



# **Strategic Environmental Assessment Final Updated Environmental Report**

## **Supplementary Guidance: Renewable Energy**

**January 2016**

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# 1. Introduction

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## **Background**

1.1 The Town and Country Planning (Scotland) Act, 1997 as amended by the Planning etc. (Scotland) Act, 2006 requires South Lanarkshire Council to prepare a Local Development Plan. The Supplementary Guidance Renewable Energy is one of a series of statutory guidance documents which supports the South Lanarkshire Local Development Plan (SLLDP) and its policies, particularly, Policy 19, Renewable Energy. The SG sets out the context for renewable energy developments in South Lanarkshire. The preparation of the SG has been informed by a Strategic Environmental Assessment (SEA). 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 also been subject to SEA.

1.2 An SEA Environmental Report was prepared at the consultative draft stage of the development of the SG and submitted to the Consultation Authorities, in September 2015, 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 identifies all potential significant environmental effects (both positive and negative) associated with the SG. The Environmental Report is available from the Scottish Government's [SEA database](#).

1.3 The purpose of the SEA is to assess how the SG might affect the environment and to consider how environmental impacts can be avoided, reduced, mitigated, or in the case of positive effects, enhanced.

1.4 The Environmental Report was prepared to assist decision-makers, the Consultation Authorities (CAs), the public and other stakeholders to understand the likely significant impacts associated with the SG and to identify the measures taken to prevent, reduce and offset such effects.

1.5 The SG and its Environmental Report were subject to public consultation for a six week period from 8 September 2015 to 30 October 2015. A number of minor changes were made to the Environmental Report as a result of this consultation.

1.6 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. Textual mitigation to the SG wording allowed a conclusion of no adverse effect on the integrity of any Natura site from its implementation to be reached.

## **The Structure of the Report**

1.6 The purpose of the Final Updated Environmental Report is to set out the final SEA assessment findings. These will be submitted to Scottish Ministers for consideration along with the final SG and other relevant documents prior to adoption. These findings will be subsequently submitted to the Consultation Authorities via the Scottish Government's SEA Gateway within the SEA Post Adoption Statement for the SG. It is anticipated that this will take place in Spring 2016.

1.7 **Section 2** of this Report sets out the feedback on the Environmental Report received from the statutory Consultation Authorities and how this has been considered. The final assessment of the SG is set out in **Section 3**, including mitigation and enhancement measures.

## 2. Feedback from Consultation Authorities

2.1 As part of the SEA process the consultative draft SG and the Environmental Report were subject to public consultation between 8 September 2015 and 30 October 2015. The Environmental Report was submitted to the statutory Consultation Authorities through the Scottish Government's SEA Gateway.

2.2 Responses to this part of the consultation process were received from the SEA Gateway on 30 October 2015. **Table 1** sets out the responses received from the Consultation Authorities and how their views and comments were considered.

2.3 No further comments relating to the Environmental Report were received during consultation on the consultative draft SG.

**Table 1: Taking Account of Consultation Responses**

Summary of comments	How the comment was taken into consideration
<b>Scottish Environment Protection Agency (SEPA)</b>	
<p><b>General comments</b> We note that the comments that we fed back at the scoping stage, in our role as a consultation authority, have been taken into account.</p> <p>For the purpose of proportionality and clarity this response will focus on issues that we consider to require action.</p>	Noted.
<p><b>Detailed comments</b> Appendix 3 – State of the Environment baseline – Water.</p> <p>We note that the trend direction for river flow is deteriorating. The reason given for this is an increase in annual flow rates. We do not consider that this increase is necessarily a negative effect. An increase in flow rates can reduce the effects of potential drought conditions. We consider that the trend direction for this indicator should be neutral.</p> <p>We note that the trend direction for flooding is improving. The reason given for this is an improvement to the Council's flood defence approach. Whilst we support this statement, climate change predictions indicate a potential worsening of the flooding situation. We consider that the trend direction for this indicator should be neutral.</p>	The baseline used within the Environmental Report is taken from the 2013 State of the Environment Report which was approved by the Council in 2013. The new SOE for 2015 will be presented to the relevant committee in early 2016 for approval. Both the status and trend for these indicators remain unchanged given recent local trends. Therefore, there is no proposed change to the Environmental Report.
<b>The Scottish Ministers (Historic Environment Scotland)</b>	
<p><b>General Comments</b> Ministers have sought the advice of Historic Environment Scotland on the Environmental Report. Ministers are content with the adequacy of the assessment in relation to the historic environment but would refer you to Historic Environment Scotland's comments.</p>	Noted.
<p><b>Question 1:</b> 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 assessment results identified in Table 1?</p> <p><b>Answer:</b> Yes.</p>	Noted.
<p><b>Question 2:</b> Do you agree that the common themes arising from the objectives of the PPS listed in Table 1 noted in section 2.10?</p> <p><b>Answer:</b> Yes.</p>	Noted.

