East Lothian Council

local development plan 2018

green network strategy

supplementary
planning guidance

Adopted by East Lothian Council on

26/02/2019

Note: All mapping is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office @ Crown copyright 2019. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. OS Licence 100023381

East Lothian Council Green Network Strategy
Supplementary Planning Guidance

Produced in support of the policies of the East Lothian Local Development Plan 2018

Table of Contents

Introduction 4
Central Scotland Green Network 5
South East Scotland Plan (SESPlan) 7
East Lothian Local Development Plan (LDP) 8
East Lothian Green Network Strategy 9
East Lothian Green Network Themes and Objectives 9
A place for growth 10
A place in balance 12
A place to feel good 15
A place to belong 17
A place for nature: 19
Delivery - Green Network Priority Areas and Action Plan 21
Western sector – Musselburgh/Tranent/Blindwells 26
Musselburgh outdoors 28
Meadowmill/Cockenzie/Blindwells 32
Urban 34
Countryside 35
Coast 37
Nature Network 39
Design Guidance for Developers 51
Implementation and Monitoring 53
Glossary of Terms and Abbreviations 54
Abbreviations 54
Terms 54
REFERENCES 55
Appendix 1 56
List of Recreation Destinations 56
Appendix 2 58
Delivering B-Lines; guiding principles 58
Appendix 3 – Biodiversity Site Interests 60
Appendix 4 – East Lothian Geodiversity Audit 73

Introduction

This supplementary planning guidance consists of the Green Network strategy which is aspirational and long term. The second section consists of the Action Plan. This sets out how the strategy will be implemented. The third section is Guidance for developers. This shows how the proposals will be expected to make provision for the Green Network.

The East Lothian Plan 2017-27 and the East Lothian Council Plan work towards the same objective: to achieve an even more prosperous, safe and sustainable East Lothian, with a dynamic and thriving economy that enables our people and communities to flourish. The overarching objective of the Council Plan is to "reduce inequalities within and across our communities". Green Network strengthening can help achieve this and help meet the objectives of these plans.

East Lothian is experiencing significant housing growth, which brings challenges, including pressures on existing natural recreational assets, the transport network and biodiversity. The Green Network Strategy will be crucial in delivering a modern East Lothian that retains its current environmental qualities.

> "*When we try to pick out anything by itself, we find it hitched to everything else in the Universe*" John Muir

Green Networks are all about connecting people to nature, landscape, geodiversity and each other; improving the human habitat; and doing things on a human scale. Connectivity is what makes the Green Network greater than the sum of its parts. Nature thrives best in an ecologically connected landscape. People are healthier when they are connected to nature and to each other. Businesses can be more efficient when connected to communities, employees, customers, suppliers and each other.

To be successful the Green Network must be multifunctional providing multiple benefits. A park, for example, is of limited use if there is no path to it, the park is more interesting if it contains a pond, and if the park is also on the edge of a wood that connects to other greenspace then it starts to become a much more interesting place.

The natural environment provides ecosystem services of huge value. This includes largely unseen services such as crop pollination; purification of air, water and soil; mitigation of flood and drought. It also includes more obvious services such as attractive settings for towns and villages, natural areas for recreation or even space to grow your own food. Diversity of these ecosystems is important to allow them to adapt to changing climate and other challenges.

Central Scotland Green Network

Green Network features are extremely important for human well-being and for the natural processes that support our way of life. So much so that the Central Scotland Green Network is identified as a National Development in the National Planning Framework.

East Lothian lies within the Central Scotland Green Network (CSGN) area. The CSGN seeks a step change to the landscape of Central Scotland. Its vision is that:

> 'By 2050, Central Scotland has been transformed into the place where the environment adds value to the economy and where people's lives are enriched by its quality'.

It has five themes to provide direction to deliver its vision:

- **A place for growth** – *making an attractive green environment for business growth.*
- **A place in balance** – *adapting to and mitigating climate change*
- **A place to feel good** – *active travel, recreation and healthy living*
- **A place to belong** – *increasing community spirit and activities*
- **A place for nature** – *conserving biodiversity and landscape*

These themes have been developed within this SPG to be taken forward at an East Lothian level.

To be successful the CSGN identifies ten principles that need to be respected to help deliver successful green networks. We expect these to be addressed in any scheme developed within East Lothian. Further information on how to assess these can be found in the Design Guidance for Developers section.

Grounded in nature

Green network should take account of local geography, landscape and ecology, building on important natural assets

At Scale

Working across the whole of the area

Life enhancing

Creating usable and actively enjoyable space

Connected

Providing social and physical links to join communities and green spaces together

Beyond Carbon Neutral

The green network should not depend on fossil fuels in the way it is developed, delivered and used and should increase carbon capture

Functional and resilient

Make the function of any part of the green network clear and adaptable to change

Regenerative

Identifying where there has been significant environmental damage close to where people live

Harnessing the potential of development

Work with developers to deliver well-designed development which protects and improves the local environment

Adding value

Working with, supporting and strengthening local initiatives and strategies. Connecting across administrative boundaries, filling in gaps and tackling barriers

Locally distinctive and respectful of the past

Communities should be at the heart of planning and decision making in developing assets important to the local area

South East Scotland Plan (SESPlan)

SESPlan is the strategic development plan for Lothian, Scottish Borders and south Fife.

The proposed SESPlan 2 identifies a cross boundary Green Network priority area between Edinburgh, Midlothian and East Lothian (extract below).

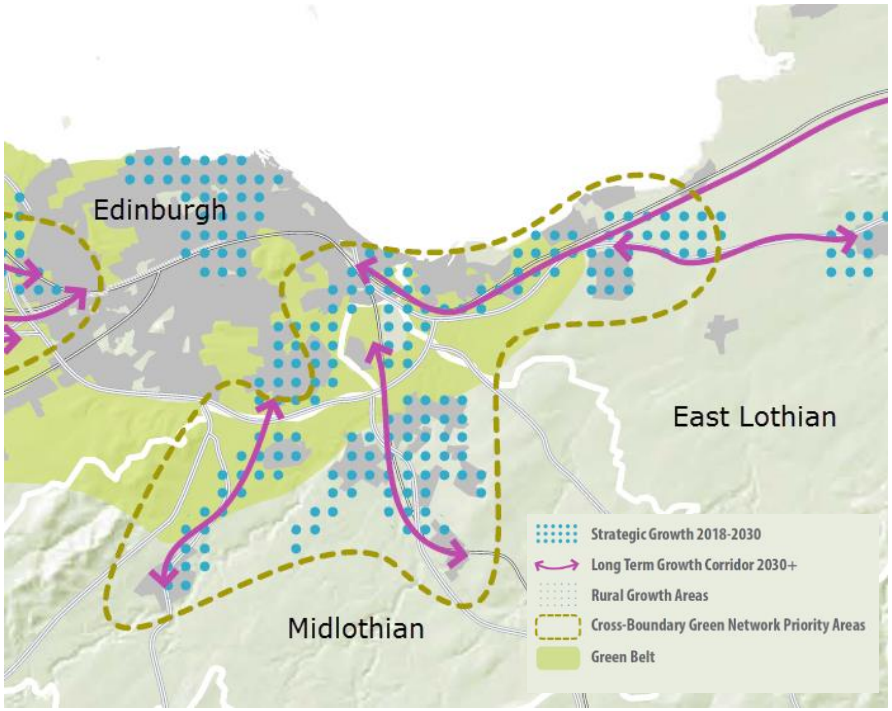


Figure 1 Extract from SESPlan 2 Figure 3.1

SESPlan identifies nine Green Network themes, linked to those of the CSGN and denoted by a symbol used throughout this document.

SESPlan defines the Green Network as "*connected areas of green and blue space within and around our towns and cities, linking out into the wider countryside, which underpin the region's quality of life and sense of place and provides the setting within which high quality, sustainable growth can occur".*

The following SESPlan strategic priorities are relevant to East Lothian and will be supported through this SPG:

A. Safeguarding strategic green corridors along the River Esk and improving recreational walking and cycling access along the rivers;

B. Woodland creation and structural planting in appropriate locations e.g. structural planting and landscape improvements along major transport corridors;

C. Addressing gaps in habitat networks, based around core areas, "stepping stones" and functional corridors, focusing initially on the designated historic Gardens and Designed Landscapes including Newhailes, Carberry Tower and part of Dalkeith House grounds within in East Lothian and exploring the potential for expanding the CSGN Habitats Network pilot mapping exercise (currently underway) into this area;

D. Creating and protecting a strategic multi-functional green corridor running from Holyrood Park to Dalkeith and Musselburgh, via Little France. This corridor is an essential element of the landscape setting of the city as well as providing for important active travel and habitat connections. Implementation of regional walking and cycling routes including A1/A199 Strategic Functional Route, River Esk Path, and Musselburgh-Penicuik in East Lothian.

East Lothian Local Development Plan (LDP)

The main policy on the Green Network in the East Lothian Local Development Plan is Policy DC10.

Local Development Plan Policy DC10: Green Networks

"All relevant development must make provision for the Green Network in accordance with the relevant Development Brief and the Council's Green Network Strategy supplementary planning guidance once adopted. This will include the provision of off-site Green Network measures where identified in the Green Network Strategy, and where relevant as set out in a Development Brief. Where loss or reduction in quality to any element of the Green Network is required to facilitate development, alternative provision to the satisfaction of the Council must be provided."

The benefits that can be offered by the Green Network are noted throughout the LDP.

East Lothian Green Network Strategy

The Green Network in East Lothian is strategic and long term aiming to expand from the strong existing base of green assets. It extends across the whole of East Lothian within and between settlements, into the countryside and along the coast. It links with Green Networks in the neighbouring areas of Edinburgh, Midlothian and the Scottish Borders.

> "The Green Network in East Lothian aims to build a connected environment for people and nature, helping East Lothian become more prosperous and sustainable and reducing the impact of inequalities between people in East Lothian"

Existing green assets in East Lothian include protected natural heritage sites, active travel routes, beaches, parks and woodlands. Pockets of urban green space, school grounds and private gardens can also be valuable. Even buildings can be part of green infrastructure, for example ivy on the side of a building can be a roost for bats, while the use of natural materials can give bees or lichens a home.

The Green Network has a strong role in achieving the Council Plan 2017-22's overarching objective is to reduce inequalities within and across our communities. The areas of highest deprivation in East Lothian are mapped on figures 2 and 3. Green Network improvements are particularly important here.

The Council will support and encourage enhancements to the Green Network throughout the area. However, this supplementary planning guidance focuses on several priority areas seen as of particular importance due to development pressures. These priority areas include existing components which should be safeguarded and enhanced, and new components which should be created and integrated with the existing network.

The Green Network is multifunctional and this means that aspects of it are relevant for, and will be delivered by, many other Council strategies.

The main plans and strategies which will help deliver the Green Network are:

- The East Lothian Partnership's East Lothian Plan 2017-27
- East Lothian Local Housing Strategy 2018-23
- Flood Risk Management Plans and Strategies
- East Lothian Local Transport Strategy
- Active Travel Improvement Plan
- East Lothian Open Space Strategy
- East Lothian Design Standards for New Housing Areas Supplementary Planning Guidance
- East Lothian Biodiversity Action Plan (for future development)
- Allotment and Food Growing Strategy (in preparation)
- Physical Activity Strategy
- Town Centre Strategies
- Shoreline Management Plan
- Climate Change Strategy (in preparation)

East Lothian Green Network Themes and Objectives

The themes and objectives of the East Lothian Green Network relate to the CGSN and SESPlan themes, taking into account the priorities of the LDP and other East Lothian strategies and plans. As Green Network features are multifunctional some 'actions' e.g. improving active travel, appear in more than one theme.

The following pages show how the CSGN themes will be implemented in East Lothian through local objectives with links to the relevant SESPlan themes (shown as symbols) and how the objectives will be delivered on the ground.

A place for growth

Making an attractive green environment for business growth

Attracting Inward Investment

Improving vacant and derelict land

The Green Network supports the East Lothian Economic Development Strategy and the 2017-22 Council Plan theme "Growing our Economy".

East Lothian's environment has many features that are appealing to business; its countryside is attractive; its town centres historic; its coast full of opportunities for outdoor recreation. It also benefits from being close to Edinburgh.

There are also challenges. Whilst there have been significant improvements in public transport some areas still have limited provision, and there are high levels of out-commuting by particularly by car to jobs in Edinburgh. Some of the sectors in which East Lothian is strong, for example tourism and agriculture, can also be low-paid.

A strong Green Network will help business by improving the attractiveness of the area, supporting tourism and helping attract and retain business. It helps employee retention by offering opportunities for a good work / life balance and providing attractive places to spend their working days. Improving active travel connections will also help employees and customers access businesses, and help keep the workforce healthier.

Our spectacular coast and countryside are a draw for sustainable tourism including wildlife, cycling and coastal tourism. There are opportunities to enhance tourism however the benefits should be realised in a sustainable manner.

The Economic Development Strategy Objectives

- To be the best connected place in Scotland to set up and grow an innovative business
- To be Scotland's leading coastal, leisure and food and drink destination
- To explore and develop regional opportunities to support economic development and to encourage study, work, investment and spend in East Lothian
- To provide high quality employment pathways for East Lothian's workforce
- To become Scotland's most sustainable and digitally-connected local economy

What we would like to see	How we aim to do this
That the Green Network support the objectives of the Economic Development Strategy	1. **Landscapes** are a key contributor to attracting business, and improving the work/life balance of employees. Landscapes should be protected and conserved in line with Supplementary Planning Guidance on Special Landscape Areas, and Countryside
	2. Create attractive **employment sites.** Landscaping should be multifunctional and include outdoor 'oasis' sites for workers to use at lunch and breaks with seating, shelter and shade. There should be multifunctional connected active travel routes for commuters and links to short circular walks to encourage lunchtime activity
	3. **Vacant and derelict sites** can negatively affect the character and appearance of an area. These sites often develop some habitat value while they are awaiting re-development. This can be augmented cheaply without preventing future use by, for example, spreading wildflower seeds of local origin to both improve their appearance and to reinforce local biodiversity character whilst avoiding the introduction of species not local to the area
	4. **Implement the Active Travel Improvement Plan.** This plan is key to improve functional active travel links to employment, retail and leisure sites, as well as Queen Margaret University and other education sites, in East Lothian, and to adjacent local authority areas. Active travel routes where possible should be multifunctional
	5. Support **good practice in farming** to increase benefits to the natural environment from farming for example well managed hedgerows and pockets of woodland, as well as areas of less intensively used land can all benefit wildlife

A place in balance

Adapting to and mitigating climate change

Providing for higher levels of active travel

Enabling Climate Change Adaptation

The Green Network links to the East Lothian Climate Change Mitigation and Adaptation Strategy and the East Lothian Active Travel Improvement Plan.

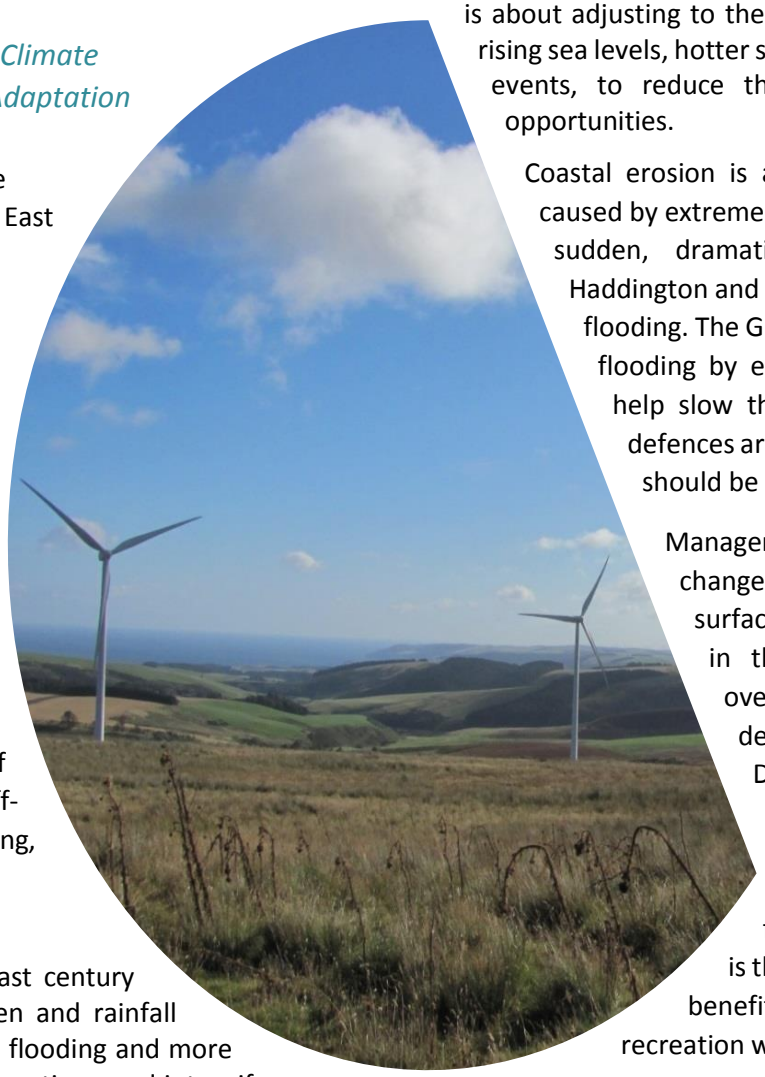
Mitigating climate change

The Green Network aims to improve functional active travel links so that it is easy for people of all ages and abilities to make the choice to walk and cycle in preference to vehicular travel. The Council's Active Travel Improvement Plan supports travel by active means. Providing employment, amenities and good recreational facilities close to where people live can help reduce the need to travel.

