



John Muir Pollinator Way Report: Falkirk

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Summary

The John Muir Way, opened in 2014, stretches 134 miles through nine local authority areas including Falkirk.

This B-lines project, the first in Scotland, has identified new opportunities for grassland habitat creation, enhancement and management along the route of the John Muir Way as it passes through Falkirk as well as 1.86 miles either side of this. Through this mapping exercise a number of sites have been identified including 49 schools and nurseries; 19 hospitals and care homes; 64 places of worship and cemeteries; 5 historic landmarks and buildings; and 5 train stations. Additionally, 4 golf courses (215.84 ha), 172 public parks and play spaces (681.36 ha) and 1 country park (64.83 ha) were identified.

There are a number of sites within this project that have nature conservation designations, including 50 Local Nature and Conservation Sites and Local Wildlife Sites (1,089.17 ha), 5 Sites of Special Scientific Interest (675.84 ha) and 2 Local Nature Reserves (83.93 ha). A further 2 sites are managed as Scottish Wildlife Trust reserves totalling 7.59 ha and 9 have previously been identified as having an Open Mosaic of Habitat on Previously Developed Land with a total of 36.52 ha.

By mapping new opportunities this will aid in the future development of projects that will provide real benefits to our declining populations of pollinating insects of bees, wasps, hoverflies and butterflies as well as other wildlife that these habitats support.

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1. Introduction

The route of the John Muir Way stretches 134 miles (215 kilometres (km)) from Helensburgh in the west to Dunbar on the east coast (Figure 1). This walking and cycling route was opened in 2014 to commemorate the 100^{th} anniversary of John Muir's death.



Figure 1. Route of the John Muir Way from Helensburgh in the west to Dunbar on the east coast.

During its 134 miles stretch, the John Muir Way passes through nine different local authority areas and goes through and close to several towns, including Helensburgh, Balloch, Lennoxtown, Kirkintilloch, Falkirk, Edinburgh and Dunbar. This walking and cycling route passes through a varied landscape with a wide range of habitats including agriculture, coastland, parkland, housing as well as sites with various conservation designations. Many of these sites are important for a range of wildlife and plant species and allow the movement and mixing of species along and out with the route.

The John Muir Way is about 26 miles long as it passes through Falkirk. It enters Falkirk from North Lanarkshire on the Forth and Clyde canal. The route leaves the canal at Bonnybridge where it travels up to the Roman Antonine Wall at Roughcastle and along to the Falkirk Wheel before going through Callendar Estates owned woodland to Callendar House and then joining the Union canal. From here the route leaves Falkirk and enters West Lothian to go through Linlithgow. From here the route reenters Falkirk travelling north to Bo'ness where it follows the coast of the Firth of Forth to Blackness Castle leaving Falkirk to travel onward onto Edinburgh.

1.1 B-lines

Since the 1940's, Britain has lost over 97% of its species-rich grassland to agriculture, housing developments and industry. B-Lines are an imaginative solution to the problem of the loss in wildflower meadows and the subsequent decline of pollinating insects. The B-Lines are a series of 'insect pathways' along which Buglife aims to create and restore at least 150,000 hectares (ha) of wildflower-rich habitat stepping stones across the UK. They link existing wildlife areas together, creating a network that will weave across the British landscape. This will provide large areas of brand new habitat benefiting bees and butterflies as well as a host of other wildlife.

B-Lines bring a range of benefits to wildlife, people and agriculture, including helping to conserve our native pollinators and a range of other wildlife; contributing towards the 2020 Biodiversity targets; helping our wildlife respond to climate change by making it easier for them to move around; increasing the number of insect pollinators and the benefits these bring to our farming sector (pollination being an important 'ecosystem service'); bringing nature to people; and giving opportunities for everyone to play their part and help create the B-Lines network.

Making the B-lines happen will take time and will need farmers, land owners, wildlife organisations, businesses, local authorities and the general public to work together to create flower-rich grassland in the best locations.

'John Muir Pollinator Way' is the first B-lines project in Scotland. Through this study, this project has mapped opportunities for wildflower grassland creation, enhancement and management along the route of the John Muir Way as it passes through Falkirk. This B-lines map will include not only areas that are currently used as amenity grassland such as at public parks and in school grounds but also sites that have nature conservation designations and are currently managed for their important grassland habitats. By mapping these opportunities it identifies where current habitat is, how it can be better managed and where projects should focus to further benefit wildlife and communities in the future.

2. Method

Opportunities for the creation, enhancement and management of grassland meadows and other habitats important for pollinating insects and other invertebrates were mapped using an online Geographic Information System (QGIS) along the 26 mile route of the John Muir Way as it passes through Falkirk as well as 1.86 mile (3km) either side of this. This area covers a total 15,776 ha of land.

Potential opportunities on sites with no nature conservation designations were identified based on if they held grounds for habitat creation and enhancement, these sites were then marked by a round circle and included high schools, primary schools, nurseries, hospitals, care homes, places of worship, cemeteries, historic landmarks, historic buildings and train stations.

Scotland's Greenspace Map, available from Scottish Natural Heritage (SNH) provides information about the type and extent of greenspace in urban Scotland in towns and cities with a population of over 3,000. This map was compiled in 2011 from greenspace data provided by the 32 Scottish local authorities and categorises greenspace into 23 different open space types (for example, public parks, private gardens, play areas, semi-natural, community gardens and allotments). Using Scotland's Greenspace Map, public parks, play spaces and golf courses were identified and mapped on the B-lines using polygons to calculate the area of each site; further information on the location and names of public parks and play spaces was obtained from several of the local authority websites. Additional areas of amenity grassland identified on Scotland's Greenspace Map, including residential, business and transport were not mapped due to the number of sites and complexity in mapping them.

Polygons of designated country parks with information on the size of each site were also added to this opportunity map after being downloaded from the SNH website.

Sites designated for nature conservation within this project were downloaded from the SNH website and mapped using polygons so that the size of the area could be calculated for each site; this included Local Nature Reserves (LNR) and Sites of Special Scientific interest (SSSI). Information on the location and size of Local Nature Conservation Sites (LNCS) and Local Wildlife Sites (LWS) were obtained from the council's biodiversity officer and each site was drawn onto QGIS map.

As well as sites designated for nature conservation, all wildlife reserves were looked for within the project area. All sites identified belonged to the Scottish Wildlife Trust (SWT) and polygons of the reserves were added to show the location and size of each reserve within the project area.

In 2013, Buglife identified sites on Scotland's vacant and derelict land register with the UK Biodiversity Action Plan (UKBAP) priority habitat 'Open Mosaic of Habitat of Previously Developed Land' (OMHPDL) and the shapefile which included the polygons for these sites was uploaded onto this B-lines opportunity map (Macadam *et al.* 2013).

3. Results

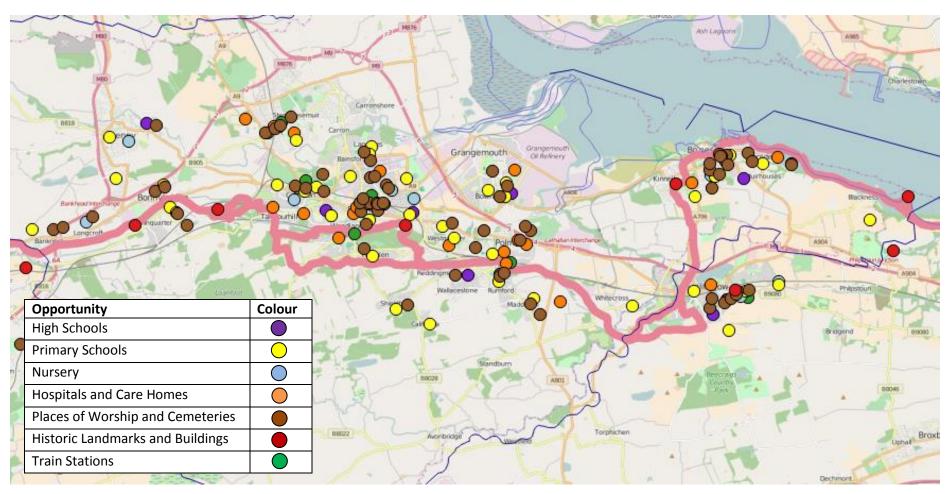
A full list of opportunities identified can be found in Appendix 1.

A total of 49 schools and nurseries were identified and this includes 6 high schools, 36 primary schools and 7 nurseries (Table 1; Map 1). At least 11 of the schools (1 high school and 10 primary schools) have been identified as having pupils who live in the 20% most deprived areas (Appendix 1). Additionally, 16 schools and nurseries (1 high school, 13 primary schools and 2 nurseries) are registered with the RHS School Gardening Scheme (Appendix 1). A further 19 care homes and hospitals along with 64 places of worship and cemeteries, 5 historic landmarks and buildings and 5 train stations were also identified (Table 1; Map 1).

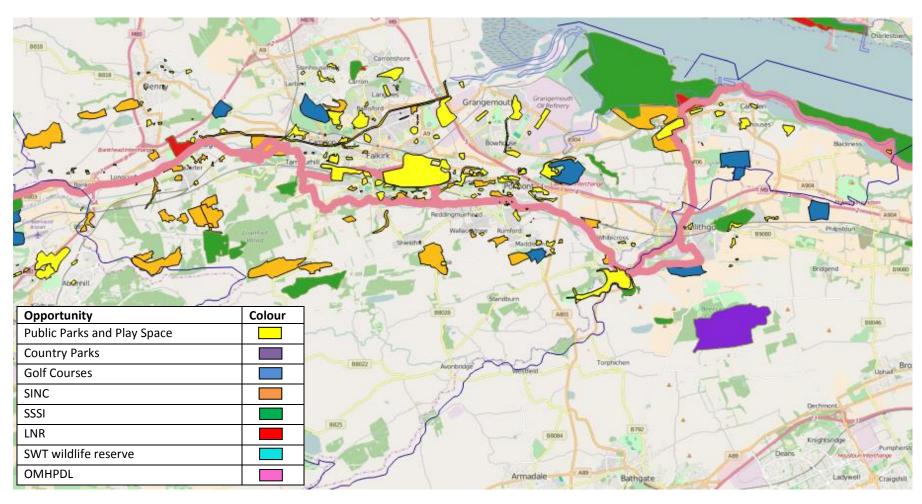
Within the project area of Falkirk there are 4 golf courses that cover a total of 215.84 ha (Table 1; Map 2). There are at least 172 public parks and play space that cover at least 681.36 ha of ground and include a variety of habitats from woodland, ponds and amenity grassland, additionally there is one Country park that is 64.83 ha (Table 1; Map 2). In total there are 50 LNCS and LWS (1,089.17 ha), 5 SSSI (675.84 ha) and 2 LNR (83.93 ha) within the project are a9Table 1; Map 2). The only wildlife reserves within the project area that are managed by conservation charities belong to SWT of which there are 2 sites with a combined area of 7.59 ha (Table 1; Map 2). A further 9 sites with OMHPDL a total of 36.52 ha is within the project area (Table 1; Map 2).

