

FALKIRK LOCAL DEVELOPMENT PLAN 2 – PROPOSED PLAN REVISED ENVIRONMENTAL REPORT

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NON TECHNICAL SUMMARY

Strategic Environmental Assessment

The Environmental Assessment (Scotland) Act 2005 requires that any Plan, Programme or Strategy prepared by Falkirk Council which is likely to have significant effects on the environment should go through a process of Strategic Environmental Assessment (SEA).

The Falkirk Local Development Plan 2 has to be subject to SEA. At the initial stage of the plan process in February 2017, a Main Issues Report was produced and an Environmental Report was published alongside it setting out the likely significant environmental effects of implementing a series of preferred options for future development. The Environmental Report also sets out the likely significant environmental effects of alternative strategies for development as well as actions to prevent, reduce and as fully as possible, offset any significant negative effects. A Revised Environmental Report has been compiled to update the original Environmental Report to reflect the choices which the Council has made with regard to the final content of the plan. The Revised Environmental Report has been published alongside the Proposed Plan, which is the subsequent stage to the Main Issues Report.

This Non Technical Summary provides a shortened and simplified version of the Revised Environmental Report.

Falkirk Local Development Plan 2 – Proposed Plan

The Council is preparing its second Local Development Plan (LDP2) for the Falkirk Council area. This will replace the first LDP which was adopted in July 2015. LDP2 will set out both the broad vision and strategy for the area for a 20 year period, and detailed, site-specific policies and proposals which will guide development for the first 10 years.

In February 2017, a Main Issues Report (MIR) was published as the first formal stage of the LDP2 process. It identified the main planning issues to be addressed by the plan and the preferred options for dealing with those issues, including preferred proposals for future development in the area.

Following on from the MIR, the Council has published the Proposed Plan in which it sets out its firm view as to the vision, spatial strategy and policies to be followed in the area.

The Proposed Plan comprises the following elements:

Vision (Chapter 2). A statement of the future we aspire to in 2040. This comprises nine objectives grouped under the three vision themes of

- Thriving Communities

- Growing Economy
- Sustainable Place

The vision, themes and objectives are substantially the same as for LDP1.

Spatial Strategy (Chapter 3). This states how and where the area will grow and develop generally in the plan period to achieve the Vision. There are seven components to this:

- Place
- Green and Blue Network
- Housing
- Business
- Infrastructure
- Town Centre
- Energy and Minerals

Policies (Chapter 4). This provides the detailed policy guidance against which development proposals will be assessed, organised under the following themes:

- Place and Environment
- Homes and Communities
- Jobs and Economy
- Infrastructure and Resources

Settlement Statements (Chapter 5). This sets out the implications of the Spatial Strategy for individual settlement areas, with detailed development guidance on major areas of change.

Proposals and Opportunities Schedule (Appendix 1). This lists all development sites, infrastructure proposals and green network opportunities, included comments and guidance for each where appropriate.

Consultation Process

In accordance with Section 15 (3) of the Environmental Assessment (Scotland) Act, the Council will be consulting on the Revised Environmental Report for an 8 week period alongside the Proposed Plan.

It is intended that this Revised Environmental Report is read alongside the Proposed Plan to help give an understanding about how environmental considerations have been incorporated into the Proposed Plan. It also gives an objective analysis of what the likely significant environmental effects of implementing the plan are and how its environmental performance can be further improved.

Although representations on the Revised Environmental Report are welcomed it is primarily a tool to help inform representations on the Proposed Plan itself.

Falkirk Council Area

The Falkirk Council area extends to some 300 sq. km. and is located in the middle of Scotland's Central Belt. Despite its relatively small geographical extent, the area exhibits a considerable variety of landforms and habitats.

The northern part is characterised by the relatively flat and fertile carseland adjoining the Forth Estuary, supporting arable farming and some improved pasture. The adjacent estuarine mudflats and salt marsh form part of the Firth of Forth SPA, which is of international importance for wintering birds. To the east a rolling landscape of good quality agricultural land is bisected by the scenic Avon Valley. The centre of the area, which is dominated by the river valleys of the Carron and the Bonny Water, is the most urbanised, and is traversed by the Forth and Clyde and Union Canals. To the south and west, the land rises up to the more remote and less populous Slamannan Plateau which contains the Slamannan Plateau SPA in important habitat for Taiga Bean Geese and the Black Loch Moss SAC and the Denny and Kilsyth Hills where rough grazing predominates with some commercial forestry.

The population of 158,460 is focused within a network of small to medium sized towns. The principal town of Falkirk, with a population of around 39,000, is centrally located and serves as the main shopping, service and employment centre for the area. Separated from Falkirk by a narrow Green Belt are the urban areas of Larbert/Stenhousemuir, Polmont and Grangemouth. The former two are largely residential in character, whilst Grangemouth is home to the largest petrochemical complex in Scotland. In the western reaches of the area lie the settlements of Denny/Dunipace, Bonnybridge and Banknock, whilst to the east, overlooking the Forth, sits the town of Bo'ness. Some 18 smaller village communities are scattered across the rural part of the area.

State of the Environment

Baseline environmental information for the Falkirk Council area is provided in the Environmental Baseline Report which forms an appendix to the Revised Environmental Report. The environmental baseline report summaries existing environmental issues; existing environmental characteristics; likely future changes to the environment without the implementation of the Local Development Plan, current environmental protection objectives and how those objectives have been taken into account for 9 distinct environmental topic areas.

The following strategic environmental issues affecting the area have been identified:

Environmental Topic Area	Strategic Environmental Issues
Biodiversity Flora and Fauna	<ul style="list-style-type: none"> Habitat disturbance, degradation or loss and/or species disturbance or loss; Decline in species population distribution and numbers; Spread of invasive, non-native species; Loss of or damage to sites/areas of high ecological importance; Fragmentation and isolation of habitats; and Protection and enhancement of ecosystems
Population and Human Health	<ul style="list-style-type: none"> Development pressure on open space within urban areas; The quality, management and level of investment in existing public open space; Considerable amount of vacant, derelict land within the area, some of which is severely contaminated; The impacts new recycling/waste disposal infrastructure needed to enabling a zero waste society will have on the local population; The impacts of new housing development on waste handling capacity in the local area; Health and Safety Executive hazard consultation zones and the restrictions they place on development; and Not all of the Council area meets the standards for accessibility to open space identified within the Open Space Strategy.
Soil	<ul style="list-style-type: none"> Severely contaminated sites in need of remediation; and Protection of rare and carbon rich soils.
Water	<ul style="list-style-type: none"> Pollution of the Bonny Water from the urban runoff; Pollution of the River Carron; River Avon; Forth Estuary; Bonny Water and the Union Canal from sewage disposal, refuse disposal, chemical production, food production and other manufacturing processes; Coastal flooding in Bo'ness and Grangemouth; Fluvial (river) flooding Grangemouth, Bonnybridge, Carron and Dunipace; and Widespread pluvial flood risk.
Air	<ul style="list-style-type: none"> Five Air Quality Management Areas declared within the Council area; and Level of traffic growth is counteracting reductions to emissions from vehicles due to improved emission control technologies
Climatic Factors	<ul style="list-style-type: none"> Increased occurrence of extreme flooding events due to climate change; and The adequacy of existing flood defence infrastructure to prevent flooding from an increasing flood risk; The potential for the area to significantly reduce greenhouse gas emissions through development of Carbon Capture and Storage technology.
Material Assets	<ul style="list-style-type: none"> Traffic growth and increasing car dependency; Adequacy of off-road cycle and footpath infrastructure to make these modes attractive and encourage reduced car use; Potential for new development to enable a significant increase in the installed capacity of Low and Zero Carbon generating Technologies; Adequacy of existing quarries in the Council area to meet future levels of development in the local market area
Cultural Heritage	<ul style="list-style-type: none"> Assessment of new development proposals within the Frontiers of the Roman Empire (Antonine Wall) World Heritage Site. Vulnerability of sites on the Sites and Monument Register to development without adequate archaeological investigation
Landscape	<ul style="list-style-type: none"> Risk of settlement coalescence; and The cumulative impact of incremental growth on landscape quality.

Likely Significant Environmental Effects of the Proposed Falkirk Local Development Plan 2

The likely environmental effects of implementing the vision, spatial strategy and policies of the Proposed Plan have been assessed. For the purposes of the assessment, the environment was considered under a number of headings as follows:

- Biodiversity
- Population and Human Health
- Soil
- Water
- Air
- Climatic Factors
- Material Assets
- Cultural Heritage
- Landscape

Effects on each of these environmental areas were characterised as:

- Significant Positive
- Positive
- Neutral
- Negative
- Significant Negative

Although the assessment considered all levels of effect (these are captured in the detailed assessment matrices which form Appendix 2 to the Revised Environmental Report), only significant effects are reported. Measures for mitigating significant negative effects and enhancing positive effects are set out. The assessment of alternatives is also considered, although this was largely carried out at the MIR stage through the original Environmental Report.

The assessment of significant environmental effects, mitigation/enhancement and alternatives for each of the components of the Proposed Plan is set out below.

<p>Vision</p> <p><u>Proposed Approach:</u> The vision is: ‘The place to be: a dynamic and distinctive area at the heart of Central Scotland characterised by a network of thriving communities and greenspaces and a vibrant and growing economy which is of strategic importance in the national context, providing an attractive and sustainable place in which to live, work, visit and invest.’</p> <p><u>Predicted Environmental Effects:</u> Significant environmental effects are predicted in most environmental areas. As with any growth strategy it will lead to increased traffic growth, use of agricultural land and natural resources, increased pressure on environmental infrastructure and pressure on the landscape and biodiversity. However it will also stimulate investment in the green network, lead to the creation of new open space, and result in the re-use of derelict land.</p> <p><u>Mitigation/Enhancement:</u> The mix of sites for housing and economic growth and for infrastructure provision have been selected having regard to the aim of minimising significant negative effects and maximising significant positive effects. All policies have been drafted with environmental considerations embedded within them, and have themselves been subject to environmental assessment.</p>
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Alternatives:

No alternative visions are proposed or assessed as the strategic context which the plan is being prepared in has not changed significantly since LDP1. The LDP's role is in any case to express the spatial dimension of high level visions set out within the Strategic Outcomes and Local Delivery Plan 2016-2020 and the Economic Strategy for Falkirk 2015-2025. It is not considered reasonable for the plan to explore any alternative visions.

Spatial Strategy – Green and Blue Network

Proposed Approach:

The preferred approach is to continue to spatially define the CSGN/Falkirk Greenspace in terms of the framework of green network components and corridors set out in LDP1, and to promote 25 specific green network opportunities as priorities for improving the green network.

Predicted Environmental Effects:

The proposed approach to place should have significant positive effects on material assets, cultural heritage and landscape, through the resulting investment in and improvements to the built and natural environment.

Mitigation/Enhancement:

Enhancement of the positive effects of the strategy is provided by the specific opportunities for improvement included in the plan, the opportunities for placemaking that are highlighted in relation to development sites, and specific policies particularly PE01 (Placemaking), and associated environmental policies referred to within PE01.

Alternatives:

This part of the strategy reflects existing national and local plans and strategies and no reasonable alternatives were considered.

Spatial Strategy - Place

Proposed Approach:

The Spatial Strategy places a strong emphasis on the creation of good places. It highlights 'place priorities' where investment will be particularly focused on creating good places. These are Town and Local Centres; Areas of Major Change; Green and Blue Network; Historic Environment; Areas of Disadvantage; and Transport Corridors.

Predicted Environmental Effects:

The green network opportunities will have significant positive effects on biodiversity, population and human health, soil, water, climatic factors, material assets and landscape arising from:

- Improving, extending and connecting up existing habitats;
- Creating new habitats;
- Introducing significant new woodland planting;
- Improving the quality and fitness for purpose of existing open space;
- Improving and extending path networks and enhancing the quality and connectivity of the green network;
- Creating and restoring carbon sinks through woodland creation and peatland restoration;
- Enhancing natural flood storage capacity;

- Restore natural coastal processes;
- Improving landscape quality; and
- Improving visitor facilities and interpretation

There will also be potential significant negative effects on biodiversity and cultural heritage arising from:

- Potential disturbance to the qualifying interests of the Firth of Forth SPA, Slamannan Plateau SPA and River Teith SAC;
- Potential increase in the risk of pollution feeding into the Firth of Forth SPA;
- Potential loss of habitat at Black Loch Moss SAC
- Potential adverse impacts on the Howierig Muir, Carron Glen and Firth of Forth SSSI;
- Potential adverse impacts on the Battle of Falkirk Site;
- Potential adverse impacts on the setting of the Antonine Wall World Heritage Site; and
- Potential adverse impacts on the Callendar Park Inventory Designed Landscape and the listed buildings within it.

Mitigation/Enhancement:

Significant positive effects on the environment will be secured through implementing the green network opportunities. In addition, a number of mitigating measures are identified to ensure that that opportunities which relate to, or affect important natural or built heritage designations do not in themselves result in significant negative environmental effects on these assets

Alternatives:

Alternative approaches were considered at the MIR stage and reported as part of the original Environmental Report.

Spatial Strategy - Housing

Proposed Approach:

The Spatial Strategy sets a target for delivery of 4,500 homes over the period 2020-30, with a flexibility allowance of 14% to give an overall housing land requirement of 5,130 homes. Housing allocations have been distributed across the various settlements in the Council area, with a particular focus on 10 Strategic Growth Areas at Bo'ness South East (Drum/Kinglass Farm); ; Banknock; Dennyloanhead, Denny South East (Mydub, Former Denny HS, Broad Street); Maddiston East (Parkhall Farm);, Whitecross, Falkirk Canal Corridor (Portdownie, Etna Road); Falkirk North (Cauldhame Farm); Falkirk Gateway; and Larbert North (Kinnaird Village).

Predicted Environmental Effects:

The growth strategy for housing will have a range of significant positive and negative environmental effects. Each growth area and housing allocation is separately assessed within the main report, but effects may be generalised as follows.

Potential significant positive effects arise from the creation of green infrastructure such as new habitats, landscaping and paths which integrates with and enhances the existing green network. Also brownfield housing development can contribute to the regeneration of vacant and derelict sites

resulting in multiple benefits. Potential significant positive effects include:

- Creation of new habitat and reinforcing the habitat network;
- Improving the quality of the active travel network;
- Improving the quality and connectivity of the green network;
- Creation of new open space which addresses existing deficiencies in access to open space;
- Improving the quality of existing open space;
- Making safe unstable ground;
- The promotion of watercourse restoration opportunities;
- Increasing the capacity to generate energy from renewable or low carbon sources;
- Improving townscape quality through regeneration of vacant/ derelict land
- Remediating contaminated land

Significant negative effects arise from pressure on environmental resources such as habitats, water, or agricultural land, and on local infrastructure such as roads. Cumulatively, there can also be impacts in relation to air quality and climate change through additional traffic generated by development. Potential significant negative effects include:

- Loss of, or disturbance to, habitats;
- Adverse impacts on legally protected species;
- Fragmentation of the green network;
- Loss of open space;
- Increasing road traffic noise;
- Loss of prime agricultural land;
- Flood risk;
- Adverse impacts on historic environmental assets such as the Antonine Wall, scheduled monuments, or listed buildings
- Increasing emissions from motorised transport;
- Increasing the use of primary resources in the construction process;
- Increasing traffic on the local road network;
- Landscape and visual impacts.

Mitigation/Enhancement:

A range of measures are identified to mitigate significant negative effects for housing allocations. These are tailored to individual sites but common types of mitigation include:

- Undertaking ecological assessment including protected species surveys to determine and mitigate potential impacts
- Retaining important habitat such as woodland;
- Undertaking protected species surveys and ensuring that mitigation takes place in relation to any species found;
- Undertaking flood risk assessment and avoiding areas subject to flood risk;
- Appropriate siting, design and landscaping to development to minimise landscape and visual impacts;
- Sensitive design to avoid adverse impacts on historic environment assets

- Mitigating impacts on the local road network through network improvements.

Generally speaking, most significant negative impacts can be mitigated, although, post mitigation, there may still be residual negative effects which are not considered significant. The only common significant negative effect which cannot be mitigated is the loss of agricultural land, which occurs on a number of greenfield allocations in the plan.

Enhancement measures are also identified to ensure that potential significant positive effects are secured.

Mitigation/enhancement measures are incorporated in the plan through appropriate site comments in the Proposals and Opportunities Schedule or Development Guidance for Major Areas of Change, or through the environmental policies of the plan. It will also be secured through development frameworks and site masterplans.

Alternatives:

Alternatives to the proposed housing allocations in each settlement area were explored and assessed at the Main Issues Report stage and reported in the original Environmental Report and by Appendix 6 to the Revised Environmental Report..

Spatial Strategy - Business

Proposed Approach:

The Spatial Strategy identifies four Strategic Business Locations within which a number of strategic business sites are contained. These are the Falkirk Investment Zone, the Grangemouth Investment Zone, the Larbert Gateway and the Eastern Gateway. In addition, there are some additional local sites. Tourism is identified as an important growth area, with development to be focused around a number of themed networks and key nodes.