Summary of comments		How the comment was taken into consideration						
<p><b>Question 3:</b> Have the correct environmental issues been identified and opportunities realised within the context of the SG in section 4 and Appendix 3?</p> <p><b>Answer:</b> Yes.</p>	Noted.							
<p><b>Question 4:</b> Do you agree with the revised SEA objectives and assessment criteria in Table 5?</p> <p><b>Answer:</b> Yes. The changes to the historic and cultural heritage indicator question, which reflect Historic Scotland's advice at Scoping, are welcome.</p>	Noted. We appreciate your help with this.							
<p><b>Question 5:</b> Do you agree with the alternatives to the draft SG and results in Table 6?</p> <p><b>Answer:</b> Yes.</p>	Noted.							
<p><b>Question 6:</b> 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?</p> <p><b>Answer:</b> Table 7: the potential for impacts on the setting of historical environmental assets from onshore wind developments is a key environmental effect, and should have been included.</p> <p>Table 8: cumulative impacts to the setting of historic environment assets should have been included here, as these types of impact are a significant and frequent issue in the context of renewable energy development.</p>	<p>Although this (Table 7) was not explicitly stated in the Environmental Report, the SG fully addresses this concern at paragraph 6.91. For consistency, Table 7 shall be updated to include this statement.</p> <p>Thank you for bringing the oversight at Table 8 to our attention. We have now included this within the SG and updated Table 8 accordingly.</p>							
<p><b>Question 7:</b> 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?</p> <p><b>Answer:</b> Yes.</p>	Noted.							
Scottish Natural Heritage (SNH)								
<p><b>1. Identification of relevant existing PPS</b> Our <i>Strategic Locational Guidance for Onshore Wind Farms in respect of the Natural Heritage</i> (2009) has now been replaced by our guidance on <i>Spatial Planning for Onshore Wind Turbines – Natural Heritage Considerations</i> (June, 2015). We recommend that Appendix 2 is amended to reflect this.</p>		Thank you. This reference has been added to Appendix 2 of the Environmental Report.						
<p><b>2. Identification of Environmental Issues</b> The ER notes the general environmental issues associated with the development of the SG. Table 4 could however identify the more specific issues, and their broad causes, directly associated with the SG. For example, Table 4 could be amended to also include reference to the following:</p> <table border="1"> <thead> <tr> <th>Topic</th> <th>Specific identified issue and cause</th> <th>Opportunities and Implications</th> </tr> </thead> <tbody> <tr> <td>Biodiversity</td> <td> <ul style="list-style-type: none"> <li>- Potential individual and cumulative direct and indirect impacts on the notified interests of statutory designated sites from the effects of development, for example through collisions with turbines or habitat loss/disruption from development.</li> <li>- Potential direct and indirect</li> </ul> </td> <td>The existing second sentence could be amended to read "<i>It will promote development in less sensitive locations and safeguard existing sensitive sites, habitats and species</i>".</td> </tr> </tbody> </table>		Topic	Specific identified issue and cause	Opportunities and Implications	Biodiversity	<ul style="list-style-type: none"> <li>- Potential individual and cumulative direct and indirect impacts on the notified interests of statutory designated sites from the effects of development, for example through collisions with turbines or habitat loss/disruption from development.</li> <li>- Potential direct and indirect</li> </ul>	The existing second sentence could be amended to read " <i>It will promote development in less sensitive locations and safeguard existing sensitive sites, habitats and species</i> ".	Table 4 of the Environmental Report sets out a summary of the key broad environmental issues which affect South Lanarkshire. The more specific issues associated with the SG are set out by environmental issue in Table 3.
Topic	Specific identified issue and cause	Opportunities and Implications						
Biodiversity	<ul style="list-style-type: none"> <li>- Potential individual and cumulative direct and indirect impacts on the notified interests of statutory designated sites from the effects of development, for example through collisions with turbines or habitat loss/disruption from development.</li> <li>- Potential direct and indirect</li> </ul>	The existing second sentence could be amended to read " <i>It will promote development in less sensitive locations and safeguard existing sensitive sites, habitats and species</i> ".						