The Green Network also supports types of land-use and planting which maximises the carbon storage of vegetation and soils, and the opportunity for off-setting carbon emissions through woodland planting, and peatland and saltmarsh restoration.

Adaptation to a changing climate:

Scotland's climate is already changing. Over the last century temperatures have increased, sea levels have risen and rainfall patterns have changed, with increased seasonality, flooding and more heavy downpours. These changes are projected to continue and intensify over the coming decades. Adapting to climate change will be necessary, regardless of the level to which carbon emissions are reduced. Adaptation is about adjusting to these impacts of climate change, including rising sea levels, hotter summers, more storms and heavy rainfall events, to reduce the negative impacts and exploit any opportunities.



Coastal erosion is an ongoing process, however flooding caused by extreme tides, big waves or sea surges can cause sudden, dramatic change as well as destruction. Haddington and Musselburgh have always been prone to flooding. The Green Network has a role in prevention of flooding by encouraging planting upriver which can help slow the rate of water run-off. Where flood defences are being considered green network assets should be taken into consideration.

Management of urban drainage is undergoing change. Traditionally water runoff from hard surfaces and roofs has been collected directly in the piped sewage system leading to overloading at peak flows. All new development now requires Sustainable Drainage Systems (SUDS) designed in, to slow run off rates, filter and clean, and reduce overloading and flooding of the sewerage system. SUDS have many forms including ponds and basins. There is the potential for SUDS to provide multiple benefits – they can be attractive spaces for recreation with opportunities for wildlife to thrive.

Climate change brings pressures and opportunities for urban greenspace which may require changes to traditional designs and management. In the future, summer heat is predicted to increase. Urban greenspace so that needs to be designed to offer opportunities for shade including tree planting. This may be particularly needed where there is accommodation which does not have access to a private garden, or in areas of employment people can go outside for lunch. It may also be important in town centres where high buildings and hard surfaces can trap and reflect heat

Mitigation of climate change	
What we would like to see	**How we aim to do this**
The Green Network helps people make choices which have less climate impact	1. Implement the **Active Travel Plan** creating an active travel network of connections within and between communities for functional, recreational and leisure purposes. These links should include multi-functional benefits wherever possible. A link should firstly be functional to use, but should add biodiversity value along the margins; attractive hard or soft landscaping; points of interest along the route.
	2. Provide **parks and high quality greenspace** close to where people live to reduce the need to travel. Semi-natural areas for den-building and dog walking can be more valuable for wildlife and play than mowed grass and should be considered.
	3. Increase **allotment provision** through new development and implement the food growing strategy (in preparation) including encouraging local food growing in private gardens.
The Green Network contributes to maximising carbon storage potential through land-use	4. Maintain and increase **tree and woodland cover** in line with the Scottish Biodiversity objectives.
	5. Conserve and restore **peatland** in line with Scottish Biodiversity objectives.
	6. Maintain and enhance **saltmarsh** line with the Council's Countryside Service's Management plans.
	7. Identify sites for woodland and tree planting, or peatland or saltmarsh restoration to enable the benefits of businesses choosing to **offset carbon and air pollution** to be kept within East Lothian.

Adaption to a changing climate	
What we would like to see	**How we aim to do this**
The Green Network contributes to reducing the likelihood and impact of coastal, river and surface water flooding	8. Aim to **combat flooding through natural environment measures** as a first resort. Only if this is not possible should engineered solutions be used. Flood defences should be multifunctional, taking into account the potential of the area for recreation, biodiversity or landscaping. For example designing in and creating/enhancing marshland as natural flood catchment and flood defence in urban areas should be explored. Woodland planting in suitable areas upriver can help reduce flooding downstream by slowing water run-off, as well as providing for biodiversity and recreation, and is encouraged. There is the opportunity to enhance natural sea defences such as saltmarsh, dune landscapes, and coastal grasslands which dissipate high water levels and storm tides.
	9. Protect key green network assets when **planning and providing flood/erosion defences**.
The Green Network contributes to adaption to the possibility of hotter summer weather and other weather alterations and an increase in severe weather events	10. Consider **water management** holistically, seeing water as a potential resource as well as a management issue. Water features can add to the attractiveness of areas and improve biodiversity; de-culverting is encouraged in suitable places. Green Roofs are a Sustainable Drainage Systems (SUDS) feature that also offer other Green Network benefits. There is an opportunity to work with private householders to maintain and enhance their own spaces and reduce hard landscaping with attendant rapid water run-off. **SUDS** should provide multifunctional benefits in line with the Council's SPG on SUDS. These features should support wildlife and improve the appearance of the area.
	11. Consider climate change when designing **landscaping schemes and tree** planting. This includes how the changing climate will affect the scheme as well as the impact of the scheme on climate change. Plants should be chosen to survive the future climate – periods of hotter weather, but also heavier rain. A diverse range of tree species should be used in both urban and rural areas to avoid wholescale loss due to disease or change in climate. Carbon dioxide and other polluting impacts of landscaping management (fertiliser, pest control, mowing) should also be considered.
	12. Consider the use of green walls and green roofs in **urban areas** to address climatic changes.
	13. Design **public realm** in urban areas to create comfortable environments in a changing climate, for example places and routes that offer shelter and shade.
	14. Work with landowners, farmers and homeowners to promote **best practice in management** of their green infrastructure assets for climate adaptation e.g. timing and direction of ploughing, planting tree belts and wildlife corridors, enhancing private gardens.

A place to feel good

Recreation and healthy living

Facilitating people to lead healthier lives

Delivering action in disadvantaged communities

The Green Network has a role in promotion of both physical and mental health, and reducing ill-health and health inequalities. A good quality outdoor environment can encourage people to take exercise as part of their daily life, while contact with the natural environment also has benefits for mental health. Air pollution including from traffic can adversely affect health in particular of children and elderly people, as well as those with certain health conditions. Provision of access to natural and outdoor space, as a predominantly free or low cost activity, can also help reduce health inequalities. But more than just avoidance of bad health; the Green Network allows for positive enjoyment of life. East Lothian's Green

Network will therefore protect and build on its existing strong recreational offer of beaches, countryside and urban parks and walkways. It will support walking and cycling as recreation, along with other activities such as horse riding and skateboarding or, on water, swimming, canoeing or rowing. The Green Network aims to provide for play in formal and informal settings, including natural spaces. This is important in its own right, however, prioritising play provision for disadvantaged children in particular can also help address inequalities.

The Green Network links to East Lothian's Play Strategy and the Council Plan 2017 – 22: Themes *"To give our children the best start in life and protect vulnerable and older people" and "Growing our Communities: to give people a real say in the decisions that matter most and provide communities with the housing, transport links, community facilities and environment that will allow them to flourish".*

> *"Everybody needs beauty as well as bread, places to play in… where nature may heal and give strength to body and soul alike"* John Muir

What we would like to see	How we aim to do this
The Green Network contributes to improving levels of physical and mental well-being The Green Network contributes to reducing impacts of income inequality The Green Network contributes to 'playfulness' in the built and natural environment The Green Network contributes to people feeling good about their physical surroundings and using and enjoying outdoor spaces	1. Implement the **Core Path Plan.** Core and local paths are important to allow people to incorporate physical activity into their daily lives. Exercising in natural areas is also good for mental well-being. The Core Path Plan will improve provision of routes. For the full benefit to be realised, these routes should be planned as multiple benefit green network assets providing connectivity to parks and greenspaces, wildlife areas, the wider countryside and coast and recreational destinations.
	2. Encourage identification and development of **short circular routes** of between 1.5 and 4 miles with off road path routes adjacent but separated from roads and parking provision.
	3. Assert **Rights of Way** and improve recreational routes between local authority areas.
	4. Encourage pedestrian and cycling **links** between local urban developments.
	5. Increase the use of **trees and plants** in towns, especially along transport routes to combat air pollution. Solutions like the 'city tree' can help address air pollution without taking up much space.
	6. Implement the Council's **Open Space Strategy**. Availability of accessible, attractive, safe and well-maintained parks, open space and natural space is important for recreation and sense of community. This is especially true of more deprived areas where residents may not be able to afford to travel to other spaces.
	7. Provide multifunctional open space with opportunities for recreation, habitat creation and connection.
	8. Implement the Council's **Play Strategy**. Opportunities for play should be provided as an integral part of a development layout and design. This should include both informal and equipped provision in line with the Council's Open Space Standards. This should not result in a 'childish' development, but a more interesting one. It could be provided through change of texture of surfacing or level or landscaping features such as logs or mounds. Having a variety of opportunities for play is especially important close to homes where children live.
	9. Increase natural and wild spaces in **school grounds** consistent with Play Scotland's 'Good School Playground Guide'.

A place to belong

Increasing community spirit and activities

Improving quality of place

The Green Network supports the Council Plan 2017-22's overarching objective of reducing inequalities within and across our communities.

The Green Network has a strong role in increasing sense of place and feeling of belonging. Attractive urban space can tempt people out of their houses so bringing the opportunity for interactions that over time develop into the relationships that help form communities.

A number of "In Bloom" groups assist with looking after urban greenspace in East Lothian. These projects include development of flower displays, improvement of existing areas, litter picking and environmental sustainability. Eco-schools work with pupils to improve school grounds.

The history of an area can add to the sense of belonging. There are strong links between the heritage of an area and green networks including historic routes such as the Tranent to Prestonpans Waggonway, the Herring Road over the Lammermuirs from Dunbar to Lauder and the Riding of the Marches at Musselburgh, and features in the landscape such as the Johnny Moat Stone on the foreshore at Prestonpans and the landmark of Traprain Law.

John Muir was born in East Lothian and as a naturalist and instigator of landscape protection is important to recognise within the Green Network Strategy. His name is given both to the only Country Park within East Lothian and the long distance walk along the coast of East Lothian from Dunbar then west to Helensburgh.

What we would like to see	How we aim to do this
The Green Network contributes to people's enjoyment of living in East Lothian The Green Network contributes to people feeling safe in and having pride in their surroundings The Green Network contributes to people feeling they live in strong and resilient communities, not in isolation The Green Network contributes to people being involved in volunteering and in community action	1. Protect areas important to the local and wider **history** of the area in line with ELLDP polices and SPG on Cultural Heritage and assert historic rights of way. 2. Recognise the importance to the Green Network of areas and routes of local cultural and historical significance. 3. Maintain a **good sense of place** through design of open space and landscaping of new housing areas in line with SPG on Design Standards for New Housing Areas. 4. Protect **Landscape** in line with ELLDP policies and Supplementary Planning Guidance on Special Landscape Areas and Countryside to provide a setting for settlements. 5. Support the function of attractive outdoor destinations and improve active travel connections to them. East Lothian has many **distinctive recreational destinations,** from the expansive John Muir Country Park to the summit of Lammer Law, to the historic White Castle Hill Fort and Tantallon Castle, as well as areas with more local appeal such as river walks at along the Esk in Musselburgh and the Tyne in Haddington to Butterdean Wood, and Local Biodiversity and Geodiversity sites. These features are important in providing a sense of place for East Lothian and in creating a distinctive and interesting Green Network. 6. Provide and improve small green areas in **town and village centres** in line with the Town Centre Strategies – small pockets of green space can provide rest spots to encourage footfall and social interaction. The design of these should encourage biodiversity and be climate resilient. 7. Seek opportunities to support and encourage volunteers including: 'In Bloom' groups; path wardens; countryside volunteers; tenants and residents groups; eco-school groups; Junior Rangers; transition town type groups; gardening clubs and others. **Volunteering** is important for developing a sense of community and also helps deliver Green Network objectives.

A place for nature:

Conserving landscape, biodiversity and geodiversity

Enabling biodiversity to flourish

Strengthening landscape character

Humans evolved in a natural environment, and immersion in it is good for our physical and mental health.

Biodiversity in East Lothian is under considerable pressure, with very few natural areas left. The farmland is of high quality, and as such is intensively farmed. In the uplands, the moors are managed for grouse. The rivers lose some of their natural flow to abstraction for agriculture and water management to serve built development in East Lothian and Edinburgh. The birdlife of the Firth of Forth and Forth Islands is internationally recognised and is protected.

Local Biodiversity sites have been identified within the LDP which aim to both support the interests of nationally designated sites and achieve a natural habitat network. The suite as a whole aims to increase protection of biodiversity by protecting linkage between areas, as well as giving protection to an area of natural habitat near each main settlement to enable people to connect easily to biodiversity.

Special Landscape Areas have also been designated in the LDP protecting the best of East Lothian's varied landscapes. However the Council seeks to take an 'all landscapes' approach recognising that for many people the most valued landscape may well be the one next to where the live.

> *"So extraordinary is Nature with her choicest treasures, spending plant beauty as she spends sunshine, pouring it forth into land and sea, garden and desert"* John Muir

What we would like to see	How we aim to do this
The Green Network contributes to reversing the decline in extent and quality of natural habitats The Green Network contributes to protecting and enhancing geodiversity	1. Conserve sites designated for **Biodiversity**, and protected species in line with legislation and ELLDP natural heritage policies, and the Council's Countryside Management Plans.
	2. Conserve sites designated for **Geodiversity**, and improve public access and introduce interpretation, where appropriate.
	3. Encourage retention and replacement of **woodland** in particular ancient woodland (including all categories identified in the National Woodland Survey of Scotland) in line with ELLDP Policy NH8 and the Scottish Governments Policy on the Control of Woodland Removal.
	4. Create **new sites for wildlife** and support habitat creation. Changes to farming support following Brexit may increase opportunities for expanded natural habitat in the countryside; development can bring opportunities for habitat creation.
	5. Improve **connectivity of habitat** with connections between important sites and habitats, and improve management of biodiversity along linear features. Connections between existing areas of habitat should not be lost and could be strengthened in some places, in line with SPG; Development Briefs and natural heritage policies of the ELLDP.
The Green Network contributes to protecting and enhancing the water environment The Green Network contributes to addressing pollution issues including from mine working remains both in the form of bings and where water systems are affected	6. Support implementation of the **Scotland and Solway River Basin Management Plan** in East Lothian reducing barriers to fish and improve physical condition of watercourses where communities can most benefit.
	7. Promote **multi-functional SUDS** in new development in line with the ELC SUDS Supplementary Planning Guidance.
The Green Network contributes to strengthening landscape character and diversity	8. Conserve **Special Landscape Areas** including improving access to them, in line with SPG on Special Landscape Areas and the Active Travel Improvement Plan.
	9. Encourage replacement of over-mature, dead or dying trees important to the landscape character overall, for example roadside and hedgerow trees, and those lost on a large scale through disease, such as Ash Dieback.

Delivery - Green Network Priority Areas and Action Plan

The Green Network consists of a web of interconnected spaces. All of these are important, whether in a local or area wide basis. Existing green assets in East Lothian include protected natural heritage sites, active travel routes, beaches, parks, woodlands. These are identified on figure 2 and in more detail in the western section of East Lothian in figure 3. These figures also include identified existing recreation destinations.

The identification of the following priorities is not intended to detract in any way from this. However, the following areas are priorities due to strategic importance, development pressure and amount of change. The strategic proposed Green Network Improvements are shown in Figure 4 below.

Any plans or projects that have are likely to have a significant effect on a site designated for biodiversity important at European level – a Natura 2000 site - will be subject to habitats regulation appraisal. A plan or project can only go ahead if there is no adverse impact on the integrity of such a site. The most likely European sites that could be affected are the Firth of Forth and Forth Islands Special Protection Areas, and the River Tweed Special Area of Conservation.

Western sector – Musselburgh/Tranent/Blindwells

Focus is on this area of change identified in SESPlan as a green network Priority Area, and also where the most of the more deprived areas of East Lothian are found. Green Network improvements here will therefore provide a context for the built development coming forward in those areas, to try to make sure that new residents have the same high quality environment that most current East Lothian residents enjoy. Improvements in more deprived areas will help address the impacts of inequality.

Priorities and Actions in this area have been split into two sections – the area around Musselburgh, and the area between Tranent, Prestonpans, Blindwells, Cockenzie and Port Seton.

Urban

This priority focuses on areas within towns.

Countryside

East Lothian is a beautiful county. Stand in any part of the countryside, gaze around you and you will see a spectacular landscape extending in all directions: to the coast, along river valley, in the uplands. Although often intensively farmed or managed for grouse, some areas of natural habitat remain. There is access to the countryside but this could be improved.

Coast

The coast is one of, if not the, most important recreational resource of East Lothian for residents and visitors alike. It is also home to internationally protected wildlife. There can also be development pressure, as an attractive location and one with particular advantages for some types of development. This area is a priority due to the need to carefully manage conflicting demands and requirements.

Nature Network

The Council, along with every other public body in Scotland, has a duty to conserve biodiversity. The focus on this area is to avoid loss of biodiversity, and where possible to enhance it. East Lothian is known for its natural environment; we need to look after it.

