



Green Infrastructure and Green Network

Draft Supplementary Guidance - January 2018

Contents

1. Introduction.....	2
2. Policy Context	3
Scottish Planning Policy	
Scottish Government's Green Infrastructure Design and Placemaking.	
Central Scotland Green Network	
East Dunbartonshire Local Development Plan	
East Dunbartonshire Green Network Strategy 2017 to 2022	
Design and Placemaking SG	
3. What is the East Dunbartonshire Green Network.....	9
East Dunbartonshire Green Network Strategy	
Benefits of the Green Network	
Proposed Changes to Local Nature Conservation Site Designations	
Local Landscape Areas	
The Green Network: Strategic and Local	
4. Green Network Opportunities Related to Development..	13
5. Delivery of Green Infrastructure and the Green Network in Development.....	15
The Role of Development Management	
Requirements for Delivery of the Green Network	
Development Management Criteria for Green Infrastructure and Green Network.	
6. Good Practice Examples of Green Infrastructure.....	22
7. Further Information	27
Appendices	
Appendix 1 - LDP Policy Objectives Met by Green Infrastructure and Green Network in Development:	
Appendix 2 - Proposed Local Nature Conservation Sites	
Appendix 3 - Special Qualities of Local Landscape Areas	
Appendix 4 - Strategic Green Network by Settlement	

1 Introduction

1.1 This Supplementary Guidance is intended to support implementation of the East Dunbartonshire Local Development Plan (LDP). The relationship between the LDP, Supplementary Guidance and Planning Guidance is established in Scottish Government Circular 6/2013, and summarised in the table below.

Document	Purpose and Scope
LDP	Sets out the Council's policies for the development and use of land, including community strategies which identify opportunities for development, for the period up to ten years from adoption.
Supplementary Guidance (SG): <ul style="list-style-type: none">• Developer Contributions,• Design and Placemaking,• Green Infrastructure and Green Network,• Frontiers of the Roman Empire (Antonine Wall) World Heritage Site	<p>SG is statutory as it forms part of the development plan, and has that status for decision making. It is limited to the provision of further information or detail in respect of policies or proposals set out in the LDP.</p> <p>SG will be adopted with the LDP and lasts for the period of the Plan.</p>
Planning Guidance	<p>Non-statutory planning guidance may be used to provide detail on a range of subject areas. This form of guidance should not be termed SG and will not form part of the development plan.</p> <p>However, adoption of this guidance by the Council gives it formal status, meaning that it may be a material consideration in decision making. Planning guidance can be updated as required and without the need for scrutiny by Scottish Ministers. Such updates are normally required where a specific issue arises during the period of the Plan.</p>

2 Policy Context

- 2.1 The objective of creating a high quality, multifunctional green network runs through national, strategic and local planning policy and is fundamental to delivery of the placemaking agenda. Individual decisions on planning applications should therefore: protect, enhance, and extend it.

Scottish Planning Policy

- 2.2 Scottish Government's Scottish Planning Policy has principal policies on Sustainable Development and Placemaking and a subject policy on maximising the benefits of green infrastructure in development and defines this and the green network, see box.

Green Infrastructure includes:

The 'green' and 'blue' (water environment) features of the natural and built environments that can provide benefits without being connected. Green features include parks, woodlands, trees, play spaces, allotments, community growing spaces, outdoor sports facilities, churchyards and cemeteries, swales, hedges, verges and gardens. Blue features include rivers, lochs, wetlands, canals, other water courses, ponds, coastal and marine areas including beaches, porous paving and sustainable urban drainage systems.

Green Network is:

Connected areas of green infrastructure and open space that together form an integrated multi-functional network.

Scottish Government's Green Infrastructure Design and Placemaking.

- 2.3 Further information on the functions of green infrastructure and how to consider it during site appraisal and masterplanning is found in this document. It identifies that green infrastructure can be provided at a range of scales of development and that there are different types of green infrastructure which will be increasingly used instead of hard infrastructure, see table below. It also provides examples of green infrastructure and how this contributes to placemaking.



Rain Garden SUDS

Table 1: Types of Green Infrastructure that Can be Used at Different Scales of Development

Building Scale
green roof
hedges / living walls
Gardens or grounds
SUDS including rainwater harvesting system, permeable driveways
Street/ Connections Scale
paths/ cycle routes
habitat links, including watercourses
street trees and other planting
SUDS including verges, swales, rain gardens, porous paving (incorporating water storage under the street)
Neighbourhood Scale
multi-functional open space
play space
community growing space
cemeteries
SUDS pond
landscape framework and structural landscaping
area for natural flood risk alleviation
Strategic Green Network habitat and/ or access links
locally important designed landscapes

Figure 7: From Grey to Green Infrastructure (Source: Scottish Government's Green Infrastructure Design and Placemaking.)



Central Scotland Green Network

- 2.4 The Central Scotland Green Network (CSGN) is a National Development as identified in National Planning Framework 3 and recognises the value of designing the Green Network into development, to deliver a high quality landscape structure which supports development plan ambitions for settlement growth, infrastructure and economic development. Its delivery must be considered in development management decision making.

CSGN Vision

Our vision for Central Scotland is that: 'By 2050, Central Scotland has been transformed into a place where the environment adds value to the economy and where people's lives are enriched by its quality'.

- 2.5 The CSGN is Europe's largest greenspace initiative which has the aim of changing the face of Central Scotland by restoring and improving the rural and urban landscape of the area. East Dunbartonshire Council has signed up to the CSGN's Local Authority Concordat, which recognises its commitment to formally help deliver the CSGN vision and highlights the fundamental role local authorities have to play in helping to achieve the network's aims, as well as the opportunities the CSGN has to offer.
- 2.6 The Green Network's inclusion in the Glasgow and Clyde Valley Strategic Development Plan 2 (SDP) (2017), emphasises the key role a high quality, multi-functional Green Network must play in the future success of the Metropolitan Glasgow area.

- 2.7 The Council is a member of the Glasgow and Clyde Valley Green Network Partnership along with Scottish Natural Heritage, SEPA, the Glasgow Centre for Population Health, Forestry Commission Scotland, Scottish Enterprise and Clydeplan. This partnership published a Green Network Strategy for the Glasgow City Region in 2017, which sets the strategic context for this guidance. This identifies the benefits of the Green Network, what and how it will be delivered, potential funding sources and organisations and individuals who need to be involved. Securing delivery of the Green Network as an integral part of planning proposals is likely to be an increasingly important delivery mechanism.

Green Network Strategy for the Glasgow City Region

The idea of a Green Network was conceived in the Glasgow City Region more than ten years ago when it was recognised that improving the environmental quality of the region would support the region's economic competitiveness, and the health and wellbeing of the region's people. The Green Network would link urban and rural areas and be transformational in terms of its vision, scale and commitment to action.

- 2.8 The Strategy describes the agreed ambition for managing flooding and the priority of actions to be taken forward to deliver this. There is also a Local Flood Risk Management Plan for the local authorities within each district. The local plan provides additional detail on the local responsibility, funding and coordination of actions. Taken together, these documents are the single point of reference for the public in describing the response and commitment of public bodies to address flooding.

East Dunbartonshire Local Development Plan

- 2.9 The Local Development Plan includes principal policies which apply to all types of developments, in particular Policy 2 Design and Placemaking and Policy 5 Green Infrastructure and Green Network, and a range of other subject policies, in particular Policy 7 Community Facilities and Open Space and Policy 8 Protecting and Enhancing Landscape Character and Nature Conservation. The protection, enhancement and provision of green infrastructure and Green Network in development helps meet a range of policy objectives from the Local Development Plan, see Appendix 1.