Predicted Environmental Effects:

The portfolio of sites identified under the four Strategic Business Locations will have a range of significant positive and negative environmental effects. Each Strategic Business Location is separately assessed within the main report, but effects may be generalised as follows.

Potential significant positive effects arise from the creation of green infrastructure such as new habitats, landscaping and paths which integrates with and enhances the existing green network. A proportion of the sites contribute to the regeneration of vacant and derelict sites, resulting in multiple benefits. In Grangemouth, there is potential for sites to have positive effects on climate change due to new renewable energy projects. Potential significant positive effects include:

- Creation of new habitat and reinforcing the habitat network;
- Improving the quality of the active travel network;
- Improving the quality and connectivity of the green network;
- Making safe unstable ground;
- Creation of significant low carbon energy generation capacity which significantly reduces greenhouse gas emissions

- Improving townscape quality through regeneration of vacant/ derelict land;
- Remediating contaminated land

Significant negative effects arise from pressure on environmental resources such as habitats, water, or agricultural land, and on local infrastructure such as roads. Cumulatively, there can also be impacts in relation to air quality and climate change through additional traffic generated by development. Potential significant negative effects include:

- Loss of, or disturbance to, habitats, particularly the European protected nature conservation sites on the Firth of Forth from business sites in Grangemouth
- Adverse impacts on legally protected species;
- Loss of prime agricultural land;
- Coastal and fluvial flood risk, particularly in relation to business sites within Grangemouth;
- Potential for new major hazards which could increase the population exposed to risk, particularly in Grangemouth;
- Cumulative increase in traffic and industrial related air pollution;
- Adverse impacts on historic environmental assets such as the Antonine Wall, scheduled monuments, or listed buildings;
- Increasing the use of primary resources in the construction process;
- Cumulative increase in vehicular traffic impacting on the strategic and local road network;
- Landscape and visual impacts.

Mitigation/Enhancement:

A range of measures are identified to mitigate significant negative effects for business allocations. These are tailored to individual sites but common types of mitigation include:

- Undertaking ecological assessment including protected species surveys to determine and mitigate potential impacts
- Undertaking flood risk assessment and avoiding areas subject to flood risk. In the case of business sites in Grangemouth, mitigation may be provided by the Grangemouth Flood Protection Scheme;
- Ensuring that new major hazards do not increase the population exposed to risk;
- Appropriate siting, design and landscaping to development to minimise landscape and visual impacts;
- Sensitive design to avoid adverse impacts on historic environment assets
- Mitigating impacts on the local road network through network improvements.

Generally speaking, most significant negative impacts can be mitigated, although, post mitigation, there may still be residual negative effects which are not considered significant. Enhancement measures are also identified to ensure that potential significant positive effects are secured.

Mitigation/enhancement measures are incorporated in the plan through appropriate site comments in the Proposals and Opportunities Schedule or

Development Guidance for Major Areas of Change, or through the environmental policies of the plan. It will also be secured through development frameworks and site masterplans.

Alternatives:

Alternatives to the mix of sites and use in each Strategic Business Location were explored and assessed at the Main Issues Report stage and reported in the original Environmental Report.

Spatial Strategy – Town Centres

Proposed Approach:

The Spatial Strategy seeks to support the health and vitality of town and local centres through the ‘town centres first’ approach. A number of regeneration opportunities are identified in Falkirk Town Centre (Grahamston, Callendar Riggs, Bank Street, Williamson Street) and in some of the district and local centres (Denny, Bonnybridge, Grangemouth, Bo’ness, Newcarron)

Predicted Environmental Effects:

Generally, these sites will bring significant positive environmental effects through Improvement of the townscape through redevelopment of sites that may be vacant or derelict and remediation of contaminated land. They are also generally positive in terms of avoiding traffic generated pollution and greenhouse gas emissions because they are generally more accessible by sustainable types of transport.

In terms of significant negative effects, Grangemouth Town Centre is subject to flood risk and major hazards so redevelopment for more intensive uses would potentially put more people at risk of flooding and injury. In Falkirk Town Centre, there are currently air quality issues so new development could expose more people to poor air quality.

Mitigation/Enhancement:

Mitigation of flood risk in relation to Grangemouth Town Centre will be through the relevant flooding policy, but ultimately through the proposed Grangemouth Flood Protection Scheme. Mitigation of risk from major hazards will be through the relevant major hazards policy in the plan.

Alternatives:

The overall ‘town centres first’ approach is set out in SPP and there are no reasonable alternatives. No alternatives were considered in terms of the regeneration sites themselves.

Spatial Strategy - Infrastructure

Proposed Approach:

The Spatial Strategy makes provision and safeguards land for a number of infrastructure projects including strategic and local schemes, public transport and active travel improvements, drainage schemes, education, healthcare and community projects and cemetery extensions.

Predicted Environmental Effects:

The identified infrastructure projects will have a range of significant positive and negative environmental effects.

- Potential for creating new habitat corridors and connecting up significant habitat networks (transport projects);

- Improving the townscape through regeneration of derelict/vacant sites ;
- Enhancing the active travel network;
- Improving public transport facilities;
- Relieving pressure on the local road network;
- Improving road safety;
- Localised reduction in traffic noise and vibration, and improving local air quality;
- Increasing the capacity of waste water treatment works;
- Increasing the capacity of local schools.

Potential significant negative effects could include:

- Potential for creating new habitat corridors and connecting up significant habitat networks (transport projects);
- Improving the townscape through regeneration of derelict/vacant sites ;
- Enhancing the active travel network;
- Improving public transport facilities;
- Relieving pressure on the local road network;
- Improving road safety;
- Localised reduction in traffic noise and vibration, and improving local air quality;
- Increasing the capacity of waste water treatment works;
- Increasing the capacity of local schools.

Mitigation/Enhancement:

A range of measures are identified to mitigate significant negative effects and enhance significant positive effects. These are tailored to individual projects but common types of mitigation include:

- Undertaking ecological assessment including protected species surveys to determine and mitigate potential impacts
- Ensuring projects incorporate appropriate landscaping and green infrastructure;
- Making sure cemetery projects do not have adverse impacts on groundwater;
- Sensitive design to avoid adverse impacts on historic environment assets
- Mitigating impacts on the local road network through network improvements.

In general terms, even with mitigation, some significant environmental effects are likely to remain but these will to a large extent be balanced by the positive environmental benefits of the infrastructure.

Mitigation/enhancement measures are incorporated in the plan through appropriate site comments in the Proposals and Opportunities Schedule or through the environmental policies of the plan.

Alternatives:

In general terms, most projects are either site specific, with no alternatives, or are already committed through other plans and programmes. Consequently alternatives have not been considered. For the minority of projects which are still at the conceptual stage, detailed design option appraisal is more appropriately dealt with as part of project implementation.

Spatial Strategy – Energy

Proposed Approach:
 The Spatial Strategy for energy highlights three specific elements:

- Spatial framework for wind energy development
- Heat network development with focus on Grangemouth Energy Project area
- Thermal energy generation with carbon capture and storage in Grangemouth (as per NPF3)

Predicted Environmental Effects:
 The spatial framework for wind energy development provides a generally positive framework for new wind energy capacity, with significant positive effects in terms of reducing emissions from burning fossil fuels. Wind energy developments have the potential for a range of significant negative effects in terms of localised impacts on environmental resources. The spatial strategy for heat networks may also help to reduce emissions. No site has as yet been specified in the Proposed Plan for the CCS project and so it is only possible to generalise about its environmental effects. In general, negative effects likely to be similar to those generated by the Grangemouth Investment Zone. There would be potential significant positive effects due to enabling low carbon energy generation capacity.

Mitigation/Enhancement:
 The spatial framework for wind energy development should be underpinned by a robust energy generation policies and associated topic policies and supplementary guidance to mitigate potential negative effects. In respect of any future CCS project, this should be accompanied by an appropriate assessment and a flood risk assessment. In due course, the Grangemouth Flood Protection Scheme may provide suitable mitigation. Any new thermal heat source constructed in Grangemouth should ensure its feed stock is not delivered by road.

Alternatives:
 The strategy reflects both SPP and NPF3 and so it is not consideration that there are any reasonable alternatives. No site has been selected for the CCS project, given uncertainty over commitment to the project, and so no site alternatives for this facility have been considered.

Spatial Strategy - Minerals

Proposed Approach:
 The Spatial Strategy for onshore gas and minerals highlights three specific elements:

- Areas of search for surface coal mining in the Slamannan Plateau;
- Operational quarries north of Denny
- PEDL licence areas identified as required by SPP

Predicted Environmental Effects:
 The areas of search for surface coal mining exclude areas of known resources around Airth and Banknock, specifically so as to avoid potentially significant negative effects on landscape and cultural heritage in these localities. Within the areas of search on the Slamannan Plateau, proposals

could have a wide range of significant negative effects. There are also potential significant positive effects on soil and landscape (through site restoration).

The identification of existing consented operational quarries within the Council area does not, in itself have any environmental effects. Policy IR16 deals with the assessment of mineral applications – its environmental effects are assessed elsewhere. Likewise the identification of the PEDL licence areas, as required by SPP, has no specific environmental effects.

Mitigation/Enhancement:

Mitigation is provided by Policy IR16 (Assessment of Mineral Proposals) together with the environmental policies to which it refers.

Alternatives:

No alternatives were considered to this policy approach.

Policies – Place and Environment

Proposed Approach:

These include policies on placemaking, the historic environment and the natural environment. They are designed to encourage good design and to protect and enhance environmental assets.

Predicted Environmental Effects:

These policies will generally safeguard against significant negative effects and, where they set out a requirement to enhance environmental assets, they will give rise to significant positive effects.

Mitigation/Enhancement:

Enhancement of these policies will generally come in the form of supporting supplementary guidance.

Alternatives:

Generally, most of these policies reflect national planning policy and there are no reasonable alternatives.

Policies – Homes and Communities

Proposed Approach:

These policies support the housing aspects of the Spatial Strategy, setting out the housing targets, and criteria for assessing residential proposals of various types in different types of locations to ensure that that residential amenity and good design are secured.

Predicted Environmental Effects:

The policy setting out the housing supply target reflects the growth strategy of the plan and will have a range of significant positive and negative effects. Other policies are largely designed to protect amenity and promote good design in residential areas, their effects are generally positive.

Mitigation/Enhancement:

Mitigation of general housing growth is considered as part of assessment of the spatial strategy. Enhancement of these policies will generally come in the form of supporting supplementary guidance.

Alternatives:

For most of policies, the only reasonable alternative is not to have the policy which would negate their positive effects.

Policies - Jobs and Economy

Proposed Approach:

These policies support the business aspects of the Spatial Strategy, setting out the strategic business locations which will be promoted for new development, identifying those business areas which will be safeguarded for business use and those which can be redeveloped for other purposes, and providing criteria for business uses in other areas and within the countryside. The policies also cover the policy approach to town centres which is based on the ‘town centres first’ principle. Also included is a policy on major hazards.

Predicted Environmental Effects:

The policy supporting the four Strategic Business Locations reflects the growth strategy of the plan and will have a range of significant positive and negative effects. The town centre policies will encourage investment in town centres and should have a significant positive effect on townscape and cultural heritage. The policy on major hazards will have a complex range of effects. It is positive in terms of reducing risk from major hazards, but negative in terms of restrictions it may place on regeneration.

Mitigation/Enhancement:

Mitigation of general economic development growth is considered as part of assessment of the spatial strategy.

Alternatives:

For most of policies, the only reasonable alternative is not to have the policy which would negate their positive effects.

Policies – Infrastructure and Resources

Proposed Approach:

Infrastructure policies support and safeguard land for the provision of infrastructure as set out in the spatial strategy and provide guidance and criteria for various types of infrastructure including transport, community facilities, drainage and digital infrastructure.

Energy policies provide general criteria for assessing proposals for energy generation, require low and zero carbon technology to be incorporated in development, and promote heat networks.

Minerals and waste policies provide criteria against which proposals for mineral extraction and waste management will be assessed

Predicted Environmental Effects:

The policy supporting infrastructure projects will have a range of significant positive and negative effects. Other policies will generally have positive effects as they try to ensure that infrastructure is provided in a sustainable way.

Energy policies will safeguard against the significant negative effects which could arise from energy projects, and achieve positive effects in terms of reducing greenhouse gas emissions and combating climate change.

Minerals and waste policies will generally act to safeguard against the significant negative effects which such proposals may cause, and promote positive environmental effects such as restoration of abandoned mineral sites

and encouraging reuse, recovery and recycling of waste.

Mitigation/Enhancement:

Mitigation in relation to individual infrastructure projects is considered as part of assessment of the spatial strategy. Enhancement of energy and minerals policies will come through cross references to other environmental policies.

Alternatives:

These policies generally reflect SPP and other national policies and strategies, and there are no reasonable alternatives.

Monitoring

Following adoption of the LDP, the effects on the environment will need to be monitored. This will ensure that any unforeseen negative environmental impacts are identified and appropriate action taken. A proposed monitoring framework is set out in Appendix 3 of the Revised Environmental Report. It is likely that reporting would be through the annual Development Plan Monitoring Report.

Next Steps

Comments and responses to this Revised Environmental Report will be considered following the consultation period, so that so that they can inform any future modification of the Proposed Plan. It is expected that the Revised Environmental Report will form a key document of the Examination into the Proposed Plan.

Once the Proposed Plan has been through a process of Examination and has been modified by Scottish Ministers it will be adopted by Falkirk Council. Once adoption has taken place a SEA Post Adoption Statement will be issued and environmental monitoring will be agreed and implemented.

FALKIRK LOCAL DEVELOPMENT PLAN 2 – PROPOSED PLAN REVISED ENVIRONMENTAL REPORT

1. INTRODUCTION

1.1 The purpose of the LDP is to guide the future use of land and the development of towns and rural areas. The LDP should indicate where development, including regeneration, should happen and where it should not. Development plans must be accessible to the communities they serve; they should be concise and written in plain English. There is a statutory duty on development plans to contribute to sustainable development and respond to the challenges of climate change.

Key Facts

Name of Responsible Authority	Falkirk Council
Reason for PPS	The preparation of the Local Development Plan is a requirement of the Planning etc (Scotland) Act 2006
Plan Subject	Land Use Planning
Period Covered by Plan	The LDP will cover the period from 2020-2030 but will provide a long term vision for the period to 2040
Frequency of Updates	The LDP will be revised at least every five years
Plan Area	The Falkirk Council Administrative Area
Plan Purpose	To guide the future use of land and the development of towns and rural areas.
Key Contact	Alistair Shaw Development Plan Co-ordinator Falkirk Council Development Services Abbotsford House, David's Loan, Falkirk. FK2 7YZ Tel:01324 504939 Email: alistair.shaw@falkirk.gov.uk

Table 1: Key Facts

2. STRATEGIC ENVIRONMENTAL ASSESSMENT METHODOLOGY

2.1 Introduction

2.1.1 A Strategic Environmental Assessment is required under the Environmental Assessment (Scotland) Act 2005 to assess the likely significance of the environmental effects of the implementation of the LDP.

2.1.2 The preparation of this Environmental Report has followed the Scottish Government's SEA Guidance which was published in August 2013.

