoped		Rationale
	In	Out	
			<ul style="list-style-type: none"> • Potential for positive impact of biomass development through improved management of native woodland.
Soil	X		<ul style="list-style-type: none"> • Potential for disturbance and destruction of peatland during construction and maintenance of developments. • Potential soil compaction arising from new development. • Potential for soil contamination and the creation of new pollution linkages during the construction process.
Water	X		<ul style="list-style-type: none"> • Potential for pollution of water bodies during construction. • Potential for disturbance to the water table and to ground water. • Potential for negative effects from hydro power systems on the water environment and fish. • Potential effects on private water supplies.
Air, noise and light	X		<ul style="list-style-type: none"> • Potential for positive effects through the reduction in the dependency on fossil fuels. • Potential for negative effects relating to emissions of particulate matter from biomass facilities. • Potential noise issues from wind turbines. • Potential negative effects related to shadow flicker from wind turbines. • Potential negative effects relating to glare from solar farms.
Climatic factors	X		<ul style="list-style-type: none"> • Potential for positive effects through the reduction in the use of fossil fuels and associated carbon emissions. • Potential for positive effects in terms of mitigating and adapting to climate change.
Material assets	X		<ul style="list-style-type: none"> • Potential impacts on the Core Path network.
Historic and Cultural heritage	X		<ul style="list-style-type: none"> • Potential for impact on the historic environment and its setting. • Potential for new developments to disturb archaeological assets. • Potential to open up access to the historic environment and increase knowledge and awareness of assets. • Potential positive and negative effects on tourism in relation to historic and cultural sectors.
Landscape	X		<ul style="list-style-type: none"> • Potential for development to have adverse visual impact on settlements and individual properties. • Potential for development to impact on landscape character. • Potential for cumulative landscape and visual impacts.

4. Environmental Baseline and Key Issues

Introduction to the local environment

4.1 The SEA Act requires that the Environmental Report includes a description of the relevant aspects of the current state of the environment and its likely evolution without implementation of the SG. It also requires consideration of the environmental characteristics of areas likely to be significantly affected. This section aims to describe the environmental context within which the SG will operate and the constraints and targets that this context imposes. The descriptive environmental baseline for South Lanarkshire can be found in the Council's [State of the Environment Report](#), 2013.

4.2 The current state of the environment is presented in support of the predicted assessment of the potential effects associated with implementing the SG. The environmental baseline provides information on both the current and potential issues directly associated with the SG, with the likely future state without implementing the SG, estimated using past trends.

Introduction to South Lanarkshire

4.3 South Lanarkshire is the fifth most populated local authority in Scotland covering an area of 650 square miles (1,772 km²). The River Clyde and its major tributaries, including Douglas Water, Nethan, Avon and Rotten Calder are key features of the landscape. This ranges from moorland and upland areas in the south and east, through agricultural lowlands and onto the highly urbanised fringes of the Glasgow conurbation, with the major settlements of Hamilton, East Kilbride, Cambuslang and Rutherglen.

Collecting environmental data

4.4 The environmental baseline was established for those environmental issues scoped into the assessment, taken from the environmental topics listed in Schedule 3 of the SEA Act. The relevant environmental information was primarily sourced from the Council's State of the Environment Report (2013), with primary data updated from previous reports in 2009 and 2011 and further information gathered from SEPA, HS, SNH and other sources. The collection of the baseline information and key indicators will support the SG's monitoring programme. The current status, trend and key environmental issues are considered through the data collected across the environmental indicators relevant to the SG. The following sections provide information on the environmental issues relevant for this SEA, which are:

- Population and human health
- Biodiversity, fauna and flora
- Soil
- Water
- Air, noise and light
- Climatic factors
- Historic and cultural heritage
- Material assets
- Landscape.

4.5 The baseline assessment requires consideration of the issues listed below:

- The inter-relationship between the issues.
- Short, medium and long term effects.
- Permanent and temporary effects.
- Positive and negative effects.
- Secondary, cumulative and synergistic effects.

Environmental baseline

4.6 The environmental baseline has been collected using key environmental indicators that are reported within the Council's State of the Environment Report. A summary of the key issues affecting South Lanarkshire are highlighted in **Table 4** with an indication of the affected receptors and the potential opportunities within the SG to address such issues. A representation of the environmental data is included in **Appendix 3**, with the current status of the key environmental indicators identified using past year trends.

Table 4: Key environmental issues within South Lanarkshire associated with the draft SG

Identified Issue and cause	Affected Receptor	Opportunities and Implications
Population and Human Health		
The area's population has grown at a faster rate than the national average, its people experience poorer health, particularly in social, economic and environmentally deprived areas. There are differences across South Lanarkshire in mortality rates, with clear links between poor health, poverty and deprivation. Life expectancy is lower in deprived areas.	Cumulative effects on human health and community wellbeing	The SG can potentially reduce dependency on fossil fuels and associated air quality issues which can impact on health. This has been considered within the SEA of the Air Quality Strategy.
Biodiversity, Fauna and Flora		
South Lanarkshire has a wide range of habitats, most of which are affected by historical fragmentation and decline. There is a poor level of species richness within urbanised areas, with limited pockets of rich habitats. The main environmental pressures having an adverse effect on biodiversity within the area include climate change, the invasion of non-native species and the inappropriate location of urban development or development that is insensitive to the local natural environment.	Cumulative effects on sensitive habitats and individual species	The SG will support the identification of locations suitable for the development of onshore wind farms and other renewable energy sources. It will promote development in less sensitive locations and safeguard existing sensitive habitats. It will require larger wind farm developments to implement Habitat Management Plans. The SG will help to reduce the need for conventional fossil fuel energy and will help to mitigate and adapt to the negative effects of climate change on local biodiversity.
Soil		
Soil quality and function in the area is generally good. Healthy and diverse soils are important for crop growth, carbon storage and sustaining biodiversity across a range of habitats.	Cumulative synergistic and trans-boundary effects on human health and sensitive habitats and species	The SG will contribute to the improvement of soil quality and function by guiding development to appropriate locations and protecting sensitive areas. Nationally important peatlands are identified as areas of significant protection in the spatial framework for onshore wind farms.
Air, Noise and Light		
Although air quality in South Lanarkshire is generally good, there are some areas where traffic emissions result in poor air quality that exceed limits set to protect health. There has been an increase in biomass installations in the area, some of which fall below the threshold for SEPA regulation. These may lead to a potential increase in particulate emissions which could be significant if there are a number of such boilers within a localised area or within the vicinity of an Air Quality Management Area.	Cumulative effects relating to air, noise and light issues	The SG will contribute to the protection of air quality in the area by guiding inappropriate development away from sensitive areas.

Identified Issue and cause	Affected Receptor	Opportunities and Implications
Water		
<p>Water quality in South Lanarkshire is relatively good and continues to improve. Climate change predictions indicate a potential risk of increased flooding incidents although the Council's flood defence approach has significantly improved.</p>	<p>Cumulative in nature on the cause and effect of climate change</p>	<p>The SG will support the enhancement and management of the quality and quantity of the water resources by promoting measures to safeguard the water environment.</p>
Material Assets		
<p>The remediation and redevelopment of vacant and derelict land is a Council priority. Many areas are well serviced by both recreational greenspace and built facilities. Public access to the wider environment is promoted through a wide range of initiatives, including the core path network.</p>	<p>Cumulative with secondary impacts on human health</p>	<p>The SG will include measures for the protection of designated and locally important habitats, species and ecosystems and will protect the core path network. Where appropriate, new public access provision associated with developments shall be encouraged.</p>
Climatic Factors		
<p>South Lanarkshire's climate is linked at the national and global scale, with global changes having a consequence locally. The main climate trends for Scotland are warmer and drier summers and warmer and wetter autumns and winters. There is an overall trend towards a warmer climate and more extreme weather events. Climate change is expected to have significant impacts on South Lanarkshire's environment and its people.</p>	<p>Cumulative in nature on the cause and effect of climate change</p>	<p>The SG will support the mitigation and adaptation to climate change by reducing the dependency on fossil fuels and increasing the sustainable use of renewable energy.</p>
Historic and Cultural Heritage		
<p>The area has a rich heritage with an increase in the number of designated sites, listed buildings and scheduled ancient monuments. The cultural richness of the area provides a rich sense of cultural identity which is important for enhancing the quality of life across the region. The main pressure on the historic and built heritage in the area is from development, particularly in terms in the potential damage or loss of historical and buried archaeological assets.</p>	<p>Cumulative effects on historic and cultural assets</p>	<p>The SG will help to safeguard historical and cultural assets in South Lanarkshire.</p>
Landscape		
<p>South Lanarkshire's landscape is diverse. It is an important asset for the area, providing a distinctive character, promoting community wellbeing, supporting biodiversity and contributing to the local economy. It is, therefore, important that the greenbelt, local recreational and greenspace networks are maintained and that development is not detrimental to the overall landscape characteristics of the area.</p>	<p>Cumulative and synergistic effects on landscape character and setting</p>	<p>The SG can help protect the landscape from potentially negative impacts associated with wind farms and the cumulative effects on the landscape character of the area. The SG will help to minimise the landscape and visual impact of wind energy developments by directing development to landscapes of lesser sensitivity and identifying areas where cumulative impacts limit further development.</p>

Key issues relating to the Supplementary Guidance

4.7 Schedule 3 (4) of the SEA Act requires the Environmental Report to include a description of existing environmental problems, in particular those relating to any areas of particular environmental importance. The existing environmental problems (refer to above in the baseline data within **Table 4**) require to be considered in relation to the draft SG and whether they will potentially aggravate, reduce or otherwise affect current problems.

4.8 The population's health is of concern within South Lanarkshire, along with the impact both the local community and environment have on influencing health benefits. The SG can potentially influence these health impacts, for example, by contributing towards cleaner air through the reduction in the dependency on fossil fuels. The SG has an important role in ensuring that carbon rich soils and agricultural land is protected from inappropriate development. The promotion of active lifestyles alongside the provision of greenspace and functional recreation areas are important aspects of community wellbeing. The SG will enable opportunities for access to the wider environment for groups and individuals through the protection and expansion of the core path network. Linked to this is also the safeguarding of our landscape assets which are deemed important for local people and tourists. It is considered that through the SEA process these existing environmental concerns shall be taken into account and, where necessary, mitigation measures will ensure that the existing concerns highlighted will not be aggravated, and in some instances may be reduced. At the same time opportunities to further enhance positive environmental effects will be considered.

Likely evolution of the environment without the SG

4.9 The SEA process involves an assessment of the evolution of the environment without the SG being implemented. The Council has a statutory duty to prepare and implement its SLLDP. The SG for Renewable Energy is a key component of the suite of documents which comprise the SLLDP. The SG will help the Council to contribute to national energy efficiency targets set by the Scottish Government and will help the Council achieve its environmental objectives as set out in the Council Plan, 'Connect' and the Sustainable Development Strategy, particularly in relation to climate change.