Table 3. Total number of opportunities identified for each category mapped within Falkirk including the size of the area in for sites designated for conservation along with golf courses, public parks and country parks.

Opportunity	Total number	Total Area (ha)
High Schools	6	-
Primary Schools	36	-
Nursery	7	-
Hospitals and Care Homes	19	-
Places of Worship and Cemeteries	64	-
Historic Landmarks and Buildings	5	-
Train Stations	5	-
Golf Course	4	215.84
Public Park	172	681.36
Country Park	1	64.83
SSSI	5	675.84
LNR	2	83.93
LNCS and LWS	50	1089.17
SWT Reserve	2	7.59
OMHPDL	9	36.52



Map 1. Opportunities of non-designated sites identified in Falkirk.



Map 2. Opportunities of sites designated for conservation along with public parks and golf courses identified in Falkirk.

4. Discussion

The John Muir Way is 134 miles long and has a varied landscape, passing through nine different local authority areas, various towns and cities as well as rural habitats. The 15,776 ha of land covered by this project in Falkirk has identified various opportunities for grassland habitat creation, enhancement and management within the grounds of schools, hospitals, golf courses and public parks. Each of these potential opportunities differ in the communities involved from across Falkirk and the habitats present but all have the potential to significantly increase and improve habitat for pollinating insects and other wildlife across the heartland of Scotland.

4.1 Schools

A total of 49 schools and nurseries were identified within this projects area and includes six high schools, 36 primary schools and seven nurseries. Most schools and a majority of the nurseries have outdoor grounds that may include areas of amenity grassland as playing fields that are used by school children during breaks and during physical education (PE) lessons. Alongside these large areas of amenity ground, schools often have other outdoor areas that are may be used as a school garden or are left as areas of additional amenity grassland. It is these areas that can be enhanced for wildlife by creating biodiverse school gardens or changing the management to reduce the cutting of the area. This would not only benefit pollinating insects and other wildlife but also the school children who could help create the habitats and use them for learning and play. Wildflower meadows within the school grounds could be created with the help of the school children and parents and be managed with the help of the local authority if required.

To further benefit pollinating insects such as solitary bees, school children could be encouraged to create homes for them in wood working class. These can be installed in south facing and warm areas around the school and will create homes for wood nesting solitary bees and other invertebrates.

Of the 49 schools identified in this survey, sixteen (includes one high schools, thirteen primary schools and two nurseries) are registered with the RHS School Gardening Scheme which aims to inspire and support schools to provide children with gardening opportunities to enhance their skills and boost their development. This highlight how many schools are keen to get their pupils involved in outdoor learning to encourage them to get outside, improve their health and develop new skills.

All of the schools and many of the nurseries identified are registered as an Eco-school, many of which have various awards associated with this. Eco-Schools are an international initiative designed to encourage whole-school community action on 'Learning for Sustainability'. This environmental management tool is a learning resource and a recognised award scheme which empowers children and young people to take action towards an economically, socially and environmentally just world. The Eco-Schools programme is managed in Scotland by Keep Scotland Beautiful.

Other school initiatives that aim to get children out of the classroom and either into their local community or developing their school grounds include Polli:Nation a UK wide initiative supporting pupils from 260 schools to turn their school grounds and other areas within their local communities into pollinator friendly habitats. Unfortunately, none of the schools selected in Scotland are within this project's area although they will still be able to get involved in this initiative.

Priority Project 6 through Scotland's Biodiversity- a route map to 2020, aims to increase secondary and primary schools access to greenspace and nature for outdoor learning as part of the wider 'Learning for Sustainability' agenda. Through this, it aims to work with 100 schools by 2020 that have pupils who live in the 20% most deprived areas. Of the schools identified, eleven (one high

school and ten primary schools) have pupils who live in the 20% most deprived areas. By focusing to work with several of these schools identified through this project will significantly increase the health and well-being of school pupils as well as people in the wider community.

There is a lot of scope for schools to get involved with enhancing their grounds for wildlife and for the pupils through the RHS School gardening scheme and Keep Scotland's Beautiful Eco-schools as well as other initiatives. It may be that further support is required to encourage more schools to actively get involved for the benefit of the school children and for declining insect pollinator populations.

4.2 Hospitals and Care Homes

Of the 19 hospitals and care homes identified within this project, two are hospitals that are well by hundreds of patients and visitors every day. It is well documented of the health and well-being benefits for people with local and easy access to wildlife as well as the increase in recovery time of patients in hospitals.

Surrounding Forth Valley Royal Hospital in Larbert are large areas of amenity grassland that have very little benefits for biodiversity and people using and visiting the hospitals. This particular hospital has a designated area for wildlife and manages a woodland and pond to encourage patients, visitors and local residents to access the outdoors. By further enhancing this hospitals grounds for nature through the creation of grassland meadows this will not only add colour and life to the area benefiting both people and wildlife but will also allow for the moving and mixing of species and individuals across the hospital grounds and surrounding landscape. Additionally, small wildlife gardens can be created closer to the hospital within areas that are well used by patients through the use of planters, green walls and/or insect homes (Figure 1).



Figure 1. Example of a green wall that holds a variety of plants, including wildflowers. This particular green wall also has a variety of homes for insects and other bugs.

All patients can be encouraged to get involved with these creation and enhancement projects as well as the management whilst in the hospital and when they finish their treatments, especially for those that live within the local surrounding area.

Due to health and well-being benefits it is also important to provide opportunities for people in care and nursing homes and hospices to get involved in similar projects in there grounds. Care homes

often have grounds that residents can walk around either on their own or with visitors. By enhancing these areas for pollinating insects it will provide colour and life to the gardens that will make a happier and healthier place for the residents to live and enhance their experiences and quality of life.

4.3 Places of Worship and Cemeteries

There are at least 64 places of worship and cemeteries identified within this project. At least nine are described as just cemeteries whilst many of the places of worship also include burial grounds.

Many cemeteries and churchyards are well known to be important habitats for a range of wildlife including bats, birds and foxes as they are often less intensively managed as other urban green spaces. A range of habitats are often found at these sites including mature and veteran trees, old walls, wildflowers, bare ground and shrubs. By creating habitat and enhancing areas already present within the grounds this will add colour and life to the churchyards and cemeteries that will not only improve health and well-being of visitors but will provide important stepping stones for wildlife through an area.

Not all the churches identified have grounds that could be enhanced or managed but they can help to inspire local communities to actively get involved with community led projects that could benefit the local area away from the church. It is important to identify which of these churches have access to an outdoor space and what habitats are currently present within these that could be enhanced or better managed for wildlife. This in itself could be a project that engages with communities across Scotland with their local place of worship.

4.4 Historic Landmarks and Buildings

Of the five different historic landmarks and buildings identified during this project, three are owned and managed by Historic Environment Scotland (HES). These landmarks include castles (such as Blackness Castle), houses with grounds (Callendar House and Kinneil House) and the historic roman built Antonine Wall at Roughcastle and Seabegs Wood. Many of these sites are now tourist attractions which attract thousands of visitors a year.

Due to their historic value it is unlikely that many of these landmarks could be influenced with creating large wildflower meadow areas and other habitat, especially in sensitive areas (for example along the Antonine Wall), but it may be that small projects could influence management within small areas of a site for the benefit of pollinating insects and other wildlife, especially at sites that are known for their gardens. This could be through the installation of solitary bee homes for wood nesting species and the creation of small wildflower areas within the gardens themselves.

4.5 Train Stations

There are five train stations that have been identified in this project that are used by thousands of people every day, such as Falkirk High.

Some train stations, such as at Polmont, have some ground that they currently manage as gardens often with the help of a local community group. Many others have planters of varying size that are planted with seasonal garden plants. By planting wildflowers within the planters or surrounding grounds this will help reduce costs of buying seasonal garden plants and reduce maintenance time. Green walls shown in Figure 1 could be placed alongside walls that are outside to further enhance the station for pollinating insects that would also provide colour and life benefitting passengers using the stations.

4.6 Golf Courses

Of the four golf courses within this projects that cover a total of 215.84 ha of land.

Golf courses are well known to act as important areas for wildlife, especially in an urban area due to the various habitats present, such as woodland, hedgerows, rough grassland, ponds, ditches and heathland. Golf courses cover 1% of land in the United Kingdom. Generally between 40-60% of a golf course is out of play representing a significant land resource that can potentially be made available for wildlife protection and nature conservation. Many golf clubs are recognising that a naturalistic golf course environment which is attractive for wildlife is also generally more attractive to golfers.

Buglife's current meadow creation project 'Fife's Buzzing', a three year project funded by Heritage Lottery Fund and Fife Environment Trust, has enhanced Dunnikier golf course in Kirkcaldy for biodiversity by planting native and diverse wildflower species into areas that are not in play and around ponds. These have helped create a healthier place for wildlife and for the people using the course as well as getting the local community and schools involved with habitat creation events through volunteer activities.

The Golf Environment (GEO) was founded to support the golfing industry, helping it to deliver and be recognized for a positive impact for the people and nature that it touches, now and in the future. They are currently developing an awards system that encourages golf courses around the world to create areas within their grounds to further benefit wildlife. Through their system, individual golf courses will be able to identify what they are currently doing that is benefitting local wildlife but also other activities that would provide further benefits. This could positively benefit not only pollinating insects with the planting of native species of wildflower within meadow areas that are local to the golf course, but also aquatic invertebrates through the enhancement of ponds and wildlife such as Longhorn beetles that require dead wood for their lifecycle with the enhancement and creation of areas of dead wood.

4.7 Public Parks and Play Spaces

Scotland's Greenspace Map, available from SNH, was used to identify and map the location of public parks and play spaces across the project area. Scotland's Greenspace Map was compiled in 2011 from greenspace data provided by the 32 Scottish local authorities and categorises greenspace into 23 different open space types (for example, public parks, private gardens, play areas, semi-natural, community gardens and allotments). As some of this information is incomplete, such as the names of the parks, information was also obtained using local authority websites and other sources.

A total of 172 public parks and play spaces were identified covering a total of 681.36 ha. Many of these parks are well used by local communities and visitors every day for walking, cycling, running or playing.

Most parks have large areas of amenity grassland that is cut several times over a year and has very little benefits to biodiversity because of this. Through Buglife's Get Britain Buzzing campaign, we have been transforming mown grassland in parks into colourful wildflower areas for both people and wildlife to use and enjoy. In Scotland these projects have so far occurred out with the project area of the John Muir Pollinator Way in Glasgow, Perth and currently in Fife and North Lanarkshire. For example, just over half way through the three year 'Fife's Buzzing' project, Buglife has engaged with 1,057 people in the creation and enhancement of over 5 ha of wildflower meadow at 13 parks across Fife.