2.2 SEA Stages

2.2.1 There are a number of stages of SEA as shown in Table 2 below:

SEA Stage	SEA Process	Progress and Timescales
Screening	Screening report submitted to the SEA Gateway. Determination of the requirement of SEA by Responsible Authority.	It is considered that SEA of the Falkirk Council LDP is compulsory under the Section 5(3) of the Act and accordingly no previous screening exercise has been carried out.
Determination	Determination is made by the Responsible Authority as to the likelihood of significant environmental effects occurring	It is considered that SEA of the Falkirk Council LDP is compulsory under the Section 5(3) of the Act and accordingly no screening determination was necessary.
Scoping	Identification of the environmental issues to be addressed, the scope and the level of detail required for presentation within the scoping report.	Scoping Request submitted to the SEA Gateway on 12 November 2015
Scoping Consultation	The Consultation Authorities (CA's) advise on the scope of the Environmental Report. At this stage the timescale for consultation on the Environmental Report following receipt of consultation responses is determined.	Responses to Scoping Request received from Consultation Authorities via SEA Gateway on 17 December 2015
Environmental Report – Main Issues Report	The Local Development Plan Main Issues Report is assessed against the SEA Objectives. Assessment of alternatives to the preferred options for addressing the main issues are also assessed. Requirements for mitigation and monitoring are reported.	Published in February 2017

<p>Environmental Report Consultation</p>	<p>The Consultation Authorities will provide a response on the Environmental Report via the SEA Gateway within 12 weeks of receipt. The CA's will advise on the content of the Environmental Report and the acceptability of the approach set out in the MIR. This consultation includes public consultation.</p>	<p>Responses to consultation received from Consultation Authorities via SEA Gateway on 5 May 2017</p>
<p>Revised Environmental Report – Proposed Plan</p>	<p>The Local Development Plan – Proposed Plan is assessed against the SEA Objectives. Assessment of alternatives to the preferred options for addressing the main issues are also assessed. Requirements for mitigation and monitoring are reported. In practice this document should focus on the changes in approach between the MIR and Proposed Plan. The consultation process will be identical to that undertaken for the MIR Environmental Report. This Environmental Report will form a key piece of evidence at the Examination of the Proposed Plan</p>	<p>This report. Consultation will be undertaken on the Proposed Plan and Revised Environmental Report from 28 September to 23 November 2018.</p>
<p>Revised Environmental Report – Proposed Plan as Modified</p>	<p>Modifications will be screened to see if they would cause significant environmental effects, and, if so, whether they have already been assessed through the SEA process. If they have not been assessed, then further assessment of the changed will be undertaken and consulted on.</p>	<p>To follow if necessary. If required this is likely to take place in Spring 2019 if made pre-examination, or Spring 2020 if post examination.</p>
<p>Post-Adoption SEA Statement</p>	<p>The SEA Statement summarises the assessment of the Local Development Plan and how the consultation responses have been taken into account.</p>	<p>To follow. Plan adoption is projected for Summer 2020.</p>
<p>Mitigation and Monitoring</p>	<p>Following adoption, Falkirk Council will be responsible for monitoring the implementation of the LDP.</p>	<p>To follow</p>

Table 2: SEA Stages and Progress

3. RELATIONSHIP WITH OTHER PLANS, PROGRAMMES AND STRATEGIES

3.1 The following Plans Programmes and Strategies are the main influences on the preparation of the Falkirk LDP:

- National Planning Framework 3
- Scottish Planning Policy
- The Scotland River Basin Management Plan
- The Forth Area River Basin Management Plan
- The Forth Area Flood Risk Management Strategy and Local Flood Risk Management Plan
- The Forth Estuary Flood Risk Management Strategy and Local Flood Risk Management Plan
- The Falkirk Council Strategic Outcomes and Local Delivery Plan 2016-2020
- The Economic Strategy for Falkirk 2015-2025
- The Falkirk Council Local Transport Strategy
- The Falkirk Council Local Housing Strategy
- The Falkirk Council Sustainability Strategy and Action Plan
- The Falkirk Open Space Strategy;
- Our Future in the Past: The Historic Environment Strategy for Falkirk
- Falkirk Greenspace – A Strategy for our Green Network;
- Inspiring Active Lives – A Culture and Sport Strategy for Falkirk 2014-2024
- The Falkirk Area Local Biodiversity Action Plan
- The Falkirk Council Contaminated Land Strategy; and
- Falkirk Zero Waste Strategy 2012-2022

3.2 The LDP will also have an inter-relationship with the documents which form the Development Plans of neighbouring Local Authorities.

3.3 Other PPS which provide a policy context for the LDP are shown in the appropriate environmental topic chapters of the Environmental Baseline Report forms appendix 1 of this report.

3.4 The LDP will set the policy framework for forthcoming statutory Supplementary Guidance and will influence future supplementary planning guidance, development frameworks and development briefs.

4. ENVIRONMENTAL BASELINE

4.1 Legislative Requirement

4.1.1 Schedule 3 subsection 2-5 of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes a description of:

- The current state of the environment and environmental characteristics of areas likely to be significantly affected by the Local Development Plan;
- The likely evolution of the environment without the implementation of the Local Development Plan;
- Any existing environmental problems which are relevant to the Local Development Plan;
- The environmental protection objectives which are relevant to the Local Development Plan; and
- The way those objectives have been taken into account during the preparation of the Local Development Plan

4.2 Approach to the Description of the Environmental Baseline

4.2.1 The Scoping Report for the Local Development Plan indicated that all environmental topic areas were to be scoped into the Environmental Report. Given the broad and comprehensive scope of the Environmental Report, it has been decided to deal with the environmental baseline for each environmental topic area within a specific chapter of a separate Environmental Baseline Report which forms appendix 1 of this Revised Environmental Report. Each chapter of the environmental baseline report will be structured with the following sub-sections:

1. A review of current environmental protection objectives and a summary of how these have been taken into account during the preparation of the LDP.
2. A review of existing environmental data including existing environmental characteristics and issues and an indication of the likely future change without the implementation of the plan.

4.2.2 A general overview of the environment in the Falkirk Area and a broad indication of the likely future changes to environment without the plan are given below.

4.3 General Overview of the Environment

4.3.1 The Falkirk Council area extends to some 300 sq. km. and is located in the middle of Scotland's Central Belt. Despite its relatively small geographical extent, the area exhibits a considerable variety of landforms and habitats. This is in turn influenced by the its underlying geology, comprising mainly sedimentary rocks from the Carboniferous period, and the effects of

glaciation, which deposited a range of drift materials and a characteristic landscape of mounds, ridges, terraces and raised beaches.

4.3.2 The northern part is characterised by the relatively flat and fertile carseland adjoining the Forth Estuary, supporting arable farming and some improved pasture. The adjacent estuarine mudflats and salt marsh form part of the Firth of Forth SPA, which is of international importance for wintering birds. To the east a rolling landscape of good quality agricultural land is bisected by the scenic Avon Valley. The centre of the area, which is dominated by the river valleys of the Carron and the Bonny Water, is the most urbanised, and is traversed by the Forth and Clyde and Union Canals. To the south and west, the land rises up to the more remote and less populous Slamannan Plateau and the Denny and Kilsyth Hills where rough grazing predominates with some commercial forestry.

4.3.3 The estimated population of 158,460 is focused within a network of small to medium sized towns. The principal town of Falkirk, with a population of around 39,000, is centrally located and serves as the main shopping, service and employment centre for the area. Separated from Falkirk by a narrow Green Belt are the urban areas of Larbert/Stenhousemuir, Polmont and Grangemouth. The former two are largely residential in character, whilst Grangemouth is home to the largest petrochemical complex in Scotland. In the western reaches of the area lie the settlements of Denny/Dunipace, Bonnybridge and Banknock, whilst to the east, overlooking the Forth, sits the town of Bo'ness. Some 18 smaller village communities are scattered across the rural part of the area.

4.3.4 The area benefits from excellent road, rail and sea connections. It is at the hub of the motorway and railway network, whilst Grangemouth is a major port.

4.3.5 The area has a long history of industrial activity, based on the local coal reserves, and played a key role in the industrial revolution in Scotland. The traditional industries have largely disappeared. This has left a legacy of vacant, derelict and contaminated land, although considerable progress has been made over recent decades in terms of land renewal. Today, although manufacturing is still important, particularly the chemical and petrochemical sector in Grangemouth, the economy is more diverse, with the service sector increasingly predominant. The area's good accessibility allows for the population to commute outwith the area to work.

4.3.6 Mineral extraction has diminished in recent times, with activity currently limited to hard rock quarrying in the west, sand and gravel extraction near Polmont and at Hills of Dunipace and some peat extraction at Letham Moss. However, there are still exploitable coal reserves within the area.

4.3.7 The area has a wealth of built and cultural assets reflecting its interesting and varied history, and its key location in relation to key events such as the Roman occupation of Scotland, the Jacobite rebellions of the 18th century and, most importantly, the Industrial Revolution.

4.4 Summary of likely future changes to environment without the plan

4.4.1 The logic of carrying out Strategic Environmental Assessment is to understand the likely environmental effects of the implementation of the plan. However, it is a requirement for SEA to describe how the environment would be likely to evolve in the absence of the Local Development Plan.

4.4.2 Local Development Plans need to be up-to-date in order to comply with the latest policy guidance from national government and reflect the area's actual development pressures and environmental issues. If they are not, then less weight is generally attached to them in decision-making.

4.4.3 In the absence of an updated Local Development Plan, the development plan framework in the Falkirk Council area would comprise the Falkirk Local Development Plan which was adopted in July 2015 and its suite of 17 Supplementary Guidance documents. 16 of these are approved but 1 is still under preparation.

4.4.4 Key environmental issues and existing environmental characteristics of each topic area are identified within the Environmental Baseline Report which forms appendix 1 of this report. Some of these may not be greatly affected by the policies and proposals of the Local Development Plan. However, in many cases, the absence of an up-to-date Local Development Plan may exacerbate environmental problems. Likely future changes to each environmental topic area without the implementation of Local Development Plan 2 are summarised within the Environmental Baseline Report.

5.0 ENVIRONMENTAL ASSESSMENT

5.1 Scope

5.1.1 The implementation of the Local Development Plan has the potential to have significant environmental effects on all areas of the environment. A breakdown of sub-issues to be scoped in and scoped out of each topic was given within the Falkirk Local Development Plan 2 Scoping Report (November 2015). A record how the views of the Consultation Authorities at the scoping stage have been taken into account is included at Appendix 4 of this document.

5.2 Summary of the proposed level of detail

5.2.1 The first stage of the LDP was the preparation of a Main Issues Report (MIR), and it was this document which was scrutinised initially through the SEA process. Legislation dictates that the MIR sets out the Council's preferred proposals for development, as well as reasonable alternatives. The requirement to consider alternatives, where these exist, is aligned with the similar requirement in the SEA process.

5.2.2 The Proposed Plan comprises the following elements:

Vision (Chapter 2). A statement of the future we aspire to in 2040. This comprises nine objective grouped under the three vision themes of

- Thriving Communities
- Growing Economy
- Sustainable Place

The vision, themes and objectives are substantially the same as for LDP1.

Spatial Strategy (Chapter 3). This states how and where the area will grow and develop generally in the plan period to achieve the Vision. There are seven components to this:

- Place
- Green and Blue Network
- Housing
- Business
- Infrastructure
- Town Centre
- Energy and Minerals

Policies (Chapter 4). This provides the detailed policy guidance against which development proposals will be assessed, organised under the following themes:

- Place and Environment
- Homes and Communities
- Jobs and Economy
- Infrastructure and Resources

Settlement Statements (Chapter 5). This sets out the implications of the Spatial Strategy for individual settlement areas, with detailed development guidance on major areas of change.

Proposals and Opportunities Schedule (Appendix 1). This lists all development sites, infrastructure proposals and green network opportunities, included comments and guidance for each where appropriate.

5.2.3 For the purposes of assessment, the vision is assessed overall and in terms of its component objectives. Each section of the Spatial Strategy is assessed in turn. For each section, environmental assessment is undertaken of the relevant proposals, and this is aggregated either on a settlement area basis for housing, by strategic business location for business, by town centre type for town centres, or globally across the Council area for green network, infrastructure, energy and minerals. This means that the cumulative effects of proposals can be seen, whilst still being able to discern the discrete effects of individual proposals. Policies are assessed individually.

5.3 Assessment Method Summary

5.3.1 A set of SEA objectives has been formulated for each environmental topic area and is reported in the corresponding section of the Environmental Baseline Report (appendix 1 of this document).

5.3.2 The proposed approach to assessment is to ask specific questions of the individual components of the Vision, Spatial Strategy and Policies which relate to the SEA objectives set out in the Environmental Baseline Report, then consider how each will be likely to perform.

5.3.3 All environmental effects in relation to each environmental topic area, prior to mitigation, were recorded in a detailed matrix which forms appendix 2 to this document. Effects were categorised as significant positive, positive, neutral, negative, significant negative or unknown. Potential mitigation/enhancement was then considered and applied, with residual post mitigation effects recorded.

5.3.4 This main report summarises only the significant environment effects arising from the plan, and mitigation/enhancement associated with those effects. It also indicates how mitigation/enhancement has been incorporated in the plan, whether through wording in site comments or development guidance, requirements for future development frameworks/masterplans/briefs, or through the policies of the plan.

5.3.5 Reasonable alternatives to the main components of the plan, and their environmental effects, must also be reported where relevant. In many instances this has already been done through the Main Issues Report and its associated Environmental Report. If this is the case, they are not repeated in this revised report.

5.4 Assessment of Significant Environmental Effects - Vision

5.4.1 Overall Vision

Proposed Approach: The vision is: ‘The place to be: a dynamic and distinctive area at the heart of Central Scotland characterised by a network of thriving communities and greenspaces and a vibrant and growing economy which is of strategic importance in the national context, providing an attractive and sustainable place in which to live, work, visit and invest.’

Predicted Environmental Effect: Significant environmental effects are predicted in most environmental areas. As with any growth strategy it will lead to increased traffic growth, use of agricultural land and natural resources, increased pressure on environmental infrastructure and pressure on the landscape and biodiversity. However it will also stimulate investment in the green network, lead to the creation of new open space, and result in the re-use of derelict land.

Enhancement and Mitigation: The significant positive effects of many aspects of the spatial strategy, e.g. green network improvements, sustainable transport proposals, promotion of renewable energy, will assist in mitigating significant negative effects. The mix of sites for housing and economic growth and for infrastructure provision have been selected having regard to the aim of minimising significant negative effects and maximising significant positive effects. All policies have been drafted with environmental considerations embedded within them, and have themselves been subject to environmental assessment.

Alternatives Considered: No alternative visions are proposed or assessed as the strategic context which the plan is being prepared in has not changed significantly since LDP1. The LDP’s role is in any case to express the spatial dimension of high level visions set out within the Strategic Outcomes and Local Delivery Plan 2016-2020 and the Economic Strategy for Falkirk 2015-2025. It is not considered reasonable for the plan to explore any alternative visions.

5.4.2 Objectives - Thriving Communities

Objective 1: Facilitate continued population and household growth, and the delivery of housing to meet the full range of housing needs.

Predicted Environmental Effect: Any population and household growth objective is likely to have a range of cumulatively significant positive and negative effects on the environment including:

- An increase in population
- creation of new habitat and reinforcing the habitat network;
- improving the quality of the active travel network;
- improving the quality and connectivity of the green network;
- creation of new open space which addresses existing deficiencies in access to open space;

- improving the quality of existing open space;
- making safe unstable ground;
- restoration of watercourses;
- increasing the capacity to generate energy from renewable or low carbon sources;
- improving townscape quality through regeneration of vacant/ derelict land;
- loss of habitat;
- loss of open space;
- increasing road traffic noise;
- loss of significant amounts of agricultural land;
- significantly increasing emissions from motorised transport;
- significantly increasing the use of primary resources in the construction process; and
- significantly increasing traffic on the local road network.

Other, less generic significant environmental effects will depend on the sensitivity of the location of any new housing development. The specific effects of the proposed housing allocations are reported under the Spatial Strategy.

Enhancement and Mitigation: Sites for housing growth have been selected having regard to the need to avoid or minimise significant negative effects and enhancing significant positive effects. Measures to ensure positive environmental effects and mitigate negative environmental effects are included within the policies and individual site comments in the plan.

Alternatives Considered: Population and household growth is predicted in government projections and reflected in the Housing Needs and Demand Assessment. SPP requires planning authorities to address this. As such there are no reasonable alternatives.

Objective 2: Build sustainable attractive communities which are distinctive, safe and pleasant, welcoming, adaptable, resource efficient, and easy to move around in.

Predicted Environmental Effect: This objective is likely have significant positive effects on population and human health, material assets and climatic factors due to improving the quality and connectivity of the green network, townscape quality, the quality and connectivity of the active travel network, and the resource efficiency of the built environment.

Enhancement and Mitigation: Positive environmental effects are secured specifically through the place and environment policies of the plan; green network opportunities; and highlighting the green network, active travel network and townscape improvement opportunities to be delivered by specific development sites.

Alternatives Considered: This objective reflects SPP and there are no reasonable alternatives.

Objective 3: Provide infrastructure to meet the needs of an increasing population and to further improve the area’s connectivity.

Predicted Environmental Effect: The environmental effects of providing infrastructure to meet the needs of an increasing population and the further improve the area’s connectivity will have a range of positive and negative environmental effects dependent on the appropriate suite of infrastructure needed. These are set out in more detail under the relevant Spatial Strategy section.

Enhancement and Mitigation: Mitigation of significant negative effects from infrastructure projects are secured through the policies of the plan and through site comments associated with individual proposals.

Alternatives Considered: No reasonable alternatives are considered.

5.4.3 Objectives – Growing Economy

Objective 4: Foster economic growth, investment and inclusion, reinforcing the area as a strategic component of the Scottish economy.

Predicted Environmental Effect: The economic growth aspirations of the plan will have a range of significant positive and negative environmental effects arising from the suite of strategic employment sites identified in the plan. These are set out in detail under the relevant Spatial Strategy section.

Enhancement and Mitigation: Mitigation of significant negative effects from business proposals are secured through the policies of the plan and through site comments associated with individual proposals. These are set out in detail under the relevant Spatial Strategy section.

Alternatives Considered: The objective reflects the Council’s economic strategy and NPF3 and there are no reasonable alternatives.

Objective 5: Make our town centres vibrant and viable focal points within our communities

Predicted Environmental Effect: Making our town centres vibrant and viable focal points within our communities will have significant positive effects on cultural heritage, material assets, climatic factors and air, through encouraging investment and improvement in our historic centres, and promoting locations which are accessible by sustainable transport. However, there are potential significant negative effects on air quality due to an increase in vehicle traffic coming into centres which already have air quality issues.