4.10 In relation to the current trends identified in the existing South Lanarkshire environment, with no SG certain environmental indicators would either deteriorate or would not achieve their full environmental potential through appropriate service provisions. Although the current trend in human health would continue to improve, the level of progress achieved may well be less than it could be due to a lack of understanding of the role the environment plays in promoting health. There may be lack of commitment to adopt a holistic approach to air quality aimed at improving the local environment. Biodiversity, particularly in the upland areas and within our rivers may be adversely affected without a clear policy direction from the Council in terms of land use and in detailed guidance on renewable energy developments. The Council's obligations and commitment to tackling climate change and reducing the associated impacts may not be fully achieved with some issues continuing to decline and remain unaddressed, particularly across the community level where real commitment is required to achieve Government targets. At the same time in driving towards reductions in greenhouse gases the Council's obligation to improving air quality would not be met without the SG putting appropriate safeguards and guidance in place.

Question 3

Environmental baseline and evolution with and without the SG

Have the correct environmental issues been identified and opportunities realised within the context of the SG in Section 4 and Appendix 3?

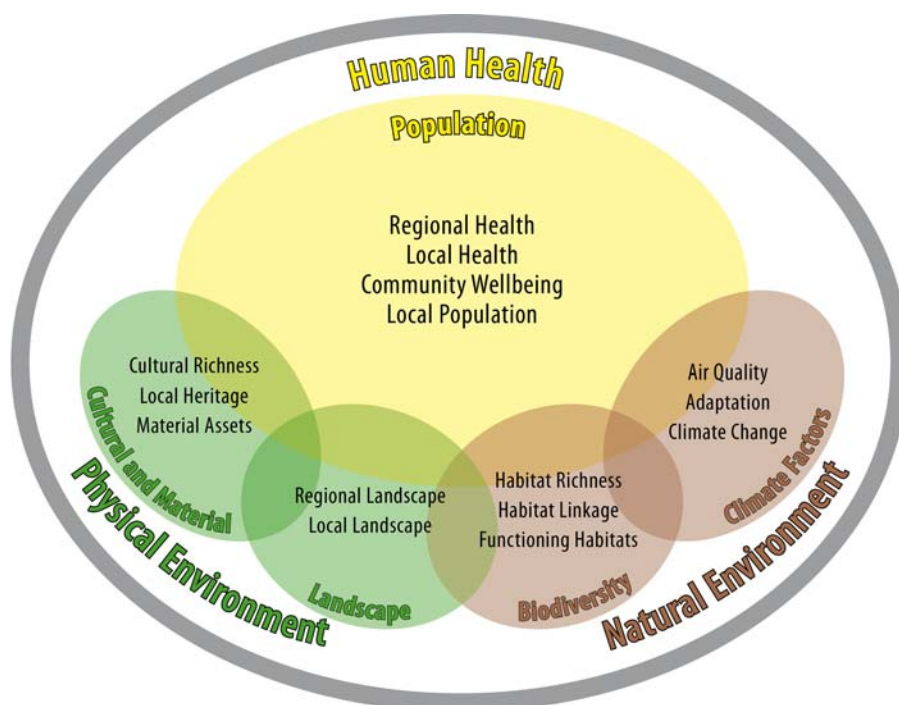
5. Development of the Assessment Criteria

Considering hierarchy of key environmental issues

5.1 The purpose of the SEA is to inform the development of the draft SG by assessing the potential impacts it may have upon the environment. A useful way to undertake the assessment (describing, analysing and comparing the environmental effects of the draft SG) is through the use of environmentally-specific objectives (referred to as SEA objectives) and a series of indicator questions.

5.2 The SEA objectives are separate from the SG policies and guidance although they can influence each other and even overlap. To fulfil the requirements of the SEA Directive, the SEA objectives cover the environmental issues set out in Schedule 3 of the 2005 Act, including the interrelationship between them. The theme of a connective and fluid environment that can influence the delivery of the SG has been adapted through the appropriate grouping of environmental issues (see **Figure 3**).

Figure 3: The connectivity of key local environmental issues



Development of the SEA objectives

5.3 The SG is statutory guidance, prepared as part of the SLLDP. It sets out the guidance to inform planning officers, developers and the community about the requirements for planning applications which relate to renewable energy developments. As such the SEA objectives have been set at an appropriate level for assessing the SG, without creating an overburden for it where other PPS within the Council are the key drivers, and which have undergone SEA in their own right. The assessment, however, aims to identify such drivers to help ensure the environment is adequately protected and the results of the SEA are considered at the correct level to ensure the promotion of environment benefits for the area. The requirements of the SEA Directive through representing the environmental issues set out in Schedule 3 of the 2005 Act are presented within the SEA objectives. The SEA objectives for the SG were initially developed by participants at the scoping workshop and these were confirmed following consultation on the Scoping Report. The SEA objectives and assessment criteria are presented in **Table 5**. These SEA objectives and criteria were used as measures by which the environmental impacts of the draft SG were assessed.

Table 5: Key environmental issues with SEA objectives and assessment criteria

Environmental Issue	SEA Objective	Indicator Question
Population (including: population and human health)	To minimise potential environmental effects on human health and enhance quality of life	<ul style="list-style-type: none"> • Does the SG contribute to the reduction of risk to human health and wellbeing? • Does the SG promote the benefits associated with a healthy and diverse environment? • Does the SG promote a safe and sustainable environment?
Biodiversity (including: fauna, and flora)	To protect and enhance biodiversity and functioning habitats and avoid irreversible loss	<ul style="list-style-type: none"> • Does the SG promote the protection of designated and non-designated habitats and species? • Does the SG promote the connectivity and integration of priority habitats? • Does the SG protect and enhance biodiversity within the local environment? • Does the SG consider cumulative impacts on species and habitats • Does the SG help protect and enhance carbon rich soils, deep peat and priority peatland habitat?
Soil	To prevent soil deterioration and erosion and protect carbon sequestration	<ul style="list-style-type: none"> • Does the SG promote a good quality soil environment? • Does the SG help to reduce potential impact on geological designated features? • Does the SG help to mitigate the loss or deterioration of carbon rich soils?
Water	To improve, enhance and protect the water environment	<ul style="list-style-type: none"> • Does the SG help protect and enhance the water environment including Groundwater Dependent Terrestrial Ecosystems (GWDTE)?
Air, Noise and Light	To protect local air quality and minimise effects of noise and light pollution	<ul style="list-style-type: none"> • Does the SG help protect local air quality? • Does the SG help reduce emissions which impact on air quality? • Does the SG help to reduce noise impacts? • Does the SG help to minimise incidents of shadow flicker or glare from developments?
Climatic Factors	To reduce greenhouse gas emissions and help adapt to a changing climate	<ul style="list-style-type: none"> • Does the SG help to reduce greenhouse gas emissions? • Does the SG encourage the increased use of renewable energy? • Does the SG help promote sustainable development?
Material Assets	To promote the effective and sustainable use of land and other material assets	<ul style="list-style-type: none"> • Does the SG protect and support the improvement and quality of recreational opportunities? • Does the SG help promote the economic, social and environmental value of material assets? • Does the SG take account of land reform issues and the Core Paths Plan? • Does the SG help to avoid an increase in the production of waste peat and other waste, including forest waste?
Historic and Cultural Heritage	To protect, conserve and enhance the built and historic environment	<ul style="list-style-type: none"> • Does the SG promote the protection and enhancement, where appropriate, of historic and cultural assets and their setting? • Does the SG help prevent loss of archaeological sites, including buried sites?
Landscape	Maintain, enhance and protect the quality of landscape character	<ul style="list-style-type: none"> • Does the SG help to reduce visual and cumulative impacts on landscape character? • Does the SG help to protect the Special Landscape Areas from adverse impacts? • Does the SG help to protect landscape character?

Question 4

Development of the Assessment Criteria – SEA objectives

Do you agree with the revised SEA objectives and assessment criteria in **Table 5**?

6. Assessment of Alternatives

Assessing alternatives

6.1 The SEA Act requires that an Environmental Report is prepared to identify, describe and evaluate the likely significant effects on the environment of implementing the SG, together with assessing reasonable alternatives to it.



6.2 The overall purpose of the SG is to provide the Council's spatial framework for wind energy developments and to set out the detailed guidance and criteria for assessing renewable energy developments. The aim of the SG is to accommodate renewable energy developments where the technology can operate efficiently and environmental and cumulative impacts can be addressed satisfactorily.





6.3 When considering alternatives, the workshop took the view that it would not be reasonable to have SG for Renewable Energy which did not accord with SPP 2014. In view of this, the workshop considered three alternatives in relation to the flexibility options within the SG related to Group 2 areas of significant protection and the 19 considerations within Group 3. These are:

1. **Maximisation of renewable energy development opportunities.** Renewable energy proposals will generally be supported where they have demonstrated any potential effects on SPP Group 2 areas of significant protection and Group 3 considerations, meet minimum requirements and take little account of safeguarding and enhancement measures.
2. **Optimising renewable energy opportunities whilst enhancing and protecting communities and the environment.** A more balanced approach to considering renewable energy developments. Proposals require to be in accordance with SPP Group 2 areas of significant protection in terms of demonstrating that any significant effect on the qualities of these areas can be substantially overcome by siting, design or other mitigation and Group 3 considerations raise no adverse significant impacts and, where appropriate, deliver mitigation and enhancement measures.
3. **Maximising protection of the environment.** Renewable energy proposals will generally not be supported where there are any impacts on the environment in relation to SPP Group 2 areas of significant protection and Group 3 considerations.

6.4 The three alternatives were previously assessed against the SEA environmental issues and reported in the Scoping Report. The Consultation Authorities agreed with the suggested alternatives in their responses to the Scoping Report. The findings from the assessment of the three alternatives are summarised in **Table 6**.

Table 6: Summary of the assessment of alternatives to implementing the SG

Alternative SG deliveries	Score	Assessment Comments
1. Maximisation of renewable energy development opportunities.		Could maximise development opportunities as well as delivering the national renewable energy targets. However, there will be adverse impacts across the environmental issues, particularly in terms of the cumulative impact on the environment.
2. Optimising renewable energy opportunities whilst enhancing and protecting communities and the environment.		Would enable the Council to continue to contribute towards the national renewable energy targets whilst offering protection to the environment. This would enable local environmental considerations to be taken fully into account alongside appropriate mitigation and enhancement measures.

Alternative SG deliveries	Score	Assessment Comments
3. Maximising protection of the environment.		Is unlikely to significantly contribute to national renewable energy targets and would be contrary to national and local priorities for a low carbon economy. However, this alternative could potentially reduce some environmental impacts.
Key		
 Positive environmental outcome	 Negative environmental outcome	 Effect uncertain

Identified key issues within the alternatives

6.5 The process of assessing alternatives identified key issues and areas for development which have influenced the drafting of the SG.

6.6 The Council has a statutory requirement to prepare SG on Renewable Energy which must take cognisance of SPP 2014. The workshop considered that Alternative 1 would have some environmental benefits, particularly around climatic factors but that there could potentially be significant adverse effects on other environmental considerations. Consequently, the workshop determined that Alternative 1 was not a suitable option.