Through these projects we have recognised that it is important that if changing the management at parks and/or creating wildflower areas for wildlife that local communities are consulted before hand so they can decide on the best areas within their local park and the size of the area to be created and managed. It may be that all of a park is well used over the year by dog walkers and picnickers so only small edge areas could be enhanced. It is these small areas that could encourage the creation of larger areas once the public understand the change being undertaken in their local area.

Local authorities across Scotland and the rest of the UK are facing major cutbacks and are looking at ways to reduce spending. Several are known to be looking at reducing their grass cutting regime within certain areas of amenity grassland. This is great news for pollinating insects that will be able to find forage and nesting habitat within areas that are cut less regularly but not if these aren't properly managed by being cut and lift once a year. It is important that wildflower meadow areas are managed appropriately to prevent grasses becoming dominant and turning into rank grassland. Management of grasslands is site dependent and could involve grazing or cutting once a year and removing the cuttings. With a reduction in grass cutting, councils are realising that they don't have equipment to cut and lift once a year and so hire a contractor to do this, which can be an expense they can't afford within the current climate.

Several parks identified in this project, have designated Friends of Groups that get involved with habitat creation and management projects so as to enhance their area. Friends of groups could apply for funding to enhance their local park for biodiversity through the creation and management of grassland.

4.8 Country Parks

Of the 36 country parks across Scotland, only one is located within this project, Muiravonside in Whitecross which is 64.83 in size. This country park has both woodland and parkland habitat and has a spectacular river gorge as well as relics of industrial archaeology that attract thousands of visitors every year. This country park has its own dedicated Countryside Ranger service that manages the parks as well as engages with the local community and school children through events run all year round.

It is important that this country park follows its management plans to ensure that they remain viable for wildlife and that the habitat is managed appropriately so that both people and animals can continue to use and visit the parks in the future.

4.9 Local Nature Conservation Sites and Local Wildlife Sites

There are 50 LNCS and LWS within the project area in Falkirk that cover a total of 1,089.17 ha; 15 SINCs at 120.98 ha and 35 Local Wildlife Sites at 968.19 ha (Appendix 1).

LNCS and LWS are sites that have been designated as being important for nature conservation due to the habitats and wildlife that are present. For sites identified through this project a range of habitats are present, including woodland, heathland, reservoirs, ponds, ditches and grassland meadows. It is important that management plans are written for each site and that the correct regime is in place to ensure long-term survival of the site and its habitats for the future protection of wildlife. As it was very difficult to find information about individual sites it is assumed that management plans, if there are any are not accessible to the public or have yet to be completed.

4.10 Site of Special Scientific Interest

SSSI are those areas of land and water (to the seaward limits of local authority areas) that are considered to best represent our natural heritage, due to their species diversity and habitats, rocks and landforms present as well as a combinations of these features. SSSIs are protected by law and it

is an offence for any person to intentionally or recklessly damage them. SSSI are designated by SNH under the Nature Conservation (Scotland) Act 2004.

There are over 1,425 SSSIs across Scotland, of which only five are within this project and this covers 675.84 ha; this includes the SSSI along the Firth of Forth which is shared amongst the local authority areas of Fife, Clackmannanshire, Stirling, Falkirk, West Lothian, City of Edinburgh and East Lothian and is a total of 7,435.48 ha in size and has not been included within Table 1.

Most SSSIs are in private ownership and SNH works closely with their owners and managers to ensure appropriate management of the sites natural features and to ensure that decision-makers, land managers, their agents and advisors, as well as local authorities and other public bodies, are aware of SSSIs when considering changes in land-use or other activities which might affect them.

Any Scottish public body proposing to carry out an operation that may affect an SSSI must notify SNH before starting. SNH provides each SSSI owner and occupier with a site management statement that describes the interest of the site and explains the management needed to conserve its protected natural features. For those sites which are known for their grasslands it is important that these management plans are stuck to and that the meadows are appropriately managed to ensure long-term survival of the site for their biological features.

4.11 Local Nature Reserves

There are 72 designated LNRs across Scotland that provides wild spaces where some of our rare species as well as our common species can thrive. LNRs offer a more natural environment than parks and gardens, but are still readily accessible to, and for a wide range of people.

There are two LNRs within this projects that cover an area of 83.93 ha. Both Kinneil Foreshore and Bonnyfield Nature Park area recognised for their important species-rich grasslands as well as the other habitats present. All LNRs should have management plans that are strictly followed to protect the site for the habitats that it supports along with the wildlife that depends on this.

Please note that Carron Dams LNR has not been included as only the very southern edge of this site touches the outer part of the projects area.

4.12 SWT Wildlife Reserves

SWT have over 120 reserves in Scotland which is more than any other conservation organisation in Scotland. There are two reserves within this project that total 7.59 ha of land; Jupiter Urban Wildlife Centre and Bo'mains Meadow.

Both of the reserves within the project area are known for having important grassland and wildflower meadows. Through the SWT website, there is information on each of its reserve that includes site maps as well as details on how to get there. As SWT is a membership charity, people who join help to conserve their reserves for wildlife. Management plans will be available for each of their reserves that they will follow in order to conserve the important habitats and features present.

As most of their reserves are appropriately fenced, when managing grasslands at their reserves, SWT realised that the best method was to use grazing livestock. Grazing, if not too heavy, produces structural mosaics in the vegetation associated with the palatability of individual species. Trampling, dunging and defoliation all contribute to the small scale pattern of variation. Plants and animals benefit from the variety of structural features present in lightly or moderately grazed pastures but heavy grazing eliminates structural diversity.

Through funding from Heritage Lottery Fund, SWT were able to buy some sheep that they use to help manage their reserves and other sites including several SSSI across Scotland; they are known as the 'flying flock'. Sites which use the flying flock are known to be improving each year through this management.

4.13 Open Mosaic Habitat on Previously Developed Land

OMHPDL is a UKBAP priority habitat as its mosaic of habitats provides homes for a number of wildlife species and allows a natural process of succession to occur which is often limited in the overmanaged countryside. Derelict sites often have areas of bare ground, early successional communities, grasslands, wetland, scrub depending on how long the site has been abandoned, soil conditions and local climate.

In 2013, a report by Macadam *et al.* remotely assessed sites on Scotland's vacant and derelict land register for OMHPDL using Google Earth maps. Of the 4,118 sites on the 2011 register, 586 were selected as potentially having OMHPDL and should be ground truthed and this amounted to over 5,600 ha of land. Of this total, nine lie within this project area and are only 36.52 ha in total. Most of the sites with OMHPDL appear to have areas of bare ground and grassland on site. Ground truthing these sites would help to identify if the site has the UKBAP priority habitat OMHPDL and whether management is required to ensure long-term viability of the site.

Brownfields with OMHPDL are known to be important for wildlife due to a lack of management and low nutrients in the soil that often creates a mosaic of habitats. Many rare and scare species have been recorded at brownfield sites, often as many that are associated with ancient woodlands. Due to natural succession, many of these sites have a limited lifespan but as sites are lost to development, new sites are added that allow succession to start again.

4.14 Other Opportunities

During the mapping of opportunities for this B-lines project, other areas were recognised as being possibilities but were not mapped due to a lack of information, the number of these sites as well as the complexity of mapping them. This includes areas of amenity grassland identified on Scotland's Greenspace Map, including amenity sites recognised as residential, business and for transport. These areas of amenity grassland include road verges through our urban areas as well as regularly mown areas of amenity that are not classified as parks or play spaces but can often be large in size. All of these areas of amenity are opportunities for creating habitat for pollinators across an urban area that will allow the moving and mixing of individuals and species across these areas with more natural areas of habitat.

As well as passing through urban areas, the John Muir Way also passes through agricultural areas which were not mapped due to a lack of information on the location and use of fields. By creating wildflower strips and planting hedges along field edges this will create habitat corridors for pollinating insects and other wildlife allowing them to pass through agricultural areas safely to other areas and this will also help with the mixing of individuals and species. Wildflower strips provides additional benefits by increasing free pollination services of crops and attracting insects such as hoverflies, soldier beetles and lacewings who's larvae feed on pests such as aphids.

5. Conclusion

The 134 mile route of the John Muir Way passes through villages and towns in nine different local authority areas. Various organisations are currently involved with a variety of different projects along and around the route of the John Muir Way. For example, this includes Sustrans who are heavily involved with the cycle path network, Inner Forth Landscape Initiative which has a range of projects for biodiversity and people in Grangemouth and Bo'ness, Edinburgh Living Landscapes that

are creating and managing grassland habitats within the City of Edinburgh as well as a number of community groups within the villages and towns will manage local community gardens for both people and wildlife.

This project has identified a number of opportunities in Falkirk for creating important grassland habitat within parks, golf courses, school grounds and others for pollinating insects that will allow the movement and mixing of individuals and species across Scotland. This will also benefit other wildlife, particularly other invertebrates, and plants.

There are a number of opportunities for creating wildflower and grassland meadows within the various villages and towns including Bonnybridge, Camelon, Falkirk, Grangemouth and Bo'ness. Not only will these new habitats benefit wildlife but also local communities by getting people actively involved in projects and through the addition of colour and life to their areas that will benefit people's health and well-being.

This project has additionally highlighted a number of sites that have been designated for nature conservation that should be managed for the habitats present at their site. By being appropriately managed this will ensure long-term survival of these sites and habitats for wildlife and people to use and enjoy.

By mapping the opportunities at new identified sites and within currently managed sites through this project, this will aid in the future development of projects that will provide real benefits to our declining populations of pollinating insects of bees, wasps, hoverflies and butterflies as well as other wildlife that these habitats support.

References

Macadam, C., Bairner, S. and Cathrine, C. 2013. Open mosaic habitats on previously developed land: survey and recommendations for habitat planning and management in Scotland. Scotlish Natural Heritage Commissioned Report No. 606.

Scottish Natural Heritage Greenspace Scotland Map, available at: http://www.snh.gov.uk/planning-and-developers/greenspace-and-outdoor-access/scotlands-greenspace/dataset/ last accessed 29th March 2016.

Scottish Natural Heritage Information Service, available at http://www.snh.gov.uk/publications-data-and-research/snhi-information-service/ last accessed 29th March 2016.