Key to Partners and Funding

ELC	-	East Lothian Council including Local Area Partnerships
SG	-	Scottish Government
FCS	-	Forestry Commission Scotland
LO	-	Landowners
SNH	-	Scottish Natural Heritage
SRDP	-	Scottish Rural Development Fund
DEV	-	Developers
NR	-	Network Rail
TS	-	Transport Scotland
SEPA	-	Scottish Environment Protection Agency
HES	-	Historic Environment Scotland
SUST	-	SUSTRANS
MLC	-	Midlothian Council
JMP	-	John Muir Partnership
SBC	-	Scottish Borders Council

Key to timescales:

Short Term	1-2 years
Medium Term	2-5 years
Long term	5 + years

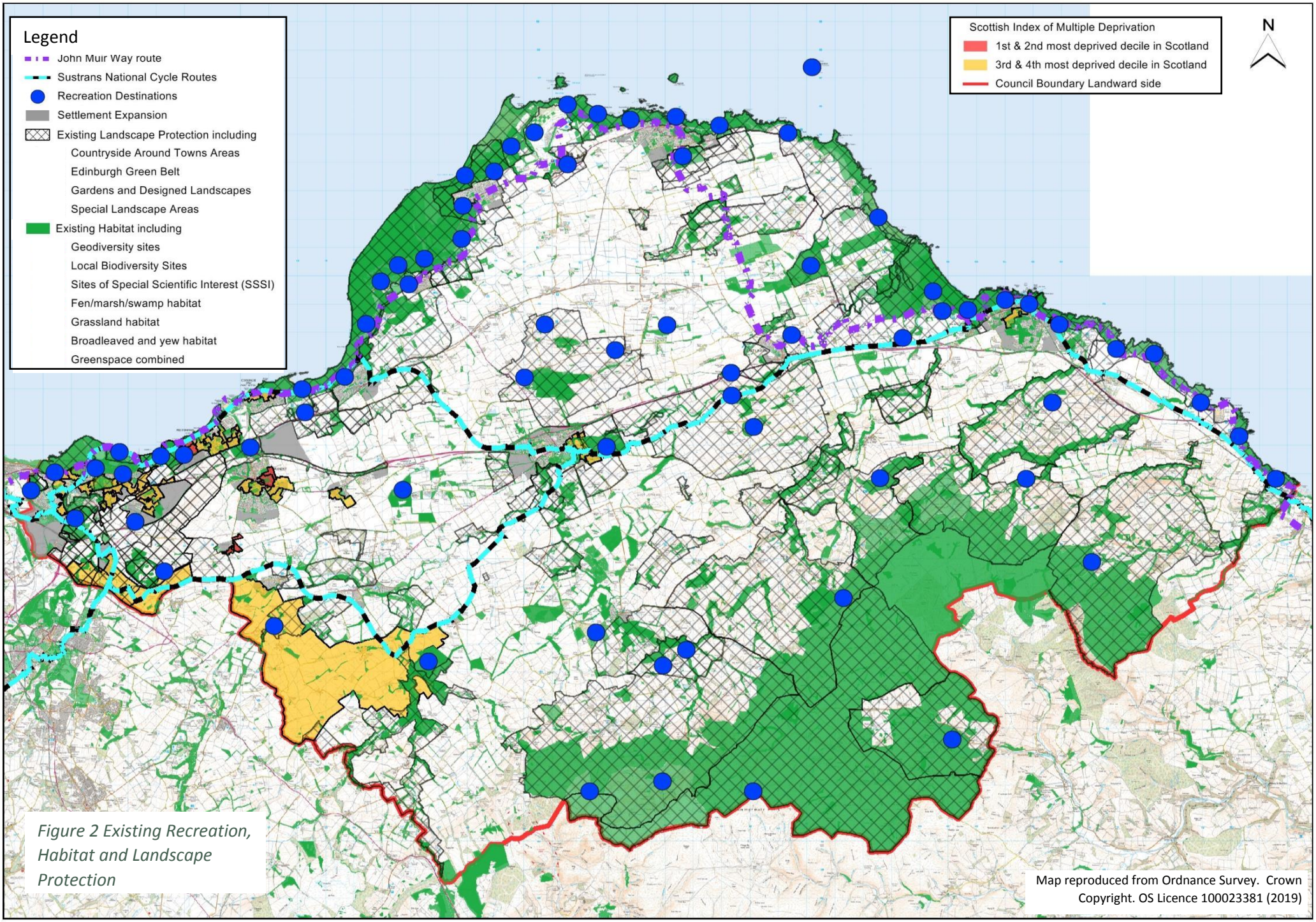
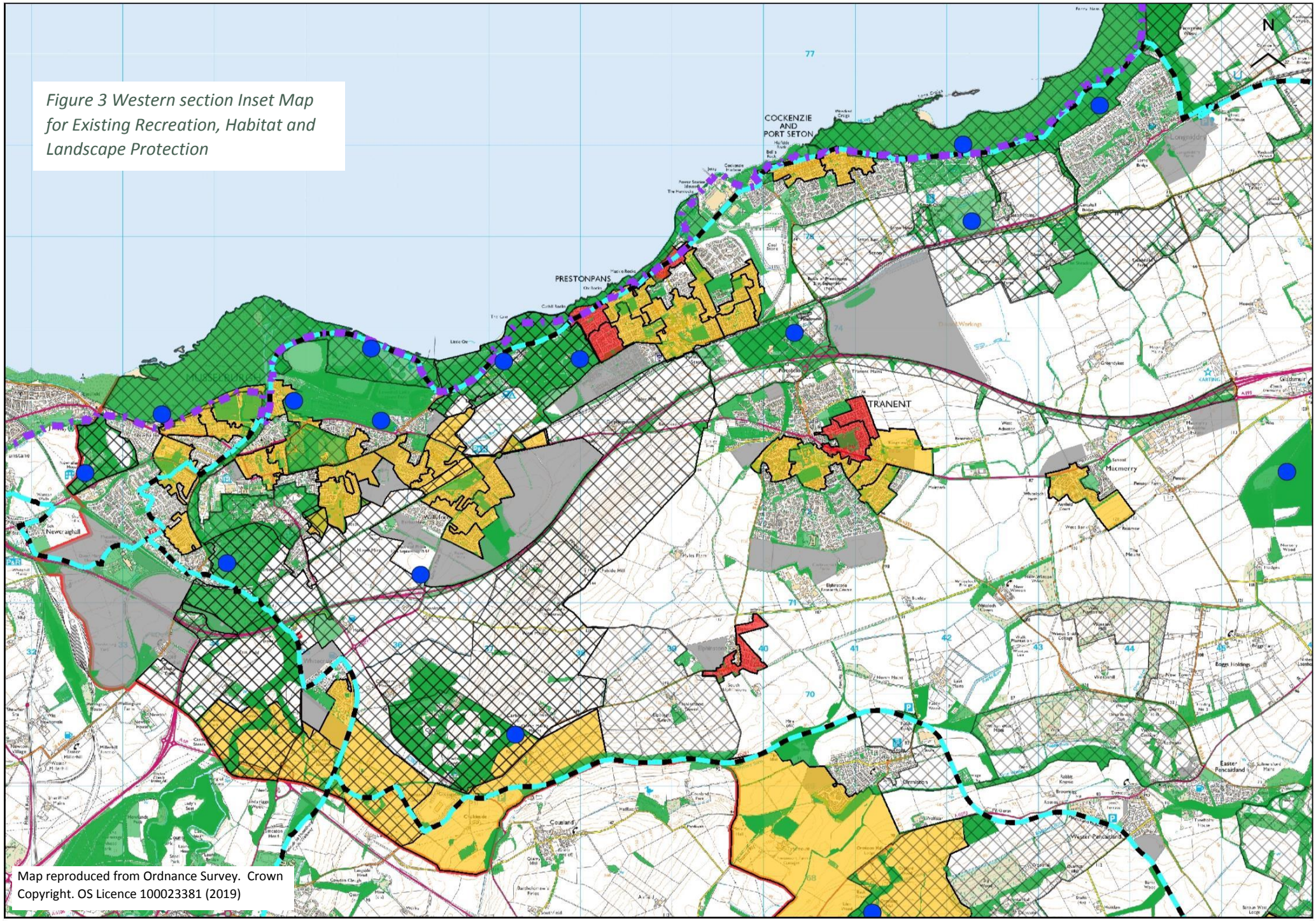


Figure 2 Existing Recreation, Habitat and Landscape Protection

Map reproduced from Ordnance Survey. Crown Copyright. OS Licence 100023381 (2019)

Figure 3 Western section Inset Map for Existing Recreation, Habitat and Landscape Protection



Map reproduced from Ordnance Survey. Crown Copyright. OS Licence 100023381 (2019)

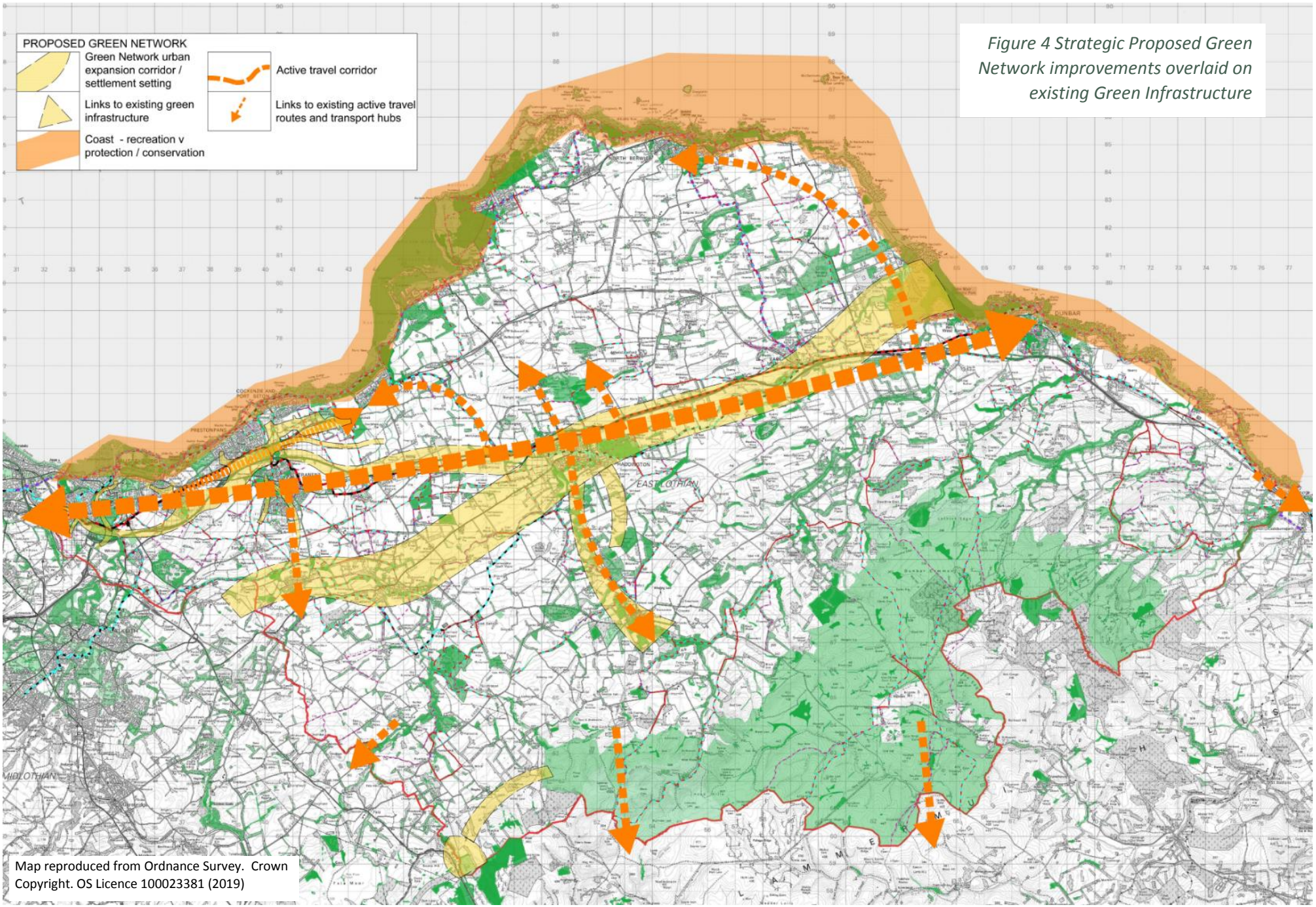


Figure 4 Strategic Proposed Green Network improvements overlaid on existing Green Infrastructure

Western sector

The western sector is part of the SESPlan cross-boundary Green Network area.

This area has a long history of settlement. The area is dominated by the historical associations with the coast and the River Esk. Uniquely in East Lothian the Roman Iron Age is represented by Inveresk Roman Fort, Civil settlement and Fields. Musselburgh and Inveresk have medieval origins as towns as does the settlement at Fisherrow. Medieval settlement to the east is represented by the 13th century Seton Collegiate church, and Seton village. In 1547 the Battle of Pinkie Cleugh was fought over a large part of the west of this area and in 1745 the Battle of Prestonpans was fought over a large part of the east of the area. The development of the railway and the A1 have made access from modern Musselburgh to its surrounding landscape more difficult, and the modern town has and is expanding to fill the space between the coast and the A1.

Urban settlement dominates the area today. This has some value for wildlife through parks and gardens, but much of the existing settlements are densely built up with limited green space. Land has been allocated in this area through the ELLDP to meet strategic housing and employment needs.

One of the main wildlife areas of Musselburgh is the River Esk which provides an effective, although narrow, habitat connecting woodland and countryside upstream with coastal habitats downstream. The river habitat is affected by the many weirs and embankments that were created to fuel industry, and by invasive plant species such as giant hogweed and Japanese knotweed. Nevertheless, it is a popular and valued wildlife asset for Musselburgh and Whitecraig.

The area's best wildlife resource is the coast, part of the wider Firth of Forth Site of Special Scientific Interest and Special Protection Area. The Musselburgh coast is dominated by Fisherrow Sands and Levenhall Links. One is a natural intertidal habitat, the other is artificial, made from ash disposal and then landscaped. Both are very good habitats, particularly for wading birds. Fisherrow Sands and parts of Levenhall Links have been designated as Sites of Special Scientific Interest. Both areas are also very popular with people. Levenhall Links supports formal sport as well as informal recreation, dog walking and bird watching. Levenhall Links has a good reputation for bird watching and it could become one of the foremost bird watching sites in the country.

Destinations such as the River Esk and Levenhall Links are already busy, with competing recreation demands. Levenhall Links especially has to accommodate a diverse range of needs. This site could be re-designed to accommodate a greater number of people who wish to pursue different interests, both formal and informal. The site also needs to be managed effectively to ensure that this greater capacity for people does not compromise the internationally important bird life that is found at Levenhall (in line with ELLDP Policy MH16) which many visitors come to enjoy. Enhancing this experience should aim to create a top quality bird watching destination.

The objective of the North Esk Way is to secure a continuous path along the North Esk River from its source in the Pentland Hills to its entry into the Forth at Musselburgh. Much of this path exists within East Lothian. It is desirable to find an agreed solution to complete this route and link up with riverside paths in Midlothian.

The river basin planning process has identified various barriers to fish movement and physical condition modifications, especially on the Tyne and Esk which directly impact on the ecological functioning of our rivers.

Morison's Haven, Longniddry Bents and woodlands at Gosford Estate have been designated as Local Biodiversity Sites and the rocky foreshore at

Cockenzie and Port Seton has been designated for its geological interest. Prestongrange Museum and Morison's Haven also reflect the area's industrial past. Dating from the 16th century, industries revolved around salt pans, the harbour, glassworks, pottery, brickworks and coal mining. These industries stretched along the coast to Cockenzie, where the Waggonway runs from Tranent to the harbour. This is the route of Scotland's earliest railway.

Longniddry Dean and Seton Dean are good quality woodland habitats. The lack of connection between these woodlands reflects the wider ecological issues in the area. Habitats tend to be relatively small and disconnected. A population of water voles survives at Longniddry Bents, epitomising the problem for wildlife. Unless the species can migrate and find new habitats to colonise it is likely to become extinct locally.

The John Muir Way connects the coastal settlements, but there is pressure on the route from potential development. The Waggonway, along with the Heugh in Tranent forms the only continuous non-urban route from Tranent to the coast. The River Esk provides a route to the coast through Musselburgh. Being able to walk or cycle to key local destinations is a priority, including attractive green routes to town centres and places of recreation such as the River Esk, Levenhall Links, Prestongrange and Meadowmill. The railway line and A1 cause significant barriers to north-south travel. Development of the wider path network is particularly important.

Open space between Prestonpans and Cockenzie is extremely popular, but industrial proposals may reduce the area of space available. This means that remaining space must be designed and maintained to accommodate greater recreation pressure.

As currently planned urban expansion proceeds in the area, the countryside around each town will have added significance in providing a sense of place and settlement identity. This countryside must be designed to define different identities for each settlement, provide space for informal recreation and create a rural gateway to the rest of the county. Since development space is tight the concepts of multi-benefit green space, publicly accessible and connected are even more important.

According to the Scottish Index of Multiple Deprivation, parts of the area fall within the most deprived 20%, with larger areas within the lowest 20-40%, of the population worst off as regards health, income, education and employment. Although Green Networks cannot solve these issues by themselves, they can help by providing access to a diverse, natural and pleasant landscape. This will have positive impacts by encouraging physical activity, improving personal well-being and building social contact.