Enhancement and Mitigation: Significant positive effects for cultural heritage and material assets is secured by means of the design and historic

environment policies of the plan. Some mitigation of air quality issues may be secured through the plan's transport policies and various proposals for sustainable transport and active travel.

Alternatives Considered: The objective reflects SPP and there are no reasonable alternatives

Objective 6: Preferred Option: Capitalise on the area's tourism potential and build a strong visitor economy.

Predicted Environmental Effect: Capitalising the area's tourism potential and building a strong visitor economy could significant positive effects for population and human health, material assets and cultural heritage, through improving recreation facilities and access to the countryside, and encouraging investment in historic environment assets as a focus for tourism. However, there are potential significant negative environmental effects for biodiversity, landscape and cultural heritage, through potential loss of habitat or disturbance to wildlife, insensitive countryside development and adverse impacts on historic sites from visitor pressure or insensitive development.

Enhancement and Mitigation: Mitigation of significant effects on cultural heritage, biodiversity is secured through the environment and countryside policies of the plan, and site comments associated with any individual proposals.

Alternatives Considered: The objective reflects existing Council strategies and there is no reasonable alternative.

5.4.4 Objectives – Sustainable Place

Objective 7: Support a low carbon, circular economy and build resilience to climate change.

Predicted Environmental Effect: This objective should have a range of significant positive effects on biodiversity, population and human health, soil water, material assets and climatic factors. This would arise from : enabling the reconnection of fragmented habitat networks; maximising the reuse, recycling and recovery of resources; restoring peatland; reducing overall flood risk; increasing the amount of renewable energy generated in the area; reducing the use of primary resources in the construction process; reducing overall greenhouse gas emissions; and improving overall resilience to climate change.

Enhancement and Mitigation: These positive environmental effects will be secured through the policies of the plan, site comments associated with individual proposals and certain specific infrastructure and green network proposals.

Alternatives Considered: The object reflects national policy and so no reasonable alternatives were considered.

Objective 8: Extend and improve the green network and protect the area's natural environment and resources.

Predicted Environmental Effect: This objective should have significant positive effects on most environmental areas. This would arise from : extension and improvement the quality of the habitat network; improve the quality and connectivity of the green network; restoring peatland; improving the ecological status of waterbodies; improving the quality and connectivity of the active travel network; improving overall resilience to climate change; and improving landscape quality.

Enhancement and Mitigation: These positive environmental effects will be secured through the policies of the plan, site comments associated with individual proposals and certain specific green network proposals.

Alternatives Considered: The objective reflects SPP, NPF3 and other Council strategies and so no reasonable alternatives were considered.

Objective 9: To protect, enhance and promote our historic environment

Predicted Environmental Effect: This objective will have significant positive effects on cultural heritage and material assets.

Enhancement and Mitigation: These positive environmental effects will be secured through the policies of the plan, and site comments associated with individual proposals.

Alternatives Considered: This objective reflects SPP and the Council's historic environment strategy so no reasonable alternatives were considered.

5.5 Assessment of Significant Environmental Effects – Spatial Strategy

5.5.1 Place

Proposed Approach: The spatial strategy for place highlights 'place priorities' - generic locations where investment will be particularly focused on creating good places. These are as follows:

- Town and Local Centres
- Areas of Major Change
- Green and Blue Network
- Historic Environment
- Areas of Disadvantage
- Transport Corridors

Predicted Environmental Effect: The proposed approach to place should have significant positive effects on material assets, cultural heritage and landscape, through the resulting investment in and improvements to the built and natural environment.

Enhancement and Mitigation: Enhancement of the positive effects of the strategy is provided by the specific opportunities for improvement included in the plan, the opportunities for placemaking that are highlighted in relation to development sites, and specific policies particularly PE01 (Placemaking), and associated environmental policies referred to within PE01.

Alternatives Considered: This part of the strategy reflects existing national and local plans and strategies and no reasonable alternatives were considered.

5.5.2 Green and Blue Network

Proposed Approach: The preferred approach is to continue to spatially define the CSGN/Falkirk Greenspace in terms of the framework of green network components and corridors set out in LDP1, and to promote 25 specific green network opportunities as priorities for improving the green network.

Predicted Environmental Effect: The green network opportunities will have significant positive effects on biodiversity, population and human health, soil, water, climatic factors, material assets and landscape arising from:

- Improving, extending and connecting up existing habitats;
- Creating new habitats;
- Introducing significant new woodland planting;
- Improving the quality and fitness for purpose of existing open space;
- Improving and extending path networks and enhancing the quality and connectivity of the green network;
- Creating and restoring carbon sinks through woodland creation and peatland restoration;
- Enhancing natural flood storage capacity;
- Restore natural coastal processes;
- Improving landscape quality; and
- Improving visitor facilities and interpretation

There will also be potential significant negative effects on biodiversity and cultural heritage arising from:

- Potential disturbance to the qualifying interests of the Firth of Forth SPA, Slamannan Plateau SPA and River Teith SAC;
- Potential increase in the risk of pollution feeding into the Firth of Forth SPA;
- Potential loss of habitat at Black Loch Moss SAC
- Potential adverse impacts on the Howierig Muir, Carron Glen and Firth of Forth SSSI;
- Potential adverse impacts on the Battle of Falkirk Site;
- Potential adverse impacts on the setting of the Antonine Wall World Heritage Site; and
- Potential adverse impacts on the Callendar Park Inventory Designed Landscape and the listed buildings within it.

Enhancement and Mitigation: Significant positive effects on the environment will be secured through implementing the green network opportunities. The following mitigation measures should be used to mitigate and avoid significant negative effects on the environment:

- Appropriate assessment should be carried out where appropriate for John Muir Way; Kinneil Kerse; Bothkennar/Skinflats; River Carron Corridor Improvements; Braes Wetland and Peatland Restoration; Black Loch Access; and River Avon Corridor opportunities to ensure that they do not have an adverse effect on the integrity of the Firth of Forth and Slamannan Plateau SPA or the River Teith and Black Loch Moss SAC either alone or in combination with other plans and projects;
- Upgrading of visitor facilities at Kinneil Estate should be undertaken sensitively to avoid negative effects on the setting of the Antonine Wall WHS;
- Opportunities at the John Muir Trail, Antonine Wall Trail, Callendar Park and Wood, River Avon Corridor, Kinneil Estate should be undertaken sensitively to avoid an adverse impact on the Antonine Wall WHS or its setting;
- Opportunities at Callendar Park/Wood and Kinneil Estate should be undertaken sensitively to avoid adverse impact on the relevant inventory and non-inventory designed landscapes; and
- Opportunities at Bantaskine Park and John Muir Trail should be undertaken sensitively to avoid negative effects on the Battle of Falkirk Battlefield Site; and

Mitigation will be provided by appropriate wording in the Proposals and Opportunities Schedule and/or plan policies PE05 (Antonine Wall), PE07 (Listed Buildings), PE10 (Historic Gardens and Designed Landscapes), and PE19 (Biodiversity and Geodiversity).

Alternatives Considered: Alternative approaches were considered at the MIR stage and reported as part of the original Environmental Report.

5.5.3 Housing – Housing Supply Target/Housing Land Requirement

Proposed Option: The Spatial Strategy sets a target for delivery of 4,500 homes over the period 2020-30, with a flexibility allowance of 14% to give an overall housing land requirement of 5,130 homes.

Predicted Environmental Effect: As detailed in the preferred vision above, any growth strategy is likely to have a range of significant positive and negative effects in all environmental areas. Environmental effects include:

- An increase in population;
- Creation of new habitat and reinforcing the habitat network;
- Improving the quality of the active travel network;
- Improving the quality and connectivity of the green network;
- Creation of new open space which addresses existing deficiencies in access to open space;

- Improving the quality of existing open space;
- Making safe unstable ground;
- The promotion of watercourse restoration opportunities;
- Increasing the capacity to generate energy from renewable or low carbon sources;
- Improving townscape quality through regeneration of vacant/ derelict land
- Loss of, or disturbance to, habitats;
- Fragmentation of the green network;
- Loss of open space;
- Increasing road traffic noise;
- Loss of agricultural land;
- Increasing emissions from motorised transport;
- Increasing the use of primary resources in the construction process;
- Increasing traffic on the local road network;
- Landscape and visual impacts.

Other, less generic significant environmental effects will depend on the sensitivity of the location of any new housing development.

Enhancement and Mitigation: Sites for housing growth should be selected with the aim of avoiding or minimising significant negative effects and enhancing significant positive effects. Measures to ensure positive environmental effects and mitigate negative environmental effects should be included within the policies and individual site requirements in the plan.

Alternatives Considered: Alternative levels of flexibility were considered at the MIR stage and reported as part of the original Environmental Report.

5.5.4 Housing - Bo'ness

Proposed Approach: The proposed approach is to continue the LDP1t growth strategy, focusing new housing development on the existing committed sites at the Bo'ness South East Strategic Growth Area – H01 Drum Farm North, MU02 Drum Farm South, H02 Kinglass Farm 1 and H03 Kinglass Farm 2. Several other brownfield opportunities within the urban area are also promoted (H04 South Street, H05 North Street, H06 Union Street).

Predicted Environmental Effect:

Development of the **Bo'ness South East SGA** could have significant positive effects on biodiversity, population and human health, soil, water and material assets due to:

- Potential to connect up fragmented habitat networks;
- Potential to extend and improve the connectivity of the green network;
- Improving the active travel network

It could have the significant negative effects on biodiversity, soil, and water due to:

- Potential adverse impacts on legally protected species

- Potential loss of mature woodland and hedgerow habitat;
- Potential flood risk;
- Loss of prime agricultural land;

Other sites could have significant positive effects on population and human health, soil, material assets and cultural heritage due to:

- Improving the quality of Bo'ness Town Centre Conservation Area;
- Regenerating vacant/derelict land and removing contamination;

They could have significant negative effects on population and human health, through:

- Increasing the population at risk of injury from major hazards;
- Potential flood risk.

Enhancement/Mitigation:

Measures to ensure the delivery of significant positive effects and mitigate significant negative effects are described below:

- Development of the Drum Farm North, Drum Farm South and Kinglass Farm 1 site should explore opportunities to link up fragmented habitat networks through on site habitat creation;
- Protected species checks should be carried out at Drum Farm North;
- Development of the South Street/ Main Street, and Union Street sites should avoid unacceptably increasing the population at risk of injury from major hazards;
- Flood Risk assessments should be carried out at sites assessed as being at risk of flooding and areas subject to flooding should not be built on.

If these mitigation measures are applied the only residual significant negative effects will be in respect of the loss of prime agricultural land, which could only be mitigated by not developing the relevant sites.

Mitigation/enhancement will be provided by wording in the Proposals and Opportunities Schedule and Development Guidance for Major Areas of Change; subsequent development frameworks and masterplans for sites; and plan policies PE18 (Landscape), PE19 (Biodiversity and Geodiversity), PE20 (Trees, Woodland and Hedgerows), PE24 (Flood Management), JE06 (Major Hazards). In addition, Kinglass Farm 1 has detailed planning permission with mitigation provided by associated masterplan and conditions.

Alternatives Considered: Alternative growth options were considered at the MIR stage and reported as part of the original Environmental Report and also by Appendix 6 to the Revised Environmental Report.

5.5.5 Housing – Bonnybridge and Banknock

Proposed Approach: The proposed approach is to carry forward the existing Strategic Growth Areas at Banknock (H08, MU04) and Dennyloanhead (H09), a large site at East Bonnybridge (MU20) and smaller committed sites at Broomhill Road (H10), Seabegs Road (H11), Garngrew Road (H12), and Bonnybridge Town Centre (MU05). Cumbernauld Road,

Longcroft (H53) is a small new allocation, There is no new major additional growth proposed given the level of commitments in the area.

Predicted Environmental Effect:

Development of the **Banknock SGA** could have significant positive effects on population and human health, soil and material assets due to:

- Potential to extend and improve the green network;
- Removal of contamination and making safe unstable land
- Potential to improve local townscape quality through regenerating vacant and derelict land

It could have the significant negative effects on biodiversity, water, material assets, air, and cultural heritage due to:

- Potential for adverse impact on legally protected species;
- Potential flood risk;
- Increase in population exposed to reduced air quality (nearby AQMA);
- Adverse impacts on local sewerage network which is at capacity;
- Potential to breach capacity of the local road network;
- Potential adverse impact on the Forth & Clyde Canal scheduled monument;
- Potential adverse impact on the setting of the Antonine Wall WHS.

Development of the **Dennyloanhead SGA** could have significant positive effects on biodiversity, population and human health, soil, and material assets due to:

- Potential to connect up fragmented habitat networks;
- Potential to extend and improve the green network;
- Removal of contamination and making safe unstable land;
- Potential to improve local townscape quality through regenerating vacant and derelict land;

It could have the significant negative effects on water, material assets and landscape due to:

- Potential flood risk;
- Increase in population exposed to reduced air quality (nearby AQMA);
- Adverse impacts on local sewerage network which is at capacity;
- Potential to breach capacity of the local road network;
- Potential adverse impact on the Forth & Clyde Canal scheduled monument;
- Potential adverse impact on the setting of the Antonine Wall WHS.

Development of the **East Bonnybridge site** could have significant positive effects on population and human health and landscape through

- Potential creation of significant open space and increased recreational activity.

It could have significant negative effects on population and human health, soil, water, cultural heritage and landscape due to:

- Potential to increase the population at risk of major hazards
- Potential flood risk
- Loss of prime agricultural land

- Potential for development to be situated within the Antonine Wall WHS buffer zone and for adverse impacts on the setting of scheduled monuments including the Forth and Clyde Canal.
- Substantial landscape change and related visual and landscape impacts on the green belt.

Development of **Cumbernauld Road, Longcroft** site could have a positive effect on population and human health due to:

- Potential to contribute towards the improvement in quality of nearby open space.

It could have a significant negative effect on material assets and cultural heritage due to

- Potential to have an adverse impacts on the setting of Antonine Wall WHS
- Limited road capacity

Development of the **Garncrew Road** site could have significant positive effects on biodiversity and population and human health due to:

- Potential to connect up fragmented habitat networks;
- Potential to extend and improve the green network.

It could have significant negative effects on material assets, water, soil and cultural heritage due to:

- Potential to breach capacity of the local road network;
- Potential flood risk
- Loss of prime agricultural land
- Potential adverse impact on the setting of the Antonine Wall WHS.

Development at the **Seabegs Road** site could have a significant positive effect on population and human health and material assets, due to

- Potential to improve local townscape quality through regenerating vacant and derelict land

It could have significant negative effects on material assets, water, soil and cultural heritage due to:

- Potential adverse impact on the setting of the Antonine Wall WHS.

Other sites (Broomhill Road and Bonnybridge Town Centre) could have a significant positive effect on population and human health and material assets due to:

- Potential to improve local townscape quality through regenerating vacant and derelict land

They could have significant negative effects on water and cultural heritage due to:

- Potential flood risk
- Potential adverse impacts on protected species
- Potential adverse impact on the setting of the Antonine Wall WHS
- Potential adverse impact on the Forth & Clyde Canal scheduled monument;

Enhancement/Mitigation:

Measures to ensure the delivery of significant positive effects and mitigate significant negative effects are described below:

- The Banknock and Haggs Development Framework, and approved masterplans and PPP consents for Dennyloanhead and Banknock North have secured mitigation/enhancement of significant effects arising from the Banknock and Dennyloanhead SGAs.
- Further development in the A803 corridor is limited until M80 Junction 7 slip roads are improved. This is an infrastructure proposal in the plan.
- Banknock SGA, Dennyloanhead SGA, East Bonnybridge, Cumbernauld Road, Longcroft, Garngrew Road, Seabegs Road, Broomhill Road and Bonnybridge Town Centre sites should be sensitively developed to avoid significant adverse effects on the setting of the Antonine Wall WHS and scheduled monuments and avoid significant adverse effects on cultural heritage.
- Development at the Seabegs Road and Garngrew Road sites should incorporate new broadleaved woodland planting to connect up fragmented parts of the habitat network;
- Development proposals at Broomhill Road 1, Garngrew Road and Bonnybridge Town Centre sites should be accompanied by a flood risk assessment and areas at risk of flooding should not be developed;
- Development at Seabegs Road and Garngrew Road should be undertaken sensitively to avoid adverse impact on the setting of the Antonine Wall WHS;
- Development at Bonnybridge Town Centre should be undertaken sensitively to avoid adverse impact on the Forth and Clyde Canal.
- Development at the Cumbernauld Road site should be accompanied by protected species surveys and suitable mitigation measures undertaken to avoid significant negative effects on biodiversity
- An open space/habitat corridor should be created along the Rowan Tree Burn between the Bonny Water and Forth and Clyde Canal for the development at East Bonnybridge to ensure significant positive effects on population and human health
- Careful design will be required for the development at East Bonnybridge to avoid increasing the number of people at risk from major hazards and thereby avoid significantly negative effects on population and human. Mitigation may involve limiting the amount of new housing within the consultation zone.
- Substantial buffer planting is required for canal and east and north of the East Bonnybridge to mitigate significant adverse impacts on landscape, if site is developed.
- Flood risk assessments should be undertaken for all sites with significant flood risk, and development should be avoided on areas with such risk to avoid significant adverse impacts on water.

