

FALKIRK

Local Development Plan



Technical Report 7: The Green Network

November 2011



Falkirk Council

Falkirk Local Development Plan

Technical Report 7

Green Network

1. Introduction

1.1 Purpose of Study

1.1.1 The purpose of this report is to investigate how the Central Scotland Green Network (CSGN) could be applied and defined spatially within the Falkirk Council area and, in particular, how it could be expressed within the Falkirk Local Development Plan as a strategic concept with associated objectives and priority projects.

1.1.2 To achieve this firstly a review of the aims and objectives of the CSGN was undertaken to better understand the purpose of the proposed network within the Council area. Secondly a review of existing strategic initiatives which contribute towards the green network within the Council area was undertaken to understand how the aims of CSGN differ from currently pursued strategic objectives. The penultimate step was to examine the spatial distribution of existing networks, relating to the multiple functions the CSGN is aiming to fulfil, in the Council area e.g. habitat, access, landscape climate change and urban open space. The final step before embarking on the spatial definition of the CSGN within the Council area was to form an understanding of where existing development sites and preferred sites for new development were located in relation to these multi functional networks, so opportunities for enhancing and linking into the networks could be identified.

1.2 Green Networks – what are they?

1.2.1 Green networks (which also include watercourses) serve a number of different functions. Five categories of function have been defined to enable an accurate characterisation of each component of the green network to be made. These are as follows:

- Habitat/biodiversity value
- Access/active travel/recreation
- Landscape/regeneration
- Climate change
- Urban Open Space

Habitat

1.2.2 Green networks perform the important function of providing areas for flora and fauna to live. Habitat networks exist throughout the Falkirk Council area not just within those areas which have been designated for their special natural characteristics.

Access/active travel/recreation

1.2.3 Green networks serve the important function of providing safe pleasant routes which people can use for active travel and recreation.

Landscape/regeneration

- 1.2.4 Green networks help to define the landscape character of the area and derelict sites present opportunities for landscape enhancement.

Climate change

- 1.2.5 The Green Network also serves an important function in facilitating climate change adaptation; it contains flood plains which can accommodate flood water, acts as a carbon sink with large areas of woodland and carbon rich soils, enables species migration and performs wider ecosystem services.

Urban Open Space

- 1.2.6 Another key component of the green network is urban open space which includes: parks; play spaces; sports areas; amenity spaces; green corridors and natural/semi natural open. These open spaces provide a key landscape setting for our towns and villages as well as providing important amenity and recreation functions. Not all urban open spaces will form part of the wider green network as some are physically isolated.

2. CSGN – Origins, Vision, Progress

2.1 Origins

2.1.1 The Central Scotland Green Network (CSGN) is included in National Planning Framework 2 (NPF2) which was published in June 2009 as one of only 14 National Developments, considered by Ministers to be essential components of the strategy for Scotland's long term development.

2.1.2 The aim of the CSGN outlined in NPF2 is to deliver:

“...a step change in environmental quality, woodland cover and recreational opportunities...[and] make Central Scotland a more attractive place to live in, do business and visit; help to absorb CO₂; enhance biodiversity; and promote active travel and healthier life styles”.

2.1.3 Formal consultation was undertaken on the exact boundaries of the CSGN area through consultation on the CSGN, Prospectus, Draft Vision and Work Plan (2010 – 2015). The exact boundaries are expected to be confirmed when the finalised work plan is published in late autumn 2010. An interim CSGN activity area is shown in the figure below:

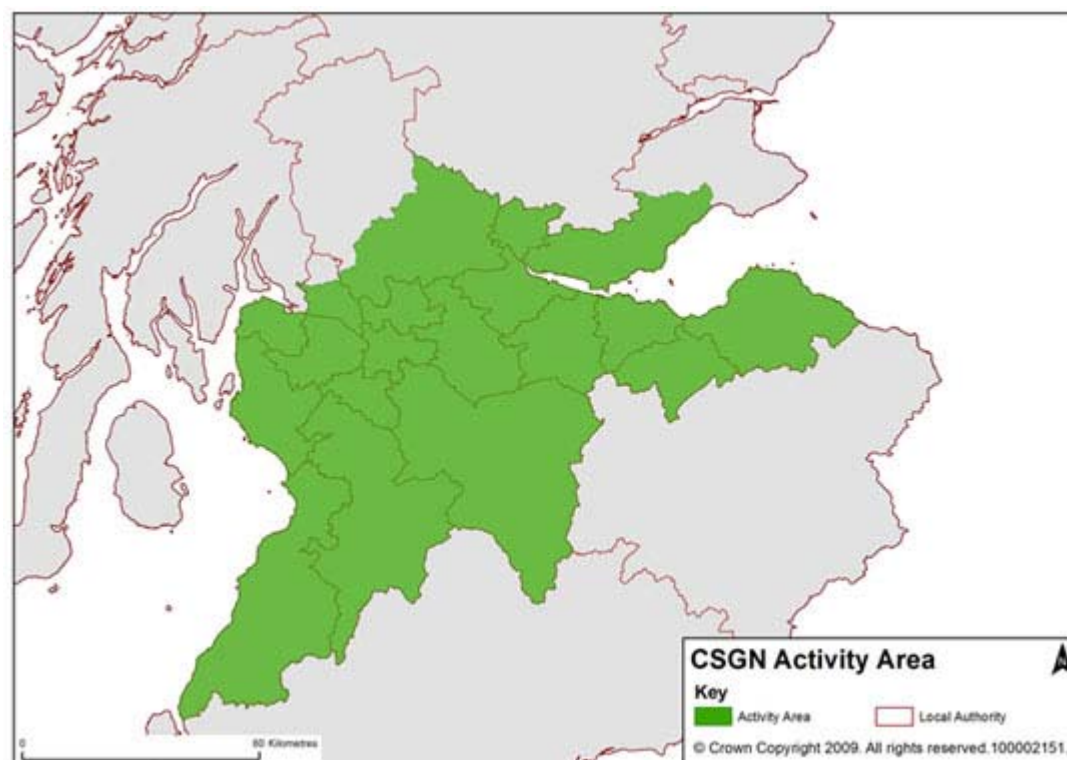


Figure 1: CSGN Activity Area

2.1.4 Regardless of the results of consultation Falkirk will have a prominent position at the heart of the Central Scotland Green Network.

2.1.5 One of the main findings of the consultation on the draft work plan was that respondents wanted to ensure that the CSGN is incorporated within regional and local development plans, with a consistent approach across local authorities.

2.2 Vision

2.2.1 CSGN's vision for Central Scotland is of a place transformed by the creation of a high quality green network, which will enrich people's lives, promote economic prosperity, allow nature to flourish and help Scotland respond to the challenge of climate change.

2.2.2 This is a long-term vision, and the new landscape will take 30-40 years to reach full maturity. However even in the short-medium term the CSGN will make a real and visible difference throughout Central Scotland. Their strategy focuses on the next 20 years, with a work programme based on 3 key phases:

1. in the five years to 2015: we will lay the policy and planning foundations for the CSGN; we will ensure that the ambitions for delivery of the CSGN are fully reflected in strategic and local development plans; we will drive forward the implementation of current initiatives such as green infrastructure for the Glasgow Commonwealth Games and the Falkirk Helix; and we will launch a number of new initiatives and pilot projects.

2. in the period 2015 to 2020: the green network will begin to take shape, and we will complete a number of strategic projects across the Central Belt, and develop the Central Scotland Green Network, including walking and cycling networks, ensuring that, by 2020, every community in the CSGN area will be enjoying the benefits of the network.

3. between 2020 and 2030: the new landscape will start to mature, and we will bring forward a second wave of major projects and large-scale strategic interventions.

2.2.3 The CSGN have also set themselves ten goals for 2030:

1. to ensure that every home in Central Scotland is within 300m of an attractive, safe, and well-maintained green space or accessible countryside.

2. to improve the green infrastructure of all our major towns and cities by investing in green and blue space, tree planting and sustainable urban drainage.

3. to create a high quality environment for business, by enhancing the landscape setting of every small and medium-sized town in Central Scotland and reducing vacant and derelict land to an absolute minimum.

4. to deliver a threefold increase in the area of land used for community growing – allotments, orchards and gardens.

5. to deliver at least a 50% increase in woodland cover, in line with the Scottish Forestry Strategy target.

6. to plan and deliver an integrated habitat network at a landscape scale, with wildlife corridors joining up key sites and habitats, ensuring that every community has access to places where people can experience and enjoy nature and wildlife.

7. to deliver a strategic network of high-quality routes for active travel and recreation throughout Central Scotland

8. to ensure that the green network is used by everyone to improve health and well-being through physical activity and contact with nature, volunteering and learning outdoors.

9. to foster community pride and ownership in the CSGN and to use the green network as a community resource, providing opportunities for education, volunteering, training, skills development and employment in land-based and low-carbon industries.

10. to help mitigate climate change through land management practices which help to capture, store and retain carbon, such as woodland expansion and the protection of peatland, and through the promotion of active travel.

- 2.2.4 Defining the CSGN within the Falkirk Council area and facilitating the achievement of its goals will be a key challenge for the Local Development Plan as will ensuring that this definition of the green network links in with the definition outlined by neighbouring Local and Strategic Development Plans.

2.3 Progress

- 2.3.1 The National Planning Framework 2 – Action Programme Progress Report for Local Government & Communities Committee published in June 2011 notes progress on implementation as follows:

“The Chair and Board of the CSGN were recruited in February 2010 and a draft Prospectus, ‘Vision and Work Plan for 2010-15’ was published for consultation in April 2010. A series of consultation workshops for stakeholders were held in May and June 2010 and the Vision and Work Plan have now been revised and will be published in summer 2011. Ministerial events were held for local authorities and the third sector in autumn 2010 and the first CSGN annual forum for stakeholders was held on 14th June 2011.

The CSGN concept has been incorporated into all local and strategic development plans within the Central Belt that have reached at least Main Issues Report stage and FCS & SNH are supporting authorities on the preparation of this component of their plans.

The Central Scotland Green Network Development Fund was announced by Scottish Ministers in May 2010. The fund is administered by Forestry Commission Scotland and Scottish Natural Heritage and aims to support early delivery projects to realise the Green Network on the ground. 72 projects were supported in 2010-11 across all 19 CSGN local authorities. A further £750,000 is being made available in 2011 for projects leading to a transformation of areas suffering from multiple deprivation, lack of access to greenspace and the blight of vacant and derelict land. This additional funding takes the amount of money awarded to organisations in Central Scotland so far to almost £2.1 million.”

3. Existing Strategies and Legislation relating to the Green Network

Strategies

3.1 Falkirk Greenspace Initiative

Concept and Coverage

- 3.1.1 The Falkirk Greenspace Initiative is a partnership between the Council, Central Scotland Forest Trust (CSFT) and Scottish Natural Heritage whose primary aim is to improve the landscape and recreational use of the green belt and urban fringes in a comprehensive way. It provides a means of addressing landscape and recreational improvements in the Green Belt and other urban fringe areas. The long term objective is to create an attractive wooded landscape, which includes local path networks, encircling Falkirk and neighbouring settlements.
- 3.1.2 Conceived in 1993 as a way of focusing the strategic activities of CSFT, the Greenspace concept envisages the creation of an attractive, well-wooded landscape encircling Falkirk and providing a permanent link between existing and proposed recreational spaces, public parks, the corridors of the River Carron, the two canals, the Green Belt, former policy woodland and designated countryside around the urban areas.

Embedding of concept in development plan

- 3.1.3 The Larbert and Stenhousemuir and Falkirk Local Plans put the concept on a statutory basis and raised its profile. In the Falkirk Local Plan Review, a Greenspace policy (FAL 4.2) was included and priority areas for implementation are identified on the Proposals Map.
- 3.1.4 Policy ENV.6: "Enhancement Action" of the Falkirk Council Structure Plan 2007 indicates that priority will be attached to the programme of enhancement measures (including wildlife habitat enhancement) identified in Schedule ENV.6. Schedule ENV.6 identifies the Falkirk Greenspace Initiative as an enhancement measure and defines it spatially on Map 1 "Priorities for Enhancement":

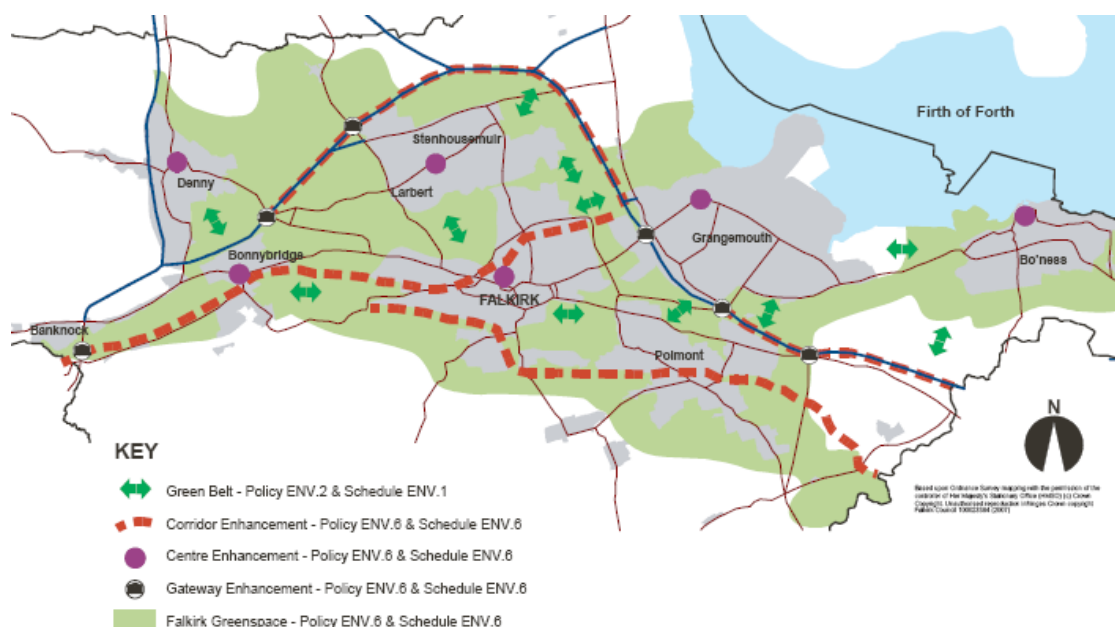


Figure 2: Falkirk Greenspace Initiative

3.1.5 Policy EQ21 “Falkirk Greenspace” of the Falkirk Council Local Plan (FCLP) further embeds the Falkirk Greenspace Initiative into the Development Plan. It indicates that through the Falkirk Greenspace Initiative, the Council will work with its partners to improve the landscape, habitat quality and recreational potential of the network of urban fringe and urban open space around and within settlements. Priority will be given to:

1. Appropriate woodland creation and management, where landscape quality, access, biodiversity, and connectivity across the Greenspace can be promoted;
2. The creation of an interlinked network of paths within the Greenspace, with particular emphasis on a principal circular route, as a key part of the core path network, complemented by secondary routes where appropriate; and
3. Requiring developers in urban fringe locations to contribute to landscape and/or access improvements in association with new development.