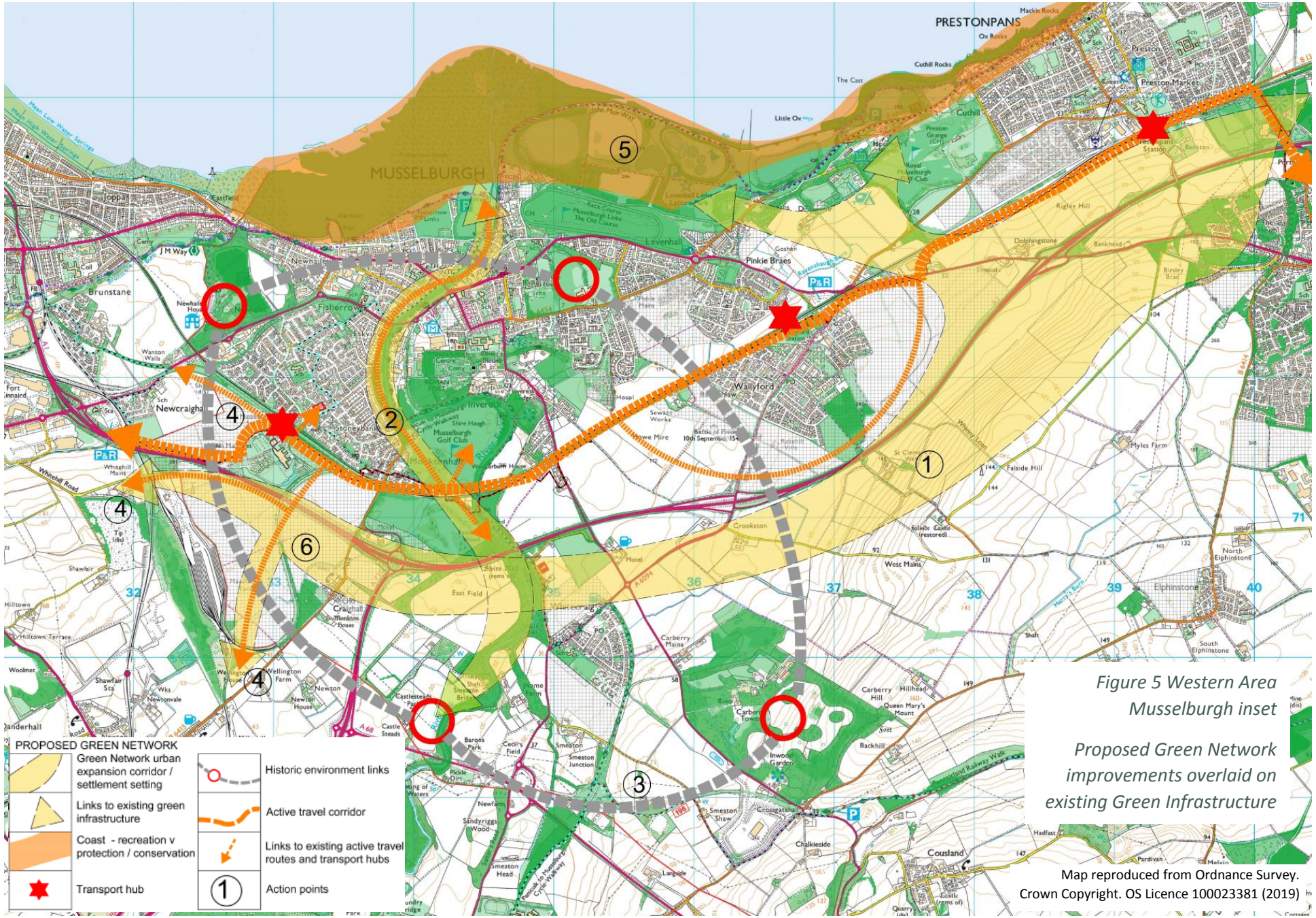
Musselburgh outdoors

Priorities around Musselburgh are described below and shown graphically on figure 5.

Green Network Action	Theme & Aim	Partners	Funding	Timescale
1. Green Belt SESPlan strategic priority - creating and protecting a strategic multi-functional green corridor running from Holyrood Park to Dalkeith and Musselburgh, via Little France. This corridor is an essential element of the landscape setting of the city as well as providing for important active travel and habitat connections. Implementation of regional walking and cycling routes including A1/A199 Strategic Functional Route, River Esk Path, and Musselburgh-Penicuik in East Lothian. Strategic green corridor around Musselburgh to provide setting for the settlement, recreation and active travel links and to prevent further coalescence of settlements. Protect greenspace north and south of railway line to prevent coalescence and to provide attractive, greenspace around expanded settlements.	Growth – 4 Balance – 1 Feel Good – 3 Belong – 4 Nature - 5	ELC LO SUST	SG Paths for all active travel funding	Ongoing
2. The Esk: SESPlan strategic priority - safeguard strategic green corridors along the River Esk and improve recreational walking and cycling access along the rivers. Enhance flood defences recognising the importance of the Esk as a landscape and recreational resource. Improve the recreational and active travel value of the Esk including linking upriver to Midlothian, completing the North Esk Way within East Lothian. Conserve biodiversity and address invasive species. Improve fish access with due consideration to heritage and improve the physical condition of the river.	Growth – 1, 4 Balance – 1, 2, 4, 8, 9 Feel Good – 1, 2, 3 Belong – 1, 4, 5 Nature – 1, 6, 8	SG ELC LO MLC	80% SG 20% ELC	Medium Medium Short Long

3. Heritage links: Develop active travel links between Roman archaeology in and around Musselburgh. SESPlan strategic priority - link and promote Gardens and designed landscapes (Newhailes, Carberry, Dalkeith, Pinkie) including addressing gaps in habitat networks, based around core areas, "stepping stones" and functional corridors, focusing initially on the designated historic Gardens and Designed Landscapes including Newhailes, Carberry Tower and Dalkeith House in East Lothian. Improve links to and interpretation of Pinkie Battlefield.	Balance – 4 Feel Good – 1, 2, 3, 7 Belong – 1, 2, 5 Nature – 4, 5	ELC HES SNH	ELC Carrier bag tax local scheme support	Medium / Long term
4. Connecting Link Musselburgh Station to Newcraighall and crossing of Newcraighall Road New paths and ecological links to be made with Edinburgh and Midlothian developments – including links to QMU/Edinburgh College/ Fort Kinnaird/ Shawfair/ Newcraighall in line with the Active Travel Improvement Plan. Provide a link for pedestrians and cyclists to Midlothian from the railway loop at the Craighall site. Provide cycling and pedestrian link to Midlothian and Edinburgh at Whitehill Road.	Growth – 1 Balance – 1 Feel Good – 1, 2, 3, 4, 5 Nature – 4, 5	ELC DEV MLC SG SUST	ELC DEV Paths for all Active travel funding	Short / Medium / Long term
5. Levenhall/Coast (subject to assessment of any impact on the Firth of Forth SPA) Consider redesign of Levenhall/ash lagoons to accommodate greater recreation pressure while enhancing the value of the site for birds of the Firth of Forth SPA. Manage the site for biodiversity. Create and promote a top quality bird watching site at Levenhall.	Balance – 2 Feel Good – 6, 7 Belong – 5, 7 Nature – 1, 4	ELC SNH	ELC	Ongoing
6. Craighall New active travel links in line with the SPG Development Briefs for MH1 and MH3 to include: • Two points of access to LDP site MH1 from the B6415;	Growth – 4, 2	ELC FCS	DEV FCS	Short / Medium term

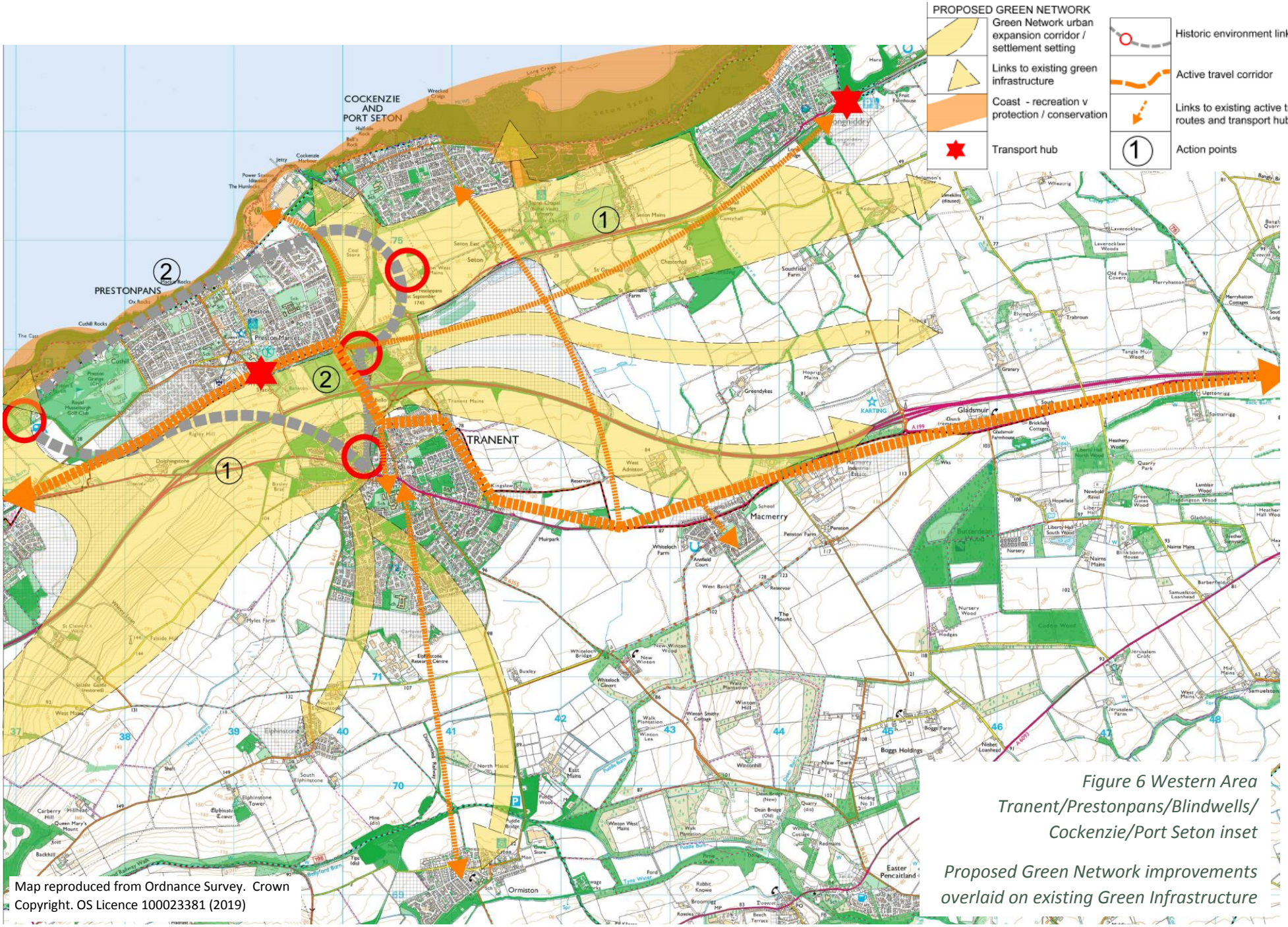
• Access between LDP sites MH1 and MH3; • High quality walking and cycling connections to village centre and school; • Improved foot/cycle access utilising the rail tunnels under the A1. SESPlan strategic priority - Woodland creation and structural planting in appropriate locations e.g. structural planting and landscape improvements along major transport corridors including the A1. Maximise the recreational and biodiversity potential of the watercourses as Green Network features.	Balance – 1, 2, 3, 4, 11, 12 , 13 Feel Good – 1, 2, 4, 5, 6, 7, 8, 9 Belong – 2, 3 Nature – 3, 4, 5, 7	DEV SG SUST	SG	


PRESTONPANS
MUSSELBURGH
Preston
Preston Market
Cuthill
Levenhall
Pinkie Braes
Wallyford
Brunstane
Newcraighall
Fisherrow
Joppa
Musselburgh Golf Club
Whitehill Mains
Whitehill Road
Shawfair
Craighall
Monkton House
Wellington Farm
Newton
Castlesteads
Smeaton
Smeaton Junction
Smeaton Shaw
Smeaton Head
Carberry Mains
Carberry Hill
Hillhead
Queen Mary's Mount
Inwood Garden
Backhill
Crookston
West Mains
Falside Hill
Elphinstone
North Elphinstone
South Elphinstone
Cousland
Chalkieside
Crossgatehall
Sandyriggs Wood
Barons Park
Cecil's Field
Pickle Dirt
East Field
Rigley Hill
Dolphingstone
Bankhead
Myles Farm
Harry's Burn
Shire Haugh
Musselburgh Golf Club
Battle of Pinkie 10th September 1547
Levenhall Links
Musselburgh Links The Old Course
Race Course
Preston Grange (CH)
Royal Musselburgh Golf Club
Cuthill Rocks
Ox Rocks
Little Ox
Mackle Rocks
The Cast
John Muir Way
Mean Low Water Springs
Mean High Water Springs
Goshen
Bankton
Birsley Brae
Wanton Walls
Stoneybank
Newhall
Newhall House
Shawfair Sta
Newtonvale
Woolmet
Hilltown
Hilltown Terrace
Sanderhall
Castle Steads
Newton House
Wellington House
Carberry Tower
Queen Mary's Mount
Harelaw
Hadfast
Pardivan
Melvin
Quarry
Castle (rems of)
Seton Castle (restored)
Langside
Pinkie to Musselburgh Cycle-Walkway
Route to Musselburgh Cycle-Walkway
Fort Innard
Cr Sta
Sch
Hospl
Sewage Works
Mosshall House
Wallyford House
Inveresk House
Inveresk
Riverside
Centre
Cemy
Coll
FB
PO
Mkt
Stn
P&R
A 6094
A 68
196
J M Way
Shaft
Tip (dis)
Mosshall
Mosshall
Mosshall

Meadowmill/Cockenzie/Blindwells

A strategic green corridor to prevent coalescence, provide for recreation and active travel links, and celebrate heritage.
Priorities described below and shown graphically on figure 6.

Green Network Action	Theme and Aim	Partners	Funding	Timescale
1. Landscape setting and open space Retain and enhance open areas around settlements in line with SPG on Countryside and the Blindwells Masterplan and any future adopted plan for Cockenzie (LDP Policy EGT1 area) to provide an attractive setting for settlement and prevent coalescence. These strategic green areas should also provide for recreation and active travel links. Important spaces include open space to the east of Preston Crescent, the Green Hills at Preston Links, area around Meadowmill and to the north and south of Blindwells.	Growth – 1, 4, 3 Balance – 1, 2, 10 Feel Good – 1, 2, 7 Belong – 4, 5 Nature – 5, 8	ELC LO DEV	ELC DEV	Medium / Long term
2. Heritage links Maximise opportunities for tourism and education relating to the area's industrial and cultural past focussed on Prestongrange. Enhance the setting of the Waggonway and keep its entire route on the west side of the B6371 with due reference to historic remains. Consider providing a park setting for Scheduled Monuments within this area. Improve appreciation of the Prestonpans Battlefield site including from the Meadowmill pyramid. Develop active travel links between historic environment sites.	Growth – 1, 4 Balance – 1 Feel Good – 1, 2, 3, 7 Belong – 1, 2, 4, 5 Nature - 8	ELC HES SNH	DEV John Muir Way business funding City Deal Carrier bag community project funding	Ongoing



Map reproduced from Ordnance Survey. Crown Copyright. OS Licence 100023381 (2019)

Figure 6 Western Area Tranent/Prestonpans/Blindwells/ Cockenzie/Port Seton inset

Proposed Green Network improvements overlaid on existing Green Infrastructure

Urban

Existing urban areas: improving green infrastructure in new and existing areas, especially disadvantaged areas

Green Network Action	Theme and Aim	Partners	Funding	Timescale
1. Inclusion Review existing areas within the lowest 40% of Scottish Index of Multiple Deprivation to identify potential Green Network improvements. Plan for 'rest spots' on routes and public areas, with seating and litter bins, to help those with limited mobility use routes and open spaces.	Growth – 3 Balance – 2, 3, 13 Feel Good – 4, 6, 7 Belong – 3, 6 Nature – 4, 5	ELC LO	ELC SG	Medium term
2. Human habitat Use green infrastructure to tackle air quality issues especially in the High Streets of Musselburgh and Tranent, including using planting to absorb pollutants. Look for improvements to make our built environment 'playful'. Increase the use of active travel through the Active Travel Improvement Plan, and if approved, the recommendations of the Musselburgh Active Travel Study. Provide 'oasis' areas with shelter, shade, seating and planting within town centres, employment areas and residential areas especially where there are homes without gardens. Where appropriate, add soft landscaping to existing landscaped areas.	Growth – 2, 4 Balance – 1, 12, 13 Feel good – 1, 2, 3, 4, 5, 8, 9 Belong – 6 Nature - 4	ELC DEV SG LO	ELC DEV TS	Short term Ongoing Short term Ongoing

Countryside

East Lothian's countryside is beautiful but intensively used for farming and as grouse moor. It is also the place where many people walk, experience wildlife and develop pride in their local area. Access to the countryside is an important part of quality of life in East Lothian. Multi-functional recreational routes from settlements to the countryside, hills and coast and specific recreational destinations are particularly important for the Green Network, as are short circular links near or within settlements. Rural land forms the setting for settlements. Watercourses can be a great resource for recreation and wildlife though there is potential for improvement in some cases.