Greening in new residential areas

- Families live in attractive places which are resilient to climate change
- Children and young people have outdoor spaces to play in and explore
- Walking and cycling provide a healthy transport choice to local amenities

1. Wildflowers
2. Greenspace with natural play
3. Porous surface
4. Rain garden
5. Street trees
6. Rainwater butt

- 2.10 Supplementary Guidance on Design and Placemaking; and Developer Contributions; and Guidance on the Natural Environment also supports these policies and provides further local and detailed information of relevance.

East Dunbartonshire Green Network Strategy 2017 to 2022

- 2.11 This sets a local ambition, aims and objectives for Green Network and the local policy context. It identifies and maps the local and strategic Green Network, opportunities and actions and has sections on partnership working and funding. This Supplementary Guidance sets out how developers are expected to take account of and respond to the Strategy when developing their own site-specific proposals.

Design and Placemaking SG

- 2.12 This Guidance provides information on how to incorporate green infrastructure into development. It encourages the creation of high quality places through a design led approach, and provides an overview of the planning application design process.

- 2.13 The section on what to consider in a site appraisal encourages identification of characteristics and opportunities of a proposal early, looking at a site's context, identity and connections. Key issues for consideration at site level of particular relevance to green infrastructure include: topography, hydrology and drainage, microclimate, wider green networks (habitat and access), landscape character, open spaces existing biodiversity, and walking/ cycling access. The Guidance contains a section on how to make it easy to move around a development , on foot or by bike. It also contains a section on how to protect and enhance the natural environment, including requirements for provision of open space, and deliver this using green infrastructure.



Green Roof



Woodland creation and management

- Carbon sequestration and a source of materials and products for industry
- Biodiverse habitats supporting our wildlife to thrive
- Accessible quality greenspace where people enjoy better health and wellbeing

1. Naturally engineered riverbank
2. New woodland planting
3. Viewing platform
4. Woodland and other habitat management
5. Outdoor recreation
6. Active travel route

3 What is the East Dunbartonshire Green Network

East Dunbartonshire Green Network Strategy

- 3.1 East Dunbartonshire's natural environment is at the heart of what makes it a special place to live, work and visit. The majestic Campsie Fells, the lowland river valleys, pockets of native woodland and the numerous parks, open spaces, green spaces and paths within and around settlements all help define East Dunbartonshire as the place it is today. Together they form a valuable and essential Green Network which contributes to and enhances quality of place, and the prosperity and wellbeing of the area's residents, workers and visitors.
- 3.2 In East Dunbartonshire the term Green Network encompasses both land and water. It encompasses open space and natural/semi-natural habitats and the paths and habitat corridors that connect them. It creates connections for wildlife which allow for the movement of species through the landscape and urban areas. The Green Network is also a resource of open space and paths for residents, workers and visitors to use for recreation and active travel.

- 3.3 The Green Network as it currently exists in East Dunbartonshire can be thought of as having a series of key components consisting of nodes of open space, geological features and habitat such as parks, Sites of Special Scientific Interest, Local Nature Reserves and Local Nature Conservation Sites connected by linkages and access routes such as core paths, rights of way and linear stretches of habitat corridors including watercourses, hedgerows or vegetated road and rail verges. The components that together make up the Green Network are shown in Figure 1 below.



Benefits of the Green Network

3.4 The Strategy states that the Green Network when of high quality and well connected can provide a number of benefits to both people and nature. Investing in our Green Network will ensure we receive these benefits now and in the future.

- Improving the quality of our surroundings by providing high quality places making East Dunbartonshire a more desirable place to live, visit and do business.
- Improving our physical and mental health and wellbeing by encouraging more people to increase their activity levels through improving access to attractive and enjoyable natural spaces which provide opportunities for active travel, play, outdoor sport and recreation, relaxation and reflection.
- Helping us to adapt to and mitigate climate change through natural flood alleviation, carbon sequestration and creating habitat connections to enable wildlife to migrate.
- Enhancing biodiversity by creating and improving habitats for wildlife.
- Supporting sustainable economic growth by providing an attractive setting for investment and a landscape framework for communities and businesses to grow.
- Providing inspirational places for outdoor volunteering, education and training.
- Providing an environment for community growing and local food production.

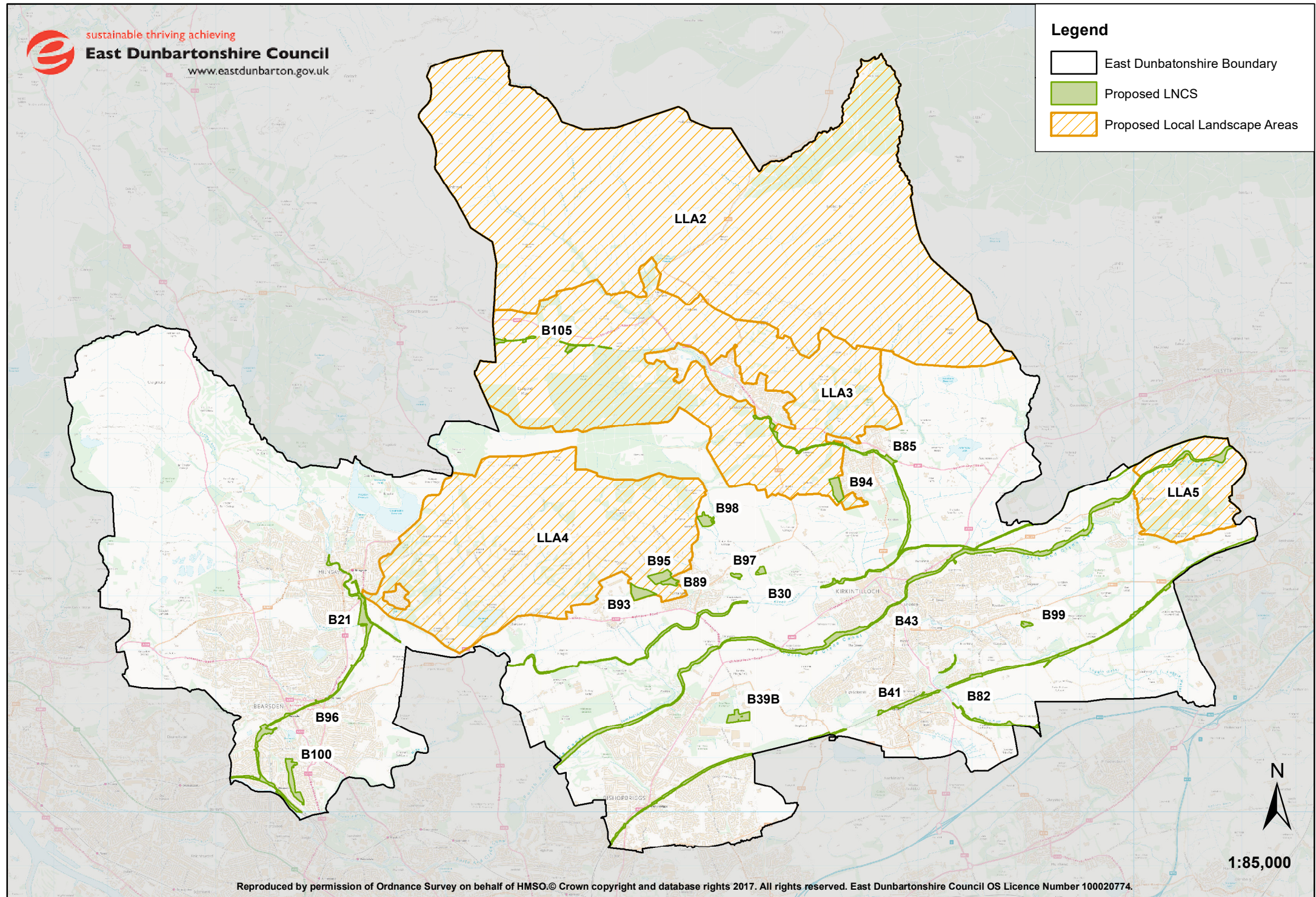
Proposed Changes to Local Nature Conservation Site (LNCS) Designations

3.5 LDP Policy 8 encourages development to conserve and enhance LNCS. A review of wildlife corridors in the area in 2015 and 2017 identified eighteen sites which are of high ecological value and therefore merit designation as LNCS. These proposed LNCS are included in the Green Network Strategy, and are shown in Figure 2 and listed in Appendix 2 of this Guidance. Further information on the habitats and notable species of these proposed LNCS is set out in the Natural Environment Guidance.



