South Lanarkshire

Local biodiversity

Draft Action Plan 2010-2015

Strategic Environmental Assessment

Environmental Report January 2010

South Lanarkshire BIODIVERSITY PARTNERSHIP

SEA Environmental Report – Cover note

PART 1	
To:	SEA.gateway@scotland.gsi.gov.uk or SEA Gateway Scottish Government Area 1H (Bridge) Victoria Quay Edinburgh EH6 6QQ

PART 2

An SEA Environmental Report is attached for the Plan, Programme or Strategy (PPS) entitled:

South Lanarkshire Local Biodiversity Action Plan

The Responsible Authority is:

South Lanarkshire Council

PART 3	
Contact name	Sian Williams
Job title	Biodiversity Officer
Contact address	Chatelherault Country Park Carlisle Road Hamilton ML3 7UE
Contact tel no	01698 426213
Contact email	Sian.williams@southlanarkshire.gov.uk

PART 4	
Signature (electronic signature is acceptable)	Sian Williams
Date	

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Non-technical Summary

The purpose of the Strategic Environmental Assessment (SEA)

The Environment Report summarises the Strategic Environment Assessment (SEA) on the **South Lanarkshire Local Biodiversity Action Plan** (LBAP), 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 LBAP.

The LBAP sets out the priorities for biodiversity conservation in South Lanarkshire for the short, medium and long term. It will set out the council and partnership's long-term biodiversity visions, the ways in which these visions can be met and how progress will be monitored.

The SEA process allows environmental considerations to be integrated into the LBAP. SEA allows potential environmental impacts to be predicted and mitigated against where necessary. The SEA process also allows the public and stakeholders to comment upon the development of the proposed Plan and its potential impacts.

The SEA has shown that the LBAP will have significant positive effects on the majority of environmental issues and where negative impacts have been identified, mitigation measures have been developed.

Alternatives

As part of the SEA, alternatives were considered for the South Lanarkshire LBAP. These alternatives were subject to an initial assessment and a summary of the results is set out in Table 1 below, including the justification for taking forward the draft alternative LBAP.

Table 1 Alternatives to the South Lanarkshire Local Biodiversity Action Plan

LBAP Alternatives	Taken forward	Rationale for consideration
1. Retain existing plan with no revision	**No**	The old plan is out of date and no longer meets all SEA objectives. The existing structure does not "fit" with national systems.
2. Disregard existing plan but do not develop replacement	**No**	There is a legal duty to protect biodiversity and so an LBAP document must be produced.
3. Review existing plan but do not develop new actions.	**No**	The old plan is out of date and no longer meets all SEA objectives. The existing plan is too cumbersome and many objectives are undeliverable and/ or cannot be monitored effectively. Retention of the existing plan would require it to be considerably streamlined.
4. Revise existing plan. Write new objectives and actions.	**Yes**	A new plan can adopt the new structure being developed at the national level. Actions will be SMART and will fit into BARS.

SEA of the South Lanarkshire LBAP: Methods and Results

Assessment of Alternatives

Through the assessment of alternatives to the LBAP, option 4 was selected to be taken forward. It was considered that this was the only option that was technically, environmentally, socially and financially and that was compatible with the SEA objectives.

Assessment of Actions
The long and short term aims of the LBAP (through Tier 1 Objectives and Tier 2 Actions) were assessed through the assessment criteria using SEA objectives. Overall, the impact of the Plan was predicted to be positive.

Mitigation
The SEA process identified one long term aim which had the possibility of having a negative impact upon the environment. As a result of the assessment, the wording of the aim was altered from "a series of upland blocks, supporting a mosaic of habitats and a diverse range of species" to "a mosaic of habitats supporting a diverse range of native species".

Several other potential negative impacts of the Plan were identified. These were:

1. "Forest Expansion for Carbon Management": this long term aim has the potential to have a negative impact upon the environment if important habitats are lost to indiscriminate woodland expansion. Furthermore planting of trees for Carbon management may result in areas of dense, single-aged non-native monoculture which would not be in the best interests of biodiversity.
   The LBAP steering group will not support woodland expansion/ creation in areas where such activity will have a negative impact upon existing biodiversity. The LBAP Partnership will encourage new planting schemes to be "biodiversity friendly" and will provide support where appropriate to achieve this.
2. Increasing areas of certain habitats could result in the loss of other valued habitats.
   The progress of the LBAP will be monitored for unexpected adverse effects on other habitats and species. If adverse effects are found to be occurring, the action will be reassessed by the LBAP Steering Group and work on that action may be stopped. Tier 3 project proposals which may have a negative impact upon habitats/ species will not be approved by the LBAP Partnership.
3. Work on habitats for specific species could have detrimental effects on other species which are reliant upon the habitat.
   As for point 3.

Monitoring and Adoption
This Environmental Report sets out a list of proposed indicators which would be used to monitor the environmental effects of the South Lanarkshire LBAP. Following adoption of the final strategy, a post-adoption statement will be produced which will set out the final monitoring framework. This will also provide information regarding how SEA and comments from the consultation have been taken into account in the final development of the plan.

Recommendations
The following points have been highlighted in the SEA assessment as requiring action. However, at this stage there are insufficient resources available to be able to implement them successfully. It is hoped that resources may become available in the future for such actions to be progressed. Additionally, some issues may be progressed at a national level and the LBAP will be updated to reflect any such changes which may occur in the future.

Actions for LBAP (as a result of SEA):
- Produce a monitoring strategy for indicator species.
- Produce a monitoring strategy for invasive species.
- Develop site condition monitoring criteria for woodland (and other habitats) outwith designated sites which include indicator species. Implement monitoring criteria.
- Take due cognisance of soil ecosystems.

Actions to be considered at a regional/ national level:

- Produce a monitoring strategy for invasive species.
- **Develop a monitoring programme for wetland habitats.**
- **Integrate floodplains and waterways into the strategic green network, possibly through the development of a blue/ blue- green network.**
- Develop site condition monitoring criteria for woodland out with designated sites which include indicator species. Implement monitoring criteria.
- Develop criteria to monitor the biodiversity value of SUDs developments. Implement criteria.
- Develop a national species monitoring programme to monitor ecosystem health.

1. Introduction

1.1 Background Information

South Lanarkshire Council has published the draft Local Biodiversity Action Plan (referred to hereafter as draft LBAP) on behalf of the South Lanarkshire Biodiversity Partnership. The draft LBAP aims to set out the priorities for biodiversity conservation in South Lanarkshire for the short, medium and long term. The development of the consultation draft LBAP has been informed by a Strategic Environmental Assessment (SEA).

This report constitutes an Environmental Report (ER) in accordance with the requirements of the EC SEA Directive (2001/42/EC) and the Environmental Assessment (Scotland) Act 2005. It sets out the likely significant environmental effects (positive and negative) of implementing the draft LBAP identified through the SEA. The overall aims of SEA are to:

- Provide a high level of environmental protection, integrating environmental decision making into the preparation of the draft LBAP;
- Ensure that the likely significant effects on the environment of implementing the draft LBAP are identified, described, evaluated and taken into account before the LBAP is adopted;
- Assess reasonable alternatives, taking into account the objectives and geographical scope of the draft LBAP, are evaluated for their likely significant environmental effects and inform the nature and content of the proposed LBAP; and
- Ensure an opportunity for public participation in environmental decision through the consultation of both the ER and the draft LBAP.

1.2 Purpose of this Environmental Report

As part of the preparation of the South Lanarkshire LBAP, South Lanarkshire Council carried out a Strategic Environmental Assessment (SEA). The SEA is a systematic method for considering the likely environmental effects of certain Plans Programmes and Strategies (PPS). The SEA aims to:

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

The SEA was undertaken through the legal requirements set out within the Environmental Assessment (Scotland) Act 2005, with key stages including:

Screening The Screening process and report sets out to determine whether the draft PPS is likely to have any significant environmental effects and whether an SEA is required.

Scoping The Scoping Report provides detail on assessment methodology which includes the scope of environmental issues considered and the level of the assessment, in line with the draft PPS. The Scoping Report also provides detail of the content of the Environmental Report and the consultation period for both the ER and the Draft PPS.

Environmental Report	The Environmental Report provides detailed information on the outcome of the SEA, including information on the environmental issues scoped in to the assessment and the predicted environmental effects associated with implementing the draft PPS. The report also highlights how the assessment has developed the draft PPS, which are both consulted upon at the same time through the consultation process.
Post Adoption	The Post Adoption Statement provides information on the adoption process of the PPS which includes how consultation comments were taken into account through finalising the PPS and the methodology for monitoring significant environmental effects and potential mitigation measures associated with the implementation of the PPS.
Monitoring	Monitoring of the PPS should allow for the early identification of any unforeseen adverse effects associated with the implemented PPS and provide a means for appropriate remedial action to be undertaken.

The purpose of an ER is to provide the relevant information to support consultation on the draft LBAP and provide a summary of the SEA process - identifying, describing and providing an evaluation of the likely significant effects on the environment of implementing the Plan. The purpose of this Environmental Report is to:

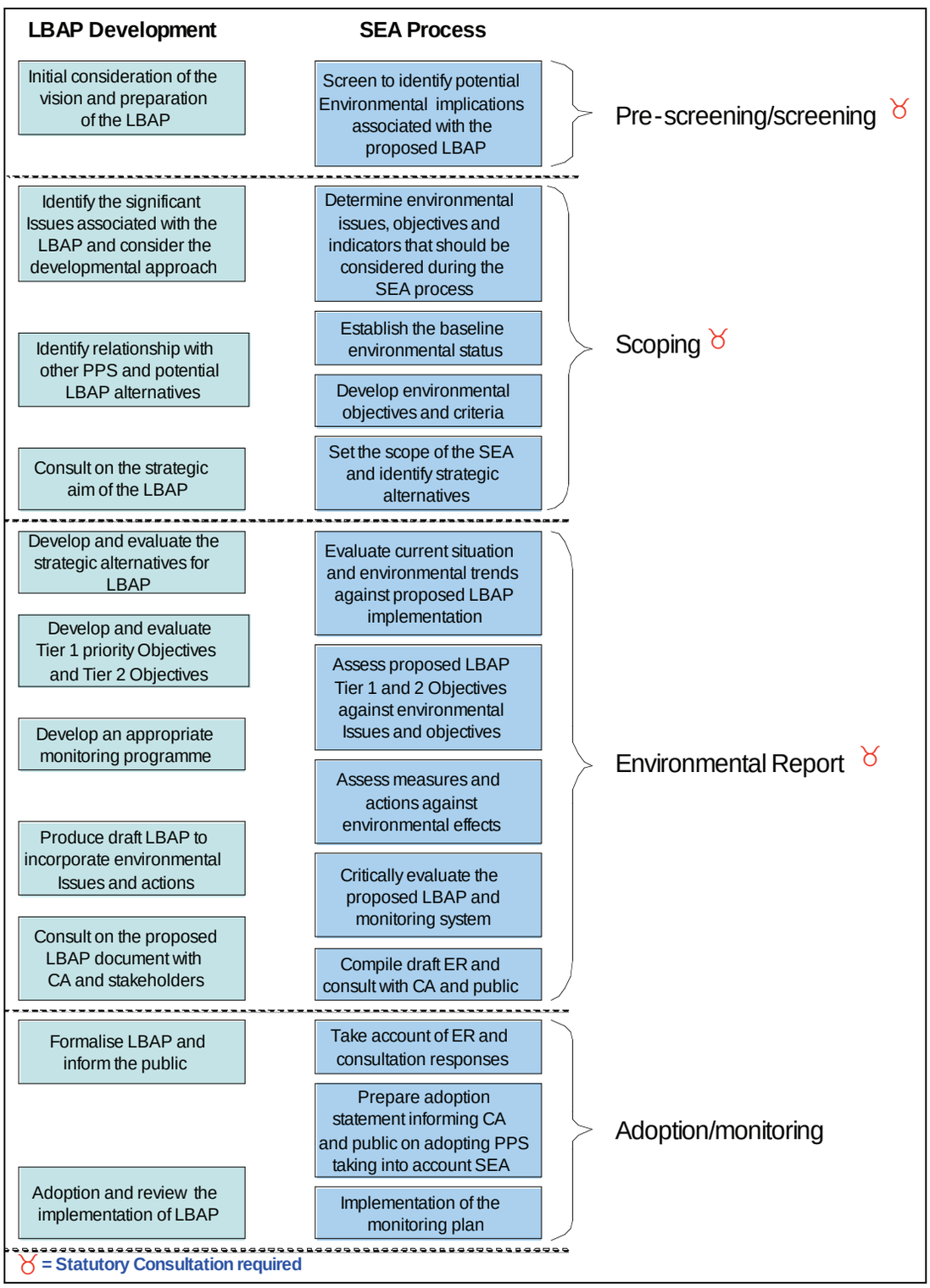
- provide information on the South Lanarkshire Local Biodiversity Action Plan;
- identify, describe and evaluate the likely significant effects of the Plan and its reasonable alternatives; and
- provide an early and effective opportunity for the Consultation Authorities and the public to offer views on any aspect of the draft Plan and the environmental issues identified within the ER.

The draft LBAP and the ER have been made available to the public and Consultation Authorities (Historic Scotland, Scottish Environment Protection Agency and Scottish Natural Heritage) as part of a public consultation exercise which is required by the Environmental Assessment (Scotland) Act 2005. The ER describes the assessment of the draft LBAP's proposed objectives/actions and 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 implementing the draft LBAP identified through the SEA process. The ER sets out a proposed framework for monitoring the potential significant effects of implementing the LBAP.

1.3 Integrating SEA with LBAP development

The SEA has been undertaken as part of the development of the LBAP which has enabled any potential environmental impacts to be identified at an early stage and mitigation or enhancement measures taken into account. **Figure 1** provides an overview of how the SEA was integrated within the development of the draft LBAP. The development of the draft LBAP has taken into consideration the outcomes from the SEA process, including the development of mitigation and enhancement measures, formal consultation of the scoping report and a review of comments received.

Figure 1 Illustrates the development of LBAP through the SEA process



1.4 SEA Methodology

The South Lanarkshire LBAP is intended to have long and medium-term objectives and actions that are set at a strategic plan level therefore the overall nature of the potential environmental effects could depend on the actions and projects that are implemented at a more local level. Therefore, the assessment has been pitched at the strategic level, without assessing the site specific project level. The approach taken throughout the assessment was to identify areas of potential environmental risk and opportunity associated with the implementation of the LBAP. The implementation of the Tier 3 projects will follow the principles identified and informed through the SEA and the principle aims and text within the LBAP. As the SEA informed the development of the draft LBAP, **Section 4** describes how Tier 1 Objectives and Tier 2 Actions were developed.

A tiered approach was taken to assess the draft LBAP. The overall approach to the SEA of the draft LBAP follows the legislative requirements of the Environmental Assessment (Scotland) Act 2005 and the guidance provided by the Scottish Governments SEA Toolkit. Following the formal determination that an SEA was required for the development of the draft LBAP, the Council has undertaken the following and included each stage within the Environmental Report:

- Set out the strategic level and context of the assessment;
- Assess other PPS against the proposed draft LBAP to align environmental objectives;
- Refine the SEA objectives in line with the environmental baseline;
- Asses the strategic alternatives against the environmental issues;
- Assess the compatibility of Tier 1 Objectives against the SEA Objectives
- Evaluate the environmental effect of Tier 2 Actions against the SEA objectives;
- Develop the draft LBAP Tier 1 Objectives and Tier 2 Actions in line with SEA outcomes;
- Prepare the development of a monitoring strategy for the LBAP in line with the SEA requirements; and
- Prepare the draft Environmental Report to include above.

Assessment against PPS Environmental Objectives

The environmental objectives of key PPS were assessed against the strategic aim of the draft LBAP. This was to ensure that there were no conflicts with the aim of the draft LBAP and the environmental objectives of the PPS included in the assessment. The development of the SEA Objectives also considered the environmental objectives of the PPS assessed.

Assessment of LBAP alternatives

The assessment of reasonable alternatives informed the development of the draft LBAP by providing information on the environmental performance of the draft LBAP in relation to other reasonable alternatives. The assessment considered four strategic alternatives including the proposed new plan as set out below:

1. **Retain the existing plan with no revision.** Under this scenario, the existing SL LBAP would be retained. All current actions in the Plan would stand and would continue to be implemented and monitored as they are presently. Many of the actions are unlikely to be implemented (due to limited resource availability) work that is carried out is likely to be patchy in distribution and effectiveness.
2. **Disregard the existing plan but do not produce a new document.** Under this scenario the current LBAP and all actions within it will be disregarded. No revisions to the current Plan will be made and no new LBAP will be produced. Coordinated action for biodiversity conservation is unlikely to take place (although conservation work carried out by agencies and NGOs will continue on an organisation by organisation basis).

3. **Review the existing plan but do not develop new actions.** Under this scenario completed and out of date actions will be removed from the current Plan. No new actions will be developed. Efforts will be focussed on those outstanding actions which are still achievable given resource availability. There is the potential to assess effectiveness of efforts made against current actions.
4. **Produce a new LBAP.** This scenario will result in the production of a new LBAP. The current LBAP is reviewed and any relevant outstanding actions are incorporated into a new plan. A new plan will also incorporate changes in legislation and policy and will reflect changes in the National Biodiversity structures. New actions will be identified and a robust suite of measures and monitoring programme will be put into place. Biodiversity actions will bring benefits at an ecosystem (landscape) scale and will ensure future delivery of Ecosystem Services for the people of South Lanarkshire.

The aim in considering the alternatives is to inform and support the development of a well balanced LBAP that takes in to consideration the various constraints and opportunities identified through the assessment process. The assessment focused on identifying the key environmental strengths, weaknesses, opportunities and threats for each of the 4 alternatives, thus identifying the favoured alternative in terms of the best environmental outcome.

Assessment of draft LBAP Tier 1 Objectives

The assessment of the LBAP Tier 1 Objectives was undertaken as a compatibility analysis, aimed at identifying potential areas of conflict or support between the aims the Tier 1 Objectives and the aspirations of the SEA objectives. The compatibility analysis informed the development of the next tier of the SEA and the draft LBAP. The compatibility analysis identified areas where the LBAP lacked support for the SEA objectives and environmental issues that were potentially more vulnerable to the implementation of the draft LBAP (see **Section 4.3**).

Assessing the effects of draft LBAP Tier 2 Actions

Assessing the effects of the draft Tier 2 Actions were undertaken for each of the areas covered in the draft LBAP. The assessment followed a detailed matrix based approach which was supported by the assessment criteria, environmental significance criteria and the environmental baseline information. Some Actions were assessed as reoccurring Actions whilst others were grouped with similar actions. The Actions were then assessed for their potential environmental effects, with the significance criteria used to attribute the level and duration of significance (i.e. major positive to major negative and short to long term effect) (see **Section 4.4**).

Summary scores and comments were provided to highlight any cumulative or synergistic effects whilst mitigation measures were developed for adverse effects and enhancement measures for beneficial effects.

Developing the LBAP

The assessment outcomes directly informed the final development of the draft LBAP, with the mitigation and enhancement measures either informing the Tier 1 Objectives and/or Tier 2 Actions or were incorporated within the guidance text within the actual plan (see **Section 4.4** for a summary of the SEA outcomes and development process for the LBAP).

1.5 SEA Activities to Date

The SEA has followed a set process that has taken in to consideration the legal requirements within the Environmental Assessment (Scotland) Act 2005. **Table 2** summarises the SEA activities undertaken to date in relation to the development of the South Lanarkshire LBAP.

Table 2 SEA activity in relation to the development of the draft LBAP.

SEA Action/Activity	**Date carried out**	**Notes** (e.g. comment on data availability, particular issues or any advice from the Consultation Authorities that has now been taken into account)
Screening Report		
Screening Report was undertaken to determine whether the draft LBAP was likely to have significant environmental effects	*July 2008*	*Responses to screening received 28/7/08*
Scoping Report		
Outline and objectives of the PPS	*July 2008*	Presented in scoping report
Identifying the broad relationship with other PPS to inform the environmental objectives	*July 2008*	Presented in scoping report
Identify associated environmental issues	*July 2008*	Formed following an understanding of the environmental baseline and outlined in the scoping report
Development of potential LBAP alternatives	*August 2008*	Presented in the scoping report
Development of the environmental assessment method to be undertaken	*September 2008*	Established in the scoping report
Selection of PPS alternatives to be included in the environmental assessment	*September 2008*	Presented in the scoping report
Submission of the Scoping Report for consultation, providing the scope and detail of assessment and the consultation period for the Environmental Report	*October 2008*	*Responses to scoping received 12/11/08*
Environmental Report		
Identify and gather appropriate environmental baseline data to inform the assessment process and identify trends in the baseline	*January 2009*	Baseline data and environmental trends were provided through the Council's draft State of the Environment Report. Some external environmental baseline data has been difficult to obtain.
Identify potential environmental problems associated with implementation of draft plan.	*January 2009*	Formed following an understanding of the environmental baseline.
Assess the future of the environment without the implementation of LBAP	*March 2009*	Presented in the scoping report
Assess the relationship with other PPS with consideration to the environmental data to inform revised environmental objectives	*June 2009*	Updated in Appendix 2 of this report
Assess LBAP alternatives against environmental issues	*June 2009*	Presented in the Environmental Report
Compatibility assessment undertaken on Tier 1 Objectives against environmental objectives	*July 2009*	Presented in the Environmental Report

Compatibility and evaluation assessment of Tier 2 Actions against environmental objectives	*July 2009*	Presented in the Environmental Report
Identification of environmental problems that may persist after implementation and measures envisaged to prevent, reduce and offset any significant adverse effects	*October 2009*	
Development of the monitoring programme aimed at both SEA and LBAP requirements	*October 2009*	Presented in the Environment Report
consultation timescales • Timescale for Consultation Authorities • Timescale for public	*October 2009*	Outlined in Environment Report
notification/publicity action	November 2008 - ongoing	Screening determination issued. The availability of the LBAP and Environmental Report will be advertised in accordance with legislative requirements. Statutory consultation periods will be observed and responses will be considered.

2. Policy Context and Assessment Associated with LBAP

2.1 Outline and Objectives of the South Lanarkshire LBAP

Schedule 3 of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes "*an outline of the contents and main objectives of the plan or programme*". The purpose of this section is to explain the nature, contents, objectives and timescale of the LBAP.

In 1992 over 150 government leaders signed the Convention on Biological Diversity, agreeing to ensure that biodiversity in their country would be protected and enhanced. The UK's response was to carry out an audit of wildlife and habitats and for those species and habitats which were identified as requiring conservation action, an action plan was prepared.

Local Biodiversity Action Plans are a contribution to the UK Biodiversity Action Plan, and set out how wildlife and habitats will be conserved at a local level. Although it is not a statutory requirement to produce an LBAP, there is an expectation that LBAPs will be produced by councils, either singularly or as part of a partnership. The production of an LBAP document is considered good practice and contributes towards meeting the statutory duty to protect biodiversity placed on all public bodies by the Nature Conservation (Scotland) Act 2004.

An initial South Lanarkshire LBAP was published in 2003. With the advent of devolution, the Scottish Biodiversity Forum was established and a list of priority species and habitats was produced. In addition the UK priority list has also recently been revised and the SL LBAP needs to take account of these changes. New actions will be specific and measurable.

The updated plan will consist of a series of actions designed to deliver biodiversity conservation across South Lanarkshire. The document will be presented in 3 tiers with Tier 1 Objectives representing the long term vision of the plan. Tier 2 will present shorter term actions, as well as listing indicators and measures which can be used to assess progress towards meeting long term goals. Tier 3 will consist of a series of localised programmes and projects which will be discrete and cover short term timescales. These programmes and projects fall under the Tier 2 Actions in their delivery and will be developed and implements as required, as such Tier 3 has not been included in the assessment and Tier 2 Actions have been assessed with these programmes and projects in mind.

The document will also include sections providing advice to various user groups, including planners and developers. The plan will follow the Scottish Biodiversity Strategy structure when assigning species and habitats to "ecosystem" groups.

2.2 Relationship with other PPS and environmental protection objectives

Schedule 3 of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes an outline of the draft LBAP and the relationships with other relevant PPS, and how environmental protection objectives have been taken into account in the preparation of LBAP. This section covers these issues and describes and analyses the policy context within which the PPS operates, and the constraints and targets that this context imposes on the draft LBAP.