Green Network Action	Theme and Aim	Partners	Funding	Timescale
1. Tyne Retain and improve active travel access along the length of the Tyne from the coast to connect with paths in Midlothian, as well as its tributaries including the Colstoun Water, Humbie and Birns Water and Linn Dean Water by implementing the Core Path Plan. Enhance surrounding habitat including woodland and grassland. Improve natural flood management including planting in the upper reaches and respecting and reinforcing the role of natural flood plains. Improvements to historic environment including weirs and mill lades and develop Mill Lade Trails. Improve fish access with due consideration to heritage. Improve the physical condition of the river.	Growth – 1, 4, 5 Balance – 1, 4, 8, 9, 11, 14 Feel Good – 1, 2, 3, 7 Belong – 1, 2, 4, 5, 7 Nature – 1, 2, 3, 4, 5, 6, 8, 9	ELC LO SEPA SNH HES MLC	SEPA ELC	Ongoing Medium / Long term Ongoing Ongoing
2. Recreational Routes and Active Travel Implement the Active Travel Improvement Plan and protect Core Paths and Rights of Way in line with LDP policies and statutory duties. Retain the John Muir Way and John Muir Link as a long distance walking and cycle recreational route. 'Green' the John Muir Way by planting a mini-beast corridor/ grassland/ flowers of species of local origin alongside.	Growth – 4, 5 Balance – 1 Feel Good – 1, 2, 3, 7	ELC TS SUST	ELC DEV	Ongoing

Link the John Muir Link and the Herring Road to create a Dunbar and Lammermuir circular route to the south and east of Dunbar. The railway walks (Haddington to Longniddry and the Pencaitland Railway Walk) are significant elements of the Green Network and potential for further enhancement of these as multi-benefit should be explored, bearing in mind the safeguard of the Haddington to Longniddry route as a potential rail link. Work with Scottish Borders Council and Midlothian Council to link routes including historic Drove Roads across authority boundaries. Provide the Segregated Active Travel Corridor in line with ELLDP Policy and Developer Contributions Framework. This route should be multi-benefit and provide wildlife enhancement along the margins where possible along the route in particular by planting a mini-beast corridor/ grassland/ flowers of species of local origin alongside. Provide local links to the Segregated Active Travel Corridor both within towns and in the countryside where possible.	Belong – 1, 2, 5 Nature – 4, 5	LO JMP MLC SBC	Paths for all active travel funding	
3. Water Management Support implementation of the water management objectives of the Scotland River Basin Management Plan where appropriate.	Nature - 6	ELC LO SEPA	SEPA	Ongoing
4. Landscaping Plan for the replacement of roadside trees. Contribute to the protection and enhancement of the setting of settlements. Protect Special Landscape Areas and Landscape Character Areas in line with LDP policies and SPG on Special Landscape Areas. Retain old trees and standing and fallen dead wood where safe to do so to increase biodiversity.	Growth – 1 Balance – 4 Feel Good – 5 Belong – 4 Nature – 3, 8, 9	ELC LO FCS	FCS	Long term Ongoing Ongoing

Coast

The coast is an important attraction for both people and nature. East Lothian Council owns or manages around three quarters of the coastal area, to serve many purposes including nature conservation, education, recreation, tourism and other economic activity, landscape and coastal protection. The coast is under pressure, with any increase in recreational use requiring to respect the nature conservation value of the area. In the future sea level rise may constrain coastal habitat against inland land-uses. The Habitats Regulations Appraisal for the LDP identified that visitor numbers to the East Lothian coast appear to be growing at a rate unrelated to housing development within the Council area and there is anticipated to be a continued increase in numbers, but the greater proportion of this is likely to be visitors from outwith East Lothian. Disturbance of birds appears to be related to the activities of users, rather than the numbers *per se*. The lengths of coast from which highest numbers of sensitive species have been recorded do include areas of shore which are less accessible, but there is a risk of disturbance to birds in these areas, particularly from unrestrained dogs.

As per the recommendations of the Information for Appropriate Assessment section of the Habitats Regulations Appraisal for the LDP a study of existing visitor numbers and disturbance arising from these should be initiated. This information should be used to identify areas of coast where measures are required to reduce disturbance, such as through introduction of barriers, fences, ditches, or planting. The information can also be used to develop refuge areas of coast, which should remain free from disturbance.

Green Network Action	Theme and Aim	Partners	Funding	Timescale
Existing key priorities				
1. Recreational Routes and Active Travel Retain the John Muir Way and John Muir Link as a long distance walking and cycle recreational route. 'Green' the John Muir Way by planting a mini-beast corridor/ grassland/ flowers of species of local origin alongside.	Growth – 4 Balance – 1 Feel Good – 1 Belong – 2, 5 Nature – 4, 5	ELC LO JMP	ELC John Muir Way business funding CGSN funding	Ongoing
2. Coastal Recreational Management Continue to manage the coast including John Muir Country Park and Aberlady Bay Local Nature Reserve for multiple uses respecting the capacity of the natural environment in particular protected bird life.	Growth – 1 Balance – 6, 7 Belong – 2, 5, 7 Nature – 1, 2, 8	ELC LO		Ongoing

3. Coastline management Manage the coastline in line with the Shoreline Management Plan. Restoration of East Beach, Dunbar.	Balance – 8, 9	ELC ELC	ELC ELC	Ongoing Short
4. Study of Impact of recreation on the integrity of the Firth of Forth SPA and on breeding birds within the SSSI.		ELC LFGNP	LFGNP	Short
Future aims (subject to the above study)				
5. Outdoor Tourism Improve cycling and walking access along the coast between North Berwick and Dunbar. Consider potential for 'Pilgrim Route' from Berwick to North Berwick. Consider making the A198 coast road one of the finest cycling routes in Scotland by amending road priorities and surface treatments to promote cycle safety. Investigate possibility of further outdoor tourism development, building on existing businesses such as Foxlake/East Links Family Park/Coast to Coast surf school and birdlife related tourism as at North Berwick Seabird Centre and the Scottish Ornithologists' Club headquarters in Aberlady.	Growth – 4 Balance – 1 Feel Good – 1 Belong – 1, 2, 5	ELC LO SUST JMP	ELC John Muir Way business funding	Long term Long term Long term
6. Access Improve access to the coast by methods other than car use. Create links to the coast and John Muir Way at Dirleton, Gullane and Yellowcraig and from North Berwick and Dunbar train stations and town centres. Provide circular links between North Berwick Law, the Seabird Centre and Tantallon Castle.	Growth – 4 Balance – 1 Feel Good – 1, 2 Belong – 5 Nature – 2	ELC LO	ELC	Ongoing

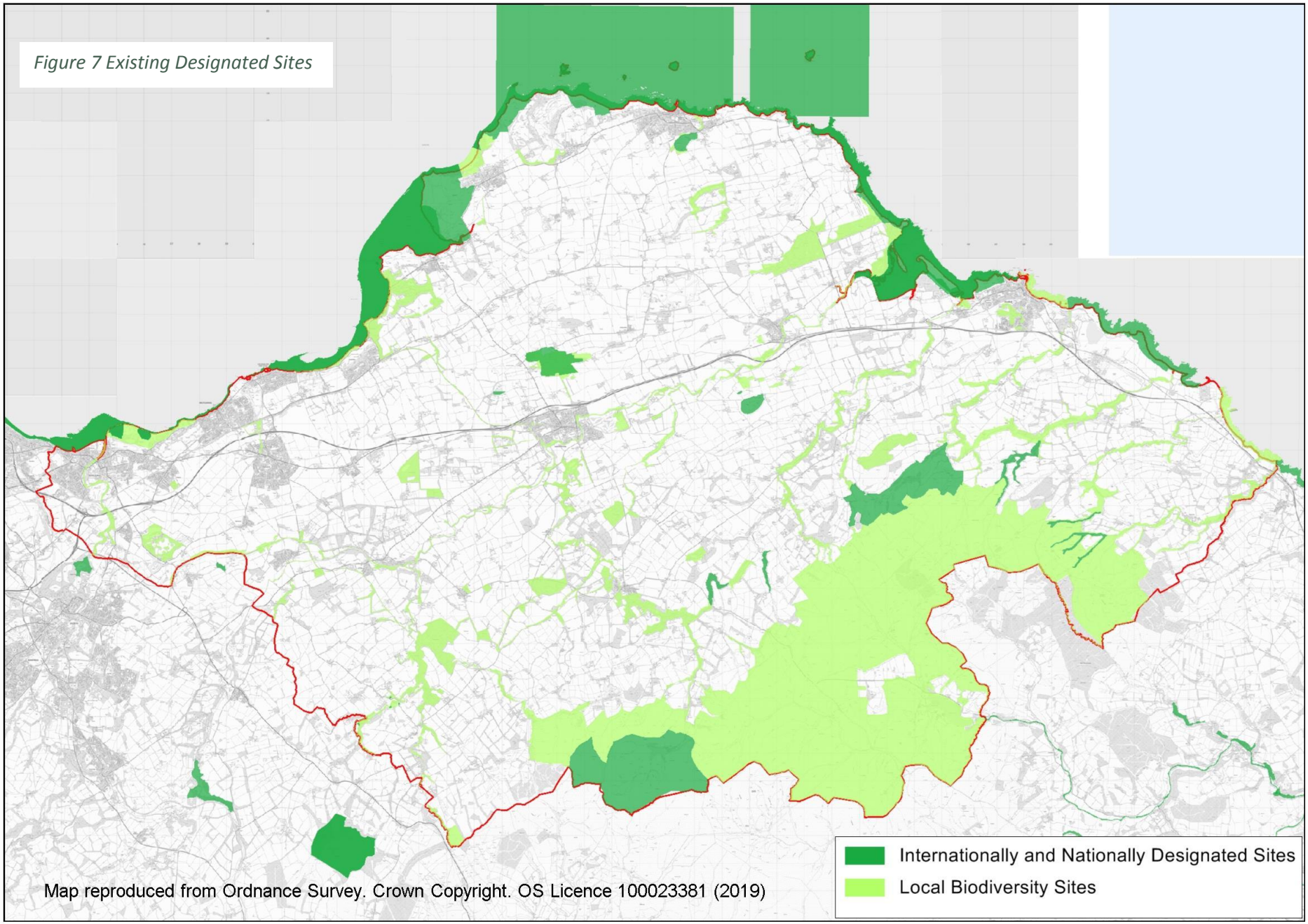
Nature Network

The dominance of human beings is clear across East Lothian – even outside urban areas most of the land is managed for agriculture, forestry, grouse moor or recreation. Wildlife is therefore often in its most natural form in places that are either too wet, too steep or too rocky for other beneficial use. Intensification of human use has resulted in a decline in both quantity and quality of biodiversity, although areas of international, national, as well as local importance remain in East Lothian. Sites designated for biodiversity interest are protected under policies of the LDP. The existing biodiversity network is shown in figure 7 below.

The aim of the Nature Network is to support wildlife recovery, while recognising that the fertile land of and of East Lothian has a very important role in agricultural production. Wildlife needs to be able to migrate across East Lothian; therefore a connected network is needed. Habitat management is essential for maintaining the quality of this network. Public access to and enjoyment of biodiversity is important, and should be possible for people from all parts of society. Every community should have an area that has some wildlife interest – it need not be special or rare to be inspirational. This is provided for through the Local Biodiversity Sites designated in the LDP.

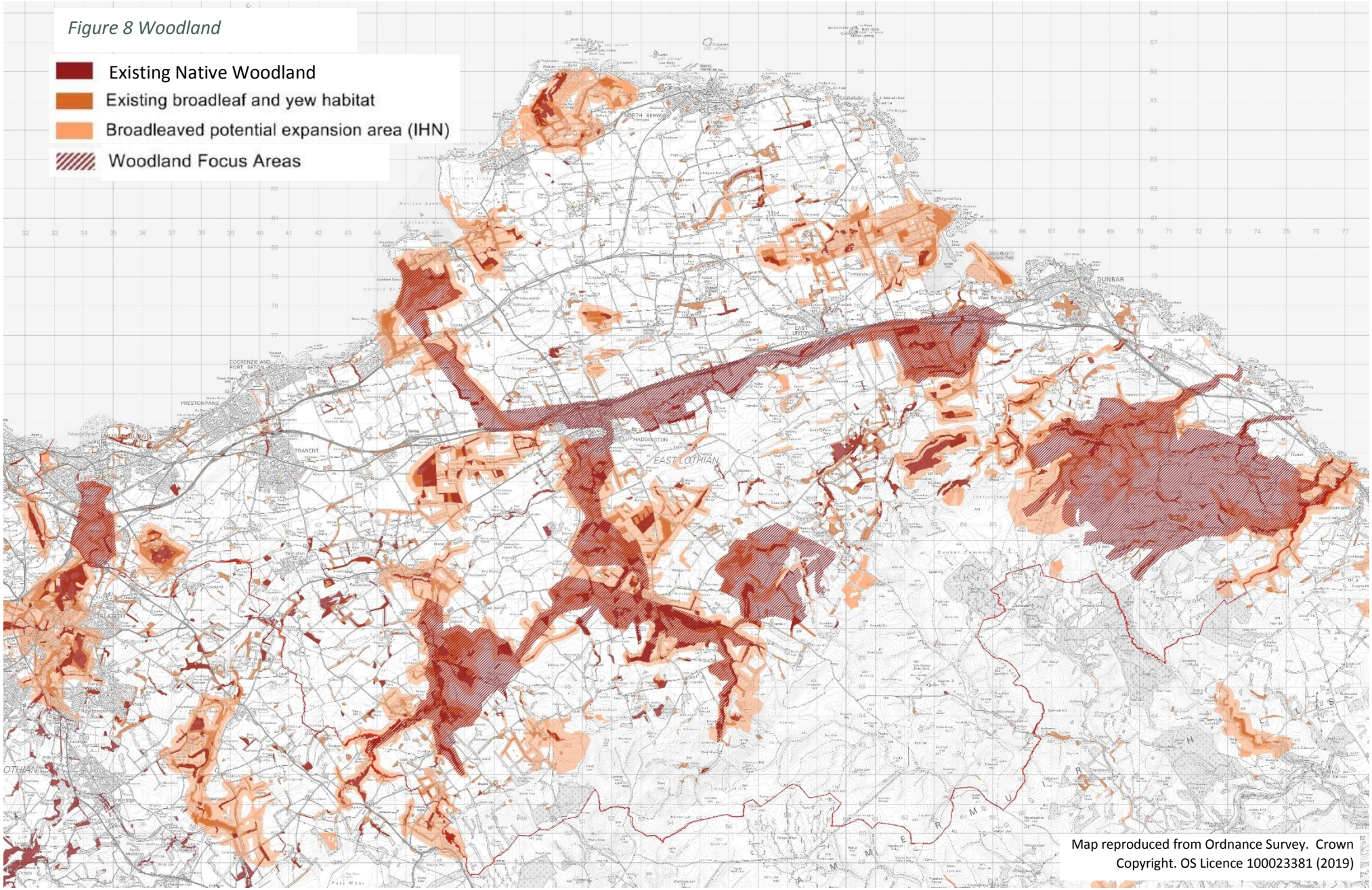
The priorities for the Nature Network are described below in the tables and maps.

Figure 7 Existing Designated Sites



Green Network Task	Theme and Aim	Partners	Funding	Timescale
1. Woodland *(For cleugh woodland see 6. Lammermuir Habitat Improvement)* Seek opportunities to expand native woodland and tree planting in appropriate areas – consider CSGN integrated habitat network Priority Expansion areas and following the line of the A1 and the Tyne River Valley. Manage ancient woodland sites to encourage wildlife, through species selection, encouraging the retention of both standing and fallen deadwood and developing varied age structure. Create tree lines and woodland connections between habitats.	Growth – 5 Balance – 4, 11, 14 Nature – 3, 4, 5, 9	ELC FCS SNH LO	FCS	Ongoing

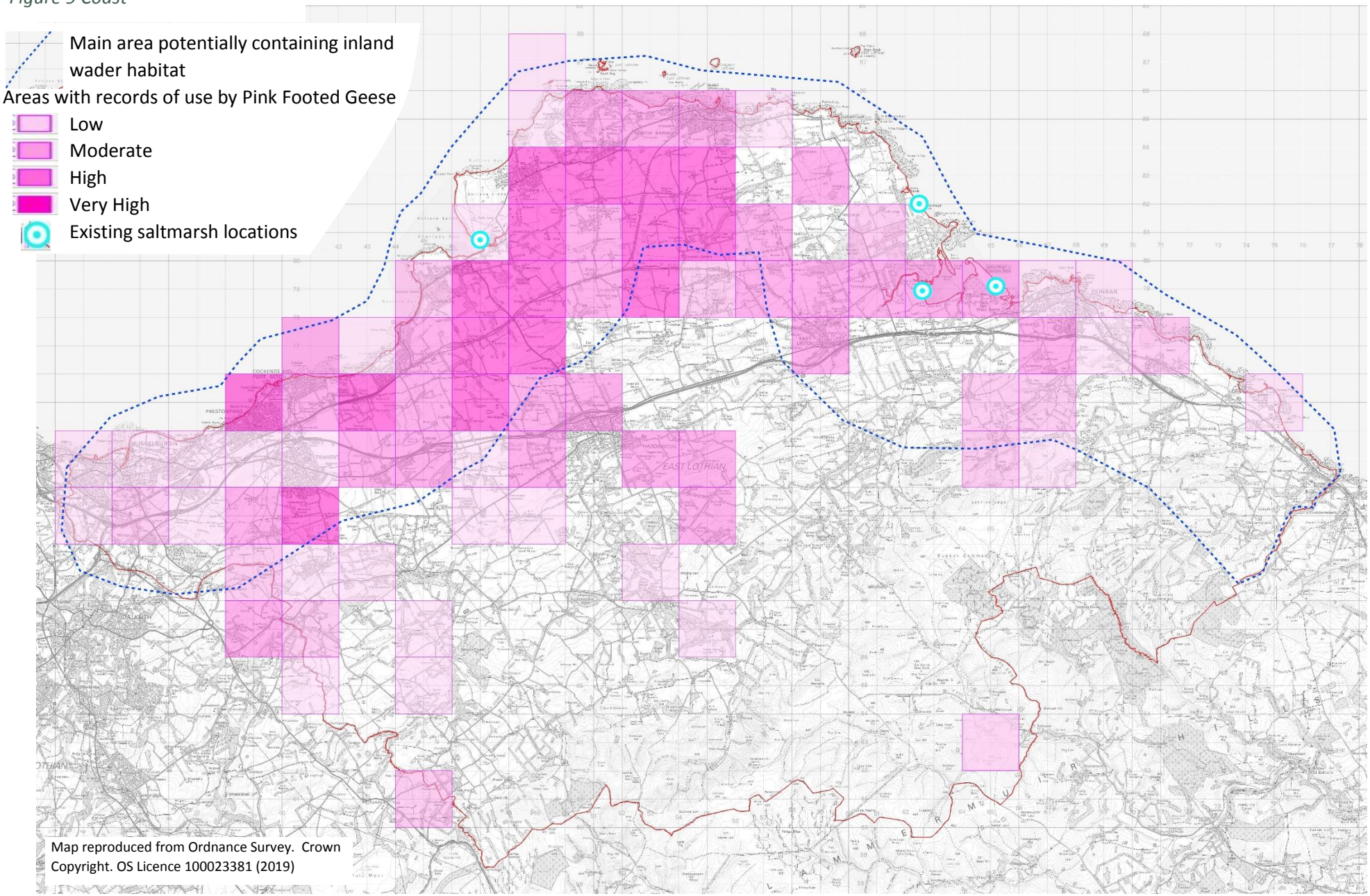
Figure 8 Woodland



Map reproduced from Ordnance Survey. Crown Copyright. OS Licence 100023381 (2019)