Summary of comments			How the comment was taken into consideration
	<p>negative impacts on the conservation status of protected species through, for example, collision with turbines or disturbance from development.</p> <ul style="list-style-type: none"> <li>- Potential for the direct and indirect loss of, or damage to, habitats due to development.</li> </ul>		
Soil	<ul style="list-style-type: none"> <li>- Potential loss of, or disturbance to, peatland from development.</li> </ul>	No comments.	
Material assets	<ul style="list-style-type: none"> <li>- Potential loss of, or damage to, the Core Path Network from development.</li> </ul>	No comments	
Landscape	<ul style="list-style-type: none"> <li>- Potential for development to harm the setting of settlements.</li> <li>- Potential for development to negatively affect landscape character.</li> <li>- Potential for cumulative impacts in areas of existing development.</li> </ul>	No comments.	
<p><b>3. Assessment of likely significant effects and identification of mitigation measures</b></p> <p>Including some commentary text which explicitly explains how the SEA objectives are affected by the SG and which of these effects are considered significant would help make the assessment of likely significant effects more transparent.</p> <p>We have reviewed the contents of the SG against the requirements of Scottish Planning Policy and the policies contained elsewhere in the Local Development Plan (LDP) and its associated SG. We consider that, without mitigation, significant adverse effects on biodiversity, soils, material assets and landscape may arise as a result of the SG. The rationale for our views is set out in the table attached at annex 1 for your information. <b>[attached]</b> However, we consider that in Table 9, the ER has largely clearly identified the measures that will prevent, reduce, or offset any such effects. We recommend that you consider adding reference to sections 5.9 – 5.25 of the SG and to relevant policies elsewhere in the LDP and associated SG in Table 9, as these are also relevant to the prevention, reduction or offsetting of any significant adverse impacts.</p>			<p>The rationale for the completion of the matrix at Appendix 4 is set out in Table 7: Summary of key environmental effects and receptors. This provides an explanation for the scoring within the matrix for each SEA objective against the various types of renewable energy.</p> <p>Thank you for your advice with regard to adding additional policy references to Table 9. We have updated Table 9 as suggested.</p>
<p><b>4. Monitoring</b></p> <p>We note that a monitoring plan, which will use a range of indicators against which progress against each environmental factor will be measured, is being developed. We would be pleased to offer comment on this if you find it helpful.</p>			Noted.

## Scottish Natural Heritage's Annex 1

Topic	SEA Objectives	Assessment criteria	How are these addressed by SG?	Significant Impacts Likely?	Mitigation
Biodiversity	To protect and enhance biodiversity and functioning habitats and avoid irreversible loss.	<p>Does the SG promote the protection of designated and non-designated habitats and species?</p> <p>Does the SG promote the connectivity and integration of priority habitats?</p> <p>Does the SG protect and enhance biodiversity within the local environment?</p> <p>Does the SG consider cumulative impacts on species and habitats?</p> <p>Does the SG help protect and enhance carbon rich soils, deep peat and priority peatland habitat?</p>	<p><u>Designated sites</u> Identified as areas of significant protection. Refers to Natural and Historic Environment SG policies. Proposals affecting Natura sites must demonstrate no adverse effects on site integrity for consent to be granted.</p> <p><u>Protected species</u> Refers to Natural and Historic Environment SG policies.</p> <p><u>Non-designated habitats and species/wider biodiversity</u> Refers to Natural and Historic Environment SG policies. Encourages account to be taken of LBP. HMPs for some developments. Forestry Plans where woodland affected.</p> <p><u>Cumulative impacts</u> Cumulative impact assessments to be provided as required.</p> <p><u>Peatland</u> Identifies areas of significant protection. Requires disturbance to be minimised and compliance with good practice.</p>	Possibly (for example, although Group 2 areas of significant protection, development <i>could</i> be located within Natura/other designated sites)	<p>Requirements to:</p> <ul style="list-style-type: none"> <li>• Avoid effects on Natura site integrity/avoid effects on integrity/qualities of other designated sites.</li> <li>• Substantially overcome impacts on Group 2 areas through siting, design, other mitigation.</li> <li>• Assess impacts at project level and mitigate/reduce/compensate for</li> <li>• Only allow adverse impacts in very limited circumstances set out in SG and other LDP policies.</li> </ul>