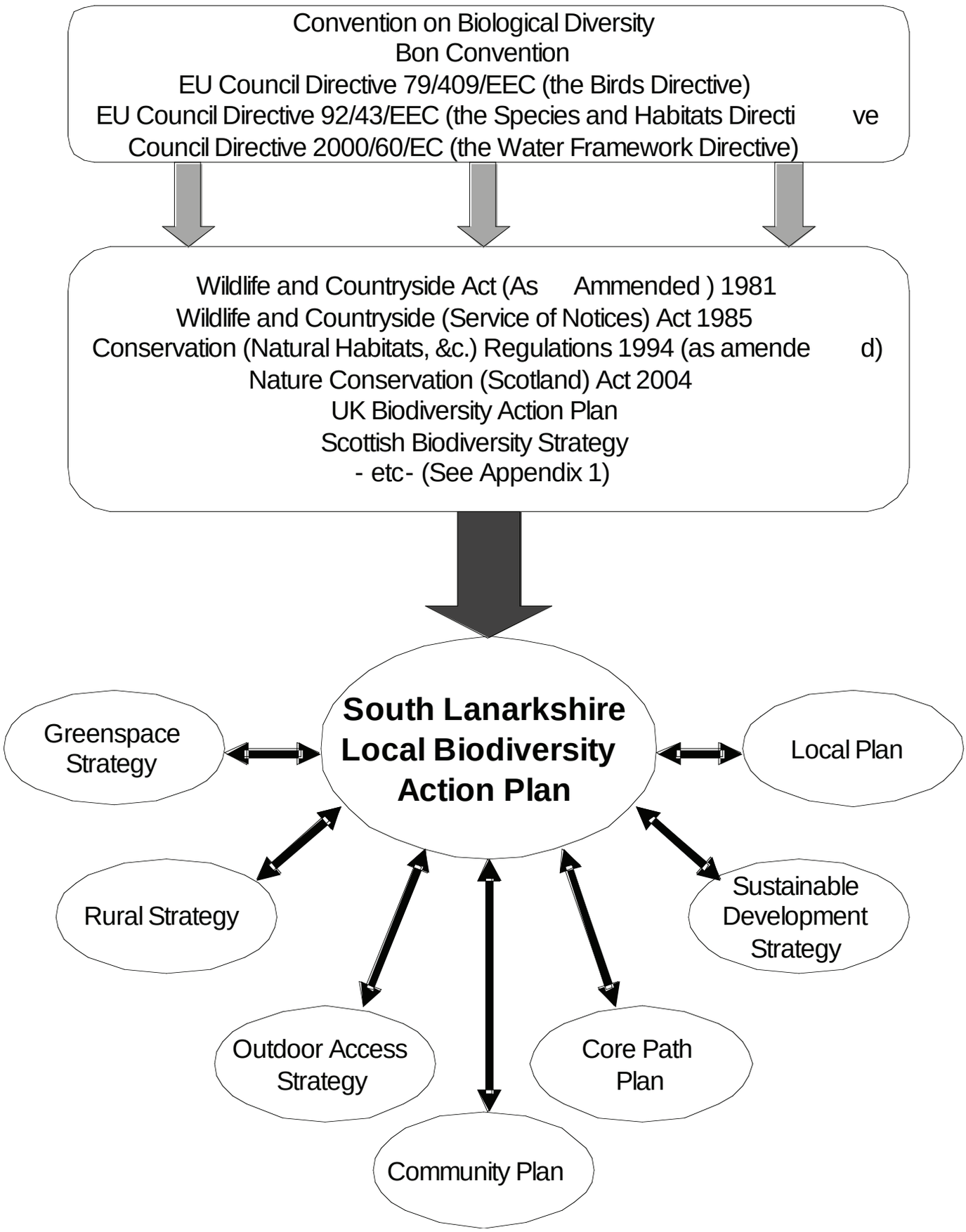
The South Lanarkshire LBAP will link into other existing PPS, whilst at the same time it is intended that it will be influenced and have an influence on future strategic planning within the Council. Particular areas of influence are likely to include the Greenspace Strategy, The Sustainable Development Strategy, The Core Path Plan and the Rural Strategy. The LBAP may also influence planning and local plan policy. The South Lanarkshire LBAP is directly and indirectly influenced be a number of international, national and regional PPS (see **Figure 2**).

The Countryside and Greenspace Service of South Lanarkshire Council administers and contributes towards the delivery of several interrelated strategies, namely:

- The Local Biodiversity Action Plan (LBAP)
- The Greenspace Strategy
- The Core Path Plan

As the LBAP sets out SLC policy for biodiversity conservation, each strategy produced by the Council should take cognisance of, and make reference to, this document.
At a project level, there are areas of considerable overlap in the aims and objectives of each of the 3 core Countryside and Greenspace strategies. Therefore, close working relationships between the officers administering the strategies will be maintained to ensure that work implemented under any one of the 3 strategies takes due note of the aims of the other strategies and, where possible, delivers multiple objectives drawn from each Plan. This process is facilitated by each strategy having the same reporting structure (namely the South Lanarkshire Sustainability Partnership) and the lead officers being based within the same team within the Council.

Figure 2 Relationship between the South Lanarkshire Local Biodiversity Action Plan and other International, National and Regional PPS.



The relationship between the South Lanarkshire LBAP and other PPS of International, EU, National, and Local significance are required to be analysed as part of the SEA process. A list of existing PPS which may effect or be affected by the LBAP and how they relate to relevant environmental issues are presented in **Appendix 1**. These have been analysed within the Environmental Report to establish their extent of influence, impact and relationship with the draft South Lanarkshire LBAP (**Appendix 1**).

The main policy principles relevant for the draft LBAP and the environmental issues within the SEA have been identified from common themes arising in the objectives of the plans and programmes listed in **Appendix 1**. These are:

- Conserve and enhance biological diversity.
- Maintain and enhance water quality.
- Promote sustainable use of resources.
- Integrate the principles of sustainable development into all policies and plans.

- Link into and contribute to the network of natural habitat and greenspace across the region. Create stepping stones, corridors and buffers where appropriate.
- Encourage developers and planning authorities to be positive and creative in addressing natural heritage issues.
- Safeguard and protect designated natural heritage and conservation sites.
- Protect, and where appropriate, enhance the historic environment.

3. Environmental Baseline

3.1 Introduction to the Local Environmental

Schedule 3 of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes a description of "*the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme*", and "*the environmental characteristics of areas likely to be significantly affected*". This section aims to describe the environmental context within which the draft LBAP operates and the constraints and targets that this context imposes on the plan. The full environmental baseline for South Lanarkshire can be found in the Council's State of the Environment Report, 2009 (currently in draft).

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

3.2 The South Lanarkshire Area

South Lanarkshire is the fifth largest populated local authority in Scotland covering an area of 650 square miles (1,722 km^2) mainly within the catchments of the River Clyde and its major tributaries the Douglas Water, Nethan, Avon and Rotten Calder. The landscape of the area is varied ranging from moorland and upland areas in the south and east, through extensively farmed agricultural lowlands and onto the highly urbanised fringes of the Glasgow conurbation with the major settlements of Hamilton, East Kilbride, Cambuslang and Rutherglen being particularly prominent (**Figure 3**).

Figure 3: Map showing the boundary of South Lanarkshire and main settlements.

3.3 Collecting Environmental Baseline Data

In establishing the environmental baseline for the SEA the environmental topics listed in Schedule 3 of the Environmental Assessment (Scotland) Act 2005 must be taken in to account. The relevant environmental information was primarily sourced from the Council's State of the Environment Report (2009), the Scottish Environment Protection Agency, Historic Scotland, Scottish Natural Heritage and the Forestry Commission Scotland.

The collection of the baseline information also served to support the future monitoring programme for the implementation of the LBAP, through the identification of key indicators. The environmental baseline information was also identified in parallel with the development of the draft LBAP Tier 1 Objectives in order to ensure that the most relevant data was used.

The current status, trend and key environmental issues are considered in the environmental topics relevant to the draft LBAP. The following sections are structured around the nine SEA topics listed below and the range of environmental issues required for consideration within the baseline assessment:

Environmental Issues

1. Biodiversity, Habitats, Flora and Fauna
2. Population and Human Health
3. Soil
4. Water
5. Air
6. Climate Factors
7. Material Assets
8. Cultural Heritage
9. Landscape

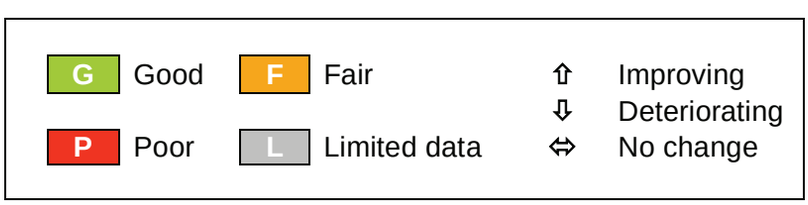
Consideration issues

a. The inter-relationship between the issues referred to in heads (i) to (xii)
b. Short, medium and long term effects;
c. Permanent and temporary effects
d. Positive and negative effects
e. Secondary, cumulative and synergistic effects

3.4 The Environmental Baseline for South Lanarkshire

The environmental baseline for South Lanarkshire has been compiled and is presented within this section. The majority of the information has been sourced from the South Lanarkshire State of the Environment Report (currently under publication), with the current status of key environmental indicators illustrated using trends from past data sets. The indicators used to illustrate status and trend direction for the environmental baseline data and future data without LBAP (**Section 3.6**) are shown in **Figure 4**.

Figure 4 Illustrates the environmental status indicators used for the environmental data



Biodiversity, Habitats, Flora and Fauna

Indicator	Current status	Trend direction	Explanation
Designated Areas	**F**	⇔	Across the designated features just over 50% demonstrate favourable status, whilst the rest are in unfavourable or partially destroyed status. The majority of these features show no overall directional change, with some sites having site management agreements in place.
Local Nature Reserves	**F**	⇧	Management practices are in place to improve the overall condition of the Local Nature Reserve.
Native Woodland	**F**	⇧	Although total 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, whilst there is limited data on the overall condition of this habitat.
Woodland Habitat Network	**L**		The recent Integrated Habitat Network study will provide baseline qualitative data.
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 still pockets of natural and semi natural habitats, including ancient woodland, peatland and upland moorland. The lack of detailed information on the range of habitats across the South Lanarkshire, their condition and the level of fragmentation between such habitats is of concern in determining the overall status of biodiversity within the area. Although fragmentation is detrimental to the connectivity of habitat systems, the main environmental pressures that are 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 single 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.

Baseline information	Data	Source
Sites of Special Scientific Interest	45 SSSI Sites across South Lanarkshire	Local Authority SNH
Ornithological Sites		Local Authority RSPB
Wildlife Reserve	4 Reserves	Local Authority SWT
Special Protection Areas	1 SPA that encroaches in to South Lanarkshire	SNH
National Nature Reserves	2 NNR's Clyde Valley Woods composite site and Braehead Moss	SNH
Lowland / Intermediate Raised Bog Inventory Sites	69 sites, total area 2,400Ha.	SNH

Local nature reserve	2 LNR's Langlands Moss, 20ha of peatland Morgan Glen, 40ha of ancient woodland gorge	Local Authority
Special Area of Conservation	7 SAC's Braehead moss, 123ha Clyde Valley woods, 435ha Coalburn moss, 224ha Craigengar, 37ha Carnley moss, 101ha Red moss, 76ha Waukenwae moss, 155ha	Local Authority and SNH
Woodland	Total woodland area 31,697 Ha incl. 4,170 Ha. Semi natural woodland; Ha broadleaf and Ha coniferous	Forestry Commission Scotland
Country Parks	3, Calderglen, Chatelherault and Hamilton Low Park which form's part of North Lanarkshire's Strathclyde Country Park.	Local Authority and National Trust for Scotland

Population and Human Health

Indicator	Current status	Trend direction	Explanation
Life Expectancy(m)	**F**	⇧	Life expectancy for men in South Lanarkshire has increased in recent years, but it remains below Scottish average.
Life Expectancy (f)	**F**	⇧	Life expectancy for women in South Lanarkshire has increased in recent years, but it remains below the Scottish average.
Mortality Rates	**P**	⇔	The rate of decline in deaths is slower than for Scotland as a whole. Coronary heart disease remains a major source of deaths in the under 75. Cancer remains a major cause of death for those aged under 75, with some significant improvements in some types of cancer. Alcohol related deaths have increased significantly in recent years, continuing the upward trend.

Baseline Situation

South Lanarkshire's health status is generally below Scottish average for all 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. South Lanarkshire also follows the national pattern in that there are significant differences between communities across South Lanarkshire in terms of health outcomes. These inequalities in health pose a major challenge for all partners as we look to improve health both at population level and within our more deprived communities. Within these communities, many of the population are physically disadvantages 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 in the overall character and health of an area.

Baseline information	Data	Source
Population	307,670 (2006) forecast indicates population rise to 331,000 by 2024	Local Authority
Population Density	1.75 persons per hectare (varying from 28.23 persons per ha in Rutherglen to 0.19 persons per ha in Clydesdale east)	Local Authority
General Health	Good = 66.62% Fairly Good = 22% Not Good = 11.37%	General Register Office for Scotland
Limiting Long Term Illness	21.69% of residents have reported a limiting long term illness	General Register Office for Scotland
Health Statistics	Mortality Ratios for South Lanarkshire (2006) 3,282 Deaths: 928 Cancer (5% above Scottish Av.) 592 Coronary Heart Disease (9% above Scottish Av.) 321 Stroke (4% above Scottish Av.)	Scottish Government and Local Authority
Multiple Deprivation (SIMD)	398 data zones in South Lanarkshire (56are among the most deprived, 48 are the least deprived)	Scottish Government

Soils and Geology

Indicator	Current status	Trend direction	Explanation
Sustainable Soil	L		There are no data sets at present focussing on soil sustainability.
Soil Quality	G	⇔	Current data indicates good soil quality in a Scottish or regional context. At present there is limited data on soil quality within South Lanarkshire, however further investigation of the data available may provide a more localised picture on soil quality.
Soil Capacity	G	⇔	The level of Local Plan departures in to greenbelt development can indicate soil capacity across the region. Information from the Scottish Agricultural Census can be refined to provide more area specific soil capacity data. Topsoil carbon mapping is an important area for data development.
Landscape Use	L		Further analysis of Landscape Character, Land Use and Scottish Agricultural Census data could be utilised to provide information on Landscape Use.
Contaminated Land	F	⇧	The number of contaminated sites identified within South Lanarkshire remains consistent, with initial site investigation continuing.

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.

Baseline information	Data	Source
Geology	12 geologically designated SSSI	SNH and Local Authority
Contaminated Land	5800 potential contaminated sites 2500 contaminated sites investigated 30 Stage 1 contaminated sites	Local Authority

Water

Indicator	Current status	Trend direction	Explanation
River Quality	G	⇧	The number of sampled rivers has increase, with river quality continuing to improve, with the highest improvement rates between excellent and good classifications pre WFD.
River Flow Rate	F	⇩	The annual water flow rates in the rivers across the region have continually increased. This increase is closely linked to the increase an annual precipitation rates.
Standing Water Quality	L		The current water quality status of the main Reservoir monitored in the area is of Good status. There is limited data to report on the remaining standing water across the area.
Water Pollution	F	⇧	The numbers of water pollution incidents have fallen over recent years, along with the number of licensed discharges issued.
Flooding	P	⇩	Recent climate change predictions indicate a potential risk of increased flood incidents. The number of flooding incidents reported to and responded by the Council has increased.
Water Biodiversity	G	⇧	Intensive land use has lead to a significant decline in Scotland's biodiversity. But in the rivers there is a noticeable increase in diversity of inverts.
Historical Contamination	F	⇧	Hot spots from mining activities still remain a problem in specific areas. Some remedial work has commenced. Further investment is required for future improvements.

Baseline Situation

The water environment is an important resource across South Lanarkshire; being used for industrial and urban development, natural resources for agricultural and recreational use. Water quality is therefore closely linked to human health and the biodiversity of the wider natural environment in addition to being important for the local economy and the amenity value of an the area.

Water quality in South Lanarkshire is currently relatively good and continuing to improve. The major water bodies are the River Clyde and its tributaries, with approximately 140 km of rivers classified as excellent, and 277 km classed as good in 2006.

River flow data shows an increase in annual water flow rates in line with increase precipitation across the region, in addition the number of flood scouting incidents responded to by the Council have increased (**Appendix 2** illustrates the 100 year flood risk zones across South Lanarkshire).

Human activity can damage the water environment, ultimately compromising the benefits associated with this resource. Changes in the state of the water environment can be attributed to changes within the water itself or through inputs associated with land and air or directly through human activity. Human activities which can have detrimental harm on the water environment include:

- **point source pollution** - includes discharges from industries and sewage treatment works
- **diffuse pollution** - includes contaminated run-off from streets and yards; deposition of pollutants from air and soil run-off;
- **abstractions and flow changes** – includes hydropower and water supply schemes and groundwater extraction;
- **physical changes to water bodies** – includes riverbank engineering; development on flood plains and changes in land use that contribute to riverbank erosion;
- **invasive non-native species** – degradation to water habitats and species caused by the introduction of invasive non-native species of plants and animals.

Baseline information	**Data**	**Source**
River Network	Principle/tributary Rivers - Clyde, Avon, Rotten Calder, Douglas Water	SEPA
Water bodies	20 water bodies within South Lanarkshire Principle Reservoirs – Daer, Camps, Coulter, Cowgill Lower, Cowgill Upper, Kype, Glengavel.	SEPA and Local Authority
Water Quality	(per WFD, 2006) A1 140km A2 277km B 170km C 53km D 1km U 7km	SEPA
	(post WFD Classification, 2007) High 0 Good 14 Moderate 22 Poor 13 Bad 2	SEPA
Standing water bodies	WFD Classification, 2007 Dear Reservoir - Good EP Status Camps Reservoir - Good EP Status	SEPA
River Flow	16 Gauging station River Clyde (at Blairston) and Duneaton Water (at Maidencots) have increased from 1970 to 2006 by approximately 15% and 25% respectively.	CEH and SEPA
Water Pollution	Controlled Point Source 690 CAR licences 132 Sewage outflows	SEPA and Scottish Water
Flooding (See also Appendix 14 for 100 year Flood Risk Map)	Flooding Incidents Category 1 1059 Category 2 359 Category 3 163 Category 4 0	Local Authority

Material Assets

Indicator	Current status	Trend direction	Explanation
Minerals	F	⇔	Minerals remain an economically important resource, with some sites currently going through a closure phase.

Baseline Situation

South Lanarkshire has large areas of mineral deposits that provide aggregates for building and road developments and coal for energy production. These extractable deposits are generally located in rural area of the area. The extraction of minerals is an inert activity that provides its own environmental problems as well as restoration problems.

Baseline information	Data	Source
Avon Valley Geology	Sand and Gravel Clay Iron Ore Coal Peat	Local Authority
Douglas Valley Geology	Coal Fireclay Peat Sand and Gravel	Local Authority
Forth Plateau Geology	Coal Fireclay	Local Authority
Mouse/Medwin Valley Geology	Sand and Gravel Peat	Local Authority
Clyde Valley Geology	Sand and gravel Sandstone Whinstone Coal Clay Peat	Local Authority
Coal	4 operating opencast sites 1.96 Mt extracted per year 6.5 Mt in reserves within these sites	Scottish Coal and Local Authority
Sand and Gravel	8 operating sites 1.5 Mt extracted per year 18.8 Mt in reserves within these sites	Local Authority
Hard Rock	3 operating quarries 1.8 Mt extracted per year 38.5 Mt in reserves within these site	Local Authority
Peat	4 operating sites 40,000 m3 extracted per year	Local Authority
Mineral recycling	4 Recycling facilities 100,000 tonnes recycled per year	Local Authority
Bings	25 bings 2 granted for extraction operations 40,000 tonnes extracted per year from the operational bings. 1.15 Mt in reserve within the operational bings.	Local Authority

Air, Noise and Nuisance

Indicator	Current status	Trend direction	Explanation
No. of Days Exceeding Air Quality Limits	F	⇩	In the main, air quality across South Lanarkshire is good however there are some areas where traffic emissions result in poor air quality that exceed national limits set to protect human health.
Exceedance in Annual Mean Limits	F	⇔	Current background concentrations of air pollutants remain below the current objective levels, whilst roadside concentrations exhibit elevated levels, with some locations breaching air quality objectives.
Ground-level Ozone	G	⇩	Although elevated episodes of ground-level O_3 do not exceed national limits, background concentrations are slowly increasing.
Acidification	F	⇧	All SAC sites currently exceed the critical load for acid deposition, whilst this is predicted to improve by 2010.
Nutrient Enrichment	F	⇧	6 of the 7 SAC sites currently exceed the critical load for nitrogen deposition. This is predicted to improve by 2010.
Noise Complaints	P	⇩	The level of nose complaints received by the Council has increased considerably, particularly relating to residential noise.
Noise Mapping	L		Currently the Glasgow agglomeration noise map covers a limited area. Further expansion of this map to include other areas will increase awareness of environmental noise issues.
Tranquillity Areas	L		There are no tranquillity maps developed for South Lanarkshire; however 80% of the area is classified as rural, therefore potentially tranquil.
Nuisance	L		Complaints recorded indicate that odour is the main nuisance within South Lanarkshire. There is insufficient data to determine the trend in nuisance complaints.

Baseline Situation

Air quality across South Lanarkshire is generally below 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. Within the rural environment, acidification and nutrient enrichment are the main concerns, particularly across elevated ground. Long-range pollutants, emitted out-with South Lanarkshire are mainly associated with these effects and therefore controlling these pollutants is more challenging.

Noise can have an adverse impact on peoples' quality of life. Excessive noise can cause annoyance and stress and may disturb sleep. Public concern about noise is a national indicator for quality of life and it is suggested that this could be compiled for complaints. Since the introduction of more stringent powers for the Council to deal with noise, complaints have doubled.

Although there are currently no baseline data for environmental noise levels within the Council area, there is scope for future local noise maps to be produced under the European Noise Directive. Such maps could potentially focus on noise sensitive areas with the addition of tranquillity maps to identify tranquil areas.

Baseline information	Data	Source
Local Air Quality	1 LAQMA – East Kilbride	Local Authority
Monitoring PM_{10}	Monitoring PM_{10} East Kilbride, 24.88g m^{-3} 24 hr av. Glespin, 8.89g m^{-3} 24hr av. Monitoring NO_2 East Kilbride – above 50g m^{-3} NO_2 annual mean to below 20 g m^{-3} NO_2. Hamilton – below air quality objective Lanark – above 50 g m^{-3} NO_2 annual mean to below 20 g m^{-3} NO_2 Other sites – below air quality objective	Local Authority
Regulated Point Source Air emissions	IPPC Regulated sites; **10** Part A sites and **95** Part B sites	SEPA
Acidification and Nutrient enrichment	Modelling work identified **6** SAC sites within South Lanarkshire potentially exceeding the critical load for acid deposition, whilst **7** SAC sites exceeded the critical load for nutrient enrichment	APIS
Nuisance	191 air pollutant related complaints 274 Odour complaints	Local Authority
Noise complaints	1789 Noise complaints (2007/08)	Local Authority
Environmental noise complaints	317 environmental noise complaints (2007/08)	Local Authority

Climate

Indicator	Current status	Trend direction	Explanation
GHG Emissions	**P**	⇩	There is a slight increase in CO_2 emissions across South Lanarkshire (including emissions per capita), with the Council's overall contribution reduced.
Energy Consumption	**F**	⇧	Energy consumption has slightly decreased, however domestic consumption per household is still above the national average.
Transport Emissions	**P**	⇔	There is no change in overall fuel consumption across transport. Fuel consumption in petrol cars has decreased, whilst diesel car and commercial transport rates have increased.
Renewable Capacity	**G**	⇧	The renewable energy capacity of South Lanarkshire has increased considerably, with the area becoming an energy exporter.
Ecological Footprint	**P**	⇔	Although South Lanarkshire's ecological footprint is less than the Scottish or UK average, it is still higher than what can be naturally sustained therefore further effort is required to reduce the area's footprint.

Baseline Situation
The climate in South Lanarkshire is changing with a rise in the average annual temperature, wetter summers, cooler winters and less frost and snowfall. These climatic shifts along with more extreme weather events will have a dramatic impact on South Lanarkshire's environment as well as the population.

The main greenhouse gas (GHG) emitted in South Lanarkshire is CO_2, 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 address. Scotland has set an 80% reduction target for GHG emissions, which South Lanarkshire must contribute towards, whilst also adapting to a changing climate.

Baseline information	Data	Source
Local Air Quality	1 LAQMA – East Kilbride	Local Authority
Monitoring PM_{10}	Monitoring PM_{10} East Kilbride, 24.88g m^{-3} 24 hr av. Glespin, 8.89g m^{-3} 24hr av. Monitoring NO_2 East Kilbride – above 50g m^{-3} NO_2 annual mean to below 20 g m^{-3} NO_2. Hamilton – below air quality objective Lanark – above 50 g m^{-3} NO_2 annual mean to below 20 g m^{-3} NO_2 Other sites – below air quality objective	Local Authority

Cultural Heritage

Indicator	Current status	Trend direction	Explanation
Built Heritage	G	⇧	The level of designated protected sites in South Lanarkshire has increased along with scheduled Ancient Monuments. The number of listed buildings increased, while less than 2% remain on the 'Buildings at Risk' register.
Historic Gardens and Designed Landscapes	G	⇧	There are a further 2 additional sites added to the designated list of historic gardens.
Archaeological Sites	F	⇔	No change in the number of sites recorded, with only a limited number of buried sites known.
World Heritage Site	G	⇧	Development continues at this tourism attraction, thus improving the facilities and infrastructure of the site as a whole.
Battlefields	L		There is limited information on the condition of battlefield sites, with less information on any additional associated sites.

Baseline Situation
The historic and built heritage of South Lanarkshire is complex and varied, from Medieval Burghs such as Hamilton and Biggar through to New Lanark. There are numerous Castles and listed buildings, particularly in the Medieval Burghs (see **Appendix 3**). In addition to those sites situated above ground there are numerous buried archaeological assets however the knowledge of such sites is limited. Pressures on historic assets, comes primarily from development which could potentially result in damage to or the complete loss of sites of cultural significance.