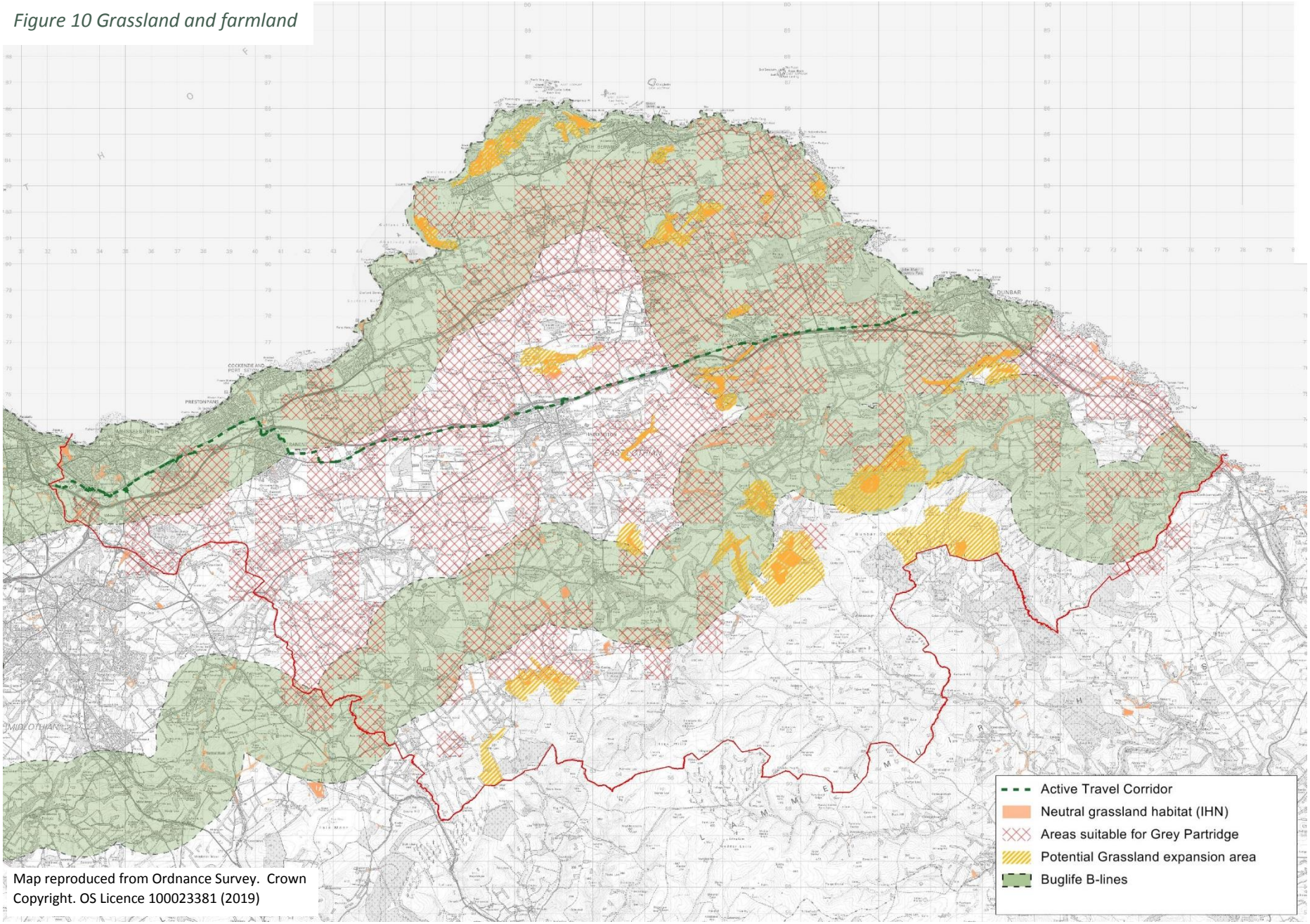
Green Network Task	Theme and Aim	Partners	Funding	Timescale
2. Coast Seek areas suitable for saltmarsh expansion/conservation Support maintenance of sufficient supporting habitat for inland waders of the Firth of Forth SPA	Growth – 5 Balance – 6 Nature – 4	ELC SNH LO	LO	Ongoing Ongoing

Figure 9 Coast



Green Network Task	Theme and Aim	Partners	Funding	Timescale
3. Grassland and Farmland Seek opportunities to expand grassland and farmland habitat: • Farmland habitat improvement (previously identified as the Grey Partridge Project); improve and create field margin habitats such as hedgerows and grass margins and to retain and improve the wild plant cover and so encourage farmland birds and small mammals; • Increase grassland within CGSN grassland integrated habitat priority expansion areas; • Differential mowing on road verges to increase wild flowers; • Promote grassland in gardens and school grounds; • Encourage development of B-lines - 'insect pathways' running through both countryside and towns, along which wildflower-rich habitat will be restored and created as a series of stepping stones: ➢ Improve the John Muir Pollinator Way, Scotland's first B-Line (https://www.buglife.org.uk/b-lines-hub/john-muir-pollinator-way) ➢ Plant along the line of the segregated active travel corridor	Growth – 5 Nature – 4, 5	ELC SNH LO CSGN	LO	Ongoing

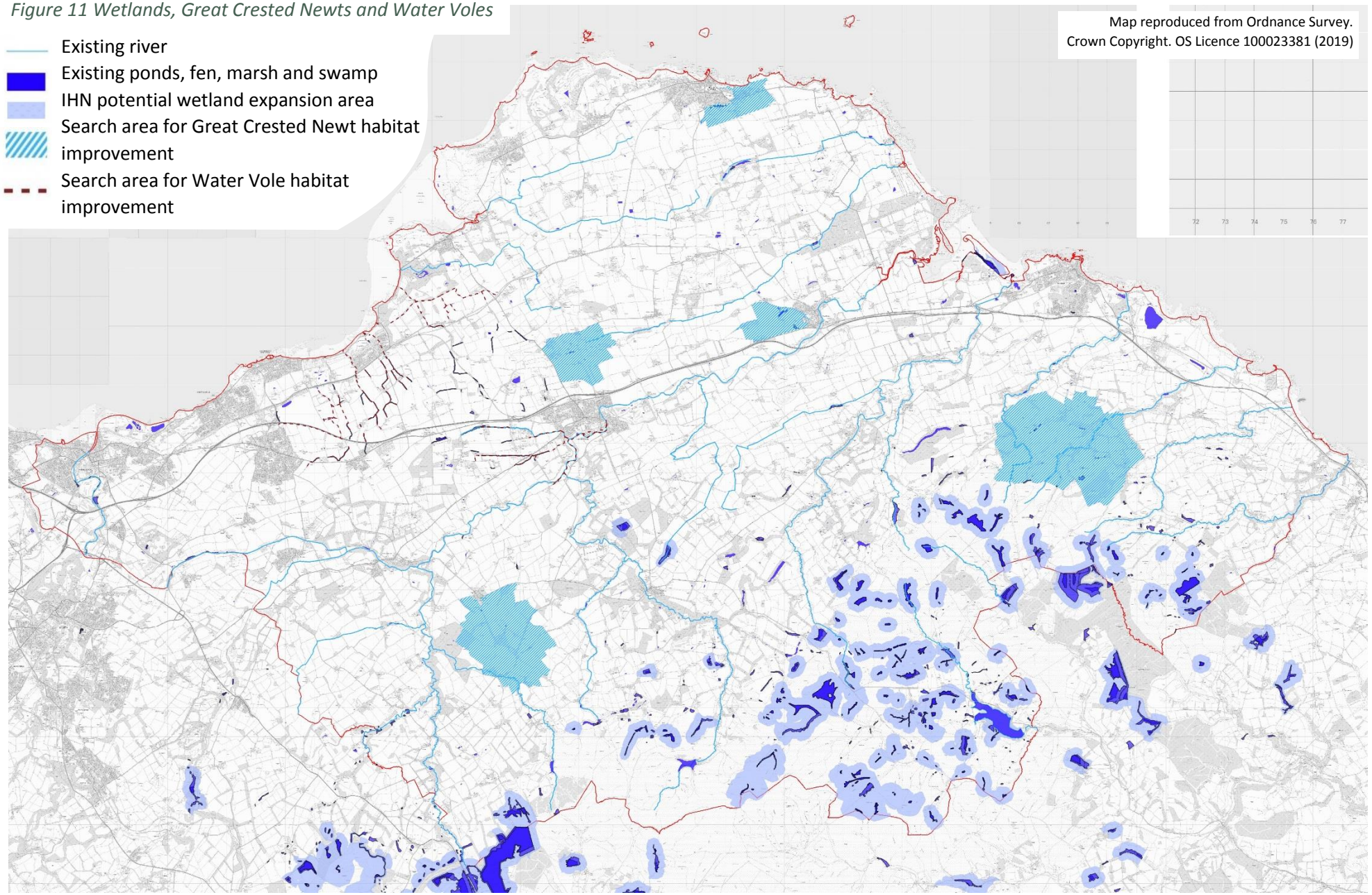
Figure 10 Grassland and farmland



Map reproduced from Ordnance Survey. Crown Copyright. OS Licence 100023381 (2019)

Green Network Task	Theme and Aim	Partners	Funding	Timescale
4. Wetlands, Great Crested Newts and Water Voles *(For peatland restoration see 6. Lammermuirs below)* Seek opportunities to improve and expand wetland habitat in CSGN fenland and marsh priority habitat expansion areas to include: • Improve value of habitat along watercourses. Habitat creation along watercourses will also reduce diffuse pollution; • Pond improvement and creation where appropriate; • Water vole habitat improvement and extension by creating field edge habitats such as grass margins along watercourses to encourage water voles; • Promote great crested newt conservation through habitat creation and improvement; pond creation in suitable areas is essential, as is supporting grassland / shrub habitat links through and between sites. To include creation of habitat around Petersmuir, Garleton Hills, Deuchrie.	Growth – 5 Balance – 8, 9, 14 Nature – 4, 5, 7	ELC SNH LO	LO	Ongoing

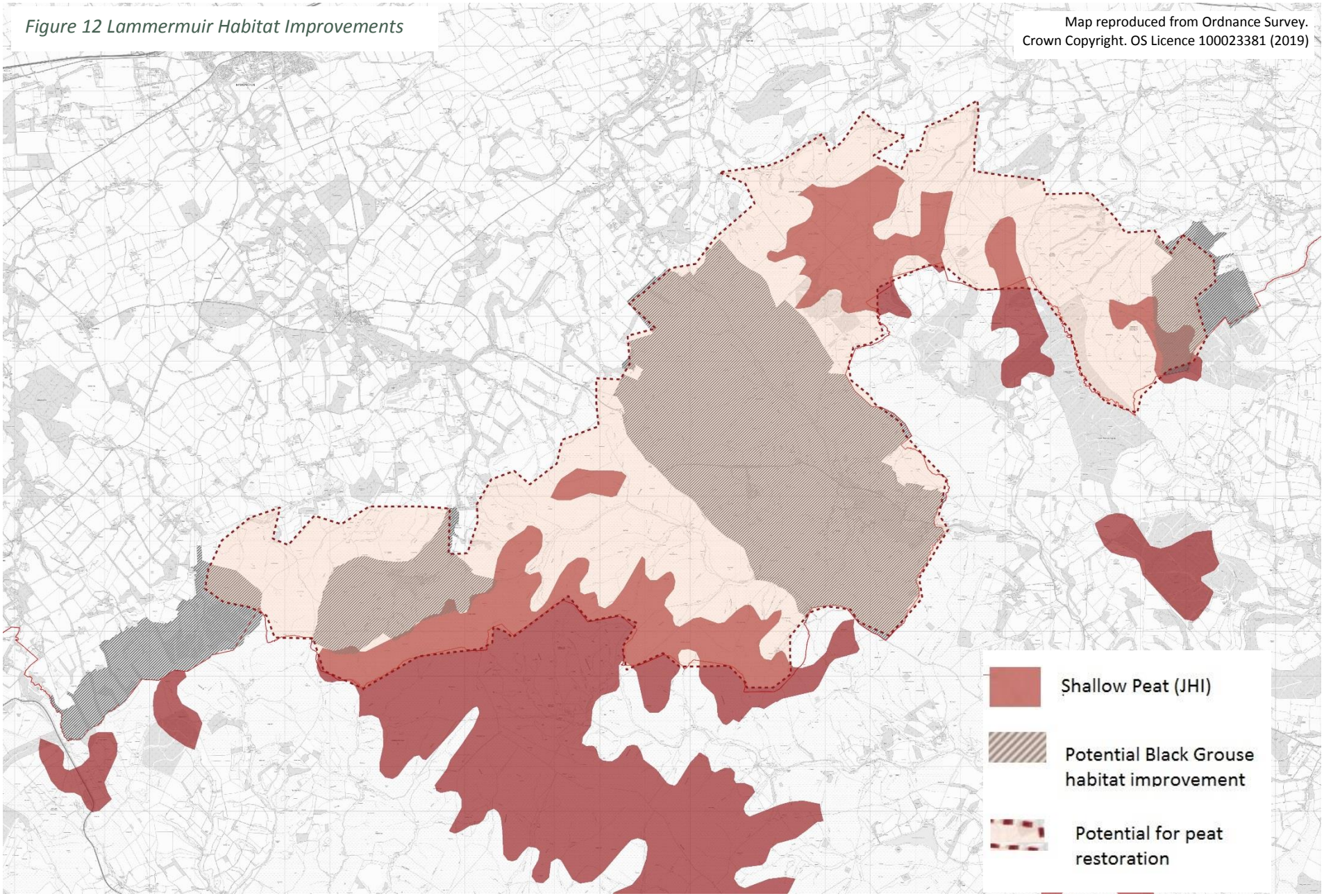
Figure 11 Wetlands, Great Crested Newts and Water Voles



Green Network Task	Theme and Aim	Partners	Funding	Timescale
5. Lammermuir Habitat improvements Seek opportunities for Black grouse habitat improvement to include to create and manage habitat in vicinity of Keithhill and Stobshiel, Whiteadder and Hopes reservoirs, to encourage black grouse, including native tree and woodland planting, wetland creation and grassland management Seek opportunities for peatland restoration Seek opportunities for native woodland and scrub planting in cleughs	Growth – 5 Balance – 4, 5, 7, 11, 14 Nature – 4, 5, 9	ELC SNH LO FCS	FCS LO	Ongoing

Figure 12 Lammermuir Habitat Improvements

Map reproduced from Ordnance Survey.
Crown Copyright. OS Licence 100023381 (2019)



Design Guidance for Developers

Policy DC10: Green Networks requires that all relevant development must make provision for the Green Network in accordance with the relevant Development Brief and the Council's Green Network Strategy supplementary planning guidance.

For the purposes of this guidance, 'relevant development' is that which either:

(1) Encourages more people to a particular place; or
(2) Impacts on an aspect of the Green Network (e.g. habitat, active travel routes, recreational destinations, protected natural heritage sites)

There is an element of judgement in this, however the following table shows which types of development are likely to require to make provision.

Type of development	Provision required?
Residential development Commercial development Large scale infrastructure	Yes
Listed Building Consent Advertisements Demolition Alterations to a building Householder Small scale infrastructure (ATMs, electricity cabinets &c) Agricultural buildings	No These types of development will not be expected to make provision for the Green Network. It may be possible to incorporate green infrastructure into some of these and developers are encouraged to consider this.
Public open space or agricultural land to private garden ground	
Change of use Extension to building	Generally no; however development that draws more people to a location or affects a Green Network asset may require this. It is recognised that provision may not always be possible in cases of change of use.
Variation of conditions	Generally no; however may be required if the condition relates to provision of green infrastructure.

The Council requires new development to include appropriate landscaping and multifunctional green infrastructure and open spaces that enhance, provide structure to and unifies the development, and assists it integration with the surroundings and extends the wider green network where appropriate in accordance with Policy DP1 of the LDP. The LDP also requires provision of open space in new development. The national and local standard for urban greenspace is 60m^2 per household.

Outdoor green space or accessible countryside should be within easy walking distance of every home (300m).

Provision for play should be made in line with LDP Policy OS3.