6.7 The workshop considered that the approach within Alternative 3 was unacceptable because it would not assist in the delivery of local and national priorities around climate change and adapting to a low carbon economy. This approach would also reduce any flexibility that development management teams would have in considering relevant planning applications within a local context.

6.8 Both the workshop and subsequent analysis considered that Alternative 2 demonstrated the best approach for achieving the greatest potential environmental benefits. This would be achieved through reducing the area’s reliance on fossil fuels and contributing to the Scottish Government’s renewable energy targets whilst ensuring that local environmental considerations are taken due cognisance of within the framework set out in SPP 2014. Alternative 2 ‘Optimising renewable energy opportunities whilst enhancing and protecting communities and the environment’ was considered to be the most appropriate alternative.

Question 5

Assessment of alternatives to the Supplementary Guidance

Do you agree with the alternatives to the draft SG and results in Table 6?

7. Assessment of the Draft Supplementary Guidance

Compatibility assessment criteria

7.1 The draft SG was assessed for its environmental effects and likely significance upon the environmental baseline. The SG and its spatial framework and assessment checklist were assessed against the range of environmental issues set out in Schedule 3 of the SEA Act, using the SEA objectives which formed the assessment criteria. The SEA objectives noted in Section 5 were developed to measure the environmental performance of the draft SG. The assessment was informed by the following steps:

- Predicting potential environmental effects.
- Determining the magnitude of the effects and the sensitivity of the receptors.
- Evaluating the significance of the effects of implementation.
- Predicting the cumulative effects of the SG.
- Developing mitigation measures to prevent, reduce or offset effects.
- Revising assessment taking into account agreed mitigation measures.

7.2 The Sustainable Development Strategy and the Council Plan 'Connect' provide the strategic basis which individual Resources and Services prepare, develop and implement specific PPS that will address specific environmental issues. This includes the SLLDP and the SG for Renewable Energy.

Compatibility assessment of the SG Renewable Energy

7.3 The assessment drew out specific issues that require further consideration within the drafting of the SG by the addition of further guidance and descriptive text within the SG. The finding of the assessment was that the SG was fully compatible with the SEA objectives.

7.4 The principal function of the SG is to provide detailed guidance to planning officers, developers and the community on the interpretation and implementation of Policy 19: Renewable Energy. The SG forms part of the suite of policies and guidance which comprise the South Lanarkshire Local Development Plan. The SG for Renewable Energy will promote improvement in environmental conditions, when applications for renewable energy developments are considered.

7.5 The compatibility assessment identified that the draft SG places strong emphasis on the benefits to people and communities from renewable energy. It aims to maximise potential benefits in terms of reducing reliance on fossil fuels and consequently the benefits to human health and wellbeing and to the natural environment. The SG recognises the importance of a balanced approach to renewable energy development both in terms of augmenting the area's renewable energy capacity and in protecting and developing our natural and built assets.

7.6 The assessment highlighted that a monitoring programme requires to be developed for the implementation of the SG. The SG's monitoring programme should incorporate other monitoring commitments, such as the South Lanarkshire State of the Environment Report, to reduce the overall monitoring and reporting burden.

Evaluating the Potential Environmental Effects

7.7 After updating the SG with the results of the compatibility assessment the environmental consequences were assessed through a prediction and evaluation assessment. At this stage of the SEA, consideration was given to the overall level of impact across the SG and the SEA objectives in relation to:

- Direction of impact (positive or negative),
- Intensity of impact (major or minor positive or negative),
- Duration of impact (short (1-2 years), medium (2-5 years) or long term (beyond the lifetime of the plan)),

- Prediction of the cumulative effects and the development of mitigation and enhancement measures.

7.8 Through predicting and evaluating the potential environmental consequences of the SG consideration was given to the individual policies that deliver on environmental issues. This approach was intended to include the assessment and evaluation of such policy areas to help reduce the need for duplication of SEA requirements through other PPS.

Assessment of potential environmental effects

7.9 The approach to the assessment was to separate the key renewable energy types and to consider how these could potentially affect the local environment. The full assessment is shown in **Appendix 4**. A summary of the key environmental effects are shown in **Table 7**.

Table 7: Summary of key environmental effects and receptors

Onshore Wind
Population – Onshore wind development can potentially reduce dependency on fossil fuels and associated air quality issues which can impact on health.
Biodiversity – Onshore wind development has potential to have both positive and negative effects on some habitats and species, for example, designated sites, peatlands, birds and bats. The SG and the spatial framework sets out criteria to protect these.
Soil – There are potential for negative effects on carbon rich soils and the siting of turbines on prime agricultural land. However, the SG will set out criteria to mitigate impacts. The spatial framework specifically protects Class 1 and Class 2 peatlands.
Water – In the short term, during construction, there can potentially be negative effects on the water environment. The SG sets out criteria to mitigate such impacts.
Air, Noise and Light - Onshore wind development reduces the reliance on fossil fuels which will have a positive impact on local air quality. There are potentially negative effects due to noise from wind turbines, however, the SG will require new developments to meet regulatory standards to minimise such effects.
Climatic Factors – Onshore wind development will reduce greenhouse gas emissions associated with other forms of energy generation. However, there are potentially negative effects relating to the loss of carbon rich soils and peatlands.
Material Assets – Onshore wind development may offer the potential for developing and enhancing recreational opportunities. There may be economic benefits associated with the disposal of peat and forestry waste but there may also be issues with the management of this waste. There are potentially positive and negative effects from the removal of woodland from the construction of wind energy developments. The SG will set criteria to mitigate these impacts.
Historic and Cultural Heritage – There is the potential for disturbance to archaeological assets through onshore wind development. There are also opportunities to open up buried sites for investigation during construction and to develop and promote cultural heritage assets to a wider audience.
Landscape – There is the potential for both positive and negative landscape impacts from onshore wind developments. The SG will set out criteria for the protection and enhancement of landscapes.
Biomass
Population – Biomass developments can potentially reduce dependency on fossil fuels and associated air quality issues which can impact on health. However, there are potential negative effects related to the emission of particulate matter from biomass facilities which may impact on health. The SG will require new developments to meet regulatory standards and to consult with the appropriate services to minimise such effects.
Biodiversity – No significant effects identified.
Soil – No significant effects identified.
Water – No significant effects identified.

<p>Air, Noise and Light – Biomass developments can potentially reduce dependency on fossil fuels and associated air quality issues which can impact on health. However, there are potential negative effects related to the emission of particulate matter from biomass facilities which may impact on health. The SG will require new developments to meet regulatory standards and to consult with the appropriate services to minimise such effects. There were no significant noise and light issues identified.</p>
<p>Climatic Factors – Biomass development will reduce reliance on fossil fuels and associated greenhouse gas emissions.</p>
<p>Material Assets – No significant effects identified.</p>
<p>Historic and Cultural Heritage – No significant effects identified.</p>
<p>Landscape – No significant effects identified.</p>
<p>Hydropower</p>
<p>Population – Hydropower developments can potentially reduce dependency on fossil fuels and associated air quality issues which can impact on health.</p>
<p>Biodiversity – There are potential negative effects on fish and other aquatic species from hydropower systems. The SG will require new developments to accord to relevant SNH and SEPA guidance to reduce and mitigate such effects.</p>
<p>Soil – There is the potential for both positive and negative effects on river banks, relating to soil quality and erosion. The SG will require new hydropower developments to take cognisance of relevant guidance from SEPA and SNH to reduce and mitigate such effects, including effective management practices.</p>
<p>Water – There is the potential for disturbance of some water species and habitats from hydropower developments. The SG will require new developments to accord with relevant SEPA and SNH guidance to reduce and mitigate such effects.</p>
<p>Air, Noise and Light – No significant effects identified.</p>
<p>Climatic Factors - Hydropower development will reduce reliance on fossil fuels and associated greenhouse gas emissions.</p>
<p>Material Assets – Hydropower development may offer the potential for developing and enhancing recreational opportunities. In the short term, during construction, there can potentially be negative effects to land and its resources. However, the SG will set out criteria to mitigate impacts.</p>
<p>Historic and Cultural Heritage – There is the potential for disturbance to archaeological assets through the creation of tracks during construction. There are also opportunities to open up buried sites for investigation during construction and to develop and promote cultural heritage assets to a wider audience.</p>
<p>Landscape – There is the potential for both positive and negative landscape impacts from hydropower developments. The SG will set out criteria for the protection and enhancement of landscapes.</p>
<p>Domestic Micro-Renewables</p>
<p>Population – Domestic micro renewables can potentially reduce dependency on fossil fuels and associated air quality issues which can impact on health.</p>
<p>Biodiversity – There is a potential for the disturbance of protected species, for example, bats during construction and operation of some micro-renewables .The SG will set criteria to mitigate impacts.</p>
<p>Soil – No significant effects identified.</p>
<p>Water – No significant effects identified.</p>
<p>Air, Noise and Light – No significant effects identified.</p>
<p>Climatic Factors – Domestic micro-renewables will reduce reliance on fossil fuels and associated greenhouse gas emissions.</p>
<p>Material Assets – No significant effects identified.</p>
<p>Historic and Cultural Heritage – Micro-renewables may enhance historic buildings by providing affordable heating and energy. This may allow them to become more affordable to repair, maintain and use. On the other hand, there may be negative impacts on some buildings unless consideration is given to the most appropriate and sympathetic installation of micro-renewables.</p>

Landscape – No significant effects identified.
Solar
Population – Solar developments can potentially reduce dependency on fossil fuels and associated air quality issues which can impact on health.
Biodiversity – No significant effects identified.
Soil – No significant effects identified.
Water – No significant effects identified.
Climatic Factors - Hydropower development will reduce reliance on fossil fuels and associated greenhouse gas emissions.
Air, Noise and Light - Solar developments can potentially reduce dependency on fossil fuels and associated air quality issues which can impact on health. There are potential negative effects related to glare from solar farms which may impact on health and be a risk factor in accidents. The SG will contain advice on the appropriate siting of such developments to reduce such risks. No significant effects relating to Air or Noise were identified.
Material Assets – No significant effects identified.
Historic and Cultural Heritage – There are potential negative impacts of solar developments on the setting of historical assets. The SG will set criteria to protect the setting of historic assets. There are also opportunities to open up buried sites for investigation during construction and to develop and promote cultural heritage assets to a wider audience.
Landscape – There is the potential for both positive and negative landscape impacts from solar developments. The SG will set out criteria for the protection and enhancement of landscapes.
Other Renewables
Population – Renewable energy developments can potentially reduce dependency on fossil fuels and associated air quality issues which can impact on health.
Biodiversity – Potential significant effects are presently unknown.
Soil – No significant effects identified.
Water – Significant effects are presently unknown. There may potentially be effects on ground waters from large scale renewable processes which involve underground works.
Climatic Factors – Renewable energy developments will reduce reliance on fossil fuels and associated greenhouse gas emissions. Other effects are presently unknown.
Air, Noise and Light -. No significant effects identified.
Material Assets – No significant effects identified.
Historic and Cultural Heritage – Other renewables may enhance historic buildings by providing affordable heating and energy. This may allow them to become more affordable to repair, maintain and use. On the other hand, there may be negative impacts on some buildings unless consideration is given to the most appropriate and sympathetic installation of renewables.
Landscape – Potential significant effects are presently unknown.