Appendix 1

Opportunities within local communities and landscapes

High School

Bo'ness Academy, Gauze Road, Bo'ness, EH51 9AS

Braes High School, Newlands Road, Brightons, FK2 0DA; RHS School Gardening registered

Denny High School, Herbertshire Road, Denny, FK6 6EE

Falkirk High School, Westburn Avenue, Falkirk, FK1 5BZ

Graeme High School, Callender Road, Falkirk, FK1 1SY

Grangemouth High School, Tinto Drive, Grangemouth, FK3 0HW; listed as school with proportion of pupils who live in 20% most deprived areas

Primary School

Antonine Primary School, Broomhill Road, Bonnybridge, FK4 2AN

Bainsford Primary School, Waverley Street, Bainsford, FK2 7NW; listed as school with proportion of pupils who live in 20% most deprived areas

Bankier Primary School, Bankier Road, Banknock, FK4 1TF; RHS School Gardening registered Bantaskin Primary School, Bantaskine Road, Falkirk, FK1 5HT

Beancross Primary School, Kenilworth Street, Grangemouth, FK3 8QS

Blackness Primary School, Blackness Road, Bo'ness, EH497NP; RHS School Gardening registered Bo'ness Primary School, Stewart Avenue, Bo'ness, EH51 9NL; RHS School Gardening registered Bonnybridge Primary School, Wellpark terrace, Bonnybridge, FK4 1LR

Bowhouse Primary School, Tinto Drive, Grangemouth, FK3 0DZ; listed as school with proportion of pupils who live in 20% most deprived areas

California Primary School, Main Street, California, FK1 2BN

Carmuirs Primary School, Carmuirs Street, Camelon, FK1 4PZ; listed as school with proportion of pupils who live in 20% most deprived areas

Comely Park Primary School, Cow Wynd, Falkirk, FK1 1PZ

Deanburn Primary School, Hazeldean Avenue, Bo'ness, EH51 ONS

Easter Carmuirs Primary School, Carmuirs Drive, Camelon, FK1 4JG; listed as school with proportion of pupils who live in 20% most deprived areas

Falkirk Day Unit Special School, Abercrombie Street, Camelon, FK1 4HA; RHS School Gardening registered

Grange Primary School, Grange Loan, Bo'ness, EH51 9DY; RHS School Gardening registered Hallglen Primary School, New Hallglen Road, Falkirk, FK1 2RA; RHS School Gardening registered Head of Muir Primary School, Haypark Road, Denny, FK6 5JZ

Kinneil Primary School, Dean Road, Bo'ness, EH51 0DJ

Ladeside Primary School, Carronvale Road, Lrbert, FK5 3LH; RHS School Gardening registered Langlees Primary School, David's Loan, Bainsford, FK2 7RG; listed as school with proportion of pupils who live in 20% most deprived areas; RHS School Gardening registered

Larbert Village Primary School, Main Street, Larbert, FK5 3AS

Laurieston Primary School, School Road, Laurieston, FK2 9JA

Maddiston Primary School, Main Road, Maddiston, FK2 OLH; listed as school with proportion of pupils who live in 20% most deprived areas; RHS School Gardening registered

Nethermains Primary School, Bulloch Crescent, Denny, FK6 5AR; listed as school with proportion of pupils who live in 20% most deprived areas

Sacred Heart Primary School, Bowhouse Road, Grangemouth, FK3 0EU; listed as school with proportion of pupils who live in 20% most deprived areas Shieldhill Primary School, Main Street, Shieldhill, FK1 2HA

- St. Andrews Roman Catholic Primary School, Hawley Road, Falkirk, FK1 1SH; RHS School Gardening registered
- St. Francis Roman Catholic Primary School, Merchiston Avenue, Bainsford, FK2 7JS; RHS School Gardening registered
- St. Josephs Roman Catholic Primary School, Broomhill Road, Bonnybridge, FK4 2AN
- St. Margaret Primary School, Salman inn Road, Redding, FK2 0XF; RHS School Gardening registered Victoria Primary School, Middlefield Road, Falkirk, FK2 9HF; listed as school with proportion of pupils who live in 20% most deprived areas

Wallacestone Primary School, Braemer Drive, Wallacestone, FK2 OJB; RHS School Gardening registered

Westquarter Primary School, Westquarter Avenue, Polmont, FK2 9RN; listed as school with proportion of pupils who live in 20% most deprived areas

Whitecross Primary School, Avontoun Crescent, Whitecross, EH49 6JN Windsor Park School, Bantaskine Road, Falkirk, FK1 5HT

Nursery

Denny Pre-school, Glasgow Road, Denny, FK6 5DW
First Steps Day Nursery, Allandale View, Bonnybridge, FK4 1QN
Glenfoir Pre-school, Fairlie Street, Camelon, FK1 4NH
Queen Street Nursery School, Queen Street, Falkirk, FK2 7AF
Rannoch Nursery, Tinto Drive, Grangemouth, FK3 0DZ; RHS School Gardening registered
The Kidz Stop Nursery, 151 Dean Road, Bo'ness, EH51 0HE; RHS School Gardening registered
Woodburn Day Nursery, 2 Montgomery Street, Falkirk, FK2 9BL

Hospitals and Care Homes

Barleystone Court Care Home – HC One, Barleystone Court, Westquarter Avenue, Westquarter, FK2 9RY

Bield Housing Association Residential Care Home, Dean Court, Bo'ness, EH51 ONY

Bo'ness Care Home, 11 Bridgeness Lane, Bo'ness, EH51 9LQ

Caledonian Court Care Home, 17 Victoria Road, Larbert, FK5 4NA

Cunningham House Care Home, 38 Saltcoats Drive, Grangemouth, FK3 9JP

Falkirk Community Hospital, Majors Loan, Falkirk, FK1 5QF

Forth Valley Royal Hospital, Quintinshill Drive, Larbert, FK5 3NR

Grahamston House Residential Care Home, 9 Mandela Avenue, Falkirk, FK2 7BE

Haining Nursing Home, Woodsual Cottage, Parkhall Nursery, Maddiston, FK2 OBN

Ivybank House Residential Care Home, Thornhill Cottage, Main Street, Polmont, FK2 0PS

Kinnaird Manor Care Home – HC One, 35 Brown Street, Camelon, Falkirk, FK1 4PX

Oakbank Nursing Home, Wilson Avenue, Polmont, FK2 0QZ

St. Margarets House, Residential Care Home, 23 St Margaret's Crescent, Polmont, FK2 OUP

Summerdale Care Home, Summerdale, Victoria Place, Brightons, FK2 OTZ

Summerford House Residential Care Home, Summerford, Falkirk, FK1 5BT

Thorntree Mews Care Home, 13 Arnothill, Falkirk, FK1 5RZ

Torwood Hall Residential Care Home, Airlie House, Carronvale Road, Larbert, FK5 3LG

Treddinoch Voyage Care, 78 Slamannan Road, Falkirk, FK1 5NF

Wallside Grange Nursing Home, Lime Road, Falkirk, FK1 4RS

Places of Worship and Cemeteries

Bainsford Church of Scotland, 9A Hendry Street, Falkirk, FK2 7ND Blackbraes and Shieldhill Parish Church, 64 Main Street, Shieldhill, Falkirk, FK1 2DT Bo'ness Apostolic Church, 63 Stewart Avenue, Bo'ness, EH51 9NJ Bo'ness Baptist Church, 14 Boundary Street, Bo'ness, EH51 9NR

Bo'ness Cemetery, 14 Dundas Street, Bo'ness, EH51 0DG

Bo'ness Church, Bo Ness Family Centre, 17 Cadzow Crescent, Bo'ness, EH51 9AY

Bo'ness Old Kirk, 4 Church Road, Bo'ness, EH51

Brethren's Meeting Room Place of Public, Bo'ness Road, Polmont, FK2

Brightons Church, 2B Main Street, Brightons, FK2 0JT

Brightons Parish Church, 6 Main Street, Brightons, FK2 OJT

Camelon Cemetery and Crematorium, 60 Dorrator Road, Camelon, FK1 4BL

Camelon Parish Church, 2 Dorrator Road, Camelon, FK1 4BN

Camelon Saint John's, Carmuirs Street, Camelon, FK1 4QJ

Carriden Cemetery, Carriden Brae, Bo'ness, EH51

Carriden Parish Church, Carriden Brae, Bo'ness, EH51 9LU

Church of Scotland Hagg's Parish, 37 Kilsyth Road, Bonnybridge, FK4 1HA

Church of Scotland, Brightons Manse, Maddiston Road, Brightons, FK2 OJP

Church Wynd Cemetery, 14 Church Wynd, Bo'ness, EH51 0AN

Church Wynd Cemetery, 1 Church Wynd, Bo'ness, EH51 0AN

Craigmailen Church, 8 Braehead, Bo'ness, EH51 OBZ

Denny Cemetery, A883, Denny, FK6 6BU

Erskine Parish Church, 2 South Pleasance Avenue, Falkirk FK1,

Falkirk Islamic Centre, 14 Burnhead Lane, Falkirk, FK1 1UG

Falkirk Trinity Church, 60 High Street, Falkirk, FK1 1DD,

Graham's United Church, 65 Bute Street, Falkirk, FK2 7DH

Grahamston Evangelical Church, 3 Gowan Avenue, Falkirk, FK2 7HL

Grandsable Cemetery, Salmon Inn Road, Grangemouth, FK2 OYS

Grangemouth Church, 198 Bowhouse Road, Grangemouth, FK3 OHB

Grangemouth Evangelical Church, 2 Hawthorn Street, Grangemouth, FK3 8ND

High Bonnybridge Baptist Church, 6 Church Street, High Bonnybridge, Bonnybridge, FK4 2AZ,

Hope Church, 3D David's Loan, Falkirk, FK2 7NS

Jehovah's Witnesses, 126 Victoria Road, Falkirk, FK2 7AX

Kirk of the Holy Rood, 87 Bowhouse Road, Grangemouth, FK3 0EY

Larbert Baptist Church, 108B Main Street, Larbert, FK5 3AS

Larbert Cemetery, 23 Denny Road, Larbert, FK5 3NR

Larbert Gospel Hall, 47 Main Street, Larbert, FK5 4AB

Larbert Old Church, 19 Denny Road, Larbert, FK5 3AB

Larbert West Parish Church, 132 Main Street, Larbert, FK5 3JF

Laurieston Parish Church, 7 Polmont Road, Laurieston, FK2 9QQ

Madiston Evangelical Church, 7 California Road, Maddiston, FK2 ONH

Meeting Place of the Church of Christ, 199 Glasgow Road, Bonnybridge, FK4 1QL

Olivet Evangelical Church, 46 Kerse Lane, Falkirk, FK1 1RS

Olivet Gospel Church, Leslie Place, Kerse Lane, Falkirk, FK1 1RH

Pauline Church, 8 Ford Road, Bonnybridge, FK4 1LJ

People's Church, 25B West Bridge Street, Falkirk, FK1 5RJ

Polmont Cemetery, M9, Polmont, FK2

Polmont Old Parish Church Halls, Main Street, Polmont, FK2 OPT

Redding Church, 52 Main Street, Redding, FK2 9YE

Risen Church, 53 Douglas Drive, Bo'ness, EH51 OJB

Saint Francis Xaviers Roman Catholic Church, Old Burgh Buildings, 12-14 Newmarket Street, Falkirk, FK1 1JE