‘Appropriate landscaping and multifunctional green infrastructure’ means the proposal through its design will:

- Provide multiple benefits in design e.g. if a path is included, it could also provide biodiversity benefits through planting and water management at the margins
- Incorporate local character features and natural assets such as watercourses and woodland into green infrastructure elements of design to reference and reflect the distinctiveness of the local environment
- Include a variety of native and locally sourced species in planting schemes, using local seed or saplings of native species when planting woodland
- Provide for biodiversity through design including by ensuring links to existing habitat e.g. continuation of a woodland, forming semi-natural grassland on settlement edges and enhancement where possible
- Be designed to be attractive, safe and accessible to all segments of society including those with particular needs due to mobility difficulties, learning difficulties, sensory difficulties or their age or caring responsibilities
- Provide attractive hard and soft landscaped areas with planting, seating, shade and shelter to be designed for use throughout the year
- Incorporate measures which encourage informal play where appropriate
- Provide connections to recreational and active travel routes
- Where new routes are provided they should aim to be of multiple benefit with points of interest and opportunities for relaxation, play and education along the way
- Retain or improve urban permeability including access to local open space and parks with links that reflect desire lines and link easily through local developments
- Be adapted to future climate change
- Mitigate climate change by providing carbon capture through for example creating woodland or managing peatland or by design and layout of development and buildings
- Mitigate air pollution by designing for reduced car use and increasing planting suitable to absorb pollution
- Enhance the water environment including by avoidance of culverting/de-culvert and providing SUDS in line with LDP standards and guidance

Provision for the long term management and maintenance of green infrastructure features must be included.

Implementation and Monitoring

Measuring to assess success

Getting the best from the Green Network depends on knowledge, good practice and coordination. The Green Network is intended to be multifunctional and multifaceted, and many organisations are involved in delivering various aspects of green infrastructure which may be needed or wanted for one particular purpose. As a result, sometimes things happen without full awareness of potential multi-functional benefits that could occur.

The protection of elements of the Green Network, in particular Natura 2000 sites, can sometimes impose constraints on how other development can come forward. It is important to gain a full understanding of this to avoid work being done on proposals which cannot come forward.

It is also important to be aware of where the Green Network can support an ecosystem solution to a problem. For example, planting upstream may help to avoid the need for expensive flood protection works; planting in urban areas can help meet air quality targets.

To improve the evidence base and co-ordinated working the following are proposed as funding/resourcing permits:

1. Set up a Green Network Working Group with key stakeholders
2. Look into mapping ecosystem need and demand, potentially via the Scottish Wildlife Trust Eco-serv tool
3. Carry out a study into the recreational impact on the Firth of Forth SPA
4. Consider how progress on the Green Network will be monitored.

Glossary of Terms and Abbreviations

Abbreviations

AWI	SNH's Ancient Woodland Inventory
CSGN	Central Scotland Green Network
ELC	East Lothian Council
HRA	Habitats Regulation Appraisal
IHN	Integrated Habitat Network (CGSN work)
LDP	East Lothian Local Development Plan 2018
NWSS	National Woodland Survey of Scotland
SPA	Special Protection Area
SAC	Special Area of Conservation
SESPlan	South East Scotland Plan, the Strategic level plan for this area
SNH	Scottish Natural Heritage
SPG	Supplementary Planning Guidance
SSSI	Site of Special Scientific Interest
SUDS	Sustainable Urban Drainage System

Terms

Active Travel – travel characterised by physical activity such as walking and cycling

Biodiversity – the range and extent of plant and animal species within an area

City Tree – a densely packed moss culture, housed in a vertical unit designed to filter air and so improve air quality (picture copyright Evergen Systems)

Core path – path designated under the (Land Reform Scotland) Act 2003 to provide reasonable public access throughout the area

Habitats Regulations – The Conservation (Natural Habitats, etc.) Regulations 1994

Multifunctional – used for many different purposes or benefits e.g. providing for active travel and biodiversity

Natura 2000 – Network of European Sites consisting of Special Protection Areas and Special Area of Conservation

REFERENCES

Buglife B-lines https://www.buglife.org.uk/b-lines-hub

Central Scotland Green Network Vision and website available here: http://www.centralscotlandgreennetwork.org/

East Lothian Local Development Plan 2018

Midlothian Council Green Network Supplementary Guidance

Play Scotland 'Good School Playground Guide' https://www.playscotland.org/good-school-playground-guide/

SESPlan including SESPlan Green Network Supplementary Guidance https://www.sesplan.gov.uk/assets/Green%20Network%20Tech%20Note%2023%2009.pdf

Scottish Government Policy on the Control of Woodland Removal https://www.forestry.gov.uk/PDF/fcfc125.pdf/$FILE/fcfc125.pdf (pdf)

Scottish Government "Green infrastructure: design and placemaking" available at https://beta.gov.scot/publications/green-infrastructure-design-placemaking/pages/3/

West Dumbarton Council "Our Green Network Supplementary Guidance" https://www.west-dunbarton.gov.uk/media/4309581/our-green-network-supplementary-guidance.pdf

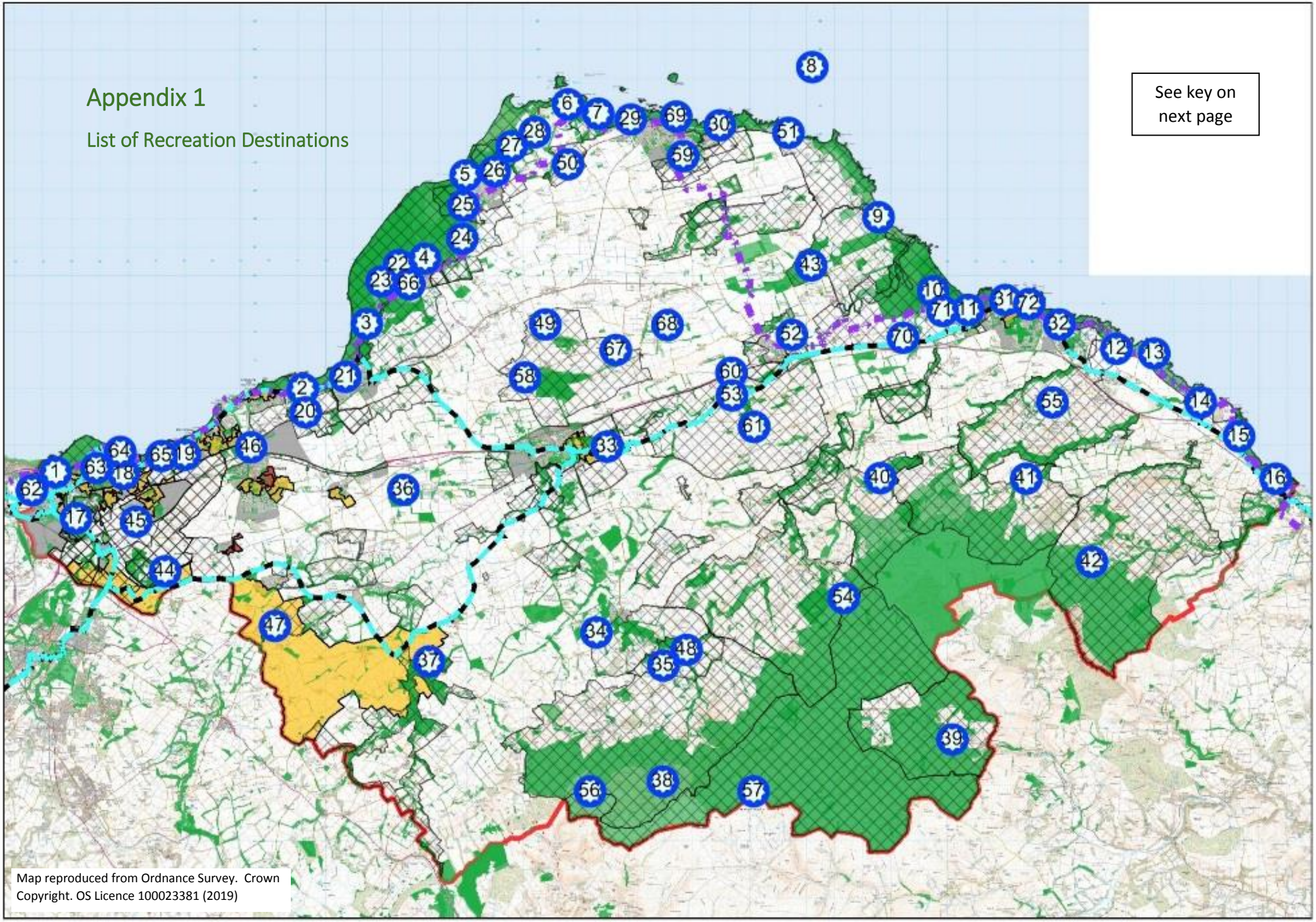
"Building with Nature User Guide" Gloucester Wildlife Trust, University of the West of England, NERC Science of Environment www.buildingwithnature.org.uk

SEPA River Basin Management Plans https://www.sepa.org.uk/environment/water/river-basin-management-planning/the-current-plans/

Scottish Borders Council Green Network Technical Note (undated) https://www.scotborders.gov.uk/downloads/file/553/technical_note_-_green_networks

Appendix 1

List of Recreation Destinations



Key: Recreation Destinations by type

Beaches and coast

1. Fisherrow Harbour and Beach
2. Seton Sands
3. Gosford Sands
4. Aberlady Bay Nature Reserve
5. Gullane bents and Beach
6. Yellowcraig Beach
7. Broad Sands Beach
8. Bass Rock
9. Ravensheugh and Peffer Sands
10. John Muir Country Park
11. Belhaven Bay
12. Whitesands Beach
13. Barns Ness Lighthouse
14. Skateraw Beach
15. Thortonloch Beach
16. Bilsdean and Dunglass Coast

Golf Courses

17. Musselburgh Golf Club
18. Musselburgh Links, the Old Golf Course
19. Royal Musselburgh Golf Club
20. Seton Sands Golf Course
21. Longniddry Golf Club
22. Kilspindie Golf Club
23. Craigielaw Golf Club
24. Luffness Golf Club
25. Gullane Golf Club
26. Muirfield Golf Club
27. Renaissance Golf Club
28. Archerfield Links Golf Club
29. North Berwick Golf Club
30. Glen Golf Club
31. Winterfield Golf Club
32. Dunbar Golf Club
33. Haddington Golf Course
34. Gifford Golf Club
35. Castlemains Golf Club

Woods and Walks

36. Butterdean Wood
37. Saltoun Big Wood
38. Hopes Reservoir
39. Whiteadder Reservoir
40. Pressmennan Wood and Lake
41. Woodhall Dean Nature Reserve
42. Fairy Castle, Aikengall
43. Binning Wood

Historic Environment

44. Queen Mary's Mount
45. Battle of Pinkie viewpoint and interpretation
46. Meadowmill Pyramid Battle of Prestonpans Viewpoint
47. Ormiston Yew
48. Yester Castle and Goblin Ha'
49. The Chesters Hillfort
50. Dirleton Castle
51. Tantallon Castle
52. Preston Mill
53. Hailes Castle
54. White Castle Hillfort
55. Doon Hill

Hill Tops

56. Lammer Law
57. Meikle Says Law
58. Hopetoun Monument
59. North Berwick Law
60. Pencraig Hill
61. Traprain Law

Other Attractions

62. Newhailes Estate
63. Musselburgh Race Course
64. Levenhall Links
65. Prestongrange Mining Museum
66. Scottish Ornithological Club
67. National Flag Heritage Centre
68. Museum of Flight
69. Seabird Centre
70. Foxlake
71. East Links Farm Park
72. John Muir Birthplace

Appendix 2

Delivering B-Lines; guiding principles

Taken from https://www.buglife.org.uk/b-lines-hub

Delivering a landscape-scale biodiversity initiative nationwide will clearly be a major challenge! The effectiveness of B-Lines at this scale will be dependent on maintaining the integrity of its vision across a large geographic area and many individual delivery partnerships. The following simple guiding principles have therefore been produced to help partners deliver B-Lines in a reasonably consistent manner. Used in conjunction with the guidance/information provided in the B-Lines report they should enable the B-Lines concept and vision to be delivered by communities, local partnerships, farmers and wildlife organisations. Staying true to these principles will ensure the creation of a comprehensive and coherent B-Lines network, while allowing full expression of distinctiveness, character and approach.

Guiding Principles

1) B-Lines should be identified as 3 km wide linear zones within which the aim should be to deliver a continuous wide (averaging 300m wide- but with thinner and thicker stretches) strip of permanent wildflower-rich habitats, encompassing, expanding and linking together existing wildlife areas.

2) Where a continuous strip of habitat is not practical/achievable, the core benefits of B-Lines can be delivered through the maintenance, restoration and creation of large blocks of permanent wildflower-rich habitat (min 2 ha sized blocks) extending to a minimum of 10% of the identified zone (i.e. 300 ha of new/restored habitat per 10km length of the network). The aim of these 'stepping stones' should be to ensure that the distance between individual habitat blocks is no greater than 0.5km.

3) B-Lines should be mapped in such a manner as to link together existing important wildflower-rich areas (SSSI, Local Wildlife Sites, nature reserves, BAP habitats) – these areas will provide the foundations of the new B-Lines network.

4) B-Lines should ideally be mapped at a 'regional' or county level; each county having at least two, one running approximately north-south and one east-west. County/region-wide mapping would be best refined at a more local level, using local data/knowledge (for example, through Local Biodiversity/Nature Partnerships, Green Infrastructure Partnerships, local communities and others). To ensure a coherent network is developed key connecting nodes must be agreed between adjacent/neighbouring administrative areas.

5) Within B-Lines the primary aim should be to maintain, restore and create high quality semi-natural habitat types that fulfil the requirements of pollinators and other invertebrates. Wildflower-rich grasslands of a type typical of the locality should comprise the core of this new habitat, however other habitat types which reflect local landscape character and wildlife interests could also be included (for example lowland heathland/grassland mosaics, lowland fen, wood pasture and parkland).

6) Opportunities for wider wildlife enhancements should also be taken within the B-Line zones to help improve the overall environmental quality of the landscape, for example targeting of other agri-environment options, including hedgerow management, floristically enhanced margins, and pollen and nectar mixes

7) Priority should be given to the enhancement of the quality of existing sites and restoration of degraded sites through changes/improvements to management. The formation of the B-Lines will, however, require significant areas of wildflower-rich grassland creation and in these circumstances B-Lines will be sensitive to the conservation of our native flora, and use exclusively seed from native plant species, wherever possible sourcing this from local grassland habitats.

8) At a landscape-scale, B-Lines will look to achieve a diversity of habitat structure and function aimed at supporting the needs of invertebrates and other wildlife. A range of management regimes will therefore be required/promoted designed to create a diverse natural environment and associated wildlife interests. Development of management plans for individual stretches of the B-Lines should be guided by species and habitat in adjacent areas and surrounding habitats.

9) Villages/communities within or adjacent to the B-Lines should be encouraged to participate in the initiative through appropriate garden planting, management of community areas, churchyards, roadside verges etc.

10) In more urbanised areas, unitary authorities, local communities and developers will be encouraged to deliver B-Lines through green infrastructure initiatives, enhancing existing community green space and council-owned land, and looking for new opportunities such as living roof initiatives. To ensure the ecological connectivity of the overall network is maintained, it may also be appropriate in some location to identify a 3km wide B-Line around the urban conurbation.

11) Delivery of B-Lines will necessitate a wide range of farmers, landowners, wildlife organisations, government agencies, business and local authorities delivering parts of the network in a co-ordinated fashion. To achieve connectivity across the network will require all these parties to target and deliver habitat creation in a joined up and integrated manner.

12) To enable the success of the B-Lines to be assessed, monitoring must be put in place to help determine changes over time both at a field and landscape-scale.

Appendix 3 – Biodiversity Site Interests

1. To be included as a Local Biodiversity Site, the area must have met one from criteria A – D:

   A. At least part of the Local Biodiversity Site was designated as a Wildlife Site in the 2008 Local Plan;

   or, for sites not previously designated, consist of,

   B. a large relative extent of semi-natural habitat, or significant population of a notable species;

   C. semi-natural habitat close to existing designated site (SSSI or Wildlife Site) effectively making the existing site larger;

   D. semi-natural habitat linking two designated sites (SSSI and/or Wildlife Site) thereby defining a habitat network;

   and must include at least one from criteria E-G

   E. Site with semi-natural habitat or good range of species;

   F. Important site for key species, e.g. European Protected Species, ancient woodland flora, species in significant decline locally, etc.;

   G. Site of importance for local community contact with biodiversity.

The following series of summary tables describe the basic information about each Local Biodiversity Sites. This is not a comprehensive description of a site's value. Rather, it describes the basic reasons that justify their designation.

Sites are sorted according to their dominant landscape. They are either: coastal; woodland; grassland; river valley; upland; post-industrial; community. Although some sites could fit into different categories, most could clearly be summarised as one of the seven. Each has its own merits and in no sense should one type of site be viewed as more or less worthy relative to another. The categorisation here is merely to help illustrate site diversity.

COASTAL NETWORK

Coastal sites are necessarily restricted in their distribution to the intertidal margin and associated terrestrial habitats. Much of the coast has been designated as an SSSI, with the foreshore between Musselburgh and Dunbar designated as a Special Protection Area. Coastal sites offer protection to habitats and species not covered by the SSSI / SPA boundary. Many of these sites are botanically rich or support a broad range of species groups. These sites can be very popular with local residents, visitors and tourists, notably Gullane Bents and Longniddry Bents. Other sites are visited less often but are valuable for that quietness, such as the Bilsdean coast. Some sites are strongly urban and offer a very local biodiversity experience for residents.