Glazert Water Proposed LNCS

Figure 2 - Proposed Local Nature Conservation Sites and Proposed Local Landscape Area Boundaries



Local Landscape Areas

- 3.6 There are four existing and one proposed Local Landscape Area. These areas are designated for their special landscape value. While not forming part of the Green Network, the Network does overlap these areas, in particular the Strategic Green Network assets of the Campsie Fells, Kilpatrick Hills and Bar Hill and Strategic Green Network links along the Glazert Valley. A review of the statement of importance and boundaries of the Local Landscape Areas (except the Kilpatrick Hills which was reviewed as part of the preparation of the LDP) was carried out in 2016. This review also concluded that the Badenheath area does not have special qualities which justify its designation and that Bar Hill has special qualities which justify its designation as a Local Landscape Area. The proposed changes to the boundaries of these areas are shown on Figure 2 and a summary of the special qualities for each area is set out in Appendix 3. A full statement of importance for each of the areas is included in the Guidance for the Natural Environment. The amended and new Local Landscape Area boundaries are therefore a material consideration for planning applications.



Bar Hill and Forth & Clyde Canal (Top) & Glazert Valley

The Green Network: Strategic and Local

- 3.7 The Green Network components can also be split into Strategic and Local elements depending on their location and size. The Green Network does not stop at the Council boundary and those elements of the Green Network that are cross boundary, link settlement areas within East Dunbartonshire or are of a size and scale to attract visitors from throughout the council area and beyond are identified as part of the Strategic Green Network. This strategic network is integral to the area's heritage and identity. It consists of larger areas of greenspace, mostly within the rural environment, and cross boundary access links and habitat corridors, see appendix 4 below.
- 3.8 The Developer Contributions SG states that major developments are required to contribute to Strategic Green Network within 2km of their site, which is within cycling distance. This is dependent on whether there is a project programmed for the relevant Strategic Green Network Area to which a contribution can be made. There are different Strategic Green Network assets or links within 2km of each of the settlements in the area, see Figures 3,4,5 and 6 and Appendix 4.
- 3.9 The Local Green Network is located mainly within the urban environment and consists of the open space and path networks that people use when making local journeys or in their everyday lives for activities such as play, sports, recreation and relaxation. These spaces and connections are important to people that live or work near them. These spaces also provide habitat for wildlife, including protected species, creating better places for people and nature. They also provide opportunities for climate change mitigation and adaptation, such as shelter, shading and sustainable drainage systems.
- 3.10 Some Green Network components are of importance on both the strategic and local scale. Figures 3,4,5 and 6 shows the Green Network within each of the four community areas in East Dunbartonshire.

4 Green Network Opportunities Related to Development

- 4.1 The LDP Community Strategy Sections identify Green Network opportunities on the following proposed housing and business sites, see table 3 below. These include opportunities for development to enhance grassland, woodland and wetland habitat, poor quality open space and access to open space. Any masterplans or site briefs for these sites should also inform planning applications by setting out more detailed site specific considerations and requirements for green infrastructure and opportunities to enhance the Green Network. Green Network opportunities will predominantly be delivered on the development site with some improvements to the wider Green Network, as discussed in Developer Contributions above.



Integration of Natural SUDS Pond, Biodiversity & Path

Table 2 Green Network Opportunities for Development Sites

Settlement	LDP Proposal Reference	Location
Bearsden	6.1	Bearsden Golf Course
	6.4	Castlehill Farm
Bishopbriggs	6.19	Former Cadder Sewage Works at Jellyhill, Meadowburn West Phase Two, Balmuirdy Road North and Jellyhill Nursery
	6.20	Crofthead (Bishopbriggs) Housing Site
	13.17	Westerhill Business and Employment Development Site, Phase 5 Bishopbriggs Relief Road (BRR) and Cadder Yard and High Moss Local Nature Conservation Sites (LNCS)
Kirkintilloch	13.19	Badenheath
	13.23	Kirkintilloch Gateway
	13.29	Southbank Business and Employment Site (Kirkintilloch)
	13.31	Tom Johnston House/Whitegates Industrial Estate (Kirkintilloch) Business and Employment Site
	6.33	Braes O'Yetts (Kirkintilloch) Housing Site

	6.34	Broomhill Hospital (Kirkintilloch) Housing Site
	6.35	Chryston Road
	6.37	Cleddens Playing Field
	6.38	Duntiblae
	6.39	Fauldhead (Kirkintilloch) Housing Site
Lennoxton	6.52	Campsie Golf Club Housing Development Site
	6.56	Lennox Castle Hospital
	6.58	Lennoxlea (Lennoxton) Housing Site
Lenzie	6.36	Claddens South (Lenzie) Housing Site
Milngavie	6.5	Craigton Road/ Clober Golf Course (Milngavie) Housing Site
	6.12	Kilmardinny (Milngavie) Mixed Use Development Site
Torrance		Main Street (Torrance) Housing Development Site
Twechar	6.31	Barhill Lodge & 1 Glen Shirva Road
	6.41	Glen Shirva Road, Main Street
	6.45	MacDonald Crescent Housing Site

Figure 3 - Green Network and Opportunities from Development in Bearsden and Milngavie