Baseline information	Data	Source
Conservation areas	30 (7 designated as outstanding)	Local Authority
Listed buildings	Total: 1,080 - 583 Clydesdale - 292 Hamilton - 151 East Kilbride - 54 Cambuslang / Rutherglen	Local Authority
Scheduled monuments	178	Local Authority and WoSAS
Designed Landscapes and Historic Gardens	7 covering a total area of 1866 ha	Local Authority and Historic Scotland
Archaeological sites, monuments recorded	2612	Local Authority and WoSAS
World Heritage Sites	1, New Lanark	Local Authority
Battlefields	Battle of Drumclog Battle of Bothwell Bridge	Battlefield Trust

Landscape

Indicator	Current status	Trend direction	Explanation
Vacant and Derelict Land	G	⇧	The area of vacant and derelict land has decreased through re-development, with only the recent addition of land associated with the M74 extension and Law Hospital closure.
Recreational Land	F	⇔	Whilst redevelopment has increased specific recreational provisions, further improvements are necessary for green space provisions, particularly through linkage with other issues including biodiversity and habitat connectivity, and social/environmental deprivation.
Countryside Access	F	⇧	The recent completion of the core path network is hoped to increase the general access to the wider countryside.
Landscape	G	⇩	Some development is detrimental to the local landscape, however the local plan has helped in identifying development area's that are not detrimental to the overall landscape characteristics of the area.

Baseline Situation

South Lanarkshire offers a wide variety of recreational activities. Many areas within South Lanarkshire are well serviced by both recreational green space and built facilities. Public access to the wider environment, are improving through facilities such as the "Core Path Network" and the local Country Parks. The area has a diverse landscape that is rich in scenic value.

South Lanarkshire's landscape is characterised by its diverse range of land uses and cover and is dominated by features such as the Lowther Hills and the Clyde Valley – designated for its landscape value and importance. The diversity of landscape across the area is a key feature of South Lanarkshire and therefore it is important that it is preserved and promoted for wider public use through a range of opportunities.

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 green space networks are maintained, whilst continuing to develop appropriate vacant and derelict land.

Baseline information	Data	Source
Landscape character areas	South Lanarkshire is dominated by upland landscapes characteristics (**49%**) whilst the river Clyde and its contributories valleys account for **26%** of the area.	SNH and Local Authority
Scenic Area and Area of Great Landscape Value	Approximately half of the land area of South Lanarkshire is designated as Scenic Area, the majority concentrated in the west and south including most of the Upper Clydesdale. In contrast there are relatively few areas designated as AGLV.	Local Authority
Green belt area	Green belt area covers **219 km^2** around the major urbanised areas	Local Authority
Historic Gardens and Designed Landscapes	**7** historic gardens and designated landscape areas within South Lanarkshire.	Historic Scotland and Local Authority
Country Parks	**3** designated Country Parks including Chatelherault Country Park, Calderglen Country Park and Hamilton Low Park (forms part of Strathclyde Country Park).	Local Authority

The following summarises the likely gaps and/ or unreliability of the SEA Baseline data, and how they were minimised where applicable:

- Data has been compiled from national datasets which in some cases may be significantly out of date.
- Data for "relevant" measures (e.g. condition of sites) is often unavailable. Proxy measures (e.g. number of sites) are unlikely to alter significantly. It is hoped that the actions outlined in the new LBAP will contribute towards addressing such data gaps although action is needed at a national level.
- The list of Nature Conservation Sites (SINCs/ LNCS) may be incomplete. A review of the LNCS is an output for the new LBAP.
- Some health data can be subjective and only give an indication of peoples' perception of their own health. It is however considered a useful indicator for the purpose of this report.

Monitoring of certain habitats such as wetland and of key indicator species is currently not carried out by any lead agency. A key output of the LBAP will be to consider how to address habitat monitoring data gaps, either nationally or locally.

3.5 Existing Environmental Issues Relating to LBAP

Schedule 3 (4) of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes a description of existing environmental problems, in particular those relating to any areas of particular environmental importance. The purpose of this section is to explain how existing environmental problems will affect or will be affected by the South Lanarkshire LBAP and whether the Plan is likely to aggravate, reduce or otherwise affect existing environmental problems. Environmental problems were identified through discussions with the South Lanarkshire Biodiversity Partnership and an analysis of the baseline data. Relevant environmental problems are summarised at **Table 3**.

Table 3 Summary of environmental trends and objectives

SEA topic	Problem	Supporting Data (where available)	Key environmental trends	Environmental Implications	Implications for LBAP	Scoped in or out and reasons
Biodiversity, Habitats, Flora and Fauna	Loss of biodiversity through loss and fragmentation of habitat Inadvertent loss of biodiversity through expansion of other valued habitats. Work on habitats to enhance them for specific species could have detrimental effects upon other species reliant on the habitat.		Loss of species and habitats	Loss of biodiversity results in reduced ecosystem function and the loss of key ecosystem services.	The actions proposed in the LBAP aim to protect vulnerable habitats and species and so protect and enhance biodiversity in South Lanarkshire. Work will be monitored closely to ensure that there are no unexpected negative impacts upon the environment.	IN The LBAP aims to protect and enhance biodiversity, flora and fauna and so will have a significant impact upon the environment.
Population and Human Health	Biodiversity and the services/ benefits it provides is still under-valued by the public. As awareness increases, demand to access biodiversity may increase, potentially placing some fragile habitats under threat.	National Baseline Survey of Biodiversity Awareness and Involvement, SNH www.snh.org.uk Scotland's Biodiversity Indicators www.scotland.gov.uk	Increased demand for outdoor access Lack of awareness/ appreciation of biodiversity.	Increased numbers of people accessing the countryside. Damage to sites due to increased demand.	The LBAP includes actions to promote awareness ad understanding of biodiversity. The LBAP links with the Core Path plan to promote responsible access to the countryside. The LBAP includes actions to promote access to biodiversity to improve human health. The LBAP encourages people to access the natural environment by providing the opportunity to get involved in conservation projects and by promoting increased awareness of the natural	IN

					environment.	

Soils and Geology	Damage to and loss of geology and minerals. Erosion and pollution of soil	Scottish Soil Framework www.Scotland.gov.uk Scotland's Soil Resource - Current State And Threats, Environmental Research Report 2006	Loss of and damage to soils, geology and minerals	Damage to soils causes loss of ecosystem function. Particularly significant in terms of loss of agricultural productivity. Carbon emissions from degraded peat soils	The LBAP includes actions which aim to protect soils including: Protection of peat based soils from damage Address flooding and associated erosion Address damage to riparian soils Address pressures on blanket bogs.	**IN**
Water	Point source and diffuse Pollution Potential increase in flood events (climate change related)	Indicative River and Coastal Flood Map SEPA 2005 SEPA water quality monitoring data www.sepa.org.uk	Water quality improving. Pollution still an issue in places Flood events predicted to increase with climate change	Aquatic pollution leads to a loss of biodiversity, reduced ecosystem function and the loss of key ecosystem services. Developments to be outside of flood risk areas Sustainable flood management	The LBAP includes actions to protect and enhance freshwater and wetland ecosystems. Schemes which address flooding and support biodiversity are encouraged.	**IN**
Material Assets	Use of non renewable resources	Council Mineral Extractions database www.southlanarkshire.gov.uk	Consents for Extraction of Minerals and other non-renewables (e.g. peat) are still being issued	Damage to habitats and landscapes. Contribution to greenhouse gas emissions	The LBAP has actions which aim to reduce the impact of extractions and reduce the number of future extractions.	**IN**
Air, Noise and Nuisance	Pollution from traffic and industry	Local Air Quality Management (LAQM) system, South Lanarkshire Council	Air quality in South Lanarkshire is fair- good			**OUT** For the 5 year duration of this plan it is felt that the LBAP will have neither a positive or negative effect.

Climate	Increasing emissions of greenhouse gases contributing to climate change.	SNIFFER "A handbook of climate trends across Scotland", 2006 www,sniffer.org.uk	Changes in temperature, precipitation and storminess predicted Predicted sea level rise	Developments to be outside of flood risk areas Sustainable flood management	At a long-term scale the LBAP aims to have a positive effect by restoring the functionality of bogs so that they act as carbon sinks. Similarly, expansion of woodland habitat will encourage carbon storage. These positive effects will be cumulative.	**IN** For the 5 year duration of this plan it is felt that the LBAP will have neither a positive or negative effect. However, work undertaken will have cumulative effects which, in time, will benefit climatic factors and so it has been scoped in to the assessment.
Cultural Heritage	Damage to cultural and/ or archaeological remains through indiscriminate tree planting. Alterations to historic landscapes through changes in land cover. Alterations to culturally important sites.	Scheduled Monuments list, Historic Scotland www.historic-scotland.gov.uk			Ensure projects do not impinge upon historical sites or cause damage to protected historic landscapes. Biodiversity, greenspace and local places all provide a sense of place and identity for local people. The LBAP provides the opportunity for local communities to become involved in protecting and enhancing their local area and cultural heritage.	**IN**
Landscape	Alterations to landscapes through changes in land cover		Alterations to landscapes through open cast mining, development of wind farms and changes in land use (e.g. forestry)	Fragmentation of habitats. Loss of habitat. Disturbance to species Isolation of populations.	The LBAP will work at a landscape and ecosystem scale to protect and enhance landscapes Fragmentation	**IN**

				Changes in biodiversity.	of habitats will be reduced.	

3.6 Evolution of the Environmental without LBAP

Without the update and revision of the LBAP it is considered that the likely future changes to the area will be as described **Table 4**.

Table 4 Potential changes to the environment across South Lanarkshire without the implementation of LBAP.

Issue	Without LBAP	Comments
Biodiversity, Flora and Fauna	⇩	The LBAP aims to raise awareness of the value and vulnerability of biodiversity and related ecosystem services amongst the general public and within public bodies. Without the Plan, there would be little understanding of the importance of biodiversity and ecosystem services and this may have a significant negative impact if projects and/ or developments are allowed to take place without due consideration of biodiversity being made. A lack of understanding of the vulnerability of biodiversity would make it more likely that measures to avoid, offset or mitigate adverse effects would not be put in place in development and other related plans/ schemes.
Population and Human Health	⇔	One of the main strands of this LBAP is the production of materials designed to raise awareness of the value of South Lanarkshire's natural heritage and to encourage people to explore, enjoy and value the natural environment (whether rural or urban). Projects can also encourage people to become actively involved in conservation work, which brings benefits to both physical and mental health. Without the Plan, these projects would not be undertaken and the benefits to human health would be missed.
Soils and Geology	⇔	Whilst the LBAP is unlikely to have a significant impact upon soils and geology, it does provide the opportunity to raise awareness of the links between the soil and biodiversity. Without the LBAP soil ecosystems may be at greater risk of damage and the opportunity to raise awareness of the links between soils and above- surface biodiversity will be lost.
Water	⇩	Without this plan, monitoring of watercourses would continue to take place through the local implementation of the Water Framework Directive (a statutory responsibility of SEPA). However, without the LBAP projects specifically targeting individual habitats and species would not occur and opportunities to create new wetland and aquatic habitats may be missed. Opportunities to highlight the vulnerability of ecosystems to damage from engineering works might not occur.

Material Assets	⇔	In South Lanarkshire significant quantities of mineral resources and peat are extracted annually. Without careful planning and the incorporation of mitigative measures (where available), the extraction of these resources can lead to significant and often irreversible damage to biodiversity and the natural environment. The LBAP sets out policies which aim to protect the biodiversity value of our material assets. Without this plan South Lanarkshire Council and other agencies would have less information available upon which to base their strategies for the sensitive use of material assets.
Climatic Factors and Air	⇔	It is unlikely that the actions set out in the LBAP will significantly influence air quality or climatic factors such as the level of greenhouse gases in the atmosphere, particularly during the 5 year period covered by the Plan. However, several of the habitats outlined in the ecosystem plans have the potential to act as carbon sinks and will therefore contribute towards mitigating against current and future emissions of CO_2 and other greenhouse gases. This assumption is only true if the habitats are in good condition. Without the actions of the LBAP it is likely that many of the habitats will continue to degrade and be in an unfavourable condition. In this scenario several habitats may actually act as carbon sources (particularly peatland habitats such as blanket and lowland raised bogs) and may contribute to future climate change. A number of the habitats outlined in the LBAP also have the ability to protect the environment from some of the more severe impacts of climate change including flooding and severe weather.
Cultural heritage	⇔	LBAP actions will help to retain cultural heritage value through the maintenance of traditional landscapes. Without the LBAP it is likely that the landscape character of South Lanarkshire will be eroded by insensitively placed developments such as open cast mines, wind farms and buildings.
Landscape	⇩	Without the LBAP projects which take place at a landscape (and so ecosystem) scale will not occur. The opportunity to raise awareness of biodiversity and its benefits through local landscape level projects will also be lost.

4. The Assessment of LBAP

At the scoping stage all environmental issues were initially scoped in the draft environmental objectives. However, following consultation with the Consultation Authorities it was decided that air should be scoped out. This left 11 SEA issues in total for consideration.

The purpose of the SEA is to inform the development of the SL LBAP by assessing the potential impacts of the Plan upon the environment. Whilst there is no statutory duty to develop an LBAP, there is a legal obligation to conserve biodiversity under the Nature Conservation (Scotland) Act 2004. It is therefore considered good practice to develop a Local Biodiversity Action Plan.

4.1 Development of Assessment Criteria - Environmental Objectives

A useful way to describe, analyse and compare the environmental effects of the proposed LBAP is the use of objectives and indicators in SEA. The environmental objectives have been developed after a review of relevant policies, plans and programmes and the collection of environmental baseline data and the identification of potential environmental issues. The environmental objectives have been revised and are presented in **Appendix 4**, along with the assessment criteria and potential indicators. These environmental objectives and criteria will be used as measures by which the environmental impacts of the Plan may be assessed.

4.2 Assessment of Alternatives

Reasonable alternatives to the South Lanarkshire LBAP have been assessed against the range of environmental issues set out in Schedule 3 of the Environmental Assessment (Scotland) Act 2005, using the assessment criteria (see **Section 1.4**).

Assessment was carried out by the use of a matrix, whereby each alternative was assessed for its likely effect upon the environmental issues. See **Appendix 5** for the full assessment. **Table 5** provides a summery of the assessment results for the 4 alternatives described in **Section 1.4**.

Table 5 Summary of the assessment for the 4 alternatives to implementing LBAP

Alternative	Score	Comment
1. Retain the existing plan with no revision.	**?/✓/O**	The old plan did not consider wider environmental implications (as set out in the SEA Objectives) and did not fully deliver a wider approach to improving ecosystem biodiversity. There are no long-term monitoring programmes associated with the existing LBAP.
2. Disregard the existing plan but do not produce a new document.	**×/?/O**	There is a legal requirement to protect biodiversity therefore an LBAP must be produced. An LBAP will allow protection and enhancement for biodiversity and can be used to identify and monitor such changes across either ecosystems or priority species.
3. Review the existing plan but do not develop new actions.	**? ?/✓/O**	The original actions did not deliver on wider environmental implications (identified in the SEA Outcomes) and were fragmented in the approach to improve biodiversity. The new plan should consider such issues. In addition the original plan did not include long-term monitoring, which could be added in the review, but this will not address potential action shortfalls.

4. Produce a new LBAP.	✓✓/?	The new LBAP focuses on improving biodiversity of the ecosystem, providing opportunity to address issues relating to soil, water and climate change. There will be the opportunity for wider connectivity of habitats and thus improving local heritage and landscape issues. Linking with Greenspace should improve the benefits associated with human health.

The 4 alternatives to the production of the new South Lanarkshire LBAP are:

1. **Retain the existing plan with no revision.** This option was disregarded as new legislation, guidance and strategic drivers have come into force which renders the existing plan out of date.
2. **Disregard the existing plan but do not produce a new document.** This option was disregarded as there is a statutory duty to protect biodiversity and this is met by the production of an LBAP.
3. **Review the existing plan but do not develop new actions.** This option has been discounted as the existing plan has many actions which are impossible to implement and monitor.
4. **Produce a new LBAP.** This option has been taken forward and was approved by the consultation authorities at the Scoping stage of the SEA process.

Within option 4 there is the potential for alternative plans, projects and actions to be considered. It is intended that each project that is proposed for inclusion in the LBAP by external partners will be assessed for suitability on a case by case basis, following guiding principles delivered through the SEA process.

4.3 Assessment of LBAP Tier 1 Objectives

The draft LBAP was assessed for its environmental effects and their likely significance upon the environmental baseline. The high level Tier 1 Objectives were assessed against the range of environmental issues set out in Schedule 3 of the Environmental Assessment (Scotland) Act 2005, using the SEA Objectives which formed the assessment criteria. Full results of the Tier 1 assessment are set out in **Appendix 6**. 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 Plan
- Developing mitigation measures to prevent, reduce or offset effects
- Revising assessment taking into account agreed mitigation measures

4.4 Assessment of LBAP Tier 2 Actions

Assessments of Tier 2 Actions were carried out using the criteria set out in **Section 1.4**. The results are shown in **Appendices 8-12**. It should be noted that for ease of assessment Actions that were repeated across several ecosystems were only assessed once, but under the assumption of their original status. Similarly, some actions with similar outcomes were grouped for assessment purposes only. Modifications to actions for assessment purposes are shown in **Appendix 7**.

Assessment of cumulative and synergistic impacts

The SEA exercise demonstrated that the LBAP should have significantly positive effects upon the environment. No significantly negative effects were identified for the overarching Objectives and Actions of the plan. However, impacts may be cumulative and so the assessment of potential secondary, cumulative and synergistic effects has been completed for each ecosystem and for the over-arching plan (**Appendices 8-12**).

Proposed mitigation and enhancement measures

Schedule 3 (7) of the Environmental Assessment (Scotland) Act 2005 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." **Appendix 13** sets out any environmental problems that are likely to remain on implementation of the LBAP, whilst **Appendix 14** summarises the proposed mitigation and enhancement measures for the promotion, prevention, reduction and offset of any significant adverse effects.

4.5 Tier 3 considerations

In many cases the mitigation measures require the identification of potential conflicts between Tier 3 Projects and other environmental interests. Prior to the acceptance of a proposed project for incorporation into the LBAP, the project will go to a committee composed of Local Biodiversity Partnership partners who will examine and assess its objectives against the SEA criteria and identify any potential areas of conflict. Mitigation measures will also be identified if necessary. From the SEA process a Project Inclusion checklist has been developed and considers the following:

1. Does the proposed project contribute towards meeting one or more of the LBAP visions?
2. Does the project benefit multiple species?
3. Does the project complement the aims within the landscape character zone into which it falls?
4. Is there an identified lead partner?
5. Are there any potential areas of conflict (with SEA or other topics?)
6. Mitigation measures identified?

4.6 Evaluation of environmental effects relating to the draft LBAP

The evaluation assessment assisted in refining the draft LBAP Objectives, whilst informing the development of additional descriptive guiding principles within the Action Plan. In addition further refinement of the Action Plan was developed through the incorporation of both mitigation measures, which were developed for adverse effects and enhancement measures – identified within the assessment (see **Appendix 14**).

The results of the assessment of the draft LBAP Objectives for each Ecosystem can be found in **Appendices 8 – 12**. The draft LBAP Objectives under consideration for each Ecosystem has been assessed for its potential environmental effects on the aspects of the environment covered by the SEA objectives, with the potential cumulative and synergistic effects identified. The assessment for each ecosystem has been informed by the assessment criteria, the environmental baseline information gathered for each of the environmental issues scoped in to the assessment, the level of significance and a degree of expert judgment.

The final development stage of the draft LBAP is provided in **Appendix 14**. The approach taken identified specific aspects of the environment particularly vulnerable to implementation of the draft LBAP and/ or may be enhanced and improved by the draft LBAP. These measures and the assessment outcomes were taken in to consideration in further refining the draft LBAP.

4.7 Monitoring strategy for LBAP

In order to prevent, reduce or offset significant adverse effects once the plan has been adopted a monitoring plan has been developed. The criteria for the monitoring plan were established through:

- Following advice and suggestions previously received from the Consultation Authorities and;
- Examination of the problems and aspects of the LBAP which could have negative environmental effects.

The LBAP and associated monitoring actions will be subject to annual review. During this review process the potential effects that Tier 3 Projects are having on the Tier 2 Actions will be assessed, as will the contribution that Tier 2 Actions are having towards the overall long-term aims of the plan. An annual report will be published which will outline key areas of progress and any failures. This also fits in with the annual review of the data contained in the State of the Environment Report (which is itself reviewed every 2 years). The proposed LBAP/SEA monitoring activities are set out in **Appendix 15**.

The LBAP will adhere to the following review timetable:

Tier 1 and Vision Statement: Reviewed after 5 years (unlikely to alter significantly)
Tier 2 Reviewed annually. Annual report published by SLBP. Revised as necessary.
Tier 3 Reviewed as required (during and after individual projects), no less than annually.

6. Appendices

Appendix 1 Assessing the relationship between the South Lanarkshire Local Biodiversity Action Plan and other International, National and Regional PPS.

(N.B. this is **not** intended to be a comprehensive list of all legislation pertaining to the natural environment and biodiversity).

Screening Policies against the aims of the LBAP

South Lanarkshire's Core Path Plan

Colin Gillespie

11/02/2010

		Main requirements of the PPS	How it affects or is affected by the Core Path Plan	Score	Summary Comment - focusing on delivery and integration across policy areas
++	**Major - CPP delivers on the majority of the related SPP objectives**				
+	**Minor - CPP delivers on some of the related SPP objectives**				
o	**Neutrol - CPP neither delivers of conflicts with the related SPP objectives**				
-	**Minor - CPP does not deliver on some of the related SPP objectives**				
--	**Major - CPP does not deliver on the majority of the related SPP objectives**				
International	Convention on Biological Diversity, 1992	The Convention on Biological Diversity is an international treaty to sustain the diversity of life on Earth.	Gave rise to the UK Biodiversity Action Plan, which gave rise to local biodiversity action plans.	++	The LBAP contributes towards the delivery of national priorities, as identified by the UK BAP. This in turn meets the UK's obligation to meeting the requirements of the CBD.
	EU Birds Directive	Protects all wild birds, their nests, eggs and habitats within the EC. The Directive provides a framework for the conservation and management of, and human interactions with, wild birds in Europe. The main provisions of the Directive include the maintenance of the favourable conservation status of all wild bird species across their distributional range (Article 2) and the identification and classification of Special Protection Areas for rare or vulnerable species listed in Annex I of the Directive, as well as for all regularly occurring migratory species, paying particular attention to the protection of wetlands of international importance (Article 4). (Together with Special Areas of Conservation (SACs) designated under the Habitats Directive, SPAs form a network of pan-European protected areas known as Natura 2000 .) It is generally UK policy that areas classified as SPAs are first notified as Sites of Special Scientific Interest as this provides the legal underpinning for SPAs in domestic legislation.	The LBAP should comply with the Directive by not adversely affecting SPAs. The LBAP will seek to enhance the status of SPA (and SSSI) Sites. The LBAP will comply with the Directive by ensuring the protection of wild, rare and vulnerable birds, their nests, eggs and habitats.	++	The LBAP will comply with the Directive and associated legislation. The LBAP will deliver the outcomes of the Directive through the work of Biodiversity Partners, particularly SNH, who have a statutory obligation to monitor the condition of SPAs. In addition, the LBAP will promote the enhancement of such sites and the protection of wild birds. This will be delivered by SNH on designated sites. SNH play a key advisory role in ensuring that work is carried out to maintain designated sites in a favourable condition. On adjacent non-designated sites, each partner will be expected to take cognisance of the status of the SPA and ensure that actions taken do not impinge upon the protected area and, if possible, enhance the quality of the wider site.
	EU Habitats Directive	Aims to protect biodiversity through the conservation of natural habitats, wild flora and fauna. Provides the basis to classify SACs and nationally through Sites of Special	The LBAP should comply with the Directive by not adversely affecting SPAs, SACs, SSSIs and Ramsar sites or the maintenance and restoration of natural habitats to ensure biodiversity.	++	The LBAP will comply with the Directive and associated legislation. The LBAP will deliver the outcomes of the Directive through the work of Biodiversity Partners, particularly SNH who have a statutory obligation to monitor the condition of SACs. In addition, the LBAP will promote the enhancement of such sites and the protection of biodiversity occurring within them. (see above).
	EU Floods Directive	Directive 2007/60/EC on the assessment and management of flood risks entered into force on 26 November 2007. This Directive now requires Member States to assess if all water courses and coast lines are at risk from flooding, to map the flood extent and assets and humans at risk in these areas and to take adequate and coordinated measures to reduce this flood risk. With this Directive also reinforces the rights of the public to access this information and to have a say in the planning process.	The LBAP should comply with the Directive by not instigating projects which will increase flood risks.	+	The LBAP will comply with the Directive and associated legislation. The LBAP will deliver the outcomes of the Directive through the work of Biodiversity Partners, particularly SEPA. In addition, the LBAP will promote biodiversity friendly natural flood management schemes through the production of an SPG note. Tier 3 projects will deliver natural flood management programmes.