COASTAL SITES							
Location	**Nearest Settlements**	**Cluster Area**	**Area**	**Habitat**	**Notable Species & Wildlife Groups**	**Community Accessibility**	**Justification Criteria**
Levenhall Links	Musselburgh	Musselburgh	106	Wetland, grassland and woodland. NWSS Habitat connectivity Habitat diversity	Orchids, breeding birds, butterflies.	Car park, bus route. Paths from local community and around site, including all-abilities route and John Muir Way	1, 3, 5 7
Morrison's Haven	Musselburgh, Prestonpans	Prestonpans	13	Habitat connectivity Coastal grassland	Sea pearlwort, common centaury	Nearby community, car park, bus route, paths, including John Muir Way	2, 5, 7
Longniddry Bents	Longniddry	Prestonpans, North Berwick	26	Habitat connectivity Coastal grassland, scrub	Bloody cranesbill, clustered bell-flower, purple milk-vetch, water vole	Nearby community, car parks, bus route, paths, including John Muir Way	2, 3, 5, 6, 7
Gullane Bents	Gullane	North Berwick	80	Habitat connectivity Sand dune system	Dark green fritillary, moonwort, purple milk-vetch	Nearby community, car park, bus route, paths	2, 3, 4, 5, 7
Dunbar Coast	Dunbar	Dunbar	57	Habitat connectivity Foreshore, coastal rocks	Curlew, dunlin, eider, sea wormwood	Adjacent community	2, 3, 4, 5, 7
Bilsdean Coast	Innerwick	Dunbar	100	Habitat connectivity Maritime cliff and foreshore	Lesser meadow-rue, oysterplant, sea sandwort	Car park, bus route, paths, including John Muir Link. Difficult A1 crossing from Innerwick	2, 3, 4, 5

WOODLAND NETWORK

Individual sites may support a range of different habitats, but sites in this table are predominantly wooded. Some woodland sites are managed to produce timber. Others may be managed for private or public amenity, landscape, wildlife, shooting etc. All the woodland sites, however, retain a strong element of naturalness.

Larger estates such as Gosford and Lennoxlove had been identified as Wildlife Sites in the 2008 Local Plan, including arable fields and areas of pasture. The current designation has removed productive land from the boundary. Much of their new site boundary is policy woodland.

Because of the relative importance placed on woodlands by people, much survey information is available. The Ancient Woodland Inventory (AWI) was compiled by Scottish Natural Heritage and Forestry Commission Scotland to identify those woodlands that were present in the landscape 150 to 250 years ago. Woodlands that were present at that time are considered to be ancient woodland and are likely to have a good diversity of woodland flora. The Native Woodland Survey for Scotland (NWSS) is a much more recent resource and assesses the naturalness of different woodlands across the country. Both studies were used in the boundary review.

WOODLAND SITES							
Location	**Nearest Settlements**	**Cluster Area**	**Ha.**	**Habitat**	**Notable Species & Wildlife Groups**	**Community Accessibility**	**Justification Criteria**
Carberry Woodland and Bing	Musselburgh, Whitecraig	Musselburgh	74	Native woodland in parkland landscape AWI, NWSS Habitat Networks	Bats, barn owl, badger	Car park. Paths. Local community, but improved access required from Wallyford	1, 5, 7
Gosford Woodlands	Longniddry	Prestonpans, North Berwick	188	Native woodland in parkland landscape AWI, NWSS Habitat connectivity Habitat size	Small pondweed, great spotted woodpecker	Close to local community. Open access to much of the estate, but permit holders only, close to Gosford House and its landscaped grounds	1, 2, 5, 7
Butterdean	Gladsmuir	Tranent	79	Largest wood in network of nearby woodlands. AWI, NWSS	Bird's nest orchid, badger, common wintergreen	Local community. Car park, bus route, paths	1, 2, 6, 7

Glen Wood	Ormiston	Tranent	16	AWI, NWSS Woodland network Wooded river corridor	Ancient woodland flora, wetland flora. Badger	Local community Paths	1, 5, 7
Humbie Wood	Humbie	Tranent	116	AWI, NWSS Large site, with good habitat connectivity	Stag's horn clubmoss, badger, ancient woodland flora.	Local community Car park, paths	1, 5, 6
Saltoun Big Wood	East and West Saltoun	Tranent	160	AWI, NWSS Large site, with good habitat connectivity	Red squirrel, palmate newt, ancient woodland flora	Local community Car park, paths	1, 2, 5, 6, 7
Petersmuir Wood	East Saltoun	Tranent	25	AWI, NWSS. Habitat connectivity	Bluebell, twayblade, common wintergreen	Paths. Site has general open access but is not convenient.	1, 5
Howden Wood	Bankrugg	Haddington (Tranent)	12	AWI, NWSS. Habitat connectivity	Ancient woodland flora	Site has general open access but is not convenient.	4, 5
Boltonmuir Wood	Bankrugg, Gifford	Haddington (Tranent)	72	AWI, NWSS. Habitat connectivity	Variety of orchids, red squirrel	Paths. Site has general open access but is not convenient	1, 2, 5, 6
Yester Woodlands	Gifford	Haddington	166	AWI, NWSS. Large site, with good habitat connectivity	Black spleenwort, toothwort, ancient woodland flora	Local community Car park, paths, bus route	1, 2, 5, 7
Colstoun Wood	Haddington, Gifford, Morham	Haddington	44	AWI, NWSS.	Greater knapweed, red squirrel	Site has general open access but is not convenient	1, 5
Lennoxlove Woodlands	Haddington	Haddington	80	Native woodland in parkland landscape AWI, NWSS Habitat Networks	Red squirrel (historic) Ancient woodland flora	Local community Paths, bus route	1, 2, 5, 6, 7

Fawn and Speedy Wood	Gifford	Haddington	31	AWI, NWSS. Habitat connectivity	Bats	Local community. Car parking, bus route, paths	3, 4, 5, 7
Baro Wood	Gifford, Garvald	Haddington	24	Wildlife Site AWI	Ancient woodland flora	Site has general open access but is not convenient.	1, 5
Balgone (woodland, grassland, open water)	North Berwick	North Berwick	48	AWI, NWSS. Habitat connectivity Habitat diversity	Common rockrose, hairy rock-cress, maiden pink	John Muir Way. Site has general open access but is not convenient.	1, 5, 6, 7
Craigmoor Wood	North Berwick	North Berwick	11	AWI, NWSS Habitat connectivity (Balgone-Waughton)	Wild onion	John Muir Way. Site has general open access but is not convenient.	3, 4, 7
Tyninghame Woodlands	Tyninghame, East Linton	Dunbar	342	AWI, NWSS Large site, with good habitat connectivity	Red squirrel	Local community. Car parking, paths	1, 2, 5, 6, 7
Pressmennan	Stenton	Dunbar	110	AWI, NWSS. Large site, with good habitat connectivity	Stag's-horn clubmoss, ancient woodland flora	Local community. Car parking, paths	1, 2, 5, 7

GRASSLAND NETWORK

Lack of good management of grasslands will lead to development of rank conditions and scrub growth. Although scrub can be a useful habitat, it also suppresses grassland species, leading to a loss of habitat quality. Conservation management of these sites is essential.

GRASSLAND SITES							
Location	**Nearest Settlements**	**Cluster Area**	**Area ha**	**Habitat**	**Notable Species & Wildlife Groups**	**Community Accessibility**	**Justification Criteria**
Linn Dean Water	Humbie	Tranent	39	Acid, neutral and calcareous grassland, connecting to AWI and NWSS Habitat connectivity and diversity	Common rockrose, juniper. Diversity of butterflies, including northern brown argus, otter	Parking on A68. Site has general open access but is not convenient.	1, 5, 6
Garleton Hills	Haddington	Haddington, North Berwick	151	A large site with acid, neutral, calcareous grassland. Site also includes woodland and wetland	Petty whin, maiden pink, newts	Car park. Path connections from Haddington. Site has general open access.	2, 5, 6, 7
By the Law	North Berwick	North Berwick	8	Grassland, woodland, scrub, wetland NWSS Habitat diversity	Ancient woodland flora, good grassland flora	Near North Berwick with path links to and through site. John Muir Way. Car park, bus route.	1, 5, 7

Waughton Grasslands	East Fortune	North Berwick	9	High quality neutral and calcareous grassland Habitat connectivity	Maiden pink, squirrel-tail fescue, wild onion	Close to John Muir Way. Site has general open access.	1, 5, 6
Howkins Wood and Grasslands	East Linton	Dunbar	17	High quality neutral and calcareous grassland Habitat connectivity	Bloody cranesbill, kidney vetch, spring cinquefoil, wild onion	Path. Site has general open access.	1, 5
Traprain Grasslands	East Linton	Dunbar	14	High quality neutral and calcareous grassland Habitat network	Fairy flax, maiden pink, spring sedge	General open access, but access is not convenient.	2, 3, 5, 6

RIVER VALLEYS

River valleys are potentially excellent sites, having the combination of aquatic and associated terrestrial habitat, both of which are included in the designation. Efforts were made to avoid inclusion of productive farmland or commercial conifer plantation in the riparian habitat boundary. These sites also offer tremendous habitat continuity, often through areas of intensively managed countryside. They can also link habitats that would otherwise be isolated in the countryside.

RIVER VALLEY NETWORK							
Location	**Nearest Settlements**	**Cluster Area**	**Area ha**	**Habitat**	**Notable Species & Wildlife Groups**	**Community Accessibility**	**Justification Criteria**
Esk	Whitecraig, Musselburgh	Musselburgh	59	Wooded river valley AWI, NWSS Habitat connectivity	Ancient woodland flora, stream water crowfoot, otter, bats	Adjacent to Musselburgh and Whitecraig, with good path access. Car parking.	1, 6, 7
Tyne	Ormiston, Pencaitland, Haddington, East Linton	Tranent, Haddington, Dunbar	185	Woodland and grassland AWI, NWSS. Habitat connectivity	Northern brown argus, otter, sand martins, water vole,	Good community connections. Paths, including John Muir Way. Car parking	1, 5, 6, 7
Keith Water	Humbie	Tranent	36	Woodland, grassland, wetland AWI, NWSS Habitat connectivity Habitat diversity	Ragged robin, sand martin, badger	General open access, but access is not convenient.	3, 4, 5
Humbie Water	Humbie	Tranent	46	Woodland, grassland and wetland AWI, NWSS Habitat connectivity	Ancient woodland flora, Ragged robin, red squirrel (slightly dated record).	Local community. General open access, but access is not convenient.	1, 5, 7

				Habitat diversity			
Birns Water	Humbie	Tranent, Haddington	37	Woodland, grassland AWI, NWSS Habitat connectivity Habitat diversity	Meadow saxifrage, badger	General open access, but access is not convenient.	4, 5
Bearford Burn	Haddington	Haddington	50	Grassland, woodland and field edge habitat. NWSS Habitat connectivity		Morham right of way, otherwise general open access.	4, 5
Gifford Water	Haddington, Gifford	Haddington	40	Woodland, grassland. AWI, NWSS Habitat connectivity Habitat diversity	Badger, bats	Local community. Paths, car parking.	1, 5, 6, 7
Hopes Water	Gifford	Haddington	36	Wooded river valley. AWI, NWSS. Habitat connectivity	Badger, bats	General open access, but access is not convenient.	1, 5
Biel Water	Garvald, Stenton, West Barns	Dunbar (Haddington)	221	Wildlife Site. Woodland, grassland. AWI, NWSS. Habitat connectivity	Ancient woodland flora, Adder, common lizard, bats	Reasonable accessibility, e.g. from Stenton. Paths	1, 5, 6,
Sauchet Burn	Stenton	Dunbar	36	Woodland, grassland. AWI, NWSS.	Ancient woodland flora	Convenient access from Stenton. Paths through site.	4, 5, 7

				Habitat connectivity			
Spott Burn	Spott	Dunbar	164	Woodland, grassland AWI, NWSS Habitat connectivity	Ancient woodland flora	Convenient access from Spott. Paths through site.	1, 5
Brunt Valley	Spott	Dunbar	77	Woodland, grassland. AWI, NWSS Habitat connectivity	Ancient woodland flora, newts	Paths through site and general open access.	1, 5
Dryburn Valley	Innerwick	Dunbar	115	Woodland, grassland. AWI, NWSS Habitat connectivity	Ancient woodland flora	Paths access from Innerwick and caravan park, otherwise general open access.	1, 5
Thornton Burn	Innerwick	Dunbar	151	Woodland, grassland AWI, NWSS. Habitat connectivity	Ancient woodland flora, brittle bladder fern, spotted flycatcher	Path access from Innerwick and Thorntonloch, otherwise general open access	1, 5, 7
Dunglass Burn	Oldhamstocks, Dunglass	Dunbar	148	Woodland, grassland. AWI, NWSS Habitat connectivity	Ancient woodland flora	Connects to John Muir Link and Dunglass core path. Convenient access from Oldhamstocks.	1, 5, 7

UPLAND LANDSCAPE

The Lammermuirs form an extensive area of upland scenery dominated by heathland, acid grassland and bog. Smaller areas of neutral and calcareous grassland and other wetland communities can be found. All these habitats are priorities in the East Lothian Biodiversity Action Plan.

UPLAND LANDSCAPE							
Location	**Nearest Settlements**	**Cluster Area**	**Ha.**	**Habitat**	**Notable Species & Wildlife Groups**	**Community Accessibility**	**Justification Criteria**
Lammermuirs	Gifford, Garvald, Oldhamstocks	Tranent, Haddington, Dunbar	9500	Acid, neutral, calcareous grassland. Heathland, blanket bog Habitat connectivity Habitat diversity	Sphagnum and other mosses, upland vegetation communities, adder, common lizard, northern brown argus, dark green fritillary and other butterflies	General open access. Paths across site, including Herring Road and other Core Paths.	2, 5, 6

POST INDUSTRIAL SITES

Many former urban or industrial landscapes are extremely valuable for wildlife. They offer relatively undisturbed conditions and exposed surfaces on which plants can colonise naturally, and where invertebrates can bask or hibernate. These sites can also offer extremely good public access to wildlife, most notably along the railway walks.

POST INDUSTRIAL SITES							
Location	**Nearest Settlements**	**Cluster Area**	**Area ha**	**Habitat**	**Notable Species & Wildlife Groups**	**Community Accessibility**	**Justification Criteria**
Ormiston / Pencaitland Railway Walk	Whitecraig, Ormiston, Pencaitland, West Saltoun	Musselburgh, Tranent	89	AWI, NWSS Woodland, grassland, aquatic habitats Naturally re-colonising bing Habitat connectivity Habitat diversity	Badger, bats, butterflies	Close to communities with good path connections to and through site. All-abilities path. Car park	1, 5, 7
Longniddry / Haddington Railway Walk	Longniddry, Haddington	Prestonpans, Haddington	20	AWI, NWSS Woodland, grassland, aquatic Habitat connectivity Habitat diversity	Birds, including warblers. Plants, including sweet violet. Newts. Butterflies	Close to communities with good path connections to and through site. All-abilities path. Car park	1, 5, 7
Gifford Railway	Gifford, Bankrugg	Haddington	29	Woodland, aquatic. AWI, NWSS Habitat connectivity	General countryside species	Paths from Gifford and Bankrugg. Local parking.	1, 5
Donolly Reservoir	Gifford, Garvald	Haddington	30	Woodland, grassland, aquatic. NWSS Habitat connectivity Habitat diversity	Ancient woodland flora	Core Path	1, 5
Gullane Railway	Gullane	North Berwick	7	Woodland, grassland, aquatic. AWI, NWSS Habitat connectivity	General countryside species	Path extends from Gullane. Local parking.	1, 7
Markle Quarry Pond	East Linton	Dunbar	5	Wetland, scrub habitat	Rigid hornwort, newts	Core Path to site	2, 5, 6

COMMUNITY SITES

Convenient access to nature is important for human well-being and should be a possibility for everybody. Some areas have therefore been included as biodiversity sites to allow for this. Although some of these sites may not include biodiversity that is especially rare or valuable in scientific terms they do enable everyone to experience biodiversity close to their homes. This is important for the enjoyment and appreciation of biodiversity, including inspiring future generations.

Some of these sites are the main areas that people would think of as important for the experience of biodiversity in their community. In some cases community sites are the only areas of habitat close to a community. These sites are also important for local education as they are easy to access and the biodiversity there can tolerate disturbance. Including sites where the main purpose to for community use chimes with the aim in Scotland's 2020 challenge to connect people with the natural world for their health and wellbeing.

COMMUNITY SITES							
Location	**Nearest Settlements**	**Cluster Area**	**Ha.**	**Habitat**	**Notable Species & Wildlife Groups**	**Community Accessibility**	**Justification Criteria**
Wallyford Bing	Wallyford	Musselburgh	8	Woodland NWSS		Adjacent to Wallyford with good network of paths. Site to be enhanced through approved housing proposal.	n/a
Heugh and Meadowmill	Tranent, Prestonpans	Tranent	13	Woodland NWSS	Sparrowhawk. Grayling and other butterflies.	Between communities, good path connections. Car park, bus route.	n/a
Strawberry Wood	East Saltoun	Tranent	5	Woodland AWI	Orchids, fossils	Local community. Paths. Local parking	n/a
Saltoun Tip	East Saltoun	Tranent	6	Grassland, woodland, wetland	Orchids	Paths from East Saltoun to site, and through site. Car park.	n/a
Lochend Woods	Dunbar	Dunbar	36	AWI, NWSS Large urban woodland	Great spotted woodpecker, badger, bats	Surrounded by local community with good network of paths. Managed by community group.	n/a

Appendix 4 – East Lothian Geodiversity Audit

Please refer to Members Library 31 August 2016

Library reference:

140/16 Proposed Local Development Plan Technical Note 11: Planning for Geodiversity Annex 2 Part A and Annex 2 Part B

This can be found at https://www.eastlothian.gov.uk/meetings/meeting/5986/members_library_service

Versions of this publication can be supplied in Braille, large print, audiotape or in your own language. Please phone Customer Services if you require assistance on **01620 827199**

To make a comment, suggestion or complaint about a council service, download a feedback form online at www.eastlothian.gov.uk or pick one up at your local office.