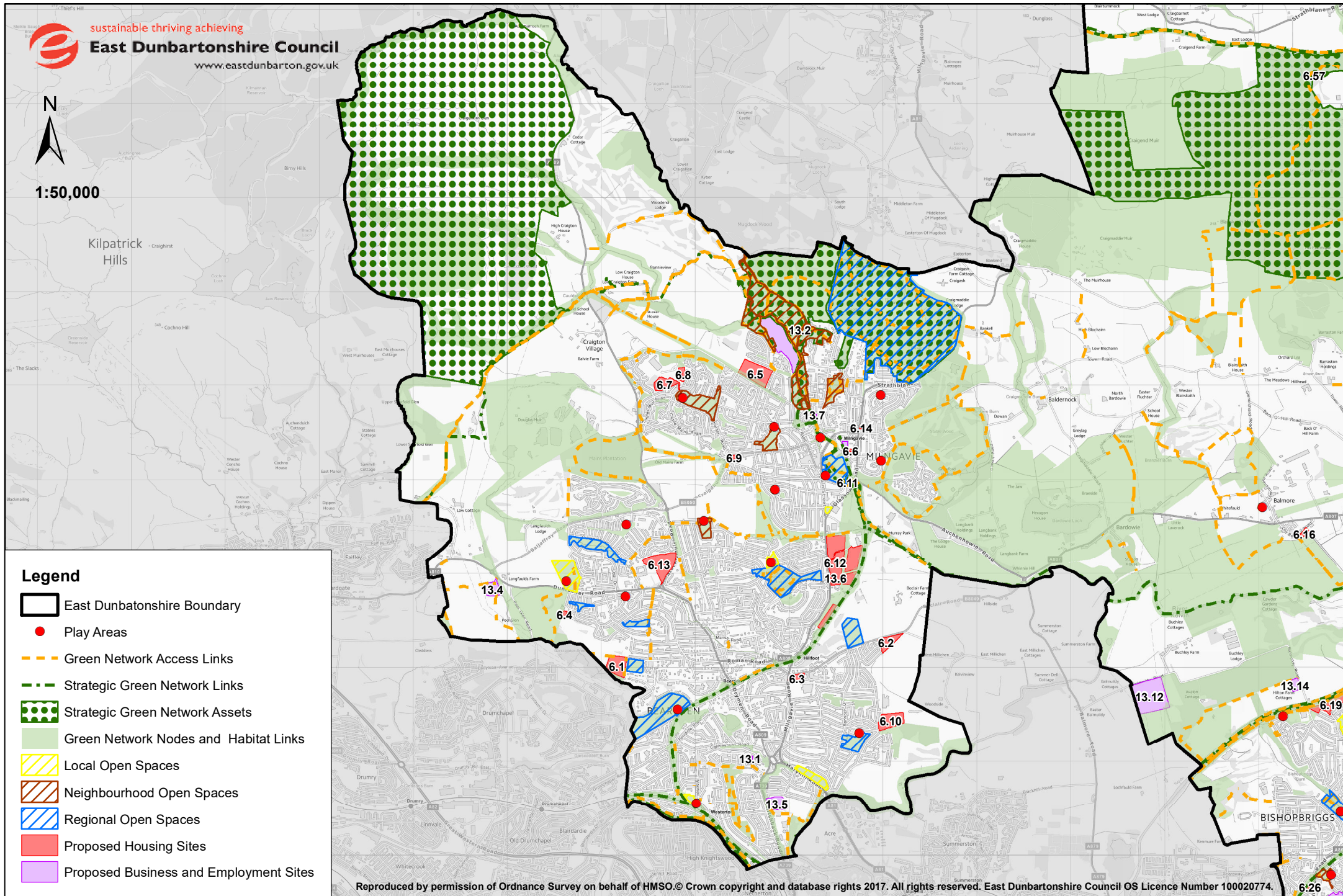


Figure 4 - Green Network and Opportunities from Development in Bishopbriggs, Torrance, Balmore and Bardowie

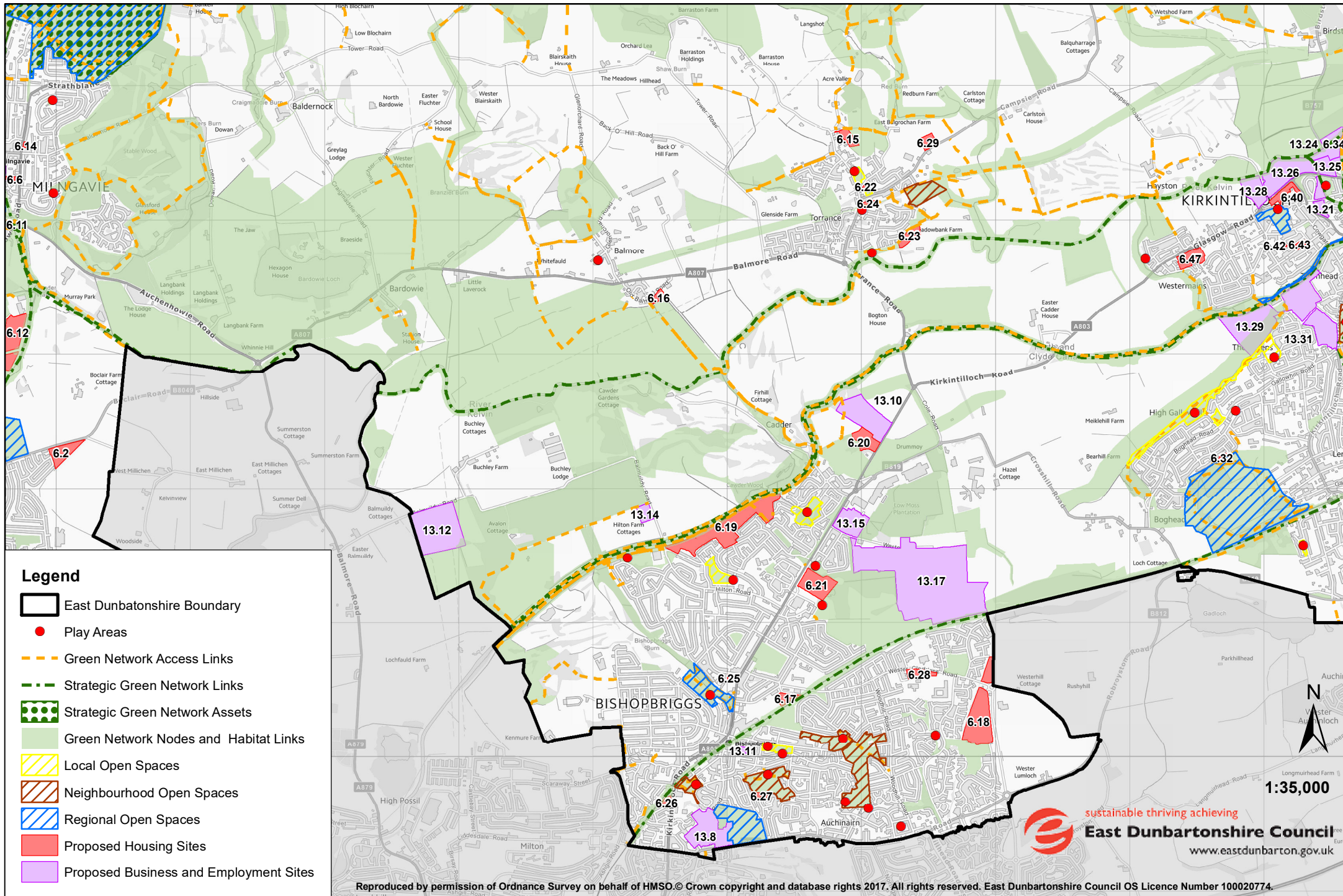


Figure 5 - Green Network and Opportunities from Development in Kirkintilloch, Lenzie, Waterside and Twechar