Assessment of cumulative and synergistic impacts

7.10 As part of the overall assessment of the SG the potential for cumulative effects across and between each of the environmental issues of renewable energy developments was also assessed. The results indicated that those environmental issues associated with human health and climatic factors scored highly whilst those relating to more specific environmental issues provided more scope for improvement (**Table 8**).

Table 8: Cumulative impacts across the SEA objectives associated with the SG

SEA Objective	Score	Summary of environmental effects
To minimise potential environmental effects on human health and enhance quality of life	++	The SG promotes the reduction in reliance of fossil fuels and associated health impacts related to poor air quality. The SG has a strong focus on improving health and wellbeing of people living, working and visiting within South Lanarkshire. Therefore, by implementing the SG there will be cumulative effects on improving human health, encouraging more active lifestyles and promoting individual and wider community wellbeing.
To protect and enhance biodiversity and functioning habitats and avoid irreversible loss	+/-	Renewable energy development may cumulatively affect some species and habitats. The SG contains safeguards to limit adverse impacts and to ensure the greatest benefits are realised wherever possible.
To prevent soil deterioration and erosion and protect carbon sequestration	+/-	There is the potential for renewable energy developments to have cumulative effects on the loss of carbon rich soils and prime agricultural land and effects on soil quality and erosion of river banks. The SG protects these assets through both its spatial framework for wind energy and detailed guidance on the importance of these assets.
To improve, enhance and protect the water environment	+/-	The SG will safeguard and promote the water environment by ensuring that cognisance is taken of national and local guidance related to potential impacts from renewable energy developments, particularly related to the effects on water courses from hydropower and ground water impacts by wind energy developments.
To promote local air quality and minimise effects of noise and light pollution	+/-	The SG may have minor negative impacts through the promotion of some renewables, such as biomass which may increase the level of pollutants into the atmosphere, glare from solar farms and noise from wind turbines. Although these may not be significant in nature on their own, they may cumulatively have significant effects. However, the SG will help to safeguard air quality and reduce potential impacts from noise and light pollution through detailed guidance and criteria and by requiring that the appropriate agencies are consulted on these issues at application stage.
To reduce greenhouse gas emissions and help adapt to a changing climate	+/-	The SG promotes and supports renewable energy across a wide range and size of developments. This will have a significant effect by reducing greenhouse gas emissions from the use of fossil fuels. Although there is the potential for the loss of carbon rich soils and peatlands, the SG sets criteria to safeguard these assets.
To promote the effective and sustainable use of land and other material assets	+/-	The SG promotes the efficient use of buildings and land, including recreational and greenspace areas. These improvements will contribute towards achieving reductions in greenhouse gas emissions across the Council area, improving health and improving community wellbeing. The SG promotes the economic benefits associated with the disposal of peat and forestry waste.
To protect, conserve and enhance the built and historic environment	+/-	Although some renewable energy developments may impact on buried historic assets, the SG promotes opportunities to open up these sites for investigation during construction. The SG will also help support the promotion of cultural heritage to a wider audience.
To protect and enhance the quality of landscape character	+/-	There may be cumulative effects on landscape through renewable energy developments, particularly wind energy. The SG sets out safeguards to reduce negative impacts, particularly through its spatial framework.
Key	++ Major Positive -- Major Negative + Minor Positive - Minor Negative ? Uncertain	0 Neutral +/- Mixed Effects

Question 6

Evaluation of the environmental effects of the draft SG

Do you agree with the key environmental effects and receptors?

Are there any gaps in the results of the assessment in Section 8 and Appendix 4?

8. Proposed Mitigation and Enhancement Measures

8.1 Schedule 3 (7) of the SEA Act requires an explanation of the measures envisaged to prevent, reduce and, as fully as possible, offset any significant adverse effects on the environment of implementing the plan or programme. The assessment highlighted that both the physical and natural environment we are exposed to are important in promoting healthy lifestyles and creating sustainable communities. The SEA demonstrated that the proposed SG should result in positive effects across a wide range of environmental issues, particularly in terms of human health and climatic factors.

8.2 Where potential negative or positive effects have been identified, mitigation and enhancement measures have been developed. Where the assessment has identified potential negative effects, the SG will set criteria to address or mitigate these effects. The assessment identified proposed measures to assist in the delivery of a sustainable Council and a sustainable South Lanarkshire. **Tables 9 and 10** set out other mitigation and enhancement measures identified through the assessment of the SG (see **Appendix 4**), with a summary of the actions taken. The actions taken ensure the promotion, prevention, reduction and offset of any significantly adverse effects or enhancement opportunities on the environment.

Table 9: Potential mitigation measures identified through SEA

Measure	Action Taken
Minimise effects on species and habitats from renewable energy developments.	<p>The SG will require that the appropriate guidance for the protection of species and habitats is adhered to (SG paras. 7.56 – 7.69).</p> <p>The SG will require relevant surveys and plans, for example, Habitat Management Plans, to be prepared where mitigation measures are needed to protect species and habitats (SG para. 7.60).</p>
Minimise effects on carbon rich soils and peatlands.	<p>The SG will require that the appropriate guidance for the protection of carbon rich soils and peatlands is adhered to (SG paras. 5.13 – 5.16; 7.70 – 7.75).</p> <p>The SG will require relevant surveys and plans, for example, Peat Management Plans, to be prepared where mitigation measures are needed to protect carbon rich soils and peatlands (SG paras. 7.72-7.73).</p>
Minimise negative effects from emissions of particulate matter from biomass, biofuels and other renewables.	<p>The SG will refer to SG1 – Sustainable Development and Climate Change which sets out the Council’s planning policy on biomass development (SG para. 6.20).</p>
Minimise negative effects to the water environment, through the construction, development and operation of renewable energy developments.	<p>The SG will require sufficient information about potential Groundwater Dependent Terrestrial Ecosystems (GWTDEs) is provided during application stage, where required (SG para. 7.109).</p> <p>Where consent is given, the SG will require a Water Quality Management Plan to establish baseline water quality (SG paras. 7.107 – 7.108).</p> <p>The SG will require Fish Fauna Surveys to be undertaken, where required (SG para. 7.109).</p>
Potential noise and light effects from renewable energy developments are assessed.	<p>The SG will require appropriate assessments, for example, Noise Assessment and Glint or Glare Assessment, are carried out at application stage (SG paras. 7.30; 7.54 – 7.55).</p>

Measure	Action Taken
Ensure peat and forestry waste is disposed of appropriately during construction.	The SG will set out that renewable energy developments must adhere to SEPA's Regulatory Position Statement (SG para. 7.74).
Minimise effects on cultural and historic assets.	The SG will require appropriate assessment to be undertaken to safeguard such assets (SG para. 7.84).
Minimise effects on landscape.	The SG will require wind energy developments to accord with the Landscape Character Assessment (2010) and Landscape Capacity Study for Wind Energy (2015) (SG para. 7.38). The SG will require all renewable energy developments to submit a Landscape Visual Impact Assessment, where appropriate (SG para. 7.55).
Minimise negative effects on woodlands.	The SG will require wind energy developments to submit a Forestry Plan, where appropriate, including details of compensatory planting (SG paras. 7.122 – 7.125).

Table 10: Potential enhancement measures identified through SEA

Measure	Action Taken
Opportunity to make connections to core path network and improve overall outdoor access which will support human health and wellbeing.	The SG will require Access Management Plans to address the future management of sites for recreational access (SG para. 7.79).
Opportunity to promote public awareness of historic and cultural heritage assets.	SG will promote the use of signage and other interpretations to facilitate promotion of the area's historical and cultural assets (SG para. 7.84).
Enhance opportunities to improve the area's biodiversity.	The SG will require Habitat Management Plans to be prepared, where appropriate (SG para. 7.60).
Opportunity to enhance the management of woodlands	The SG will require wind energy developments to submit Forestry Plans, where appropriate, including details of compensatory planting (SG paras. 7.122 – 7.125).

8.3 The findings of the assessment has assisted in the further development of the SG which will help ensure the promotion of sustainable development across South Lanarkshire and will facilitate the prevention, reduction and offsetting of key environmental issues identified through the SEA process. Incorporating this sustainable approach across all Council led policies, plans, programmes and strategies should result in continued environmental benefits for South Lanarkshire and the people who live, work and visit here.

8.4 The key changes made to the Supplementary Guidance as a result of the SEA process are:

- **Carbon rich soils and peatlands**
Inserted narrative to advise that applications affecting carbon rich soils and peatland should contain a Peat Management Plan.
- **Water environment**
Inserted a specific reference requiring a Water Quality Management Plan to be prepared prior to commencement of construction.
Included a reference to the requirement for a Fisheries Habitat Assessment to be prepared, where appropriate.
- **Historic and cultural environment**
Included narrative that applications should consider opportunities to improve access to, and interpretation of, historic assets.
- **Material assets**
Included reference to the disposal of forestry waste and the need to comply with SEPA guidance.

Question 7

Do you agree with the proposed mitigation and enhancement measures and the actions taken to address these in Tables 9 and 10?

If not, what areas are deficient within this assessment?

9. Monitoring the Supplementary Guidance

9.1 A monitoring programme is being developed to help prevent, reduce or offset significant adverse effects and enhance positive effects of the Supplementary Guidance, Renewable Energy. This includes an action plan and an outcome monitoring plan with a range of indicators which will measure progress against each environmental factor.

9.2 The updating and review of these plans alongside monitoring of the Council's State of the Environment Report will assist in the early identification of environmental issues (either positive or negative) associated with the implementation of the SG and associated policies. Finalisation of these monitoring plans will consider appropriate comments received through the consultation process. Monitoring will be conducted and reported annually to the Council's Executive Committee, senior managers and the public. The State of the Environment report is reviewed biennially.

10. Next Steps

10.1 **Table 11** lists future milestones in the development of the draft SG and its SEA and the dates when these are expected to be completed.