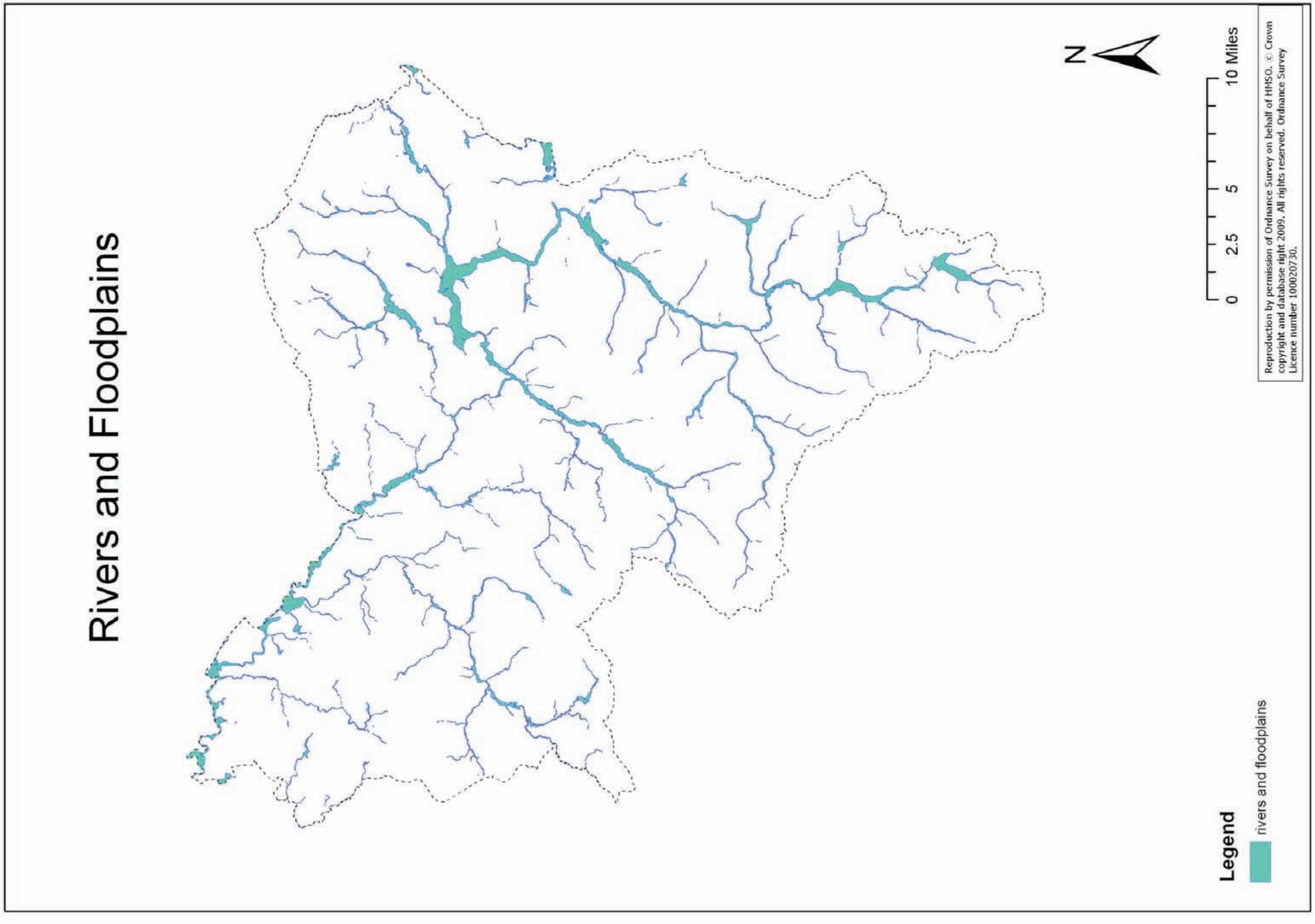
National	Nature Conservation (Scotland) Act 2004	Sets out a series of measures, which are designed to conserve biodiversity and to protect and enhance the biological and geological natural heritage of Scotland.	The LBAP should comply with the Act by protecting and enhancing natural heritage (including the monitoring and protection of SSSI sites)	+	The production of an LBAP will contribute towards each of the public bodies meeting their obligations under the Biodiversity Duty.
	Scottish Biodiversity: It's in Your Hands – A Strategy for the Conservation and Enhancement of biodiversity in Scotland	Provides a 25 year strategy to conserve and enhance biodiversity throughout Scotland. The overall aim of which is "to conserve biodiversity for the health, enjoyment and wellbeing of the people of Scotland now and in the future"	The LBAP should assist in achieving the Plan's objectives to: - Halt the loss of biodiversity and continue to reverse previous losses through targeted action for species and habitats. - Increase awareness, understanding and enjoyment of biodiversity, conservation and enhancement. - Restore and enhance biodiversity in all urban and rural environments through better planning, design and practice. - Develop an effective management framework that ensures biodiversity is taken into account in all decision making.	++	The LBAP will deliver the aims of this strategy at a local level.
	UK Biodiversity Action Plan	Aims to conserve and enhance biological diversity within the UK, contributing to the conservation of global diversity.	The LBAP should assist in achieving the Plan's objectives of: - To conserve and where practicable to enhance: (a) the overall populations and natural ranges of native species and the quality and range of wildlife habitats and ecosystems (b) internationally important and threatened species, habitats and ecosystems (c) species, habitats and natural and managed ecosystems that are characteristic of local areas (d) the biodiversity of natural or semi-natural habitats where this has been diminished over recent past decades - To increase public awareness of, and involvement in, conserving biodiversity	++	The LBAP contributes towards South Lanarkshire meeting the aims of the UK BAP.
	The Scottish Forestry Strategy + associated Implementation Plans (including "Woods for Nature")	Provides the Scottish Government's framework for taking forestry forward and setting out a vision for the forestry sector.	The LBAP should assist in achieving the outcomes proposed by the Strategy through helping to protect and enhance biodiversity.	+	The LBAP delivers the biodiversity themed aims of the SFS at a local level (e.g. contributing to the development of Forest Habitat Networks (tier 2), restoring PAW sites, protecting ancient woodlands (tier 3 projects) etc).
	The Scottish Outdoor Access Code	Provides guidance on responsible behaviour for recreational users, and on responsible land management in relation to statutory access rights.	The LBAP should be based on the key principles of the Code: - Respecting the interests of other people within the countryside - Promote care for the Environment - Take responsibility for your own actions	+	The LBAP will promote access to biodiversity and the countryside through tier 3 projects such as education programmes, interpretative materials and guided walks. This complements the aims of the Outdoor Access Code.
	Land Reform (Scotland) Act 2003	An Act of the Scottish Parliament to establish statutory public rights of access to land for recreational and other purposes, and to extend some of the provisions for that purpose to rights of way and other rights; to make provision under which bodies representing rural and crofting communities may buy the land with which those communities have a connection; and for connected purposes.	The LBAP should comply with the Act and not prevent public right of access to land.	o	The LBAP will comply with the Act and not prevent public right of access to land (See above).
	Water Environment and Water Services (Scotland) Act 2003	Protects the water environment including ground water, surface water and wetlands, for or in connection with implementing the Water Framework Directive.	The LBAP should assist in achieving the Act's objectives of: - Preventing deterioration and enhance the aquatic environment. - Promotes sustainable water use - Reduces pollution release across the water environment, mitigating, where appropriate, floods and droughts	+	The LBAP will contribute to the delivery of this legislation by ensuring that LBAP objectives match the objective of the legislation. (see entry for Water Framework Directive).

Flood Risk Management (Scotland) Act 2009	Updates legislation to manage the increasing risk of flooding. Specific measures within the Flood Risk Management (Scotland) Bill include:- • A framework for coordination and cooperation between all organisations involved in flood risk management • Assessment of flood risk and preparation of flood risk management plans • New responsibilities for SEPA, Scottish Water and local authority functions for flood risk management • A revised, streamlined process for flood risk management measures • New methods to enable stakeholders and the public to contribute to managing flood risk, and; • A single enforcement agency for the safe operation of Scotland's reservoirs.		++	The LBAP will contribute towards measures designed to mitigate the effects of flooding through promoting the use and development of natural flood management principals. LBAP promotes the biodiversity component of floodplains and wetlands. Measures to minimise impacts of flooding can have significant biodiversity benefits and the LBAP and biodiversity partnership will provide advice to planning authorities to direct these measures. Action will be delivered through partnership agencies, particularly SEPA and SLC who are Responsible Authorities in the implementation of this legislation.
The Scottish Sustainable Development Strategy – Choosing Our Future (Scottish Exec 2006)	Sets out the measures that will deliver the national framework for sustainable development	The LBAP should assist in achieving the Strategy's objectives of: - Living within environmental limits - Ensuring a strong, healthy and just society - Achieving a sustainable economy - Promoting good governance	+	Sustainable development covers economic, social and environmental factors. As biodiversity underpins all 3 of these elements, the BAP will contribute towards sustainable development through the conservation of biodiversity.
Scottish Planning Policy (SPP)	SPP 14: Natural Heritage SPP 21: Green Belts SPP 15: Rural Development SPP 16: Opencast Coal SPP 3: Planning for Housing SPP 7: Planning and Flooding SPP 23: Planning and the Historic Environment	Guidance in these documents should be complied with.	+	Guidance in these documents should be complied with. The development of SPG will provide specific biodiversity advice to local planning authorities. (see above)
National Planning Policy Guidance (NPPG)	NPPG 14: Natural Heritage NPPG 6: Renewable Energy Developments NPPG 10: Planning and Waste Management NPPG 11:Sport, Physical Recreation and Open Space	Guidance in these documents should be complied with.	+	Guidance in these documents should be complied with. The development of SPG will provide specific biodiversity advice to local planning authorities. (see above)
National Planning Framework (Scottish Exec 2004) and Monitoring Report (2006)	The Framework outlines a vision for Scotland's development to 2030.	Development should not impinge upon the biodiversity conservation aims set out in the LBAP.	o	Guidance in these documents should be complied with. The development of SPG will provide specific biodiversity advice to local planning authorities. (see above) The SPG will emphasise the importance of biodiversity and highlight ways in developments can accommodate the requirements of biodiversity. The SPG will provide the opportunity for biodiversity to be considered at an early stage in planning applications, allowing time for it to be factored in to development plans etc.
SEPA Policies	19- Groundwater Protection 26- Culverting of Watercourses 21- Strategy for Implementing Actions Under the UK Biodiversity Action Plan	Guidance in these documents should be complied with.	o	The LBAP SPG will emphasise the policies outlined in these documents. Tier 2 actions and tier 3 projects, managed by, or in conjunction with, SEPA will deliver on SEPA policies.
Scotland Rural Development Plan	Includes measures to address economic and social goals as well as environmental measures. It is outcome-focused and primarily aims to deliver a Greener Scotland and to promote a Wealthier and Fairer rural Scotland. It will contribute to the Government's Healthier and Smarter objectives and will help to strengthen rural communities.		+	The LBAP will promote uptake of biodiversity relevant funding packages within tier 2. Delivery of the outcomes of the SRDP will be focussed on by Tier 3 projects. LBAP priorities inform Regional Priorities, as defined by the RPACs.
Scottish Biodiversity Committee-Ecosystem Plans	Sets out actions for species and habitats signposted to ecosystems.		+	The LBAP will deliver the aims of the ecosystem plans at a local level.

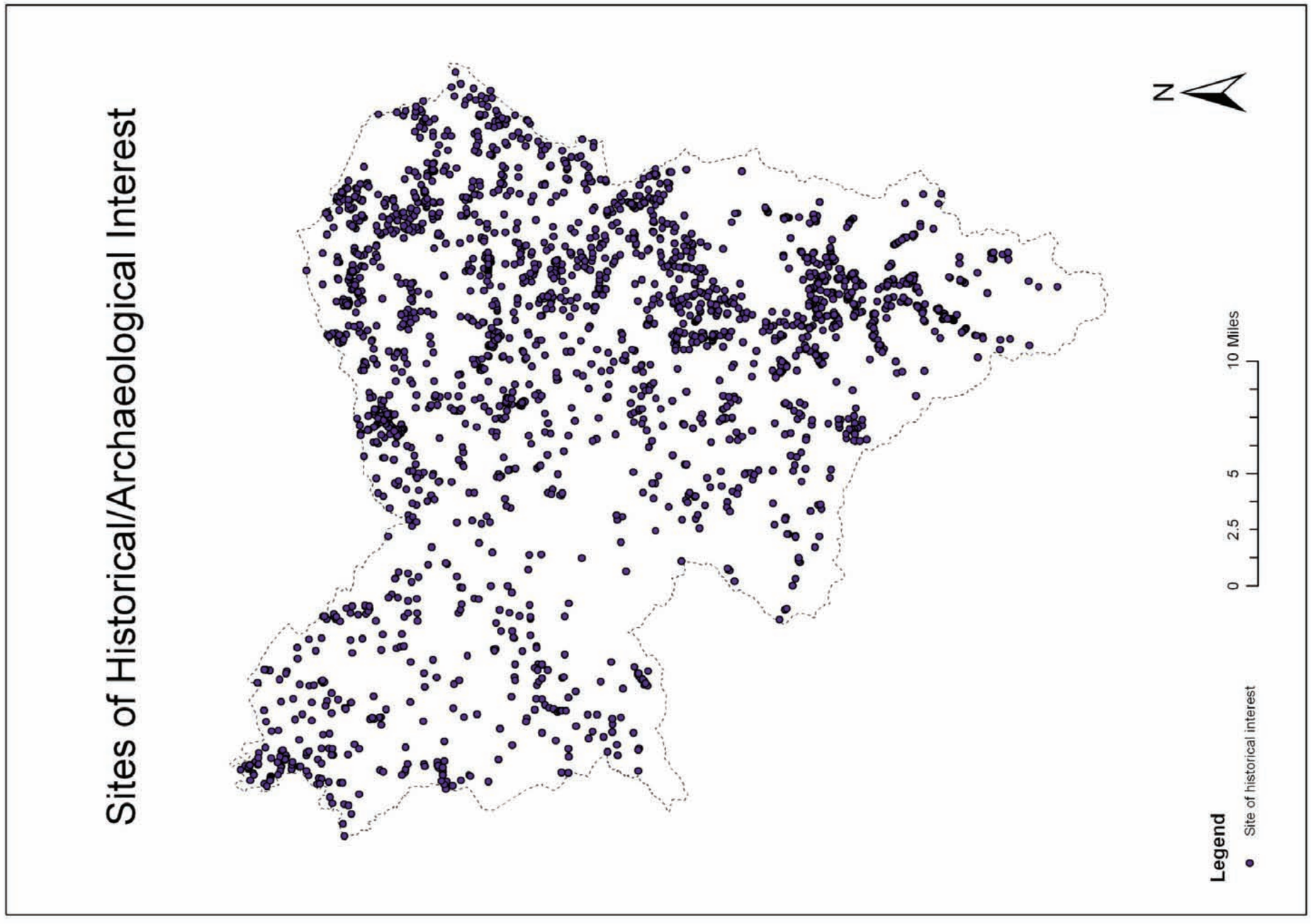
Reginal	Glasgow and Clyde Valley Joint Structure Plan 2006	Required by Town and Country Planning (Scotland) Act 1997 The plan provides a strategic land use framework for the Glasgow and Clyde Valley conurbation.	The LBAP will support the development of the GCV habitat network.	+	The LBAP supports the development of the Clyde Valley Green network through the work of partnership organisations and specific tier 3 projects.
	Natural Heritage Futures West Central Belt (SNH)	The Natural Heritage Futures initiative promotes integrated management of the natural heritage.	The LBAP will support and follow the aims and guidance set out in this series.	+	
	Regeneration Strategy "Changing Gear" 2004 - 2010 (Scottish Enterprise Lanarkshire)	The aim of the strategy is to facilitate the growth of a diverse and sustainable local economy, improving quality of life so that Lanarkshire is widely regarded as an attractive place to live, work and do business.	The aims of this strategy should not impinge upon the aims of the LBAP.	+	The LBAP will deliver a sustainable local economy through the protection and enhancement of ecosystem services. Quality of life will be improved through the promotion of access to the countryside. The Regeneration Strategy should refer to the overall aim of the LBAP to ensure that biodiversity is key to the regeneration of the area.
	Woodlands in and Around Towns (WIAT)			+	
	Forests for People (F4P)			+	
South Lanarkshire Council	South Lanarkshire Local Plan – Finalised Plan (2007)	The plan outlines the development and land use strategy for the area, details planning policy and provides guidance.	The aims of this strategy should not impinge upon the aims of the LBAP.		Planning guidance will be developed as an output of the LBAP. This will steer the development of future Local Plans to ensure that development will not have a significant detrimental impact upon biodiversity. Guidance will also allow planners to impose conditions upon developers which will ensure biodiversity is considered at an early stage and is integrated into development proposals from the outset.
	South Lanarkshire Rural Strategy	The plan provides a strategic focus for the regeneration of rural South Lanarkshire.	The LBAP will contribute towards the objective entitled "Enhancing Environmental Assets".	++	The rural strategy has an environmental focus and the LBAP will guide any actions in the strategy which may have an impact upon biodiversity. At a tier 3 level, the LBAP will deliver some of the actions of the Rural Strategy whilst the Rural Strategy will deliver LBAP actions through joint partnership working.
	South Lanarkshire Community Plan – Stronger Together (2005-2015)	Local Government in Scotland Act 2003 requires local authorities to initiate and subsequently maintain a Community Plan. South Lanarkshire's Community Plan has 3 aims – successful and inclusive; safe and healthy; working and learning communities and 6 objectives.	The LBAP will contribute to objective 2.3 "creating attractive, accessible and sustainable environments"	+	The LBAP will contribute to objective 2.3 "creating attractive, accessible and sustainable environments".
	South Lanarkshire Sustainable Development Strategy	The strategy seeks to secure a balance between economic, social and environmental wellbeing in the activities and decisions of the council.	The LBAP contributes towards objective 5 to protect and enhance natural environment, land and ecology and to ensure that new development does not have an unacceptable impact on flora and fauna. LBAP also contributes towards the delivery of Objective 4 to manage our impact on the water environment.	++	The LBAP contributes towards objective 5 to protect and enhance natural environment, land and ecology and to ensure that new development does not have an unacceptable impact on flora and fauna. LBAP also contributes towards the delivery of Objective 4 to manage our impact upon the water environment. LBAP will contribute towards the delivery of biodiversity issues related to Objective 6- to secure quality living and working environments for health, well-being and economic prosperity through the support and promotion of access to the countryside through the Core Path Network and Greenspace Network. Maintenance of ecosystem services will also contribute significantly to maintaining and improving the quality of life of the people of South Lanarkshire. LBAP can also contribute towards Objective 7 to foster responsible citizenship and awareness of sustainable development through the promotion and support of schools obtaining full eco-school status. In return, the Sustainable Development Strategy has a responsibility to ensure that biodiversity is considered as an equal component of sustainable development.
	South Lanarkshire Greenspace Strategy	A functional network of urban greenspaces should:	Each of these PPS should aim to contribute to meeting LBAP targets	++	Greenspaces should be maximised for biodiversity as well as people. The Greenspace network should also be a biodiversity network. The Greenspace strategy should refer to the aims of the LBAP and deliver joint tier 3 projects where appropriate.

		support and facilitate healthy activity contribute positively to the local landscape connect communities to services, each other and the wider countryside. provide diverse opportunities for play and learning provide habitats for wildlife act as a focus for community interaction.			
	Transport Strategy	The South Lanarkshire Council Local Transport Strategy 2006-2009 sets out an integrated transport strategy which aims to work towards economic, environmental and social sustainability.		o	Transport development should take into account the aims of the LBAP. The SPG note for enhancing sustainable drainage schemes for biodiversity will assist future developments.
	Tourism Strategy	Tourism Action Plan to 2010 aims to provide a continued strategic focus to the combined efforts of North and South Lanarkshire Councils, Scottish Enterprise Lanarkshire and Visit Scotland to ensure their investment and development activities complement those of the many businesses which provide services to the tourism industry.		+	The LBAP can contribute to the Tourism Strategy through the promotion of South Lanarkshire's natural environment.
	Core path plan	The Land Reform Scotland Act (2003) requires the production of a Core Path Plan that will meet the needs of the community, providing a framework of routes sufficient for the purpose of giving reasonable access throughout the area.		+	CPP promotes access to the wider countryside. It is essential that this is done sensitively to ensure that damage is not caused to species and habitats. The CPP provides the opportunity to promote wider access to biodiversity and to increase awareness through the provision of interpretative materials such as panels and leaflets. The LBAP can promote access to the wider countryside through the CPP.
	Minerals Local Development Plan	To provide a strategic plan for minerals and mineral reserves across South Lanarkshire.		+	Through Policy 1 (general protection of the environment) and Policy 2 (protection of areas with international environmental designations), the Minerals LDP should refer to the LBAP and Biodiversity Partnership. Restoration of sites following mineral extraction provides an opportunity for biodiversity and the LBAP and Biodiversity Partnership should be consulted when restoration is being planned. Policy 21- Sustainability of after- use schemes. Minerals local Plan should refer to aims and objectives of LBAP when considering proposals for restoration of sites after use. Policy 26- Extraction of Peat. The LBAP has a number of actions relating to the minimisation of peat extraction across South Lanarkshire. The Minerals LDP should refer to the LBAP when considering applications which will impact upon the quality and extent of peatland in South Lanarkshire. Policy 30- Protection of Landscape Features The LBAP aims to protect and enhance the landscape and to maintain and expand the integrated habitat network. The minerals LDP should refer to LBAP when considering applications for mineral extractions which will adversely affect the landscape and its functionality.
	SLC SPG- Renewable Energy			+	The Renewable Energy SPG should refer to the LBAP when identifying areas where windfarm developments are encouraged. Consideration should be given to the location of sites to ensure habitat connectivity is not lost and that peatlands are not disturbed. The Biodiversity Partnership should be consulted when proposals are received to ensure habitats and species are not adversely affected. LBAP should be referred to when creating habitat management/ restoration plans. Renewable energy can help reduce the impact of future climate change, which may help conserve biodiversity.

Appendix 2 Illustrates the 100year flood risk zones associated with the river network across South Lanarkshire.



Appendix 3 Illustrates the location of sites of historical and/or archaeological interest across South Lanarkshire.



Appendix 4 Development of environmental objectives and assessment criteria.