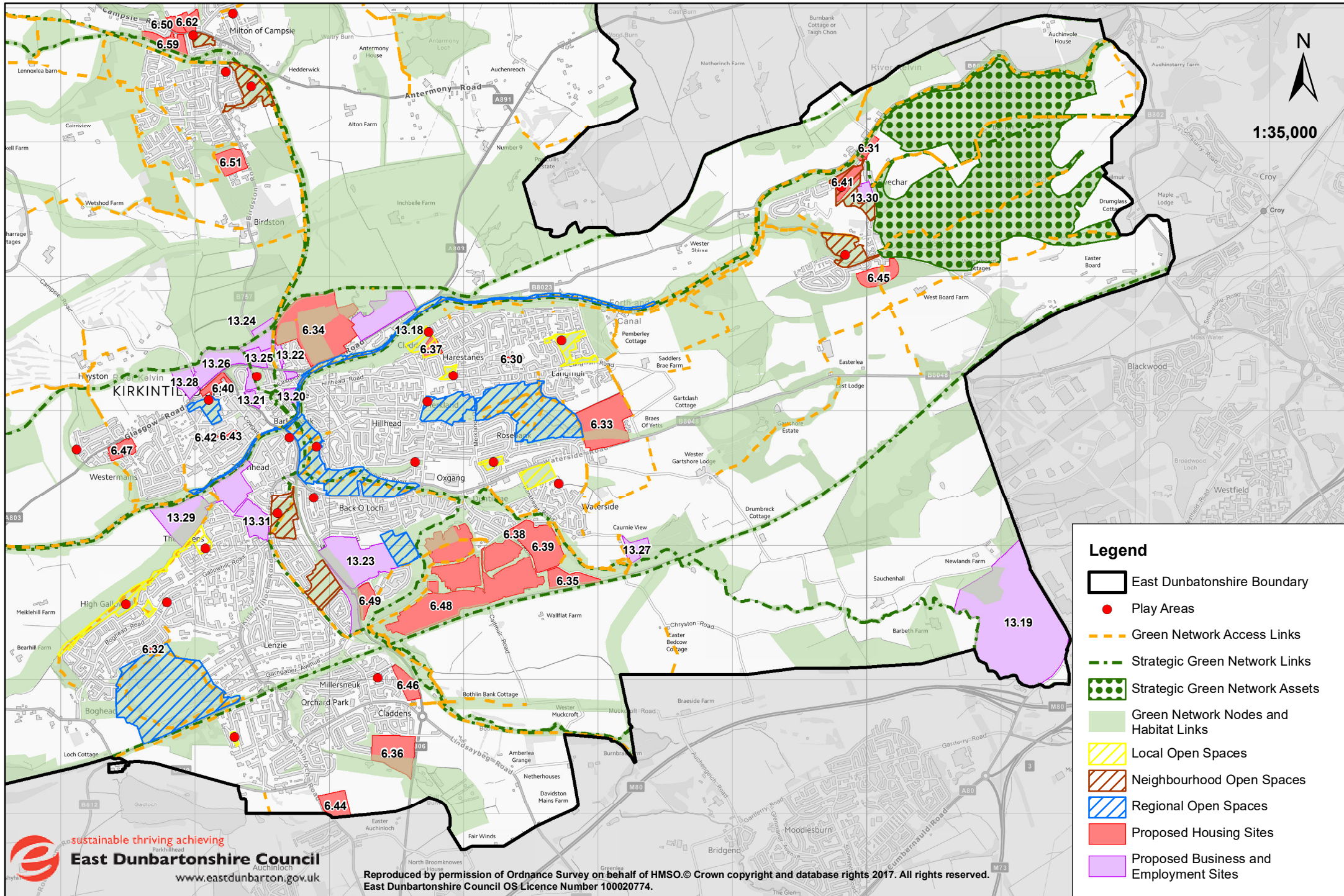
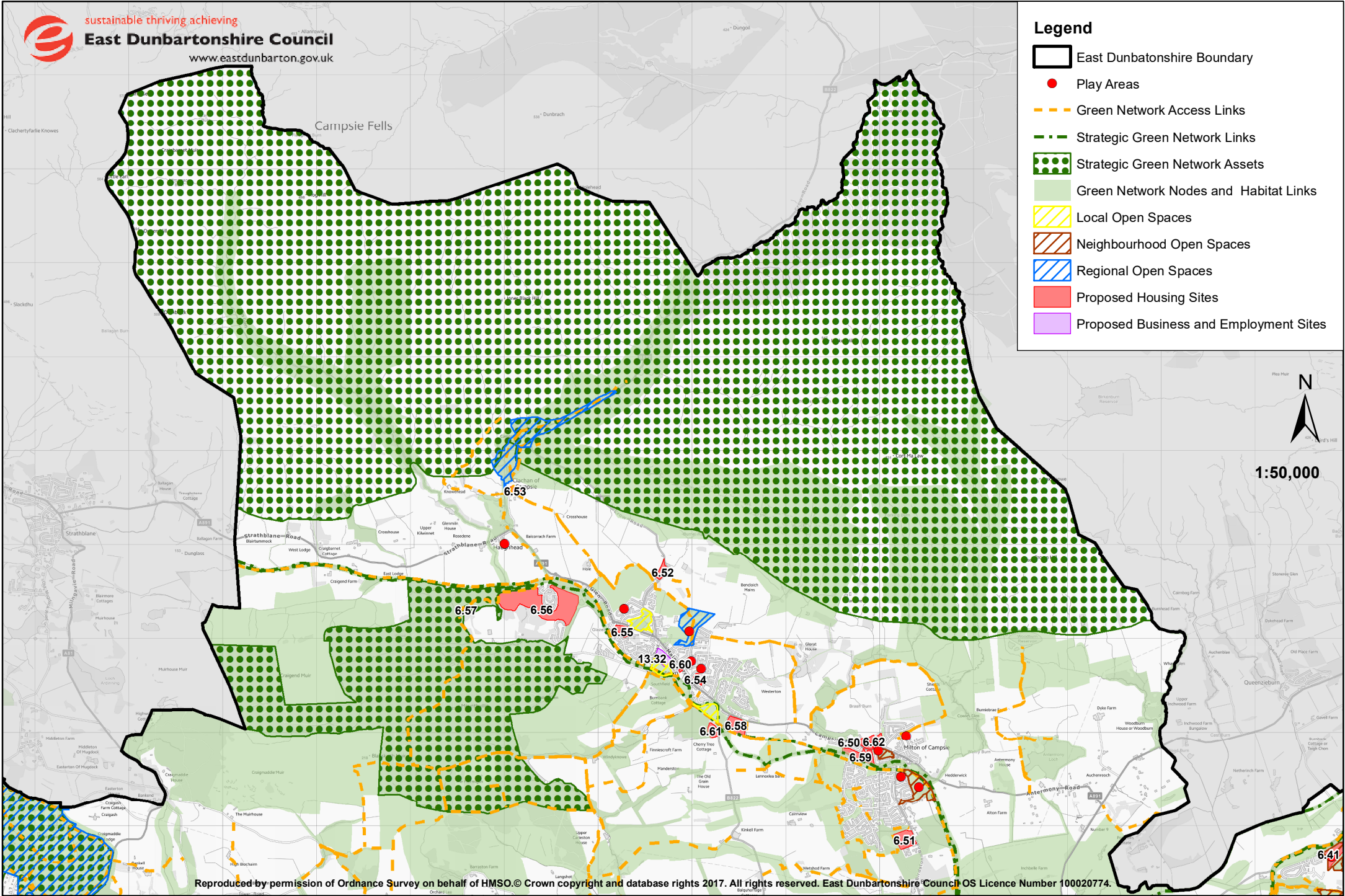


Figure 6 - Green Network and Opportunities from Development in Lennoxtown, Milton of Campsie, Clachan of Campsie and Haughhead



5 Delivery of Green Infrastructure and the Green Network in Development

The Role of Development Management

- 5.1 The planning system is one of the most important means of delivering the Green Network. It can ensure that development respects, enhances and expands the existing Green Network. It can help ensure that the right kinds of green infrastructure is created in the right place, and that the widest possible range of benefits results. Quality green infrastructure has the potential to improve and enhance most developments and it should be a key consideration under any topic area. Development management delivers Green Infrastructure and the Green Network by: promoting, safeguarding and enhancing these and promoting a multifunctional resource.

- 5.2 Development proposals will promote, safeguard and enhance the Green Infrastructure and Green Network resource as a key contributor to placemaking and the enhancement of local distinctiveness. Green infrastructure in all its forms has a key role to play in reinforcing the character and quality of urban and rural landscapes. It can relate an individual site to its environmental context and help emphasise key habitats and access links. Placemaking is central to enhancing the environmental and economic quality of East Dunbartonshire, and perceptions of the area among investors, potential employees and visitors. This requires that Green infrastructure and the Green Network is considered and integrated from the outset. Short-term and temporary greening of future development sites can be as important as longer term solutions. The planning system therefore has a key role to play in delivering the placemaking agenda.