Table 11: Future milestones in the development and adoption of the SG

Proposed timescale	Air Quality Strategy	SEA Process
June - September 2015	Finalise consultative draft SG	Carry out SEA and prepare Environmental Report
September - October 2015	Formal consultation on the draft SG	Submit Environmental Report to CA via SEA Gateway for six week consultation
November - December 2015	Consider consultation feedback and reflect in SG where appropriate	Consider comments and revise Environmental Report as appropriate
December 2015 – January 2016	Approval of SG by various governance groups including appropriate Council Committee(s)	Finalise the monitoring programme and prepare the Post Adoption Statement
From February 2016	SG Adopted	Post Adoption Statement finalised and issued to SEA Gateway.
Annually thereafter	Monitor and review	Monitor and review

Appendix 1: Scoping report comments and response

Scoping Report Ref	Consultee Comment	SLC Response
Scottish Environment Protection Agency		
General comments	We are satisfied with the proposed scope and level of detail to be included in the Environmental Report (ER). We are satisfied with the proposed scope of the assessment and the assessment methodology.	Noted.
Relationship with other relevant strategies, plans, programmes or legislation	Table 1 provides a comprehensive list of relevant PPSs and clearly outlines how they affect the Supplementary Guidance (SG).	Noted.
	Groundwater Dependent Terrestrial Ecosystems (GWDTE) are specifically protected under the Water Framework Directive and are sensitive receptors to the pressures that are potentially caused by developments such as wind farms. It would be worthwhile mentioning the avoidance of adverse impacts on GWDTE in the reference to the EU Water Framework Directive in Table 1.	Thank you bringing this to our attention. We have included this under the WFD in Appendix 2 of the Environmental Report and within the SG itself.
	The Water Environment (Controlled Activities) (Scotland) Regulations 2011 should be referred to as the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended).	This has been changed in Appendix 2 of the Environmental Report.
Scoping in/out of SEA issues	It is noted that all SEA issues are to be scoped into the assessment. We are happy with the rationale provided for scoping in all issues.	Noted.
SEA Objectives	You may wish to consider making specific reference to GWDTEs under the assessment criteria for water: 'Does the SG help protect and enhance the water environment including GWDTEs?'	This has been included under the assessment criteria for water as suggested.
	We welcome the reference under the assessment criteria for material assets 'to avoid an increase in the production of waste peat and other peat'	Noted.
	On forested sites where large volumes of trees are required to be felled, consideration of how any tree material cleared to facilitate development will be utilised should be made. Our preference is for forest materials to be used for economic and environmental benefits and not to be disposed of as waste.	This has been included under the assessment criteria for material assets as suggested.
Alternatives	We are satisfied with the alternatives outlined.	Noted.
Methodology for assessing environmental effects	We support the use of SEA objectives as assessment tools as they allow a systematic, rigorous and consistent framework with which to assess environmental effects. We are content with the proposed detailed assessment matrix and particularly welcome the commentary box to fully explain the rationale behind the assessment results.	Noted.
Mitigation and enhancement	We welcome the recognition that the SEA process will identify potential enhancement measures as well as mitigation measures. We would encourage you to use the assessment as a way to improve the environmental performance of individual aspects of the final option.	Noted.
Consultation period	We are satisfied with the proposal for a minimum 6 week consultation period for the Environmental Report.	Noted.

Scoping Report Ref	Consultee Comment	SLC Response
Scottish Natural Heritage		
Scope of assessment and level of detail	The scoping report is generally comprehensive. Subject to the specific comments set out in annex to this letter, SNH is content with the content with the scope and level of detail proposed for the Environmental Report.	Noted.
Consultation period for the Environmental Report	We note that a period of 6 weeks is proposed for consultation on the Environmental Report. We are content with the proposed period.	Noted.
Environmental baseline data	You may wish to note that we have recently concluded a consultation on a map identifying areas containing carbon rich soils, deep peat and priority peatland habitat (as referred to in SPP). We hope to publish the revised map around June and therefore hope that it may be available to inform the SEA Environmental Report and Spatial Framework.	We will welcome the opportunity to consider this if available at the time of concluding the assessment and the Environmental Report.
Environmental issues relevant to the SG	<p>In addition to sensitive habitats (e.g. those within designated sites or carbon rich soils, deep peat and priority peatland habitat etc.), we would recommend that the SG should also promote the safeguarding of sensitive and/or protected species. Species issues of particular significance to renewable energy development in South Lanarkshire which are being given increased prominence in our consideration of wind farm proposals, include:</p> <ul style="list-style-type: none"> - the extent to which cumulative impacts on the site's qualifying interests may be becoming a limit to development around the Muirkirk & North Lowther Uplands Special Protection Area (SPA). - the extent to which individual developments may impact on high risk bat species (specifically Noctule and Leisler's bats) and how any significant effects are best mitigated. 	These considerations have been included within the SG itself and also as an indicator question under biodiversity.
SEA objectives and assessment criteria	We note that the current SEA objectives and these largely appear satisfactory. It would be worth considering whether it is necessary to include both 'protect' and 'maintain' in the objective for landscape.	The SEA objective has been changed to 'Protect and enhance...'
	<p>In terms of the assessment criteria, we offer the following suggestions for your consideration:</p> <p>Biodiversity</p> <ul style="list-style-type: none"> - Given the wording of the third bullet point, the first point could be reworded to refer to only designated sites and protected species. - The fourth bullet point could refer to 'carbon rich soils, deep peat and priority peatland habitat'. <p>Soils</p> <ul style="list-style-type: none"> - The third bullet point could refer to 'carbon rich soils, deep peat and priority peatland habitat'. <p>Material assets</p> <ul style="list-style-type: none"> - The first bullet point could refer to 'protect and support'. 	We feel it is relevant to retain the original questions relating to your first bullet point. We have accepted and included your suggestions for your remaining bullet points.

Scoping Report Ref	Consultee Comment	SLC Response
Historic Scotland		
Scope Level of Detail	I note that the historic environment (under cultural heritage) has been scoped into the assessment. On the basis of the information provided, I am content with approach and satisfied with the scope and level of detail proposed for the assessment: I have provided two detailed comments below which I hope are helpful.	Noted.
	Table 2: Environment baseline data from the Council's State of the Environment Report 2013 Simply for information, the Inventory of Historic Battlefields is maintained by Historic Scotland rather than the Battlefield Trust, and the source for this heritage baseline asset type should be amended accordingly.	Thank you for bringing this to our attention. This has been changed as appropriate.
	Table 5: Proposed SEA objectives in relation to the assessment of the SG The first criteria for historic and cultural heritage is phrased in a way that could imply that a level of negative impact on these assets is assumed and accepted. You could consider rephrasing this criteria in a more positive way, in line for example with biodiversity criteria, eg. 'does the SG promote the protection and enhancement (where appropriate) of historic and cultural assets and their setting'.	The indicator question has been amended as suggested.
Consultation period for the Environmental Report	Section 6: Next Steps indicates that there will be a minimum consultation period of six weeks for the draft Environmental Report, and I am content with this timescale.	Noted.

Appendix 2: Policy screening for the SG Renewable Energy

Policy area	Main requirements of the PPS	Score	How it affects or is affected by the proposed SG
++ Major – Delivers the aim of the PPS	+ Minor – Delivers part of the aim of the PPS	○ Neutral – Neither delivers or conflicts with the PPS	- Minor – Does not deliver the aim of the PPS
			-- Major – Conflicts on the deliver on PPS aim
International			
Kyoto Protocol, 1997	Under the Protocol the UK must implement measures to limit and/or reduce emissions of greenhouse gas emissions.	++	A key aspect of the SG is to support a reduction in the use of fossil fuels by increasing the level of renewable energy supply.
Johannesburg Summit on Sustainable Development (2002)	Furthering of Parties commitment to sustainable development through promoting the implementation of strategies to support ecosystems.	++	The SG will support sustainable development by encouraging the development of renewable energy sources instead of fossil fuels at the same time as protecting designated species and habitats.
Gothenburg Protocol (1999)	The Protocol's principal aim is to abate acidification, eutrophication and ground level ozone through pollutant emission ceilings.	++	The SG will support renewable energy sources. This reduces reliance on the combustion of coal or oil for electricity generation which reduces pollutant generation.
EU Birds Directive 2009/147/EC	Protects all wild birds, their nests, eggs and habitats within the EC. It aims to protect all European wild birds and the habitats of listed species, in particular through the designation of Special Protection Areas (SPA).	+	The SG will comply with the Directive by not adversely affecting SPAs or the protection of wild, rare and vulnerable birds, their nests, eggs and habitats.
EU Habitats Directive 92/43/EEC	Aims to protect biodiversity, through the conservation of natural habitats, wild flora and fauna. Provides the basis to classify the network of Special Areas of Conservation (SAC).	+	The SG will comply with the Directive by not adversely affecting SACs or any species listed under the Directive.
EU Water Framework Directive 2000/60/EC	Safeguards the sustainable use of surface water, transitional waters, coastal waters and groundwater. Supporting the status of aquatic ecosystems and associated environments. Addresses issues such as groundwater pollution, river basin management planning and ecological factors.	+	The SG will avoid adverse impact on surface water, transitional waters, coastal waters, groundwater, migratory fish populations and other ecological factors. It will also avoid adverse impacts on Groundwater Dependent Terrestrial Ecosystems.
European Strategy for Sustainable Development (2009 Review)	Sets out the long term objectives for sustainable development in Europe concerning issues such as climate change, transport, health and natural resources.	++	The SG will support sustainable development by encouraging the development of renewable energy sources instead of fossil fuels as well as safeguarding natural resources.
European Landscape Convention (2000)	Promotes landscape protection, management and planning.	+	The SG will take cognisance of this in terms of landscape impacts.

Policy area	Main requirements of the PPS	Score	How it affects or is affected by the proposed SG
European Climate Change Programme (2000)	Combating climate change through various cross-cutting themes including energy, industry and transport.	++	The SG will help tackle climate change by encouraging the development of renewable energy sources instead of fossil fuels.
European Biodiversity Strategy to 2020 – towards implementation (2011)	European endorsement of the Convention on Biological Diversity. This represents Europe's obligation to integrate environmental concerns into sectoral policies.	+	The SG will provide protection against inappropriate development affecting sites designated under the Convention on Biological Diversity.
EU Air Quality Directive 2008/50/EC	Sets long term air quality objectives and introduces air quality standards.	+	Through increasing the renewable energy capacity promoted by the SG, there is likely to be less demand for conventional energy sources. This should lead to a reduction in the emission of pollutants, including NO ₂ and SO ₂ .
National			
Planning etc. (Scotland) Act, 2006	Introduced the new system for the preparation of Strategic Development Plans and Local Development Plans.	++	The SG will accord with the requirements of the Act. It is an integral part of the SLLDP.
National Planning Framework 3 (2014)	The Scottish Government's policy on nationally important land use planning matters. The NPF strongly supports renewable energy developments and sets out the Scottish Government's targets.	++	The SG will contribute to meeting Scottish Government targets for renewable energy production. It will contribute by reducing carbon emissions and adapting to climate change. The SG will also support the protection and enhancement of the area's natural and cultural assets.
Scottish Planning Policy (2014)	The Scottish Government's statement of national planning policy. It sets out policy on development plans and a wide range of planning issues, including the creation of well designed, sustainable places, the reduction in carbon emissions and adaptation to climate change. It has a focus on the protection and enhancement of natural and cultural assets.	++	The SG has been prepared to fully comply with SPP with regards to renewable energy developments.
The UK Climate Change Programme (2006)	Sets out how the UK's Kyoto Protocol target will be delivered as well as the reduction in carbon dioxide emissions.	++	The SG will contribute towards achieving national targets and the reduction in carbon dioxide emissions.
Climate Change (Scotland) Act 2006	Sets targets for the reduction of greenhouse gas emissions and other climate change provisions, including adaptation.	++	The SG will ensure climate change adaptation is considered within the actions and activities it promotes.