Draft SEA Objectives in the Scoping Report	Revised SEA Objectives used in the Assessment	Assessment Criteria Indicators	Potential Indicators
Biodiversity, Flora and Fauna			
To prevent damage to designated sites	To protect and enhance biodiversity across designated and non-designated sites and avoid irreversible loss	Protect and where possible promote favourable condition of national and locally designated sites and non-designated sites	Number of designated sites, areas covered and favourable status condition within South Lanarkshire
			Number of Local Authority designated sites, area covers and condition of sites within South Lanarkshire
To protect biodiversity and avoid irreversible loss		Promote habitat connectivity and the development of an integrated habitat network	Area of native woodland cover across South Lanarkshire
			Increase in woodland connectivity across South Lanarkshire
			Area and condition of ancient semi-natural woodland within South Lanarkshire
			Connectivity of other habitats within South Lanarkshire, including species rich grasslands, wetlands (measured by the Integrated Habitat Network Model)
			Area and condition of raised bog habitats within South Lanarkshire
		Promote the integration of biodiversity interests within the wide issues including planning and development and across the Councils recreational and greenspace provisions	Development of the SPG on Biodiversity
		Promote the uptake of relevant SRDP funding options	Number of SRDP funding projects associated with biodiversity improvements
			Area under management beneficial to biodiversity
To promote and encourage access to wildlife and the countryside	To promote and encourage access to biodiversity and the countryside	Increase and promote the accessibility to biodiversity across all population groups	Number of people involved in national surveys
			Number of volunteer days
			Number and length of Core Path networks linked to biodiversity projects or associated habitats
		Improve opportunities to enjoy and care for biodiversity	Number of sites/total area managed by local community groups
			Proportion of schools attaining full eco-school status
		Increase awareness and appreciation and understanding of biodiversity	Number of biodiversity themed event and participation of events.
Population and Human Health			
Promote improvements to human health for all population groups through access to the natural environment, open space and the wider countryside	Promote improvements to human health for all population groups through access to the natural environment, open space and the wider countryside	Improve the accessibility of biodiversity across the area to all population groups	Number of biodiversity themed event and participation of events.
			Number of volunteer days
			Number of people involved in national surveys
		Promote the development of biodiversity projects across the council area	Number of LBAP associated projects
Soil and geology			
To Protect sensitive soils and geology and maintain ecosystem functionality	To protect soils and geology and maintain ecosystem functionality	Protect and where possible improve the biodiversity and function of soils	Number and condition of designated sites where the geological location or the soil type is the designated feature
			Area and condition of ancient and semi-natural habitats within South Lanarkshire
Water			
To protect freshwater bodies and catchment from pollution and damage	To protect and enhance the biodiversity of freshwater bodies and wetlands	Maintain and improve the condition of water bodies and associated habitats.	Total length of river network achieving Good (and above) water quality status
			Total length of surface water achieving Good (and above) ecological quality status
			Total area and quality of standing water bodies
			Number and distribution of man-made obstruction to fish movement
			Number of water pollution incidents
		Maintain and improve the function of wetlands and natural floodplains	Number of flood incidents within urban areas
			Area of naturally functioning floodplains
			Area and condition of peatland
			Area of wetland habitats
Material Assets			
To reduce the level of peat extraction	To protect and enhance ecosystem function	To reduce the level of peat extraction across South Lanarkshire	Number of planning consents that impact on peatland
			Number and area covered by peat extraction licences
			Number of planning consents that impact on peatland
			Area covered by extraction licences.
To reduce the level of mineral extraction	To reduce the impact of mineral extraction	Consider the impacts upon biodiversity and ecosystem function and integrating appropriate measures within planning and development and land use change where appropriate	Number of planning consents relating to mineral extraction activates
			Number and area covered by of mineral extraction.
			Development of the Biodiversity SPG
Air			
To reduce CO2 emissions from bogs	Removal of Air as an issue...		
Climate			
To reduce CO2 emissions from bogs	To maintain and enhance ecosystem function to act as carbon sinks	Maintain and improve the function of peatlands to act as long-term net carbon sinks	Area of peatland across South Lanarkshire
			Site condition of designated peatland sites across South Lanarkshire
		Maintain, improve and expand the function of woodlands	Area of woodland cover across South Lanarkshire
			Quality of woodland cover across South Lanarkshire
	To develop and maintain robust ecosystems which can adapt to climate change	Promoting the creation and expansion of habitat networks to allow species movement	Change in habitat area and connectivity
		Maintain and enhance the long-term function of ecosystems	Site condition monitoring across designated sites
Cultural Heritage			
To safeguard and enhance the built and cultural heritage	To safeguard and enhance the built and cultural heritage and prevent damage	Consider the historic and archaeological features in relation to biodiversity issues	Number of Schedules Ancient Monuments in Lanarkshire
To prevent damage to designated cultural heritage			Number and status of historic and Listed Buildings in Lanarkshire
			Number and areas of Historic Gardens and Designated Landscapes in Lanarkshire
Landscape			
To prevent negative impacts upon the character of landscapes	To prevent negative impacts upon landscape character	Consider the potential impacts on the landscape in relation to biodiversity projects	Area of designated and sensitive landscapes across South Lanarkshire

Appendix 5 Assessment of alternatives to the draft South Lanarkshire LBAP

			SEA Environmental Issues							
Key:		Overall Score	Biodiversity, Flora and Fauna	Population and Human Health	Soils and Geology	Water	Climate Factors	Material Assets	Cultural Heritage	Landscape
✓	Positive Environmental Effect									
×	Negative Environmental Effect									
O	No Environmental Effect									
?	Effect Uncertain									
LBAP Alternatives	**1. Retain the existing plan with no revision.** Under this scenario, the existing SL LBAP would be retained. All current actions in the Plan would stand and would continue to be implemented and monitored as they are presently. Many of the actions are unlikely to be implemented (due to limited resource availability) work that is carried out is likely to be patchy in distribution and effectiveness.	?/✓/O	✓/?	?/✓	?	✓/?	?	✓/?	O	?/✓
	Comments - The old plan did not consider wider environmental implications (as set out in the SEA Objectives) and did not fully deliver a wider approach to improving ecosystem biodiversity. There are no long-term monitoring programme associated with the existing LBAP.		Projects were based on short term outcomes, therefore minimal long-term objectives and effects.	Although some projects included either volunteers or organised walks etc... there was little effective monitoring.	The majority of projects were species based and ecosystem based, to include soil.	Minimal improvements on water, with most projects focussing on terrestrial habitats and single species.	Uncertain long-term actions for climate change.	Projects were less focused on overall ecosystems and less emphasis on local assets.	No focus on cultural heritage.	short-term project based plan, with no consideration as to the overall impact on the local landscape as a whole.
	2. Disregard the existing plan but do not produce a new document. Under this scenario the current LBAP and all actions within it will be disregarded. No revisions to the current Plan will be made and no new LBAP will be produced. Coordinated action for biodiversity conservation is unlikely to take place (although conservation work carried out by agencies and NGOs will continue on an organisation by organisation basis).	×/?/O	×/?	O	?/×	×/?	×/?	?/×	O	?/×
	Comments - There is a legal requirement to protect biodiversity therefore an LBAP must be produced. An LBAP will allow protection and enhancement for biodiversity and can be used to identify and monitor such changes across either ecosystems or priority species.		The main emphasis would be on natural regeneration, no consideration on improvements to habitat connectivity etc...	There will be no overall benefit to human health, with no projects focusing on active engagement.	Uncertain as to the overall change in soils, potential for decline in peat-based habitat structures.	A reduction in promoting terrestrial biodiversity will have a negative effect on improving aquatic biodiversity.	Potential for CO2 release from Peat-based ecosystems and no addition to CO2 capture from increased woodland areas.	Uncertain on the overall effects relating to local assets, with the potential for peat land decline.	No direct link to cultural heritage.	Uncertain on the overall effects relating to local landscape, with the potential for upland and peat land habitats to decline.
	3. Review the existing plan but do not develop new actions. Under this scenario completed and out of date actions will be removed from the current Plan. No new actions will be developed. Efforts will be focussed on those outstanding actions which are still achievable given resource availability. There is the potential to assess effectiveness of efforts made against current actions.	??/✓/O	✓/×	?/✓	?	?	?	✓/×	O	✓/×
	Comments - The original actions did not deliver on wider environmental implications (identified in the SEA Outcomes) and were fragmented in the approach to improve biodiversity. The new plan should consider such issues. In addition the original plan did not include long-term monitoring, which could be added in the review, but this will not address potential action shortfalls.		Although there is potential for continual improvements, there is also the potential for negative effects.	The overall impact on human health are uncertain, with only the added improvement through existing projects.	Uncertain as to the overall change in soils, due to the species based projects.	Uncertain as to the overall change in water, due to the species based projects.	Uncertain long-term actions for climate change.	Although most projects were focused on priority species, there is even less potential for improving local assets.	No focus on cultural heritage.	Without new actions, the small positive gained will be potentially offset by negatives associated with habitat decline.
	4. Produce a new LBAP. This scenario will result in the production of a new LBAP. The current LBAP is reviewed and any relevant outstanding actions are incorporated into a new plan. A new plan will also incorporate changes in legislation and policy and will reflect changes in the National Biodiversity structures. New actions will be identified and a robust suite of measures and monitoring programme will be put into place. Biodiversity actions will bring benefits at an ecosystem (landscape) scale and will ensure future delivery of Ecosystem Services for the people of South Lanarkshire.	✓✓/?	✓	✓/?	✓	✓	✓	✓/?	?/✓	✓/?
	Comments - The new LBAP focuses on improving biodiversity of the ecosystem, providing opportunity to address issues relating to soil, water and climate change. There will be the opportunity for wider connectivity of habitats and thus improving local heritage and landscape issues. Linking with greenspace should improve the benefits associated with human health.		The overall effects on biodiversity will be positive, focusing on ecosystems as a whole.	Proactive uptake of biodiversity and integration into green space will have positive benefits on human health.	Improving biodiversity within ecosystems as a whole will improve soil quality/function and overall soil biodiversity.	Improving biodiversity within ecosystems as a whole will improve water quality and have a positive effect on aquatic biodiversity.	Improved peat functionality and increasing woodland habitat will improve CO2 capture capacity. Consider inevitable effects on climate.	Through improving biodiversity within ecosystems greater consideration is given to material assets.	Projects will consider biodiversity along with the potential wider implications on cultural heritage.	Through improving biodiversity within ecosystems greater consideration is given to landscape characteristics.

Appendix 6 Assessment of LBAP Tier 1 Objectives of the draft South Lanarkshire LBAP

			SEA Objectives	Summary Comments

Key:	
✓	LBAP objectives supportive of SEA objectives
✖	Potential conflict between LBAP and SEA objectives
O	LBAP objectives have no identified conflict or support for SEA objectives
?	Uncertain whether LBAP objectives conflict with or support the SEA objectives

		To protect and enhance biodiversity across designated and non-designated sites and avoid irreversible loss	To promote and encourage access to biodiversity and the countryside	Promote improvements to human health for all population groups through access to the natural environment, open space and the wider countryside	To protect soils and geology and maintain ecosystem functionality	To protect and enhance the biodiversity of freshwater bodies and wetlands	To protect and enhance ecosystem function	To reduce the impact of mineral extraction	To maintain and enhance ecosystem function to act as carbon sinks	To develop and maintain robust ecosystems which can adapt to climate change	To safeguard and enhance the built and cultural heritage and prevent damage	To prevent negative impacts upon landscape character	Summary Score	**Note**: Comments identify potential opportunities for…
LBAP Tier 1 Objectives	1. a fully functioning series of blanket bogs acting as carbon sinks	✓	O	O	✓	O	✓	O	✓	✓	O	✓	✓/✓/O	Enhanced designated sites relating to bogs, protecting bog habitats, no promotion of biodiversity or enhancement of human wellbeing, protect and enhance peat-based systems, could promote water logging and some wetland species, but no direct effect on water quality etc, a strong functioning peat bog will have a strong biodiversity and a ability to capture carbon, no contribution to heritage issues, but maintain and improve upland habitats.
	2. a fully functioning series of blanket bogs which retain water	✓	O	O	✓	✓	✓	O	✓	✓	O	✓	✓/✓/O	As above, with the fact that water retention is important to the overall function of the peat land habitat.
	3. a series of upland blocks, supporting a mosaic of habitats and a diverse range of species	✓/✖	O	O	✓	✓/O	✓/✖	O	O/✓	✓	O	✓	✓/✓/O	one aim is to provide habitats that are diverse in nature and form a connectivity across habitats.no effect on human health or promotion of wellbeing, a well functioning habitat will promote good soins and protect over-lay geology, there is good potential for a diverse upland habitat to assist in water quality, but further aims are required to achieve this, the current objective will protect the ecosystem function but nor enhance it, should increase carbon sink as a by-product to enhance ecological function, mosaic habitats and divers range of species should assist in habitat movement in response to climate change, with the increase in connectivity, a mosaic of habitat should enhance the landscape character overall.
	4. ensuring invasive species are not threatening ecosystem functioning	✓	O	O	O	✓	✓	O	O	✓	O	O/✓	OO/✓	Species movement could be part of climate change, but we must ensure that they do not negatively impact on the ecosystem function as a whole, no impact on human health and promotion or soils and ecology, freshwater and wetland invasive species will be targeted, protect ecosystems no direct link to carbon sink, species movement is part of predicted effects of climate change, will set priority species to improve or maintain landscape characteristics.
	5. a catchment- wide network of high quality water courses	✓	O	O	✓/O	✓	✓	O	O/✓	✓	O	O/✓	✓/O	improvement of water quality and directly-related terrestrial ecology and the provision of good corridors for species movement and connectivity to terrestrial habitats for movement of migratory species. Protecting the wider biodiversity, no human health issues, weak direct link to all soil types, but good quality fresh water will enhance wetland and water-dependent habitats, good water quality will provide a basis for strong ecosystem function both aquatic and terrestrial, weak link to overall function of ecosystems as carbon sinks, but strong for peat land and wetland habitats, good water quality can assist in the movement of species and maintain function that would be impacted on through climate change.
	6. a network of water courses free from man made obstructions	✓/O	O	O	O	✓	✓	O	O	✓	O/✖	O	OO/✓	Fish focused, actions need to consider the wider, river species movement and river banks…allowing species movement benefits the habitat, its aiding the enhancement of the habitats, but not improving the overall biodiversity, more movement rather than increasing biodiversity, as the movement will be enhanced, this will have a positive effect on upland water ecosystems, for the species that are already impacted by the barrier, removal of obstruction aids the facilitation of movement relating to climate change, slight potential for damage to historical weirs
	7. a series of naturally functioning floodplains along the main watercourses supporting large-scale wetland complexes which also function for flood alleviation	✓	O	O	✓	✓/✖	✓	O	O/✓	✓	✓/O	O	✓/✓/O	Flood defence will promote biodiversity across all habitat types associated with either water course or wetlands, functioning flood lands will assist in protecting soils associated with erosion etc, flood planes will help to maintain water flow rates and thus overall biodiversity, the negative would be the potential for land-based pollutants entering the water courses, functioning peat-based soils as a carbon sink, increase capacity to deal with floodwater and associated impacts.
	8. a series of high quality water bodies extending across South Lanarkshire	✓	O	O	O	✓	✓	✓/✖	O	O/✓	O	O	✓/O	Increase biodiversity within standing water habitats, no promotion of access or human health issues, no impact on improving soil function, increase the biodiversity of water -based ecosystems and directly adjacent ecosystems, standing water quality will improve the overall function of the ecosystem, will not directly effect mineral extractions but water bodies created should be fully functional on a biodiversity level, no carbon sink, the creation and maintainence of water bodies will help with climate change impacts.
	9. a fully functioning series of lowland raised bogs, acting as carbon sinks, contributing to a network of peatland habitat across Central Scotland	✓	O	O	✓	O	✓	O	✓	✓	O	✓	✓/✓/O	Increase and maintain the biodiversity of lowland raised bogs, protect the peat-specific soils to ensure they are maintained as carbon sinks, protect and enhance ecosystem for the peat-habitat, maintaining systems that are susceptible to climate impacts, provide enhancement to overall landscape character and localised landscapes.
	10. a series of high-quality non-floodplain wetlands (ponds, fens, marshes, reed beds etc) throughout South Lanarkshire, with the creation of 'biodiversity' friendly Sustainable Urban Drainage Systems (SUDs).	✓	O	O	O	✓	✓	O	O/✓	✓	O	O	OO/✓	good SUD and other wetlands will improve biodiversity within and out with the habitat, this system are fresh water bodies and should act as biodiversity banks and protect through natural water catchments, protecting ecosystem function close to the habitat, slight action in carbon sink through continual growth of reed beds, assist in climate change, providing addition links for migration etc, any landscape benefits would be min, and localised.

	11. a fully functioning Forest Habitat Network (FHN) based on native woodland, incorporated into the overarching integrated habitat network.	✓	O	O	✓	O/✓	✓	O	✓	✓	O/✓	✓/✗	✓/✓/O	Woodland has a rich biodiversity that can support species within and out with the habitat, good functioning woodlands will provide a sound soil-system that is potentially closed system, woodland can be linked to some water quality, relating to water banks etc, woodland are a closed ecosystem and protection of such is beneficial, the woodland would act as a carbon sink and connectivity would allow migration of species in line with climate change issues, ancient woodland are important historical features which should be maintained, whilst woodland in general would have a positive effect on the landscape of the area.
	12. forest expansion for carbon management which is broadly compatible with outcome 11.	✗/✓	O	O	O/✓/✗	O/✗	O/✓/✗	O	✓	✓/O/✗	O	✓/✗	O/✓/✗	Full biodiversity issues must be taken in to consideration including the consideration to the wider landscape and the species and mix of species used for carbon capture purpose, so that trees are not planted across wider habitat types, the trees need to fit into the functionality of the entire network, therefore there are benefits to planting high carbon-capture species, but there are also potential negatives if biodiversity is neglected in favour of carbon capture potential, there are also issues relating to landscape impacts and species, location used.
	13. the rural lowlands are composed of a mosaic of high quality habitats which support a diverse range of species as well as productive and sustainable agriculture.	✓	O	O	✓	O/✓	✓	✓/O	✓	✓/O	✓	✓	✓/✓/O	Work within the LBAP will improve the agricultural setting rather than add to the already presnet negative issue. Soil function is improved through the biodiversity issue this could have a positive effect on bring soils down to biodiversity function, but reducing the agricultural potential of the soils, in the main soils are maintained for agricultural purpose, weak in directly enhancing water, but there is potential in developing actions to improve the impacts associated with agriculture, enhance ecosystem function as far as you can within those ecosystems that can be improved, creat some form of corridors and work with green space networks etc, potential to improve on heritage issues linked to agricultural buildings and structures, keeping traditional lowland features, boundary features and enhancing such features. mineral activities should not have a negative impact on lowland habitats and should be considered when regenerating the existing site.
	14. Biodiversity is fully integrated into all aspects of urban life	✓	O/✓	O/✓	O/✓	✓	✓	O	O	✓	✓	O	✓/O	non-stat designated sites are located in urban areas, promoting the biodiversity within the urban setting, including niche pockets of biodiversity, link the biodiversity issue with other development constraints etc.. And with other issues including green space networks and recreational lands, providing improve biodiversity on the wider scale of the urban habitat and its individually biodiversity rich habitats, potential to improve soils on vacant or contaminated sites etc.. avoid urban pollutants, SUD etc..., improve rather protect and enhance, encouraging sustainable planting within the urban setting to promote species movement etc, sensitive planting and natural defence work to protect against potential damage,
	15. robust ecosystems which can adapt to climate change	✓	O	O	✓	✓	✓	O	✓	✓	O	O/✓	✓/✓/O	Fully functioning ecosystem should adapt to climate change, provide functioning corridors for species movement and act as a carbon sink.
	16. a good understanding and appreciation of the significance of ecosystems, their functions and benefits amongst the people of South Lanarkshire.	✓/O	✓	✓	O/✓	O/✓	O	O	O	O	O	O	OO/✓	aim is to promote the understanding and value of biodiversity and ecosystem function across the general public in order to promote and take steps to protect and enhance biodiversity within their daily life
	17. To create an inventory of South Lanarkshire's key biodiversity assets, ranked by international, national and local significance.	✓	O	O	O/✓	O/✓	✓	✓	O/✓	O	O	O	OO/✓	an inventory will provide us with the information needed to protect and promote the habitat and the functionality of the ecosystem, including the function of soils and water ecosystems and mitigate against potential impacts on high priority sites, improving the potential benefits of habitat creation through improved knowledge of what's in the area.
Summary Score		✓/✓	OO/✓	OO/✓	✓/O	✓/✓/O	✓/✓/O	OO/✓	✓/✓/O	✓/✓/O	OO/✓	O/✓	**Notes**	
Summary comments		This is the main area of the LBAP and is covered well across all the long-term Tier 1 Objectives	Promote and encouraging biodiversity and access to the wider countryside are covered by their own specific objectives and will be integrated within other strategies.	Promote and encouraging biodiversity and access to the wider countryside are covered by their own specific objectives and will be integrated within other strategies.	Promote and encouraging biodiversity and access to the wider countryside are covered by their own specific objectives and will be integrated within other strategies.	Promote and encouraging biodiversity and access to the wider countryside are covered by their own specific objectives and will be integrated within other strategies.	This is a main issue within the functionality of biodiversity and is covered well across most of the LBAP objectives	Covered where it can be, with LBAP influencing the issues that are directly related to mineral work	Carbon sinks is not the main issue for biodiversity but is a good tool for its delivery, however biodiversity must be taken in to full consideration when considering carbon sinks as a issue	although LBAP are aiming to maintain ecosystem function there as to be an element of robustness taken into consideration that will adapt systems for climate change impacts	LBAP is not used to enhance cultural heritage issues but will not impact on cultural or heritage issues	LBAP will be delivered in sensitive manor to the landscape character and will not adversely effect such landscapes		
Note: Ecosystem plans must be delivered as a whole with no artificial divide such as urban, upland etc…													

Appendix 7 Modification of Tier 2 Actions for assessment purposes

	Original Actions	Assessed Actions
Upland	1. No loss of peat	1. No loss of peat.
	2. All remaining peatland in South Lanarkshire to function as a Carbon sink.	2/4. All remaining peatland in South Lanarkshire to retain water and function as net Carbon sinks.
	~~3. No net loss of peat~~	
	4. All remaining blanket bogs in South Lanarkshire retaining water.	
	5. A mosaic of habitat at scales appropriate to landscape.	5. A mosaic of habitat at scales appropriate to landscape.
	6. Characteristic habitats and species are present. Habitats are in a favourable condition and species populations are stable or increasing (viable).	6. Characteristic habitats and species are present. Habitats are in a favourable condition and species populations are stable or increasing (viable).
	7. Monitor and record extent and population of priority invasive species.	7. Monitor and record extent and population of priority invasive species.*
	8. Limit spread of priority invasive species through targeted control measures.	8. Limit spread of priority invasive species through targeted control measures.*
Freshwater and Wetland	1. Continual improvement in water quality in all water courses in SL.	1/8. Continual improvement in water quality in standing water and water courses.
	2. no net increase in channel and/ or and bankside modification.	2. No net increase in channel and/ or and bankside modification.
	3. to remove man made obstructions to species movement from water courses.	3. To remove man made obstructions to species movement from water courses.
	4. Increase the capacity of floodplains to retain water.	4. Increase the capacity of floodplains to retain water.
	5. Increase in extent of wetland habitat mosaic. Improve quality of existing wetland habitats.	5. Increase in extent of wetland habitat mosaic. Improve quality of existing wetland habitats.
	6. River floodplains function to slow the flow of water through river catchments, particularly during flood events.	6. River floodplains function to slow the flow of water through river catchments, particularly during flood events.
	7. sustainable (natural) flood management. no net loss of standing open water (SOW) area. Creation of new water bodies (esp. ponds).	7. Sustainable (natural) flood management. no net loss of standing open water (SOW) area. Creation of new water bodies (esp. ponds).
	8. A continual improvement in quality of standing open water.	
	~~9. No net loss of peat~~	
	~~10. All remaining peatland in South Lanarkshire to function as a Carbon sink.~~	
	~~11. Monitor and record extent and population of priority invasive species.~~	
	~~12. Limit spread of priority invasive species through targeted control measures.~~	
	13. To ensure no net loss of wetland.	13/14. To ensure no net loss and increase wetland area.
	14. To increase net area of wetland.	
	15. To ensure new SUDS developments are as biodiversity friendly as possible.	15. To ensure new SUDS developments are as biodiversity friendly as possible.
Woodland	1. To ensure no loss of ancient semi-natural woodland in South Lanarkshire.	1. To ensure no loss of ancient semi-natural woodland in South Lanarkshire.
	2. To restore degraded native woodlands to a favourable condition.	2/3. To restore degraded native woodlands and semi-natural woodlands to a favourable
	3. To restore semi-natural woodland on Plantations on Ancient Woodland Sites (PAWS)	
	4. Characteristic woodland species (as referred to in Site Condition Monitoring Guidance) are present and mobile species are free to use the habitat network to move across their entire natural range.	4. Characteristic woodland species (as referred to in Site Condition Monitoring Guidance) are present and mobile species are free to use the habitat network to move across their entire natural range.
	5. Expand the area of native woodland in South Lanarkshire to facilitate habitat connectivity and develop a functional forest habitat network.	5. Expand the area of native woodland in South Lanarkshire to facilitate habitat connectivity and develop a functional forest habitat network.
	6. Colonisation of new native planting by characteristic woodland species.	6. Colonisation of new native planting by characteristic woodland species.
	7. Utilise forest expansion for carbon management to expand Forest Habitat Network and improve suitability for biodiversity.	7. Utilise forest expansion for carbon management to expand Forest Habitat Network and improve suitability for biodiversity.
	~~8. Monitor and record extent and population of priority invasive species.~~	
	~~9. limit spread of priority invasive species through targeted control measures.~~	
Lowland	1. No net loss of existing priority habitat within wider agricultural landscape.	1. No net loss of existing priority habitat within wider agricultural landscape.
	2. No loss of high quality habitats.	2. No loss of high quality habitats.
	3. Improve quality of existing habitat through positive management.	3. Improve quality of existing habitat through positive management.
	4. Improve connectivity of boundary features.	4. Improve connectivity of boundary features.
	5. Increase diversity of habitats within wider mosaic, without impinging upon extent of intact priority habitats.	5. Increase diversity of habitats within wider mosaic, without impinging upon extent of intact priority habitats.
	6. Increase proportion of habitat representative species present.	6. Increase proportion of habitat representative species present.
	7. To improve the quality of the urban environment for biodiversity.	7. To improve the quality of the urban environment for biodiversity.
	8. To integrate biodiversity conservation and enhancement into the management of urban spaces, paying particular attention to urban habitats such as buildings, cemeteries, roadside verges, roundabouts and urban grasslands.	8. To integrate biodiversity conservation and enhancement into the management of urban spaces, paying particular attention to urban habitats such as buildings, cemeteries, roadside verges, roundabouts and urban grasslands.
	~~9. Monitor and record extent and population of priority invasive species.~~	
	~~10. Limit spread of priority invasive species through targeted control measures.~~	
Climate Change	1. To produce a model and associated maps that will guide work to enable species and communities to adapt to future climate change.	1. To produce a model and associated maps that will guide work to enable species and communities to adapt to future climate change.
	2. Ensure that species movement through the landscape is permitted and where possible, facilitated, by future developments and/ or land use change. Encourage "biodiversity friendly" schemes (e.g. natural flood management; peatland restoration; tree planting etc)	2. Ensure that species movement through the landscape is permitted and where possible, facilitated, by future developments and/ or land use change. Encourage "biodiversity friendly" schemes (e.g. natural flood management; peatland restoration; tree planting etc).
Assets	1. Producing a definitive list of the species and habitat complexes that are of significance in SL will help guide future conservation efforts.	1. Producing a definitive list of the species and habitat complexes that are of significance in SL will help guide future conservation efforts.
Invasive Species	1. monitor and record extent, distribution and population numbers of priority invasive species.	1. monitor and record extent, distribution and population numbers of priority invasive species.
	2. raise awareness of invasive species and their associated negative impacts upon biodiversity and ecosystem functioning amongst local people/ developers/ contractors and land workers.	2. raise awareness of invasive species and their associated negative impacts upon biodiversity and ecosystem functioning amongst local people/ developers/ contractors and land workers.
People and Communicati	1. An increased awareness, understanding and appreciation of biodiversity and ecosystem services is demonstrated by ALL people in South Lanarkshire.	1. An increased awareness, understanding and appreciation of biodiversity and ecosystem services is demonstrated by ALL people in South Lanarkshire.
	2. SLBP partners provide more opportunities for the residents of South Lanarkshire to become actively engaged in biodiversity conservation, whether at a local or national level.	2. SLBP partners provide more opportunities for the residents of South Lanarkshire to become actively engaged in biodiversity conservation, whether at a local or national level.
	3. To use formal and informal education processes to ensure that biodiversity awareness, understanding and appreciation is promoted across society.	3. To use formal and informal education processes to ensure that biodiversity awareness, understanding and appreciation is promoted across society.