If all the mitigation measures are applied, the likely results are:

- Residual significant negative effects negative effects with the loss of prime agricultural land at the Garngrew Road and East Bonnybridge sites. The only way to mitigate this issue is not developing the sites.
- It may not be possible to fully mitigate the significant adverse effects of East Bonnybridge's development on the Antonine Wall WHS and Forth and Clyde Canal Schedule Monument , to a point where they are not significant. The only way to ensure such effects are avoided is by not developing the site.
- It would be unlikely other residual significant negative impacts would occur from the development of the other the housing land allocations within the Bonnybridge and Banknock area
- Residual significant effects will remain due to the increase in population living within the Banknock/Haggs AQMA.

Mitigation/enhancement will be provided by wording in the Proposals and Opportunities Schedule and Development Guidance for Major Areas of Change; development frameworks and masterplans for sites; and plan policies PE01 (Placemaking), PE05 (Antonine Wall), PE06 (Archaeological Sites), PE17 (Open Space and New Development), PE18 (Landscape), PE19 (Biodiversity and Geodiversity), PE24 (Flood Management), PE25 (Air Quality), JE06 (Major Hazards), IR05 (Transport Assessment).

Alternatives Considered: Alternative growth options were considered at the MIR stage and reported as part of the original Environmental Report and also by Appendix 6 to the revised Environmental Report.

5.5.6 Housing - Braes and Rural South (Maddiston/Rumford)

Proposed Approach: In Maddiston/Rumford, the Maddiston East Strategic Growth Area – Parkhall Farm 1-4, Toravon Farm (H13 – H17) and the Haining (H54) - will be carried forward, with an additional site Parkhall Farm 5 (H18) for a care village.

Predicted Environmental Effect:

Development of the **Maddiston East SGA** could have significant negative effects on biodiversity, water, soil, cultural heritage and landscape due to:

- Potential for adverse impact on legally protected species;
- Potential adverse impact on ancient and semi-natural woodland
- Potential severance of broadleaved habitat networks
- Potential flood risk;
- Loss of prime agricultural land;
- Potential adverse impact on the setting of the Union Canal scheduled monument; and
- Landscape and visual impacts in an area of high sensitivity.

The SEA identified positive effects for the proposed plan but these are not considered significant in overall strategic environmental terms.

Enhancement/Mitigation:

Measures to ensure the delivery of significant positive effects and mitigate significant negative effects are described below:

- Development proposals at the Parkhall Farm 1-5, the Haining and Toravon Farm should be accompanied by protected species surveys and appropriate mitigation employed;
- Development at the Parkhall Farm 5 should avoid severing the broadleaved woodland habitat network;
- Development of the Parkhall Farm 1-5, the Haining and Toravon Farm sites should retain and incorporate appropriately sized undeveloped buffer zones around areas of ancient and semi natural woodland;
- Development proposals at the Parkhall Farm 1-5 and Toravon Farm sites should be accompanied by a flood risk assessment and areas at risk of flooding should be excluded from development;
- Development at the Parkhall Farm 5 site should be undertaken sensitively to avoid adversely impacting on the setting of the Union Canal Scheduled Monument ; and
- Development at the Parkhall Farm 5 site should: ensure no tree removal other than any essential for the access point; provide only high quality, low density housing that would be in keeping with landscape character of the designed landscape; retain woodland / parkland character with substantial open space, parkland tree planting and additional woodland incorporated into any design in order to respect the local character of the area and the designed landscape; accommodate and provide linkages to the core path on western and northern boundary.

If these mitigation measures are applied, the only residual significant negative effects will be in respect of the loss of prime agricultural land which could only be mitigated by not developing the sites.

Mitigation/enhancement will be provided by wording in the Proposals and Opportunities Schedule and Development Guidance for Major Areas of Change; the current Maddiston East Development Framework and subsequent masterplans for sites; and plan policies PE06 (Archaeological Sites), PE07 (Listed Buildings), PE10 (Historic Gardens and Designed Landscapes), PE12 (Canals), PE18 (Landscape), PE19 (Biodiversity and Geodiversity), PE24 (Flood Management).). In addition, Parkhall Farm 2 has detailed planning permission with mitigation provided by associated masterplan and conditions.

Alternatives Considered: Alternative growth options were considered at the MIR stage and reported as part of the original Environmental Report and also by Appendix 6 to the Revised Environmental Report.

5.5.7 Housing - Braes and Rural South (Polmont/Laurieston/Westquarter)

Proposed Approach: An additional existing site at the Former Whyteside Hotel (H19) is carried forward from LDP1. LDP2 no proposes housing at the Gilston (BUS21) site. This is retained by the plan as business

land exclusively for business uses. No growth is proposed in Laurieston and Westquarter.

Predicted Environmental Effect:

No significant negative and positive impacts were identified for the proposed approach in overall SEA terms.

Enhancement/Mitigation:

The SEA has not identified significant negative impacts, requiring enhancement or mitigation for the proposed approach.

Alternatives Considered: Alternative growth options were considered at the MIR stage and reported as part of the original Environmental Report and also by Appendix 6 to the Revised Environmental Report. .

5.5.8 Housing - Braes and Rural South (Wallacestone/Redding/Reddingmuirhead)

Proposed Approach: In Wallacestone and Reddingmuirhead, there is no growth planned beyond the committed sites at Hillcrest (H21) and Redding Park (H20).

Predicted Environmental Effect:

Development of these sites could have significant negative effect on biodiversity, water, cultural heritage and landscape, due to

- Potential for adverse impact on legally protected species (both sites);
- Potential flood risk (Hillcrest);
- Potential adverse impact on the Union Canal scheduled monument (Redding Park);
- Landscape and visual impacts (Hillcrest).

Enhancement/Mitigation:

Measures to mitigate significant negative effects are described below:

- Development proposals at the Hillcrest site should be accompanied by protected species surveys and appropriate mitigation employed to avoid significant negative effects on biodiversity;
- Development proposals at the Hillcrest site should be accompanied by a flood risk assessment and areas at risk of flooding should be excluded from development to mitigate significant negative effects on water;
- Development of the Hillcrest site should employ careful siting, design and landscaping to mitigate significant negative effects on landscape;
- Development of the Redding Park site should be undertaken sensitively to avoid adversely impacting on the Union Canal SAM or its setting to mitigate significant negative effects on cultural heritage;

Mitigation/enhancement will be provided by wording in the Proposals and Opportunities and plan policies PE06 (Archaeological Sites), PE12 (Canals), PE18 (Landscape), PE19 (Biodiversity and Geodiversity), PE24 (Flood

Management). In addition, Hillcrest has detailed planning permission with mitigation provided by associated masterplan and conditions.

Alternatives Considered: Alternative growth options were considered at the MIR stage and reported as part of the original Environmental Report and also by Appendix 6 to the Revised Environmental Report.

5.5.9 Housing - Braes and Rural South (Rural South)

Proposed Approach: The proposed approach is to rationalise existing housing sites in the Rural South and to de-allocate some to reflect market conditions. The Whitecross Strategic Growth Area (H29) and is significantly reduced in scale. The Slamannan Strategic Growth Area is deleted. Residual sites remain allocated in Avonbridge (H22 Bridgend Road), California (H23 Cockmalane; H24 Church Road); Limerigg (H25 Slamannan Road); Slamannan (H26 Avonbridge Road; H27 Main Street); Standburn (H28 Standburn West) and Allandale (MU08)

Predicted Environmental Effect:

Development of the **Whitecross SGA** could have significant negative impacts on biodiversity, population and human health, water, soil and landscape due to:

- Potential for adverse impact on legally protected species;
- Potential increase in population exposed to major pipeline hazards;
- Potential flood risk;
- Loss of prime agricultural land;
- Landscape and visual impacts.

Development of **other sites** could have significant positive effects on population and human health and soil due to:

- Potential to improve local townscape quality through regenerating vacant and derelict land (H25, H28, MU08);
- Removal of contamination (H25, H28, MU08).

They could have the significant negative effects on biodiversity, water, soil, cultural heritage and landscape due to:

- Potential for adverse impact on legally protected species (H22, H24, H28)
- Potential flood risk;
- Loss of prime agricultural land (H22);
- Potential adverse impact on the setting of the Antonine Wall WHS (M08);
- Landscape and visual impacts in a prominent ridgeline location (H24).

Enhancement/Mitigation:

Measures to ensure the delivery of significant positive effects and mitigate significant negative effects are described below:

- Development proposals at the Bridgend Road, Church Road, Standburn West and Whitecross sites should be accompanied by protected species surveys and appropriate mitigation employed;

- Sensitive land uses should be excluded from major hazard pipeline consultation zones on the Whitecross site;
- Development at the Slamannan Road, Standburn West, Stein's Brickworks sites should investigate and remediate historic contamination;
- Development proposals at the Bridgend Road, Slamannan Road, Avonbridge Road, Stein's Brickworks, Whitecross and Main Street sites should be accompanied by a flood risk assessment and areas at risk of flooding should be excluded from development;
- Development at the Stein's Brickworks site should be undertaken sensitively to avoid adversely impacting on the setting of the Antonine Wall WHS;
- Development at the Whitecross site should retain existing woodland and hedgerows; and provide a comprehensive landscape framework to integrate the new development into its surroundings; and
- Development of the Church Road site should incorporate screen planting along the northern boundary of the site;

If these mitigation measures are applied the only residual significant negative effects will be in respect of the loss of agricultural land which could only be mitigated by not developing the sites.

Mitigation/enhancement will be provided by wording in the Proposals and Opportunities Schedule and Development Guidance for Major Areas of Change; existing briefs for the Standburn West and Church Road sites; other subsequent development frameworks and masterplan for sites; and plan policies PE05 (Antonine Wall), PE18 (Landscape), PE19 (Biodiversity and Geodiversity), PE24 (Flood Management), JE06 (Major Hazards).

Alternatives Considered: Alternative growth options were considered at the MIR stage and reported as part of the original Environmental Report and also by Appendix 6 to the Environmental Report. .

5.5.10 Denny and Dunipace

Proposed Approach: The proposed approach is to focus on the existing Denny South East Strategic Growth Area (H30 Former Denny High School, H31 Mydub 1, H32 Mydub 2, MU09 Broad Street) and other committed settlement expansions at Carrongrove Mill (H33) and Rosebank, Dunipace (H35), and a smaller brownfield site at Stirling Street (H34).

Predicted Environmental Effect:

Development of the **Denny South East SGA** could have significant positive effects on biodiversity, population and human health, material assets, and soil due to:

- Potential to connect significant isolated broadleaved woodland habitat networks
- Potential to improve local townscape quality through regenerating vacant and derelict land;
- Potential to improve the capacity of the road network through contributing to the DEAR

It could have significant negative impacts on biodiversity, population and human health, water, soil and material assets due to:

- Potential severance of broadleaved woodland habitat corridor;
- Potential adverse impact on legally protected species;
- Potential flood risk;
- Loss of prime agricultural land;
- Exacerbating significant capacity issues on the local road network.

Development of **other sites** could have significant positive effects on biodiversity, soil, material assets and cultural heritage due to

- Potential to connect significant isolated broadleaved woodland habitat networks (H35)
- Potential to improve local townscape quality through regenerating vacant and derelict land (H33);
- Removal of contamination (H33);
- Potential to improve the capacity of the road network through contributing to the DEAR
- Restoration of a B-listed property (H33)

They could have significant negative impacts on biodiversity, population and human health, water, soil and material assets due to:

- Potential severance of broadleaved woodland habitat corridor (H35);
- Potential adverse impact on the adjacent Carron Glen SSSI (H33)
- Potential adverse impact on legally protected species(H33, H34);
- Potential flood risk;
- Loss of prime agricultural land (H35);
- Exacerbating significant capacity issues on the local road network.

Enhancement/Mitigation:

Approved masterplans for the development of the Mydub 1 and Carrongrove Mill sites already act to ensure some of the significant positive effects and mitigate some of the significant negative effects above. Additional measures to ensure the delivery of significant positive effects and mitigate significant negative effects are described below:

- Development at the Mydub 2 and Rosebank sites should incorporate new broadleaved woodland planting connecting fragmented habitat networks;
- Development at the Former Denny High School and Carrongrove Mill sites should retain and protect existing broadleaved woodland habitat;
- Development proposals at the Mydub 2, Carrongrove Mill, Stirling Street, Rosebank and Broad Street sites should be accompanied by protected species surveys and appropriate mitigation employed;
- Development at the Carrongrove Mill site should be undertaken sensitively to avoid adversely impacting on the Carron Glen SSSI;
- Development proposals at the Denny High School, Mydub 2, Carrongrove Mill, Rosebank and Broad Street sites should be accompanied by a flood risk assessment and areas at risk of flooding should be excluded from development;

- Development at the Former Denny High School, Mydub 2, Carrongrove Mill, Stirling Street and Broad Street sites should provide proportionate financial contributions towards the construction of the Denny Eastern Access Road.

If these mitigation measures are applied the only residual significant negative effects will be in respect of the loss of agricultural land which could only be mitigated by not developing the sites.

Mitigation/enhancement will be provided by the planning permissions and associated conditions for Carrongrove and Mydub 1, both of which are under construction. Otherwise it will be provided by wording in the Proposals and Opportunities Schedule and Development Guidance for Major Areas of Change; subsequent masterplans for sites; and plan policies PE05 (Antonine Wall), PE18 (Landscape), PE19 (Biodiversity and Geodiversity), PE24 (Flood Management), IN02 (Developer Contributions).

Alternatives Considered: Alternative growth options were considered at the MIR stage and reported as part of the original Environmental Report and also by Appendix 6 to the Revised Environmental Report.

5.5.11 Housing - Falkirk

Proposed Approach: The proposed approach is to promote a new Strategic Growth Area at the Falkirk Gateway (MU16 Falkirk Gateway, H41 Grangemouth Road), with residential use introduced as part of the mix of uses, together with a moderate greenfield expansion at Hallglen (H42 Woodend Farm). Existing Strategic Growth Areas at the Falkirk Canal Corridor (H36 Gowan Avenue, H37/H38 Etna Road 1 & 2, MU11 Portdownie) and North Falkirk (H39 Cauldhame Farm). Additionally there would be a focus on increased residential use at development opportunities in the Town Centre (MU12 Grahamston, MU13 Callendar Riggs, MU14 Bank Street, MU15 Williamson Street) and other brownfield sites (H40 Blinkbonny Road, H43 Westburn Avenue, H44 Firs Park, MU17 Carron Road).

Predicted Environmental Effect:

Development of the **Falkirk Gateway SGA** could have significant positive effects on population and human health and material assets due to:

- Enabling the creation of a significant new green corridor
- Potential to improve local townscape quality through regenerating brownfield land (H41) and creating a new western gateway to Falkirk (MU16);

It could have significant negative impacts on biodiversity, water, soil and cultural heritage due to:

- Potential adverse impact on legally protected species;
- Potential flood risk;
- Potential adverse impact on the setting of the Forth & Clyde Canal scheduled monument.

Development of the **Falkirk Canal Corridor SGA** could have significant positive effects on population and human health, material assets, soil and cultural heritage due to:

- Enabling the removal of a current hazardous substances consent and its associated consultation zones
- Potential to improve local townscape quality through regenerating brownfield land and improving the setting of the Forth & Clyde Canal;
- Removal of significant contamination.

It could have significant negative impacts on biodiversity, population and human health, water, soil and material assets due to:

- Potential adverse impact on the green network (MU11);
- Potential adverse impact on legally protected species;
- Potential flood risk;
- Potential adverse impact on the setting of the Forth & Clyde Canal scheduled monument;
- Potential adverse impact on the Antonine Wall WHS

Development of the **North Falkirk SGA** could have significant negative impacts on water, soil and landscape due to:

- Potential flood risk;
- Loss of prime agricultural land;
- Landscape and visual impacts.

Development of the **other sites** could have significant positive effects on material assets, and soil due to:

- Potential to improve local townscape quality through regenerating brownfield land;
- Removal of significant contamination;

It could have significant negative impacts on biodiversity, population and human health, water, soil, cultural heritage and landscape due to:

- Potential adverse impact on legally protected species;
- Potential flood risk;
- Loss of prime agricultural land (H42)
- Increasing the population exposed to reduced air quality in the Falkirk TC AQMA(MU12-MU15);
- Potential adverse impact on the Callendar Park inventory designed landscape (H42);
- Landscape and visual impacts (H42).

Cumulatively, **all the sites** could have a significant adverse impact on air by potentially exacerbating air quality problems within the Falkirk TC AQMA.