Soil	To prevent soil deterioration and erosion and protect carbon sequestration	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?	As above re designated sites and peatlands	As above.	As above re designated sites and Group 2 peatland. Also LDP development management policy requires no significant adverse effects on soil.
Material assets	To promote the effective and sustainable use of land and other material assets	Does the SG protect and support the improvement and quality of recreational opportunities?  Does the SG take account of land reform issues and the Core Paths Plan?	SG requires views from key tourist routes are not adversely affected to an unacceptable degree. Full assessment of impacts on recreational facilities (inc. Core paths) to be made. Access Management Plans to be prepared by developers.	Possibly – SG cannot control where development in category 3 areas is proposed, therefore there could be significant effects on recreational facilities without mitigation.	SG requires appropriate assessment to be undertaken/mitigation to be identified at project stage. LDP/SG policies protecting Green Networks/Core Paths.
Landscape	Maintain, enhance and protect the quality of landscape character	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?	Promotes use of Landscape Capacity Study to guide development to appropriate character areas. Developments in SLAs to take account of qualities. Identifies areas of cumulative impact and landscape objectives for these.	Yes – always likely to be some schemes with significant individual or cumulative impacts, especially turbines.	Project level assessment of impacts required. LDP/SG policies against which development proposals will be considered include effects on landscape and visual amenity and impacts on SLAs. LDP development management policy requires no significant adverse effects on landscape character.



### 3 Final SEA of Supplementary Guidance Renewable Energy

3.1 This section sets out the final assessment of the SG. The initial assessment was carried out at the consultative draft SG stage and the findings were reported in the Environmental Report.

3.2 The environmental consequences of the SG were assessed through a prediction and evaluation assessment. The main focus of the assessment was how the draft SG promoted sustainable economic growth while at the same time, protecting and enhancing the environment in line with the vision of the SLLDP. The SEA considered 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.

3.3 The assessment and the summary of key environmental effects and receptors have been updated to reflect comments received during consultation of the Environmental Report. The comments received were helpful in preparing the final assessment.

3.4 Following public consultation, a number of revisions were made to the SG to reflect the consultation responses received. These did not introduce any new policy issues and largely related to rewording of the SG to improve clarity. Therefore, there is no change to the assessment conclusions of the SEA undertaken of the draft SG.

3.5 The final full assessment table is depicted in **Appendix 1** and **Table 2** provides a summary of the key environmental effects. These replace Appendix 4 and Table 7, respectively, from the first Environmental Report.

**Table 2: Summary of Key Environmental Effects and Receptors**

Onshore Wind
<b>Population</b> – Onshore wind development can potentially reduce dependency on fossil fuels and associated air quality issues which can impact on health.
<b>Biodiversity</b> – 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.
<b>Soil</b> – 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.
<b>Water</b> – 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.
<b>Air, Noise and Light</b> - 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.
<b>Climatic Factors</b> – 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.
<b>Material Assets</b> – 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.

<p><b>Historic and Cultural Heritage</b> – 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. There is potential for impacts on the setting of historical environmental assets from onshore wind developments.</p>
<p><b>Landscape</b> – 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.</p>
<p><b>Biomass</b></p>
<p><b>Population</b> – 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.</p>
<p><b>Biodiversity</b> – No significant effects identified.</p>
<p><b>Soil</b> – No significant effects identified.</p>
<p><b>Water</b> – No significant effects identified.</p>
<p><b>Air, Noise and Light</b> – 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><b>Climatic Factors</b> – Biomass development will reduce reliance on fossil fuels and associated greenhouse gas emissions.</p>
<p><b>Material Assets</b> – No significant effects identified.</p>
<p><b>Historic and Cultural Heritage</b> – No significant effects identified.</p>
<p><b>Landscape</b> – No significant effects identified.</p>
<p><b>Hydropower</b></p>
<p><b>Population</b> – Hydropower developments can potentially reduce dependency on fossil fuels and associated air quality issues which can impact on health.</p>
<p><b>Biodiversity</b> – 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><b>Soil</b> – 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><b>Water</b> – 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><b>Air, Noise and Light</b> – No significant effects identified.</p>
<p><b>Climatic Factors</b> - Hydropower development will reduce reliance on fossil fuels and associated greenhouse gas emissions.</p>
<p><b>Material Assets</b> – 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><b>Historic and Cultural Heritage</b> – 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><b>Landscape</b> – 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><b>Domestic Micro-Renewables</b></p>
<p><b>Population</b> – Domestic micro renewables can potentially reduce dependency on fossil fuels and associated air quality issues which can impact on health.</p>
<p><b>Biodiversity</b> – 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><b>Soil</b> – No significant effects identified.</p>
<p><b>Water</b> – No significant effects identified.</p>