Policy area	Main requirements of the PPS	Score	How it affects or is affected by the proposed SG
Scottish Soil Framework 2009	Describes key pressures on soils, particularly climate change, relevant policies to combat those threats, and identifies the future focus for soil protection, key soil outcomes, and actions across a range of sectors.	+	The SG will take cognisance of soil outcomes. It will make a contribution to soil carbon sequestration.
Water Environment and Water Services (Scotland) Act 2003	Protects the water environment including groundwater, surface water and wetlands, for or in connection with implementing the WFD.	+	The SG will take cognisance of the importance of the water environment.
Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended)	Outlines the different levels of authorisations to allow for proportionate regulation depending on the risk an activity poses to the water environment. Some activities require authorisation including point source discharges, impoundments and abstractions.	+	The SG will take account of the requirements of these regulations when dealing with renewable energy applications in or beside the water environment.
Wildlife and Countryside Act, 1981	The protection of wildlife, the countryside, National Parks, the designation of protected areas and public rights of way.	+	The SG will take cognisance of the Act.
Nature Conservation (Scotland) Act 2004	Updates the Wildlife and Countryside Act. It sets out measures designed to conserve biodiversity and to protect and enhance the biological and geological natural heritage of Scotland, by the provision of the legal framework for the designation of Sites of Special Scientific Interest (SSSI).	+	The SG will take cognisance of the Act.
Ancient Monuments and Archaeological Areas Act 1979 as amended by the Historic Environment Scotland Act 2014	Provides protection of scheduled ancient monuments and areas of archaeological importance.	+	The SG will take cognisance of this Act.
Scottish Government 2020 Routemap for Renewable Energy in Scotland	Sets out a series of actions required to deliver the targets in the Electricity Generation Policy Statement.	+	The SG will contribute to meeting Scottish Government's targets for renewable energy production.
Scottish Biodiversity: It's in Your Hands, 2004	Strategy to conserve and enhance biodiversity throughout Scotland. Its overall aim is 'to conserve biodiversity for the health, enjoyment and wellbeing of the people of Scotland now and in the future'.	+	The SG will take cognisance of this Strategy.

Policy area	Main requirements of the PPS	Score	How it affects or is affected by the proposed SG
2020 Challenge for Scotland's Biodiversity, 2013	Updates the Scottish Biodiversity Strategy. Its focus is on protecting and restoring healthy ecosystems, connecting people with nature and ensuring biodiversity contributes to sustainable economic growth.	+	The SG will take cognisance of this Strategy.
Conservation (Natural Habitats, &c) Regulations, 1994	The 'Habitats Regulations' translate the EU Habitats Directive into law in Great Britain. They were amended for Scotland in 2004, 2007 and 2012.	+	The SG will comply with the Regulations by not adversely affecting SACs or any species listed under the Directive. An HRA was conducted for the SLLDP.
The River Basin Management Plan for the Scotland River Basin District 2009 - 2015	This plan outlines the actions to be taken to protect Scottish waters currently in good condition and to improve the quality of others.	+	The SG will support the protection and enhancement of water bodies.
Good Places, Better Health (2008)	Promotes partnership working which shares knowledge and understanding of how the physical environment impacts on mental health and wellbeing.	+	The SG will take cognisance of this Strategy.
Scottish Historic Environment Policy (SHEP) (2011)	Sets out Scottish Ministers' policies, providing direction for Historic Scotland and a policy framework that informs the work of a wide range of public sector organisations.	+	The SG will recognise the requirement to take account of the historic environment when undertaking practical mitigation work.
Our Place in time – The Historic Environment Strategy for Scotland (2014)	A high level framework which sets out a ten year vision for the historic environment in Scotland. Its key outcome is to ensure the cultural, social, environmental and economic value of Scotland's heritage makes a strong contribution to the wellbeing of the nation.	+	The SG will take cognisance of this Strategy and will recognise the importance of the historic environment.
Strategic Locational Guidance for Onshore Wind Farms in respect of the Natural Heritage (2009)	Provides a strategic view of the sensitivities of the natural heritage across Scotland to onshore wind development.	++	The SG will take cognisance of this Strategic Guidance.
The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (2007)	Establishes the framework for air quality improvements across the UK.	+	The SG will take cognisance of the strategy and the importance of air quality in protecting human health and the environment.
Regional (and Partnership) – Glasgow and the Clyde Valley (GCV)			
GCV Strategic Development Plan 2012 - 2017	A 20 year strategy for the location of new development and a policy framework to help shape good quality places and enhance the quality of life in the city region.	++	The SG will contribute to the delivery of this plan, particularly in terms of sustainability.

Policy area	Main requirements of the PPS	Score	How it affects or is affected by the proposed SG
Clydeplan Main Issues Report (MIR) (2015)	The MIR identifies the key changes which might influence the SDP since its approval in 2012 and which need to be considered when preparing the next SDP. Clydeplan identifies seven main issues, including 'Supporting a Low Carbon Economy', 'Supporting Positive Environmental Action' and 'Climate Change Adaptation'.	++	The SG will take cognisance of this Report.
South Lanarkshire Community Plan 2005 - 2015	Sets out the Community Planning Partners' priorities, including climate change and sustainable development.	++	The SG will contribute to the delivery of this plan.
South Lanarkshire Single Outcome Agreement 2013 - 2023	Sets the local outcomes for the delivery of national outcomes for South Lanarkshire to include, improvements to health and wellbeing and securing a sustainable environment and a safer South Lanarkshire.	++	The SG will accord with the Community Planning Partnership's priorities set out in the SOA, particularly with regards to outcomes related to health, quality environments and securing a sustainable environment.
Glasgow and Clyde Valley Green Network Partnership	This is a partnership between local authorities and other public service agencies to co-ordinate the delivery of a Green Network, in line with the SDP.	+	The SG will contribute to the delivery and sustainable management of the Green Network within South Lanarkshire.
Central Scotland Green Network (CSGN)	Aims to deliver a high quality 'green network' that will meet environmental, social and economic goals designed to improve people's lives, promote economic success, allow nature to flourish and help Scotland respond to the challenge of climate change.	+	The SG will recognise the importance of the CSGN.
Glasgow and the Clyde Valley Landscape Character Assessment (1999)	Presents an analysis of the landscape character of the area and provides management guidelines for each landscape character type.	++	The spatial framework presented in the SG will be informed by the GCV Landscape Character Assessment.
Landscape Capacity Assessment for Wind Energy in Clydeplan Area (2014)	Examines cumulative development within the landscape to provide a picture of current residual capacity for further development within the Clydeplan area.	++	The SG will take cognisance of this Assessment when considering baseline data and assessing landscape issues.
River Basin Management Plan (RBMP) and the Clyde Area Management Plan 2010 - 2015	Introduces a system that will promote sustainable water use in a way which protects and improves the water environment in line with the Water Framework Directive.	+	The SG will comply with the RBMP by not adversely affecting the aquatic ecosystem and associated environments.

Appendix 3 - State of the Environment baseline

Introduction to the local environment

The SEA Act requires the Environmental Report to include 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 aims to describe the environmental context within which the Supplementary Guidance Renewable Energy operates and the constraints and targets this context imposes. The full environmental baseline for South Lanarkshire used to assess the environmental parameters can be found in the Council’s State of the Environment Report, 2013 (see **Section 4** for link).



The current state of the environment is presented in support of the predicted assessment of the potential effects associated with implementing the SG. The environmental baseline provides information on both the current and potential issues directly associated with the SG, with the likely future state without implementing the SG estimated using past trends.

Environmental Baseline

The baseline for the environmental indicators set out within the assessment criteria of the SG have been compiled and presented in this section. The current status of the key environmental indicators has been identified using trends from past data sets.

G Good	F Fair	↑ Improving
P Poor	L Limited data	↓ Deteriorating
		↔ No change

Population and Human Health

South Lanarkshire is one of Scotland's most diverse areas. It has a population of about 314,000 and covers 1,772 square kilometres of land. It consists of heavily populated urban areas to the north and an extensive rural area to the south and west. Many parts of the area experience an excellent quality of life with good employment prospects, high standards of health care and low levels of crime. However, some areas of South Lanarkshire bear testimony to the legacy of heavy industrialisation which has impacted on the physical, social and economic environment. There are

pockets of serious deprivation within both urban and rural areas where people may experience disadvantage and encounter problems associated with low income, poor health, low educational attainment, lack of access to learning opportunities and employment, and low expectations.

Human health depends on a number of environmental factors, including access to services such as health, education, safety, access to good quality outdoor recreational facilities and a high quality environment, with good quality air, soil and water. Adequately heated and ventilated homes also support good health.

Actions to improve health and tackle health inequalities are co-ordinated through a Partnership Improvement Plan (PIP) for health, social care and wellbeing. This PIP informs the South Lanarkshire Single Outcome Agreement and includes priorities to address issues relating to health behaviours, environmental impacts on health and wellbeing and actions to prevent ill health.

A summary of the indicators used in assessing the state of South Lanarkshire is presented below, highlighting the current status of each indicator and the directional trend.

The current status is shown by the following colours:

G	Good	F	Fair
P	Poor	L	Limited data

The trend direction is shown with the following arrows:

↑	Improving
↔	No change
↓	Deteriorating

Note: The most recent data available was used in assessing environmental indicators

Indicator	Current status	Trend direction	Explanation
General Population	F	↑	Population – The area’s population is growing at a faster rate than the Scottish average, with the proportion of older population showing the greatest increase. However, the population of people aged less than 25 years is declining.
	G	↑	Life Expectancy – Life expectancy for both men and women has increased over recent years. Male life expectancy is now comparable with the Scottish average and female life expectancy just below the national average.
Health	P	↓	Coronary heart disease – Remains a major source of early or premature deaths. The South Lanarkshire mortality ratio has slightly increased since 2009.
	P	↓	Cancer – Remains a major cause of death for those aged less than 75 years. Death rates have risen above the Scottish average since the previous report.
	P	↓	Stroke – Remains a major cause of death for those aged less than 75 years. The standard mortality ratio has considerably increased and is a third higher than the Scottish average.
Healthy Lifestyles	F	↑	Lifestyle – There has been a significant increase in the number of residents who report that their health is very or quite good, although this varies widely across communities.
	F	↔	Environmental Deprivation – There is a relationship between those areas suffering from environmental deprivation and low SIMD score. No new data is available.
	P	↑	Environmental Recreation – South Lanarkshire has the lowest rate of residents undertaking recreation activities, although this has significantly increased since 2008.

Baseline Situation

Life expectancy is increasing in South Lanarkshire but remains below the Scottish average. Life expectancy for men has declined relative to the Scottish average. South Lanarkshire’s health status is generally below the Scottish average for many key indicators of health. Coronary heart disease, cancers and stroke account for the majority of deaths in South Lanarkshire and there is also a rise in deaths from alcoholic liver disease, mirroring the national picture.