3.1.6 At paragraph 3.44 of the FCLP it is further noted that the Council will publish supplementary planning guidance, either as free-standing guidance or as part of the proposed SPGN on Open Space and New Development, to clarify the nature and level of contributions that will be required for the Greenspace Initiative as a whole and for the priority Helix project.

3.1.7 The recently published consultative draft SPG note on “Public Open Space, Falkirk Greenspace and New Development” clarifies the nature of contributions that will be required for the Greenspace Initiative. It proposes that sites within urban fringe locations are defined as those which are within 400m walking distance of the urban/village limits and the Falkirk Greenspace Initiative area. It further proposes that both residential and non-residential development in urban fringe locations is required to contribute towards landscape or access improvements within the Falkirk Greenspace Initiative. For residential development this contribution will be calculated as part of the overall 70m²/dwelling standard and can be delivered either onsite or as an off site financial contribution. For non-residential development a financial contribution equivalent to developing 17.5% of the total application-site as open space will be required to go towards landscape or access improvements within the Falkirk Greenspace Initiative.

Implementation

3.1.8 Falkirk Greenspace has been used as a strategic concept to engage with developers and landowners bringing forward new development sites and encouraging them to implement greenspace improvement and creation that will widen access to recreational opportunity on the urban fringe and improve its landscape setting.

3.1.9 The Public Open Space, Falkirk Greenspace and New Development SPG builds on the requirements of policy EQ21 of the Falkirk Council Local Plan and puts in place a mechanism to require developments on the urban fringe adjacent to the Falkirk Greenspace boundary to contribute towards landscape and access improvements.

Success of project

3.1.10 There are numerous landscape and access improvements to the urban fringe in association with new development which have been enabled by the Falkirk Greenspace Initiative, those most notable of these being:

- Roughcastle/ Falkirk Wheel;
- Callendar Woods
- Mungall Riverside;
- Abbotshaugh Community Woodland;
- Denny Access Project;
- Bonnyfield Nature Park;
- Banknock South;
- Kinneil Woods;
- South Falkirk including Lionthorn greenspace;
- RSNH new Larbert Hospital wider estate; and
- Polmont Woods

3.1.11 Falkirk Greenspace has been a successful platform for developing partnership relationships with a number of funding organisations who have an interest on improvements to the urban fringe environment. Key partnerships have been formed with The Central Scotland Forest Trust, Falkirk Environment Trust and local community groups

Limitations

3.1.12 One of the key limitations of Falkirk Greenspace is its introspective and urban focussed coverage. To some this may be seen as one of the Greenspace Initiatives key benefits. The Greenspace Initiative is very much focussed on green networks for human use, does not extend out into the wider countryside and does not link into wider green networks in neighbouring local authority areas.

3.1.13 There is a pressing need for a review of the Falkirk Greenspace Initiative as it is nearly 20 years since it's conception. The emergence of the Central Scotland Green Network in recent years provides an appropriate opportunity for a review of Falkirk Greenspace in the context of delivering the Central Scotland Green Network as a national development.

3.2 Falkirk Outdoor Access Strategy

Concept and Coverage

3.2.1 Falkirk Council's Outdoor Access Strategy focuses on non-motorised outdoor access. It aims to tackle access issues and path improvements that people of all ages and abilities want to see in their area.

3.2.2 Falkirk Council's Vision is to create a well-used, high quality recreational resource, which will encourage healthier lifestyles, strengthen community identities, improve appreciation of the environment, and add to the range of visitor attractions across the council area. This will be achieved by:

- providing a path network around and between settlements, with links to local facilities and key visitor attractions
- promoting and maintaining the path network to encourage its use by local people and visitors to the area

Implementation

- 3.2.3 The Strategy has been implemented by Falkirk Council's Outdoor Access team in partnership with Central Scotland Forest Trust, Scottish Wildlife Trust, Callander Estates and other agencies. Annual progress reports have been given to the Council's Leisure, Tourism and Community Committee.

Success of Strategy

- 3.2.4 The delivery of the strategy over the last 5 years, has seen the majority of milestones achieved against targets set out in the 2005-2010 Outdoor Access Strategy. This has included the path network being extended by some 39 miles (63km) to over 281 miles (450 km.). Key examples include:

- River Avon Heritage Trail,
- Falkirk Wheel path network; and
- South Falkirk Environmental Action Plan.

- 3.2.5 The investment during the lifespan of the strategy has totalled approximately £4.35m. in the development, creation, maintenance, marketing and promotion of the network. Of this, the Council's contribution, from within existing budgets, was approximately £950k giving a leverage ratio of over 1:4.

- 3.2.6 The key statutory achievement of the strategy has been the completion and adoption of the Falkirk Council Core Paths Plan. The preparation of the plan received a massive public response, indicating a keen interest in the design of the path infrastructure resource created. This is the first core path plan for Falkirk Council and, as such, offers significant marketing and promotion opportunities.

Limitations

- 3.2.7 Significant achievements have been made to date in developing the now extensive access network. Much of the success has been due to effective partnership working. However, a revised strategy will require to operate in the context of increasing funding constraint. In comparison to the focus on capital works over the life of the previous strategy, securing the necessary revenue funding to consolidate, maintain and promote the now largely completed network is likely to be the priority for the emerging strategy. Further development of our work with communities towards shared aims is also likely to be an important component.

- 3.2.8 It is, therefore, envisaged at this stage that the 2011-2016 Falkirk Council Outdoor Access Strategy will require to focus on the consolidation of the of path network now available to Falkirk's residents and visitors through:

- sound management,
- promotion,
- maintenance; and
- community partnership working.

3.3 Central Scotland Forest Strategy

Concept and Coverage

- 3.3.1 The idea of creating a Central Scotland Forest in the industrially ravaged landscape of Scotland's Central Belt was conceived in the late 1980s and a 20 year strategy was adopted in 1995. North Lanarkshire, Falkirk and West Lothian lie entirely within the Central Scotland Forest boundary whilst East Dunbartonshire and South Lanarkshire lie partly within the Forest boundary. The 1995 strategy's vision for the Central Scotland Forest in 2015 is:

"The forest is an attractive place which enhances the lives and life chances of those living working and playing there. The area has fundamentally changed for the better as a result of the creation of a new landscape which includes, within a mosaic of landuses, trees, woodlands, new greenspaces and rich biodiversity. Social and economic improvements linked to these changes are flourishing and, as the Forest continues to grow and mature, its benefits will increase over time."

Implementation

- 3.3.2 The implementation of the Central Scotland Forest Strategy has been overseen by the Central Scotland Forest Trust, which has worked in partnership with a range of organisations including the Scottish Executive and Government, Local Authorities, Forestry Commission Scotland, Scottish Natural Heritage and Scottish Enterprise and Local Enterprise Companies and a wide range of other local landowners and interest groups to implement the Strategy's vision for the Forest area.

Success of Project

- 3.3.3 Between 1995 and 2003 nearly 5000ha of new tree planting had been undertaken within the Forest area with an annual average of approximately 7000ha of woodland under management.
- 3.3.4 Woodland creation since 1997 in the Falkirk Council area has seen 564.4 hectares of land planted with 1,352,674 trees.
- 3.3.5 Plans to develop nine selected woodland locations locally were unveiled in 2005 and Falkirk Council in partnership with other interested parties has secured funding of almost £816,000 from Forestry Commission Scotland to improve selected well used woodlands in urgent need of management.
- 3.3.6 Over the four Falkirk Council-owned sites, the last five years has attracted grant funding, resulting in a gearing ratio of over 1:8 for every £1.00 input by the Council.

Limitations

- 3.3.6 Experience since 1995 has shown that the public sector, with limited means, finds it difficult to resource the full extent of Forest Work needed, while private sector businesses tend to participate only in Forest creation mechanisms which they perceive as financially or otherwise in their interests.
- 3.3.7 As the Central Scotland Forest Strategy is primarily concerned with forest habitat creation and management there is insufficient focus on the creation and management of other mosaic habitat which can form part of the wider integrated habitat network

- 3.3.8 The Central Scotland Forest Strategy covers twenty year period from 1995 to 2015. This Strategy will therefore need review in the medium term and this should be undertaken in light of the priorities of the Central Scotland Green Network Initiative of which the Central Scotland Forest will form a key component
- 3.3.9 Tree planting is an important component of the Central Scotland Forest and Falkirk Greenspace initiatives. The amount of woodland planted year on year has fluctuated for a variety of reasons. There was a lower take up by farmers of grant aid after its first year of operation in 1997 and the effects of foot and mouth disease on curtailing planting activity in 2001 and 2002. Whilst the figures for 2007 show a marked increase after lower levels of planting during 2005-06, this has fallen back dramatically to only 8.9 hectares in 2008.
- 3.1.10 It is considered that there are a number of factors which have collectively contributed to the reduced level of grant driven woodland expansion over the last reporting period. This includes planting not being considered to be as competitive in comparison with other agricultural activities and concern about uncertainty over different new grant schemes. CSFT intend to undertake further research with landowners and agents regarding the apparent loss of momentum regarding woodland expansion in the Central Scotland Forest.

3.4 Falkirk Urban Woodland Strategy

Concept and Coverage

- 3.4.1 The Falkirk Urban Woodland Strategy presents a strategy for the management of urban woodlands (woodlands in or within 1km of settlements of over 2000 inhabitants) in the Falkirk Council area. It includes a vision for these woodlands, assesses the current position, key priority issues and presents objectives and proposals for action.
- 3.4.2 The vision articulated within the Strategy is:

“The Falkirk Council area will be recognised as one in which woodland in and around towns are appreciated, protected and managed and maintained for the multiple benefits of the local community and future generations, and in which:

- *The quality of life in all communities will be enhanced by access to local woodlands;*
- *The image of the area will be significantly enhanced as a place to live, work and visit by the creation of management of Falkirk’s urban woodlands; and*
- *The area will be enhanced as a business location by the improved quality of the physical environment.”*

Implementation

- 3.4.3 The strategy is being implemented in partnership with Callendar Estate, Forestry Commission Scotland, CSFT and other landowners in accordance with a detailed 5 year action plan based on eight key themes. Implementation of the Strategy is driven under 8 key themes:

- Provision of path linkages between communities and local woodlands
- Improving the landscape and setting of the Council area
- Providing a resource for physical activity
- Woodlands as outdoor classrooms
- Woodlands as nature reserves
- Bringing woodlands into active management
- Increasing public awareness of woodland
- Managing woodlands as an economic resource

Success of Project

3.4.4 A key part of the strategy was to produce management plans for selected woodlands that were in regular use by the public but in urgent need of management. The following woodlands were selected - Chasefield, Lionthorn, Westquarter/Mavisbank, Polmont Woods, Abbotshaugh, Kinneil Foreshore, Bonnyfield Nature Park, Carron Glen and Roughcastle. These management plans were then used as the basis on which to submit applications to the Forestry Commission for grant aid under its WIAT funding programme towards carrying out the necessary works. Work is now complete or ongoing within these areas.

3.4.5 The following grant aid was awarded for each of these sites. The site owners are shown in brackets:

• Chasefield (Callendar Estate)	£101,149
• Lionthorn (Callendar Estate)	£111,261
• Westquarter/Mavisbank (Callendar Estate)	£84,546
• Polmont Woods (Falkirk Council)	£73,603
• Abbotshaugh (Falkirk Council)	£123,447
• Kinneil Foreshore (Falkirk Council)	£118,136
• Bonnyfield Nature Park (Falkirk Council)	£40,475
• Carron Glen (Falkirk Council/Scottish Wildlife Trust)	£84,882
• Roughcastle (Central Scotland Forest Trust)	£78,427
Total	£815,930

3.4.6 Over the four Falkirk Council sites for the five year period of the management plans the grant received will result in a gearing ratio of over 1 to 8 for every £1.00 input by the Council. To date the Council's contribution has come from its Quality of Life and environmental budgets.

3.4.7 Partnership working between the Council and community groups has also drawn in additional funding. For example £26,500 was secured from Falkirk Environment Trust by the Abbotshaugh Community Woodland Group for path construction works at Abbotshaugh in Falkirk.

Limitations

3.4.8 The Strategy has an overwhelmingly urban focus extending out to up to 1km from settlements; it also does not cover settlements with a population of under 2000 people.

3.5 Falkirk Open Space Strategy

Concept and Coverage

- 3.5.1 The Council in partnership with the Central Scotland Forest Trust, NHS Forth Valley and Scottish Natural Heritage has produced an Open Space Strategy for 2010-2015.
- 3.5.2 The Falkirk Open Space Strategy focussed on open space in and around the various settlements of the Council area. The overarching vision of the Open Space Strategy is to secure the long-term improvement to the quality of Falkirk's open spaces, so that they can provide a truly sustainable and diverse resource for the benefit of the communities they serve.
- 3.5.3 The Strategy sets 12 strategic objectives for the Council's open space resource and contains a conceptual strategy for each town and village in the Council area demonstrating how the 12 strategic objectives can be met in each settlement.

Implementation

- 3.5.4 The Strategy has been broken down into a five-year action plan that sets out priorities up to 2015.

Success of the Strategy

- 3.5.5 The Strategy has set out a suite of open space standards relating to the quantity, quality and accessibility to open space. These standards have enabled the formulation of supplementary planning guidance which guides the amount of open space which must be provided by new development in order to meet the open space standards set out in the Strategy. This should lead to the long term increase in the amount of areas across the Council which meet the open space standards.

Limitations

- 3.5.6 No management mechanism has been set up to oversee the implementation of the Open Space Strategy and as such no directly attributable progress has been made. The formation of an appropriate management mechanism is hampered by the unclear picture of who would be involved in delivering the actions necessary to deliver the five year action plan. Open space is in the ownership of a number of Council Services, is managed by an arm's length charitable trust and is maintained by Corporate and Neighbourhood Services. Although the Open Space Strategy is a corporate document it is not clear in any service other than development services is working towards implementing its action plan.
- 3.5.7 The Open Space Strategy only deals with open spaces within 1200m of settlement boundaries and is primarily focussed on managing the open space resource for the benefit of the communities it serves, not for wider biodiversity or climate change adaptation purposes.