Appendix 8 Evaluating LBAP Tier 2 Actions for Upland Ecosystems

Key to scoring:	
++	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

		Upland Ecosystem Actions						Summary Score	Commentary Summary of environmental effects (including potential cumulative, secondary, synergistic, temporal, permanent or temporary, reversible or irreversible effects)	Notes on Mitigation and enhancement
		Action 1/3. No loss of peat.**	Action 2/4. All remaining peatland in South Lanarkshire to retain water and function as net Carbon sinks.**	Action 5. A mosaic of habitat at scales appropriate to landscape.	Action 6. Characteristic habitats and species are present. Habitats in favourable condition and species populations are stable or increasing	Action 7. Monitor and record extent and population of priority invasive species.*	Action 8. Limit spread of priority invasive species through targeted control measures.*			
SEA Objectives	SEA Objective1. To protect and enhance biodiversity across designated and non-designated sites and avoid irreversible loss.	+ M-L	++ M-L	+ M-L	++ M-L	?	++ S-M-L	++/+	Most actions have a significant positive impact on the upland ecosystem. These impacts will be considered long term, with the potential of cumulative effects through the connectivity of the mosaic habitat scale.	• Further monitoring is required for upland habitats to recognise the full potential for benefits. • Guidance is required to improve the management and future development on upland habitats.
	SEA Objective2. To promote and encourage access to biodiversity and the countryside.	?	?	?	?	?	?	??	Potential for negative effects associated with the promotion of access across these habitats. Work with other agencies and policies to reduce any negative effect on these habitats. Utilise existing path network and appropriate management measure to promote wider access whilst militating against potential impacts.	• Promote access through existing measures including existing paths and the Councils CPP network. • Access management must include mitigation measures to reduce any negative impacts associated with encouraged access.
	SEA Objective3. Promote improvements to human health for all population groups through access to the natural environment, open space and the wider countryside.	?	?	?	?	?	?	??	The current actions do not provide the opportunity to promote the benefits associated with these habitats or promote the access to such habitats across population types.	As above.
	SEA Objective4. To protect soils and geology and maintain ecosystem functionality.	++ M-L	++ M-L	+/?	+ M-L	?	+/?	++/+/?	Improving the function of these habitats will provide positive benefits to the soil substrates, whilst promoting habitat mosaic and connectivity my benefit the soil function consideration must be given to the existing soil structure.	• Appropriate management regimes for upland ecosystems must take in to consideration the functionality and structure of the soils. • Ensure soil type and sensitivity are considered within determining habitat expansion etc.
	SEA Objective5. To protect and enhance the biodiversity of freshwater bodies and wetlands.	+/?	+/?	+/?	+/?	?	?	?/+	It is uncertain as to the effect this would have on the overall water environment, however upland areas are major sources of water and therefore there is the potential to influence the quality of upland water courses. Retention of water in uplands would reduce the potential peak water flows experienced across the river network.	
	SEA Objective6. To protect and enhance ecosystem function.	++ M-L	++ M-L	+ M-L	++ M-L	?	++ M-L	++	Increasing water retentions and improving habitat function and connectivity will have a positive, long and medium term effect on the environment as a whole,	
	SEA Objective7. To reduce the impact of mineral extraction.	++ M-L	?	?	?	?	?	?/++	Extraction of peat is normally associated with lowland areas however upland areas are experiencing greater demand from windfarm development. Effects from these developments are considered to be potentially significant.	• Guidance is required for the development of upland areas – windfarms, extraction of minerals or restoration of existing sites.
	SEA Objective8. To maintain and enhance ecosystem function to act as carbon sinks.	++ M-L	++ M-L	+/?	++ M-L	?	+ S-M-L	++/+/?	Degradation of these habitats would result in the release of carbon which would have significant long term consequences, the actions proposed aim to stop such threats and reverse such actions, therefore the environmental benefits would be considered over a long term timeframe.	
	SEA Objective9. To develop and maintain robust ecosystems which can adapt to climate change.	+/?	+/?	+/?	++ M-L	?	?/+	+/?	Although there are positive benefits associated with improving these habitats it is uncertain as to the effect climate change will have on the habitats as a whole. Any effects induced by climate change will be over a considerable time period, beyond the scope of this assessment.	
	SEA Objective10. To safeguard and enhance the built and cultural heritage and prevent damage.	?	?	?	?	?	?	??	It is uncertain as to the effect this would have on the overall cultural and heritage sites across South Lanarkshire, therefore individual sites that would be potentially effect within the LBAP should be considered on a site per site basis.	• Site specific conditions for heritage assets should be considered at the project level.
	SEA Objective11. To prevent negative impacts upon landscape character.	++ M-L	+ M-L	++ M-L	+ M-L	?	?/+	++/+/?	There is the potential to retain the current landscape character of the area and improve those relating to the upland habitats. However, uncertainty remains as to the extent of such areas and its current condition and therefore it is uncertain as to the overall potential for significant improvements over the area as a whole.	
Summary Score		++/?	++/?	+/?	++/?	??	?/+		Additional Notes: • Guidance is required for development issues relating to upland sites for wind farms and site restoration etc. which should promote best practice for such developments and improvement to upland ecosystems. • Monitoring programmes should be initiated to monitor current site condition and record site improvements, especially across non-designated sites. • Access to upland ecosystems should be linked with existing path networks (including the CPP network) to minimise potential impacts and promote biodiversity as a positive recreational asset. • Consideration should be given to soils within any management or improvement programme, which should include soil function and structure as well as soil biodiversity. • Site specific issues considering landscape and cultural heritage aspects should be considered within any site management plan and addressed on a individual site basis.	
		The action will have an overall positive impact across the majority of the environmental issues.	The action aims to improve the function of existing peatland habitats.	The action should improve connectivity of peatland habitats and improve species movement.	The action has the potential to improve species richness both within the peatland system and beyond the wider upland ecosystem.	The main aim of the action is to provide a monitroring tool for monitorig invasive species across the network.	The aim of the action is to selectivley control invasive species to benefit those priority species.			

Appendix 9 Evaluating LBAP Tier 2 Actions for Water-based Ecosystems

Key to scoring:	
++	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

		Fresh Water and Wetland Ecosystem Actions									Summary Score	Commentary Summary of environmental effects (including potential cumulative, secondary, synergistic, temporal, permanent or temporary, reversible or irreversible effects)	Notes on Mitigation and enhancement
		Action 1/8. Continual improvement in water quality in standing water and water courses.**	Action 2. No net increase in channel and/ or and bankside modification .	Action 3. To remove man made obstructions to species movement from water courses.	Action 4. Increase the capacity of floodplains to retain water.	Action 5. Increase in extent of wetland habitat mosaic. Improve quality of existing wetland habitats.	Action 6. River floodplains function to slow the flow of water through river catchments, particularly during flood events.	Action 7. Sustainable flood management . no net loss of standing open water (SOW) area. Creation of new water bodies	Action 13/14. To ensure no net loss and increase wetland area.**	Action 15. To ensure new SUDS developments are as biodiversity friendly as possible.			
SEA Objectives	SEA Objective1. To protect and enhance biodiversity across designated and non-designated sites and avoid irreversible loss.	+ S-M-L	+ S-M-L	+ M-L	+ M-L	+ M-L	+ M-L	+/-	+/-	?/+	++/?	The series of Actions will lead to improvements across the water environment which could be cummulative in nature, however there are potential negative effects associated with the inapropriate location of increased wetlands and the creation of water bodies.	• Link floodplains and wetland areas with areas such as Greenspace networks. • Provide guidance on SUDS and monitor the quality of the system for biodiversity. • Develop a monitoring programme covering water environments that compliment WFD requirements.
	SEA Objective2. To promote and encourage access to biodiversity and the countryside.	?	?/-	?	?	?	?	?	?	?	??/+	Promotion of the water environment can potentially have a negative effect on river bank erosion etc, but these effects would be minimal.	• Further promotion of the water environment through current promotional routes to increase its ecological status. • Utilise current access networks such as the Core Path network.
	SEA Objective3. Promote improvements to human health for all population groups through access to the natural environment, open space and the wider countryside.	?	?/-	?	?	?	?	?	?	?	??	It is uncertain how these Actions will lead to a direct improvement to human health.	• Provide opportunities for voluntary/active local group involvement in improvement schemes. • Promote general access to the wider strategic greenspace, including those linked with the water environment.
	SEA Objective4. To protect soils and geology and maintain ecosystem functionality.	?	+ M-L	?	+/-	+/-	+/-	+/-	+/-	?/-	++/?	There is the potential for both positive and negative effects on soils depending on location for habitat improvement and/or extension. There is the potential for increased soils erosion or the release of soil-born pollutants.	• Ensure soil type and soil sensitivity are considered within a screening criteria for determining habitat expansion etc.
	SEA Objective5. To protect and enhance the biodiversity of freshwater bodies and wetlands.	++ S-M-L	+ S-M-L	++ M-L	?/+	++ S-M-L	?/+	+/-	++ M-L	+ M-L	++/?	Actions will improve the water environment by expanding wetland and water bodies, promoting species movement and migration, controlling river flow and improving river bank structure. Cumulative effect will be in line with WFD requirements.	• Develop a monitoring plan to monitor water quality and the functionality of wetland systems in line with requirements for WFD (where appropriate). • Monitor the functionality of SUDS to determine both water quality and biodiversity of the system.
	SEA Objective6. To protect and enhance ecosystem function.	++ S-M-L	+ S-M-L	+ M-L	+ M-L	++ S-M-L	+ M-L	+/-	++ M-L	?/+	++/+	Actions will improve the biological and physical function of the water environment, resulting in long-term improvements in water flow and quality.	• WFD monitoring includes components of water environmental function.
	SEA Objective7. To reduce the impact of mineral extraction.	?	?	?	?	?	?	?	?	?	??	The Actions afford no impact to this SEA Action.	• Develop guidance for incorporating water environments within mineral extraction and restoration of existing sites.
	SEA Objective8. To maintain and enhance ecosystem function to act as carbon sinks.	?	?	?	?	?	?	?	?	?	??	Actions will have no significant effect on carbon sinks etc.	
	SEA Objective9. To develop and maintain robust ecosystems which can adapt to climate change.	?	?	?	+ M-L	+ M-L	+ M-L	?	+ M-L	?	??/+	Actions will improve the function of floodplains and control of water flow and facilitate species movement and migration in partial response to climatic changes.	
	SEA Objective10. To safeguard and enhance the built and cultural heritage and prevent damage.	?	?	?	?/+	?/+	?/+	?	?	?	??/+	Improving floodplain function and controlling water flows will alleviate flooding incidents that may affect historical and cultural sites.	
	SEA Objective11. To prevent negative impacts upon landscape character.	?	+ M-L	?/+	?/+	?/+	?/+	+/-	+/-	+/-	??/+	Increased habitat connectivity and habitat area can positively influence the local landscape. These issues must be considered within an individual site basis.	• Local landscape constraints must be considered on an individual site basis.
Summary Score		??/+	?/+	??/+	+/?	+/?	+/?	?/+/-	++/?	??/+		Additional Notes: • Incorporate a water network with a Greenspace network (blue/green network) to fully integrate biodiversity within a functioning environment, expand and incorporate access, improve human health and promote a functioning green network. • Monitoring programmes should be initiated to monitor current site condition and record site improvements across wetlands and fresh water bodies. • Provide guidance for SUDs that include monitoring requirements. • Provide guidance on biodiversity within floodplains.	
		The Action aims to improve the quality of the water environment.	The Action aims to maintain the natural river network and river bank environment.	The Action promotes the passage of species through man-made obstructions.	The Action will aim to increase floodplain function.	The Action will increase the function and connectivity of wetland habitats.	The Action aims to improve the function of natural river floodplains.	The Action aims to improve the capacity of standing open water areas.	The Action aims to increase wetland areas.	The Action will improve the biodiversity of SUDs.			

Appendix 10 Evaluating LBAP Tier 2 Actions for Woodland Ecosystems

Key to scoring:	
++	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

		Woodland Ecosystem Actions								
		Action 1. To ensure no loss of ancient semi-natural woodland in South Lanarkshire.	Action 2/3. To restore degraded native woodlands and semi-natural woodlands to a favourable condition.**	Action 4. Characteristic woodland species (as referred to in Site Condition Monitoring Guidance) are present and mobile species are free to use the habitat network to move across their entire natural range.	Action 5. Expand the area of native woodland in South Lanarkshire to facilitate habitat connectivity and develop a functional forest habitat network.	Action 6. Colonisation of new native planting by characteristic woodland species.	Action 7. Utilise forest expansion for carbon management to expand Forest Habitat Network and improve suitability for biodiversity.	Summary Score	Commentary Summary of environmental effects (including potential cumulative, secondary, synergistic, temporal, permanent or temporary, reversible or irreversible effects)	Notes on Mitigation and enhancement
SEA Objectives	SEA Objective1. To protect and enhance biodiversity across designated and non-designated sites and avoid irreversible loss.	++ S-M-L	++ M-L	++ M-L	++ M-L	+ M-L	?	++/+	Actions will improve the function and area covered. This will have a significant cumulative impact on both designated and non-designated species. Habitat improvement and connectivity will improve viability an (maybe) diversity of species)	• Ensure that connectivity includes the use of a range of habitat types to maximise species movement and overall biodiversity. • Utilise the green networks to expand woodland cover and improve connectivity across both urban and rural habitats.
	SEA Objective2. To promote and encourage access to biodiversity and the countryside.	?/+	?/+	?	?	?	?	??	Ensuring no loss in woodland cover, whilst improving and expanding existing woodland ecosystems could encourage greater use of the woodland network and improve access to local biodiversity-rich areas.	• Link core path and other access networks with woodland expansion • Provide guidance on woodland connectivity and use within local land development plans. • Promote awareness
	SEA Objective3. Promote improvements to human health for all population groups through access to the natural environment, open space and the wider countryside.	?/+	?/+	?	?	?	?	??	As above.	• As above.
	SEA Objective4. To protect soils and geology and maintain ecosystem functionality.	++ M-L	++ M-L	++ M-L	+ M-L	+/-	+/-	++/+/-	Improving the function and area of woodlands would have benefits to associated soil function. Protecting existing non-woodland soils should be considered when planning woodland expansion.	• Ensure woodland expansion is proportionate to soil type to ensure full soil protection.
	SEA Objective5. To protect and enhance the biodiversity of freshwater bodies and wetlands.	+ M-L	+ M-L	+/?	+/?	?	?	?/+	Many natural woodland areas across South Lanarkshire are closely associated with water courses and river gorges, improvements and expansion of these habitats will have a direct positive impact on the water environment, improving water quality and species richness.	• Utilise water network to expand and promote connectivity of woodland cover. • Ensure woodland species are used to promote water quality as well as woodland ecosystem function.
	SEA Objective6. To protect and enhance ecosystem function.	++ S-M-L	++ M-L	++ M-L	+ M-L	++ M-L	+/-	++/+	The Actions will enhance the ecological function of the woodland habitats across South Lanarkshire, providing a network of woodland habitats that promote species movement and enhance the character of South Lanarkshire.	
	SEA Objective7. To reduce the impact of mineral extraction.	?	?	?	?/+	?/+	?	??/+	There is the potential to expand woodland cover through land regeneration of mineral extraction sites.	• Provide guidance in protecting and enhancing woodland cover associated with mineral extraction and land regeneration.
	SEA Objective8. To maintain and enhance ecosystem function to act as carbon sinks.	+ S-M-L	+ M-L	?	+ M-L	+ M-L	++ M-L	++	Appropriately functioning woodland habitats can act as carbon sinks, this will improve the carbon budget of the area, through increasing carbon capture within woodland ecosystems.	• Species should be selected for their potential carbon sink capacity as well as their ecosystem functionality.
	SEA Objective9. To develop and maintain robust ecosystems which can adapt to climate change.	?/+	?/+	+ M-L	?/+	?/+	?/+	++/??	Greater connectivity across woodland ecosystems will assist in the movement of species in direct response to changing local climate, whilst a well functioning ecosystem can help the protection of some species against adverse climatic impacts.	• Consider the use of localised climate change predictor models to predict future shifts in species etc.
	SEA Objective10. To safeguard and enhance the built and cultural heritage and prevent damage.	?/+	?	?	?	?	?	??	It is uncertain the effect these actions will have on enhancing the built and cultural heritage of the area.	• Woodland enhancement must take into consideration the cultural and specific heritage aspect of local sites.
	SEA Objective11. To prevent negative impacts upon landscape character.	++ S-M-L	++ S-M-L	?	+/-	+/-	?	++/-	Improving woodland ecosystems will have a positive benefit on the local landscape. Expansion can improve the general character of the regional and local landscape, whilst inappropriate location of such woodland expansion can be detrimental.	• Ensure woodland regeneration is in keeping with the local landscape and is not visually obtrusive in nature. • Ensure the woodland expansion provides a mosaic that blends in to other habitat types, to improve connectivity whilst minimising negative effects on the local landscape.
Summary Score		++/?	++/?	??/++	+/?	+/?	??/+			
		The Action will protect existing ancient woodland habitats.	The Action aims to improve native woodlands.	The Action aims to promote characteristic species within the woodland ecosystems.	This Action should expand the area and function of the habitat.	The Action should promote the colonisation of woodland species.	The Action promotes the function of woodland as net carbon sinks.			

Additional Notes:

• Guidance on the woodland expansion / regeneration to incorporate integration with other habitat corridors and reduce impact on other ecosystems types through inappropriate site selection, in addition woodland expansion should not impact upon other habitats, sensitive soil types and local/regional landscape.

• Monitoring programmes should be initiated to monitor current site condition and record site improvements across woodland ecosystems.

• Ensure access to woodland is linked with other path networks, whilst habitat connectivity corridors are associated with existing Greenspace and water networks.

Appendix 11 Evaluating LBAP Tier 2 Actions for Lowland Ecosystems

Key to scoring:		Lowland Ecosystem Actions							Summary Score	Commentary Summary of environmental effects (including potential cumulative, secondary, synergistic, temporal, permanent or temporary, reversible or irreversible effects)	Notes on Mitigation and enhancement
++	Major positive	Action 1/2. No net loss of high quality and existing priority habitat within wider agricultural landscape.**	Action 3. Improve quality of existing habitat through positive management	Action 4. Improve connectivity of boundary features.	Action 5. Increase diversity of habitats within wider mosaic, without impinging upon extent of intact priority habitats.	Action 6. Increase proportion of habitat representative species present.	Action 7. To improve the quality of the urban environment for biodiversity.	Action 8. To integrate biodiversity conservation and enhancement into the management of urban spaces.			
+	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	SEA Objective1. To protect and enhance biodiversity across designated and non-designated sites and avoid irreversible loss.	+ M-L	++ M-L	+ M-L	++ M-L	+ M-L	++ S-M-L	++ S-M-L	++/+	The actions will lead to significant biodiversity improvements across a wide range of lowland ecosystems including many urban environments. Through improved connectivity across lowland ecosystems there is the potential for additional improvements to other ecosystems such as water and woodland.	• Ensure biodiversity is integral to urban Greenspace management. • Utilise the mix of lowland ecosystems to improve connectivity across a wider range of ecosystems including woodland, water etc.
	SEA Objective2. To promote and encourage access to biodiversity and the countryside.	?	?	?/+	?	?	++/?	++/?	??/+	The improvement and creation of a biodiversity rich lowland network of habitats will improve connectivity to the wider countryside.	• Link connectivity networks with wider access path networks to reduce damage whilst improving access.
	SEA Objective3. Promote improvements to human health for all population groups through access to the natural environment, open space and the wider countryside.	?	?	?	?/+	?	++ S-M-L	++ S-M-L	??/++	Improving the biodiversity of the wider urban environment will lead to positive improvement in local urban landscape whilst at the same time creating greater access to the natural environment and the wider countryside and improving wellbeing.	• Link biodiversity benefits with Greenspace and urban management, including parklands, recreational areas, allotments etc. • Develop guidance that integrates biodiversity within urban planning.
	SEA Objective4. To protect soils and geology and maintain ecosystem functionality.	+ M-L	+ M-L	?/+	?/+	?/+	?/+	?/+	++/??	Enhancing the function and biodiversity of habitats across a range of urban and rural landscapes will lead to improved soil structure, fertility and diversity within associated soils.	• Consider soil type and sensitivity when determining habitat expansion. • Specific guidance may be required to promote soils in relation to land reclamation etc. • Specific actions may be considered to improve urban soils and potentially contaminated sites.
	SEA Objective5. To protect and enhance the biodiversity of freshwater bodies and wetlands.	?/+	?/+	?	?	?	?/+	?	??/+	Improving lowland ecosystems associated with fresh water bodies will lead to improvements in water quality.	• Further improvements can be made in linking urban drainage systems with improved rural and urban ecosystems. • Utilise water bodies as potential lowland biodiversity corridors.
	SEA Objective6. To protect and enhance ecosystem function.	+ M-L	++ M-L	+ M-L	?/+	++ M-L	?/+	?/+	++/?	Maintaining biodiversity helps to enhance the functionality and service provision of natural habitats.	
	SEA Objective7. To reduce the impact of mineral extraction.	?	?	?	?	?	?	?	??	It is uncertain how the actions will the effects of mineral extraction on biodiversity.	• Provide guidance to promote ecosystem improvements within site regeneration.
	SEA Objective8. To maintain and enhance ecosystem function to act as carbon sinks.	?/+	?/+	?	?	?	?	?	??/+	Improvements to the management of specific ecosystem components can assist in increased regional carbon capture.	
	SEA Objective9. To develop and maintain robust ecosystems which can adapt to climate change.	?/+	?/+	?/+	?	?/+	?	?	??/+	Connectivity corridors for appropriate habitats such as woodlands should complement wider initiatives to expand and link other vulnerable habitats.	• Provide a range of networks that connect several types of habitat to maximise species movement.
	SEA Objective10. To safeguard and enhance the built and cultural heritage and prevent damage.	?	?	?	?	?	+/-	+/-	??/+/-	Improving the urban environment and particularly those relating to rich heritage areas can enhance the quality of such culturally-rich sites or their setting.	• Ensure habitat enrichment is fully appropriate with the cultural site and its setting within the local environment.
	SEA Objective11. To prevent negative impacts upon landscape character.	+ S-M-L	+ S-M-L	+/-	+/-	?	+ S-M-L	+ S-M-L	++/-	Lowland landscapes and in particular urban landscapes are important characteristic of the local environment, therefore improvements to the local environment will directly translate to improved local landscapes.	• Provide guidance in promoting urban biodiversity within the local planning context.
Summary Score		++/??	++/??/+	??/++	??/++	??/++	??/++	??/++	Additional Notes: • Guidance for promoting biodiversity across the Greenspace network ,core path network and within allotments and community gardens. • Develop guidance for incorporating biodiversity within restoration projects e.g. mineral restoration, contaminated land etc. • Expand the opportunity to promote human health and improve access through better connectivity of networks (including Core Path and Greenspace networks) linking urban woodland, recreational areas and the wider countryside. • Promote access and biodiversity enhancement projects through conservation groups and other formal active / educational schemes (including ecoschools, forest schools etc).		
		This Action aims to protect existing lowland ecosystems.	The Action aims to improve the overall quality of the lowland habitats	The Action will aim to improve connectivity across a wide range of habitat types.	The Action aims to increase biodiversity across habitat corridors.	The aim of the Action is to increase key species within the appropriate habitat types.	This Action aims to improve biodiversity across the urban environment.	This Action aims to increase biodiversity within key urban areas.			