<b>Air, Noise and Light</b> – No significant effects identified.
<b>Climatic Factors</b> – Domestic micro-renewables will reduce reliance on fossil fuels and associated greenhouse gas emissions.
<b>Material Assets</b> – No significant effects identified.
<b>Historic and Cultural Heritage</b> – 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.
<b>Landscape</b> – No significant effects identified.
<b>Solar</b>
<b>Population</b> – Solar developments can potentially reduce dependency on fossil fuels and associated air quality issues which can impact on health.
<b>Biodiversity</b> – No significant effects identified.
<b>Soil</b> – No significant effects identified.
<b>Water</b> – No significant effects identified.
<b>Climatic Factors</b> - Hydropower development will reduce reliance on fossil fuels and associated greenhouse gas emissions.
<b>Air, Noise and Light</b> - 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.
<b>Material Assets</b> – No significant effects identified.
<b>Historic and Cultural Heritage</b> – 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.
<b>Landscape</b> – 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.
<b>Other Renewables</b>
<b>Population</b> – Renewable energy developments can potentially reduce dependency on fossil fuels and associated air quality issues which can impact on health.
<b>Biodiversity</b> – Potential significant effects are presently unknown.
<b>Soil</b> – No significant effects identified.
<b>Water</b> – Significant effects are presently unknown. There may potentially be effects on ground waters from large scale renewable processes which involve underground works.
<b>Climatic Factors</b> – Renewable energy developments will reduce reliance on fossil fuels and associated greenhouse gas emissions. Other effects are presently unknown.
<b>Air, Noise and Light</b> -. No significant effects identified.
<b>Material Assets</b> – No significant effects identified.
<b>Historic and Cultural Heritage</b> – 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.
<b>Landscape</b> – Potential significant effects are presently unknown.

3.5 The assessment identified proposed actions to assist in the delivery of sustainable economic growth as outlined in the policy direction within the SLLDP. The actions taken should ensure the promotion, prevention, reduction and offsetting of any significantly adverse effects or enhancement opportunities on the environment.

3.6 The findings from the SEA 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.

3.7 A summary of the environmental effects identified have been updated as set out below:

1. 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.
2. 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.
3. 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 recognises the importance of these assets through both its spatial framework for wind energy and detailed guidance.
4. 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.
5. 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.
6. 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.
7. 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 addresses the environmental impacts associated with the disposal of peat and forestry waste.
8. There is potential for cumulative impacts on the setting of historic environmental assets. This has now been addressed in the SG at paragraph 6.91. 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.
9. There may be cumulative effects on landscape through renewable energy developments, particularly wind energy. The SG sets out safeguards to reduce negative impacts, requiring wind energy developments to provide a cumulative impact assessment.

3.8 The assessment highlighted that both the physical and natural environment we are exposed to are important in promoting healthy lifestyles and creating sustainable communities. It

demonstrated that the SG should result in positive effects across a wide range of environmental issues particularly in terms of human health and climatic factors. However, where potential negative or positive effects were identified, mitigation and enhancement measures have been developed.

3.9 Table 3 sets out the mitigation and enhancement measures identified through the assessment of the SG (Appendix 1) 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 3: Mitigation and enhancement measures identified through SEA**