Saint Mary of the Angels Catholic Church, 21 Laurel Court, Camelon, FK1 4PH

Salvation Army, 20-24 Corbiehall, Bo'ness, EH51 0AP

Spirit of Life Sanctuary, 6 Princes Street, Falkirk, FK1 1NE

St. Andrews Parish Church, Walden House, Grahamsdyke Avenue, Bo'ness, EH51 9DT

- St. Andrews West Church, 29 Upper Newmarket Street, Falkirk, FK1 1JH
- St. Helen's Church, 123 High Street, Bonnybridge, FK4 1BY
- St. James Church, 43 Firs Street, Falkirk, FK2 7AY
- St. Josephs Bonnybridge, 26-30 Broomhill Road, Bonnybridge, FK4 2AN
- St. Luke's Roman Catholic Church, 11 Garngrew Road, Haggs, Bonnybridge, FK4 1HP
- St. Mary's Church, 50 Linlithgow Road, Bo'ness, EH51 0DN

The Church of Jesus Christ of Latter, 22 Falkirk Road, Hallglen, Falkirk, FK1 2AG

The Salvation Army, 100 Forgie Crescent, Maddiston, FK2 0LZ

The Salvation Army, 6 High Station Road, Falkirk, FK1 5QZ

The Scottish Episcopal Church, 55 Kerse Lane, Falkirk, FK1 1RX

Wallacestone Methodist Church, Shieldhill Road, Falkirk, FK2 ODT

Historic Landmarks and Buildings

Antonine Wall: Roughcastle, Bonnyside Road, High Bonnybridge, Falkirk; owned and managed by Historic Environment Scotland

Antonine Wall: Seabegs Wood, Seabegs Road, Bonnybridge; owned and managed by Historic Environment Scotland

Blackness Castle, Blackness, Linlithgow, EH49 7NH; owned and managed by Historic Environment Scotland

Callendar House, Callendar Park, Falkirk, FK1 1YR

Kinneil House (Museum), Duchess Anne Cottages, Bo'ness, EH51 OPR

Train Stations

Camelon Station, 8-88 Glasgow Road, Camelon, FK1 4JW Falkirk Grahamston Station, Meeks Road, Falkirk, FK2 7EZ Falkirk High Station, High Station Road, Falkirk, FK1 5QX Larbert Station, Foundry Loan, *Larbert*, FK5 4AN Polmont Station, *Station* Road, *Polmont*, FK2 0UP

Historic Landmarks and Buildings

Antonine Wall: Roughcastle, Bonnyside Road, High Bonnybridge, Falkirk; owned and managed by Historic Scotland

Antonine Wall: Seabegs Wood, Seabegs Road, Bonnybridge; owned and managed by Historic Scotland

Blackness Castle, Blackness, Linlithgow, EH49 7NH; owned and managed by Historic Scotland Callendar House, Callendar Park, Falkirk, FK1 1YR

Kinneil House (Museum), Duchess Anne Cottages, Bo'ness, EH51 OPR

Public Parks and Play Spaces

Abercairney Crescent Play Park, 11 Abercairney Crescent, Maddiston, FK2 ONS, grid reference NS 93398 77039

Allandale Cottages Play Park, 12 Allandale Cottages, Bonnybridge, FK4, grid reference NS 80321 78761

Almond Street Play Park, 4 Larch Street, Grangemouth, FK3 8PG, grid reference NS 92094 80813 Anderson Public Park with playing fields, 36 Falkirk Road, Bonnybridge, FK4 1BD, grid reference NS 83195 80517

Anderson Terrace Play Park, 13 Anderson Terrace, Longcroft, FK4 1QD, grid reference NS 79595 79395

Ard Court Play Park, 9 Ard Court, Grangemouth, FK3 0HL, grid reference NS 92720 80054 Ardgay Road Play Park, 30 Ardgay Road, Bonnybridge, FK4 2FL, grid reference NS 82282 79490 Atrium Way Multi-Use Games Area, 34 Roman Road, Bonnybridge, FK4 2DE, grid reference NS 82287 79506

Bankside Court Play Park, 1 Bankside Court, Denny, FK6 6HA, grid reference NS 81258 82573
Baxter Crescent Play Park, 20 Baxter Crescent, Denny, FK6 5EZ, grid reference NS 80360 82439
Benjamin Drive Public Park 1, 51 Benjamin Drive, Bo'ness, EH51 0QS, grid reference NS 99091 80147
Benjamin Drive Public Park 2, 14 Clover Place, Bo'ness, EH51 0QW, grid reference NS 99185 80124
Bonnybridge Memorial Gardens, 20 Main Street, Bonnybridge, FK4 1BT, grid reference NS 82466
80341

Braes View Play Park, 97 Braes View, Denny, FK6 5NG, grid reference NS 80443 81477
Braeside Place Play Park, 32 Braeside Place, Westquarter, FK2 9YL, grid reference NS 91575 78760
Caledonian Court Play Park, 34 Caledonian Court, Falkirk, FK2 7FL, grid reference NS 89124 81118
California Road Play Park with playing fields, 12 California Road, Maddiston, FK2 0NH, grid reference NS 93706 76842

California Terrace Play Park, 9 California Terrace, California, FK1 2DD, grid reference NS 90627 76091 Callendar Park, 2 Seaton Place, Falkirk, FK1, grid reference NS 89887 79422

Camelon Public Park, 7 Daintree Terrace, Camelon, FK1 4DW, grid reference NS 87270 80223
Canal Walk Play Park, 28 Canal Walk, Brightons, FK2 0FJ, grid reference NS 92439 78153
Carronvale Road Play Park, 7 Forbes Crescent, Larbert, FK5 3LU, grid reference NS 86554 82233
Castleview Terrace Play Park, 52-61 Castleview Terrace, Bonnybridge, FK4, grid reference NS 79215

Clover Place Public Park, 9 Clover Place, Bo'ness, EH51 0QW, grid reference NS 99204 80068 Coneypark Crescent Play Park, 13 Coneypark Crescent, Banknock, FK4 1TT, grid reference NS 77465 79175

Coo Park Multi-Use Games Area, 20 Shiel Gardens, Falkirk, FK2 7UP, grid reference NS 88989 82337 Crownest Park, 60 James Street, Stenhousemuir, Larbert, FK5 3HS, grid reference NS 86752 82717 Dawson Centre Play Park, 103 David's Loan, Falkirk, FK2 7RF, grid reference NS 89048 81933 Dawson Park, 11 Carronside Street, Falkirk, FK2, grid reference NS 88675 81788 Dawson Park, 60 Abbotsford Street, Falkirk, FK2 7PW, grid reference NS 88694 81800 Deanfield Road Play Park, 6 Deanfield Road, Bo'ness, EH51 0EW, grid reference NS 99124 81244 Dollar Park with playing fields, Burnbrae Road, Falkirk, FK1 5SD, grid reference NS 88006 80327 Douglas Park, 89 Dean Road, Bo'ness, EH51 9BA, grid reference NS 99747 81064 Duncan Stewart Park (Jenny's Park), 51 Vale of Bonny View, Bonnybridge, FK4 1BN, grid reference NS 82153 80268

Easter Carmuirs with playing fields, 1C Mariner Avenue, Camelon, FK1 4LN, grid reference NS 85866 80447

Epworth Gardens Play Park, 2 Epworth Gardens, Reddingmuirhead, FK2 0DW, grid reference NS 91636 77694

Ercall Road Play Park, 52 Ercall Road, Brightons, FK2 0TS, grid reference NS 93560 77600 Glebe Park, 8 Braehead, Bo'ness, EH51 0BZ, grid reference NS 99826 81408 Glenburn Road Play Park, 50 Calder Place, Hallglen, FK1 2QQ, grid reference NS 89631 78340 Glenyards Road Play Park, 11 Glenyards Road, Bonnybridge, FK4 2EA, grid reference NS 82242 78753 Grahamsdyke Playing Fields, 64 Drumpark Avenue, Bo'ness, EH51 9QP, grid reference NT 00652 80848

Grangemouth Golf Club Smiddy Brae Park, 19 Smiddy Brae, Bo'Ness Road, Polmont, FK2 0XZ, grid reference NS 94221 79234

Gray Buchanan Park, 5 Gray Buchanan Court, Polmont, FK2 OXR, grid reference NS 92992 78722 Greenacre Road Play Park, 24 Greenhill Road, Bonnybridge, FK4 2DN, grid reference NS 82090 79313 Greenbank Place Play Park, 1 Greenbank Place, Falkirk, FK1 4AL, grid reference NS 86596 79699 Greenpark Drive Play Park, 57 Greenpark Drive, Polmont, FK2 OQA, grid reference NS 93404 78899 Greenwells Drive Play Park, 11 Greenwells Drive, Brightons, FK2 OST, grid reference NS 93476 77489 Hayfield Play Park, 61 Hayfield, Falkirk, FK2 7XH, grid reference NS 89226 81573

Haypark Road Play Park, 2 Haypark Road, Dennyloanhead, FK6 5JZ, grid reference NS 81039 80804 Hazelhurst Play Park, 11 Hazelhurst, Brightons, FK2 0TN, grid reference NS 93353 77916 Hollandbush Crescent Play Park, 40-44 Hollandbush Crescent, Banknock, FK4, grid reference NS 78604 79210

Inchyra Park with playing fields, 4 Inchyra Road, Grangemouth, FK3 9XB, grid reference NS 93791 80825

Islay Court Play Park, 1 Moy Court, Grangemouth, FK3 0HF, grid reference NS 92717 80342 Kersiebank Avenue Play Park, 30 Croftside Court, Grangemouth, FK3 0DS, grid reference NS 93393 80492

King George's Field with playing field, Livingstone Terrace, Redding, FK2 9TU, grid reference NS 91580 78327

Kinneil Estate, 5 Dean Road, Bo'ness, EH51 OBN, grid reference NS 98456 80683; this park has a friends of group

Laurelston Public Park, 47 Zetland Drive, Laurieston, FK2 9NP, grid reference NS 91199 79630
Laurie Park with playing fields, 1A Quarry Brae, Brightons, FK2 0SX, grid reference NS 92989 77760
Laurie Park, 30 Maddiston Road, Brightons, FK2 0JN, grid reference NS 93017 77695
Lewis Road Play Park, Gilston Crescent, Polmont, FK2 0UL, grid reference NS 93707 78248
Machrie Court Play Park, 21 Machrie Court, Falkirk, FK1 4SD, grid reference NS 86210 79795
Main Street Play Park, 96 Main Street, Shieldhill, Falkirk, FK1 2DT, grid reference NS 89767 76806
Muga Court with Glenview Avenue Play Space and amenity, 51 Glenview Avenue, Banknock, FK4 1JX, grid reference NS 78674 79174

Muirhouses Public Park, 10 Gledhill Avenue, Bo'ness, EH51 9SP, grid reference NT 02044 80382 Orchard Grove Play Park, 10 Orchard Grove, Polmont, FK2 0XE, grid reference NS 93795 78995 Park Street Play Park, 34 Park Street, Bonnybridge, FK4 2AS, grid reference NS 83074 79592 Parkhead Road Play Park, 2 Parkhead Road, Hallglen, FK1, grid reference NS 88832 78273 Parkhill Estate Play Park, 5 Gray Buchanan Court, Polmont, FK2 0XR, grid reference NS 93051 78792 Princess Park, 37 Slamannan Road, Falkirk, FK1, grid reference NS 87914 78871 Public Park and Garden with paying fields, 14 Stevenson Avenue, Polmont, FK2 0GU, grid reference NS 92808 78355