Appendix 12 Evaluating LBAP Tier 2 Actions for non-Ecosystems

Key to scoring:		Lowland Ecosystem Actions							Summary Score	Commentary Summary of environmental effects (including potential cumulative, secondary, synergistic, temporal, permanent or temporary, reversible or irreversible effects)	Notes on Mitigation and enhancement
++	Major positive	Action 1/2. No net loss of high quality and existing priority habitat within wider agricultural landscape.**	Action 3. Improve quality of existing habitat through positive management	Action 4. Improve connectivity of boundary features.	Action 5. Increase diversity of habitats within wider mosaic, without impinging upon extent of intact priority habitats.	Action 6. Increase proportion of habitat representative species present.	Action 7. To improve the quality of the urban environment for biodiversity.	Action 8. To integrate biodiversity conservation and enhancement into the management of urban spaces.			
+	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	SEA Objective1. To protect and enhance biodiversity across designated and non-designated sites and avoid irreversible loss.	+ M-L	++ M-L	+ M-L	++ M-L	+ M-L	++ S-M-L	++ S-M-L	++/+	The actions will lead to significant biodiversity improvements across a wide range of lowland ecosystems including many urban environments. Through improved connectivity across lowland ecosystems there is the potential for additional improvements to other ecosystems such as water and woodland.	• Ensure biodiversity is integral to urban Greenspace management. • Utilise the mix of lowland ecosystems to improve connectivity across a wider range of ecosystems including woodland, water etc.
	SEA Objective2. To promote and encourage access to biodiversity and the countryside.	?	?	?/+	?	?	++/?	++/?	??/+	The improvement and creation of a biodiversity rich lowland network of habitats will improve connectivity to the wider countryside.	• Link connectivity networks with wider access path networks to reduce damage whilst improving access.
	SEA Objective3. Promote improvements to human health for all population groups through access to the natural environment, open space and the wider countryside.	?	?	?	?/+	?	++ S-M-L	++ S-M-L	??/++	Improving the biodiversity of the wider urban environment will lead to positive improvement in local urban landscape whilst at the same time creating greater access to the natural environment and the wider countryside and improving wellbeing.	• Link biodiversity benefits with Greenspace and urban management, including parklands, recreational areas, allotments etc. • Develop guidance that integrates biodiversity within urban planning.
	SEA Objective4. To protect soils and geology and maintain ecosystem functionality.	+ M-L	+ M-L	?/+	?/+	?/+	?/+	?/+	++/??	Enhancing the function and biodiversity of habitats across a range of urban and rural landscapes will lead to improved soil structure, fertility and diversity within associated soils.	• Consider soil type and sensitivity when determining habitat expansion. • Specific guidance may be required to promote soils in relation to land reclamation etc. • Specific actions may be considered to improve urban soils and potentially contaminated sites.
	SEA Objective5. To protect and enhance the biodiversity of freshwater bodies and wetlands.	?/+	?/+	?	?	?	?/+	?	??/+	Improving lowland ecosystems associated with fresh water bodies will lead to improvements in water quality.	• Further improvements can be made in linking urban drainage systems with improved rural and urban ecosystems. • Utilise water bodies as potential lowland biodiversity corridors.
	SEA Objective6. To protect and enhance ecosystem function.	+ M-L	++ M-L	+ M-L	?/+	++ M-L	?/+	?/+	++/?	Maintaining biodiversity helps to enhance the functionality and service provision of natural habitats.	
	SEA Objective7. To reduce the impact of mineral extraction.	?	?	?	?	?	?	?	??	It is uncertain how the actions will the effects of mineral extraction on biodiversity.	• Provide guidance to promote ecosystem improvements within site regeneration.
	SEA Objective8. To maintain and enhance ecosystem function to act as carbon sinks.	?/+	?/+	?	?	?	?	?	??/+	Improvements to the management of specific ecosystem components can assist in increased regional carbon capture.	
	SEA Objective9. To develop and maintain robust ecosystems which can adapt to climate change.	?/+	?/+	?/+	?	?/+	?	?	??/+	Connectivity corridors for appropriate habitats such as woodlands should complement wider initiatives to expand and link other vulnerable habitats.	• Provide a range of networks that connect several types of habitat to maximise species movement.
	SEA Objective10. To safeguard and enhance the built and cultural heritage and prevent damage.	?	?	?	?	?	+/-	+/-	??/+/-	Improving the urban environment and particularly those relating to rich heritage areas can enhance the quality of such culturally-rich sites or their setting.	• Ensure habitat enrichment is fully appropriate with the cultural site and its setting within the local environment.
	SEA Objective11. To prevent negative impacts upon landscape character.	+ S-M-L	+ S-M-L	+/-	+/-	?	+ S-M-L	+ S-M-L	++/-	Lowland landscapes and in particular urban landscapes are important characteristic of the local environment, therefore improvements to the local environment will directly translate to improved local landscapes.	• Provide guidance in promoting urban biodiversity within the local planning context.
Summary Score		++/??	++/??/+	??/++	??/++	??/++	??/++	??/++	Additional Notes: • Guidance for promoting biodiversity across the Greenspace network ,core path network and within allotments and community gardens. • Develop guidance for incorporating biodiversity within restoration projects e.g. mineral restoration, contaminated land etc. • Expand the opportunity to promote human health and improve access through better connectivity of networks (including Core Path and Greenspace networks) linking urban woodland, recreational areas and the wider countryside. • Promote access and biodiversity enhancement projects through conservation groups and other formal active / educational schemes (including ecoschools, forest schools etc).	
		This Action aims to protect existing lowland ecosystems.	The Action aims to improve the overall quality of the lowland habitats	The Action will aim to improve connectivity across a wide range of habitat types.	The Action aims to increase biodiversity across habitat corridors.	The aim of the Action is to increase key species within the appropriate habitat types.	This Action aims to improve biodiversity across the urban environment.	This Action aims to increase biodiversity within key urban areas.			

Appendix 13 Overview of environmental issues identified through assessment.

Summary and status of likely significant effect of LBAP *(including potential cumulative, secondary, synergistic, temporal, permanent or temporary, reversible or irreversible effects)*	
Upland Ecosystem	**Biodiversity**
	The identification, monitoring and improvement of key species within upland ecosystems will improve biodiversity and overall condition of the ecosystem.
	May desingnated areas and features are closely associated with upland ecosystems, therefore improvements in the diversity and function of such ecosystems will provide a positive benefit to designated sites and their status.
	Improvements in the connectivity of upland ecosystems will improve the movement of species and the overall biodiversity of the area including designated and non-designated sites.
	Population and human health
	Peat-based upland ecosystems are highly sensitive to disruption through increase exposure to human use.
	Soil and Geology
	Retaining water and minimising disruption in upland ecosystems will improve the biological function of peat-based soils, improving the overall diversity of the ecosystem.
	Water
	Upland ecosystems can have a direct impact on water environment with retention of water within peat-based soils providing a positive effect on water quality and flow rates as such ecosystems are the main source for capillary water systems.
	Material Assets
	No loss in peat would reduce the potential for peat to be considered as an economic asset whilst enhancing peat as an environmental asset.
	A good functioning upland ecosystem is an important asset to the area.
	Improvements to the function and expansion of upland ecosystems will improve the upland habitat as an asset for the area.
	Improving the habitat status will improve the quality of the habitat as a local asset.
	Climate
	Good functioning peat systems can have a positive effect on climate change.
	Retention of water will improve the function of peat and peat accumulation resulting in the net carbon retention.
	Improving the mosaic of habitats should allow greater movement of species in line with adapting to climatic shifts.
	Diverse habitats improve their function as carbon sinks and the ability to adapt to climatic shifts.
	Cultural Heritage
	Buried heritage would remain whilst those associated with the landscape could be improved.
	Landscape
	The potential is to improve the local landscape, particularly within the south of the area where upland ecosystems are dominated.
	Habitats that are functioning well and that are in good status will improve the abundance of other species which will have a positive effect on the overall landscape of the area.
Water	**Biodiversity**
	Improvements in water quality will improve water biodiversity, however adjacent land will affect the overall diversity of the water environment.
	Maintaining waterside habitats will improve the overall diversity of the water environment.
	Expansion of species throughout the water network to improve the wider biodiversity of the water courses.
	Potential to increase availability of habitats for wetland species etc and improve biodiversity across water ecosystems.
	Expansion of species throughout the water network to improve the wider biodiversity of the water courses.
	Flooding of natural floodplains would have minimal biodiversity impacts however the process could provide a mechanism for the dispersal of any alien/invasive species present within the flooding.
	There is the potential for low bio-divers standing waters being maintained without direct improvement in overall diversity.
	There is the potential for low bio-divers wetlands being maintained without direct improvement in overall diversity. There is the potential for inappropriate development of increasing wetland areas.
	Population and human health
	Although the objective offers no direct link to improving access, improved water quality can potential lead to some improvement in human health.
	Improvements to path networks or development could have a negative impact on waterside banks.
	Potential to change the access to water courses and to improve their recreational use within the CPP Network etc.
	The main potential would be associated with the effects of flooding etc.
	Naturally functioning flood plains would potentially alleviate flooding in urbanised areas, which would benefit those directly affected by such occurrences.

Water	**Soil and Geology**
	Soils are prone to erosion through inappropriate waterside development or increased channelling there is the potential to improve such soils.
	Potential changes in the flow of the river network which could result in changes in sediment settlement or river bank erosion.
	Reducing the flow of water through floodplains would help to reduce potential downstream soil erosion.
	Potential to protect against soil erosion.
	Natural functioning floodplains could potentially protect soil erosion from both river banks and/or adjacent agricultural fields. Flooding has also the potential to mobilise soil born pollutants within contaminated areas etc. this could have a negative effect on river quality and land contamination further down stream. There is the potential to both improve soil quality in areas associated with standing water and whilst disrupting soil function in the creation of new water bodies.
	There is the potential to both improve soil function in areas associated with wetland habitats and whilst disrupting soil function in the creation of new wetland areas.
	Due to the nature of SUDs there is the potential for the accumulation of metals and other pollutants within the SUD soil system.
	Water
	This objective aims to improve the overall quality aspects and the function of the water environment and its status as a local asset.
	Maintaining and improving waterside banks will improve the function and diversity of the water environment.
	Potential for changes in flooding issues, potential to improve the overall water quality of the network.
	Potential to increase the risk of pollution from inappropriate floodplains, such as agricultural or contaminated land.
	Provide a mechanism to improve water quality.
	Climatic predictions have indicated an increase in local precipitation rates, whilst current data shows a continual increase in rive flow rates, this objective must therefore consider predicted trends.
	The objective has the potential to improve the quantity of water bodies, but not necessary the quality of such bodies.
	The objective has the potential to improve the quantity of wetlands, but not necessary the quality of such areas.
	Well functioning and bio-diverse rich SUDs systems would have beneficial effects on the receiving water environment.
	Material Assets
	Although water is considered a local asset such improvement will have no effect on other local assets, such as minerals.
	Climate
	In line with future climatic predictions, local environmental data suggests that river flow is increasing, this could lead to an increase in flooding incidents, there natural floodplains are an important factor in controlling such events.
	With predicted rain fall increase there is the potential to increase wetland areas, which could have beneficial effects on the aquatic environment as a whole.
	In line with future climatic predictions, local environmental data suggests that river flow is increasing, this could lead to an increase in flooding incidents, there natural floodplains are an important factor in controlling such events.
	With predicted rain fall increase there is the potential to increase wetland areas, which could have beneficial effects on the aquatic environment as a whole.
	Cultural Heritage
	Potential to alter heritage sites to promote movement upstream this could include fish ladders etc. (site by site issue).
	It is uncertain as to the existent of cultural heritage sites currently effected by flooding. Changes to reduce peak water flow would reduce the potential for flooding to cultural heritage sites.
	Effects on both cultural assets and landscape would be very localised.
	Landscape
	Maintaining or improving the river banks and watersides will improve local landscapes.
	Potential to utilise Greenspace for floodplain use and include the use of SUD for improving water flow.
	Flooding of floodplains is a natural occurrence and therefore this would have minimum impacts on the overall character of the area.
	Standing water is a natural landscape feature, the creation of inappropriately located standing water bodies could have a negative impact on localised landscape character.
	Wetland areas are a natural landscape feature, however the creation of inappropriately located wetlands could have a negative impact on localised landscape character.
Woodland	**Biodiversity**
	Maintaining ancient woodland habitats would have beneficial effects on adjacent designated areas and those features associated with both habitat types.
	The restoration of such woodlands would improve the biodiversity and functionality of such habitats the potential connectivity across the area.
	The presence of key species will enhance the biodiversity and functionality of the habitat.
	This objective would strongly increase the biodiversity across the woodland habitats, allowing movement between habitats.
	This objective has the potential to improve the biodiversity of the woodland habitat with key woodland species.
	It is uncertain the full impact this objective will have on the biodiversity of the woodland, further information would be required on the species selected for carbon management purposes.

Woodland	**Population and human health**
	Improving the connectivity of such habitats has the potential to create corridors for external recreation.
	Soil and Geology
	Protection of such habitats would be beneficial to the function of such fragile soil habitats.
	The soil structure associated with woodland areas are sensitive, therefore improvement to the function of the habitat would benefit the function of the associated soils.
	Key species can be utilised to enhance soil function or used as an indicator for soil condition.
	The expansion and increased connectivity of woodland habitats would increase soil function, stability and fertility.
	There is the potential to improve woodland soils through native species.
	There is the potential to improve soil structure and improving carbon content depending on the species selected within the woodland structure.
	Water
	Many such habitats are located along water courses and are important features for the overall biodiversity of the water course habitats.
	These habitats are closely associated with water courses and are important features in improving the overall biodiversity of the water courses.
	Although it is uncertain as to the overall effect this objective would have on water quality etc, there is the potential that some species can assist in enhancing water biodiversity.
	Unless the habitat is adjacent to or within the vicinity of the water course it is difficult to fully ascertain what the potential impacts on water quality, biodiversity etc could be.
	Native species next to water courses will potential attract other native species that are beneficial to the biodiversity of the water environment.
	Material Assets
	There is the potential to use woodland habitats as a form of land regeneration for mineral and other development activities.
	There is the potential to improve land regeneration through appropriate planting.
	Climate
	Woodland habitats act as carbon sinks, whilst improvements in connectivity will enhance species movement.
	Restoring and improving the functionality of woodland habitats will improve the ability to act as carbon sinks, whilst improvements in connectivity will enhance species movement.
	The presence of specific species can improve the habitats resilience to potential long-term climate change impacts.
	Expanding the area of woodland cover would have a positive effect on the carbon capture across the area, whilst improving the connectivity of such woodlands allowing species movement and improving biodiversity.
	The improvement of native species within the woodland habitat will potentially increase the overall function of the habitat, providing greater potential for carbon capture and adaptation to future changes in local climate.
	This objective would aim to improve carbon capture within the woodland habitat.
	Cultural Heritage
	Ancient woodlands contribute to the cultural setting of some important historic sites.
	Improvements in woodland cover can potentially improve the cultural setting of local historic features.
	Landscape
	Ancient woodlands are endemic to the landscape of this area, therefore maintaining such habitats would be beneficial to the landscape character of the area.
	Improving woodland cover and increasing the connectivity of such habitats can be beneficial to the local landscape features.
	Expanding woodland cover could have both a positive and a negative impact on landscape character, depending on landscape sensitivity.
	There is the potential for both positive and negative effects on the local and regional landscape depending on areas selected for plantation.
Lowland	**Biodiversity**
	This objective would have a positive effect on protecting existing habitats.
	Improving the quality of the habitat would have an overall positive benefit on the diversity of the habitat, whilst improving the designated feature within the habitats.
	Improving connectivity of the woodland habitat will have beneficial effects on the biodiversity of the habitat and movement of species within the habitat system.
	This will improve the biodiversity and species movement across the area.
	Increasing the key habitat species can improve the overall function the habitat, with the potential to improve the quality of the habitat.
	Improving the quality of the urban environment will improve the biodiversity of the area, providing a wider range of habitats across both urban and rural setting, allowing greater species movement.
	There is a greater potential to improve biodiversity across the area through creating greater corridors for species movement and creating micro habitats within previous biodiversity-void areas.

Lowland	**Population and human health**
	There is the potential for improving access to the countryside, if such connectivity is linked to existing path networks.
	Improving the urban environment will have direct and indirect positive gains on human wellbeing, whilst promoting the wider environmental context of the urban landscape.
	There is the potential to improve and promote the biodiversity within the urban setting, whilst improving the wider access to the enhanced environment.
	Soil and Geology
	This objective would maintain existing soils structure and function.
	This objective would enhance the soil structure and function within existing habitats.
	There is the potential to improve and expand the soil structure within associated habitats.
	Increasing the biodiversity and expanding the connectivity of such ecosystems can potentially improve soil structure and function within the area.
	Increasing the proportion of key species can improve soil function.
	There is the potential to improve soil function, but it is uncertain to what extent as many of these areas have a specific urban use.
	Water
	It is uncertain as to the impact this objective would have on the water environment as a whole, however maintaining habitats such as lowland raised bogs would be beneficial to localised water environments.
	Positive management of lowland raised bogs would benefit water retention, whilst improved management of other habitats within river catchments areas would benefit water quality.
	There is the potential to improve urban habitats around urban water networks, which would improve the quality of such water flowing in to the river network.
	Material Assets
	This objective would have a positive impact on Greenspace within urban areas.
	This objective would have a positive impact on wider urban green space networks and other green areas.
	Climate
	This objective would maintain the current function of lowland raised bogs as carbon sinks.
	This objective would improve the function of such lowland habitats to act as carbon sinks.
	Improving the connectivity of such habitats would allow greater species movement between habitats and species shift in response to climatic changes.
	Improving the richness of priority species within such habitats could improve the ability of the habitat to act as a net carbon sink.
	Cultural Heritage
	This objective could improve the cultural setting of listed building, conservation areas and scheduled monuments within the urban environment.
	This objective would have a direct impact on culturally rich areas, such enhancement should be kept in line with the cultural setting of the area.
	Landscape
	Enhancing the quality of such habitats would have a positive impact on the current landscape setting.
	Although increasing the connectivity of such habitats can have a positive impact on local character, there is also the potential for negative effects in such habitats are out of character of the local setting.
	This objective would have a positive impact on the appearance of the landscape, but this must fit within the wider character of the local landscape setting.
	This objective has a potential to significantly improve the urban landscape, providing biodiversity-rich green connectivity throughout the urban setting.
	This objective has the potential to significantly improve the localised urban landscape character.
Climate change	**Biodiversity**
	Providing information to assist in adaptation work for biodiversity impacts associated with climate change would be beneficial in assisting associated changes in habitat systems.
	Improving species movement through increased connectivity of green network would allow natural migration of species through adaptation to climatic changes.
	Population and human health
	It is unclear how this objective will enhance human health or improve access to the countryside.
	Soil and Geology
	Providing maps can assist in prioritising and programming improvement work on habitats to assist in adapting to climatic changes, such work would be beneficial to habitats associated with sensitive soils systems.
	The objective could have a positive enhancement on sensitive soils within SL through promoting species movement at the same time as promoting and protecting the function of sensitive soil types.

Climate change	**Water**
	The promotion of biodiversity friendly flood schemes could have a significant impact on the quality and biodiversity of the water environment.
	Material Assets
	There is the potential for the objective to improve the value of the local assets including greenspace networks, biodiversity friendly schemes including the promotion of land restoration projects associated with mineral extraction, flood prevention etc.
	Climate
	An appropriate model and associated maps will allow the focus of adaptation work across identified ecosystems, this could potentially improve such ecosystems in response to changing climate.
	The objective should allow for species movement in response to climatic changes.
	Landscape
	Mitigation schemes delivered through this objective must take in to consideration local landscape issues.
Assets	**Biodiversity**
	Improving knowledge in location and condition of species and habitats across SL would significantly assist in future improvement programmes for key habitats.
	Population and human health
	Providing information of species within SL could assist in future voluntary work and in providing information on biodiversity issues, however further information will be required ob how this objective is undertaken and utilised.
	Soil and Geology
	In order for this objective to benefit the function of soils across SL the habitat lists must include those associated with sensitive soils (such as peat systems etc.).
	Water
	Although this objective has the potential to improve terrestrial ecosystems, it is uncertain who this objective will include and potentially impact on the water environment.
	Landscape
	Conservation programmes undertaken through this objective must consider local landscape issues.
Invasive Species	**Biodiversity**
	Monitoring invasive species would allow action to be taken to address potential impacts, but further information is required to determine the type of action required.
	Raising awareness would assist in determining significance of threat to the habitat, but further action is required to reduce potential impact.
	Population and human health
	It is unclear how this objective will enhance human health or improve access to the countryside.
	Soil and Geology
	Monitoring invasive species would allow action to be taken to address potential impacts, however such action must consider soil sensitivity and potential contamination from such species.
	Raising awareness would assist in determining significance of threat to sensitive soils, however further guidance could be required to address soil contamination either from seed bank or vegetative remains from invasive species.
	Water
	Monitoring invasive species could provide information of potential distribution routes, including those associated with water movement.
	Raising awareness on the potential distribution of invasive species through the water courses could assist in controlling the spread of invasive species.
People and Communications	**Biodiversity**
	Providing opportunity for community engagement and direct involvement within improving and protecting conservation could potential lead to significant improvements in biodiversity across the area.
	Improving local knowledge on biodiversity issues would not directly result in enhancement of biodiversity.
	Population and human health
	There is the potential to improve knowledge and awareness of biodiversity issues, providing a basis for promoting voluntary and organised activities/work programmes.
	This objective could provide a basis for active involvement within the voluntary and organised programme of local environmental work.
	This objective has the potential to lead to an increase in the participation of external activities within the countryside.
	Soil and Geology
	There is the potential to include sensitive soil restoration within any active voluntary work.
	Water
	There is the potential for voluntary conservation work to include restoration or improvements of water environments.
	Material Assets
	Provides an opportunity to improve local assets through voluntary or active work directed through implementing this objective.
	Provide awareness of the importance and diversity of local assets including greenspace networks and promote the active use of such assets.

Appendix 14 Tier 1 Objectives and Tier 2 Actions developed through mitigation and enhancement measures identified through the assessment.