Legislation

- 3.6 The following legislation will contribute to the delivery of the green network:
- Water Environment and Water Services (Scotland) Act 2003,
 - Flood Risk Management (Scotland) Act 2010; and

- Climate Change (Scotland) Act 2009.

4. Mapping the Green Network in Falkirk

4.1 Habitat networks in Falkirk

4.1.1 There are a whole range of sites designated for their nature conservation value within the Falkirk Council Area. The Council area contains the following designated sites:

- 1 Ramsar site;
- 1 Special Area for Conservation;
- 2 Special Protection Areas;
- 10 Sites of Special Scientific Interest;
- 62 Wildlife Sites;
- 24 Sites of Importance for Nature Conservation; and
- 1 Local Nature Reserve

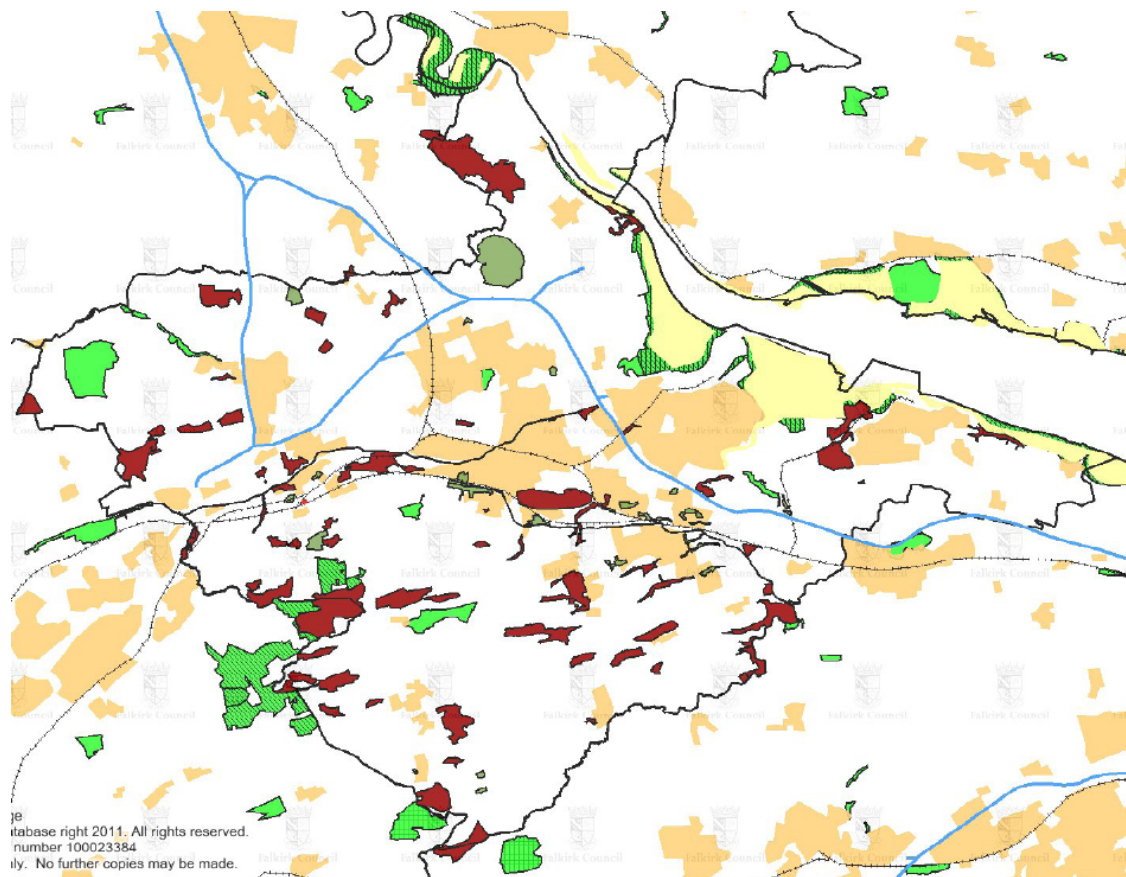


Figure 3: Natural Heritage Designations

4.1.2 An Integrated Habitat Network Study was undertaken by the Council in June 2008 and revealed the existence of the following habitat networks. Habitat networks are areas of habitat within which certain types of species thrive, they also include a dispersal distance buffer which indicates the maximum amount of distance species would have to travel (or disperse) within that network in order to find another concentration of favoured habitat. So a habitat network with a higher percentage of less favoured habitat would be more fragmented than a network with a lower percentage of less favoured habitat. In general the greater the dispersal distance of the habitat network the less species which can utilise that network. Table 1 below presents the 500m dispersal distance habitat networks within the Falkirk Council area.

Network type	Number of networks identified	Total area of networks (hectares)	Percentage of less favoured habitat in network
Woodland generalist	2097	17460	34.8%
Broadleaved specialists	1928	6701	53.3%
Ancient broadleaved specialists	395	2961	61.6%
Wetland	2648	3434	31.1%
Grassland generalist	90	1407	28.8%
Lowland acid grassland specialist	57	1252	49.9%
Lowland grassland specialist	13	101	34.9%
Raised bogs	56	1122	17.7%

Table 1: Landscape Metrics for 500m dispersal distance habitat networks within the Falkirk Council area.

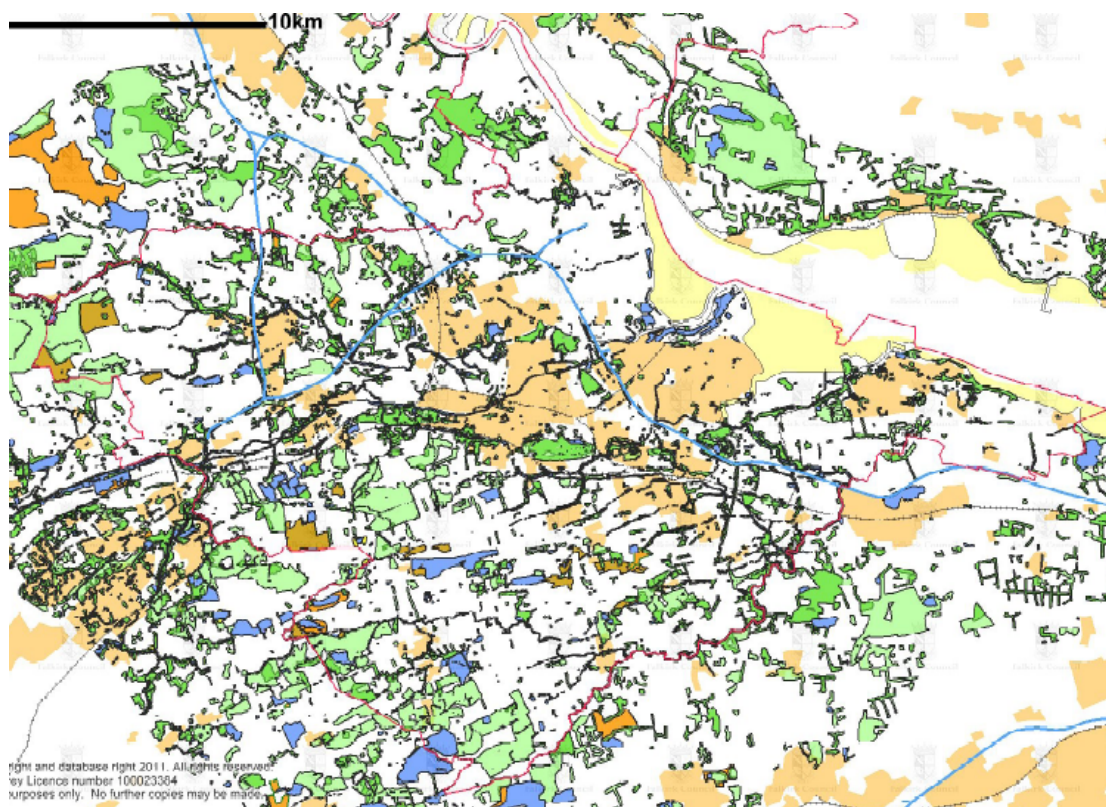


Figure 4: Habitat Networks in Falkirk

4.1.3 Figure 4 above illustrates the wide ranging habitat networks which exist throughout the Falkirk Council area and illustrates the difficult task which is faced in deciding which of these habitat networks form part of the wider green network.

4.2 Access networks in Falkirk

- 4.2.1 Falkirk Council's Core Paths Plan shows a network of nearly 400km (250 miles) of paths. It is intended that these routes will all eventually be signed
- 4.2.2 There is a currently a network of 172km of maintained routes which include the local paths networks developed around many of the area's communities. There is also a good network of paths around key visitor attractions (Callendar Park and Woods, Kinneil Estate, Falkirk Wheel) and a good network of linkages between communities (Routes along the Union and Forth and Clyde Canal, the River Carron and Avon, the Forth Estuary)
- 4.2.3 There are a great number of accessible woodlands in and around the area which are shown in green in figure 5 below

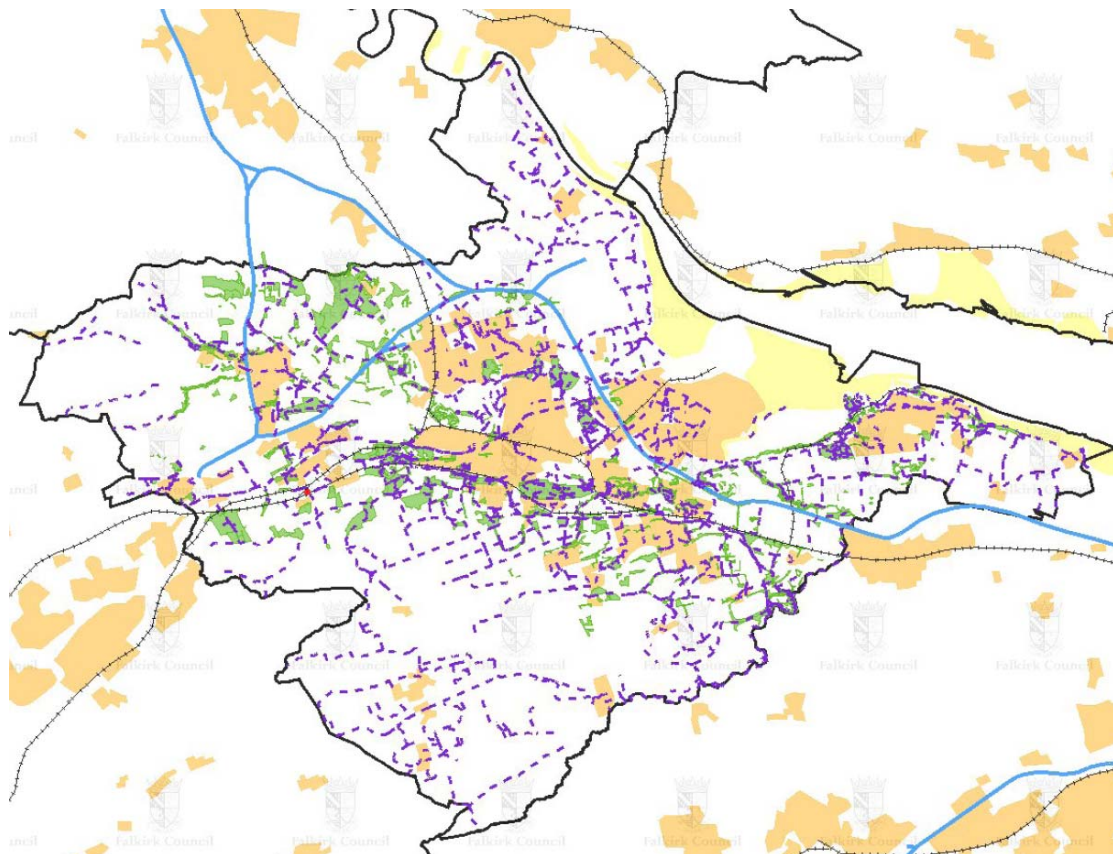


Figure 5: Core Paths and Woodlands in and around Towns (WIAT) woodlands

4.3 Landscape in Falkirk

- 4.3.1 Despite its small geographical area, the area exhibits a range of landscape types which have been influenced by its underlying geology and glacial history. Landscape Character Assessments have identified the following landscape character units and types:

- Carse of Forth (River Valley)
- Avon Valley (River Valley)
- East Touch Finches (Lowland Hill Fringes)
- Denny Muir (Lowland Hill Fringes)
- Slamannan Plateau (Lowland Plateau)
- Falkirk/Denny Urban Fringe (River Valley)

- Middle Carron Valley (Lowland Valleys)
- Grangemouth Flats (Coastal Margins)
- Bo'ness Coastal Flats (Coastal Margins)

4.3.2 Three Areas of Great Landscape Value (AGLV) are currently designated by Falkirk Council:

- The Avon Valley/Slamannan Plateau: the plateau is characterised by its open nature. The River Avon valley contains an attractive rolling landscape of field units, hedgerows and tree belts.
- The eastern end of the Touch/Campsie/Gargunnock Hills: rugged landform distinctive natural and manmade features together with a pattern of vegetation interact to create a landscape of value and character.
- South of Bo'ness.