<p><b>Measure:</b> Minimise effects on species and habitats from renewable energy developments.</p> <p><b>Action Taken:</b></p> <ul style="list-style-type: none"> <li>• The SG will require that the appropriate guidance for the protection of species and habitats is adhered (SG paras 4.9 – 4.10; 6.7 – 6.26).</li> <li>• 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 6.12).</li> <li>• All development proposals must also comply with Policy 15: Natural and Historic Environment in SLLDP and the designation-specific policies in the Natural and Historic Environment SG.</li> </ul>
<p><b>Measure:</b> Minimise effects on carbon rich soils and peatlands.</p> <p><b>Action Taken:</b></p> <ul style="list-style-type: none"> <li>• The SG will require that the appropriate guidance for the protection of carbon rich soils and peatlands is adhered to (SG paras 13 – 16; 6.77 + 6.82).</li> <li>• 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 6.79 6.80).</li> <li>• All development proposals affecting peatland must also comply with Policy 15: Natural and Historic Environment in SLLDP and Policy and policy NHE15 in the Natural and Historic Environment SG.</li> </ul>
<p><b>Measure:</b> Minimise negative effects from emissions of particulate matter from biomass, biofuels and other renewables.</p> <p><b>Action Taken:</b></p> <ul style="list-style-type: none"> <li>• The SG will refer to SG1 – Sustainable Development and Climate Change which sets out the Council’s planning policy on biomass development (SG para 20).</li> </ul>
<p><b>Measure:</b> Minimise negative effects to the water environment, through the construction, development and operation of renewable energy developments.</p> <p><b>Action Taken:</b></p> <ul style="list-style-type: none"> <li>• The SG will require sufficient information about potential Groundwater Dependent Terrestrial Ecosystems (GWTDEs) is provided during application stage, where required (SG para 6.118).</li> <li>• Where consent is given, the SG will require a Water Quality Management Plan to establish baseline water quality (SG para 6.115).</li> <li>• The SG will require Fisheries Habitat Surveys to be undertaken, where required (SG para 6.119).</li> </ul>

<p><b>Measure:</b> Potential noise and light effects from renewable energy developments are assessed.</p>
<p><b>Action Taken:</b></p> <ul style="list-style-type: none"> <li>• The SG will require appropriate assessments, for example, Noise Assessment and Glint or Glare Assessment, are carried out at application stage (SG paras 6.69; 6.43 – 6.45).</li> <li>• Development proposals must also comply with the general Development Management policy in the SLLDP (policy 4) which requires that there is no significant adverse impact on amenity as a result of light, noise, odours, dust or particulates.</li> </ul>
<p><b>Measure:</b> Ensure peat and forestry waste is disposed of appropriately during construction.</p>
<p><b>Action Taken:</b></p> <ul style="list-style-type: none"> <li>• The SG will set out that renewable energy developments must adhere to SEPA's Regulatory Position Statement (SG para 6.134).</li> </ul>
<p><b>Measure:</b> Minimise effects on cultural and historic assets.</p>
<p><b>Action Taken:</b></p> <ul style="list-style-type: none"> <li>• The SG will require appropriate assessment to be undertaken to safeguard such assets (SG para 6.91).</li> <li>• All development proposals must also comply with Policy 15 natural and Historic Environment in SLLDP and the designation-specific policies in the Natural and Historic Environment SG.</li> </ul>
<p><b>Measure:</b> Minimise effects on landscape.</p>
<p><b>Action Taken:</b></p> <ul style="list-style-type: none"> <li>• 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 6.27).</li> <li>• The SG will require all renewable energy developments to submit a Landscape Visual Impact Assessment, where appropriate (SG para 6.45).</li> <li>• All development proposals must also comply with policy NHE 16 Landscape in the Natural and Historic Environment SG.</li> </ul>
<p><b>Measure:</b> Minimise negative effects on woodlands.</p>
<p><b>Action Taken:</b></p> <ul style="list-style-type: none"> <li>• The SG will require wind energy developments to submit a Forestry Plan, where appropriate, including details of compensatory planting (SG paras 6.131 – 6.134).</li> </ul>
<p><b>Measure:</b> Opportunity to make connections to core path network and improve overall outdoor access which will support human health and wellbeing.</p>
<p><b>Action Taken:</b></p> <ul style="list-style-type: none"> <li>• The SG will require Access Management Plans to address the future management of sites for recreational access (SG para 6.86).</li> </ul>
<p><b>Measure:</b> Opportunity to promote public awareness of historic and cultural heritage assets.</p>
<p><b>Action Taken:</b></p> <ul style="list-style-type: none"> <li>• The SG will promote the use of signage and other interpretations to facilitate promotion of the area's historical and cultural assets (SG para 6.91)</li> </ul>

**Measure:**

Enhance opportunities to improve the area's biodiversity.

**Action Taken:**

- The SG will require Habitat Management Plans to be prepared, where appropriate (SG paras 6.12 – 6.16).

**Measure:**

Opportunity to enhance the management of woodlands.

**Action Taken:**

- The SG will require wind energy developments to submit Forestry Plans, where appropriate, including details of compensatory planting (SG paras 6.131 – 6.135).

**Appendix 1: Prediction and evaluation of the effects of the SG**

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



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	?	+/-