Public Park and Garden with playing fields, 28 Salmon Inn Road, Polmont, FK2 0XA, grid reference NS 92748 78426

Public Park and Garden with playing fields, 3 Crockett Place, Falkirk, FK2 7PZ, grid reference NS 88976 81968

Public Park and Garden with playing fields, 35 Stirling Road, Camelon, FK1 4EP, grid reference NS 86918 81107

Public Park and Garden with playing fields, 6 Avon Street, Grangemouth, FK3 8HH, grid reference NS 91180 82055

Public Park and Garden with playing fields, 60 Windsor Avenue, Falkirk, FK1 5HQ, grid reference NS 87403 79611

Public Park and Garden with playing fields, 7 Colonsay Terrace, Hallglen, FK1 2PN, grid reference NS 88903 78589

Public Park and Garden with playing fields, Crematorium House, Dorrator Road, Camelon, FK2 7YJ, grid reference NS 87659 80783

Public Park and Garden with playing fields, Haypark Road, Denny, FK6, grid reference NS 80720

Public Park and Garden, 144 Broad Street, Denny, FK6 6EF, grid reference NS 82067 82538 Public Park and Garden, 117 Woodburn Crescent, Bonnybridge, FK4 2DL, grid reference NS 82002 79387

Public Park and Garden, 1 Duke Street, Denny, FK6 6DB, grid reference NS 81155 82690 Public Park and Garden, 1 St. Margarets Gardens, Polmont, FK2 0JL, grid reference NS 92559 78536 Public Park and Garden, 11 Bog Road, Banknock, FK4 1TJ, grid reference NS 78126 79236

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Public Park and Garden, 11 Bog Road, Banknock, FK4 1TJ, grid reference NS 78146 79227
Public Park and Garden, 14 Haypark Road, Denny, FK6 5JZ, grid reference NS 80893 80774
Public Park and Garden, 15 Taymouth Road, Polmont, FK2 OPF, grid reference NS 94131 78233
Public Park and Garden, 167 Merchiston Avenue, Falkirk, FK2 7JU, grid reference NS 88249 80919
Public Park and Garden, 18 Falkirk Road, Hallglen, Falkirk, FK1 2AG, grid reference NS 88479 78341
Public Park and Garden, 18-19 Burnbank Road, Grangemouth, FK3, grid reference NS 92658 80608
Public Park and Garden, 188 Kilsyth Road, Banknock, FK4 1JD, grid reference NS 78264 79252
Public Park and Garden, 2 Lomond Drive, Falkirk, FK2 7UQ, grid reference NS 89102 82204
Public Park and Garden, 21 Calder Place, Hallglen, FK1 2QZ, grid reference NS 89541 78465
Public Park and Garden, 21 Randolph Crescent, Brightons, FK2 0HA, grid reference NS 92708 78041
Public Park and Garden, 22 Tamfourhill Road, Falkirk, FK1 4RF, grid reference NS 85930 79791
Public Park and Garden, 23 Slamannan Road, Falkirk, FK1 5LF, grid reference NS 88038 79090
Public Park and Garden, 29 Langlees Street, Falkirk, FK2 7RE, grid reference NS 89028 82049
Public Park and Garden, 29 Stevenson Court, Falkirk, FK2 7PX, grid reference NS 88895 82053
Public Park and Garden, 3 Wood Street, Grangemouth, FK3 8LH, grid reference NS 91992 81164
Public Park and Garden, 31 Glen Brae, Falkirk, FK1 5LL, grid reference NS 88617 78706
Public Park and Garden, 3-16 Fairlie Drive, Camelon, FK1, grid reference NS 86591 80054
Public Park and Garden, 32 Cuillin Court, Hallglen, FK1 2QG, grid reference NS 89318 78481
Public Park and Garden, 32 Woodburn Avenue, Redding, FK2 9YG, grid reference NS 91828 78559
Public Park and Garden, 36 Glengarry Crescent, Falkirk, FK1 5UD, grid reference NS 87811 78502
Public Park and Garden, 38 Hazel Grove, Falkirk, FK2 9EB, grid reference NS 89697 80982
Public Park and Garden, 39 Fullerton Drive, Polmont, FK2 0XY, grid reference NS 93104 79260
Public Park and Garden, 46 Dochart Place, Hallglen, FK1 2QR, grid reference NS 89739 78524
Public Park and Garden, 5 Thornbridge Road, Falkirk, FK2 9AZ, grid reference NS 89658 80140
Public Park and Garden, 50 Pirleyhill Gardens, Falkirk, FK1 5NB, grid reference NS 88378 78795
Public Park and Garden, 56 Carronbank Crescent, Denny, FK6 6JF, grid reference NS 81267 82891
Public Park and Garden, 64 South View, Stenhousemuir, FK5 3DW, grid reference NS 86745 82236
Public Park and Garden, 7 Glenyards Road, Bonnybridge, FK4 2DZ, grid reference NS 82311 78819
Public Park and Garden, 7 Mount Bartholomew, Bonnybridge, FK4 1LW, grid reference NS 82284
80465
Public Park and Garden, 8 Skye Drive, Polmont, FK2 0UN, grid reference NS 93720 78572
Public Park and Garden, 80 Forgie Crescent, Maddiston, FK2 0LZ, grid reference NS 94062 76364
Public Park and Garden, 87-112 Glasgow Road, Denny, FK6, grid reference NS 81198 82018
Public Park and Garden, 9 Almond Road, Falkirk, FK2 9FQ, grid reference NS 89902 81433
Public Park and Garden, 9 Main Road, Maddiston, FK2 OLU, grid reference NS 94187 76505
Public Park and Garden, 9 Roman Road, Bonnybridge, FK4 2DE, grid reference NS 82153 79660
Public Park and Garden, B816, Falkirk, FK1, grid reference NS 86949 80042
Public Park and Garden, Etna Road, Falkirk, FK2, grid reference NS 89263 80985
Public Park and Garden, Garbett Place, Falkirk, FK2 7LZ, grid reference NS 88019 81391
Public Park and Garden, Glenburn Road, Hallglen, FK1 2RH, grid reference NS 89957 78456
Public Park and Garden, Herbertshire, Denny, FK6 6DZ, grid reference NS 81463 82514
Public Park and Garden, Main Street, Redding, FK2 9TX, grid reference NS 91760 78401
Public Park and Garden, Nethermains Road, Denny, FK6, grid reference NS 80621 82010
Public Park and Garden, Polmont Road, Polmont, FK2 0XB, grid reference NS 92669 78956
Public Park and Garden, Polmont Road, Polmont, FK2, grid reference NS 92881 78972
Public Park and Garden, Redding Road, Laurieston, FK2, grid reference NS 90905 79144
Public Park and Garden, South Herbertshire, Denny, FK6 5NB, grid reference NS 80726 81237
Public Park and Garden, Westburn Avenue, Falkirk, FK1 5BA, grid reference NS 87231 79983
Public Park and Garden, Westburn Avenue, Falkirk, FK1 5JF, grid reference NS 87237 80053
Public Park and Gardens with Play Space, 17 Watling Drive, Camelon, FK1 4QD, grid reference NS
86604 80393
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Public Park and Gardens with woodland, 36 Polmont Park, Polmont, FK2 0XT, grid reference NS 93210 79163

Public Park and Gardens with woodland, 64 Anson Avenue, Falkirk, FK1 5JE, grid reference NS 87462 80008

Public Park and Gardens with woodland, 73 Tiree Crescent, Polmont, FK2 0UX, grid reference NS 92541 78890

Public Park and Gardens with woodland, 95 Bantaskine Street, Falkirk, FK1 5EX, grid reference NS 87134 79258

Public Park and Gardens with woodland, Gilston Crescent, Polmont, FK2, grid reference NS 93478 78423

Public Park and Gardens with woodland, M9, Polmont, FK2, grid reference NS 94043 79190 Public Park and Gardens with woodland, Westburn Avenue, Falkirk, FK1 5SP, grid reference NS 87944 79829

Rannoch Park with playing fields, Beancross Road, Grangemouth, FK3 0HS, grid reference NS 92876 79787; this park has a friends of group

Recreation Ground Play Park, 2 Haining Terrace, Whitecross, EH49 6LL, grid reference NS 96616 76832

Sawers Avenue Play Park, 8 Sawers Avenue, Denny, FK6 5BP, grid reference NS 80695 82478 Shiel Court Play Park, 23-24 Sunart Place, Grangemouth, FK3, grid reference NS 92795 79961 Simpson Street Play Park, 35 Simpson Street, Camelon, FK1 4BZ, grid reference NS 87090 80615 Springfield Drive Play Park 1, 12 Springfield Drive, Falkirk, FK1 5HP, grid reference NS 87600 80088 Springfield Drive Play Park 2, 59 Springfield Drive, Falkirk, FK1 5HW, grid reference NS 87729 80043 St. David's Court Play Park, 10 St. David's Court, Larbert, FK5, grid reference NS 85821 82130 St. George's Court Play Park, 1 St. George's Court, Larbert, FK5 4AJ, grid reference NS 85868 82467 St. Ninians Way Public Park, 20 St Ninians Way, Blackness, EH49 7NF, grid reference NT 05377 79858 Standrigg Road Play Park with playing fields, Standrigg Road, FK2 0EB, grid reference NS 91870 77090

Summerford Park, Summerford Road, Falkirk, FK1, grid reference NS 86915 79652
Sunart Place Play Park, 25 Sunart Place, Grangemouth, FK3 0HP, grid reference NS 92746 79963
Sunnyside Street Play Park, 10 Pardovan Place, Camelon, FK1 4BQ, grid reference NS 87576 80629
The Helix Park, A9, Falkirk, Grangemouth, FK3 8YE, grid reference NS 90536 81106
Union Place Play Park 1, 36 Union Place, Brightons, FK2 0FH, grid reference NS 92638 78061
Union Place Play Park 2, 61 Union Place, Brightons, FK2 0FG, grid reference NS 92656 78163
Union Place Play Park 3, 115-117 Union Place, Brightons, FK2 0UA, grid reference NS 92841 78160
Ure Crescent Play Park, 54 Ure Crescent, Bonnybridge, FK4 1NB, grid reference NS 82177 80924
Victoria Park, 128 Thornhill Road, Falkirk, FK2, grid reference NS 89537 80534
Victoria Park, 7 Philpingstone Road, Bo'ness, EH51 9JJ, grid reference NT 00856 81375
Viewfield Road Play Park, 19 Viewfield Road, Banknock, FK4 1TH, grid reference NS 78045 79121
Waverley Crescent Play Park, 18 Waverley Crescent, High Bonnybridge, FK4 2AX, grid reference NS 82854 79477

Westfield Park, 41 Kerse Gardens, Falkirk, FK2 9DY, grid reference NS 90257 80331 Westquarter Glen with playing fields, 75 Polmont Road, Laurieston, FK2 9QS, grid reference NS 91871 79214

Westquarter Glen with playing fields, 8 Yew Terrace, Westquarter, FK2 9RJ, grid reference NS 91205 78947

Westquarter Glen Woodland and Park Crescent Play Park, 3 Park Crescent, Westquarter, FK2, grid reference NS 91489 79132

Westquarter Glen Woodland, 14 Langton Road, Westquarter, FK2 9SX, grid reference NS 91626 79065

Westray Terrace Play Park, 3 Gilsay Court, Hallglen, FK1 2PX, grid reference NS 88925 78641 Whitecross Primary Play Park, 34 Avontoun Crescent, Falkirk EH49, grid reference NS 96940 76778

Windsor Crescent Play Park, 63 Windsor Crescent, Maddiston, FK2 0AH, grid reference NS 94060 76752

York Street Play Park, 76 York Street, Falkirk, FK2 9EW, grid reference NS 89700 80812 Zetland Park with playing fields, 67 Abbotsgrange Road, Grangemouth, FK3 9JZ, grid reference NS 92988 81265; this park has a friends of group

Country Park

Muiravonside Country Park, The Loan, Whitecross, EH49 6LW

Muiravonside Country Park is two miles south of Grangemouth and is 64.83 ha in size with a variety of woodland and parkland. The Park offers panoramic views, a spectacular river gorge and several relics of industrial archaeology, linked by a network of paths through a diverse ground flora. This site is also designated as a LWS and has a friends of group.