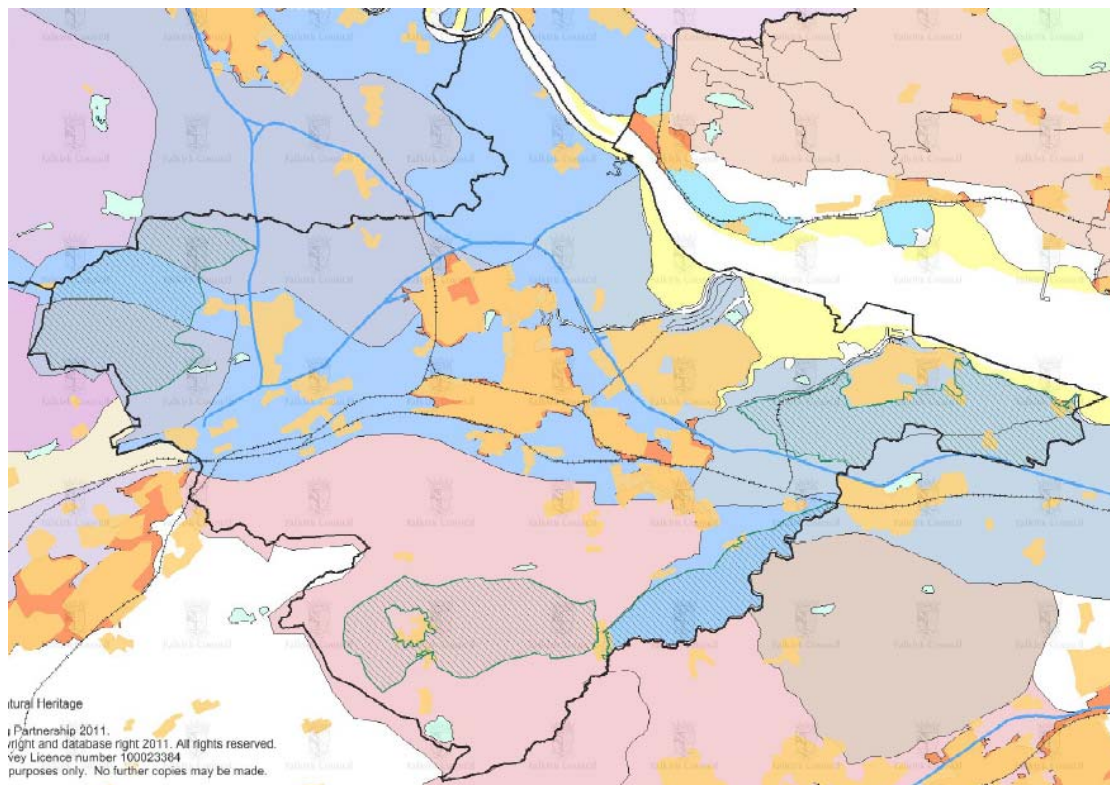


Figure 6: Landscape Character Units and AGLV

4.4 Climate Change

Flood Plains

4.4.1 There are extensive coastal and fluvial flood plains in the Council area, a snapshot of the scale of flooding in the area is shown in figure 7 below:

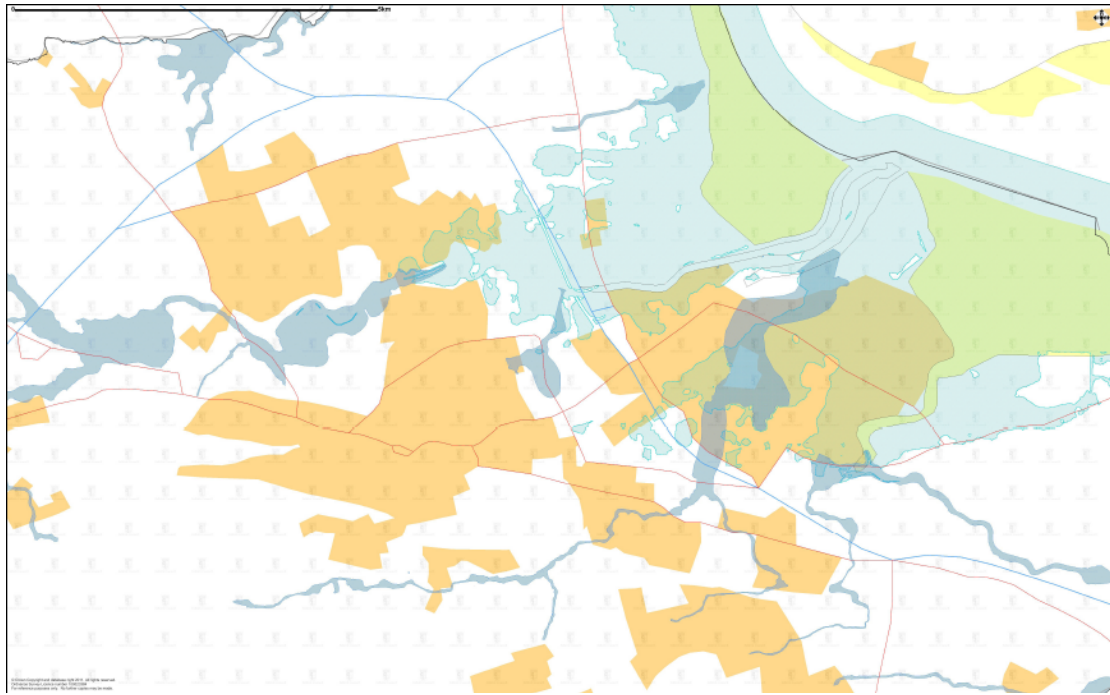


Figure 7: Coastal and Fluvial Flood Plains,

4.4.2 Species migration corridors

4.5 Urban open space

- 4.5.1 Urban open space has been identified through the Quantitative Audit of Open Space, this involved the categorisation of all open space within 1200m of urban and village limits according to typologies set out in PAN65 Planning and Open Space.

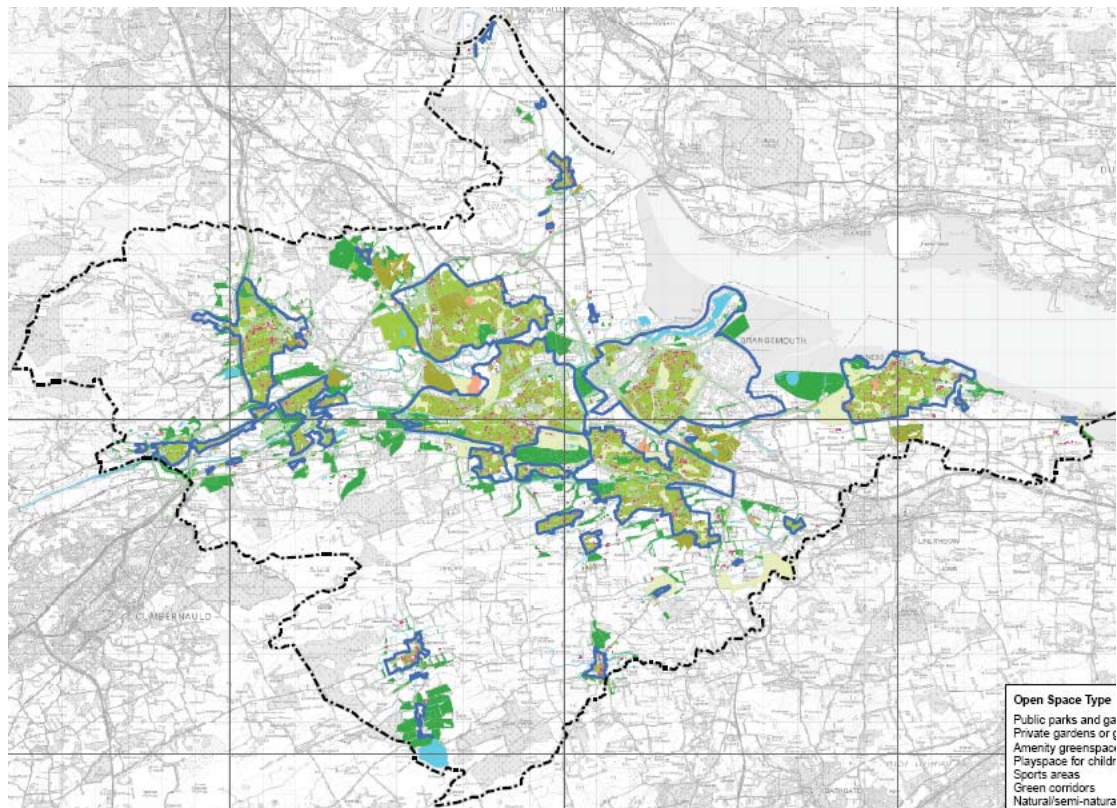


Figure 7: Quantitative Audit of Open Space

4.5.2 Fingers of the green network penetrate into the urban area in certain locations the most significant of these are detailed in the table below on a settlement area basis.

Settlement Area	
Bo'ness	A green finger of land penetrates Bo'ness at Kinglas Farm incorporating the Bo'ness Accademy playing fields and Newtown recreation ground.
Bonnybridge & Banknock	The Forth & Clyde Canal and the Bonny Water run through Bonnybridge and Banknock. In Banknock a green corridor along the Doups Burn juts into the urban area from its confluence with the Bonny Water.
Denny & Dunipace	Green corridors alongside the River Carron and its tributaries cut through Denny and Dunipace. Another significant green finger connects Little Denny Burn with Chasefield Woods between Denny and Head of Muir.
Falkirk	Falkirk, Camelon and Tamfourhill are separated by a broad green corridor which runs from the Falkirk Wheel alongside the Forth Clyde Canal, down Glenfuir Road incorporating Camelon public Park and Sunnyside Playing fields South and connecting into Carronside and the Lower Carron. Another Green corridor separates Lionthorn and Glen Village along the Union Canal connecting into Callendar Woods and Callendar Park
Grangemouth	A green finger runs from the Inchyra Grange to the Grange Burn incorporating Little Kerse then along the Grange Burn to Zetland Park
Larbert and Stenhousemuir	A green finger follows the Chapel Burn from its confluence with the River Carron through Carron and Stenhousemuir to the Tryst Golf

	Course and Cricket Ground via Stenhousmuir Cemetery. Another Green Finger follows the How Burn northwards from its confluence with the River Carron incorporating Finally Russell Park and separating the communities of Larbert and Stenhousemuir.
Polmont	A green finger runs southwards along the Polmont Burn from the southern edge of the Helix through Grey Buchannan Park across Station Road through Erskine Hill to the Railway it also runs further eastwards encircling Skye drive and along the Montrose Road open space to the edge of the Gilston Burn. Another significant green corridor runs alongside the Westquarter Burn through Westquarter to connect with the Helix to the west of Grandsable cemetery. A further Green finger follows the Polmont Burn eastwards from Reddingmuirhead past Braes High School towards the point where the burn flows under the Union Canal

Table 2: Urban Open Space forming part of the Green Network

4.6 Enhancement opportunities in association with new development

4.6.1 Another important thing to consider is whether new development proposals are located within a close proximity to the green network and whether there are opportunities to enhance the green network in tandem with this new development. This will create a virtuous cycle as plugging development sites into the green network will enhance their connectivity to recreational and habitat networks and improve their landscape setting and promoting green network enhancement opportunities in tandem with new development will present funding opportunities which would have been unavailable without development.

Current major developments

4.6.2 Opportunities for improving the Green Network will often be linked to new development as they can often incorporate substantial greenspace on site or provide funding towards investment in the green network off site. The following major developments have the potential to contribute towards improvements in the green network:

Name of Development	Planning Status	Green Network Opportunity
Bo'ness SIRR	Outline (Minded to grant)	Integrating with the Forth Estuary component of the Green Network and improving access opportunities.
Banknock and Haggs SIRR	PPP application pending consideration	Reinforcing the Doups Burn corridor through the Bankier Distillery and Cannerton Brickworks sites. Enhancing access opportunities to the Forth and Clyde Canal and Bonny Water.
Dennyloanhead	Outline (Minded to grant)	Creating links to the Bonny Water component of the

		Green Network
Mydub	Opportunity	Creating links with the Denny component of the Green Network and creating a broadleaved woodland habitat corridor through the site
Denny High	Opportunity	Creating links with the Denny component of the Green Network and creating a broadleaved woodland habitat corridor through the site
Broad Street	Opportunity	Enhancing access opportunities along the Upper Carron part of the Green Network
Falkirk Gateway	Outline (Minded to grant)	Providing the Green network link between residential areas to the west and the Helix.
Tamfourhill	PPP (Minded to grant)	Reinforcing the green finger which extends through the site along the line of the Forth Clyde Canal and enhancing its potential for use as a species migration corridor.
Hill of Kinnaird	Opportunity	Creating an accessible landscaped urban edge to the north of Larbert
Gilston	Outline	Developing a green corridor alongside the Manuel Burn. Creating an accessible landscaped urban edge alongside the A801.
Slamannan SIRR	Opportunity	Enhancing foraging habitat alongside the River Avon for use by Bean Geese
Whitecross SIRR	PPP (Minded to grant)	Developing links to the Union Canal and River Avon

Table 3: Green Network Opportunities at Current major development sites.

Opportunities relating to preferred LDP settlement growth options

4.6.2 New development sites within the preferred settlement growth options present further opportunities to enhance the green network. The following table presents the opportunities on a settlement area by settlement area basis:

Settlement Area	Opportunities
Bo'ness	New woodland planting and associated access should be created at site BNS/B/02 which link in with the

	existing access network in the South Bo'ness green network.
Bonnybridge & Banknock	A suitably designed green corridor should be maintained through site B&B/B/04 to enable the connection of the green network to the north and south of the site. A suitably designed riparian corridor should be maintained along the Bonny Water at site B&B/B/01 and consideration should be given to bridging the Bonny Water to allow pedestrian access to the Forth and Clyde Canal.
Denny & Dunipace	A broadleaved habitat corridor should be created at site DEN/B/03 extending a similar broadleaf habitat corridor which should be created running through sites DEN/A/02 & 08 linking with broadleaf habitat to the north of the site. The opportunity to connect the Denny and Upper Carron components of the green network through site DEN/B/03 should be investigated. The opportunity to improve access along the River Carron should be investigated at sites DEN/B/01 & 02
Falkirk	Development at the Etna Road 2 (FAL/A/26) site should ensure the connectivity of the Forth Clyde Canal to the new residential area. Replacement habitat to compensate for the loss of the Falkirk Gasworks SINC at the Etna Road 2 (FAL/A/26) site should be designed to compliment existing habitat on the Forth Clyde Canal Wildlife Site Connectivity of the Mulgal/Cauldhame Farm 3 (FAL/B/12) site to the Lower Carron component of the green network should be improved
Grangemouth	No opportunities
Larbert & Stenhousemuir	Development at Roughland Farm (L&S/B/02) site should aim to connect to the wider North Larbert component of the green network.
Polmont	Development of sites POL/B/06,07 & 14 should ensure delivery of an accessible green network alongside the A801 Habitat enhancement along the Manuel Burn should be delivered as part of the development of sites POL/B/06 & 14 Development of site POL/B/05 should aim to improve the South Falkirk component of the green network in this area, connecting the Polmont Burn and Wallacestone SINC to wider countryside access
Rural North	Development at Dunmore Park and McLaren Park (DUN/A/01 and TOR/A/02) sites should ensure that they connect to the Carse and North Larbert components of the green network. Sites the Glebe and Eastfield 1 (AIR/B/03 & 04) should incorporate designs for the proposed South Alloa to Glebnsburgh cycle path.
Rural South	An accessible green corridor along the River Avon should be created at site AVN/B/03

Table 4: Green network opportunities for new sites

5. Defining the Green Network

5.1 Taking the Greenspace concept forward

Strategic options

- 5.1.1 There are considered to be two strategic options for the development of the Green Network.
- 5.1.2 Consolidation – Maintain and enhance the components of the green network that already exist. These are predominantly based around the existing urban areas and have been enhanced over the past 20 years through the Falkirk Greenspace Initiative.
- 5.1.3 Expansion – Expand the green network into areas which are currently of poor quality focussing on habitat connectivity and countryside access routes
- 5.1.4 The preferred option is for expansion. Figure 9 below shows the proposed extent of the green network in the Council area and the key components of the network. The following sections detail the functions, priorities and proposals and opportunities for each component of the proposed green network.