- 5.3 Development proposals will promote the development of multi-functional Green Infrastructure and Green Networks. Including multi functional green infrastructure which delivers multiple benefits is an efficient use of land. Sustainable Drainage Systems (SUDS), for example, can be designed to provide a range of recreational opportunity, landscape and biodiversity benefits in addition to their primary purpose of flood management. Equally, the creation of new local green infrastructure can help promote community involvement, active travel, healthier lifestyles and biodiversity. This in turn provides new opportunities for local people to become involved in volunteering, training initiatives and ultimately, employment.



Natural SUDS Pond

Requirements for Delivery of the Green Network

- 5.4 Development proposals are required to take account of the following principles through the planning application process.
- 5.5 **The Green Network will be integrated into the design process for all developments from the outset**, based on discussion with stakeholders. A wide range of scales of development present an opportunity to deliver the Green Network. Green Infrastructure and Green Network design elements will be considered from the outset as an equal and integral part of the development design process. This is better than addressing these issues once other elements of the scheme have become 'fixed'.
- 5.6 **Planning for the Green Network must be based on an understanding of place, character, local assets, need and opportunities**, informed by site context appraisal and spatial analysis. Development proposals will consider the green network context beyond the boundary of the development site. This will help to create a more coordinated and joined up Green Network. Geographic Information System (GIS) information on the Green Network (access and habitat) is available to contribute to the assessment of a development proposal, on the LDP interactive map, see following link www.eastdunbarton.gov.uk/LDP

This information will inform site based appraisals, assessments and surveys.

- 5.7 Development proposals which would result in the loss or fragmentation of existing Green Network components will be resisted. Applicants will be expected to undertake ecological surveys and appraisal in line with CIEEM guidelines prior to submitting a planning application. Where surveys identify that development is likely to affect the Green Network or Green Infrastructure a full Ecological Impact Assessment should be undertaken in line with CIEEM guidelines. East Dunbartonshire has good Green Network connectivity but there is considerable scope for the Network to be enhanced and strengthened. The design of new development has an important role to play ensuring that it contributes to the quality of the Network and enhances access and habitat links, while preventing any loss or fragmentation of the Network

- 5.8 **The quality and function of green infrastructure and green network and how it will be sustained and maintained in the long term will be considered from the outset.** The Green Network can deliver a range of benefits including opportunities for recreation, play and active travel, habitat connectivity and climate change adaptation and mitigation. However, without careful consideration being given not only to the design, but equally importantly the future management and maintenance of green infrastructure at the outset, the range of benefits will reduce quickly over time. Many of the problems associated with the quality of existing green infrastructure including open spaces reflect the lack of initial consideration given to funding and management mechanisms for effective long term management of green infrastructure.

Development Management Criteria for Green Infrastructure and Green Network.

- 5.9 Under Policy 5 Green Infrastructure and Green Network all development proposals will include high quality and multi-functional green infrastructure and to protect and enhance the Green Network. Householder development is however exempt from this. Proposals will demonstrate how the Green Network and green infrastructure have been considered from the earliest stages of the developers design. This process should be set out in a Design and Access Statement, particularly for housing proposals of more than five units or other major applications.
- 5.10 Detailed criteria to ensure a development proposal delivers high quality green infrastructure and the protection and enhancement of the Green Network are set out in Table 3. A planning application submission is required to address these criteria.



Street Trees and Natural Swale SUDS

Table 3 - Development Management Criteria for Green Infrastructure and Green Network.

Planning Applications are required to demonstrate that the proposed development protects, enhances and creates green infrastructure and the Green Network by
Placemaking
a) Identifying the extent and location of the Green Network on the development site, adjacent to it and in the wider area, using the defined Green Network shown on the LDP interactive map, available at www.eastdunbarton.gov.uk/LDP together with site survey findings in line with the Natural Environment Guidance
b) Identify and work with existing green infrastructure assets. Understand and respond to their characteristics and landscape, ecological and place value and seek to integrate within the design of development. The priority is to retain and improve existing green infrastructure. In exceptional circumstances high quality on and off site replacement of green infrastructure will compensate for any green infrastructure lost or reduced as a result of the development.
c) Using green infrastructure with biodiverse soft landscaping in buildings, streets and open spaces to green the built up area and enhance people's quality of life. The use of plants in urban areas has a number of benefits they: screen unsightly views, act as green lungs which mitigate air pollution, buffer from noise, improve microclimate and contribute to climate change adaption for the development by providing shelter, summer shading/ cooling.
Biodiversity
d) Protect, enhance and expand existing Green Network habitat features, networks or links, with a buffer zone appropriate to the habitat type. In particular for priority habitats and species identified in the Local Biodiversity Action Plan. Use native species in landscaping as these are biodiversity rich. See further information in Guidance on Natural Environment, in particular sections on Site Appraisal and Ecological Surveys and Enhancing Biodiversity.
e) Providing biodiversity rich green infrastructure. At least 15 to 20% of a site to be on site biodiversity rich green infrastructure, linking to the surrounding Green Network. The Guidance on the Natural Environment provides information on how to enhance biodiversity in development, including a table with examples of how to enhance biodiversity in different types of development.

- f) Delivery of Green Network opportunities for enhancement of habitats identified in the LDP Community Strategy Sections: woodland, wetland and/or grassland and create new habitat features in and linked to the Green Network

Promoting, Health & Physical Activity

- g) Protect and link to existing access links to the wider Green Network, see the Green Network Map on the LDP interactive map, see following link
www.eastdunbarton.gov.uk/LDP
Ensure path links in development to multifunctional open space on and off site are improved or created, for all users. Entrances to the Green Network in development should be welcoming, designed to allow access for all and views into it, through careful consideration of sight lines and framing of views. They should be positioned to maximise accessibility of the development, and wider area, to the Green Network.

- h) Delivery of Green Network opportunities for enhancement of open space or access to it identified in the LDP Community Strategy Sections

- i) Provides useable multifunctional open space to meet the needs of the development, in line with open space requirements for quantity, accessibility and quality, set out in Design and Placemaking SG. Where open space cannot be provided on site there is further guidance on off-site provision in the Developer Contributions SG.

- j) Integrate formal sports and play areas into the Green Network to maximise opportunities for associated informal play and recreation and to encourage active travel. Play provision in development should meet the standards in the Fields in Trust 's publication, Guidance for Outdoor Sport and Play(Scotland).

Sustainable Drainage

- k) Integrate naturalised and biodiverse SUDS into the landscape framework for the site and wider Green Network. Ponds and wetlands will respond to site topography and scale to enhance landscape character. SUDS features will be designed to provide safe access and amenity value and have additional biodiversity and amenity value. Consider how a development can accommodate water with a hierarchical approach to SUDS

- l) Ensure the Green Network is able to contribute to future changes and expansion for climate change adaptation. Integrate areas with potential for natural flood alleviation into the landscape framework.

Maintenance & Management

- m) The design and specification of proposals should respond to the form and function of the space. Resource-efficient proposals are encouraged, including well-designed and specified planting proposals which require less intensive maintenance, such as meadows rather than mown grass.
- n) Provide a landscape and management plan detailing management and maintenance requirements for green infrastructure and green network on or adjacent to the site, to facilitate ongoing site management. This should detail the resourcing and long term stewardship.

6 Good Practice Examples of Green Infrastructure

- 6.1 These include planning permissions for development which protect and enhance or create green infrastructure, including a natural SUDS scheme, enhancement of an existing burn and wet grassland or manage significant/ TPO trees during construction.