Enhancement/Mitigation:

Measures to ensure the delivery of significant positive effects and mitigate significant negative effects are described below:

- Development proposals at the Portdownie, Falkirk Gateway, Carron Road, Woodend Farm, Firs Parksites should be accompanied by protected species surveys and appropriate mitigation employed;

- Development at the Grangemouth Road and Falkirk Gateway sites should include the creation of a new green corridor connecting the Helix to Victoria Park;
- Development proposals at the Etna Road 2, Cauldhame Farm 1 & 2, Portdownie and Falkirk Gateway sites should be accompanied by a flood risk assessment and areas at risk of flooding should be excluded from development;
- Development proposals at the Portdownie and Williamson Street sites should be accompanied by cultural heritage assessments which assess the impact of the development of these sites on the outstanding universal value of the Antonine Wall WHS;
- Development of the Gowan Avenue, Etna Road 1 & 2, Portdownie and Falkirk Gateway sites should be undertaken sensitively to avoid adversely impacting on the site and setting of the Forth and Clyde Canal SM;
- Development of the Woodend Farm site should be undertaken sensitively to avoid adverse impacts on the setting of the Callendar Park Inventory Designed Landscape;
- Development of the Cauldhame Farm site should be informed by a rigorous landscape assessment and be designed within a comprehensive planting structure to ensure fit with the landscape, particularly on the escarpment top and on slopes;
- Development of the Portdownie site should incorporate planting/greenspace within the development, particularly along the waterfront;
- Development at the Woodend Farm site should: retain existing internal and boundary trees where appropriate; avoid major changes in natural landform; retain boundary hedgerows; retain core path access / Forestry Commission maintenance / extraction access through site; create a broad open space area with tree planting at the road frontage; ensure overall housing development density remains low with buffer area between mature tree cover of Callendar Woods and dwellings; and maximise views out from site southwards.

If these mitigation measures are applied the only residual significant negative effects will be in respect of the loss of agricultural land which could only be mitigated by not developing the sites, and cumulative impacts on air.

Mitigation/enhancement will be provided by wording in the Proposals and Opportunities Schedule and Development Guidance for Major Areas of Change; the Planning Statement for the Falkirk Gateway; subsequent masterplans for sites; and plan policies PE05 (Antonine Wall), PE06 (Archaeological Sites), PE10 (Historic Gardens and Designed Landscapes), PE18 (Landscape), PE19 (Biodiversity and Geodiversity), PE24 (Flood Management). Etna Road 2 has detailed planning permission and mitigation is provided by the associated masterplan and conditions.

Alternatives Considered: Alternative growth options were considered at the MIR stage and reported as part of the original Environmental Report and also by Appendix 6 to the Revised Environmental Report. .

5.5.12 Housing - Grangemouth

Proposed Approach: The preferred option is consolidation, with development limited to infill and redevelopment opportunities which may arise within the urban area. One site with planning permission is contained within the plan (H45 Avonhall) and Grangemouth Town Centre (MU18) is highlighted as an opportunity for mixed use regeneration.

Predicted Environmental Effect:

Development of these sites could have significant negative impacts on population and human health, water, and cultural heritage due to:

- Potential increase in the number of people exposed to risk from major hazards;
- Potential flood risk;
- Potential adverse impact on the setting of the category A-listed Dundas Church

Enhancement/Mitigation:

Measures to mitigate significant negative effects are described below:

- New housing within the Grangemouth Town Centre site should be restricted to avoid unacceptably increasing the population exposed to risk of injury from major hazards;
- Development proposals at both sites should be accompanied by a flood risk assessment and areas at risk of flooding should be excluded from development; and
- Development at the Grangemouth Town Centre site should be undertaken sensitively to avoid adversely impacting on the category A listed Dundas Church.

Mitigation/enhancement will be provided by wording in the Proposals and Opportunities Schedule; a future masterplan for Grangemouth Town Centre; and plan policies PE07 (Listed Buildings), PE24 (Flood Management) and JE06 (Major Hazards). Avonhall has detailed planning permission and mitigation is provided by the associated masterplan and conditions.

Alternatives Considered: Alternative growth options were considered at the MIR stage and reported as part of the original Environmental Report and also by Appendix 6 to the Revised Environmental Report..

5.5.13 Housing - Larbert and Stenhousemuir

Proposed Approach: The proposed approach is to focus on completing the existing North Larbert Strategic Growth Area (H46 Hill of Kinnaird 1) with some additional housing permitted as part of a mixed use approach to the Hill of Kinnaird business park site (MU19 Hill of Kinnaird 2). A further small site at Pretoria Road (H47) is carried forward from LDP1, but no further growth is proposed.

Predicted Environmental Effect:

Development of the **North Larbert SGA** could have significant negative effects on biodiversity, water and soil due to:

- Potential adverse impact on legally protected species;
- Potential flood risk;
- Loss of prime agricultural land:

Development of the **Pretoria Road** site could have significant negative effects on biodiversity and cultural heritage due to:

- Potential adverse impact on legally protected species;
- Potential adverse impact on the setting of the category A listed Larbert Old Parish Church and James Bruce Monument scheduled monument.

Enhancement/Mitigation:

Measures to mitigate significant negative effects are described below:

- Mitigation is in place through the masterplan and planning permissions covering Hill of Kinnaird. Planning permission in principle has been granted for Pretoria Road and mitigation is provided by conditions. For any further permissions required, additional mitigation will be provided by plan policies PE06 (Archaeological Sites), PE07 (Listed Buildings), PE19 (Biodiversity and Geodiversity), PE24 (Flood Management).

Alternatives Considered: Alternative growth options were considered at the MIR stage and reported as part of the original Environmental Report and also by Appendix 6 to the Revised Environmental Report..

5.5.14 Housing - Rural North

Proposed Approach: The proposed approach is to carry forward existing allocated sites in Airth (H48 Castle View, H49 Airth Castle South, H50 The Glebe) and Torwood (H51 Former Torwood School, H52 McLaren Park). No additional growth is proposed.

Predicted Environmental Effect:

Development of these sites could have significant negative effects on biodiversity, water, and cultural heritage due to:

- Potential adverse impact on legally protected species (H48);
- Potential loss of potential supporting habitat to the Firth of Forth SPA;
- Potential flood risk (H50);
- Potential adverse impact on the setting of Airth Castle and Airth Old Church category A listed buildings and Airth Old Church scheduled monument (H49);
- Potential adverse impact on the setting of the Pineapple Inventory Designed Landscape (H49).

Enhancement/Mitigation:

Measures to mitigate significant negative effects are described below:

- Development proposals the Castle View site should be accompanied by protected species surveys and appropriate mitigation employed;

- Carry out further survey work at the Glebe sites to determine whether or not the land acts as supporting habitat to the Firth of Forth SPA and if it does then carry out an appropriate assessment which demonstrates that the site can be developed without adversely affecting the integrity of the Firth of Forth SPA;
- Development proposals at Castle View, Graham Terrace, Airth Castle South, The Glebe, Former Torwood School and Newton Avenue South sites should be accompanied by a flood risk assessment and areas at risk of flooding should be excluded from development;
- Development of the Airth Castle South site should be undertaken sensitively to avoid an adverse impact on the setting of Airth Castle and Airth Old Church category A listed buildings and Airth Old Church scheduled monument.

Mitigation/enhancement will be provided by wording in the Proposals and Opportunities Schedule; and plan policies PE07 (Listed Buildings), PE06 (Archaeological Sites); PE10 (Historic Gardens and Designed Landscapes), PE19 (Biodiversity and Geodiversity), PE24 (Flood Management).

Alternatives Considered: Alternative growth options were considered at the MIR stage and reported as part of the original Environmental Report and also by Appendix 6 to the Revised Environmental Report.

5.5.15 Business – Falkirk Investment Zone

Proposed Approach: The proposed approach is the carry forward the existing portfolio of business sites at Falkirk Gateway (MU16), Falkirk Stadium (BUS05), Abbotsford Business Park (BUS06), and Caledon Business Park (BUS07). The mix of uses proposed at the Falkirk Gateway site is amended to focus on business, tourism, food and drink, and recreation, with an element of residential use, and retail at a reduced scale than previously envisaged

Predicted Environmental Effect:

Development of these sites could have significant positive effects on population and human health, soil and material assets due to:

- Enable the creation of a significant new green corridor between Victoria Park and the Helix (MU16);
- Potential to improve local townscape quality through regenerating brownfield land and creating a new western gateway to Falkirk (MU16);
- Remediation of contaminated land (BUS06).

They could have significant negative impacts on biodiversity, population and human health, water, material assets and cultural heritage due to:

- Potential adverse impact on legally protected species;
- Potential flood risk;
- Potential impact on the local road network;
- Potential adverse impact on the setting of the Forth & Clyde Canal scheduled monument.

Enhancement/Mitigation:

Measures to ensure the delivery of significant positive effects and mitigate significant negative effects are described below:

- Development at the Falkirk Gateway site should include the creation of a new green corridor connecting the Helix to Victoria Park;
- Development proposals at the Falkirk Gateway and Falkirk Stadium sites should be accompanied by protected species surveys and appropriate mitigation employed;
- Development proposals at the Falkirk Stadium and Falkirk Gateway sites should be accompanied by a flood risk assessment and areas at risk of flooding should be excluded from development; and
- Development of the Falkirk Gateway site should be undertaken sensitively to avoid adversely impacting on the site and setting of the Forth and Clyde Canal scheduled monument.
- Proposed improvement works to the A9/A904/Westfield roundabout will mitigate the impact on the local road network.

Mitigation/enhancement will be provided by wording in the Proposals and Opportunities Schedule and Development Guidance for Major Areas of Change; the Planning Statement for the Falkirk Gateway; subsequent masterplans for sites; and plan policies PE06 (Archaeological Sites), PE19 (Biodiversity and Geodiversity), and PE24 (Flood Management).

Alternatives Considered: Alternative options for the Falkirk Investment Zone were considered at the MIR stage and reported as part of the original Environmental Report.

5.5.16 Business - Grangemouth Investment Zone

Proposed Approach: The proposed approach is to carry forward the existing portfolio of business sites at Earls Gate Park (BUS12), Glensburgh (BUS13), South Bridge Street (BUS14), Grangemouth Docks West (BUS15) including an extension, Bo'ness Road (BUS16), Wholeflats Road (BUS17) and Wholeflats Business Park (BUS18). The plan also indicates Grangemouth as a potential general location for a thermal power station with carbon capture and storage in line with NPF3.

Predicted Environmental Effect:

Development of these sites could have significant positive effects on soil and climatic factors due to:

- Remediation of contaminated land;
- Creation of significant low carbon energy generation capacity which significantly reduces greenhouse gas emissions (BUS15);

They could have significant negative impacts on biodiversity, population and human health, water, air and climatic factors due to

- Potential additional disturbance to Firth of Forth/Forth Islands SPA, Firth of Forth and St Andrew's Bay pSPA, River Teith SAC species caused by additional shipping movements;

- Potential additional disturbance to Firth of Forth/Forth Islands SPA, Firth of Forth and St Andrew's Bay pSPA, River Teith SAC species during construction and operation;
- Potential loss of potential supporting habitat to the Firth of Forth SPA;
- Coastal and fluvial flood risk;
- Potential for new major hazards which would increase the population exposed to risk;
- Cumulative increase in traffic and industrial related air pollution within an Air Quality Management Area;
- Cumulative increase in vehicular traffic impacting on the strategic and local road network.

Enhancement/Mitigation:

Measures to ensure the delivery of significant positive effects and mitigate significant negative effects are described below:

- Development of the Earlsgate Park, South Bridge Street, Grangemouth Docks West, Wholeflats Business Park, Bo'ness Road and Wholeflats Road sites should investigate and remediate historic contamination;
- Carry out further survey work at the South Bridge Street and Grangemouth Docks West sites to determine whether or not the land acts as supporting habitat to the Firth of Forth SPA and if it does then carry out an appropriate assessment which demonstrates that the sites can be developed without adversely affecting the integrity of the Firth of Forth SPA;
- Development proposals at the Grangemouth Docks West, Bo'ness Road and Wholeflats Road sites should be accompanied by an appropriate assessment which demonstrates that development can be carried out without causing an adverse impact on the integrity of the Firth of Forth SPA; the Forth Islands SPA; the Firth of Forth and St Andrews Bay pSPA and the River Teith SAC either alone or in combination with other plans and projects
- Development proposals at the Grangemouth Docks West, Bo'ness Road and Wholeflats Road sites should be accompanied by a flood risk assessment and areas at risk of flooding should be excluded from development. Mitigation may be provided in due course by the Grangemouth Flood Protection Scheme;
- Any new power stations in Grangemouth should ensure its feed stock is not delivered by road; and
- Significant improvements should be made to the strategic and local road network to accommodate cumulative traffic growth;
- Any new hazardous substances consents should be assessed in relation to any increased risk which they may pose for the local population.

Mitigation/enhancement will be provided by wording in the Proposals and Opportunities Schedule and Development Guidance for Major Areas of Change; subsequent masterplans for sites; and plan policies PE19 (Biodiversity and Geodiversity), PE24 (Flood Management), JE06 (Major Hazards), IR05 (Transport Assessment), IR12 (Energy Generation Development).

Alternatives Considered: Alternative options for the Grangemouth Investment Zone were considered at the MIR stage and reported as part of the original Environmental Report.

5.5.17 Business - Larbert Gateway

Proposed Approach: The proposed approach is to carry forward the existing sites at Glenbervie (BUS19) and Glenbervie Business Park (BUS20), whilst adopting a mixed use approach at Hill of Kinnaird 2 (MU19), with housing and community uses permitted as well as business.

Predicted Environmental Effect:

Development of these sites could have significant negative effects on soil and water due to:

- Loss of prime quality agricultural land; and
- Fluvial flood risk

Enhancement/Mitigation:

Measures to mitigate significant negative effects are described below:

- Development proposals at Glenbervie and Glenbervie Business Park should be accompanied by a flood risk assessment and areas at risk of flooding should be excluded from development.

Mitigation/enhancement will be provided by wording in the Proposals and Opportunities Schedule and plan policy PE24 (Flood Management).

Alternatives Considered: Alternative options for the Larbert Gateway were considered at the MIR stage and reported as part of the original Environmental Report.

5.5.18 Business - Eastern Gateway

Proposed Approach: The proposed approach is maintain the existing suite of sites on some sites. The Gilston site (BUS21) is retained in LDP2 as a business location exclusively for economic development excluding housing... The business element at Drum Farm South (MU02) is reduced to a small neighbourhood centre, and it is no longer regarded as a strategic business site. At Whitecross/Manuel Works (BUS02), by contrast, the residential component is reduced, with the whole of the Manuel Works site (BUS02) now allocated for business uses. Beancross (BUS03) and the A801 Union Canal (BUS04) are carried forward as a business sites in their current form.

Predicted Environmental Effect:

Development of these sites could have significant positive impacts on biodiversity, population and human health, soil and material assets due to:

- Potential to connect up fragmented habitat networks (BUS02, BUS04, BUS21);
- Potential to contribute to the green network (BUS21, BUS02)
- Potential to improve townscape quality through regeneration of brownfield land (BUS02);
- Remediation of contaminated land (BUS02);

They could have significant negative impacts on biodiversity, population and human health, water, and soil due to:

- Potential for adverse impact on legally protected species (BUS02, BUS21);
- Potential fluvial flood risk (BUS02, BUS04, BUS21);
- Loss of prime agricultural land (BUS04, BUS21);
- Potential loss of ancient and semi natural woodland;
- Potential increase in population exposed to risk from major hazards (BUS02);
- Potential adverse impact on the Union Canal scheduled monument and its setting (BUS04);
- Potential adverse impact on the setting of the Antonine Wall WHS (BUS03);
- Landscape and visual impacts (BUS02, BUS21).

Enhancement/Mitigation:

Measures to ensure the delivery of significant positive effects and mitigate significant negative effects are described below:

- Development at the Gilston and A801 Union Canal Hub sites incorporate a new broadleaved woodland corridor to connect up fragmented habitats;
- Development at the Gilston site should contribute to the green network through new habitats and access routes
- Development proposals at the Whitecross/Manuel Works and Gilston sites should be accompanied by protected species surveys and appropriate mitigation employed;

- Development at the Whitecross/Manuel Works site should retain areas of ancient and semi natural woodland and provide appropriately sized habitat buffers;
- Sensitive land uses should be excluded from major hazard pipeline zones on the Whitecross/Manuel Works site
- Development proposals at the Whitecross/Manuel Works, Gilston and Beancross sites should be accompanied by a flood risk assessment and areas at risk of flooding should be excluded from development
- Development at the Whitecross/Manuel Works and A801 Union Canal Hub sites should be undertaken sensitively to avoid adversely impacting on the Union Canal scheduled monument;
- Development at the Beancross site should be undertaken sensitively to avoid adverse impacts on the
- Development at the Whitecross/Manuel Works site should retain existing woodland and hedgerows, and provide a comprehensive landscape framework to integrate the new development into its surroundings
- Development of the Gilston site should: retain tree / hedgerow cover along watercourses, minor road (Nicolton Road) to the East and internally along former field boundaries; retain boundary tree cover and trees along the Eastern boundary to the A801 and on elevated land with woodland area in SE corner of site; ensure additional planting in areas of retained tree / hedgerow cover to enhance habitat network; retain distinct local rural landscape character of elevated wooded area in the south east corner of site and hedgerows / mature trees on the southern section of Nicolton Road; ensure strong landscape treatment along the Northern boundary to A803 and to the West fronting Gilston Crescent and Gilston Farm; and provide strong native species woodland buffer / screen planting around the proposed industrial/business area to screen from existing and proposed housing and wider area to mitigate significant negative effects on landscape.