Sites with conservation designations

Local Wildlife Site

Almond Bing, Whitecross, site size 7.52 ha, grid reference NS 96000 76300 A derelict bing with dense birch and willow scrub along with some open areas of bare ground.

Barleyside, Jawcraig, site size 15.43 ha, grid reference NS 86200 75900 A mire bog to the south west of Falkirk near Jawcraig.

Blackhill Moss, site size 10.31 ha, grid reference NS 81300 77600 This site is a mire and bog with broad-leaved semi-natural woodland.

already in place. This site is also designated as LNR.

Bo'ness Foreshore, Bo'ness, site size 54.88 ha, grid reference NS 98200 81100

This former colliery site in Bo'ness has a range of important habitat including areas of unimproved neutral grassland. The mudflats and "island" off the foreshore are internationally important for seabirds and are already designated as a Special Protection Area for their conservation value. Throughout the 19th and most of the 20th centuries much of the area was used by heavy industry but all the building and structures associated with the former colliery are now gone. The area is now a public open space of grassland, wildflower meadows and woodland, with a good network of paths

Bonnyfield Quarry, Bonnybridge, site size 22.37 ha, grid reference NS 81700 79900 This site is a former sand and gravel quarry and is known as Bonnyfield Nature Park. It is important for a range of wildlife, including mammals, birds and invertebrates and is well used by the local community for dog walking. The main vegetation types present on the site include unimproved neutral grassland, scrub, woodland, ponds and the stream Bonny Water that passes through. This site is also designated as LNR.

California, Falkirk, site size 68.91 ha, grid reference NS 90000 76200 A large area of semi-improved acid grassland taht may currently be used within agriculture.

Callendar Wood and Lake, Falkirk, site size 105.23 ha, grid reference NS 89700 78700 A large park in the centre of Falkirk with Callendar House. A range of habitats are present at this site including both coniferous plantation and broadleaved semi-natural woodland as well as open water and amenity grassland.

Camelon Riverside, Camelon, site size 5.43 ha, grid reference NS 87000 81300

This site is alongside the River Carron and is subject to flooding in high water. The site is made up of open water from the river, along with wetland habitat, grassland and dense continuous scrub.

Castlecary Wood, Castlecary, site size 14.15 ha, grid reference NS 78700 77500 A site with both broadleaved and coniferous plantation along with semi-natural woodland.

Cleuch Plantation, Hallglen, site size 7.1 ha, grid reference NS 88700 77500 A stream passes through this area of broadleaved semi-natural woodland which is just to the south of Hallglen.

Cowden, Banknock, site size 88.76 ha, grid reference NS 77100 80300 This is a fairly large site to the north of Banknock with areas of unimproved acid grassland, improved grassland alongside wet modified bog.

Drumbowie Reservoir, Banknock, site size 14.81 ha, grid reference NS 78400 81000 A large reservoir of open water with associated edge habitats with some woodland.

Forth & Clyde Canal, site size unknown, grid reference NS 78500 78500 The Forth and Clyde Canal passes through Falkirk and into the Firth of Forth. This is an area of eutrophic standing water with associated wetland and grassland habitat on either side.

Graystone Knowe, Old Shields, site size 47.87 ha, grid reference NS 81500 76100 An area of blanket bog and wet modified bog.

Haining Wood, Whitecross, site size 9.91 ha, grid reference NS 95500 77400 Broadleaved woodland alongside the Union Canal.

Jupiter Urban Wildlife Centre, Grangemouth, site size 4 ha, grid reference NS 92000 81000 Jupiter Urban Wildlife Centre, in the middle of industrial Grangemouth, is a fantastic example of how wasteland can be transformed into an urban green space that provides a rich habitat and haven for wildlife. A range of habitats can be found at the reserve including ponds, grasslands and woodlands. This site is a SWT wildlife reserve.

Kinneil Estate, Bo'ness, site size 63.83 ha, grid reference NS 98000 80300 A large area of coniferous plantation woodland.

Little Denny Reservoir, Denny, site size 21.53 ha, grid reference NS 80000 81500 This is a reservoir with a large area of open water surrounded by woodland and heathland.

Lochgreen Hospital, Falkirk, site size 1.06 ha, grid reference NS 87600 78600 This site currently has continuous scrub on site but is also known for having unimproved acid grassland and semi-improved neutral grassland.

Lochgreen Moss, High Bonnybridge, site size 7.32 ha, grid reference NS 81900 77600 A variety of habitats are present on this bog including dense continuous scrub, marshy grassland, wet modified bog and basin mire.

Maddiston West, Maddiston, site size 19.7 ha, grid reference NS 92900 76400 An area of unimproved acid grassland with Manuel Burn passing over the north of the site.

Muiravonside, site size 63.85 ha, grid reference NS 96200 75600

Muiravonside is also designated as a Country Park and is two miles south of Grangemouth. The Park offers panoramic views, a spectacular river gorge and several relics of industrial archaeology, linked by a network of paths through a diverse ground flora. Habitat present at this site includes broadleaved semi-natural and plantation woodland.

Newcraig (Auchengean), Jawcraig, site size 60.52 ha, grid reference NS 85000 76000 A dry and modified bog with basin mire.

North Walton Burn, Old Shields, site size 8.34 ha, grid reference NS 80600 76300 This burn has the following associated habitats including raised bog, valley mire and wet dwarf shrub heath.

Parkfoot Marsh, Dennyloanhead, site size 4.9 ha, grid reference NS 80800 79700 An area of marshy grassland with a large pool of open water.

Polmont Woods, site size 19.99 ha, grid reference NS 94300 79300 A large area of broadleaved semi-natural and coniferous plantation woodland alongwith grassland. Millhall burn passes through the woods and Grangemouth Golf Course is to the east.

River Avon (North and South Glens), Torphichen, site size 30.51 ha, grid reference NS 95800 74000 Woodland that lies adjacent to the River Avon. At times the site is steep sided.

Roughcastle, Tamfourhill, site size 74.31 ha, grid reference NS 84300 80000 A large area of broadleaved semi-natural woodland with patches of heathland and open grassland as well as wetland habitat. The Antonine Wall owned and managed by Historic Scotland passes through Roughcastle.

Rumford West, Wallacestone, site size 12.29 ha, grid reference NS 92400 76900 An area of dense continuous scrub and some woodland.

Seabegs Wood, High Bonnybridge, site size 10.34 ha, grid reference NS 81500 79300 An area of broadleaved semi-natural woodland.

Skipperton Glen, site, size 7.15 ha, grid reference NS 80900 78500 An area of broadleaved semi-natural woodland by passed by the Edinburgh to Glasgow train line.

South Drum Moss, High Bonnybridge, site size 11.42 ha, grid reference NS 83000 77700 A basin mire with bog that connects and is adjacent to other sites with similar habitat.

Wester Drum, High Bonnybridge, site size 7.22 ha, grid reference NS 82800 78200 An area of raised bog with marshy grassland that connects and is adjacent to other sites with similar habitats.

Wester Glen Moss, Glen Village, site size 5.45 ha, grid reference NS 87400 77600 A raised bog that is known to have neutral grassland and is surrounded by farmland.

Wester Mains Pond, Falkirk, site size 10.04 ha, grid reference NS 90600 81600 A wetland habitat with some open water alongwith braodleaved plantation woodland.

Westquarter Burn, Westquarter, site size 23.06 ha, grid reference NS 90600 78600

The Westquarter Burn passes through an area of broadleaved semi-natural woodland and has steep sides in places.

Site of Importance for Nature Conservation

Avonbank/Birkhill, Grangemouth, site size 4.49 ha, grid reference NS 96600 78700 The River Avon passes through this site which has slight slopes on either side. The habitats present include unimproved neutral grassland, continuous bracken and broadleaved semi-natural woodland.

Bantaskine Estate, Bantaskine, Falkirk, site size 27.79 ha, grid reference NS 87300 79300 An area of broadleaved semi-natural woodland and broadleaved plantation woodland.

Falkirk Gasworks, Falkirk, site size 1.02 ha, grid reference NS 89600 81300 An area with an open mosaic of habitats which is on the SVDL known as Etna Road (site code F/FALK/084). There is bare ground, early successional communities and scrub on the site.

Glenyards, High Bonnybridge, site size 3.96 ha, grid reference NS 81700 78900 A site with semi-improved neutral grassland tot he west of High Bonnybridge and adjacent a train line.

Hallglen Haven, Hallglen, Falkirk, site size 11.66 ha, grid reference NS 89300 78300 An area of broadleaved semi-natural woodland adjacent to the Union canal and to the south of Hallglen in Falkirk.

Maddiston, Falkirk, site size 5.99 ha, grid reference NS 94400 76800 A site of amenity grassland which has unimproved neutral grassland on site. The Manuel Burn passes tot he north of this site.

Milnquarter, High Bonnybridge, site size 3.41 ha, grid reference NS 82600 79700 This site in High Bonnybridge has semi-improved neutral grassland as well as some scrub.

Polmont Park, Polmont, site size 3.13 ha, grid reference NS 93300 79200 Mixed plantation woodland with some amenity grassland in the centre.

Polmont Station, Polmont, site size 7.33 ha, grid reference NS 92600 78300 This site is previous derelict land with an open mosaic of habitsta nd no longer on the SVDL register. Habitats on site include bare ground, grassland, dense continuous scrub and scattered scrub.