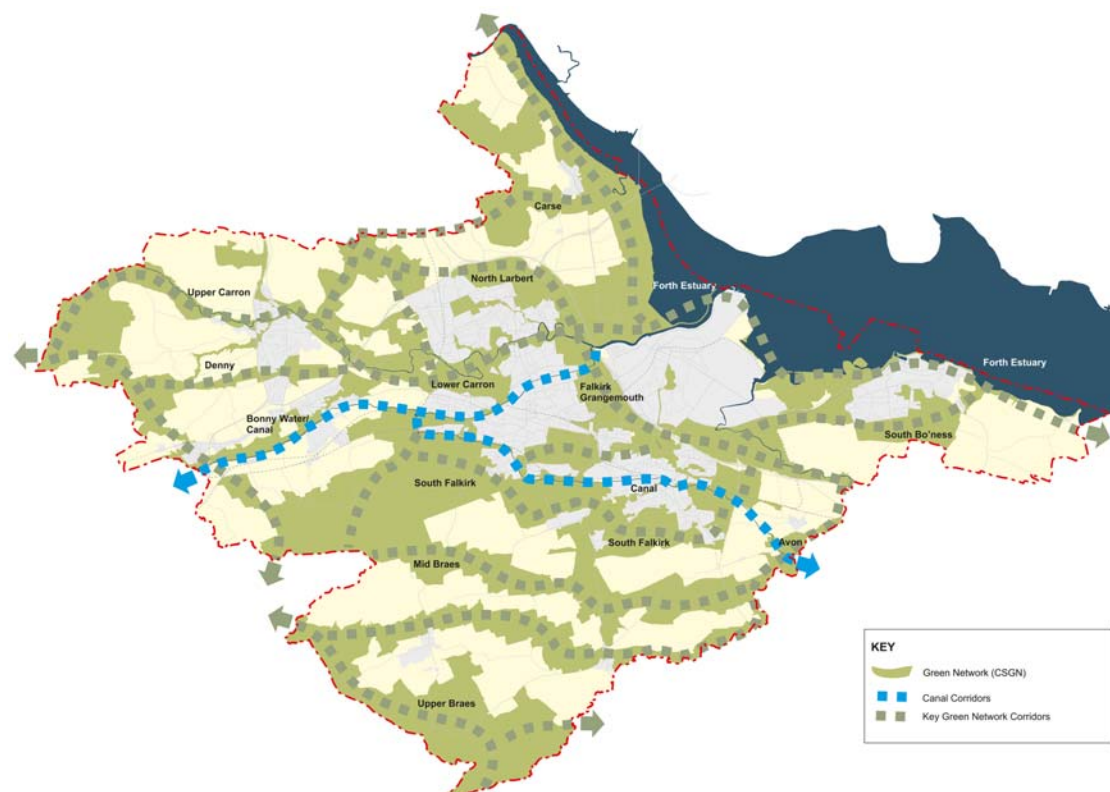


Figure 9: The Green Network (A larger version of this figure can be seen at the back of this Technical Report)

Identification methodology

- 5.1.5 Identifying the key components of the green network was not a straightforward task. The first parts of the network identified were the key coastal and river corridors and their flood plains (Forth Estuary, Carron, Avon

and Bonny Water) and the canals. Next the greenbelt areas which form the landscape setting of the major settlements of the area and connected woodland habitat were identified (South Bo'ness, South Falkirk, Falkirk/Grangemouth and North Larbert) Finally, areas where there were significant concentrations of sites designated for their nature conservation value or significant concentrations of woodland in close proximity were identified (Carse, Denny, Mid-Braes and Upper Braes)

Strategic Observations

- 5.1.6 The number components of the green network which traverse the area from east to west significantly outnumber those which traverse it from north to south.

5.2 Forth Estuary

Description

- 5.2.1 The Forth Estuary defines the northern boundary of the Falkirk Council area running from South Alloa in the west down to Blackness in the west past Grangemouth and Bo'ness. The Forth Estuary contains a system of tidal mudflats which form part of the Firth of Forth SPA.
- 5.2.2 There is an inherent conflict between the need to restrict access to the Firth of Forth in order to maximise the biodiversity potential of the site and, the desire to allow access along the foreshore.

Green Network Functions

	Habitat	Access	Landscape	Climate Change	Urban Open Space
Existing Function	High	Medium	Medium	High	Medium

- 5.2.3 **Habitat – High existing function.** The Firth of Forth as an SPA, RAMSAR site and a SSSI. It forms important habitat for wintering birds. Bo'ness Foreshore is a Wildlife Site.
- 5.2.4 **Access/active travel/recreation – Medium existing function.** The Forth Foreshore Path runs intermittently along the edge of the Forth. The largest area of coastal access is between Kinneil Foreshore, along Bo'ness Foreshore to Blackness with wider links to Hopetoun House and South Queensferry beyond. No path runs along the Foreshore between Kinneil and the Kincardine Bridge. North of the Kincardine Bridge the path returns to the foreshore as far as South Alloa (barring a short stretch to the north of Airth where access is restricted due to an impassable watercourse)
- 5.2.5 **Landscape/regeneration – Medium existing function.** The Firth of Forth will form the backdrop for the Bo'ness Foreshore SIRR
- 5.2.6 **Climate Change – High existing function.** The coastal floodplain of the Firth of Forth extends inland for over a large area putting the communities of Aith, Skinflats, Grangemouth, Bo'ness and Blackness at considerable risk of flooding. A flood defence scheme has recently been constructed at Bo'ness and a study is underway to prepare a similar scheme of flood defences for Grangemouth. The Skinflats Tidal Exchange Project at Bothkennar Field has enabled a small area of land to be inundated at high tide, whilst this project in itself will only have a minimal positive effect on flood levels, it acts as a demonstration of what can be achieved. There may be opportunities for other larger scale projects which can act to reduce the levels of flood risk and improve habitat for SPA birds.
- 5.2.7 There may be scope for significant renewable energy projects along the Firth of Forth. However, it will be important to ensure that these do not interfere with the other functions of the green network
- 5.2.8 **Urban Open Space - Medium existing function.** The Firth of Forth abuts the urban areas of Bo'ness and Grangemouth. In Grangemouth, use of the

foreshore by industry precludes significant public use, however in Bo'ness the foreshore is far more accessible and is extensively used for passive recreation.

Overall Priorities

- Preserve/Enhance nature conservation function
- Investigate opportunities for major managed coastal realignment project to reduce overall flood risk and enhance habitat
- Improve public access along the Firth of Forth between Grangemouth and the Kincardine Bridge and the Kincardine Bridge and South Alloa
- Improve the use of the Firth of Forth as a public open space in Bo'ness

Proposals/Opportunities

- Bo'ness Foreshore – improve facilities and management in tandem with the Foreshore development with particular emphasis on enhanced biodiversity, access and promotion of heritage.
- Maximise opportunities for a green coastal corridor, including upgrading of foreshore path, and potential of Forth setting, and ensure appropriate conservation and management for natural heritage and biodiversity benefits.
- Correlate location of visitor facilities (benches/bird-watching hides etc) with views.
- Manage spaces to avoid potential user conflict, e.g. bird watching and dog walking, footpath condition and sand removal, and maintain to avoid deterioration of sea defences and improve foreshore cleanliness.
- Enhance awareness of the cultural history and importance of the Blackness through innovative interpretation of the unique resource of Blackness Castle and how the sites historically and physically link with it.
- Maximise opportunities for a green coastal corridor and potential of foreshore setting, and connections with railway corridor at South Alloa.

5.3 Upper Carron

Description

- 5.3.1 The Upper Carron runs from the Council boundary with Stirling Council eastwards through Stoneywood, Fankerton Denny and Dunipace and on towards Larbert. At Larbert, the upper Carron interfaces with the woodland at the Forth Valley Acute Hospital. To the west the Upper Carron leads to the Carron Valley reservoir which has a range of associated recreational activities. and the Communities Along the Carron project aims to increase riparian access.

Green Network Functions

	Habitat	Access	Landscape	Climate Change	Urban Open Space
Existing Function	High	Medium	Medium	Low	Medium

- 5.3.2 **Habitat – High existing function.** The Upper Carron contains the Carron Glen SSSI. A redundant weir at the former Carrongrove Mill forms a barrier to fish migration. The Avon burn, a major tributary of the Carron flows can be traced upstream to the west and north of its confluence with the Carron flowing past Avonbank community woodland under the M80 and then Northwards towards Braes Wood. At its western edge near Carronbridge this part of the green network widens to incorporate woodland at Denny Muir which includes the Denny Muir SSSI Takmidoon Wildlife Site These form part of the wider Carron Valley Forest which stretches to the west.
- 5.3.3 **Access/active travel/recreation – Medium existing function.** Access along the upper Carron corridor is sporadic. There is riverside access to the Carron through the communities of Denny, Dunipace, Fankerton and Stoneywood. To the east of Denny towards Larbert access to the Carron is restricted.
- 5.3.4 **Landscape/regeneration – Medium existing function.** The Upper Carron forms an important backdrop to the Carrongrove Mill development. The development at Broad Street is alongside the River Carron so has potential to improve access.
- 5.3.5 **Climate Change – Low existing function.** Provides an east – west species migration corridor although this is constrained as the Carron passes through Denny. The River Carron flood plain is not significant in the Upper Carron catchment The are potentially opportunities for some upper catchment management schemes which may help reduce the risk of flooding further down stream.
- 5.3.6 **Urban Open Space - Medium existing function.** The Upper Carron runs through the communities of Denny, Dunipace, Fankerton and Stoneywood and forms the southern boundary of Herbertshire Castle Park in Dunipace. It is an important green corridor through the settlements. The Avon burn runs through Dunipace past he Avonbank community woodland.

Overall Priorities

- Improve access to the Upper Carron between Denny and Larbert

- Remove barrier to fish migration at Carrongrove Mill
- Ensure links to the Upper Carron are retained in Carrongrove Mill and Broad Street developments
- Explore options for upper catchment management
- Improve species migration potential through Denny

Proposals/Opportunities

- Denny and Dunipace have a strong basis for interconnected network of open spaces provided by River Carron, Castlerankie Burn and disused railway corridors. They currently offer green access and wildlife connections into other urban greenspaces and the wider countryside, but they would benefit from improved green access strategy linkages, signage and maintenance.
- The opportunity to connect the Denny and Upper Carron components of the green network through site DEN/B/03 should be investigated.
- The opportunity to improve access along the River Carron should be investigated at sites DEN/B/01 & 02 and at Broad Street

5.4 Lower Carron

Description

5.4.1 The lower Carron is much more urban in character, meandering through the heavily populated areas Larbert, Stenhousemuir, Mungall, Carron, Carronshore and Grangemouth. It was a key driver of the industrial revolution in Scotland serving the Carron Company Ironworks and has many historic industrial features including a system of weirs and lades. It acts as a key corridor passing through the larger Carronside open space and forms the northern boundary of the Helix where the Kelpies sea lock are proposed to be sited.

5.4.2 Carronside is a large area of green belt running alongside the river carron and separating the communities of Larbert and Camelon, Stenhousemuir and Mungall and Carron and Langlees. Carronside comprises the flood plain of the River Carron together with a number of important open spaces. The area is also highly urbanised containing a landfill site and Carron Works Spaces of note within this section of the Green Network include:

- Abbotshaugh Community Woodland
- Carron Dams
- Mungall Riverside park
- The Lade
- Stirling Road Playingfields
- Sunnyside Playingfields
- Falkirk Cemetery; and
- Falkirk Golf Course

5.4.3 The remains of a Roman fort also lie within this open space to the west of Falkirk Golf Course.

Green Network Functions

	Habitat	Access	Landscape	Climate Change	Urban Open Space
Existing Function	Medium	Medium	Medium	High	High

5.4.4 **Habitat – Medium existing function.** The Lower Carron empties into the Firth of Forth which is a SSSI/SPA. Within the Lower Carron are the Carron Dams SSSI, Camelon Riverside Wildlife Site and the Carron Meander SINCR,

5.4.5 **Access/active travel/recreation – Medium existing function.** Access to the river Carron itself is sporadic, with better access in the Stenhousemuir to Grangemouth section than in the Larbert to Stenhousemuir Section. Carronside is crisscrossed by paths connecting the communities that surround it and clearly serves a key recreational function.

5.4.6 **Landscape/regeneration – Medium existing function.** Carronside performs an important greenbelt function forming a buffer between Larbert and Camelon, Stenhousemuir and Mungall and Carron and Langlees. Major development has taken place at Mungall Farm 1 and 2 in recent years with the

creation of Mungal Riverside Park. Substantial housing development remains to be constructed in the Mungal Farm 2 site however it is debatable whether further money could be secured through the planning application process to further improve access along the Carron given that a S75 has already been negotiated in relation to the outline consent for the wider Mungal Farm site

5.4.7 The Carron forms the northern edge of the Helix and will see substantial regeneration around the Kelpies Sea Locks

5.4.8 **Climate Change – High existing function.** The Fluvial floodplain of the River Carron is at its most extensive in the Lower Carron and covers a substantial area causing areas of considerable flood risk in Mungal and Carron. The Coastal floodplain of the River Carron also affects large areas in Carron, Carronshore and Glensburgh, Grangemeath. It is important that the floodplain function of the Carronside is retained and opportunities to enhance floodplain functionality are harnessed.

5.4.9 **Urban Open Space – High existing function.** Carronside is full of recreational uses including playing fields, a golf course and a community woodland. Important passive open spaces include, the Lade,

Overall Priorities

- Improve access
- Improve nature conservation value
- Improve value of public open space
- Investigate opportunities for restoration/enhancement of the water environment that could improve floodplain functionality.