If these mitigation measures are applied the only residual significant negative effects will be in respect of the loss of agricultural land which could only be mitigated by not developing the relevant sites.

Mitigation/enhancement will be provided by wording in the Proposals and Opportunities Schedule and Development Guidance for Major Areas of Change; subsequent development framework and masterplans for the sites; and plan policies PE05 (Antonine Wall), PE06 (Archaeological Sites), PE12 (Canals); PE18 (Landscape), PE19 (Biodiversity and Geodiversity), PE20 (Trees, Woodland and Hedgerows), PE24 (Flood Management), JE06 (Major Hazards).

Alternatives Considered: Alternative options for the Eastern Gateway were considered at the MIR stage and reported as part of the original Environmental Report.

5.5.19 Business – Local Business Sites/Tourism Opportunities

Proposed Approach: There are several sites for business which are of a more small scale, local nature but not within Strategic Business Locations. These sites include Rosebank Distillery (BUS08), Callendar Business Park (BUS09). Former Maddiston Fire Station (BUS22), and Grandsable Road (BUS23). Tourism opportunities are identified at Falkirk Wheel (BUS11), Wester Carmuir (BUS10), and Kinneil Walled Garden (BUS01) as well as at Grandsable Road (BUS23). The LDP2 allocation of Grandsable Road reflects a commenced planning permission for a whisky distillery, visitor centre and ancillary restaurant and retail at the site. This development is under construction at the time of writing.

Predicted Environmental Effect:

Development of these sites could have significant positive impacts on population and human health, material assets, and cultural heritage due to:

- Redevelopment of vacant/derelict site (BUS08 and BUS22);
- Restoration and re-use of a redundant category B listed building (BUS08).
- Removal of contamination and making safe unstable land (BUS22)

They could have significant negative impacts on water, biodiversity cultural heritage due to:

- Potential flood risk;
- Potential adverse impact on legally protected species (BUS22)
- Potential adverse impact on the Category B listed Rosebank Distillery (BUS08);
- Potential adverse impact on the setting of the Category A listed Kinneil House (BUS01);
- Potential adverse impact on the Antonine Wall WHS and its setting (BUS01, BUS11, and BUS23);
- Potential adverse impact on the Forth and Clyde canal scheduled monument (BUS11).

Enhancement/Mitigation: Measures to mitigate significant negative effects are described below:

- Future development proposals at Wester Carmuir, Falkirk Wheel, Former Maddiston Fire Station and Grandsable Road site should be accompanied by a flood risk assessment and areas at risk of flooding should be excluded from development. The Grangemouth Flood Protection Scheme may provide additional mitigation to flood risk at Grandsable Road.
- Development of the Kinneil Walled Garden site should be undertaken sensitively to avoid adverse impact on the setting of the category A listed Kinneil House;
- Future development proposals at Kinneil Walled Garden, Wester Carmuir, Falkirk Wheel and Grandsable Road sites should be

undertaken sensitively to avoid adverse impact on the Antonine Wall WHS and its setting; and

- Development of the Falkirk Wheel site should be undertaken sensitively to avoid adverse impact on the Forth and Clyde Canal scheduled monument and its setting.

Mitigation/enhancement will be provided by wording in the Proposals and Opportunities Schedule; subsequent masterplans; and plan policies PE05 (Antonine Wall), PE06 (Archaeological Sites), PE12 (Canals), Flood Management (PE24) and PE18 (Biodiversity and Geodiversity). In addition, Grandsable Road has detailed planning permission with mitigation provided by associated conditions

Alternatives Considered: Alternative options for new tourism opportunities were considered at the MIR stage and reported as part of the original Environmental Report and also by Appendix 6 to the Revised Environmental Report.

5.5.20 Town Centres – Falkirk Town Centre

Proposed Approach: The proposed approach is to promote the ‘town centre first’ principle, and to identify a network of centres comprising Falkirk as the principal centre, below which are district and local centres. Commercial centres are also identified, with Central Retail Park and Glasgow Road, Camelon added, and Falkirk Gateway removed. The environmental effects of the general approach to town centres are considered under the assessment of Policies JE07-JE09. The assessment below focuses on the specific regeneration opportunity sites within Falkirk Town Centre at Grahamston (MU12), Callendar Riggs (MU13), Bank Street (MU14), Williamson Street (MU15).

Development of these sites could have significant positive impacts on population and human health, soil and material assets due to:

- Potential improvement of townscape through redevelopment of sites;
- Potential remediation of contaminated land.

They could have significant negative impacts on air and cultural heritage due to:

- Increasing the population exposed to reduced air quality within the Falkirk Town Centre AQMA;
- Potential adverse impact on the Antonine Wall WHS (MU15).

Enhancement/Mitigation: Measures to mitigate significant negative effects are described below:

- Development of the Williamson Street site should be undertaken sensitively to avoid adverse impact on the Antonine Wall WHS and its setting.

Significant negative effects on air are only likely to be capable of mitigation through action to improve air quality in the Town Centre (through the Air Quality Management Plan) which may be achievable through the plan’s wider sustainable transport policies, but more likely in the longer term through cleaner vehicle technologies.

Mitigation/enhancement will be provided by plan policies PE05 (Antonine Wall) and PE25 (Air Quality).

Alternatives Considered: The overall ‘town centres first’ approach is set out in SPP and there are no reasonable alternatives. No alternatives were considered in terms of the regeneration sites themselves.

5.5.21 Town Centres – District and Local Centres

Proposed Approach: The proposed approach is to continue to promote some key mixed use opportunities in the town centres of Bo’ness (MU01 Links Road), Bonnybridge (MU05 Bonnybridge Town Centre), Denny (MU10 Church Walk) and Grangemouth (MU18 Grangemouth Town Centre), and to facilitate restructuring at Newcarron local centre (MU17 Carron Road).

Predicted Environmental Effect:

Development of these sites could have significant positive impacts on biodiversity, population and human health, soil and material assets due to:

- Potential to improve townscape quality through regeneration of brownfield land;
- Remediation of contaminated land;

They could have significant negative impacts on population and human health, water, air, material assets, and cultural heritage, due to:

- Potential coastal flood risk (MU18);
- Potential increase in population exposed to risk from major hazards (MU18);
- Potential increase in the population exposed to reduced air quality associated with the Grangemouth AQMA (MU18);
- Potential to breach the capacity of the local road network in Denny (MU10); and
- Potential adverse impact on the setting of the category A listed Dundas Church (MU18).

Enhancement/Mitigation:

Measures to mitigate significant negative effects are described below:

- The number of new houses within the Grangemouth Town Centre site should be restricted to avoid unacceptably increasing the population exposed to risk of injury from major hazards;
- Development proposals at the Grangemouth Town Centre site should be accompanied by a flood risk assessment and areas at risk of flooding should be excluded from development;
- Development at the Church Walk site should provide proportionate financial contributions towards the construction of the Denny Eastern Access Road; and

- Development at the Grangemouth Town Centre site should be undertaken sensitively to avoid adversely impacting on the category A listed Dundas Church.

Mitigation/enhancement will be provided by wording in the Proposals and Opportunities Schedule, and plan policies PE07 (Listed Buildings), PE24 (Flood Management), PE26 (Air Quality), JE06 (Major Hazards), IR02 (Developer Contributions).

Alternatives Considered: No alternatives were considered in terms of the regeneration opportunities.

5.5.22 Infrastructure

Proposed Approach: The infrastructure projects listed in Table 3.6 will be promoted in LDP2 to support the sustainable growth of the area. This includes a range of transport, drainage, education, community and cemetery projects. Delivery of the infrastructure will be through the capital programmes of the Council and relevant infrastructure providers, the TIF programme, other external funding sources where available, and developer contributions.

Predicted Environmental Effect:

These projects could have significant positive impacts on biodiversity, population and human health, water, air, climatic factors and material assets due to:

- Potential for creating new habitat corridors and connecting up significant habitat networks (transport projects);
- Improving the townscape through regeneration of derelict/vacant sites ;
- Enhancing the active travel network;
- Improving public transport facilities;
- Relieving pressure on the local road network;
- Improving road safety;
- Localised reduction in traffic noise and vibration, and improving local air quality;
- Increasing the capacity of waste water treatment works;
- Increasing the capacity of local schools.

They could have significant negative impacts on biodiversity, population and human health, soil, water, air, climatic factors, and cultural heritage, due to:

- Potential adverse on legally protected species;
- Potential cumulative loss of habitat;
- A cumulative increase in traffic arising from increased road capacity giving rise to increase in greenhouse gas emissions and local air pollution;
- Loss of prime agricultural land from transport projects;
- Potential adverse impact on watercourses from transport projects;
- Potential impact on groundwater quality from cemetery extensions
- Potential adverse impact on the setting of the Antonine Wall WHS from transport projects adjacent to the WHS;
- have an adverse impact on the setting of the Forth and Clyde Canal scheduled monument from transport projects adjacent to the canal;

- Landscape and visual impacts from transport projects in the open countryside.

Enhancement/Mitigation:

Measures to ensure the delivery of significant positive effects and mitigate significant negative effects are described below:

- Transport projects in the countryside should incorporate new woodland planting and habitat creation to connect up fragmented parts of the broadleaved woodland habitat network;
- All proposals involving additional land take should be accompanied by ecological assessments which identify and protect habitats of ecological value. Protected species surveys should be undertaken and appropriate mitigation incorporated;
- All cemetery extension projects should be accompanied by a detailed assessment of suitability of ground conditions and potential mitigation in relation to SEPA's guidance on assessing the impacts of cemeteries on groundwater.
- The M9J5 upgrade, A904/A993 junction improvement, Bo'ness to Grangemouth Path and A904 Road Realignment proposals should be carried out sensitively to avoid adversely impacting on the setting of the Antonine Wall WHS;
- The A803 corridor improvement project should be carried out sensitively to avoid adversely impacting of the Forth and Clyde Canal SAM and its setting.
- Screen planting and boundary landscaping should be carried out for all strategic and local road projects where appropriate.

With these mitigation measures, most significant negative effects should be avoided, but those on population, soil, air and climatic factors may remain. To a large extent, these will be compensated for by the environmental benefits of the infrastructure.

Mitigation/enhancement will be provided by wording in the Proposals and Opportunities Schedule, and plan policies PE05 (Antonine Wall), PE06 (Archaeological Sites), PE18 (Biodiversity and Geodiversity); PE20 (Trees, Woodland and Hedgerows) and PE21 (The Water Environment).

Alternatives Considered: In general terms, most projects are either site specific, with no alternatives, or are already committed through other plans and programmes. Consequently alternatives have not been considered. For the minority of projects which are still at the conceptual stage, detailed design option appraisal is more appropriately dealt with as part of project implementation.

5.5.23 Energy

Proposed Approach: The spatial strategy for energy highlights three specific elements:

- Spatial framework for wind energy development
- Heat network development with focus on Grangemouth Energy Project area

- Thermal energy generation with carbon capture and storage in Grangemouth (as per NPF3)

Predicted Environmental Effect:

The spatial framework for **wind energy development** provides a generally positive framework for new wind energy capacity. As such there will potentially be significant positive effects on air, climatic factors and material assets. Wind energy developments have the potential for negative effects on biodiversity, population and human health, soil, water, air, cultural heritage and landscape. However, the spatial framework, which reflects SPP, identifies areas of significant protection, and as such should avoid any significant negative effects.

The spatial strategy for **heat networks** may encourage the development of heat sources close to the proposed heat network opportunities in Grangemouth. There is the potential for a significant negative effect on air and a positive effect on climatic factors and material assets. Developing the pipework necessary to operate heat networks could have a range of environmental effects depending on the sensitivity of the environment where they are installed. At this stage the location of potential heat networks are too generalised to know with any accuracy where new pipework infrastructure will be laid, therefore the environmental effects of putting in this infrastructure cannot be meaningfully predicted at this stage.

No site has as yet been specified in the Proposed Plan for the **CCS project**, and so it is only possible to generalise about its environmental effects. In general, negative effects likely to be similar to those generated by the Grangemouth Investment Zone. There would be potential significant positive effects on climatic factors and material assets, due to enabling creation of significant low carbon energy generation capacity which significantly reduces greenhouse gas emissions. There could be potential significant negative effects on biodiversity, population and human health, air, and water due to

- Potential disturbance of Firth of Forth/Forth Islands SPA, Firth of Forth and St Andrew's Bay pSPA, River Teith SAC species caused by additional shipping movements;
- Potential disturbance of Firth of Forth/Forth Islands SPA, Firth of Forth and St Andrew's Bay pSPA, River Teith SAC species during construction and operation;
- Potential loss of potential supporting habitat to the Firth of Forth SPA;
- Coastal/fluvial flood risk;
- Potential increase traffic and industrial related air pollution within an Air Quality Management Area; and
- Significant increase in vehicular traffic on the strategic and local road network

Enhancement/Mitigation:

The spatial framework for wind energy development should be underpinned by a robust energy generation policies and associated topic policies and supplementary guidance to mitigate potential negative effects.

In respect of any future CCS project, this should where necessary be accompanied by an appropriate assessment which demonstrates that development can be carried out without causing an adverse impact on the integrity of the relevant European protected sites. Any site selected for CCS should be accompanied by a flood risk assessment and areas at risk of flooding should be excluded from development. Alternately, the Grangemouth Flood Protection Scheme may provide suitable mitigation. Any new thermal heat source constructed in Grangemouth should ensure its feed stock is not delivered by road to mitigate significant negative effects on air and population and human health

Alternatives Considered: The strategy reflects both SPP and NPF3 and so it is not considered that there are any reasonable alternatives. No site has been selected for the CCS project, given uncertainty over commitment to the project, and so no site alternatives for this facility have been considered.

5.5.24 Minerals

Proposed Approach: The spatial strategy for onshore gas and minerals highlights three specific elements:

- Areas of search for surface coal mining in the Slamannan Plateau;
- Operational quarries north of Denny
- PEDL licence areas identified as required by SPP

Predicted Environmental Effect:

The areas of search for surface coal mining exclude areas of known resources around Airth and Banknock, specifically so as to avoid potentially significant negative effects on landscape, population and human health and cultural heritage in these localities. Within the areas of search on the Slamannan Plateau, proposals could have a wide range of significant negative effects including on biodiversity, population and human health, soil, water and landscape, and negative effects on air and climatic factors. There are also potential significant positive effects on soil and landscape (through site restoration).

The identification of existing consented operational quarries within the Council area does not, in itself have any environmental effects. Policy IR16 deals with the assessment of mineral applications – its environmental effects are assessed elsewhere.

Likewise the identification of the PEDL licence areas, as required by SPP, has no specific environmental effects.

Enhancement/Mitigation:

Mitigation is provided by Policy IR16 (Assessment of Mineral Proposals) together with the environmental policies to which it refers.

Alternatives Considered: No alternatives were considered to this policy approach.

5.6 Assessment of Significant Environmental Effects – Policies

5.6.1 The Proposed Plan’s policies provide the detailed basis for assessing proposals. The detailed assessment of the policies is contained in Appendix 2. For the purposes of the Environmental Report, the policies are grouped according to their broad theme and purpose, and the general approach, environmental effects, enhancement/mitigation, and alternatives are summarised for each group

5.6.2 Place and Environment - Placemaking Policies

PE01 Placemaking
PE02 Placemaking Tools
PE03 Advertisements
PE04 Shopfronts

Policy Approach: PE01 is a broadly based placemaking policy which consolidates previous design policies, is based around the Scottish Government’s six qualities of successful places and cross references to other relevant environmental policies. PE02 deals with how these principles will be implemented. PE03 and PE04 are more detailed policies dealing with specialised aspects of the built environment.

Predicted Environmental Effect:

PE01 and PE02 is concerned with making good places and so will have wide ranging significant positive effects on biodiversity, population and human health, water, air, climatic factors, material assets, cultural heritage and landscape. PE03 deals with the amenity and road safety aspects of advertisements and so will safeguard against potentially significant negative effects on population and human health and material assets.

Enhancement/Mitigation:

Enhancement to PE01 will come from the more detailed environmental policies in the plan, to which it cross refers, as well as the range of supplementary guidance on design and the natural/ historic environment which will support the plan. PE04 will be supported by supplementary guidance on shopfronts.

Alternatives:

Alternative policy approaches were assessed at the MIR stage and are reported in the original Environmental Report. However, in terms of the structure and content of PE01 this is largely dictated by SPP and there are no reasonable alternatives. The only alternatives to PE03 and PE04 are not to have these policies which would negate their positive environmental effects and their safeguarding against significant negative effects.