Similar to the national pattern there are significant differences between communities across South Lanarkshire in terms of health outcomes. These health inequalities pose a major challenge for all community planning partners as we look to improve health both at population level and within our more deprived communities. Within these communities, many people are physically disadvantaged with reduced physical activity. The local environment plays a key role in contributing to the overall wellbeing of the population. A well presented environment offers a wide range of activities and potential to improve the overall character and health of the area.

Biodiversity, Fauna and Flora

The distribution and diversity of the ecological resource within South Lanarkshire is influenced by the variety in the geography and topography of the area. There are a series of distinct landscape character areas, each with varied and valuable biodiversity assets. Some of these biodiversity assets are internationally important, with others of national or local significance.

Indicator	Current status	Trend direction	Explanation
Designated Areas	F	↑	There has been some improvement across the designated features with 80% of sites checked from 2011 demonstrating favourable or recovered status.
Local Nature Reserves	G	↑	The Council's two Nature Reserves are now in good condition. Considerable improvement has been made to Langlands Moss in partnership with the Friends of Langlands Moss.
Native Woodland	F	↑	Although total native woodland cover is increasing, further work is required to improve connectivity of habitats, expanding native broadleaf woodland cover.
Ancient Woodland	F	↔	There is no change with ancient semi natural woodland cover. There is limited data on the overall condition of this habitat.
Raised Bogs	L		There is insufficient data on the overall condition of raised and blanket bogs across the area, with only a small number of designated sites recorded as unfavourable.

Baseline Situation

South Lanarkshire has a wide range of landscapes and habitats. Although the area is mainly agricultural land, there are pockets of natural and semi natural habitats, including ancient woodland, peatland and upland moorland. Although fragmentation is detrimental to the connectivity of habitat systems, the main environmental pressures having an adverse affect on biodiversity within the area include the invasion of non-native species and the inappropriate location of urban development or development that is insensitive to the local natural environment. Arguably, the greatest potential pressure on ecosystem function is climate change, with habitat fragmentation restricting the movement of species in response to this. Colonisation by non-native, invasive species is placing further pressure on remaining natural habitats.

Historic and Cultural Heritage

The valley of the River Clyde, particularly in the south of the area has formed a transport route for centuries demonstrated by the large number of pre-historic and Roman remains that survive, reflecting its importance as a corridor from Carlisle through to the Highlands. The Clyde has also provided the power for industrial processes, such as the mills at New Lanark which were developed in association with philanthropic thinking on the provision of housing for mill workers. The importance of New Lanark is reflected in its World Heritage Site status.

Throughout South Lanarkshire the sheer variety of historic buildings and towns provide a rich sense of cultural identity across a diverse landscape. These are important in enhancing the quality of life and sense of identity of all South Lanarkshire's residents. Such a diverse range of historic and cultural assets is also a vital contributor to the area's economy through the attraction of visitors to South Lanarkshire.

Indicator	Current status	Trend direction	Explanation
Built Heritage	F	↑	Scheduled ancient monuments have increased and the buildings on the 'Buildings at Risk' register have reduced. Conservation areas and other designated sites and monuments remain the same as the 2011 report.
Gardens and Designed Landscapes	G	↔	The number and condition of Gardens and Designed Landscapes areas within South Lanarkshire has remained the same since the last report.
Archaeological Sites	F	↑	The number of archaeological sites recorded across South Lanarkshire continues to increase year on year.
Battlefields	G	↔	There are two registered battlefields on the Inventory of Historic Battlefields. No further sites in the area are currently being considered for inclusion to the Inventory. There is limited information on the condition of battlefield sites.
Historical Heritage	G	↔	Although a museum closed in 2011, the existing historical and tourist attractions continue to attract large number of visitors to South Lanarkshire.

Baseline Situation

The historic and built heritage of South Lanarkshire is complex and varied, from medieval burghs like Hamilton to planned villages such as New Lanark. There are numerous listed buildings ranging in size from castles to small agricultural cottages, with the greatest concentration of listed buildings being within the medieval burghs. In addition to those sites situated above ground, there are numerous buried or ruinous archaeological assets which may not be fully recorded.

Pressures on historic assets come from an increasing number of sources which may result in damage to, or the complete loss of, the building or site of cultural significance. However, incremental damage is far more common especially to individual buildings where adaptations or extensions have occurred without the full knowledge of its historic importance or by the use of inappropriate building styles or materials.

Material Assets and Landscape

Material assets can be described as the infrastructure of the Council and the resource of the area. This can include land reserved for development and the extent the public has access to facilities and services. The Council provides a range of services through managed facilities. It is important these facilities match the needs of the population and also conserve the character of the area.

South Lanarkshire has a diverse landscape rich in scenic value and characterised by its diverse range of land uses. The area is dominated by features such as the Lowther Hills and the Clyde Valley. The diversity of the landscape across the area is a key feature of South Lanarkshire and it is important it is preserved and promoted for wider public use through a range of opportunities.

Indicator	Current status	Trend direction	Explanation
Vacant and Derelict Land	G	↑	The area of vacant and derelict land has decreased by 25% in the last decade again through re-development. The number of vacant and derelict sites has also decreased.
Recreational Land	F	↑	Although redevelopment has increased specific recreational provision further greenspace improvements are required, particularly through linkage with other issues including biodiversity and habitat connectivity, health and social and environmental deprivation.
Minerals	F	↔	Minerals remain an economically important resource across South Lanarkshire. Some sites are currently going through a closure phase and once restored will help to enhance the environment.

Indicator	Current status	Trend direction	Explanation
Countryside Access	F	↑	The completion of the core path plan is intended to ensure sufficiency of, and guide improvements to South Lanarkshire's extensive path network.
Landscape	G	↔	Some developments can affect the visual amenity of the local landscape. The Landscape Character Assessment, 2010 identifies areas where development is considered to be detrimental to the overall landscape characteristics of South Lanarkshire and areas where there is limited capacity for development.

Baseline Situation

South Lanarkshire offers a wide variety of recreational activities, with many areas well serviced by both recreational greenspace and built facilities. Public access to the wider environment is promoted through the Country Parks and the Core Paths Network.

South Lanarkshire has areas of dense population, where development poses a risk to the very landscape that provides the area with its local characteristics. It is important that the green belt, local recreational and greenspace networks are maintained and appropriate vacant and derelict land developed.

Waste

The amount of waste generated and the subsequent methods of treatment are of growing social, economic and environmental concern. The types of waste produced, the various methods available for waste treatment and disposal, and the transport of waste are all detrimental to the environment. Good integrated waste management practices are therefore essential to minimise environmental impacts and protect human health.

Waste can be regarded as a potential resource, with increased levels of reuse, recycling and energy recovery contributing to sustainable development. Waste must be considered in a 'waste hierarchy' approach, with the reduction of waste at source at the top of the hierarchy, followed by reuse and/or recovery (through recycling, composting or energy recovery) and finally, disposal.

Indicator	Current status	Trend direction	Explanation
Waste Generation	G	↑	The level of waste generated in the area continues to reduce across all sectors, with individual households now producing an average of 1.12 tonnes per annum.
Waste Treatment	G	↑	The level of recycling and composting of waste has continually increased across South Lanarkshire, with <i>circa</i> 40% collected for recycling and composting, whilst waste disposed via landfill has decreased.
Waste Management	G	↑	The recycling rate at civic amenity sites currently exceeds 70%, with the number of smaller recycling facilities staying the same.

Baseline Situation

The majority of the waste collected by the Council is municipal waste which is now reducing each year. In order to reduce the rate of waste production it is vital that the consumption of raw materials is reduced, while maximising the rate of waste recovery. It is important to ensure the methods used to increase the rates of waste recovery do not themselves pollute the environment.

Waste can damage the environment in several ways, including:

- emissions of air pollutants including; greenhouse gases, dioxins and nitrogen oxides
- discharge of landfill leachate to groundwater and surface water;
- reduction in land use through landfill sites
- localised litter problems.

The Council is committed to meeting the targets set within Scotland's Zero Waste Plan by reducing the level of waste going to landfill and to a more sustainable approach by increasing recovery through recycling, composting and other recovery technologies. To achieve this, the Council has invested heavily in infrastructure to increase the level of household and municipal waste being recycled through the development of civic amenity sites and the provision of separate recycling bins for 90% of households.

Soils

Soil is a complex, variable and living medium. It has a role in providing a habitat and gene pool, is important for human activities, landscape and heritage and acts as a provider of raw materials. Soil performs many vital functions: as a growing medium for food, forestry and other biomass production, storage, filtration of water, carbon, and nitrogen. Soil in its many forms is considered as an important carbon store.

Scotland's soils are generally in good health but there is a lack of national trend data from which evidence of change or damage to soils might be determined. There is some evidence that levels of organic matter in Scottish soils may be declining and this may result in a significant reduction in the UK stock of terrestrial carbon. The key cause of this decline is intensive agricultural practices which disturbs the soil and leads to changes in soil carbon levels. The rate of organic matter loss from soils is far quicker than the rate of organic matter gain meaning that once the organic matter is lost it is impossible to replenish.

The Soil Framework Directive was issued to protect soils across the EU from erosion, loss of organic matter and contamination. Soil damage and degradation can potentially have negative effects on human health, natural ecosystems and climate change and our ability to grow crops and other food sources for humans and animals.

There is a wide range of soil types in South Lanarkshire, some characterised by historical contamination from industrial activities, agricultural land, woodlands and peatlands. In 2006, it was estimated that approximately 361 kilo tonnes of carbon dioxide was removed from the atmosphere in South Lanarkshire through existing carbon sinks, including trees and other plants.

Indicator	Current status	Trend direction	Explanation
Soil Quality	G	↔	Current data indicates good soil quality in a Scottish or regional context. At present there is limited data on soil quality specifically within South Lanarkshire.
Soil Capacity	G	↔	There has not been a significant level of development within the green belt. As a result, there is no evidence to suggest that the soil capacity has been affected. Further consideration about refining information from the Scottish Agricultural Census to provide more area specific soil capacity data should be explored.
Land Use	F	↔	Further analysis of Landscape Character, Land Use and Scottish Agricultural Census data could be used to provide information on land use.
Contaminated Land	F	↑	The number of contaminated sites identified in South Lanarkshire remains consistent. 88% of all potentially contaminated sites have undergone preliminary investigation.

Baseline Situation

Soil quality in South Lanarkshire is considered to be generally good although baseline data is difficult to gather and is rarely updated. Human activity, land use and intensity and global climatic effects can be detrimental to soils, reducing their distribution, function and sustainability. Healthy and diverse soils are important for crop growth, carbon storage and sustaining biodiversity across a range of habitat types.