Proposals/Opportunities

- Carron Dam – manage and enhance as a nature reserve with a clear access strategy (e.g. creation of circular access route) and visitor facilities, improved maintenance and promotion as an educational resource. Habitat management required e.g. removal of birch scrub on fen in selective phases, management of invasive species.
- The River Carron is currently under-utilised as an open space resource. Opportunity to improve the provision of semi-natural open space provision along the River Carron and potential as a green access route.
- Carronvale – enhance as a country park with riverside/rural setting. Introduce clear access strategy for site, with potential connections to/across river for recreation. Introduce new facilities to encourage use of site as country park.
- Connectivity of the Mulgal/Cauldhame Farm 3 (FAL/B/12) site to the Lower Carron component of the green network should be improved

5.5 Avon

Description

- 5.5.1 The Avon Corridor runs from its upper catchment to the South of Cumbernauld through Slamannan to Avonbridge. From Avonbridge it forms the Council's boundary with West Lothian running in a north easterly direction where it intersects with the Union Canal at Muiravonside Park. Just to the north of Linlithgow the river turns west heading towards Grangemouth where it finally discharges into the Forth Estuary.
- 5.5.2 Access along the River Avon Corridor is virtually constant with a Core path following the river from Slamannan all the way to Grangemouth veering away from the river for only small sections.
- 5.5.3 The River Avon is close to the SRRs at Whitecross and Slamannan where it could be naturally expected that enhanced access would be provided. At Slamannan however the River Avon Corridor serves an important function in the wider Slamannan Plateau SPA and will be managed for use as Bean Goose habitat with public access excluded.

Green Network Functions

	Habitat	Access	Landscape	Climate Change	Urban Open Space
Existing Function	High	High	Low	Low	Low

- 5.5.4 **Habitat – High existing function.** At Slamannan the River Avon corridor acts as important feeding grounds for Bean Geese which are the qualifying species of the Slamannan Plateau SPA. The Avon discharges into the Firth of Forth which is an SPA. Carriker Glen to the east of Muiravonside is a SSSI. Muiravonside is a wildlife site. River Avon North and South Glen is a wildlife site. Avon Gorge is a wildlife site. Polmont Woods is a wildlife site. Avonbank/Birkhill is a SINC.
- 5.5.5 **Access/active travel/recreation – High existing function.** The River Avon Heritage Trail follows the route of the River Avon and is an important recreational resource. Muiravonside Country Park is the only Country Park within the Council area. Access to the River Avon to the west of Avonbridge is not formalised
- 5.5.6 **Landscape/regeneration – Low existing function.** The Avon corridor will serve an important function as a landscape corridor between Linlithgow and Whitecross.
- 5.5.7 **Climate Change – Low existing function.** The River Avon Corridor contains the functional flood plain of the River Avon. There are likely to be opportunities to promote upper catchment management schemes which slow the rate at which the River receives water
- 5.5.8 **Urban Open Space – Low existing function.** The River Avon corridor only really runs through the urban area at Avonbridge, Linlithgow Bridge and at

Wholeflats, Grangemouth. The corridor will form an important buffer between Linlithgow and an expanded Whitecross

Overall Priorities

- Improve/preserve value for nature conservation
- Continue to improve access along the length of the corridor
- Promote upper catchment flood management
- Improve urban setting of River at Avonbridge
- Develop robust landscape corridor between Linlithgow and an expanded Whitecross.

Proposals/Opportunities

- Maximise opportunities for a green corridor and associated public open space with diverse functions along the river as a central focus in Avonbridge through the design of and contributions from adjacent new development.
- Muiravonside - Prepare management plan to address long term opportunities for management, design and sustainability of site. Manage as a country park for nature conservation with a clear access strategy. Maximise opportunities for education and informal recreation. Maximise potential from links to the canal. Habitat management. Great Crested Newt pond needs attention and possible new pond creation opportunity.
- The Loan benefits from the national facility of Muiravonside Country Park just over 5 minutes walk from the village. Connections should to the village should be improved
- An accessible green corridor along the River Avon should be created at site AVN/B/03
- Links from the Whitecross SIRR to the River Avon should be established
- The Slamannan SIRR should enhancing foraging habitat alongside the River Avon for use by Bean Geese

5.6 Falkirk Grangemouth Corridor (Helix)

Description

- 5.6.1 The Falkirk Grangemouth comprises an area of Greenbelt lying between Falkirk, Grangemouth and Polmont between the River Carron and the River Avon. Big Lottery Funding has been secured for the creation of enhanced open space within the greenbelt comprising parkland, allotments, woodland planting and playing fields. At the northern edge of the Helix the River Carron and the Forth and Clyde Canal converge at the proposed Kelpies Sea Lock which is intended to become a major visitor attraction. The southern section of the Helix is traversed east to west by the line of the Antonine Wall and contains the Mumrills Fort scheduled ancient monument.
- 5.6.2 Bisected by the M9 which threads between Falkirk Grangemouth and Polmont, this part of the green network also includes Inchyra Grange, Little Kerse, Polmont Ski Centre and the sprawling Avondale Landfill site. It is a key node in the wider Central Scotland Green Network linking directly to the Avon and Forth Estuary parts of the Green Network and is only separated from the South Falkirk part of the green network by only the M9.

Green Network Functions

	Habitat	Access	Landscape	Climate Change	Urban Open Space
Existing Function	Medium	Medium	Medium	Medium	Low

- 5.6.3 **Habitat – Medium existing function.** The only existing designated sites within the Helix area is Westmains Pond, however there are some substantial woodland blocks which are likely to have high nature conservation value at Abottshaugh and Middlefield. The Helix project contains proposals for the creation of a central park on the site of Middlefield Wood with the intention to create a more urban parkland feel to the area, with the introduction of a hard landscaped square and buildings. The parkland creation proposals at Middlefield Wood offer considerable potential to maintain, enhance and create areas of habitat which benefit biodiversity. Polmont Woods wildlife site, Avonbank/Birkhill SINC, Avon Gorge SSSI.
- 5.6.4 **Access/active travel/recreation – Medium existing function.** Although the Helix lies close to Grangemouth, it is not particularly accessible from Grangemouth due to the virtually impermeable M9 motorway which forms its eastern boundary. To a lesser degree the same could be said from Laurieston with the barrier this time is the Laurieston bypass. Improvement of access to the Helix area from Grangemouth and Laurieston should be seen as a priority. In general the Helix proposals have the potential to greatly increase the accessibility of the area. There are currently plans to expand the recreational facilities available at Little Kerse.
- 5.6.5 **Landscape/regeneration - Medium existing function.** The Helix proposals offer great potential to enhance the landscape value of the area which acts as a key buffer between the urban areas of Falkirk. The Falkirk Stadium lies within the Helix area and acts as an important recreational hub housing a five a side pitches complex. The Falkirk Gateway strategic development

opportunity abuts the Helix area to the west and there is considerable potential for this development to improve the function of the Helix area. The Avondale Landfill site is currently operational and a large area has been safeguarded for its extension. Once the capacity of this area has been used up it is likely to undergo a comprehensive landscape restoration.

5.6.6 Climate Change – Medium existing function. Northern parts of the Helix area are part of the tidal floodplain of the Firth of Forth and River Carron. The Helix area has the potential to act as a key corridor which enables the north south species migration across the district. It is linked to the north by the Lower Carron/Carronside component of the green network and to the south by the South Falirk component of the green network via Westquarter Glen. This component of the Green network could act as a key node enabling species migration, this function is currently severely diminished as the M9 severs it.

5.6.7 Urban Open Space – Low existing function. Although the Helix is proposed to be developed as a National Open Space, the proposed Central Parkland area does not sit particularly close to any existing community. The communities of Westfield, Laurieston, Polmont, Grangemouth and Langlees all border the Helix area and there will be a need to maximise the urban open space function of those areas in close proximity to existing communities. Little Kerse is a key recreational facility for Grangemouth. Connectivity to this part of the green network from Polmont is currently limited.

Overall Priorities

- Enhance the recreational function of those areas closest to existing communities
- Recognise potential to act as a north-south species migration corridor and enhance to fulfil this role
- Improve access to Helix area from Grangemouth and Laurieston.
- Ensure the Helix proposals enhance the overall nature conservation value of the area
- Protect and enhance nature conservation value
- Secure the long term landscape regeneration of the Avondale landfill site
- Bridge the M9 to link with the Helix and Southern Braes components of the green network
- Enhance access network within this part of the green network linking Polmont, Grangemouth and Bo'ness

Proposals/Opportunities

- Develop the Falkirk Helix area as a new strategic attraction on the east side of the town.
- Improve greenspace corridor access linkages between residential Grangemouth and the Falkirk Helix project.
- Improve greenspace corridor access linkages between residential Grangemouth and Polmont woods.
- Polmont Woods – improve access to the site which is somewhat cut off from Polmont by the M9. Manage site for nature conservation and access with new facilities to support use for recreation. Habitat Management of understorey and woodland planting to support longterm future of woodland.

- Develop the Antonine Wall as a key spine of the active travel network and key linking open space between the South Bo'ness and Falkirk/Grangemouth corridor components of the green network.
- The Falkirk Gateway development should provide the Green network link between residential areas to the west and the Helix.

5.7 South Falkirk

Description

5.7.1 The South Falkirk component on the green network wraps around the south of Falkirk and the Lower Braes enveloping Shieldhill and California. It stretches from the edge of High Bonnybridge in the west to the A801 in the east.

5.7.2 It can be characterised into two distinct parts with a dividing line at the Westquarter Burn. To the west of Westquarter Burn it forms a chain of nearby open spaces to the South of Falkirk where there has been substantial woodland planting and access improvements. Spaces of note within this section of the Green Network include:

- The Falkirk Wheel;
- Roughcastle;
- St Helen's Loch;
- Tamfourhill;
- Bantaskine Estate;
- Standalane (Site of the Battle of Falkirk Muir);
- Lionthorn Community Woodland;
- Hallglen Haven;
- Westquarter Burn; and
- Callendar Park and Wood.

5.7.3 To the east of Westquarter Burn it forms a tract of mainly agricultural land wrapping around the southern edges of the communities of Shieldhill, Reddingmuirhead, Wallacestone, Rumford and Maddiston and enveloping the village of California. A future extension of this area could involve establishing a landscape buffer between the eastern edge of Polmont and the western edge of the Whitecross SIRR.

Green Network Functions

	Habitat	Access	Landscape	Climate Change	Urban Open Space
Existing Function	High	Medium	High	High	Medium

5.7.4 **Habitat – High existing function.** South Falkirk is a huge area of open space containing Howierigg Muir SSSI; parts of the Slamannan Plateau SSSI; Roughcastle, Cleuch Plantation, Westquarter Burn, Callendar Wood and Lake, Rumford West, California, Madiston West and Haining Wood Wildlife Sites and Bantaskine Estate, Wallacestone, Maddiston and Union Canal SINCE. There are also large stands woodland which are likely to have a high nature conservation value. The South Falkirk area and the Falkirk Helix Area are linked by Westquarter Glen which serves a key function in allowing wildlife to permeate the wider urban area.

5.7.5 **Access/active travel/recreation – Medium existing function.** To the west of Westquarter Burn there is an extensive and improving network of core paths throughout the South Falkirk Area. Callendar Estates have recently embarked upon a scheme to build mountain biking trails in the South Falkirk Area.

- 5.7.6 To the east of Westquarter Burn there are currently good access links between California, Shieldhill, Reddingmuirhead and Wallacestone. Accessibility within other parts of this component of the green network is limited.
- 5.7.7 **Landscape/regeneration – High existing function.** The South Falkirk area is also in part a large greenbelt which contains the growth of Falkirk in a Southerly direction. The Tamfourhill regeneration project offers the opportunity to improve the area of the Green Network along the Forth and Clyde Canal and around the Falkirk Wheel. There is intense development pressure along the A801 corridor from housing sites at Toravon and Parkhall, the SIRR at Whitecross and the SDO at Gilston. This component of the Green network can act as a landscape buffer and green infrastructure to stimulate economic investment.
- 5.7.8 **Climate Change – High existing function.** The main watercourses running through the South Falkirk area are the Westquarter, Glen Gardrum, Polmont and Manuel Burns. Neither have particularly significant flood plains but as they empty into either the Grange Burn or River Avon which both causes significant flood risk within Grangemouth there is scope for the development of upper catchment management schemes to reduce overall flood risk. The South Falkirk section of the Green Network forms an important east west link in the wider central Scotland Green Network and helps in species migration across central Scotland in reaction to climate change
- 5.7.9 **Urban Open Space – Medium existing function.** To the west of Westquarter Burn the South Falkirk area is of great importance to the communities which surround it providing a wealth of passive recreation activities. To the east of Westquarter Burn it offers considerable opportunity for recreational access and could become a valuable resource. The current agricultural use may present a stumbling block to this aspiration

Overall Priorities

- Support the development of the South Falkirk component of the green network as a recreational resource for the surrounding community
- Investigate opportunities for upper catchment management which may reduce flood risk further downstream, these opportunities may also enhance wider habitat networks
- Maintain the role of the South Falkirk component of the green network as an important east/west habitat corridor.
- Improve/preserve value for nature conservation
- Strengthen links with the Helix area through Westquarter Glen.

Proposals/Opportunities

- Produce management plans for the key attractions of Callendar Park and the Falkirk Wheel to ensure that their continued development is taken forward in a co-ordinated manner.
- Develop the potential of under-utilised areas such as Bantaskine Park
- Improve path connections through South Falkirk.
- Westerglen – this semi-natural open space running along the northeastern boundary of the Shieldhill is of good quality and 'fit for purpose'.

Improvements to quality are not a priority, although better path surfaces and access would benefit users. Priority should, however, be given to considering if improved access in combination with new park and play facilities would rectify under provision of these two typologies.

- Both Hallglen Canal Corridor and Westquarter offer green corridor and natural/ semi-natural open space facilities which are within 20 minutes walk of Shieldhill. Connections to these should be strengthened.
- Development of sites POL/B/06,07 & 14 and at Gilston should ensure delivery of an accessible green network alongside the A801
- Habitat enhancement along the Manuel Burn should be delivered as part of the development of sites POL/B/06 & 14 and at Gilston
- Development of site POL/B/05 should aim to improve the South Falkirk component of the green network in this area, connecting the Polmont Burn and Wallacestone SINC to wider countryside access

5.8 North Larbert

Description

- 5.8.1 The section of the green network is less connected and to an extent still quite conceptual. Key existing parts of this section of the network include: Torwood, Plean Country Park and the Policy Woodlands around the Forth Valley Acute Hospital; and areas of farmland and woodland which wrap around the northern edge of Larbert and the eastern edge of Stenhousemuir, Carron and Carronshore.