5.6.3 Place and Environment – Historic Environment Policies

PE05 Antonine Wall
PE06 Archaeological Sites

- PE07 Listed Buildings
- PE08 Conservation Areas
- PE09 Areas of Townscape Value
- PE10 Historic Gardens and Designed Landscapes
- PE11 Battlefield Sites
- PE12 Canals

Policy Approach: PE05 – PE12 deal with various aspects of the historic environment. These policies have been carried forward in similar form from LDP1. They provide safeguarding of the various historic environment assets in the area, and in many cases also encourage proactive intervention and management to improve these assets.

Predicted Environmental Effect:

The policies will generally safeguard against significant negative effects on cultural heritage, but the proactive elements of the policies generally also generate significant positive effects on cultural heritage. There are also positive benefits for material assets, due to townscape improvements which are likely to arise from positive management of the historic environment, and PE10 will also have significant positive effects on landscape. PE06 is assessed as potentially allowing significant negative effects on cultural heritage because it allows development with adverse impacts in exceptional circumstances. PE12 also secures significant positive effects on population and human health through the canals' role in developing the green network.

Enhancement/Mitigation:

Enhancement will be provided in the form of supplementary guidance relating to listed buildings and unlisted buildings in conservation areas, and historic gardens and designed landscapes. Mitigation for PE06 is provided through the requirement to make provision for excavation, recording, analysis and publication of archaeology in the event of development being permitted

Alternatives:

Generally all these policies reflect SPP and national historic environment policy and so there are no reasonable alternatives. In relation to PE09, it would be possible not to define and protect areas of townscape value. This would result in negative effects on cultural heritage and material assets.

5.6.4 Place and Environment – Natural Environment Policies

- PE13 Green and Blue Network
- PE14 Countryside
- PE15 Green Belt
- PE16 Protection of Open Space
- PE17 Open Space and New Development
- PE18 Landscape
- PE19 Biodiversity and Geodiversity
- PE20 Trees Woodland and Hedgerows
- PE21 Promotion of Forestry & Woodland
- PE22 The Water Environment

PE23 Marine Planning and the Coastal Zone
PE24 Flood Management
PE25 Soils and Agricultural Land
PE26 Air Quality
PE27 Vacant, Derelict, Unstable and Contaminated Land

Policy Approach: PE13-PE27 deal with various aspects of the natural environment. These policies have generally been carried forward in similar form from LDP1, although there are new policies covering marine planning and the Falkirk Forestry and Woodland Strategy. They provide safeguarding of the various natural environment assets in the area, and in many cases also encourage proactive intervention and management to improve these assets.

Predicted Environmental Effect:

These policies generally safeguard against significant negative environmental effects and in many instances also promote positive or significant positive effects through proactive elements. PE13 promotes the green and blue network generally and has significant positive effects across a range of environmental areas. Likewise PE14/PE15 on countryside/green belt is beneficial across a range of receptors because of its generally restrictive approach to development in the rural area. Other policies which relate to particular natural environment assets generate significant positive effects in the related environmental areas. Potential for some significant negative effects have been identified where the wording of policies does not rule out damage to assets, but allow them to be balanced against other social and economic factors. Policies which encourage the reuse of vacant and derelict land (PE14/PE27) have the potential for significant negative effects on biodiversity because such site often provided valuable habitat.

Enhancement/Mitigation:

Enhancement will be provided in the form of supplementary guidance relating to green infrastructure, trees and landscape. In some instances mitigation will be provided other environmental policies

Alternatives:

Alternative policy approaches were assessed at the MIR stage and are reported in the original Environmental Report. Generally all these policies reflect SPP and national policy and so there are no reasonable alternatives.

5.6.5 Homes and Communities - Housing Policies

HC01 Housing Land
HC02 Windfall Housing
HC03 Affordable Housing
HC04 Housing Density and Site Capacity
HC05 Housing in the Countryside
HC06 Infill Development and Plot Sub Division
HC07 Established Residential Areas
HC08 Residential Extensions and Alterations
HC09 Gypsy Traveller Sites

HC10 Residential Care Homes

Policy Approach: HC01-HC10 support the housing aspects of the Spatial Strategy, setting out the housing targets, and criteria for assessing residential proposals of various types in different types of locations to ensure that that residential amenity and good design are secured.

Predicted Environmental Effect:

HC01 sets out the housing supply target and supports the overall housing growth aspirations of the plan. As such it generates both significant positive and negative environmental effects across all environmental areas. HC02 supports regeneration of sites within the urban area and so has significant positive effects on population and human health, soil and material assets. HC04, which seeks to secure appropriate housing densities also has significant positive effects on population and human health and material assets. HC05 on housing in the countryside will have significant positive effects on cultural heritage due to its support of enabling development for historic building restoration. Most of the remaining policies are neutral in terms of their environmental effects but their criteria will generally act to safeguard against some negative effects.

Enhancement/Mitigation:

Enhancement will be provided in the form of supplementary guidance relating to development in the countryside and residential extension and alterations. Mitigation is also provided by other environmental policies to which there are cross references in the policies.

Alternatives:

Alternatives to the chosen housing strategy were assessed at the MIR stage and are reported in the original Environmental Report. For most of the other policies, the only reasonable alternative is not to have the policy which would negate their positive environmental effects and their safeguarding against significant negative effects.

5.6.6 Jobs and Economy - Business Policies

JE01 Business and Tourism

JE02 Core Business Areas

JE03 Business Areas with Potential for Redevelopment

JE04 Business Development outwith Designated Business Areas

JE05 Business Development in the Countryside

JE06 Major Hazards

Policy Approach: JE01-JE05 support the business aspects of the Spatial Strategy, setting out the strategic business locations which will be promoted for new development, identifying those business areas which will be safeguarded for business use and those which can be redeveloped for other purposes, and providing criteria for business uses in other areas and within the countryside. JE06 deals with proposals affected by major hazards as well

as proposals for hazardous substance consent which would create new major hazards.

Predicted Environmental Effect:

JE01 sets out the strategic business locations and supports the overall economic growth aspirations of the plan. As such it generates both significant positive and negative environmental effects across all environmental areas. JE02-JE04 is not deemed to have any significant environmental effects, although there are some minor potential positive and negative effects in relation to the safeguarding or otherwise of existing business land for business use. JE05 has significant positive effects for population and human health, soil and material assets through the support offered for the redevelopment of brownfield land for business purposes. Policy JE06 has potentially significant negative effects on population and human health, soils, material assets and cultural heritage because it may restrict the potential for brownfield regeneration and historic building reuse in major hazard areas. At the same time, because it attempts to balance risk to human life against regeneration objectives, there is a potential significant negative effect on population and human health due to potential increase in population at risk.

Enhancement/Mitigation:

Enhancement in relation to JE05 will be provided in the form of supplementary guidance relating to development in the countryside. Mitigation is also provided by other environmental policies. In terms of JE06, the policy itself attempts to mitigate the negative effects of the health and safety restrictions on regeneration, but in doing so, potentially creates negative effects in terms of exposing more people to risk.

Alternatives:

Alternatives to the chosen business strategy were assessed at the MIR stage and are reported in the original Environmental Report. For most of the other policies, the only reasonable alternative is not to have the policy which would negate their positive environmental effects and their safeguarding against negative effects.

5.6.7 Jobs and Economy – Town Centre Policies

JE07 Town and Local Centres

JE08 Commercial Centres

JE09 Retail and Commercial Leisure Development

JE10 Food and Drink

Policy Approach: JE07-JE10 are generally designed to support town and local centres in line with national policy and the ‘town centre first’ principle. JE07 promotes town and local centres, including regeneration opportunities, and flexibility around uses. JE10 is a new policy which sets out the approach to commercial centres and their relationship to town and local centres. PE09 provides criteria for assessing retail, commercial leisure and other large footfall generating uses, requiring that they satisfy the sequential approach. JE10 sets out criteria for assessing proposals for food and drink development.

Predicted Environmental Effect:

The supportive approach to town and local centres should have significant positive effects for material assets and cultural heritage through encouraging investment in historic town centres. It should also have significant positive effects for climatic factors through promoting high footfall uses in locations accessible by sustainable transport. Whilst the reduction in vehicle generated pollution through the town centres policy will also have significant positive effects for air in a global sense, there is the potential, by concentrating development in Falkirk Town Centre in particular, that air quality in the Falkirk Town Centre AQMA will be adversely affected, giving significant negative effects as well.

Enhancement/Mitigation:

Mitigation of air quality issues in Falkirk Town Centre and other centres would, in theory, be provided by the air quality policy, although in practice the introduction of cleaner vehicle technologies

Alternatives:

The town centre policies reflect SPP, so there are no reasonable alternatives.

5.6.8 Infrastructure and Resources – Infrastructure Policies

- IR01 Strategic Infrastructure
- IR02 Developer Contributions
- IR03 Education and New Housing Development
- IR04 Community Facilities
- IR05 Transport Assessment
- IR06 Active Travel
- IR07 Bus Travel
- IR08 Freight Transport
- IR09 Parking
- IR10 Drainage Infrastructure
- IR11 Digital Infrastructure

Policy Approach: IR01 supports, and safeguards land, for the provision of infrastructure as set out in the Spatial Strategy, and IR02/IR03 sets out the approach to developer contributions to assist in the delivery of infrastructure needed for development. IR04 sets out criteria for assessing proposals which will result in loss of community facilities. IR05- IR09 seek to ensure that the transport needs of new development are met in a sustainable manner, with due regard to the capacity of the local transport network. IR10 provides guidance to ensure that provision of sustainable solutions to drainage infrastructure. IR11 provides criteria for assessing proposals for digital infrastructure such as telecommunications masts.

Predicted Environmental Effect:

The infrastructure projects supported under IR01 will have a wide range of significant positive and negative environmental effects. IR02-IR04 will not have any significant effects. IR05 will safeguard against significant negative

effects on material assets through its protection of the local transport network. IR06 will have significant positive effects on population and human health, and material assets, through expanding the path network, IR07-IR08 will have positive effects on air, climatic factors and material assets through promoting bus travel and encouraging the shift of freight off the road network. The effects of IR09 are mixed and uncertain due to the policy's attempt to balance sustainable transport with maintaining the vitality and viability of centres (which may tend to favour continuing generous parking provision). IR10 will safeguard against potentially significant negative effects on water and biodiversity. IR11 will safeguard against significant negative effects on material assets, cultural heritage and landscape.

Enhancement/Mitigation:

Mitigation in relation to individual infrastructure projects is detailed under the assessment of the Spatial Strategy.

Alternatives:

These policies generally reflect SPP and other national policies and strategies, and there are no reasonable alternatives.

5.6.9 Infrastructure and Resources – Energy Policies

IR12 Energy Generation Development
IR13 Low and Zero Carbon Development
IR14 Heat Networks

Policy Approach: IR12 provides a criteria-based policy for assessing all proposals for energy generation. IR02 sets out the requirement for buildings to incorporate on-site low and zero carbon-generating technologies (LZCGT), and for the design and layout of development to minimise energy requirements. IR14 promotes decentralised energy generation and district heating systems in association with major new developments.

Predicted Environmental Effect:

IR12 will safeguard against a wide range of significant negative effects biodiversity, population and human health, soil, water, air, cultural heritage and landscape. IR13 will have significant positive effects on material assets through the provision of renewable energy infrastructure. IR14 should have significant positive effects on material assets and climatic factors.

Enhancement/Mitigation:

Enhancement is provided by cross references to other environmental policies in the plan.

Alternatives:

These policies generally reflect SPP, climate change legislation, and other national policies and strategies, and there are no reasonable alternatives.

5.6.10 Infrastructure and Resources – Mineral and Waste Policies

IR15 Mineral Resources

IR16 Assessment of Mineral Proposals

IR17 Waste Management Facilities

IR18 Waste Management in New Development

Policy Approach: IR15 sets out the approach to various types of minerals, including surface coal, aggregate quarries, and other extractive processes including for unconventional oil and gas. IR16 provides criteria for assessing proposals for mineral extraction. IR17 supports development which supports the principles of the waste hierarchy, whilst IR18 requires development to minimise waste during construction and operation.

Predicted Environmental Effect:

IR15/16 will generally act to safeguard against significant negative effects on biodiversity, population and human health soil, water, air, material assets, cultural heritage and landscape. They may also generate significant positive effects on soil and landscape through the encouragement of development which will restore abandoned or derelict mineral sites. IR17 will have a positive effect on population and human health and material assets through maximising reuse, recycling, and recovery of resources. It will also safeguard against significant negative effects on population and human health, material assets, soil and landscape through ensuring that facilities are adequately segregated from other uses and that sites are subject to restoration and aftercare. IR18 should have significant positive effects on material assets through reducing the use of resources in construction.

Enhancement/Mitigation:

Enhancement is provided by cross references to other environmental policies in the plan.

Alternatives:

These policies generally reflect SPP, and other national policies and strategies, and there are no reasonable alternatives.

6. PROPOSALS FOR MONITORING

6.1 Legislative Requirement

6.1.1 Monitoring of the environmental performance of the Plan during its life is a key requirement of SEA. The SEA Act schedule 3 para 9 requires ‘a description of the measures envisaged concerning monitoring in accordance with section 19’. The monitoring measures proposed are based on the different environmental issues identified as potentially being subject to significant environmental effects from the Local Development Plan.

6.2 Monitoring Proposals

6.2.1 Appendix 3 sets out the details of the proposed monitoring, the rationale for the selection and the methods and measures of monitoring. Monitoring will be conducted by the Council, in their capacity as the Responsible Authority for this SEA.

6.2.2 There is already an established reporting procedure for monitoring the effects of the Development Plan including:

- The SEA Scoping Report for the LDP, published in November 2015 contained information on a range of environmental indicators;
- Technical report 1 of the Main Issues Report, published alongside the MIR in January 2017, is a monitoring statement which provides information on a range of environmental indicators;
- This Environmental Report, published alongside the MIR in January 2017, contains an Environmental Baseline Report at Appendix 1 contains information on a range of environmental indicators; and
- The Development Plan Monitoring Report, which is generally published annually, and follows the Monitoring Framework set out in the Local Development Plan, monitors a suite of indicators which relate to social, economic as well as environmental matters.

6.2.3 Given the reporting procedure already in place, it is not considered necessary or appropriate to maintain a specific SEA Monitoring Register. Instead, a number of appropriate indicators will be included within these documents to assess the achievement of SEA objectives for the Falkirk Council Local Development Plan.

6.2.4 SEA documents are already forwarded to the SEA Gateway as a matter. Other monitoring documents will be made available on the Council website.

7.0 NEXT STEPS

7.1 Consultation

7.1.1 The Proposed Plan along with this Revised Environmental Report has been made available to the public as well as the Consultation Authorities (SEPA, Scottish Natural Heritage and Historic Scotland) for comment, in accordance with the Environmental Assessment (Scotland) Act, 2005.

7.1.2 The consultation will run for a period of 8 weeks from 11th June to 6th August 2018. Comments and responses to this Revised Environmental Report will be considered following the consultation period, so that so that they can inform any future modification of the Proposed Plan. It is expected that the Revised Environmental Report will form a key document of the Examination into the Proposed Plan.

7.2 Adoption of LDP

7.2.1 Following the Examination of the Proposed Plan and any subsequent modifications made by Scottish Ministers, the Local Development Plan will be formally adopted by Falkirk Council

7.3 SEA Post-Adoption Statement

7.3.1 Shortly after adoption, the SEA Post-adoption Statement will be produced. The Statement sets out how environmental considerations have been integrated into the Framework, how the findings of the Environmental Report have been taken into account, and how the consultation responses have been addressed.

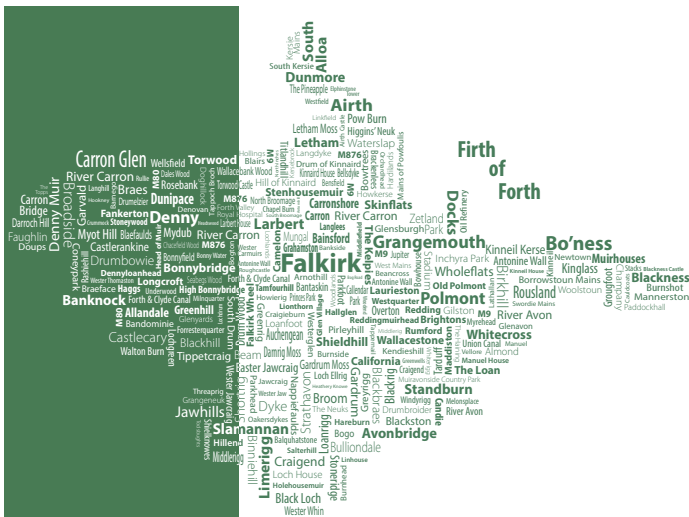
7.3.2 The SEA Post-adoption Statement will confirm the framework for monitoring of the plan implementation and the responsibilities for monitoring.

FALKIRK

Local Development Plan 2

Proposed Plan

Strategic Environmental Assessment Revised Environmental Report



September 2018



Falkirk Council