Air, Noise and Light

Good air quality is an essential component to improving human health and the status of the environment. The quality of the air around us is dependent on what pollutants we release into the atmosphere through our transportation, energy generation, domestic heating and industrial activities and through the dispersal and deposition mechanisms associated with these pollutants. The release of pollutants such as nitrogen oxides (NO_x), sulphur dioxide (SO₂), volatile organic carbons (VOCs) and particulates (including PM₁₀ and PM_{2.5}) and the subsequent secondary pollutant generated, such as ozone (O₃) can have a detrimental effect on:

- **Human health:** triggering respiratory problems such as asthma and bronchitis, reducing the quality of life and life expectancy.
- **Habitats:** changing the ecosystem through nutrient enrichment or acidification or through the direct effects of pollutants such as ozone on plant growth and development.
- **Building material:** oxidation of material by ozone or erosion through acidification, thus reducing the life expectancy or quality of the material.
- **Climate change:** release of greenhouse gases such as carbon dioxide, methane and nitrous oxide can result in global shifts in climate.
- **Nuisance:** including reduced visibility through haze and smoke and odour, reducing the overall amenity value of the area.

Within the urban environment the pollutants that cause the main concern are those found close to source, primarily emitted from transport, domestic and commercial heating and small-scale industrial activities, with NO_x and Particulates of primary concern in South Lanarkshire. The main issue associated with such pollutants are the impacts they have on human health, particularly on 'sensitive individuals' such as the elderly, young and those suffering from respiratory conditions, with elevated levels along transport routes within urban areas of South Lanarkshire.

Pollutants emitted from large-scale industrial activities, energy generation and to a lesser extent transport and agriculture can potentially travel in the atmosphere over long distances. These pollutants are considered as long-range pollutants and in many cases can result in the formation of secondary pollutants, such as ozone or the formation of acid rain, causing potential damage to sensitive vegetation and habitats.

Noise and light pollution can have detrimental effects on the environment, people and communities particularly in the more densely populated urban areas of South Lanarkshire.

Indicator	Current status	Trend direction	Explanation
Local Air Quality	F	↓	Air quality across South Lanarkshire is generally good but there are a few areas in excess of national limits set to protect human health. The Council continues to improve its data collection in this respect.
Point Source Emissions	F	↔	Industrial point sources for emissions remain static across South Lanarkshire. There has been an increase in the number of biomass boilers in the area.
Long-range Pollutants	P	↑	There are no identified long range pollutant emitters in South Lanarkshire. Long-range pollutants remain a concern with most designated sites currently exceeding the critical loads for acid deposition and nitrogen enrichment. However, levels of exceedance for 2020 are predicted to improve slightly.
Airborne Nuisance	G	↔	Airborne nuisance complaints remain relatively low. Odour is the main nuisance reported to the Council.
Noise	F	↔	The number of noise complaints received by the Council has significantly reduced. The majority of complaints relate to domestic noise. Two areas in South Lanarkshire achieved 'Quiet Area' status in 2013.

Indicator	Current status	Trend direction	Explanation
Light			There is little data on light pollution across South Lanarkshire.

Baseline Situation

Air quality across South Lanarkshire is generally below National Air Quality Objectives, with 'hotspot' areas identified within the urban environment. Transport is the main source for urban pollution, with elevated levels associated with the main transport corridors and busy road junctions. Within the rural environment, acidification and nutrient enrichment are the main concerns, particularly across elevated ground. Long-range pollutants, emitted outwith South Lanarkshire are mainly associated with these effects and therefore controlling such pollutants is more challenging.

The Environmental Noise Directive was transposed into Scots law in 2006 and placed a duty on Scottish Ministers to produce noise maps to assist with the management of environmental noise at a strategic level. As a result of the mapping exercise, the Scottish Ministers approved the establishment of two Noise Management Areas and two Quiet Areas in South Lanarkshire.

Water

Scotland's water provides a wide range of benefits, supporting our health and prosperity. These include the provision of drinking water, water for use in industry and agriculture and recreation opportunities. Our water supports a diverse array of habitats and support nationally and internationally important species. The River Clyde and its tributaries are essential to the character of the area.

Indicator	Current status	Trend direction	Explanation
Water Quality	F	↑	The overall status of the water environment continues to improve with 50% achieving the Water Framework Directive (WFD) High/Good status. The number of sampled rivers has also increased.
River Flow	F	↓	The annual water flow rates in the rivers across the region have continually increased. This increase is closely linked to the increase in annual precipitation rates.
Groundwater and Wetlands	F	↔	The status of groundwater bodies in South Lanarkshire has remained the same since the 2011 report. There is limited data available on ponds and other wetlands in the area.
Water Pollution	G	↑	Point source pollution is closely regulated and monitored by SEPA. Licensed activities continue to increase in the area.
Flooding	P	↑	Climate change predictions indicate a potential risk of increased flood incidents. Flooding incidents reported to and responded to by the Council has increased. However, following continued investment, the Council's flood defence approach has been significantly improved.

Baseline Situation

The water environment is important for South Lanarkshire in terms of the local economy, the health and wellbeing of the people who live, work and visit the area and for wildlife. Human activity can damage the water environment, affecting the quality of the water itself or through inputs associated with activities on land or the deposition of air pollutants.

Water quality in South Lanarkshire is relatively good and continues to improve. There has been a continual increase in annual water flow rates, in line with increasing precipitation across the region. At the same time the number of flood scouting incidents responded to by the Council has also increased.

Climatic Factors

The Earth's climate goes through natural climatic cycles which human activities have disrupted resulting in shifts of instability never seen before. As a direct result, climate change is regarded as one of the greatest threats facing our environment.

Scotland's climate is linked with the global climate. Therefore global changes have a consequence both nationally and locally. Over the past century Scotland's climate has changed more rapidly than anything evident in the past, with global temperatures rising along with increased emissions of greenhouse gases. Average temperatures have increased by approximately 1°C, with an overall trend towards a warmer climate and more extreme weather phenomena. Such changes could be manifested by hotter summers and wetter winters. Scotland is currently experiencing fewer frosts and longer growing seasons.

Indicator	Current status	Trend direction	Explanation
GHG Emissions	G	↑	Greenhouse gas emissions continue to decrease across South Lanarkshire year on year. Emissions per capita are notably below the Scottish average.
Energy Consumption	F	↑	Energy consumption continues to decrease but domestic consumption per household remains above the national average.
Transport Emissions	P	↑	Fuel consumption and kilometres travelled have both fallen although at a slower rate than other sectors. Vehicles are becoming more energy efficient and less polluting contributing to a 4% reduction in transport emissions.
Renewable Capacity	G	↑	The renewable energy capacity of South Lanarkshire has increased considerably, with the area becoming an energy exporter.

Baseline Situation

The climate in South Lanarkshire is changing with a rise in the average annual temperature and increased precipitation, particularly in the winter. These climatic shifts along with more extreme weather events will have a dramatic impact on the area's environment as well as the population.

The main greenhouse gas (GHG) emitted in South Lanarkshire is Carbon dioxide (CO₂), deriving from transport, industry and domestic sources (such as heating, lighting and cooking). In order to mitigate against climate change both the cause and consequence must be addressed. Scotland has set an 80% reduction target for GHG emissions, which South Lanarkshire must contribute towards and also adapt to a changing climate.

Transport

South Lanarkshire has a diverse range of settlements located within the urban areas to the north or spread through the rural areas in the south and west. The distribution and population of these settlements determine the level and type of transport used which has a distinctive influence on the built and natural environment, human health and the impacts associated with vehicle emissions (including local air quality and climate change). The demand for transport has continually increased with individual vehicle ownership growing. This has resulted in the transport sector being one of the key concerns for atmospheric emissions.

Indicator	Current status	Trend direction	Explanation
Road Network Condition	F	↑	Despite recent severe winters, the condition of the road network has improved. This is a result of additional funding from the Council's Roads Investment Plan.
Traffic Growth	G	↑	Most recently available SLC data compares favourably with Government traffic growth forecasts.

Indicator	Current status	Trend direction	Explanation
Congestion	G	↑	There has been a decrease in residents experiencing congestion compared to baseline figures.
Road Safety	G	↑	SLC is currently on target to meet the Government's 2020 casualty reduction targets.
Walking And Cycling	P	↔	Data from the Scottish Household Survey indicate a reduction in the percentage of people walking. However, the Council is developing its Core Path Network to encourage active travel.

Baseline Situation

South Lanarkshire is located at the heart of west central Scotland and its settlements have very diverse characteristics due to the physical environment. The north of South Lanarkshire is distinctly urban with surrounding greenbelt and is home to the majority of the population with an abundance of services that are well connected to the road and rail infrastructure. To the immediate south are the commuter settlements typified by the large numbers of daily commuters working in larger towns and Glasgow. However, the impact of this is that these centres have declined significantly to levels where many no longer offer an essential range of services and dependence on private vehicle ownership is high.

Across the middle of South Lanarkshire some settlements have lost their traditional industries of mining or agriculture and to the south are rural centres where there is a higher than average number of retired people. Employment within these areas is largely reliant on the service sector, including tourism. In general the environmental quality of the area is high but public transport provision is relatively limited.

Appendix 4: Prediction and evaluation of the effects of the SG

Key to scoring:		SG Renewable Energy – Renewable Energy Types						
		Onshore Wind	Biomass	Hydropower	Domestic Micro-Renewables	Solar	Other Renewables	Summary Score (Cumulative)
++	Major positive							
+	Minor positive							
0	Neutral							
-	Minor negative							
--	Major negative							
+/- etc	Mixed							
?	Uncertain							
S	Short term effects							
M	Medium term effects							
L	Long term effects							
SEA Objectives	To minimise potential environmental effects on human health and enhance quality of life	+ S-M-L	-/+ S-M-L	+ S-M-L	+ S-M-L	+ S-M-L	+ S-M-L	++
	To protect and enhance biodiversity and functioning habitats and avoid irreversible loss	-/+ S-M-L	0	- S-M-L	- S-M	0	?	+/-
	To prevent soil deterioration and erosion and protect carbon sequestration	-/+ S-M-L	0	-/+ S-M-L	0	0	?	+/-
	To improve, enhance and protect the water environment	- S-M-L	0	- S-M-L	0	0	-/? S-M-L	+/-
	To protect local air quality and minimise effects of noise and light pollution	-/+ S-M-L	-/+ S-M-L	0	0	-/+ S-M-L	?	+/-

Key to scoring:		SG Renewable Energy – Renewable Energy Types						
++	Major positive	Onshore Wind	Biomass	Hydropower	Domestic Micro-Renewables	Solar	Other Renewables	Summary Score (Cumulative)
+	Minor positive							
0	Neutral							
-	Minor negative							
--	Major negative							
+/- etc	Mixed							
?	Uncertain							
S	Short term effects							
M	Medium term effects							
L	Long term effects							
SEA Objectives	To reduce greenhouse gas emissions and help adapt to a changing climate	-/++ S-M-L	+ S-M-L	+ S-M-L	+ S-M-L	+ S-M-L	-/? S-M-L	+/-
	To promote the effective and sustainable use of land and other material assets	-/++ M-L	0	-/+ M-L	0	0	0	+/-
	To protect, conserve and enhance the built and historic environment	-/+ S-M-L	0	-/+ S-M-L	-/+ S-M	-/+ S-M-L	-/+/? S-M-L	+/-
	To protect and enhance the quality of landscape character	-/+ S-M-L	0	-/+ S-M-L	0	-/+ S-M-L	?	+/-