Green Network Functions

	Habitat	Access	Landscape	Climate Change	Urban Open Space
Existing Function	Medium	Low	Medium	Low	Low

- 5.8.2 **Habitat – Medium existing function.** RSNH/Torwood/Plean section of the green network contains the Torwood Glen, Torwood Mire, South Torwood and Wallacebank Wood wildlife sites. It also contains substantial broadleaf woodland blocks at Torwood, RSNH and Hillhouse Farm/Wood. This section of the Green Network could provide an important northwards habitat link facilitating species migration, however, the M876 forms a key barrier severing the network and constraining species migration. North Larbert/Carron/Carronshore section of this part of the green network contains a large stand of broadleaf woodland at Kinnaird House Lodge. Other than this the rest of the land within this component of the green network is agricultural.
- 5.8.3 **Access/active travel/recreation – Low existing function.** As the new Forth Valley Acute Hospital develops the access networks through the woodland will improve. There is no direct north south access link through this section of the green network, a more circuitous route between Larbert and Torwood runs westwards from RSNH across the M876 towards Denny and the Upper Carron. At Denovan it heads north towards Torwood through Torwood itself. There are no core path links heading northwards into Plean Country Park or between Torwood and North Broomage along the A9. Glenbervie Golf Course also sits within this part of the green network. Given the future expansion of Larbert to the North this component of the green network could serve a key recreational function in the future.
- 5.8.4 **Landscape/regeneration – Medium existing function.** Major developments taking place within this component of the Green network are the Forth Valley Acute Hospital. The green network around the northern fringe of the Hill of Kinnaird Housing site will need better definition so that it can act as a landscape buffer between North Larbert and the M876 and Stenhousemuir and the M9 and as a key recreational corridor.
- 5.8.5 **Climate Change – Low existing function.** The North Larbert component of the Green Network could become a key north/south corridor for the facilitation of species migration in reaction to climate change.
- 5.8.6 **Urban Open Space – Low existing function.** The space around the Forth Valley acute hospital has the potential to become extremely well used by both

residents of Larbert, and staff, patients and visitors at the hospital. Given the potential for future long term expansion of Larbert to the North and potential future expansion of Stenhousemuir to the east this component of the green network could serve a key urban open space in the future.

Overall Priorities

- Develop the recreational use of the policy woodlands around the Forth Valley acute hospital.
- Develop north south links across the M876 to enhance habitat and active travel networks.
- Develop links between Torwood and Plean Country Park

Proposals/Opportunities

- RSNH Larbert House – opportunity to enhance public access within the landscaped grounds of RSNH in connection with the masterplanning of the proposed new acute hospital site for the Forth Valley area. Proposals could include management and reinforcement of woodland, path networks and other informal countryside recreation facilities.
- Torwood benefits from the regional facility of Torwood Wood. Connections should be improved where necessary, potentially through adjacent woodland from the village, and clear signage and parking provided. Its extensive biodiversity and cultural value to the village and the region should be maximised.
- Development at McLaren Park (DUN/A/01 and TOR/A/02) sites should ensure connection to the North Larbert component of the green network.
- Development at Hill of Kinnaird should deliver an accessible landscaped urban edge to the north of Larbert.

5.9 Canals

Description

- 5.9.1 The Forth and Clyde and Union Canals are a key active travel corridors across the Council area linking various urban centres within and beyond the Council area including Linlithgow and Edinburgh along the Union Canal and Kilsyth, Kirkintilloch, Bishopbriggs and Glasgow along the Forth and Clyde canal. The two canals meet at the Falkirk Wheel which forms an important open space within the wider South Falkirk component of the Green Network.
- 5.9.2 The Forth and Clyde Canal carries on through Falkirk brushing the south side of the large Carronside open space and terminating at the proposed Kelpies Sea Lock at the northern boundary of the Helix.
- 5.9.3 The Union Canal passes through South Falkirk and Polmont intersecting with the river Avon at Muiravonside Park before carrying onwards towards Linlithgow and the East.

Green Network Functions

	Habitat	Access	Landscape	Climate Change	Urban Open Space
Existing Function	High	High	High	Medium	High

- 5.9.4 **Habitat - High existing function.** The Forth and Clyde Canal is a wildlife site along the entirety of its length within the Falkirk Council area. It passes through the Roughcastle and West Mains Pond wildlife sites, and Falkirk Gasworks SINC. The Union Canal is a site of importance for nature conservation for the entirety of its length. The Canal passes through Bantaskine Estate and Hallglen Haven SINC as well as Westquarter Burn, Almond Bing and Muiravonside Wildlife Sites. Both canals act as key east-west habitat corridors.
- 5.9.5 **Access/active travel/recreation – High existing function.** Core paths run the entire length of both canals however, the paths along sections of the Canal are in differing states of repair. Both Canals are part of the national cycle network which extends westwards towards the Glasgow and eastwards towards Edinburgh.
- 5.9.6 **Landscape/regeneration – High existing function.** The Forth and Clyde Canal runs to the south of the Banknock SIRR, to the north of the Tamfourhill regeneration area and the Falkirk Gateway and Falkirk Canal Interchange Strategic Development Opportunities. The proposed Kelpies Sea lock where the Forth and Clyde Canal empties into the River Carron is likely to provide a catalyst to wider landscape regeneration in the Helix area. The Union Canal passes to the South of the Falkirk Canal Interchange, Gilston SDO and the Whitecross SIRR. Both canals can act as green infrastructure to support investment.
- 5.9.7 **Climate Change – Medium existing function.** Both Canals have a role to play in managing flood risk. They are regulated by a complex hydrological

system which draws water from remote reservoirs and expels it in times of flood risk to other water courses. If managed correctly the Canals can help to reduce overall flood risk. As key east/west habitat corridors the canals can assist in species migration.

- 5.9.8 **Urban Open Space – High existing function.** The Union Canal is a key linear corridor through Bonnybridge, Camelon and Falkirk. The proposed Kelpies Sea lock where the Forth and Clyde Canal empties into the River Carron is likely to act as a new focus for recreation in the wider Helix area.

Overall Priorities

- Improve/preserve value for nature conservation
- Promote as key green infrastructure providing a setting for regeneration investment.
- Promote as the spine of the active travel network.
- Maintain and improve access paths along both canals.
- Exploit the potential of the canals to reduce flood risk during times of bad weather.

Proposals/Opportunities

- Forth & Clyde Canal – promote and enhance canal as a regional green corridor and linear access route to provide backbone for improved linkages of green network through settlement. Improve connections to adjacent open spaces and consider introduction of facilities, interpretation etc at intervals along the canal.
- Continue to enhance the quality and accessibility of the Forth & Clyde and Union canal corridors through new development and other enhancement projects.
- Seabegs Wood – conserve cultural history of the site and enhance interpretation/ awareness of its history. Improve access, with opportunities for links with adjacent Forth & Clyde Canal. Assess opportunity to create new entrance to site from housing estate to the east.
- Promote and enhance Union Canal as a regional green corridor and linear access route to provide backbone for improved linkages of green network through settlement. Improve connections to adjacent open spaces and consider introduction of facilities, interpretation etc at intervals along the canal.
- Development at the Etna Road 2 (FAL/A/26) site should ensure the connectivity of the Forth Clyde Canal to the new residential area.
- Replacement habitat to compensate for the loss of the Falkirk Gasworks SINC at the Etna Road 2 (FAL/A/26) site should be designed to compliment existing habitat on the Forth Clyde Canal Wildlife Site
- Development at Tamfourhill should reinforce the green finger which extends through the site along the line of the Forth Clyde Canal with the aim of enhancing its potential for use as a species migration corridor.

5.10 South Bo'ness

Description

5.10.1 Kinneil comprises the Kinneil woods and the wider Kinneil Estate as well as Kinneil Foreshore which is the site of the former Kinneil colliery. The line of the Antonine Wall runs through Kinneil Estate. Kinneil Foreshore forms one of the most important parts of the Firth of Forth component of the green network. To the South of Bo'ness the green network currently comprises Bo'mains Farm, Bo'mains Meadow SSSI and West Lothian Golf Course with an extensive access network. It then wraps around the east of Bo'ness at Muirhouses taking in Carriden Wood and linking with the forth foreshore.

Green Network Functions

	Habitat	Access	Landscape	Climate Change	Urban Open Space
Existing Function	Medium	Low	High	Medium	Medium

5.10.2 **Habitat – Medium existing function.** The Kinneil Estate, Bo'ness foreshore and Carriden Wood wildlife sites form part of this component of the green network as well as the The Bo'mains meadow SSSI. It also incorporates significant stands of woodland at Wester Flints, West Lothion Golf Course and Kinglass

5.10.3 **Access/active travel/recreation – Low existing function.** This component of the Green Network does not really form part of the active travel network as it does not lie between two destinations which people might wish to travel between

5.10.4 **Landscape/regeneration – High existing function.** This component of the Green Network forms part of the Greenbelt and provides the landscape setting to the town of Bo'ness. It is also part of an AGLV The Drum Business Park is the only development site within this part of the Green Network. The area also forms an Area of Great Landscape Value

5.10.5 **Climate Change – Medium existing function.** The Kinneil Foreshore forms part of the Firth of Forth Coastal Floodplain. There may be opportunities for managed coastal realignment.

5.10.6 **Urban Open Space – Medium existing function.** Bo'ness is very well provided for in terms of Urban Open Space however, this part of the green network offers considerable opportunity for recreational access

Overall Priorities

- Improve/preserve value for nature conservation
- Improve access network linking Carriden to Kinneil around the south of Bo'ness
- Explore long term opportunities to link this component of the green network to the Avon and Falkirk/Grangemouth Corridor components of the green network

- Explore opportunities for managed coastal realignment to reduce overall level of flood risk, improve biodiversity value and repair morphological alterations as a result of water transport (sea and coastal transport) and dredging (resulting in removal of sediment).

Proposals/Opportunities

- Kinneil Foreshore – opportunity to enhance as a Local Nature Reserve and wildlife site with improved recreational access and interpretation.
- Kinneil Estate – significant opportunities to develop visitor facilities in Kinneil Estate to make the most of the many assets of the park (e.g. Architectural interest, landscape distinctiveness and cultural history) with the appropriate habitat management of the woodland for natural heritage and biodiversity benefits. Opportunities to improve open space linkages into the estate from adjacent, urban greenspaces (e.g. Dean Glen).
- Develop the Antonine Wall as a key spine of the active travel network and key linking open space between the South Bo'ness and Falkirk/Grangemouth corridor components of the green network.
- New woodland planting and associated access should be created at site BNS/B/02 which links in with the existing access network in the South Bo'ness green network.
- The Bo'ness Foreshore SIRR should Integrate with the Forth Estuary component of the Green Network and improve access opportunities.

5.11 Bonny Water

Description

5.11.1 This component of the Green Network runs from the Bonny Water's confluence with the River Carron westwards through Bonnybridge towards Banknock and to North Lanarkshire beyond. It comprises the flood plain of the Bonny Water and is bounded to the south by the Forth and Clyde Canal.

Green Network Functions

	Habitat	Access	Landscape	Climate Change	Urban Open Space
Existing Function	Medium	Medium	Medium	High	High

5.11.2 **Habitat – Medium existing function.** This component of the green network includes Bonnyfield Local Nature Reserve; the Forth and Clyde Canal and Parkfoot Moss Wildlife Sites as well as a significant stand of woodland at Bonnywood Farm.

5.11.3 **Access/active travel/recreation – Medium existing function.** This component of the green network contains Bonnybridge golf course & the Forth and Clyde Canal is significant active travel route.

5.11.4 **Landscape/regeneration – Medium existing function.** This part of the green network forms an important landscape setting to the southern edge of Banknock SIRR and the Diageo bonded warehouse complex at Denyloanhead. It also forms a significant part of the Antonine Wall World Heritage Site buffer zone.

5.11.5 **Climate Change – High existing function.** The Bonny Water corridor is a significant fluvial floodplain. There may be scope for catchment management schemes to help reduce overall flood risk in the area. The Corridor is a key east west habitat corridor connecting into the Kelvin Valley. There is a constriction at Bonnybridge town centre which may restrict species migration.

5.11.6 **Urban Open Space – High existing function.** Bonnyfield Nature Park and the Bonny Water Corridor to the east of Bonnybridge are significant recreational resources. The Forth and Clyde Canal west of Bonnybridge is also a significant recreational resource.

Overall Priorities

- Promote catchment management schemes to reduce overall flood risk.
- Improve access to corridor from Banknock, Haggs, Longcroft, Denyloanhead and from south of the Bonny Water in Bonnybridge.
- Investigate opportunities for the expansion of Bonnyfield Nature Park westwards.
- Extend access network eastwards along the Bonny Water to its confluence with the River Carron.

Proposals/Opportunities

- Bonnywater Corridor – improve access and visitor facilities along river corridor and to wider countryside, while managing as a green corridor for nature conservation benefits.
- Bonnyfield Nature Park – manage and enhance as a nature reserve with a clear access strategy and improved visitor facilities.
- A suitably designed green corridor should be maintained through site B&B/B/04 to enable the connection of the green network to the north within the Dennyloanhead site and the Bonny Water component of the green network to the south of the site.
- A suitably designed riparian corridor should be maintained along the Bonny Water at site B&B/B/01 and consideration should be given to bridging the Bonny Water to allow pedestrian access to the Forth and Clyde Canal.
- The Doups Burn corridor through the Bankier Distillery and Cannerton Brickworks sites should be reinforced enhancing access opportunities to the Forth and Clyde Canal and Bonny Water and improving habitat connectivity.

5.12 Denny

Description

5.12.1 This component of the green network runs through and around the urban area and countryside surrounding Denny. It starts in the north at the Castlerankine Burn's confluence with the River Carron running south through a corridor of open space which adjoins Nethermain Road. After passing under the M80 the burn flows westwards then southwards towards Drumbowie Reservoir. At Drunmowie Reservoir, the green network turns to the east incorporating Little Denny Reservoir, a wide corridor of open space between Denny and Head of Muir and eventually linking to Chasefield Woods where it terminates. Cowden Wildlife site and a core path to its north also form part of this green network and connect to Banton in North Lanarkshire to the West.

Green Network Functions

	Habitat	Access	Landscape	Climate Change	Urban Open Space
Existing Function	High	Medium	Medium	Medium	Medium

5.12.2 **Habitat - High existing function.** Drumbowie Reservoir, Little Denny Reservoir and Cowden Wildlife sites sit within this part of the green network. The Castlerankine Burn sits within a broadleaf woodland valley and is likely to be of value for nature conservation. Chasefield wood to the east is the largest expanse of woodland within this part of the green network but is a conifer woodland so has lesser biodiversity value.