Development of LBAP Objectives/Actions

	LBAP Long-term Aims (Tier 1 Objectives)	LBAP Short-term Aims (Tier 2 Actions)	Mitigation/Enhancement recommendations associated with Tier 2 Actions	Actions taken to address Mitigation/Enhancement recommendations associated with Tier 2 Actions	Mitigation/Enhancement measures associated with SEA Objectives	Actions taken to address Mitigation/Enhancement measures associated with SEA Objectives
			*Note *assess as recuring Actions across each ecosystem* *Note **similar Actions have been merged for the purpose of the assessment*			
Upland Ecosystems	1. A fully functioning series of blanket bogs acting as carbon sinks.	1. No loss of peat.	**Such soil systems are fragile therefore guidance may be required in order to deal with any future development issues.	Research and produce a list of information sources. Insert a section of text into the LDAP relating to soils and linking to the Scottish Soil Framework. Develop an SPG, in conjunction with SLC Planning Department and other appropriate departments, if	• Further monitoring is required for upland habitats to recognise the full potential for benefits.	There are currently no resources available amongst any o the SLBP partners to be able to deliver monitoring programmes for upland habitats at an ecosystem scale. This is a national issue
		2. All remaining peatland in South Lanarkshire to function as a Carbon sink.	**Link water retention with site monitoring to ensure that the habitat is functioning as a carbon sink.	Implement appropriate monitoring regimes on a site by site basis. Standardised monitoring criteria for specific habitats will be developed as part of the LNCS review.	• Guidance is required to improve the management and future development on upland habitats.	Research and produce a list of information sources. Develop an SPG, in conjunction with SLC Planning Department and other appropriate departments, if necessary
	2. A fully functioning series of blanket bogs which retain water.	3. No net loss of peat.			• Promote access through existing measures including existing paths and the Councils CPP network.	Will be delivered in part through the People and Communications Plan and on a case by case basis at the Tier 3 Project level. Close work between Core Path Plan and LBAP is
		4. All remaining blanket bogs in South Lanarkshire retaining water.			• Access management must include mitigation measures to reduce any negative impacts associated with encouraged access.	This is an issue to be addressed by the Core Path Plan and those involved in improving access. SLBP can advise on appropriate mitigation measures.
	3. A series of upland blocks, supporting a mosaic of habitats and a diverse range of species.	5. A mosaic of habitat at scales appropriate to landscape.			• Appropriate management regimes for upland ecosystems must take in to consideration the functionality and structure of the soils.	To be delivered on a case by case basis. Guidance is available to land managers- LBAP can promote use of this guidance
		6. Characteristic habitats and species are present. Habitats are in a favourable condition and species populations are stable or increasing (viable).			• Guidance is required of the development of upland areas (including windfarm) to reduce or mitigate potential habitat losses or disruption.	Research and produce a list of information sources. Develop an SPG, in conjunction with SLC Planning Department and other appropriate departments, if necessary
	4. Invasive species are not threatening natural ecosystem functions.	7. Monitor and record extent and population of priority invasive species.	*Implement a more robust monitoring plan to include both invasive and indicator species.	Monitoring of invasive and focal species are included as actions in Tier 2 and within Tier 3 Projects. There are severe resource restrictions and this issue needs raised at a national level.	• Guidance is required for mineral extraction relating to the extraction of minerals or restoration of existing sites.	Research and produce a list of information sources. Develop an SPG, in conjunction with SLC Planning Department and other appropriate departments, if necessary SLBP to work closely with SLC staff with
			*The monitoring tool could be expanded to include the success of habitat-specific priority species as well as invasive species to map habitat improvement or recovery.	As above.	• Site specific conditions for heritage assets should be considered at the Project level.	Tier 3 Projects will take cognisance of such issues on a case by case basis.
		8. Limit spread of priority invasive species through targeted control measures.	*The management of invasive species should consider dispersal mechanism to reduce potential for re-introduction of such species within the habitat.	Guidance on this issue is available at a national level. LBAP will promote use of this guidance at a Tier 2 and Tier 3 stage.		
Freshwater and Wetland Ecosystems	1. A catchment-wide network of high quality water courses.	1. Continual improvement in water quality in all water courses in SL.	**Develop a monitoring programme, that includes WFD requirements to identify current baseline and future trends in water quality and habitat function.	This is a role for SEPA. Areas outwith SEPA's remit are not currently covered due to a lack of resources. This is a national issue.	• Link floodplains and wetland areas with areas such as Greenspace networks.	The development of a "blue- green network" has been proposed but there is little support for the proposal. This issue should be considered for future development both locally and nationally.
		2. No net increase in channel and/ or and bankside modification.			• Provide guidance on SUDS and monitor the quality of the system for biodiversity.	Such guidance is available. LBAP will promote use of this guidance and will follow it at the Tier 3 Project level. LBAP will promote further monitoring of SUDs schemes but resources are restricted.
	2. A network of water courses free from man-made obstructions.	3. To monitor man made obstructions to species movement from water courses.	Consider the modifications to existing barriers etc , to allow species movement and migration up and down water courses.	This is highlighted as an issue in Tier 2 and will be addressed (where possible) through Tier 3 Projects.	• Develop a monitoring programme covering water environments that compliment WFD requirements.	This is a role for SEPA. Areas outwith SEPA's remit are not currently covered due to a lack of resources. This is a national issue.
	3. A series of naturally functioning floodplains along the main watercourses supporting large scale wetland complexes to act as flood alleviation.	4. Increase the capacity of floodplains to retain water.	Consideration must be given to past land use to control potential soil pollution and water contamination problems.	This will be considered on a site by site basis at a Tier 3 level. Projects with an unacceptable level of risk will not proceed unless measures can be put in place to prevent/ mitigate against potential pollution	• Further promotion of the water environment through current promotional routes to increase its ecological status.	This can be achieved in part through Tier 3 Projects. A national awareness raising campaign would be beneficial.
			Integrate some floodplains with the strategic green network etc.	The development of a "blue- green network" has been proposed but there is little support for the proposal. This issue should be considered for future development both locally and nationally.	• Utilise current access networks such as the Core Path network.	To be looked at on a case by case basis at Tier 3 level.
		5. Increase in extent of wetland habitat mosaic. Improve quality of existing wetland habitats.	Develop a monitoring programme to assess the quality and habitat function of wetland habitats.	This is necessary but there are currently no resources or identified lead partners available to take this forward as an action.	• Provide opportunities for voluntary/active local group involvement in improvement schemes.	This will be delivered through the Tier 2 people and communications plan and through a series of Tier 3 Projects.
		6. River floodplains function to slow the flow of water through river catchments, particularly during flood events: sustainable (natural) flood management.	Consider localised predicted climatic changes to assess river flow status etc.	This will be ongoing as Tier 3 Projects are developed. Close working relationships between SLBP, SLC's Floods team and SEPA will be cultivated to ensure flood risk as a result of climate change will be incorporated into any future Tier 3 Projects.	• Provide opportunities for voluntary/active local group involvement in improvement schemes.	This will be delivered through the Tier 2 people and communications plan and through a series of Tier 3 Projects.
	4. A series of high quality water bodies extending across South Lanarkshire.	7. No net loss of standing open water (SOW) area. Creation of new water bodies (esp. ponds).	Consider location of standing water areas for previous and future pollution issues.	This will be done on a case by case basis at the Tier 3 Project level.	• Ensure soil type and soil sensitivity are considered within a screening criteria for determining habitat expansion etc.	Incorporated as a Project screening criterion by point 2. "Projects and programmes must demonstrate how all Strategic Environmental Assessment (SEA) objectives and issues are addressed and mitigated for if necessary. "
		8. A continual improvement in quality of standing open water.			• Develop a monitoring plan to monitor water quality and the functionality of wetland systems in line with requirements for WFD (where appropriate).	This is necessary but there are currently no resources or identified lead partners available to take this forward as an action.
	5. A fully functioning series of lowland raised bogs, acting as carbon sinks, contributing to a network of peatland habitat across central	9. No net loss of peat.			• Monitor the functionality of SUDS to determine both water quality and biodiversity of the system.	This is necessary but there are currently no resources or identified lead partners available to take this forward as an action.
		10. All remaining peatland in South Lanarkshire to function as a Carbon sink.			• WFD monitoring includes components of water environmental function.	This is a SEPA action.
	6. Invasive species are not threatening natural ecosystem functions.	11. Monitor and record extent and population of priority invasive species.			• Develop guidance for incorporating water environments within mineral extraction and restoration of existing sites.	Research and produce a list of information sources. Develop an SPG, in conjunction with SLC Planning Department and other appropriate departments, if necessary
		12. Limit spread of priority invasive species through targeted control measures.			• Local landscape constraints must be consider on an individual site basis.	Will be taken into account on a case by case basis at Tier 3 Project level.
	7. A series of high quality non- floodplain wetlands (ponds, fens, marshes, reedbeds etc) occur throughout South Lanarkshire. Sustainable Urban Drainage Systems (SUDS) are biodiversity friendly.	13. To ensure no net loss of wetland.	**Consider location of wetland areas for previous and future pollution issues.	This will be done on a case by case basis at the Tier 3 Project level.		
		14. To increase net area of wetland.				
		15. To ensure new SUDS developments are as biodiversity friendly as possible.	Guidance is required to improve the maintenance and function of SUDS.	Such guidance is available. LBAP will promote use of this guidance and will follow it at the Tier 3 Project level.		
Woodland Ecosystems	1. A fully functioning Forest Habitat Network based on native woodland, incorporated into the overarching Integrated Habitat Network.	1. To ensure no loss of ancient semi-natural woodland in South Lanarkshire.	Work in partnership with green space network to ensure maximum benefit in woodland ecosystem protection.	Implicit in aims of LBAP.	• Ensure that connectivity includes the use of a range of habitat types to maximise species movement and overall biodiversity.	Implicit in aims of LBAP.
		2. To restore degraded native woodlands to a favourable condition.	**Develop a monitoring plan for determining favourable condition across the woodland ecosystems.	Site condition monitoring guidance is already available for woodland. Monitoring of LNCS sites will use a modified version of this guidance to monitor site condition.	• Utilise the green networks to expand woodland cover and improve connectivity across both urban and rural habitats.	Implicit in aims of LBAP.
			**Identify condition status and develop an improvement plan in relation to woodland condition.	This will be done for newly selected LNCS and sites with pre-existing management plans in place. Outwith these sites, there are insufficient resources available to implement monitoring programmes across the entire woodland network of South Lanarkshire.	• Link core path and other access networks with woodland expansion to maximise improved access whilst minimising any potential impacts.	Will be implemented through joint work between LBAP and CPP.
		3. To restore semi-natural woodland on Plantations on Ancient Woodland Sites (PAWS).			• Provide guidance on woodland connectivity and use within local land development plans.	Research and produce a list of information sources. Develop an SPG, in conjunction with SLC Planning Department and other appropriate departments, if necessary
		4. Characteristic woodland species (as referred to in Site Condition Monitoring Guidance) are present and mobile species are free to use the habitat network to move across their entire natural range.	Develop a monitoring programme that incorporates the detection and condition of key species.	This will be done for newly selected LNCS and sites with pre-existing management plans in place. Outwith these sites, there are insufficient resources available to implement monitoring programmes across the entire woodland network of South Lanarkshire.	• Utilise guided walks and other formal education sources such as forest schools etc.	Will be taken into account on a case by case basis at Tier 3 Project level.
		5. Expand the area of native woodland in South Lanarkshire to facilitate habitat connectivity and develop a functional forest habitat network.	Map suitable expansion locations for woodland habitat to encourage connectivity.	Work is ongoing on this at a national level. (Lead FCS)	• Ensure woodland expansion is proportionate to soil type to ensure full soil protection.	Will be done on a case by case basis at Tier 3 Project level. LBAP will promote good practise where possible.
		6. Colonisation of new native planting by characteristic woodland species.			• Utilise water network to expand and promote connectivity of woodland cover.	Will be done on a case by case basis at Tier 3 Project level. LBAP will promote good practise where possible.
	2. Forest expansion for carbon management which is broadly compatible with outcome one.	7. Utilise forest expansion for carbon management to expand Forest Habitat Network and improve suitability for biodiversity.	Identify appropriate species to facilitate maximum carbon capture.	Work is ongoing on this at a national level (Lead FCS)	• Ensure woodland species are used to promote water quality as well as woodland ecosystem function.	Will be done on a case by case basis at Tier 3 Project level. LBAP will promote good practise where possible.
			Ensure woodland expansion does not impact upon other ecosystem.	Projects which are undertaken through the LBAP will be assessed to ensure they do not have a negative impact upon other UK Priority Habitats (Particularly open habitats). This policy may conflict with SLDP agency policy on occasion and in such cases the LBAP will be used as a tool to support arguments for alternatives where possible. this is a national issue.	• Provide guidance in protecting and enhancing woodland cover associated with mineral extraction and land regeneration.	Research and produce a list of information sources. Develop an SPG, in conjunction with SLC Planning Department and other appropriate departments, if necessary

Appendix 14 (cont)

Woodland Ecosystems	3. Invasive species are not threatening natural ecosystem functions.	8. Monitor and record extent and population of priority invasive species.	*Implement a more robust monitoring plan to include both invasive and indicator species.	Monitoring of invasive and focal species are included as actions in Tier 2 and within Tier 3 Projects. There are severe resource restrictions and this issue needs raised at a national level.	• Species should be selected for their potential carbon sink capacity as well as their ecosystem functionality.	Will be taken into account when developing monitoring criteria.
		9. Limit spread of priority invasive species through targeted control measures.	*The monitoring tool could be expanded to include the success of habitat-specific priority species as well as invasive species to map habitat improvement or recovery.	As above.	• Consider the use of localised climate change predictor models to predict future shifts in species etc.	Will be done where data is available.
					• Woodland enhancement must take into consideration the cultural and specific heritage aspect of local sites.	Incorporated as a Project screening criterion by point 2: "Projects and programmes must demonstrate how all Strategic Environmental Assessment (SEA) objectives and issues are addressed and mitigated for if necessary. "
					• Ensure woodland regeneration is in keeping with the local landscape and is not visually obtrusive in nature.	Incorporated as a Project screening criterion by point 2: "Projects and programmes must demonstrate how all Strategic Environmental Assessment (SEA) objectives and issues are addressed and mitigated for if necessary. "
					• Ensure the woodland expansion provides a mosaic that blends in to other habitat types, to improve connectivity whilst minimising negative effects on the local landscape.	Incorporated as a Project screening criterion by point 2: "Projects and programmes must demonstrate how all Strategic Environmental Assessment (SEA) objectives and issues are addressed and mitigated for if necessary. "
Lowland Ecosystems	1. The rural lowlands are composed of a mosaic of high quality habitats, which support a diverse range of species as well as productive and sustainable agriculture.	1. No net loss of existing priority habitat within wider agricultural landscape.			• Ensure biodiversity is integral to urban Greenspace management.	Will be implemented through close liaison between LBAP and Greenspace Strategy. Guidance will be provided to grounds staff to promote best practise.
		2. No loss of high quality habitats.			• Utilise the mix of lowland ecosystems to improve connectivity across a wider range of ecosystems including woodland, water etc.	Implicit in aims of LBAP.
		3. Improve quality of existing habitat through positive management.			• Link connectivity networks with wider access path networks to reduce damage whilst improving access.	This is an issue to be addressed by the Core Path Plan and those involved in improving access. SLBP can advise on appropriate mitigation measures.
		4. Improve connectivity of boundary features.	Ensure that habitats merge from one type to another in order to fully utilise connectivity corridors.	Implicit in aims of LBAP.	• Link biodiversity benefits with Greenspace and urban management, including parklands, recreational areas, allotments etc.	Will be implemented through close liaison between LBAP and Greenspace Strategy. Guidance will be provided to grounds staff to promote best practise.
		5. Increase diversity of habitats within wider mosaic, without impinging upon extent of intact priority habitats.			• Develop guidance that integrates biodiversity within urban planning.	Develop SPG. Foster good working relations between LBAP and Planning.
		6. Increase proportion of habitat representative species present.			• Ensure soil type and sensitivity are considered within determining habitat expansion.	Incorporated as a Project screening criterion by point 2: "Projects and programmes must demonstrate how all Strategic Environmental Assessment (SEA) objectives and issues are addressed and mitigated for if necessary. "
	2. Biodiversity is fully integrated into all aspects of urban land use.	7. To improve the quality of the urban environment for biodiversity.	Promote biodiversity corridors across the urban environment, linked to key network corridors.	This will be delivered through the implementation of Tier 3 Projects.	• Specific guidance may be required to promote soils within biodiversity, particularly in relation to land reclamation etc.	Research and produce a list of information sources. Insert a section of text into the LBAP relating to soils and linking to the Scottish Soil Framework. Develop an SPG, in conjunction with SLC Planning Department and other appropriate departments, if necessary.
		8. To integrate biodiversity conservation and enhancement into the management of urban spaces, paying particular attention to urban habitats such as buildings, cemeteries, roadside verges, roundabouts and urban grasslands.			• Specific actions may be considered to improve urban soils and potentially contaminated sites.	Research and produce a list of information sources. Insert a section of text into the LBAP relating to soils and linking to the Scottish Soil Framework. Develop an SPG, in conjunction with SLC Planning Department and other appropriate departments, if necessary.
	3. Invasive species are not threatening natural ecosystem functions.	9. Monitor and record extent and population of priority invasive species.	*Implement a more robust monitoring plan to include both invasive and indicator species.	Monitoring of invasive and focal species are included as actions in Tier 2 and within Tier 3 Projects. There are severe resource restrictions and this issue needs raised at a national level.	• Further improvements can be made in linking urban drainage systems with improved lowland ecosystems including urban ecosystems.	Research and produce a list of information sources. Develop an SPG, in conjunction with SLC Planning Department and other appropriate departments, if necessary.
		10. Limit spread of priority invasive species through targeted control measures.	*The monitoring tool could be expanded to include the success of habitat-specific priority species as well as invasive species to map habitat improvement or recovery.	As above.	• Utilise water bodies as potential lowland biodiversity corridors.	The development of a "blue- green network" has been proposed but there is little support for the proposal. This issue should be considered for future development both locally and nationally.
					• Provide guidance to promote the incorporation of ecosystem improvements within site regeneration.	Research and produce a list of information sources. Develop an SPG, in conjunction with SLC Planning Department and other appropriate departments, if necessary.
					• Provide a range of networks that connect several types of habitat to maximise species movement.	Implicit in aims of LBAP.
					• Ensure habitat enrichment is fully appropriate with the cultural site and its setting within the local environment.	Incorporated as a Project screening criterion by point 2: "Projects and programmes must demonstrate how all Strategic Environmental Assessment (SEA) objectives and issues are addressed and mitigated for if necessary. "
					• Provide guidance in promoting urban biodiversity within the local planning context.	Covered under aims of People and Communications Plan. LBAP will work with relevant SLC departments to ensure biodiversity is promoted through the planning system. Develop SPG if necessary.
Cross-cutting themes (Non-ecosystem Action Plans)						
Climate Change	1. Robust ecosystems which can adapt to climatic changes. (Climate Change)	1. To produce a model and associated maps that will guide work to enable species and communities to adapt to future climate change.	Include sensitive soils within the mapping/ modelling programme.	This has been taken in to consideration.	• Develop clear monitoring programmes to identify healthy ecosystems.	Will be done as fully as resources allow.
			Develop an appropriate work programme based on the mapping/ modelling output.		• Fully identify invasive species movement and provide action plan to combat against their spread.	This is a national issue. At a local level efforts will be made to monitor the spread of invasive species.
		2. Ensure that species movement through the landscape is permitted and where possible, facilitated, by future developments and/ or land use change. Encourage "biodiversity friendly" schemes (e.g. natural flood management, peatland restoration, tree planting etc.)	Provide guidance for 'biodiversity friendly' restoration and development schemes.	Develop SPG and advice leaflets.	• Provide guidance in developing 'biodiversity friendly' schemes to promote and enhance the wider biodiversity within such developments.	Research and produce a list of information sources. Develop an SPG, in conjunction with SLC Planning Department and other appropriate departments, if necessary.
Assets	1. To create an inventory of South Lanarkshire's key biodiversity assets, ranked by international, national and local significance. (Biodiversity Assets)	1. Producing a definitive list of the species and habitat complexes that are of significance in SL will help guide future conservation efforts.	Develop a monitoring programme to continually assess habitat conditions.	This is a national issue. Monitoring at a local level will be carried out as resources permit.	• Provide appropriate information of local biodiversity and access routes, utilising existing networks.	This will be achieved through closer working between LBAP and CPP. SLBP can provide advice on biodiversity issues.
Invasive Species	1. Invasive species are not threatening natural ecosystem functions. (Invasive Species)	1. monitor and record extent, distribution and population numbers of priority invasive species.	Develop a removal programme for invasive species.	This will be delivered as resources permit at a Tier 3 Project level.	• Actively promote the human and social benefits of a locally rich and functional biodiversity.	Delivered through Tier 3 Projects.
	1. To create an inventory of South Lanarkshire's key biodiversity assets, ranked by international, national and local significance. (Biodiversity Assets)	2. raise awareness of invasive species and their associated negative impacts upon biodiversity and ecosystem functioning amongst local people/ developers/ contractors and land workers.	Provide guidance for the identification and removal of invasive species.	This will be delivered as a Tier 3 Project through the development of guidance notes. A list of available guidance will be collated and made available.	• Link biodiversity promotion with existing education packages such as forest schools and ecoschools.	Delivered through the work stream of CAG and SLBP staff.
People and Communications	1. A good understanding and appreciation of the significance of ecosystems, their functions and benefits amongst the people of South Lanarkshire. (People and Communications)	1. An increased awareness, understanding and appreciation of biodiversity and ecosystem services is demonstrated by ALL people in South Lanarkshire.			• Provide guidance to protect sensitive soil types against inappropriate developments and restoration schemes.	Research and produce a list of information sources. Insert a section of text into the LBAP relating to soils and linking to the Scottish Soil Framework. Develop an SPG, in conjunction with SLC Planning Department and other appropriate departments, if necessary.
		2. SLBP partners provide more opportunities for the residents of South Lanarkshire to become actively engaged in biodiversity conservation, whether at a local or national level.	Link voluntary and active working programmes with wider issues such as Country Parks etc.	Covered through specific Tier 3 Projects and through the People and Communications Plan.	• Enhance the status and the function of soils within diverse habitats.	To be delivered by SLBP partners on a site by site basis, as resources allow.
		3. To use formal and informal education processes to ensure that biodiversity awareness, understanding and appreciation is promoted across society.	Provide information within existing programmes such as Ecoschools, Forest schools etc.	Delivered through the work stream of CAG and SLBP staff.	• Climate change modelling predicts increase rain fall and water flow across the area, this must be considered within any appropriate enhancement scheme or guidance for restoration work etc.	Will be considered on a site by site basis at Tier 3 Project level.
					• Consideration and appropriate action must be given to water courses as a mechanistic route for the dispersal of invasive species.	Provide a list of advice sources.
					• Provide guidance that facilitates improvements in the function of restoration or previously developed ecosystems.	Provide a list of advice sources. Develop SPG/ guidance if necessary.
					• Provide guidance specific for the restoration of former mineral sites and development of mineral extraction sites.	Provide a list of advice sources. Develop SPG/ guidance if necessary.
					• Those sites that have undergone restoration work must be monitored to ensure they are functioning as carbon sinks.	Resource availability for the monitoring of such sites is an issue.
					• Individual guidance on addressing cultural issues can be found within the adopted Local Plan.	Promote use of appropriate guidance.
					• Any development or restoration programme must consider local landscape issues.	Incorporated as a Project screening criterion by point 2: "Projects and programmes must demonstrate how all Strategic Environmental Assessment (SEA) objectives and issues are addressed and mitigated for if necessary. "

Appendix 15 Indicators for the LBAP monitoring plan

Monitroing Indicators	Data Source
Biodiversity, Flora and Fauna	
Number of designated sites, areas covered and favourable status condition within South Lanarkshire	SoE
Number of Local Authority designated sites, area covers and condition of sites within South Lanarkshire	SoE
Area of native woodland cover across South Lanarkshire	SoE
Increase in woodland connectivity across South Lanarkshire	5 yr Review SLBP
Area of ancient semi-natural woodland within South Lanarkshire	SoE
Condition of ancient semi-natural woodland within South Lanarkshire	Potential for SLBP
Connectivity of other habitats within South Lanarkshire, including species rich grasslands, wetlands (measured by the Integrated Habitat Network Model)	TBD
Area of raised bog habitats within South Lanarkshire	SoE
Condition of raised bog habitats within South Lanarkshire	SLBP (current Designated sites only)
Development of the SPG on Biodiversity	SLBP
Number of SRDP funding projects associated with biodiversity improvements	SGRPID
Area under management beneficial to biodiversity	SGRPID
Number of people involved in local surveys	SLBP
Number of people involved in national surveys	SNH
Number of local volunteer days	SLBP
Number and length of Core Path networks linked to biodiversity projects or associated habitats	SLBP/Outdoor Access Forum
Number of sites/total area managed by local community groups	SLBP
Proportion of schools attaining full eco-school status	SLC/CAG
Number of biodiversity themed event and participation of events.	SLBP
Population and Human Health	
Number of LBAP associated projects	Same as T3 monitoring
Soil and geology	
Number and condition of designated sites where the geological location or the soil type is the designated feature	SNH/SoE
Water	
Total length of river network achieving Good (and above) water quality status	SEPA/SoE
Total length of surface water achieving Good (and above) ecological quality status	SEPA/SoE
Total area and quality of standing water bodies	-
Number and distribution of man-made obstruction to fish movement	SEPA
Number of water pollution incidents	SEPA
Number of flood incidents within urban areas	SLC/SoE
Area of naturally functioning floodplains	-
Area of wetland habitats	SNH (Currently only on designated sites)
Material Assets	
Number of planning consents that impact on peatland	SLC
Number and area covered by peat extraction licences	SLC
Number of planning consents relating to mineral extraction activites	SLC
Climate	
Site condition of designated peatland sites across South Lanarkshire	SNH
Area of woodland cover across South Lanarkshire	SoE
Quality of woodland cover across South Lanarkshire	SLBP (As..)
Site condition monitoring across designated sites	SNH
Cultural Heritage	
Number of Schedules Ancient Monuments in Lanarkshire	SoE
Number and status of historic and Listed Buildings in Lanarkshire	SoE
Number and areas of Historic Gardens and Designated Landscapes in Lanarkshire	SoE
Landscape	
Area of designated and sensitive landscapes across South Lanarkshire	SoE
LBAP Specific	
% of T2 action fully implemented after 5 yrs	SLBP
% of T3 actions which are delivered	SLBP
No of projects undertaken (annual count)	SLBP
Succes of each project individually (% SMART Target delived)	SLBP

Appendix 16 Consideration of the Consultation Agencies response to the SEA Scoping Report

Scottish Environment Protection Agency		
1. Comments		
Comment	**Considerations**	**Notes**
Include information on other relevant PPS including- EU Floods Directive and SEPA Policies 19, 26 and 21	Listed PPS added to table in Appendix 2.	
2. Baseline Data		
Include baseline data on flooding	See below and in Table 3	
3. Assessment Methodology and Mitigation		
Expect an assessment of each of tier of action	See assessment tables	Tier 3 not assessed as still under development.
Mitigation hierarchy of prevent, reduce or offset must be followed	Incorporated into project acceptance guidelines	
Set out mitigation measures in a way that clearly identified: 1. measures required 2. when they would be required 3. who will be required to implement them	See text of Environment Report	
Historic Scotland		
1. Scope of Assessment and Level of Detail		
Environmental assessment should take cognisance of the historic environment	See assessment tables	
Identify impacts which are uncertain at a strategic level and establish how they will be dealt with at a project level	See assessment tables	Tier 3 projects have not yet been identified. Each project will be assessed individually using SEA principles to ensure that there are no negative impacts upon the historic environment or that negative impacts will be mitigated against. Advice will be sought from HS as appropriate.
2. Relationship with other PPS		
SPP23 has superseded NPPG 5 and 18	Changes made to Appendix 2 which lists other relevant PPS	
3. Environmental Baseline		
Changes required to baseline data presented in Table 2	Appropriate changes made to the table	

Requested that maps illustrating baseline data for historic environment are incorporated into the Environment Report	Incorporated- See below.	
4. Scoping in/out of SEA Issues		
Request to include discussion of key issues and how they impact upon the historic environment	Incorporated –see text of Environment Report.	
5. SEA Objectives		
Modify wording of objective "to prevent damage to designated cultural heritage"	"Designated" removed from objective.	
6. Mitigation and Monitoring		
Environment report to provide information on mitigation measures	Done	
Indicators for monitoring effects upon the historic environment should reflect actions to be taken within the plan and the potential impacts identified in the course of the SEA	See assessment tables	
Scottish Natural Heritage		
1. Context		
Likely changes to the environment should the proposed LBAP not be implemented required	Done	
2. Establishing Baseline Information		
Changes required to baseline data presented in Table 2	Appropriate changes made to the table	
Environmental problems to be more clearly identified	See table 4 and text of Environment Report.	
3. Intended Assessment Approach		
Changes to Table 5 (Scoping Report) suggested: • Alter SEA objective for Biodiversity to read "To promote favourable condition of designated sites". • Alter wording of indicator for water from "altered" to "improved". • Alter Objective and	Changes made as suggested	

Indicator for landscape		

For more information or if you want this information in a different format or language, please phone **01698 426213** or email **malcolm.muir@southlanarkshire.gov.uk**

SOUTH LANARKSHIRE COUNCIL

SCOTTISH BIODIVERSITY FORUM

www.southlanarkshire.gov.uk

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