Redding Grasslands, Redding, site size 10.62 ha, grid reference NS 91800 78700 A large area of semi-improved neutral grassland with some associated scrub and trees.

South Drum Claypit, High Bonnybridge, site size 21.89 ha, grid reference NS 82500 77700 A large area of marshy grassland with pools of open water and some scrub.

Summerford, Camelon, site size 8.55 ha, grid reference NS 86800 79700 A park which is recognised for its unimproved neutral grassland and dense continuous scrub.

Tippetcraig, High Bonnybridge, site size 2.43 ha, grid reference NS 82800 77300 A small area of some semi-natural broadleaved woodland and also open areas of grassland.

Union Canal, site size 28.68 ha, grid reference NS 85249 79682 to NS 96149 76242 approximately

The Union Canal passes through Falkirk, starting at the Falkirk Wheel and going onto West Lothian. This is an area of eutrophic standing water with associated wetland and grassland habitat on either side.

Wallacestone, site size 8.71 ha, grid reference NS 91500 77000 An area of semi-improved neutral grassland.

Site of Special Scientific Interest

Avon Gorge, site code 108, size 19.12 ha, grid reference NS 958793

Avon Gorge Site of Special Scientific Interest comprises the steep, wooded banks of the River Avon, approximately 2km south-east of Grangemouth. This site is one of the few remaining ancient, seminatural woodland sites in the Falkirk area. The wood has been relatively undisturbed and there is a good variety and age structure of native deciduous trees, including elm, oak, alder, hazel, ash, rowan and wild cherry.

Notified Natural Features:

Biological: Woodlands: upland mixed ash woodland

Darnrig Moss, SNH site code 498, size 76.92 ha, grid reference NS 863755

Darnrig Moss SSSI lies on the elevated Slamannan Plateau at an altitude of around 200m, 4km south of Falkirk. This is the last remaining relatively undisturbed and intact raised bog system in the Falkirk area. Habitats of this type were formerly common on the Slamannan Plateau and in the Forth Valley.

Notified Natural Features:

Biological: Bogs: raised bogs

Firth of Forth, SNH site code 8163, size 7435.48 ha, grid reference NS 851934 to NO 632087 & NT 678792; this SSSI is shared with Fife, Clackmannanshire, Stirling, Falkirk, West Lothian, City of Edinburgh and East Lothian.

The Firth of Forth SSSI is an extensive coastal area located on the east coast of Scotland. It stretches from Alloa to Crail on the north shore and to Dunbar on the south shore. It includes the estuary upriver from the Forth bridges and the firth east of the bridges. It is of importance for a variety of geological and geomorphological features, coastal and terrestrial habitats, vascular plants, invertebrates, breeding, passage and wintering birds.

Notified Natural Features:

Geological: Stratigraphy: Lower Carboniferous (Dinantian – Namurian part), Upper

Carboniferous (Namurian (part) – Westphalian)

Igneous petrology: Carboniferous – Permian Igneous

Mineralogy: Mineralogy of Scotland

Palaeontology: Arthropoda (excluding insects & trilobites), Palaeozoic Palaeobotany,

Permian - Carboniferous Fish/Amphibia

Quaternary geology and geomorphology: Quaternary of Scotland

Geomorphology: Coastal Geomorphology of Scotland

Biological: Coastlands: Maritime cliff, Saltmarsh, Sand dunes

Intertidal marine habitats and saline lagoons: Mudflats, Saline lagoon

Lowland grassland: Lowland neutral grassland

Fens: Transition grassland

Vascular plants: Vascular plant assemblage

Invertebrates: Beetle assemblage

Butterflies: Northern brown argus (Aricia artaxerxes)

Non-breeding birds: Red-throated diver (*Gavia stellata*), Great crested grebe (*Podiceps cristatus*), Slavonian grebe (*Podiceps auritus*), Cormorant (*Phalacrocorax carbo*),

Pink-footed goose (Anser brachyrhynchus), Shelduck (Tadorna tadorna), Mallard (Anas platythynchos), Wigeon (Anas penelope), Scaup (Aythya marila), Eider (Somateria mollissima), Long-tailed duck (Clangula hyemalis), Common scoter (Melanitta nigra), Velvet scoter (Melanitta fusca), Goldeneye (Bucephala clangula), Red-breasted merganser (Mergus serrator), Oystercatcher (Haematopus ostralegus), Ringed plover (Charadrius hiaticula), Golden plover (Pluvialis apricaria), Grey plover (Pluvialis squatarola), Lapwing (Vanellus vanellus), Knot (Calidris canutus), Dunlin (Calidris alpina alpina), Bar-tailed godwit (Limosa lapponica), Curlew (Numenius arquata), Redshank (Tringa totanus), Turnstone (Arenaria interpres), Sandwich tern (Sterna sandvicensis)

Breeding birds: Eider (*Somateria mollissima*), Shelduck (*Tadorna tadorna*), Ringed plover (*Charadrius hiaticula*)

Howierig Muir, SNH site code 796, size 20.6 ha, grid reference NS 854786

Howierig Muir SSSI is a lowland raised bog situated south-west of the town of Falkirk at an altitude of 115m. The raised bog is partially flanked by raised mineral ground to the north and south, with an area of blanket bog, now planted with Scots pine, to the east. An obvious outflow valley lies in the north-east. Howierig Muir is one of the best remaining examples of an active, peat forming, raised bog in the Falkirk area.

Notified Natural Features:

Biological: Bogs: raised bogs

Slamannan Plateau, SNH site code 9171, size 559.20 ha, grid reference NS800740, NS815730, NS821723, NS821755, NS832767

The Slamannan Plateau lies approximately 5km southwest of Falkirk and 4km east of Cumbernauld at around 170m above sea level. The area is a mosaic of improved grasslands and rough pasture which includes wetlands dominated by rushes (*Juncus* species), raised, blanket and intermediate bogs and two shallow lochs within Fannyside Muir. The area attracts a nationally important population of taiga Bean geese (*Anser fabalis* fabalis).

Notified Natural Features:

Biological: Birds: Aggregations of non-breeding taiga bean geese

Local Nature Reserve

Bonnyfield Nature Park, Bonnybridge, SNH site code 10109, size 28.82 ha, grid reference NS 81834 80036

This LNR is situated on the former Bonnyfield sand and gravel quarry. Bonnyfield Nature Park is important for a range of wildlife, including mammals, birds and invertebrates and is well used by the local community for dog walking. The main vegetation types present on the site include grassland, scrub, woodland, ponds and the stream Bonny Water that passes through. This site is also designated as a LWS.

Kinneil Foreshore, Bo'ness, SNH site code 10260, size 55.11 ha, grid reference NS 98692 81305 This former colliery site in Bo'ness became Falkirk Council's second Local Nature Reserve on 8th March 2013. Official local nature reserve status was conferred on part of the Bo'ness and Kinneil Foreshore, once home to Kinneil Colliery. The new reserve stretches from Bo'ness harbour in the east to the site of the former Kinneil Colliery and Snab Lane in the west. The mudflats and "island" off the foreshore are internationally important for seabirds and are already designated as a Special Protection Area for their conservation value. Throughout the 19th and most of the 20th centuries much of the area was used by heavy industry but all the building and structures associated with the former colliery are now gone. The area is now a public open space of grassland, wildflower meadows and woodland, with a good network of paths already in place. This site is also designated as a LWS.

Scottish Wildlife Trust reserve

Bo'mains Meadow, Bo'ness, site size 3.29 ha, grid reference NS 98770 79615

This SWT wildlife reserve has two meadows: the northern meadow, which was a former reservoir and has been filled in, and the southern meadow, which has been undisturbed for many years and is now a wonderful unimproved species-rich meadow. In summer, the meadow is dappled with wildflowers, including greater butterfly orchid, twayblade and common spotted orchid, attracting a number of butterfly species.

Jupiter Urban Wildlife Centre, Wood St, Grangemouth, FK3 8LH, site size 4.34 ha, grid reference NS920810

Jupiter Urban Wildlife Centre, in the middle of industrial Grangemouth, is a fantastic example of how wasteland can be transformed into an urban green space that provides a rich habitat and haven for wildlife. A range of habitats can be found at the reserve including ponds, grasslands and woodlands. This site is also designated as a LWS.

Sites with Open Mosaic Habitat on Previously Developed Land

Bing, Mungalend, Falkirk, SVDL site code F/FALK/081, grid reference NS 89050 81460 Derelict land with bare ground, grassland and scrub on site that is 2.9 ha.

Bonnyside Works, High Bonnybridge, SVDL site code F/BONY/066, grid reference NS 83810 79300 This derelict site is 6.06 ha and is separated into three parts, including an old bing with some vegetation, area of cut grass that looks like a well kept field and an area of bare ground with early successional communities.

Bridgeness Scrap Yard, Bridgeness Road, Bo'ness, Previous SVDL site code F/BNES/053, grid reference NT 01420 81700

This previous area of derelict land and buildings is 1.83 ha and has since been removed from the SVDL register and is now known locally as Bridgeness Ship Breakers. The site has lots of open bare ground, species-rich grasslands, scrub with some late successional vegetation on site.

Cannerton Brickworks, Cannerton, Banknock, SVDL site code F/BONY/010, grid reference NS 78230 79650

A large area of derelict land that is 15.3 ha that currently has planning permission to be developed into housing, although this has yet to happen. Open mosaic habitat with large area of open grassland and bare ground at the north of site. Late successional vegetation to the south-west of the site and open area of bare ground to the south-east of the site.

Crawfield Lane B, Bo'mains Industrial Estate, Bo'ness, SVDL site code F/BNES/046, grid reference NS 99530 80190

An area of vacant land owned by the local authority that is 1.5 ha. Early successional vegetation and bare ground are present at this site, as well as mounds of rubble and more mature vegetation on the eastern boundary.

Distillery Site, Bankier Road, Banknock, SVDL site code F/BONY/008, grid reference NS 77810 78920 Derelict land that is 3.96 ha with a large area of late successional vegetation across the site with patches of open grassland, scrub and bare ground as broken up concrete.

Etna Road, Falkirk, SVDL site code F/FALK/084, grid reference NS 89556 81254

This site is 2.74 ha in size and is currently designated as derelict land and buildings. The site has open grassland, bare ground as gravel and some scrub. This site is also recognised as a SINC and called Falkirk Gasworks.

Greenhill Road, Bonnybridge, SVDL site code F/RUR/21, grid reference NS 82127 78883 This site is 1.8 ha and is derelict land with some old buildings still present. Other habitats present include bare ground, grassland late successional vegetation.

Park Garage, Glasgow Road, Parkfoot, SVDL site code F/BONY/065, grid reference NS 80230 79710 A fairly small site of 0.43 ha that is currently vacant land and buildings. The site has areas of open grassland, patches of bare ground and scrub.

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Buglife would like to thank Central Scotland Green Network Ideas Fund and Scottish Natural Heritage for funding and supporting with this project and Falkirk Council and Scottish Wildlife Trust for their advice and help

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Saving the small things that run the planet

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