5.12.3 **Access/active travel/recreation - Medium existing function.** In the western part of this section of the green network access opportunities are limited. A core path runs westwards from Drumbowie towards Banton. In the eastern part of this section of the green network access opportunities are more easily found. There is an extensive network within Chasefield Wood and between Head of Muir and Denny. Chasefield Woods is connected to the River Carron via the core path network at Mydub Farm and Herbertshire Playing Fields

5.12.4 **Landscape/regeneration - Medium existing function.** A large urban expansion of Denny is planned at Mydub Farm together with the building of the Denny Eastern Access Road. The area to the north of Chasefield wood is likely to become increasingly important for recreation purposes. Landscape and Habitat proposals at Cloybank Estate near Banknock could eventually link this part of the green network to the Banknock SIRR via the Doups Burn

5.12.5 **Climate Change – Medium existing function.** Although the Castlerankine burn does not have any significant area of flood plain it does feed into the River Carron which has an extensive flood plain in its lower reaches. Upper Catchment management may be appropriate here. This component of the Green network could also act as a east west corridor for species migration linking with North Lanarkshire and the River Carron

5.12.6 **Urban Open Space – Medium existing function.** Near its confluence with the River Carron the Castlerankine burn runs through the urban area of

Denny and is a valuable recreational resource. The green wedge between Head of Muir and Denny is similarly valuable and provides an important visual buffer between the two settlements.

Overall Priorities

- Enhance habitat connectivity between Cowden, Drumbowie Reservoir, Little Denny Reservoir and the Castlerankine Burn.
- Enhance access opportunities in the western part of this component of the green network
- Develop linkages between Chasefield Wood and the River Carron
- Improve biodiversity value of Chasefield Wood
- Develop the role of the area to the north of Chasefield Woods to be used for urban recreation
- Explore opportunities for upper catchment management schemes on the Castlerankine Burn
- Maintain the green wedge between Denny and Head of Muir

Proposals/Opportunities

- Chasefield Wood - enhance the woodland as recreational and a biodiversity resource with improved facilities, focal points of interest and gateway entrance points.
- Little Denny Reservoir – improve access around the water's edge with more signage and facilities to encourage passive recreation such as walking and fishing, while managing marginal waterside habitats and woodlands for biodiversity, and consider in tandem with Drumbowie Reservoir.
- A broadleaved habitat corridor should be created at site DEN/B/03 extending a similar broadleaf habitat corridor which should be created running through sites DEN/A/02 & 08 linking with broadleaf habitat to the north of the site.
- The opportunity to connect the Denny and Upper Carron components of the green network through site DEN/B/03 should be investigated.

5.13 Carse

Description

5.13.1 Dunmore Park, Moss and Wood run in an easterly direction from the Firth of Forth and the village of Dunmore towards Cowie within Stirling. Dunmore Park is on the Inventory of Historic Gardens and Designated Landscapes and includes the Pineapple. The Tor Burn forms one of the northern boundaries of the Council area and runs eastwards from Torwod joining the Pow burn as it passes under the M9 past Letham towards Airth where it empties into the Firth of Forth. Halfway between Torwood and Airth the burn runs around the northern edge of Letham Moss which is a site where commercial peat extraction takes place.

Green Network Functions

	Habitat	Access	Landscape	Climate Change	Urban Open Space
Existing Function	High	Medium	Medium	High	Low

5.13.2 **Habitat – High existing function.** As well as forming an important riparian habitat which may contain important supporting habitat for the qualifying species of the Firth of Forth SPA, this component of the green network incorporates the Dunmore Moss and Wood Wildlife Sites Letham Moss SINC and the Pow Burn and Estuary wildlife site at its confluence with the Forth Estuary. To the south of Airth a stretch of the Pow burn has been subject to some major morphological alterations from previous industrial use. Restoration of the natural course of the river would be of benefit to biodiversity.

5.13.3 **Access/active travel/recreation - Medium existing function.** The Core Path network runs around Dunmore Park and links to the core path which runs along the Firth of Forth. No core paths follow the line of the Pow burn but there is some potential to create this link. A core path skirts to the north of Letham Moss connecting into a wider network which connects Larbert with Airth.

5.13.4 **Landscape/regeneration – Medium existing function.** Dunmore Park is on the Inventory of Historic Gardens and Designated Landscapes. The Pow Burn corridor forms an important part of the landscape setting of Airth and Letham. Although no major development is currently planned here, the integrity of this corridor should be protected.

5.13.5 **Climate Change – High existing function.** The Pow Burn has an extensive coastal and fluvial flood plain and empties into the Firth of Forth which itself has an extensive flood plain. There may be opportunities to promote upper catchment management schemes to reduce the incidence of flood risk.

5.13.6 **Urban Open Space – Low existing function.** Dunmore Park, Moss and Wood are readily accessible to residents of Dunmore however this is not a significant population. The Pow burn could become an important recreational corridor for the residents of Airth and Letham

Overall Priorities

- Establish riparian access route along the Pow Burn between Airth and Torwood
- Develop the role of the Pow burn as an urban open space serving Airth and Letham
- Promote a river restoration scheme to restore the river to its Natural Course at Waterslap.
- Explore opportunities for the long term restoration of Letham Moss once commercial peat extraction has ceased.

Proposals/Opportunities

- Development at Dunmore Park DUN/A/01 should ensure connection to the Carse component of the green network.

5.14 Upper Braes

Description

5.14.1 The Upper Braes fringe incorporates a concentration of important mosaic habitat and commercial forestry running north to south along the western boundary of the Council area with North Lanarkshire from Allandale to Limerigg. The green network extends well into North Lanarkshire towards Cumbernauld, Caldercruix and West Lothian towards Blackridge. The western fringe links into the Falkirk South, Upper Braes and River Avon parts of the green network.

Green Network Functions

	Habitat	Access	Landscape	Climate Change	Urban Open Space
Existing Function	High	Low	Low	High	Low

5.14.2 **Habitat - High existing function.** This is the largest component of the green network and contains the highest concentration of land of biodiversity and nature conservation value. It includes the Black Loch Moss SAC, the Slamannan Plateau SPA and SSSI, Blawhorn Moss, Black Loch Moss and West Fannyside Moss SSSI; Wester Drum, South Drum Moss, Blackhill Moss, Lochgreen Moss, Graystone Knowe, North Walton Burn, Garbethillmuir Moss, Easter Greenrig, Upper Avon Mires, Grangeneuk Moss, Rashiehill Mire, Balquhatstone, Shielknowes Moss, Easter Drumclair, Black Loch, Wester Whin Wildlife Sites and South Drum Claypit, Tippetcraig, Limerigg Ponds, Little Black Loch and Stoneridge SINC

5.14.3 **Access/active travel/recreation – Low existing function.** A number of core paths criss-cross this section of the green network, but none of them follow a continuous north south route. This reflects that this part of the green network has wildlife and habitats at its focus rather than people.

5.14.4 **Landscape/regeneration - Low existing function.** Limerigg sits in the middle of this part of the green network surrounded by commercial forestry. Two new development sites are proposed within Limerigg which the green network will provide a landscape setting for.

5.14.5 **Climate Change - High existing function.** This part of the green network forms an important north south corridor which will assist in enabling species migration through Central Scotland. Some tributaries of the River Avon run through this part of the green network, there is a considerable fluvial flood plain around Slamannan associated with the River Avon and these tributaries. There may be scope for some upper catchment flood management schemes to reduce overall flood risk. It also contains large concentrations of carbon rich soils.

5.14.6 **Urban Open Space – Low existing function.** This part of the green network can form an important recreational resource for the residents of Limerigg.

Overall Priorities

- Conserve and Enhance biodiversity value;
- Preserve carbon rich soils;
- Promote upper catchment flood management schemes around the Culloch and Rashieknowe burns;
- Develop the use of the green network as a recreational resource for residents of Limerigg; and
- Improve access network.

Proposals/Opportunities

- Limerigg Ponds - this settlement-level semi-natural greenspace and wildlife site is of good quality and meets 'fitness for purpose' requirements. Improvements are not a priority, but better access and signage would enhance its use.

5.15 Mid Braes

Description

5.15.1 The Upper Braes is a loose collection of designated sites and woodland running from Jawcraig in the west to Standdurn in the east. This part of the green network passes close to the northern boundary of Avonbridge incorporating the former quarry at Fogger Mountain.

Green Network Functions

	Habitat	Access	Landscape	Climate Change	Urban Open Space
Existing Function	High	Low	Low	Medium	Low

5.15.2 **Habitat - High existing function.** Darnrigg Moss SSSI; Newcraig (Auchengean), Barleyside, Standburn, Loch Ellrig and Gardrum Moss, Drumbroider, Righead, and Candie Mire Wildlife Sites

5.15.3 **Access/active travel/recreation – Low existing function.** There is a well developed access network in and around Standburn but no continuous east west route across this part of the green network. This reflects that this part of the green network has wildlife and habitats at its focus rather than people.

5.15.4 **Landscape/regeneration - Low existing function.** This part of the green network will provide a landscape setting to housing development within around Standburn which is currently being investigated through an SPG.

5.15.5 **Climate Change – Medium existing function.** No major watercourses run through this part of the green network. There is potential for this part of the network to become an important east-west habitat corridor enabling species migration.

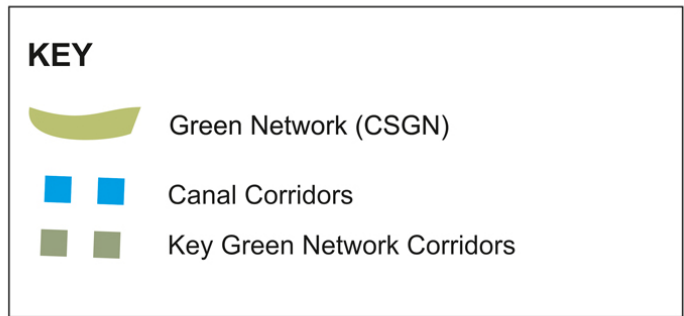
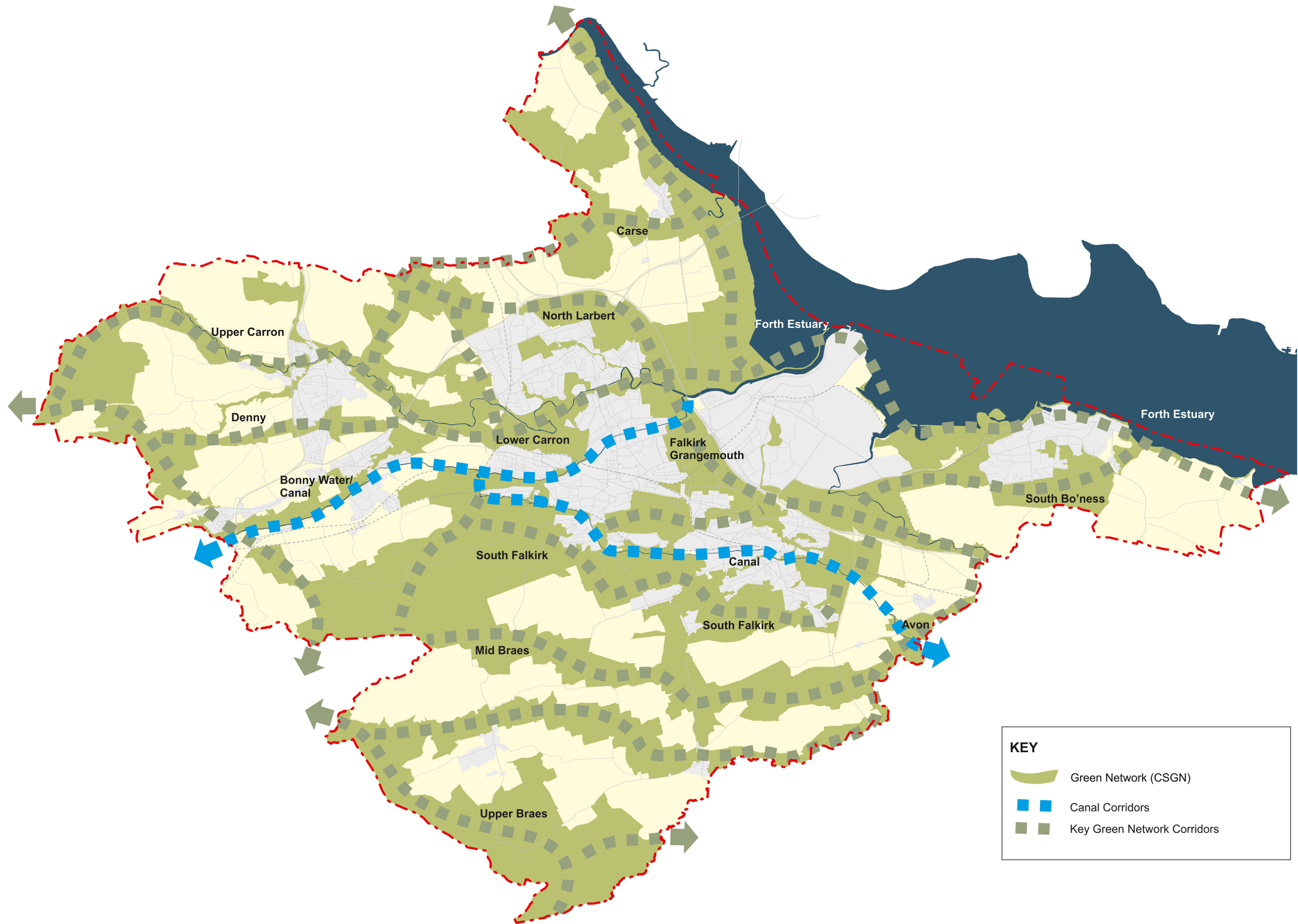
5.15.6 **Urban Open Space - Low existing function.** This part of the green network has the potential to act as an urban open space to the residents of Avonbridge through the improvement of access links to Fogger Mountain.

Overall Priorities

- Conserve and Enhance biodiversity value
- Improve links from Avonbridge to network through Fogger Mountain.
- Create and enhance east-west access links through network.
- Create link into southern braes at California
- Create link into Muiravonside

Proposals/Opportunities

- Quality improvements are not a priority for Drumbowie, but diversity of function may be desirable to address underprovision of public parks in Standburn through consultation with the community. Promoting its educational value, improving signage, extending path links to the open space to the south, and continuing to manage for diversity are recommendations.



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