Creation of Natural SUDS - Kessington

- 6.2 A housing development for 59 units at Kessington, Bearsden was approved in March 2016. This development provided a natural wetland sustainable drainage system (Suds) in the green belt adjacent to the site. This provides natural flood alleviation, creates recreational open space, enhances the setting of the development and wider settlement, as houses face onto it, and creates an enhanced footpath link into the adjacent Templehill Woods Local Nature Conservation Site (LNCS).



Templehill Woods LNCS, Kessington



Area for Natural SUDS, Kessington

Landscape Framework - Kilmardinny

- 6.3 A landscape masterplan was provided as part of the outline planning permission for the development. The key aspects of the masterplan include:
- a green open space in the middle of the network with play areas
 - landscape buffer to the habitat corridor of the Milngavie to Glasgow railway line Local Nature Conservation Site to the east and Craigdhu Burn to the north.
 - Retention of exiting mature trees
 - Links to the open space to the north.
 - The site is being developed in a phased way by a number of different developers. The Council site of 29 houses has been designed to front the A81 and access road into the development.



Avenue of Trees, Kilmardinny

- 6.4 A very good example of tree protection during construction on a major application for 62 detached and terraced dwellings on the former Bearsden Bus garage site, Bearsden (approval of matters specified in conditions application). This forms part of the Kilmardinny Master Plan. In partnership with Envirocentre, site agent and Council officers worked closely together to prevent damage to trees to be retained as part of development proposals. The retained trees have been afforded the right protection during construction works. This has been challenging due mainly to the installation of utility services. However on the majority of occasions a solution has been found that suits all parties.



Hawthorn

Enhancement of Burn and Wet Grassland Habitat - Braes of Yetts

- 6.5 A proposed development of 123 houses at Braes of Yetts, Kirkintilloch had its Approval of Matters Specified in Conditions granted subject to conditions in March 2017. Further information provided included an ecological report, a habitat management plan and an otter and vole survey.

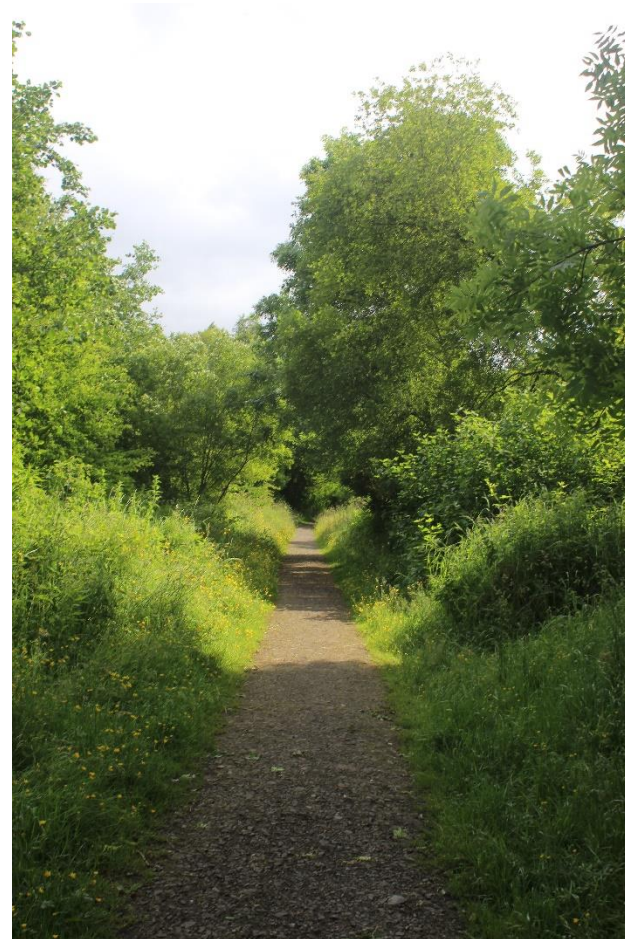


Grassland and Woodland Habitat at Merkland Local Nature Reserve

6.6 The design will conserve and enhance the natural habitats of wet grassland, road side hedgerow and a burn adjacent to the Merkland Local Nature Reserve, which form part of the countryside setting of Kirkintilloch. As part of the development locally suitable grassland, scrub and trees will be planted to provide a new green belt boundary to the east, including native species. The Black Burn will be maintained and enhance in a wildlife corridor of locally suitable grassland, scrub and trees through the housing area, with a ledge in the design of a culvert to allow mammal passage along the burn. In addition the proposal will locate SUDS and play areas adjacent to the grassland area and create a footpath connection link across the northern boundary of the wet grassland which will also link the Local Nature Reserve to a core path in the open countryside to the east.



Peacock Butterfly



Path and Trees at Merkland Local Nature Reserve

Management of Significant Trees During Construction - Greenhead Road

6.7 In Greenhead Road Bearsden planning permission was granted subject to conditions in August 2016 to demolish the existing bungalow and build two new properties within the site. An amendment to this was also granted to include an extension and car parking, granted subject to conditions in February 2017. This is a small scale development and appropriate tree protection measures are in place to protect trees which are subject to a TPO. The conditions required a pre start meeting prior to commencement of construction activities with site agent and arboricultural consultant and Council Officers to discuss: the position of tree protection barriers around retained trees, roles and responsibilities of each party during construction activities on site. The reason for these conditions is to ensure that the applicant complies fully with the necessary tree protection measures. This has been found to be an important way of communicating responsibility for tree protection to contractors and ensuring that it takes place.

6.8 Another condition requires that prior to work commencing on site an arboricultural method statement should be submitted, relating to construction activities within the root protection area of the protected trees on the site. The reason for this is to ensure that the root protection area of the trees is protected during the construction period.



Tree Protection Barrier

7 Further Information

The following documents provide further information:

East Dunbartonshire Council

- Local Information on Greenspace including:
East Dunbartonshire Open Space Strategy 2015
- Local Development Plan 2017
- Planning Guidance including:
Design and Placemaking SG, March 2017;
Developer Contributions SG, September 2017; and
Natural Environment Guidance 2017.
- Draft Pitches Strategy 2016
- Flooding and Drainage Development Guidance
- Green Network Strategy 2017 to 2022
- Local Strategies on Transport including:
Active Travel Strategy, 2015
Core Path Plan,
Local Transport Strategy, 2013

Other Local

- Clyde and Loch Lomond Flood Risk Management Strategy
- Glasgow and Clyde Valley Green Network Partnership
- Glasgow and Clyde Valley Strategic Development Plan 2, Approved 2017

Scottish Government

- Getting the Best from Our Land - A Land Use Strategy for Scotland
- Green Infrastructure: Design and Placemaking Guidance, 2011
- Let's Get Scotland Walking: The National Walking Strategy, 2014
- Planning Advice Note 65: Planning and Open Space
- Play Strategy for Scotland: Our Action Plan, 2013
- Reaching Higher, Scotland's National Strategy for Sport, 2007
- Scottish Planning Policy

Other National

- Association of Local Government Ecologists, 2011, Biodiversity Planning Toolkit
- British Standard on biodiversity management (BS 42020)
- Central Scotland Green Network
- Fields in Trust 2016, Guidance for Outdoor Sport and Play
- SEPA 2010, Planning advice on Sustainable Drainage Systems (SuDS)
- Scottish Natural Heritage 2014, Urban Green Infrastructure Benefits Factsheet
- Scottish Natural Heritage Information on Green Networks
- Susdrain Information on Sustainable Drainage

Contact

Planning applications should be submitted using the online portal
ePlanning.scot

More information can be found at:

www.eastdunbarton.gov.uk/residents/planning/planning-applications and

www.eplanning.scot/ePlanningClient/

The Development Management Team can also be contacted by email and telephone for pre-application advice:

Email: planning@eastdunbarton.gov.uk

Tel: 0300 1234510

Appendix 1 - LDP Policy Objectives Met by Green Infrastructure and Green Network in Development

Objective	LDP Policy
Design process and site appraisal consider the natural and built environment on site and in the wider context: landscape, biodiversity, water environment, open space, walking and cycling	Policies: 2 Design and Placemaking; 5 Green Infrastructure and Green Network; 7 Community Facilities and Open Space; 8 Protecting and Enhancing Landscape Character and Nature Conservation; 9 Enhancing the Water Environment & Managing Flood Risk; 10 Valuing the Historic Environment
Sustainable Communities	
Design has a positive impact on the character, function and amenity of the surrounding area, integrating with the built form and setting of the settlement and protecting and enhancing the natural environment	Policies: 3 – Supporting Regeneration & Protection of the Green Belt, 2,5,8
Provides linkages to walking, cycling routes and open spaces that contribute to active travel and healthy outdoor recreation	Policies: 2,4,5,7
Contribute to a safe and welcoming environment	Policies: 14 Tourism, 2,9
Promote healthy active and inclusive lifestyles, through protecting and providing open space	Policies: 2,3,5,7,8

Mitigating and Adapting to Climate Change	
Includes sustainable materials and design. In particular provide energy and heat-efficient buildings which make the best use of passive solar gain, shelter and sustainable drainage systems.	Policies: 1,2,5,8
Management of flood risk and provision of Sustainable Drainage Systems	Policies: 2,5,7,9
Biodiversity & Natural Features	
Safeguard and enhance natural environment features that contribute to the heritage, character and local distinctiveness of the area.	Policies: 5,7,8,9,10,14
Sustainable Economy	
Safeguard the character, landscape setting and identity of towns and villages	Policies: 3,5,8,9,10,14
Include advanced landscaping of development sites as part of green infrastructure	Policy 5
Remediation of vacant and derelict land, which could include temporary greening of those which are development sites.	Policies: 1,3,5
Protection and management of woodland	Policies: 5,7,8

Appendix 2 - Proposed Local Nature Conservation Site (LNCS)

(Further information is available in Natural Environment Guidance, Annex F, Table C)

Name of Site	Location	LNCS Reference Number
Allander Water	Milngavie	B21
Bargeny Hill	Torrance	B93
Bishopbriggs to Croy Mainline Railway Corridor	East Dunbartonshire	B41
Bothlin Burn	Lenzie	B82
Cairnhill Woods	Bearsden	B100
Carlston Farm Wetlands	Torrance	B97
East Balgrochan Farm	Torrance	B98
Forth and Clyde Canal	East Dunbartonshire	B43
Glasgow to Milngavie Railway Corridor	East Dunbartonshire	B96
Glazert Water	Lennoxtown, Milton of Campsie	B85
Low Moss (Extension)	Bishopbriggs	B39B
Pow Burn	Clachan of Campsie	B105
Redmoss Grasslands South	Milton of Campsie	B94
River Kelvin	East Dunbartonshire	B30
Tower Farm/ Tower Burn	Torrance	B89
Waterside Moss	Kirkintilloch	B99
West Balgrochan Grassland	Torrance	B95

Appendix 3 - Special Qualities of Local Landscape Areas

Local Landscape Area	Special Qualities (For Further Explanation of the Special Qualities of the Area, See Annex E of the Natural Environment PG - Statements of Importance).
Kilpatrick Hills (LLA1) <i>Note: Boundary Identified in Local Development Plan</i>	Strong sense of remoteness, wildness and open horizons; distinctive landforms; and a unique diversity of views
Campsie Fells (LLA2)	Distinctive landform of the Campsie Fault; striking views and diversity of landscape experience
Glazert Valley (LLA3)	Distinctive broad valley landform; contrasting views in relation to elevation; and a diverse range of land uses and recreational opportunities
Bardowie, Baldernock and Torrance (LLA4)	Unique drumlin landform; variety of views; a high standard of land management and recreational opportunities
Bar Hill (LLA5)	Distinctive rounded landform; dramatic views; and a diverse range of landscape and historical features

Appendix 4 - Strategic Green Network by Settlement

Settlement	Component	Areas
Baltimore	Strategic Access Links	Allander Way, Kelvn Way, Forth and Clyde Canal towpath, Strathkelvin Railway Path/ Thomas Muir Way
	Strategic Habitat Links	Allander Water, Forth and Clyde Canal, River Kelvin
Bardowie	Strategic Access Links	Allander Way, Kelvn Way. West Highland Way is also nearby
	Strategic Habitat Links	Allander Water, River Kelvin. Milngavie to Glasgow Railway corridor is also neaby
Bearsden	Strategic Access Links	Allander Way, Kevin Way, Forth and Clyde Canal towpath, West Highland Way and Clyde Coastal Path are nearby
	Strategic Habitat Links	Allander Water, Forth and Clyde Canal, River Kelvin, Milngavie to Glasgow Railway corridor
Bishopbriggs	Strategic Access Links	Forth and Clyde Canal towpath, Strathkelvin Railway Path/ Thomas Muir Way
	Strategic Habitat Links	Bishopbriggs to Croy Railway corridor, Forth and Clyde Canal. River Kelvin is nearby
Clachan of Campsie/ Haughhead	Strategic Green Network Assets	Campsie Fells, Lennox Forest
	Strategic Access Links	John Muir Way, Strathkelvin Railway Path/ Thomas Muir Way
	Strategic Habitat Links	Pow Burn and Glazert Water
Kirkintilloch	Strategic Access Links	Forth and Clyde Canal towpath, John Muir Way, Strathkelvin Railway Path/ Thomas Muir Way
	Strategic Habitat Links	Bishopbriggs to Croy Railway corridor, Forth and Clyde Canal, Luggie Water, Pow Burn and Glazert Water, River Kelvin
Lennoxtown	Strategic Green Network Assets	Campsie Fells, Lennox Forest
	Strategic Access Links	John Muir Way, Strathkelvin Railway Path/ Thomas Muir Way
	Strategic Habitat Links	Pow Burn and Glazert Water, River Kelvin

Lenzie	Strategic Access Links	Forth and Clyde Canal towpath, John Muir Way, Strathkelvin Railway Path/ Thomas Muir Way
	Strategic Habitat Links	Bishopbriggs to Croy Railway corridor, Forth and Clyde Canal, Luggie Water, River Kelvin
Milngavie	Strategic Green Network Assets	Kilpatrick Hills, Lennox Forest, Milngavie Reservoirs, and Mugdock Country Park
	Strategic Access Links	Allander Way, Clyde Coastal Path, Forth and Clyde Canal towpath, and West Highland Way
	Strategic Habitat Links	Allander Water. Forth and Clyde Canal, River Kelvin, Milngavie to Glasgow Railway corridor
Milton of Campsie	Strategic Green Network Assets	Campsie Fells
	Strategic Access Links	John Muir Way, Strathkelvin Railway Path/ Thomas Muir Way. Forth and Clyde Canal towpath is nearby
	Strategic Habitat Links	Pow Burn and Glazert Water, River Kelvin. Forth and Clyde Canal and Luggie Water are nearby.
Torrance	Strategic Green Network Assets	Lennox Forest
	Strategic Access Links	Forth and Clyde Canal towpath, Strathkelvin Railway Path/ Thomas Muir Way
	Strategic Habitat Links	Forth and Clyde Canal, River Kelvin
Twechar	Strategic Green Network Assets	Bar Hill
	Strategic Access Links	Forth and Clyde Canal towpath, John Muir Way
	Strategic Habitat Links	Forth and Clyde Canal, Pow Burn and Glazert Water, River Kelvin. Luggie Water is nearby.